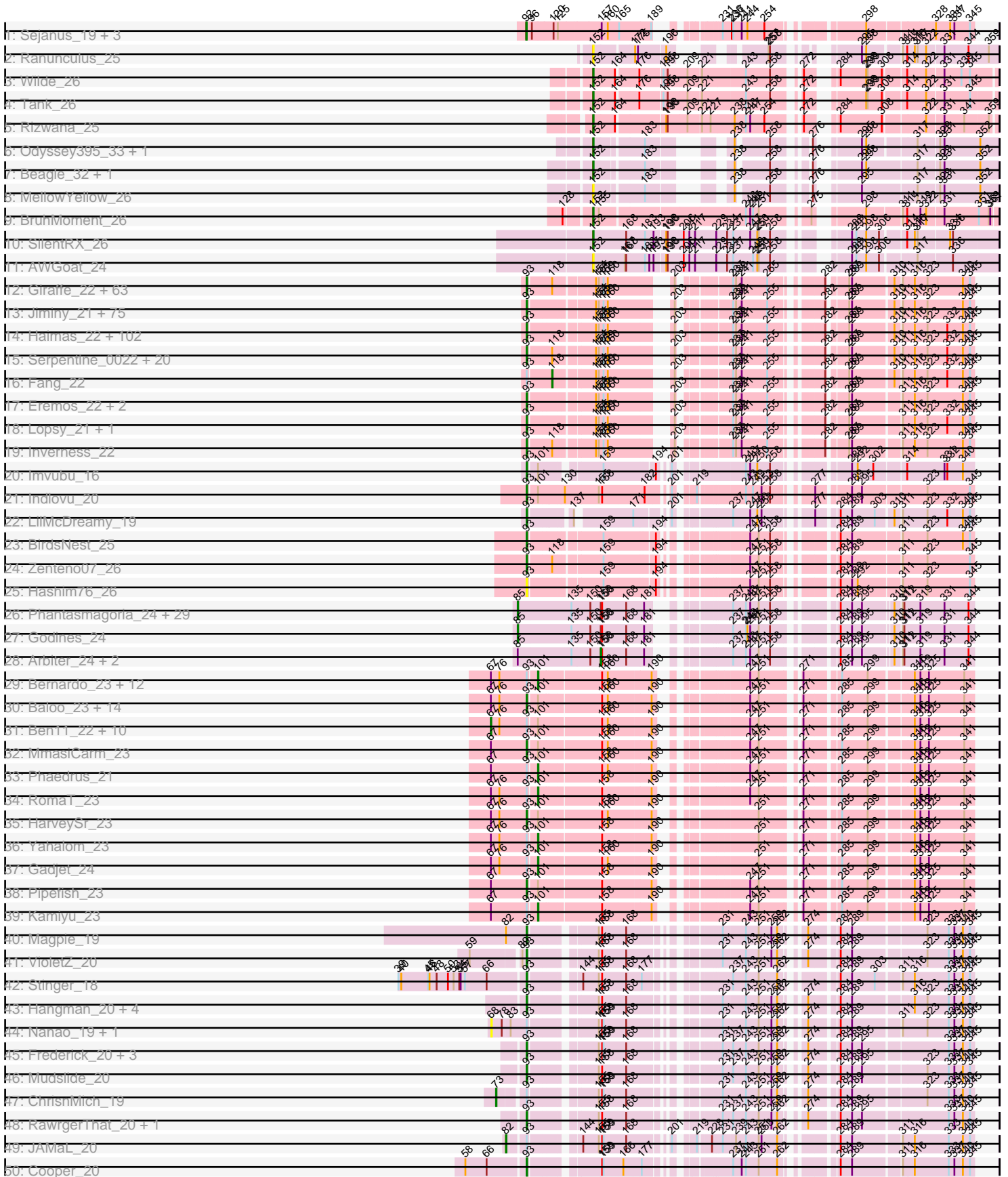
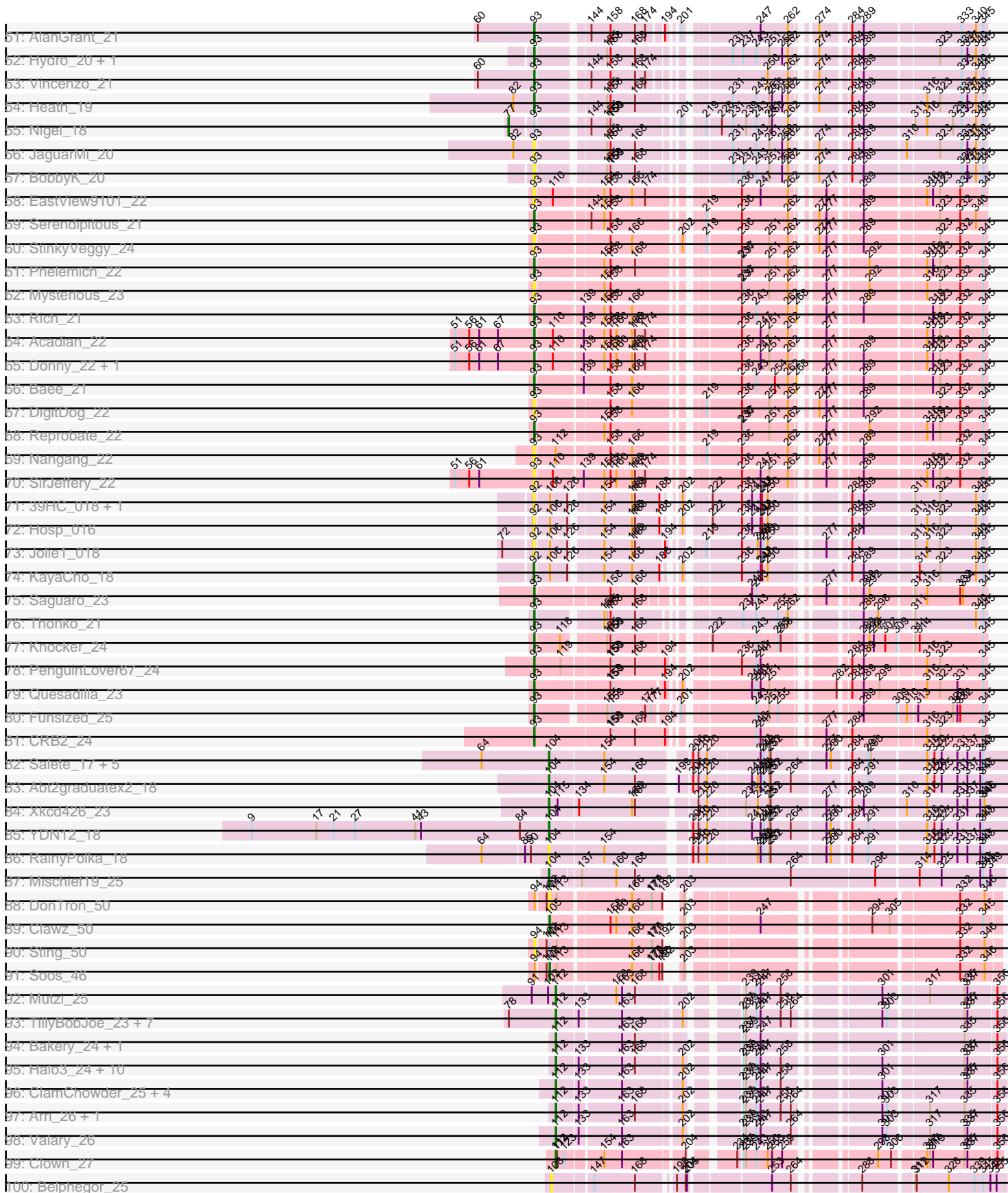


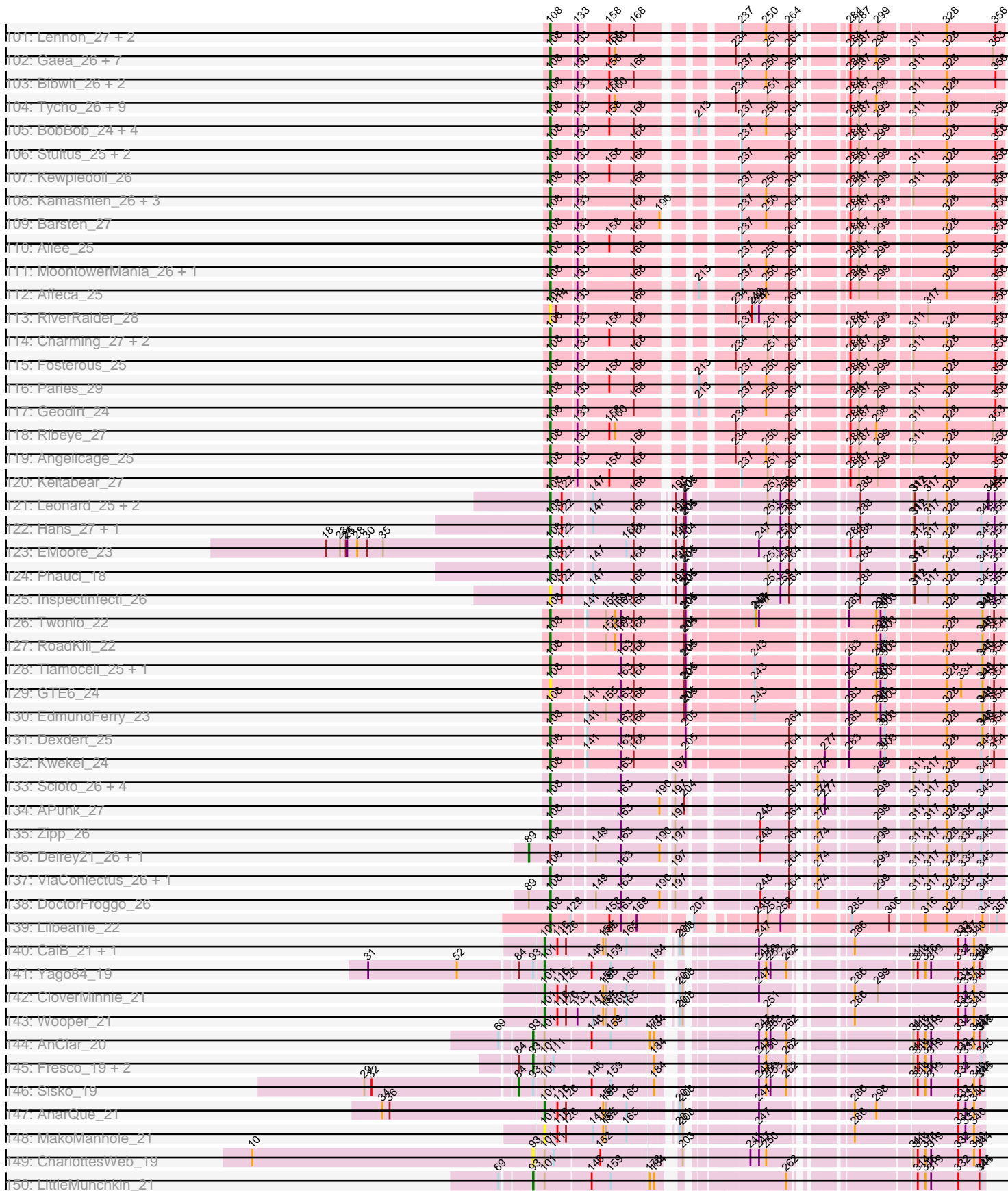
Pham 155969



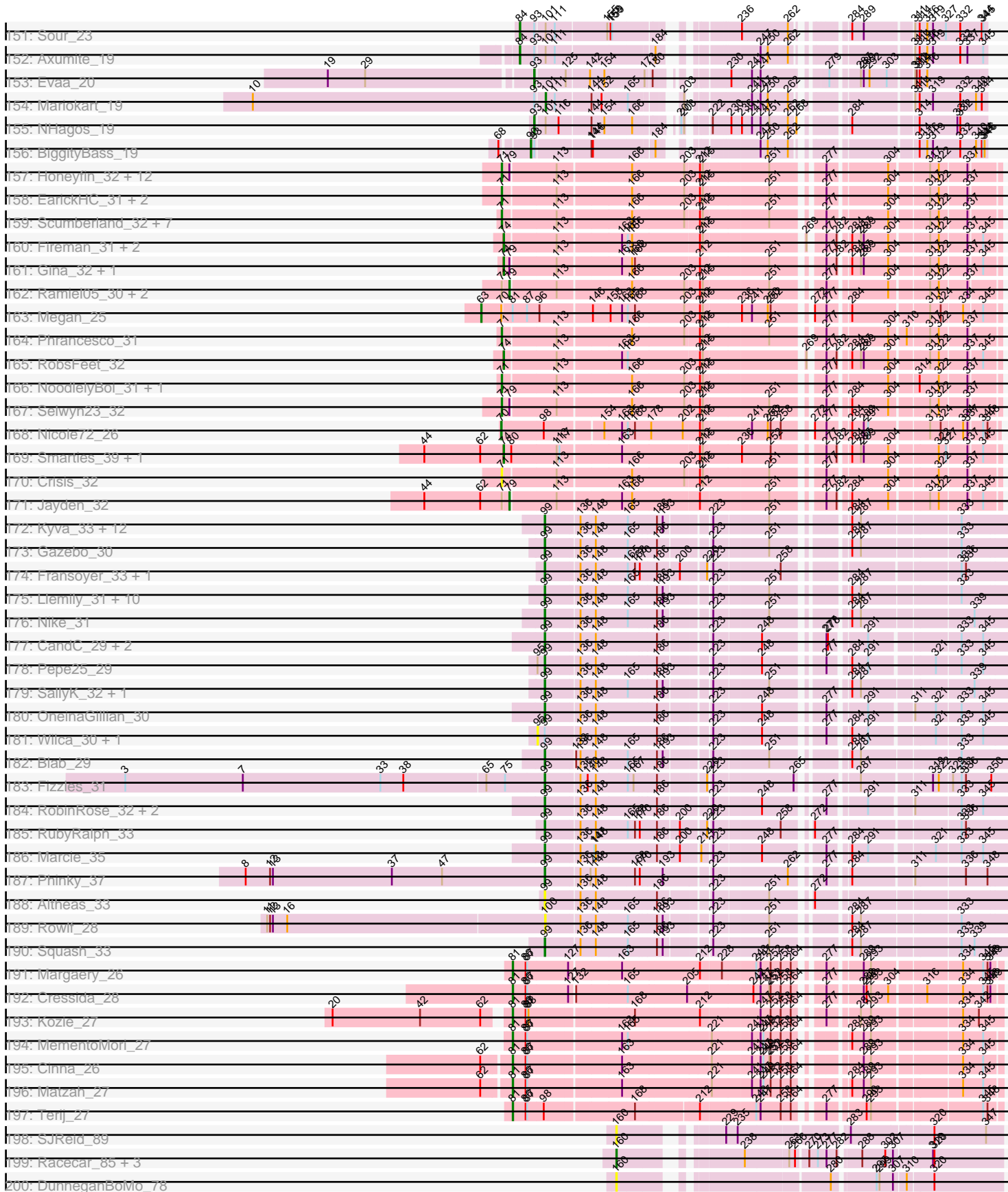
Pham 155969



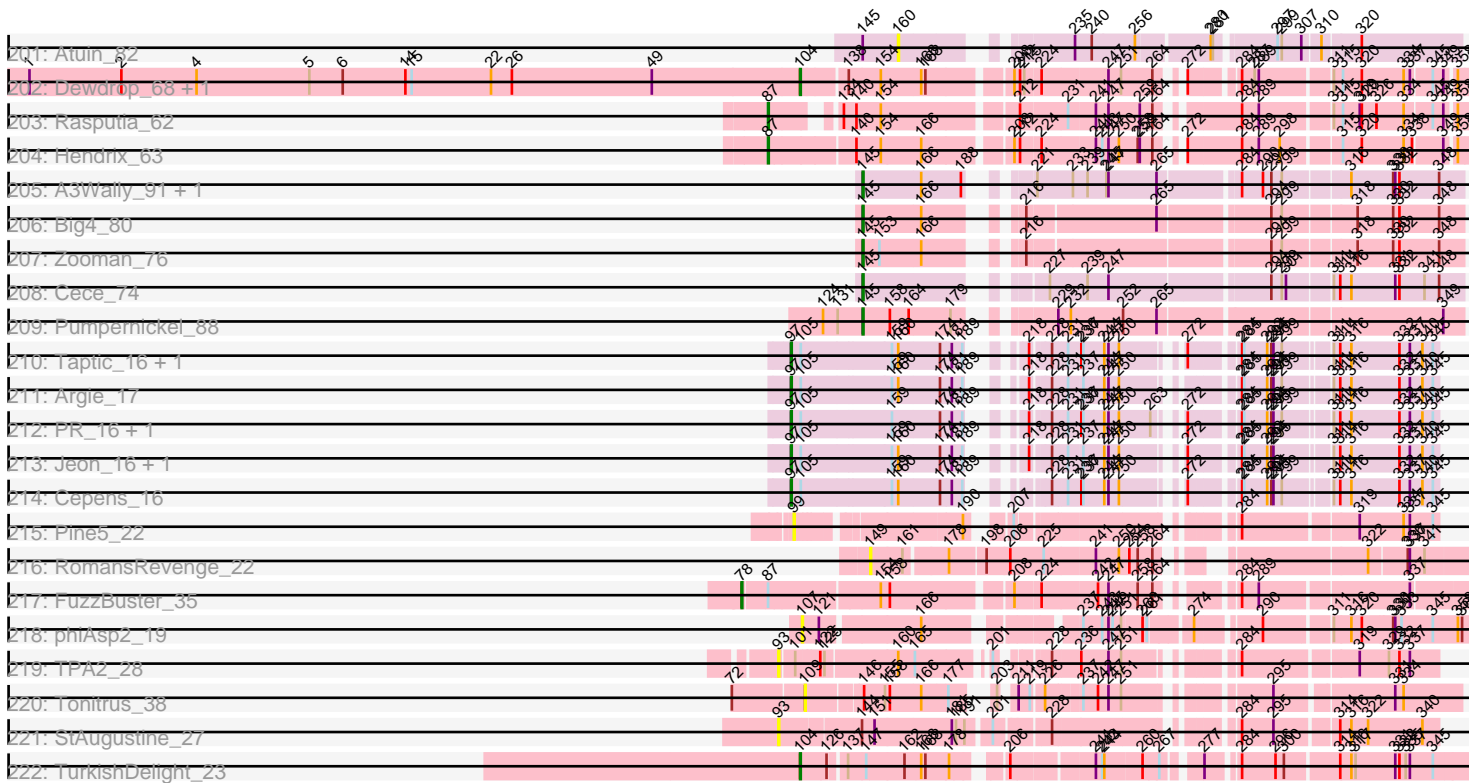
Pham 155969



Pham 155969



Pham 155969



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 155969 Report

This analysis was run 04/12/24 on database version 558.

Pham number 155969 has 707 members, 107 are drafts.

Phages represented in each track:

- Track 1 : Sejanus\_19, Mao1\_18, Dori\_19, Mask\_19
- Track 2 : Ranunculus\_25
- Track 3 : Wilde\_26
- Track 4 : Tank\_26
- Track 5 : Rizwana\_25
- Track 6 : Odyssey395\_33, Pointis\_31
- Track 7 : Beagle\_32, Pureglobe5\_33
- Track 8 : MellowYellow\_26
- Track 9 : BruhMoment\_26
- Track 10 : SilentRX\_26
- Track 11 : AWGoat\_24
- Track 12 : Giraffe\_22, Banjo\_21, Chunky\_22, Maru\_21, OliverWalter\_22, Zelda\_22, Mulan\_21, Prickles\_22, Altwerkus\_21, Hetaeria\_22, DirtJuice\_22, Derpp\_21, TyrionL\_21, Boehler\_22, Cher\_21, Gareth\_21, Antonia\_21, Newman\_22, Waterdiva\_22, Manad\_21, Simielle\_21, Freya\_21, Mecca\_21, HighStump\_21, Bishoperium\_21, Orion\_22, FriarPreacher\_22, Emiris\_22, Cobra\_22, Bluephacebaby\_21, PinheadLarry\_22, Grand2040\_21, Chorkpop\_22, Crownjwl\_22, Roliet\_22, Telesworld\_21, Childish\_21, QueenBeane\_22, Held\_22, Chah\_23, Horchata\_22, Nyala\_21, UncleHowie\_22, Kahve\_21, LeiMonet\_22, DonSanchon\_21, LostAndPhound\_21, UAch1\_22, Sheila\_22, Samaymay\_22, Soto\_22, Daffy\_22, Daka\_22, Roscoe\_23, CamL\_22, BlueHusk\_22, Vaticameos\_22, RedMaple\_21, Tooj\_22, Aelin\_21, Labeouficaum\_21, Tomlarah\_22, Phareon\_22, Vivaldi\_22
- Track 13 : Jiminy\_21, Mikota\_22, Pops\_22, DaddyDaniels\_22, DuchessDung\_20, Potter\_21, Rimu\_22, Magic8\_22, Valjean\_22, KingVeVeVe\_22, Olive\_22, Usavi\_22, BatteryCK\_21, MrPhizzler\_21, EmpTee\_22, Maskar\_21, Ashraf\_21, Zonia\_22, Hocus\_21, Veritas\_21, Gwilliam\_22, Pipsqueak\_22, Coletti\_21, Swiphy\_23, Doddsville\_22, Etaye\_22, Duggie\_21, MichaelPhcott\_21, Kailash\_22, JakeO\_21, Schueller\_22, Mana\_21, Chute\_21, PhrankReynolds\_21, Pinkman\_21, Andre\_22, Scoot17C\_22, MelsMeow\_21, Phleuron\_21, Virgeve\_21, ImtiyazSitla\_21, Serendipity\_22, Durga\_22, Spartan300\_22, Dingo\_22, PhenghisKhan\_21, SDcharge11\_22, ProfessorX\_22, Phergie\_21, Harvey\_22, GeneCoco\_22, Dati\_22, Fozzie\_21, MiniBoss\_22, Trypo\_22, Mag7\_21, Wallhey\_21, Apizium\_21, Morgushi\_22, Kwksand96\_21, Dione\_21, Brilliant\_22, True\_21, AltPhacts\_22, CharlieGBrown\_21, Hartsy\_21, Struggle\_21, Oline\_21, Weher20\_22, FugateOSU\_21, JDog\_22, PhatLouie\_22, Longacauda\_21, Melc17\_22, Vortex\_22, PG1\_22

- Track 14 : Haimas\_22, Iridoclysis\_22, Adriana\_22, Kimbrough\_22, DelRivs\_21, Lumine\_21, Oosterbaan\_22, Burr\_21, Inchworm\_22, Matalotodo\_21, Murdoc\_22, Eugenia\_22, FluffyNinja\_22, Pherdinand\_22, LuckyMarjie\_21, Orwigg\_22, Thora\_22, Frankicide\_22, Buckeye\_22, OSmaximus\_22, Skippy\_22, Plmatters\_22, Fringe\_22, Kwadwo\_21, Nicole21\_22, Squid\_22, Cornobble\_21, ABU\_22, Numberben\_22, Hamish\_22, BlackStallion\_22, Windsor\_21, Lulumae\_21, Keitherie\_22, Schadenfreude\_21, MitKao\_22, Haleema\_21, Swish\_22, Mutante\_21, Roy17\_22, Sigman\_22, Lulwa\_22, Megatron\_22, LeeLot\_22, PhrodoBaggins\_21, IsaacEli\_22, Beaglebox\_21, Sophia\_21, Jillium\_21, Solosis\_21, Virapocalypse\_22, Kikipoo\_22, Charles1\_22, SassyCat97\_21, Badfish\_22, Hertubise\_22, Omniscient\_22, Soile\_22, JangoPhett\_22, LasagnaCat\_22, DoesntMatter\_22, Olak\_22, AbsoluteMadLad\_21, Quisquiliae\_22, YouGoGlencoco\_22, Cosmolli16\_21, Legolas\_21, Cannibal\_22, Gophee\_22, TallGrassMM\_22, Dice\_23, Suffolk\_22, Anderson\_22, JacAttac\_22, MRabcd\_21, Puhltonio\_22, Riggan\_22, Lasso\_22, Katniss\_22, Timmi\_21, Squiggle\_22, TomBombadil\_22, Phipps\_22, Craff\_22, Kloppinator\_22, PhatCats2014\_22, Zaider\_23, Morty\_22, Phunky\_22, HenryJackson\_21, Phamished\_22, Orfeu\_21, Podrick\_22, Vista\_22, Scrick\_22, CampRoach\_21, Surely\_22, Pacifista\_23, Chaelin\_21, Placalicious\_21, Yoshand\_22, Mcshane\_21, Slatt\_22
- Track 15 : Serpentine\_0022, Nacho\_0022, Selr12\_22, Gyarad\_0022, Basato\_23, KLucky39\_22, Toni\_21, Megamind20\_22, ThreeOh3D2\_22, LemonSlice\_22, CheetO\_22, KlimbOn\_22, Mosaic\_21, Ricotta\_22, Lego3393\_22, Xavier\_21, HSavage\_22, Piglet\_0021, ShiVal\_22, Colbert\_22, Mesh1\_22
- Track 16 : Fang\_22
- Track 17 : Eremos\_22, Carthage\_20, Vaishali24\_21
- Track 18 : Lopsy\_21, Robyn\_21
- Track 19 : Inverness\_22
- Track 20 : Imvubu\_16
- Track 21 : Indlovu\_20
- Track 22 : LilMcDreamy\_19
- Track 23 : BirdsNest\_25
- Track 24 : Zenteno07\_26
- Track 25 : Hashim76\_26
- Track 26 : Phantasmagoria\_24, Allegro\_24, Sabella\_24, LizLemon\_24, Kheth\_24, Faze9\_24, Kaleb\_24, West99\_24, TA17A\_24, Calamitous\_24, Rhinoforte\_24, Brownie5\_24, Laurie\_24, Opia\_24, Tinciduntolum\_25, Coffee\_24, Tres\_24, Lars\_24, MasterPo\_24, Bananafish\_24, Eaglehorse\_24, Boyle\_24, Holeinone\_24, Hedgerow\_24, Glass\_24, Blocker23\_24, Ares\_24, FrenchFry\_24, Lephleur\_24, ItsyBitsy1\_24
- Track 27 : Godines\_24
- Track 28 : Arbiter\_24, Rosebush\_24, Qyrzula\_22
- Track 29 : Bernardo\_23, Mortcellus\_22, Phlyer\_23, Audrey\_23, Athena\_24, Neos5\_23, Corofin\_23, Daisy\_23, Heathcliff\_23, Akoma\_23, Chandler\_23, Obutu\_23, Morty007\_23
- Track 30 : Baloo\_23, Briakila\_23, OrangeOswald\_23, Yinz\_23, RagingRooster\_23, ChaChing\_23, Abinghost\_23, Phayeta\_23, Devonte\_23, Philly\_22, Kronus\_22, Deenasa\_23, Nozo\_23, SynergyX\_23, Casbah\_22
- Track 31 : Ben11\_22, LestyG\_23, Jackstina\_21, GlenHope\_24, Tydolla\_23, SlippinJimmy\_23, Marley1013\_23, Halfpint\_22, Gervas\_23, Rita1961\_23, Compostia\_24
- Track 32 : MmasiCarm\_23
- Track 33 : Phaedrux\_21
- Track 34 : RomaT\_23

- Track 35 : HarveySr\_23
- Track 36 : Yahalom\_23
- Track 37 : Gadget\_24
- Track 38 : Pipefish\_23
- Track 39 : Kamiyu\_23
- Track 40 : Magpie\_19
- Track 41 : VioletZ\_20
- Track 42 : Stinger\_18
- Track 43 : Hangman\_20, Waleliano\_20, BrownCNA\_21, Mithril\_20, Zemanar\_21
- Track 44 : Nanao\_19, Poster\_19
- Track 45 : Frederick\_20, Austelle\_21, Prince\_21, Apex\_20
- Track 46 : Mudslide\_20
- Track 47 : ChrisnMich\_19
- Track 48 : RawrgerThat\_20, Fortunato\_20
- Track 49 : JAMaL\_20
- Track 50 : Cooper\_20
- Track 51 : AlanGrant\_21
- Track 52 : Hydro\_20, Lolalove\_20
- Track 53 : Vincenzo\_21
- Track 54 : Heath\_19
- Track 55 : Nigel\_18
- Track 56 : JaguarMi\_20
- Track 57 : BobbyK\_20
- Track 58 : EastView9101\_22
- Track 59 : Serendipitous\_21
- Track 60 : StinkyVeggy\_24
- Track 61 : Phelemich\_22
- Track 62 : Mysterious\_23
- Track 63 : Rich\_21
- Track 64 : Acadian\_22
- Track 65 : Donny\_22, Suigeneris\_22
- Track 66 : Bae\_21
- Track 67 : DigitDog\_22
- Track 68 : Reprobate\_22
- Track 69 : Nangang\_22
- Track 70 : SirJeffery\_22
- Track 71 : 39HC\_018, 40BC\_018
- Track 72 : Hosp\_016
- Track 73 : Jolie1\_018
- Track 74 : KayaCho\_18
- Track 75 : Saguaro\_23
- Track 76 : Thonko\_21
- Track 77 : Knocker\_24
- Track 78 : PenguinLover67\_24
- Track 79 : Quesadilla\_23
- Track 80 : Funsized\_25
- Track 81 : CRB2\_24
- Track 82 : Salet\_17, Asis\_17, TP1604\_17, BayC\_17, BabyGotBac\_17, Maih\_17
- Track 83 : Abt2graduatex2\_18
- Track 84 : Xkcd426\_23
- Track 85 : YDN12\_18
- Track 86 : RainyPolka\_18
- Track 87 : Mischief19\_25



- Track 88 : DonTron\_50
- Track 89 : Clawz\_50
- Track 90 : Sting\_50
- Track 91 : Soos\_46
- Track 92 : Mutzi\_25
- Track 93 : TillyBobJoe\_23, Gezellig\_24, Phlop\_23, Portcullis\_23, Wizard\_23, PullumCavea\_23, Shinji\_23, Fireball\_24
- Track 94 : Bakery\_24, YungMoney\_25
- Track 95 : Halo3\_24, Salvador\_23, Twister6\_25, VanDeWege\_26, Togo\_23, Danyall\_25, Evamon\_23, Jambalaya\_23, Savbucketdawg\_23, Nubi\_23, SmokingBunny\_23
- Track 96 : ClamChowder\_25, PinkCoffee\_25, KimmyK\_25, Fugax\_25, Barb\_25
- Track 97 : Arri\_26, RogerDodger\_26
- Track 98 : Valary\_26
- Track 99 : Clown\_27
- Track 100 : Belphegor\_25
- Track 101 : Lennon\_27, ChadMasterC\_27, Sitar\_27
- Track 102 : Gaea\_26, JKSyngboy\_24, Flatwoods\_27, Bizzy\_27, Kroos\_27, Derg\_24, YorkOnyx\_27, Baddon\_26
- Track 103 : Bibwit\_26, Love\_30, Sedona\_27
- Track 104 : Tycho\_26, Ashertheman\_27, Baumdotcom\_26, Gustavo\_26, LilHam\_24, Kwobi\_27, Tangerine\_26, SchottB\_25, Saronaya\_26, StorminNorm\_26
- Track 105 : BobBob\_24, Galadriel\_27, Nordenberg\_21, McKinley\_29, Rofo\_27
- Track 106 : Stultus\_25, Sanjuju\_25, Jabberwocky\_25
- Track 107 : Kewpiedoll\_26
- Track 108 : Kamashten\_26, Shivanishola\_28, Brandonk123\_28, Thing3\_26
- Track 109 : Barsten\_27
- Track 110 : Ailee\_25
- Track 111 : MoontowerMania\_26, Fitzgerald\_25
- Track 112 : Affeca\_25
- Track 113 : RiverRaider\_28
- Track 114 : Charming\_27, Vivi2\_29, Tangent\_27
- Track 115 : Fosterous\_25
- Track 116 : Paries\_29
- Track 117 : Geodirt\_24
- Track 118 : Ribeye\_27
- Track 119 : Angelicage\_25
- Track 120 : Keitabear\_27
- Track 121 : Leonard\_25, Phinally\_25, Ali17\_23
- Track 122 : Hans\_27, MelBins\_26
- Track 123 : EMOore\_23
- Track 124 : Phauci\_18
- Track 125 : Inspectinfecti\_26
- Track 126 : Twonlo\_22
- Track 127 : RoadKill\_22
- Track 128 : Tiamoceli\_25, Chickadee\_24
- Track 129 : GTE6\_24
- Track 130 : EdmundFerry\_23
- Track 131 : Dexdert\_25
- Track 132 : Kwekel\_24
- Track 133 : Scioto\_26, Sampson\_26, Abblin\_26, Natkenzie\_26, Tardus\_27
- Track 134 : APunk\_27
- Track 135 : Zipp\_26

- Track 136 : Delrey21\_26, Verity\_26
- Track 137 : ViaConlectus\_26, Zitch\_27
- Track 138 : DoctorFroggo\_26
- Track 139 : Lilbeanie\_22
- Track 140 : CaiB\_21, MossRose\_21
- Track 141 : Yago84\_19
- Track 142 : CloverMinnie\_21
- Track 143 : Wooper\_21
- Track 144 : AnClar\_20
- Track 145 : Fresco\_19, Shatter\_19, Ligma\_19
- Track 146 : Sisko\_19
- Track 147 : AnarQue\_21
- Track 148 : MakoManhole\_21
- Track 149 : CharlottesWeb\_19
- Track 150 : LittleMunchkin\_21
- Track 151 : Sour\_23
- Track 152 : Axumite\_19
- Track 153 : Evaa\_20
- Track 154 : Mariokart\_19
- Track 155 : NHagos\_19
- Track 156 : BiggityBass\_19
- Track 157 : Honeyfin\_32, Jollipop\_31, Busephilis\_30, Pulchra\_32, Jefe\_31, Savannah\_30, PiperSansNom\_31, CrazyRich\_30, LittleFortune\_32, Quhwah\_34, Yeti\_31, Paschalis\_30, Ganandorf\_30
- Track 158 : EarickHC\_31, KaiHaiDragon\_31, Piperis\_31
- Track 159 : Scumberland\_32, Antares\_31, Phorgeous\_30, Onika\_30, Cranjjs\_32, Shotgun\_30, Hermeonysus\_30, BrazzalePHS\_30
- Track 160 : Fireman\_31, Metamorphoo\_31, Tyrumbra\_29
- Track 161 : Gina\_32, Teamocil\_32
- Track 162 : Ramiel05\_30, PierreOrion\_31, Kowalski\_30
- Track 163 : Megan\_25
- Track 164 : Phrancesco\_31
- Track 165 : RobsFeet\_32
- Track 166 : NoodlelyBoi\_31, ClearAsMud\_33
- Track 167 : Selwyn23\_32
- Track 168 : Nicole72\_26
- Track 169 : Smarties\_39, Ariadne\_39
- Track 170 : Crisis\_32
- Track 171 : Jayden\_32
- Track 172 : Kyva\_33, Quammi\_29, Sillytadpoles\_32, Mashley\_29, Zagie\_31, Viceroy\_30, Rudy\_29, Grassboy\_32, Namago\_31, AluminumJesus\_29, Tissue\_31, Judebell\_33, StrawberryJamm\_33
- Track 173 : Gazebo\_30
- Track 174 : Fransoyer\_33, SadLad\_35
- Track 175 : Llemily\_31, Jehoshaphat\_33, Hyperion\_30, Teehee\_32, Lonelysoil\_30, Zhafia\_34, Wheelie\_30, DonaldDuck\_31, Phabia\_31, Casend\_32, Wayne3\_32
- Track 176 : Nike\_31
- Track 177 : CandC\_29, Kelcole\_29, Tempo\_30
- Track 178 : Pepe25\_29
- Track 179 : SallyK\_32, BabyDotz\_30
- Track 180 : OneinaGillian\_30
- Track 181 : Wilca\_30, BirdInFrench\_30
- Track 182 : Blab\_29

- Track 183 : Fizzles\_31
- Track 184 : RobinRose\_32, Fregley\_31, Romm\_32
- Track 185 : RubyRalph\_33
- Track 186 : Marcie\_35
- Track 187 : Phinky\_37
- Track 188 : Altheas\_33
- Track 189 : Rowlf\_28
- Track 190 : Squash\_33
- Track 191 : Margaery\_26
- Track 192 : Cressida\_28
- Track 193 : Kozie\_27
- Track 194 : MementoMori\_27
- Track 195 : Cinna\_26
- Track 196 : Matzah\_27
- Track 197 : Terij\_27
- Track 198 : SJReid\_89
- Track 199 : Racecar\_85, Bloom\_88, Patbob\_85, Mimi\_91
- Track 200 : DunneganBoMo\_78
- Track 201 : Atuin\_82
- Track 202 : Dewdrop\_68, Leaf\_68
- Track 203 : Rasputia\_62
- Track 204 : Hendrix\_63
- Track 205 : A3Wally\_91, PauloDiaboli\_91
- Track 206 : Big4\_80
- Track 207 : Zooman\_76
- Track 208 : Cece\_74
- Track 209 : Pumpernickel\_88
- Track 210 : Taptic\_16, Megabear\_16
- Track 211 : Argie\_17
- Track 212 : PR\_16, D12\_16
- Track 213 : Jeon\_16, GodPhather\_17
- Track 214 : Cepens\_16
- Track 215 : Pine5\_22
- Track 216 : RomansRevenge\_22
- Track 217 : FuzzBuster\_35
- Track 218 : phiAsp2\_19
- Track 219 : TPA2\_28
- Track 220 : Tonitrus\_38
- Track 221 : StAugustine\_27
- Track 222 : TurkishDelight\_23

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

The start number called the most often in the published annotations is 93, it was called in 307 of the 600 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ABU\_22, Abinghost\_23, AbsoluteMadLad\_21, Acadian\_22, Adriana\_22, Aelin\_21, AlanGrant\_21, AltPhacts\_22, Altwerkus\_21, AnClar\_20, Anderson\_22, Andre\_22, Antonia\_21, Apex\_20, Apizium\_21, Ashraf\_21, Austelle\_21, Badfish\_22, Bae\_21,

Baloo\_23, Banjo\_21, Basato\_23, BatteryCK\_21, Beaglebox\_21, BirdsNest\_25, Bishoperium\_21, BlackStallion\_22, BlueHusk\_22, Bluephacebaby\_21, BobbyK\_20, Boehler\_22, Briakila\_23, Brilliant\_22, BrownCNA\_21, Buckeye\_22, Burr\_21, CRB2\_24, CamL\_22, CampRoach\_21, Cannibal\_22, Carthage\_20, Casbah\_22, ChaChing\_23, Chaelin\_21, Chah\_23, Charles1\_22, CharlieGBrown\_21, CharlottesWeb\_19, CheetO\_22, Cher\_21, Childish\_21, Chorkpop\_22, Chunky\_22, Chute\_21, Cobra\_22, Colbert\_22, Coletti\_21, Cooper\_20, Cornobble\_21, Cosmolli16\_21, Craff\_22, Crownjwl\_22, DaddyDaniels\_22, Daffy\_22, Daka\_22, Dati\_22, Deenasa\_23, DelRivs\_21, Derpp\_21, Devonte\_23, Dice\_23, DigitDog\_22, Dingo\_22, Dione\_21, DirtJuice\_22, Doddsville\_22, DoesntMatter\_22, DonSanchon\_21, Donny\_22, DuchessDung\_20, Duggie\_21, Durga\_22, EastView9101\_22, Emiris\_22, EmpTee\_22, Eremos\_22, Etaye\_22, Eugenia\_22, Evaa\_20, FluffyNinja\_22, Fortunato\_20, Fozzie\_21, Frankicide\_22, Frederick\_20, Fresco\_19, Freya\_21, FriarPreacher\_22, Fringe\_22, FugateOSU\_21, Funsized\_25, Gareth\_21, GeneCoco\_22, Giraffe\_22, Gophee\_22, Grand2040\_21, Gwilliam\_22, Gyarad\_0022, HSavage\_22, Haimas\_22, Haleema\_21, Hamish\_22, Hangman\_20, Hartsy\_21, HarveySr\_23, Harvey\_22, Hashim76\_26, Heath\_19, Held\_22, HenryJackson\_21, Hertubise\_22, Hetaeria\_22, HighStump\_21, Hocus\_21, Horchata\_22, Hydro\_20, ImtiyazSitla\_21, Imvubu\_16, Inchworm\_22, Indlovu\_20, Inverness\_22, Iridoclysis\_22, IsaacEli\_22, JDog\_22, JacAttac\_22, JaguarMi\_20, JakeO\_21, JangoPhett\_22, Jillium\_21, Jiminy\_21, KLucky39\_22, Kahve\_21, Kailash\_22, Katniss\_22, Keitherie\_22, Kikipoo\_22, Kimbrough\_22, KingVeVeVe\_22, KlimbOn\_22, Kloppinator\_22, Knocker\_24, Kronus\_22, Kwadwo\_21, Kwksand96\_21, Labeouficaum\_21, LasagnaCat\_22, Lasso\_22, LeeLot\_22, Lego3393\_22, Legolas\_21, LeiMonet\_22, LemonSlice\_22, Ligma\_19, LilMcDreamy\_19, LittleMunchkin\_21, Lolalove\_20, Longacauda\_21, Lopsy\_21, LostAndPhound\_21, LuckyMarjie\_21, Lulumae\_21, Lulwa\_22, Lumine\_21, MRabcd\_21, Mag7\_21, Magic8\_22, Magpie\_19, Mana\_21, Manad\_21, Maru\_21, Maskar\_21, Matalotodo\_21, Mcshane\_21, Mecca\_21, Megamind20\_22, Megatron\_22, Melc17\_22, MelsMeow\_21, Mesh1\_22, MichaelPhcott\_21, Mikota\_22, MiniBoss\_22, MitKao\_22, Mithril\_20, MmasiCarm\_23, Morgushi\_22, Morty\_22, Mosaic\_21, MrPhizzler\_21, Mudslide\_20, Mulan\_21, Murdoc\_22, Mutante\_21, Mysterious\_23, NHagos\_19, Nacho\_0022, Nangang\_22, Newman\_22, Nicole21\_22, Nozo\_23, Numberten\_22, Nyala\_21, OSmaximus\_22, Olak\_22, Oline\_21, Olive\_22, OliverWalter\_22, Omniscient\_22, Oosterbaan\_22, OrangeOswald\_23, Orfeu\_21, Orion\_22, Orwigg\_22, PG1\_22, Pacifista\_23, PenguinLover67\_24, Phamished\_22, Phareon\_22, PhatCats2014\_22, PhatLouie\_22, Phayeta\_23, Phelemich\_22, PhenghisKhan\_21, Pherdinand\_22, Phergie\_21, Philly\_22, Phipps\_22, Phleuron\_21, PhrankReynolds\_21, PhrodoBaggins\_21, Phunky\_22, Piglet\_0021, PinheadLarry\_22, Pinkman\_21, Pipefish\_23, Pipsqueak\_22, Placalicious\_21, Plmatters\_22, Podrick\_22, Pops\_22, Potter\_21, Prickles\_22, Prince\_21, ProfessorX\_22, Puhltonio\_22, QueenBeane\_22, Quesadilla\_23, Quisquiliae\_22, RagingRooster\_23, RawrgerThat\_20, RedMaple\_21, Reprobate\_22, Rich\_21, Ricotta\_22, Riggan\_22, Rimu\_22, Robyn\_21, Roliet\_22, Roscoe\_23, Roy17\_22, SDcharge11\_22, Saguaro\_23, Samaymay\_22, SassyCat97\_21, Schadenfreude\_21, Schueller\_22, Scoot17C\_22, Scrick\_22, Selr12\_22, Serendipitous\_21, Serendipity\_22, Serpentine\_0022, Shatter\_19, Sheila\_22, ShiVal\_22, Sigman\_22, Simielle\_21, SirJeffery\_22, Skippy\_22, Slatt\_22, Soile\_22, Solosis\_21, Sophia\_21, Soto\_22, Spartan300\_22, Squid\_22, Squiggle\_22, StAugustine\_27, Stinger\_18, StinkyVeggy\_24, Struggle\_21, Suffolk\_22, Suigeneris\_22, Surely\_22, Swiphy\_23, Swish\_22, SynergyX\_23, TPA2\_28, TallGrassMM\_22, Telesworld\_21, Thonko\_21, Thora\_22, ThreeOh3D2\_22, Timmi\_21, TomBombadil\_22, Tomlarah\_22, Toni\_21, Tooj\_22, True\_21, Trypo\_22, TyrionL\_21, UAch1\_22, UncleHowie\_22, Usavi\_22,

Vaishali24\_21, Valjean\_22, Vaticameos\_22, Veritas\_21, Vincenzo\_21, VioletZ\_20, Virapocalypse\_22, Virgeve\_21, Vista\_22, Vivaldi\_22, Vortex\_22, Waleliano\_20, Wallhey\_21, Waterdiva\_22, Weher20\_22, Windsor\_21, Xavier\_21, Yinz\_23, Yoshand\_22, YouGoGlencoco\_22, Zaider\_23, Zelda\_22, Zemanar\_21, Zenteno07\_26, Zonia\_22,

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

• Akoma\_23, Athena\_24, Audrey\_23, Axumite\_19, Ben11\_22, Bernardo\_23, BiggityBass\_19, Chandler\_23, ChrisnMich\_19, Compostia\_24, Corofin\_23, Daisy\_23, Fang\_22, Gadget\_24, Gervas\_23, GlenHope\_24, Halfpint\_22, Heathcliff\_23, JAMaL\_20, Jackstina\_21, Kamiyu\_23, LestyG\_23, Mariokart\_19, Marley1013\_23, Mortcellus\_22, Morty007\_23, Nanao\_19, Neos5\_23, Nigel\_18, Obutu\_23, Phaedrus\_21, Phlyer\_23, Poster\_19, Rita1961\_23, RomaT\_23, Sisko\_19, SlippinJimmy\_23, Sour\_23, Tydolla\_23, Yago84\_19, Yahalom\_23,

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

• 39HC\_018, 40BC\_018, A3Wally\_91, APunk\_27, AWGoat\_24, Abblin\_26, Abt2graduatex2\_18, Affeca\_25, Ailee\_25, Ali17\_23, Allegro\_24, Altheas\_33, AluminumJesus\_29, AnarQue\_21, Angelicage\_25, Antares\_31, Arbitrator\_24, Ares\_24, Argie\_17, Ariadne\_39, Arri\_26, Ashertheman\_27, Asis\_17, Atuin\_82, BabyDotz\_30, BabyGotBac\_17, Baddon\_26, Bakery\_24, Bananafish\_24, Barb\_25, Barsten\_27, Baumdotcom\_26, BayC\_17, Beagle\_32, Belphegor\_25, Bibwit\_26, Big4\_80, BirdInFrench\_30, Bizzy\_27, Blab\_29, Blocker23\_24, Bloom\_88, BobBob\_24, Boyle\_24, Brandonk123\_28, BrazzalePHS\_30, Brownie5\_24, BruhMoment\_26, Busephilis\_30, CaiB\_21, Calamitous\_24, CandC\_29, Casend\_32, Cece\_74, Cepens\_16, ChadMasterC\_27, Charming\_27, Chickadee\_24, Cinna\_26, ClamChowder\_25, Clawz\_50, ClearAsMud\_33, CloverMinnie\_21, Clown\_27, Coffee\_24, Cranjis\_32, CrazyRich\_30, Cressida\_28, Crisis\_32, D12\_16, Danyall\_25, Delrey21\_26, Derg\_24, Dewdrop\_68, Dexdert\_25, DoctorFroggo\_26, DonTron\_50, DonaldDuck\_31, Dori\_19, DunneganBoMo\_78, EMOore\_23, Eaglehorse\_24, EarickHC\_31, EdmundFerry\_23, Evamon\_23, Faze9\_24, Fireball\_24, Fireman\_31, Fitzgerald\_25, Fizzles\_31, Flatwoods\_27, Fosterous\_25, Fransoyer\_33, Fregley\_31, FrenchFry\_24, Fugax\_25, FuzzBuster\_35, GTE6\_24, Gaea\_26, Galadriel\_27, Ganandorf\_30, Gazebo\_30, Geodirt\_24, Gezellig\_24, Gina\_32, Glass\_24, GodPhather\_17, Godines\_24, Grassboy\_32, Gustavo\_26, Halo3\_24, Hans\_27, Hedgerow\_24, Hendrix\_63, Hermeonysus\_30, Holeinone\_24, Honeyfin\_32, Hosp\_016, Hyperion\_30, Inspectinfecti\_26, ItsyBitsy1\_24, JKSyngboy\_24, Jabberwocky\_25, Jambalaya\_23, Jayden\_32, Jefe\_31, Jehoshaphat\_33, Jeon\_16, Jolie1\_018, Jollipop\_31, Judebell\_33, KaiHaiDragon\_31, Kaleb\_24, Kamashten\_26, KayaCho\_18, Keitabear\_27, Kelcole\_29, Kewpiedoll\_26, Kheth\_24, KimmyK\_25, Kowalski\_30, Kozi\_27, Kroos\_27, Kwekel\_24, Kwobi\_27, Kyva\_33, Lars\_24, Laurie\_24, Leaf\_68, Lennon\_27, Leonard\_25, Lephleur\_24, LilHam\_24, Lilbeanie\_22, LittleFortune\_32, LizLemon\_24, Llemily\_31, Lonelysoil\_30, Love\_30, Maih\_17, MakoManhole\_21, Mao1\_18, Marcie\_35, Margaery\_26, Mashley\_29, Mask\_19, MasterPo\_24, Matzah\_27, McKinley\_29, Megabear\_16, Megan\_25, MelBins\_26, MellowYellow\_26, MementoMori\_27, Metamorphoo\_31, Mimi\_91, Mischief19\_25, MoontowerMania\_26, MossRose\_21, Mutzi\_25, Namago\_31, Natkenzie\_26, Nicole72\_26, Nike\_31, NoodlelyBoi\_31, Nordenberg\_21, Nubi\_23, Odyssey395\_33, OneinaGillian\_30, Onika\_30, Opia\_24, PR\_16, Paries\_29, Paschalis\_30, Patbob\_85, PauloDiaboli\_91, Pepe25\_29, Phabia\_31, Phantasmagoria\_24, Phauci\_18, Phinally\_25, Phinky\_37, Phlop\_23, Phorgeous\_30, Phrancesco\_31, PierreOrion\_31, Pine5\_22, PinkCoffee\_25, PiperSansNom\_31, Piperis\_31, Pointis\_31, Portcullis\_23, Pulchra\_32, PullumCavea\_23,

Pumpnickel\_88, Pureglobe5\_33, Quammi\_29, Quhwah\_34, Qyrzula\_22, Racecar\_85, RainyPolka\_18, Ramiel05\_30, Ranunculus\_25, Rasputia\_62, Rhinoforte\_24, Ribeye\_27, RiverRaider\_28, Rizwana\_25, RoadKill\_22, RobinRose\_32, RobsFeet\_32, Rofo\_27, RogerDodger\_26, RomansRevenge\_22, Romm\_32, Rosebush\_24, Rowlf\_28, RubyRalph\_33, Rudy\_29, SJReid\_89, Sabella\_24, SadLad\_35, Saletc\_17, SallyK\_32, Salvador\_23, Sampson\_26, Sanjuju\_25, Saronaya\_26, Savannah\_30, Savbucketdawg\_23, SchottB\_25, Scioto\_26, Scumberland\_32, Sedona\_27, Sejanus\_19, Selwyn23\_32, Shinji\_23, Shivanishola\_28, Shotgun\_30, SilentRX\_26, Sillytadpoles\_32, Sitar\_27, Smarties\_39, SmokingBunny\_23, Soos\_46, Squash\_33, Sting\_50, StorminNorm\_26, StrawberryJamm\_33, Stultus\_25, TA17A\_24, TP1604\_17, Tangent\_27, Tangerine\_26, Tank\_26, Taptic\_16, Tardus\_27, Teamocil\_32, Teehee\_32, Tempo\_30, Terij\_27, Thing3\_26, Tiamoceli\_25, TillyBobJoe\_23, Tinciduntolum\_25, Tissue\_31, Togo\_23, Tonitrus\_38, Tres\_24, TurkishDelight\_23, Twister6\_25, Twonlo\_22, Tycho\_26, Tyumbra\_29, Valary\_26, VanDeWege\_26, Verity\_26, ViaConlectus\_26, Viceroy\_30, Vivi2\_29, Wayne3\_32, West99\_24, Wheelie\_30, Wilca\_30, Wilde\_26, Wizard\_23, Wooper\_21, Xkcd426\_23, YDN12\_18, Yeti\_31, YorkOnyx\_27, YungMoney\_25, Zagie\_31, Zhafia\_34, Zipp\_26, Zitch\_27, Zooman\_76, phiAsp2\_19,

### Summary by start number:

#### Start 63:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan\_25 (EC),

#### Start 67:

- Found in 50 of 707 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 8 of 600
- Called 22.0% of time when present
- Phage (with cluster) where this start called: Ben11\_22 (B3), Compostia\_24 (B3), Gervas\_23 (B3), GlenHope\_24 (B3), Halfpint\_22 (B3), Jackstina\_21 (B3), LestyG\_23 (B3), Marley1013\_23 (B3), Rita1961\_23 (B3), SlippinJimmy\_23 (B3), Tydolla\_23 (B3),

#### Start 68:

- Found in 3 of 707 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Nanao\_19 (B4), Poster\_19 (B4),

#### Start 70:

- Found in 2 of 707 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nicole72\_26 (EC),

#### Start 71:

- Found in 33 of 707 ( 4.7% ) of genes in pham
- Manual Annotations of this start: 25 of 600
- Called 87.9% of time when present

- Phage (with cluster) where this start called: Antares\_31 (EC), BrazzalePHS\_30 (EC), Busephillis\_30 (EC), ClearAsMud\_33 (EC), Cranjis\_32 (EC), CrazyRich\_30 (EC), Crisis\_32 (EC), EarickHC\_31 (EC), Ganandorf\_30 (EC), Hermeonysus\_30 (EC), Honeyfin\_32 (EC), Jefe\_31 (EC), Jollipop\_31 (EC), KaiHaiDragon\_31 (EC), LittleFortune\_32 (EC), NoodlelyBoi\_31 (EC), Onika\_30 (EC), Paschalis\_30 (EC), Phorgeous\_30 (EC), Phrancesco\_31 (EC), PiperSansNom\_31 (EC), Piperis\_31 (EC), Pulchra\_32 (EC), Quhwah\_34 (EC), Savannah\_30 (EC), Scumberland\_32 (EC), Selwyn23\_32 (EC), Shotgun\_30 (EC), Yeti\_31 (EC),

#### Start 73:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChrisnMich\_19 (B4),

#### Start 74:

- Found in 8 of 707 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 8 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariadne\_39 (EC), Fireman\_31 (EC), Gina\_32 (EC), Metamorphoo\_31 (EC), RobsFeet\_32 (EC), Smarties\_39 (EC), Teamocil\_32 (EC), Tyrumbra\_29 (EC),

#### Start 77:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nigel\_18 (B4),

#### Start 78:

- Found in 11 of 707 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 9.1% of time when present
- Phage (with cluster) where this start called: FuzzBuster\_35 (singleton),

#### Start 79:

- Found in 20 of 707 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 3 of 600
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Jayden\_32 (EC), Kowalski\_30 (EC), PierreOrion\_31 (EC), Ramiel05\_30 (EC),

#### Start 81:

- Found in 8 of 707 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 7 of 600
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Cinna\_26 (EI), Cressida\_28 (EI), Kozie\_27 (EI), Margaery\_26 (EI), Matzah\_27 (EI), MementoMori\_27 (EI), Terij\_27 (EI),

#### Start 82:

- Found in 4 of 707 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 600

- Called 25.0% of time when present
- Phage (with cluster) where this start called: JAMaL\_20 (B4),

#### Start 84:

- Found in 8 of 707 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 3 of 600
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Axumite\_19 (DR), Sisko\_19 (DR), Sour\_23 (DR),

#### Start 85:

- Found in 35 of 707 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 29 of 600
- Called 88.6% of time when present
- Phage (with cluster) where this start called: Allegro\_24 (B2), Ares\_24 (B2), Bananafish\_24 (B2), Blocker23\_24 (B2), Boyle\_24 (B2), Brownie5\_24 (B2), Calamitous\_24 (B2), Coffee\_24 (B2), Eaglehorse\_24 (B2), Faze9\_24 (B2), FrenchFry\_24 (B2), Glass\_24 (B2), Godines\_24 (B2), Hedgerow\_24 (B2), Holeinone\_24 (B2), ItsyBitsy1\_24 (B2), Kaleb\_24 (B2), Kheth\_24 (B2), Lars\_24 (B2), Laurie\_24 (B2), Lephleur\_24 (B2), LizLemon\_24 (B2), MasterPo\_24 (B2), Opia\_24 (B2), Phantasmagoria\_24 (B2), Rhinoforte\_24 (B2), Sabella\_24 (B2), TA17A\_24 (B2), Tinciduntolum\_25 (B2), Tres\_24 (B2), West99\_24 (B2),

#### Start 87:

- Found in 11 of 707 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 2 of 600
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Hendrix\_63 (GC), Rasputia\_62 (GC),

#### Start 89:

- Found in 4 of 707 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 2 of 600
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Delrey21\_26 (DE4), Verity\_26 (DE4),

#### Start 90:

- Found in 2 of 707 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BiggityBass\_19 (DR),

#### Start 92:

- Found in 9 of 707 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 4 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_018 (B6), 40BC\_018 (B6), Dori\_19 (AD), Hosp\_016 (B6), Jolie1\_018 (B6), KayaCho\_18 (B6), Mao1\_18 (AD), Mask\_19 (AD), Sejanus\_19 (AD),

#### Start 93:

- Found in 389 of 707 ( 55.0% ) of genes in pham
- Manual Annotations of this start: 307 of 600
- Called 89.5% of time when present



• Phage (with cluster) where this start called: ABU\_22 (B1), Abinghost\_23 (B3), AbsoluteMadLad\_21 (B1), Acadian\_22 (B5), Adriana\_22 (B1), Aelin\_21 (B1), AlanGrant\_21 (B4), AltPhacts\_22 (B1), Altwerkus\_21 (B1), AnClar\_20 (DR), Anderson\_22 (B1), Andre\_22 (B1), Antonia\_21 (B1), Apex\_20 (B4), Apizium\_21 (B1), Ashraf\_21 (B1), Austelle\_21 (B4), Badfish\_22 (B1), Bae\_21 (B5), Baloo\_23 (B3), Banjo\_21 (B1), Basato\_23 (B1), BatteryCK\_21 (B1), Beaglebox\_21 (B1), BirdsNest\_25 (B13), Bishoperium\_21 (B1), BlackStallion\_22 (B1), BlueHusk\_22 (B1), Bluephacebaby\_21 (B1), BobbyK\_20 (B4), Boehler\_22 (B1), Briakila\_23 (B3), Brilliant\_22 (B1), BrownCNA\_21 (B4), Buckeye\_22 (B1), Burr\_21 (B1), CRB2\_24 (B9), CamL\_22 (B1), CampRoach\_21 (B1), Cannibal\_22 (B1), Carthage\_20 (B1), Casbah\_22 (B3), ChaChing\_23 (B3), Chaelin\_21 (B1), Chah\_23 (B1), Charles1\_22 (B1), CharlieGBrown\_21 (B1), CharlottesWeb\_19 (DR), CheetO\_22 (B1), Cher\_21 (B1), Childish\_21 (B1), Chorkpop\_22 (B1), Chunky\_22 (B1), Chute\_21 (B1), Cobra\_22 (B1), Colbert\_22 (B1), Coletti\_21 (B1), Cooper\_20 (B4), Cornobble\_21 (B1), Cosmolli16\_21 (B1), Craff\_22 (B1), Crownjwl\_22 (B1), DaddyDaniels\_22 (B1), Daffy\_22 (B1), Daka\_22 (B1), Dati\_22 (B1), Deenasa\_23 (B3), DelRivs\_21 (B1), Derpp\_21 (B1), Devonte\_23 (B3), Dice\_23 (B1), DigitDog\_22 (B5), Dingo\_22 (B1), Dione\_21 (B1), DirtJuice\_22 (B1), Doddsville\_22 (B1), DoesntMatter\_22 (B1), DonSanchon\_21 (B1), Donny\_22 (B5), DuchessDung\_20 (B1), Duggie\_21 (B1), Durga\_22 (B1), EastView9101\_22 (B5), Emiris\_22 (B1), EmpTee\_22 (B1), Eremos\_22 (B1), Etaye\_22 (B1), Eugenia\_22 (B1), Evaa\_20 (DR), FluffyNinja\_22 (B1), Fortunato\_20 (B4), Fozzie\_21 (B1), Frankicide\_22 (B1), Frederick\_20 (B4), Fresco\_19 (DR), Freya\_21 (B1), FriarPreacher\_22 (B1), Fringe\_22 (B1), FugateOSU\_21 (B1), Funsized\_25 (B9), Gareth\_21 (B1), GeneCoco\_22 (B1), Giraffe\_22 (B1), Gophee\_22 (B1), Grand2040\_21 (B1), Gwilliam\_22 (B1), Gyarad\_0022 (B1), HSavage\_22 (B1), Haimas\_22 (B1), Haleema\_21 (B1), Hamish\_22 (B1), Hangman\_20 (B4), Hartsy\_21 (B1), HarveySr\_23 (B3), Harvey\_22 (B1), Hashim76\_26 (B13), Heath\_19 (B4), Held\_22 (B1), HenryJackson\_21 (B1), Hertubise\_22 (B1), Hetaeria\_22 (B1), HighStump\_21 (B1), Hocus\_21 (B1), Horchata\_22 (B1), Hydro\_20 (B4), ImtiyazSitla\_21 (B1), Imvubu\_16 (B10), Inchworm\_22 (B1), Indlovu\_20 (B11), Inverness\_22 (B1), Iridoclysis\_22 (B1), IsaacEli\_22 (B1), JDog\_22 (B1), JacAttac\_22 (B1), JaguarMi\_20 (B4), JakeO\_21 (B1), JangoPhett\_22 (B1), Jillium\_21 (B1), Jiminy\_21 (B1), KLucky39\_22 (B1), Kahve\_21 (B1), Kailash\_22 (B1), Katniss\_22 (B1), Keitherie\_22 (B1), Kikipoo\_22 (B1), Kimbrough\_22 (B1), KingVeVeVe\_22 (B1), KlimbOn\_22 (B1), Kloppinator\_22 (B1), Knocker\_24 (B9), Kronus\_22 (B3), Kwadwo\_21 (B1), Kwksand96\_21 (B1), Labeouficaum\_21 (B1), LasagnaCat\_22 (B1), Lasso\_22 (B1), LeeLot\_22 (B1), Lego3393\_22 (B1), Legolas\_21 (B1), LeiMonet\_22 (B1), LemonSlice\_22 (B1), Ligma\_19 (DR), LilMcDreamy\_19 (B12), LittleMunchkin\_21 (DR), Lolalove\_20 (B4), Longacauda\_21 (B1), Lopsy\_21 (B1), LostAndPhound\_21 (B1), LuckyMarjie\_21 (B1), Lulumae\_21 (B1), Lulwa\_22 (B1), Lumine\_21 (B1), MRabcd\_21 (B1), Mag7\_21 (B1), Magic8\_22 (B1), Magpie\_19 (B4), Mana\_21 (B1), Manad\_21 (B1), Maru\_21 (B1), Maskar\_21 (B1), Matalotodo\_21 (B1), Mcshane\_21 (B1), Mecca\_21 (B1), Megamind20\_22 (B1), Megatron\_22 (B1), Melc17\_22 (B1), MelsMeow\_21 (B1), Mesh1\_22 (B1), MichaelPhcott\_21 (B1), Mikota\_22 (B1), MiniBoss\_22 (B1), MitKao\_22 (B1), Mithril\_20 (B4), MmasiCarm\_23 (B3), Morgushi\_22 (B1), Morty\_22 (B1), Mosaic\_21 (B1), MrPhizzler\_21 (B1), Mudslide\_20 (B4), Mulan\_21 (B1), Murdoc\_22 (B1), Mutante\_21 (B1), Mysterious\_23 (B5), NHagos\_19 (DR), Nacho\_0022 (B1), Nangang\_22 (B5), Newman\_22 (B1), Nicole21\_22 (B1), Nozo\_23 (B3), Numberten\_22 (B1), Nyala\_21 (B1), OSmaximus\_22 (B1), Olak\_22 (B1), Oline\_21 (B1), Olive\_22 (B1), OliverWalter\_22 (B1), Omniscient\_22 (B1), Oosterbaan\_22 (B1), OrangeOswald\_23 (B3), Orfeu\_21 (B1), Orion\_22 (B1), Orwigg\_22 (B1), PG1\_22 (B1), Pacifista\_23 (B1), PenguinLover67\_24 (B9),

Phamished\_22 (B1), Phareon\_22 (B1), PhatCats2014\_22 (B1), PhatLouie\_22 (B1), Phayeta\_23 (B3), Phelemich\_22 (B5), PhenghisKhan\_21 (B1), Pherdinand\_22 (B1), Phergie\_21 (B1), Philly\_22 (B3), Phipps\_22 (B1), Phleuron\_21 (B1), PhrankReynolds\_21 (B1), PhrodoBaggins\_21 (B1), Phunky\_22 (B1), Piglet\_0021 (B1), PinheadLarry\_22 (B1), Pinkman\_21 (B1), Pipefish\_23 (B3), Pipsqueak\_22 (B1), Placalicious\_21 (B1), Plmatters\_22 (B1), Podrick\_22 (B1), Pops\_22 (B1), Potter\_21 (B1), Prickles\_22 (B1), Prince\_21 (B4), ProfessorX\_22 (B1), Puhltonio\_22 (B1), QueenBeane\_22 (B1), Quesadilla\_23 (B9), Quisquiliae\_22 (B1), RagingRooster\_23 (B3), RawrgerThat\_20 (B4), RedMaple\_21 (B1), Reprobate\_22 (B5), Rich\_21 (B5), Ricotta\_22 (B1), Riggan\_22 (B1), Rimu\_22 (B1), Robyn\_21 (B1), Roliet\_22 (B1), Roscoe\_23 (B1), Roy17\_22 (B1), SDcharge11\_22 (B1), Saguaro\_23 (B7), Samaymay\_22 (B1), SassyCat97\_21 (B1), Schadenfreude\_21 (B1), Schueller\_22 (B1), Scoot17C\_22 (B1), Scrick\_22 (B1), Selr12\_22 (B1), Serendipitous\_21 (B5), Serendipity\_22 (B1), Serpentine\_0022 (B1), Shatter\_19 (DR), Sheila\_22 (B1), ShiVal\_22 (B1), Sigman\_22 (B1), Simielle\_21 (B1), SirJeffery\_22 (B5), Skippy\_22 (B1), Slatt\_22 (B1), Soile\_22 (B1), Solosis\_21 (B1), Sophia\_21 (B1), Soto\_22 (B1), Spartan300\_22 (B1), Squid\_22 (B1), Squiggle\_22 (B1), StAugustine\_27 (singleton), Stinger\_18 (B4), StinkyVeggy\_24 (B5), Struggle\_21 (B1), Suffolk\_22 (B1), Suigeneris\_22 (B5), Surely\_22 (B1), Swiphy\_23 (B1), Swish\_22 (B1), SynergyX\_23 (B3), TPA2\_28 (singleton), TallGrassMM\_22 (B1), Telesworld\_21 (B1), Thonko\_21 (B8), Thora\_22 (B1), ThreeOh3D2\_22 (B1), Timmi\_21 (B1), TomBombadil\_22 (B1), Tomlarah\_22 (B1), Toni\_21 (B1), Tooj\_22 (B1), True\_21 (B1), Trypo\_22 (B1), TyrionL\_21 (B1), UAch1\_22 (B1), UncleHowie\_22 (B1), Usavi\_22 (B1), Vaishali24\_21 (B1), Valjean\_22 (B1), Vaticameos\_22 (B1), Veritas\_21 (B1), Vincenzo\_21 (B4), VioletZ\_20 (B4), Virapocalypse\_22 (B1), Virgeve\_21 (B1), Vista\_22 (B1), Vivaldi\_22 (B1), Vortex\_22 (B1), Waleliano\_20 (B4), Wallhey\_21 (B1), Waterdiva\_22 (B1), Weher20\_22 (B1), Windsor\_21 (B1), Xavier\_21 (B1), Yinz\_23 (B3), Yoshand\_22 (B1), YouGoGlencoco\_22 (B1), Zaider\_23 (B1), Zelda\_22 (B1), Zemanar\_21 (B4), Zenteno07\_26 (B13), Zonia\_22 (B1),

#### Start 94:

- Found in 3 of 707 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Sting\_50 (CP),

#### Start 95:

- Found in 3 of 707 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BirdInFrench\_30 (EG), Wilca\_30 (EG),

#### Start 97:

- Found in 8 of 707 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 8 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie\_17 (W), Cepens\_16 (W), D12\_16 (W), GodPhather\_17 (W), Jeon\_16 (W), Megabear\_16 (W), PR\_16 (W), Taptic\_16 (W),

#### Start 99:

- Found in 48 of 707 ( 6.8% ) of genes in pham
- Manual Annotations of this start: 36 of 600

- Called 95.8% of time when present
- Phage (with cluster) where this start called: Altheas\_33 (EG), AluminumJesus\_29 (EG), BabyDotz\_30 (EG), Blab\_29 (EG), CandC\_29 (EG), Casend\_32 (EG), DonaldDuck\_31 (EG), Fizzles\_31 (EG), Fransoyer\_33 (EG), Fregley\_31 (EG), Gazebo\_30 (EG), Grassboy\_32 (EG), Hyperion\_30 (EG), Jehoshaphat\_33 (EG), Judebell\_33 (EG), Kelcole\_29 (EG), Kyva\_33 (EG), Llemily\_31 (EG), Lonelysoil\_30 (EG), Marcie\_35 (EG), Mashley\_29 (EG), Namago\_31 (EG), Nike\_31 (EG), OneinaGillian\_30 (EG), Pepe25\_29 (EG), Phabia\_31 (EG), Phinky\_37 (EG), Pine5\_22 (singleton), Quammi\_29 (EG), RobinRose\_32 (EG), Romm\_32 (EG), RubyRalph\_33 (EG), Rudy\_29 (EG), SadLad\_35 (EG), SallyK\_32 (EG), Sillytadpoles\_32 (EG), Squash\_33 (EG), StrawberryJamm\_33 (EG), Teehee\_32 (EG), Tempo\_30 (EG), Tissue\_31 (EG), Viceroy\_30 (EG), Wayne3\_32 (EG), Wheelie\_30 (EG), Zagie\_31 (EG), Zhafia\_34 (EG),

#### Start 100:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rowlf\_28 (EG),

#### Start 101:

- Found in 68 of 707 ( 9.6% ) of genes in pham
- Manual Annotations of this start: 25 of 600
- Called 38.2% of time when present
- Phage (with cluster) where this start called: Akoma\_23 (B3), AnarQue\_21 (DR), Athena\_24 (B3), Audrey\_23 (B3), Bernardo\_23 (B3), CaiB\_21 (DR), Chandler\_23 (B3), CloverMinnie\_21 (DR), Corofin\_23 (B3), Daisy\_23 (B3), Gadget\_24 (B3), Heathcliff\_23 (B3), Kamiyu\_23 (B3), MakoManhole\_21 (DR), Mariokart\_19 (DR), Mortcellus\_22 (B3), Morty007\_23 (B3), MossRose\_21 (DR), Neos5\_23 (B3), Obutu\_23 (B3), Phaedrus\_21 (B3), Phlyer\_23 (B3), RomaT\_23 (B3), Wooper\_21 (DR), Yago84\_19 (DR), Yahalom\_23 (B3),

#### Start 104:

- Found in 14 of 707 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 13 of 600
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2\_18 (BG), Asis\_17 (BG), BabyGotBac\_17 (BG), BayC\_17 (BG), Dewdrop\_68 (GC), Leaf\_68 (GC), Maih\_17 (BG), Mischief19\_25 (BG), RainyPolka\_18 (BG), Salete\_17 (BG), TP1604\_17 (BG), TurkishDelight\_23 (singleton), Xkcd426\_23 (BG), YDN12\_18 (BG),

#### Start 105:

- Found in 12 of 707 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 2 of 600
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Clawz\_50 (CP), DonTron\_50 (CP), Soos\_46 (CP),

#### Start 107:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: phiAsp2\_19 (singleton),

Start 108:

- Found in 82 of 707 ( 11.6% ) of genes in pham
- Manual Annotations of this start: 63 of 600
- Called 97.6% of time when present
- Phage (with cluster) where this start called: APunk\_27 (DE4), Abblin\_26 (DE4), Affeca\_25 (DE1), Ailee\_25 (DE1), Ali17\_23 (DE2), Angelicage\_25 (DE1), Ashertheman\_27 (DE1), Baddon\_26 (DE1), Barsten\_27 (DE1), Baumdotcom\_26 (DE1), Belphegor\_25 (DE), Bibwit\_26 (DE1), Bizzy\_27 (DE1), BobBob\_24 (DE1), Brandonk123\_28 (DE1), ChadMasterC\_27 (DE1), Charming\_27 (DE1), Chickadee\_24 (DE3), Derg\_24 (DE1), Dexdert\_25 (DE3), DoctorFroggo\_26 (DE4), EMOore\_23 (DE2), EdmundFerry\_23 (DE3), Fitzgerald\_25 (DE1), Flatwoods\_27 (DE1), Fosterous\_25 (DE1), GTE6\_24 (DE3), Gaea\_26 (DE1), Galadriel\_27 (DE1), Geodirt\_24 (DE1), Gustavo\_26 (DE1), Hans\_27 (DE2), Inspectinfecti\_26 (DE2), JKSyngboy\_24 (DE1), Jabberwocky\_25 (DE1), Kamashten\_26 (DE1), Keitabear\_27 (DE1), Kewpiedoll\_26 (DE1), Kroos\_27 (DE1), Kwekel\_24 (DE3), Kwobi\_27 (DE1), Lennon\_27 (DE1), Leonard\_25 (DE2), LilHam\_24 (DE1), Lilbeanie\_22 (DE5), Love\_30 (DE1), McKinley\_29 (DE1), MelBins\_26 (DE2), MoontowerMania\_26 (DE1), Natkenzie\_26 (DE4), Nordenberg\_21 (DE1), Paries\_29 (DE1), Phauci\_18 (DE2), Phinally\_25 (DE2), Ribeye\_27 (DE1), RiverRaider\_28 (DE1), RoadKill\_22 (DE3), Rofo\_27 (DE1), Sampson\_26 (DE4), Sanjuju\_25 (DE1), Saronaya\_26 (DE1), SchottB\_25 (DE1), Scioto\_26 (DE4), Sedona\_27 (DE1), Shivanishola\_28 (DE1), Sitar\_27 (DE1), StorminNorm\_26 (DE1), Stultus\_25 (DE1), Tangent\_27 (DE1), Tangerine\_26 (DE1), Tardus\_27 (DE4), Thing3\_26 (DE1), Tiamoceli\_25 (DE3), Twonlo\_22 (DE3), Tycho\_26 (DE1), ViaConlectus\_26 (DE4), Vivi2\_29 (DE1), YorkOnyx\_27 (DE1), Zipp\_26 (DE4), Zitch\_27 (DE4),

Start 109:

- Found in 1 of 707 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus\_38 (singleton),

Start 112:

- Found in 32 of 707 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 29 of 600
- Called 96.9% of time when present
- Phage (with cluster) where this start called: Arri\_26 (DC1), Bakery\_24 (DC1), Barb\_25 (DC1), ClamChowder\_25 (DC1), Clown\_27 (DC2), Danyall\_25 (DC1), Evamon\_23 (DC1), Fireball\_24 (DC1), Fugax\_25 (DC1), Gezellig\_24 (DC1), Halo3\_24 (DC1), Jambalaya\_23 (DC1), KimmyK\_25 (DC1), Mutzi\_25 (DC1), Nubi\_23 (DC1), Phlop\_23 (DC1), PinkCoffee\_25 (DC1), Portcullis\_23 (DC1), PullumCavea\_23 (DC1), RogerDodger\_26 (DC1), Salvador\_23 (DC1), Savbucketdawg\_23 (DC1), Shinji\_23 (DC1), SmokingBunny\_23 (DC1), TillyBobJoe\_23 (DC1), Togo\_23 (DC1), Twister6\_25 (DC1), Valary\_26 (DC1), VanDeWege\_26 (DC1), Wizard\_23 (DC1), YungMoney\_25 (DC1),

Start 118:

- Found in 89 of 707 ( 12.6% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Fang\_22 (B1),

Start 145:

- Found in 7 of 707 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 6 of 600
- Called 85.7% of time when present
- Phage (with cluster) where this start called: A3Wally\_91 (GD1), Big4\_80 (GD2), Cece\_74 (GD3), PauloDiaboli\_91 (GD1), Pumpnickel\_88 (GD4), Zooman\_76 (GD2),

Start 149:

- Found in 4 of 707 ( 0.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: RomansRevenge\_22 (singleton),

Start 152:

- Found in 14 of 707 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 8 of 600
- Called 85.7% of time when present
- Phage (with cluster) where this start called: AWGoat\_24 (AP4), Beagle\_32 (AP2), BruhMoment\_26 (AP3), MellowYellow\_26 (AP2), Odyssey395\_33 (AP2), Pointis\_31 (AP2), Pureglobe5\_33 (AP2), Ranunculus\_25 (AP), Rizwana\_25 (AP1), SilentRX\_26 (AP4), Tank\_26 (AP1), Wilde\_26 (AP1),

Start 156:

- Found in 34 of 707 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 3 of 600
- Called 8.8% of time when present
- Phage (with cluster) where this start called: Arbiter\_24 (B2), Qyrzula\_22 (B2), Rosebush\_24 (B2),

Start 160:

- Found in 361 of 707 ( 51.1% ) of genes in pham
- Manual Annotations of this start: 1 of 600
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Atuin\_82 (FC), Bloom\_88 (FC), DunneganBoMo\_78 (FC), Mimi\_91 (FC), Patbob\_85 (FC), Racecar\_85 (FC), SJReid\_89 (FC),

**Summary by clusters:**

There are 41 clusters represented in this pham: GD1, singleton, BG, GD4, AP2, AP3, AP1, GD2, AP4, FC, B12, B13, B10, B11, GD3, DR, DE, EI, AD, EG, EC, AP, GC, W, CP, DC2, DC1, DE1, DE2, DE3, DE4, DE5, B4, B5, B6, B7, B1, B2, B3, B8, B9,

Info for manual annotations of cluster AD:

- Start number 92 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster AP1:

- Start number 152 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 152 was manually annotated 3 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 152 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 152 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster B1:

- Start number 93 was manually annotated 245 times for cluster B1.
- Start number 118 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 93 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 93 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 93 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 93 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 85 was manually annotated 29 times for cluster B2.
- Start number 156 was manually annotated 3 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 67 was manually annotated 8 times for cluster B3.
- Start number 93 was manually annotated 18 times for cluster B3.
- Start number 101 was manually annotated 18 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 73 was manually annotated 1 time for cluster B4.
- Start number 77 was manually annotated 1 time for cluster B4.
- Start number 82 was manually annotated 1 time for cluster B4.
- Start number 93 was manually annotated 19 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 93 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 92 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 93 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 93 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 93 was manually annotated 5 times for cluster B9.

Info for manual annotations of cluster BG:

- Start number 104 was manually annotated 10 times for cluster BG.

Info for manual annotations of cluster CP:

- Start number 105 was manually annotated 2 times for cluster CP.

Info for manual annotations of cluster DC1:

- Start number 112 was manually annotated 28 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 112 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 108 was manually annotated 42 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 108 was manually annotated 7 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 108 was manually annotated 6 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 89 was manually annotated 2 times for cluster DE4.
- Start number 108 was manually annotated 7 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 108 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DR:

- Start number 84 was manually annotated 3 times for cluster DR.
- Start number 90 was manually annotated 1 time for cluster DR.
- Start number 93 was manually annotated 5 times for cluster DR.
- Start number 101 was manually annotated 7 times for cluster DR.

Info for manual annotations of cluster EC:

- Start number 63 was manually annotated 1 time for cluster EC.
- Start number 70 was manually annotated 1 time for cluster EC.
- Start number 71 was manually annotated 25 times for cluster EC.
- Start number 74 was manually annotated 8 times for cluster EC.
- Start number 79 was manually annotated 3 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 99 was manually annotated 36 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 81 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster FC:

- Start number 160 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GC:

- Start number 87 was manually annotated 2 times for cluster GC.

- Start number 104 was manually annotated 2 times for cluster GC.

Info for manual annotations of cluster GD1:

- Start number 145 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 145 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 145 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 145 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster W:

- Start number 97 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: 39HC\_018 Start: 16237, Stop: 16980, Start Num: 92

Candidate Starts for 39HC\_018:

(Start: 92 @16237 has 4 MA's), (106, 16264), (126, 16297), (154, 16348), (166, 16402), (168, 16408), (188, 16456), (202, 16471), (222, 16501), (236, 16546), (241, 16567), (247, 16585), (248, 16588), (250, 16600), (284, 16714), (289, 16738), (311, 16831), (323, 16882), (340, 16957), (345, 16972),

Gene: 40BC\_018 Start: 16237, Stop: 16980, Start Num: 92

Candidate Starts for 40BC\_018:

(Start: 92 @16237 has 4 MA's), (106, 16264), (126, 16297), (154, 16348), (166, 16402), (168, 16408), (188, 16456), (202, 16471), (222, 16501), (236, 16546), (241, 16567), (247, 16585), (248, 16588), (250, 16600), (284, 16714), (289, 16738), (311, 16831), (323, 16882), (340, 16957), (345, 16972),

Gene: A3Wally\_91 Start: 49023, Stop: 49784, Start Num: 145

Candidate Starts for A3Wally\_91:

(Start: 145 @49023 has 6 MA's), (166, 49104), (188, 49161), (221, 49206), (233, 49257), (239, 49278), (245, 49305), (247, 49308), (265, 49377), (284, 49479), (290, 49509), (294, 49521), (299, 49536), (316, 49623), (330, 49683), (331, 49686), (332, 49692), (348, 49749),

Gene: ABU\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for ABU\_22:

(Start: 93 @17064 has 307 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (332, 17745), (340, 17778), (345, 17793),

Gene: APunk\_27 Start: 20502, Stop: 21293, Start Num: 108

Candidate Starts for APunk\_27:

(Start: 108 @20502 has 63 MA's), (163, 20631), (190, 20706), (197, 20727), (204, 20745), (264, 20922), (274, 20952), (277, 20964), (299, 21057), (311, 21114), (317, 21144), (328, 21180), (345, 21252),

Gene: AWGoat\_24 Start: 19637, Stop: 20371, Start Num: 152



Candidate Starts for AWGoat\_24:

(Start: 152 @19637 has 8 MA's), (167, 19700), (168, 19703), (183, 19742), (187, 19751), (193, 19760), (196, 19781), (198, 19784), (206, 19817), (211, 19829), (217, 19841), (229, 19886), (234, 19907), (237, 19916), (249, 19958), (250, 19967), (251, 19970), (258, 19994), (289, 20090), (291, 20099), (298, 20120), (306, 20147), (317, 20213), (336, 20282),

Gene: Abblin\_26 Start: 21114, Stop: 21905, Start Num: 108

Candidate Starts for Abblin\_26:

(Start: 108 @21114 has 63 MA's), (163, 21243), (197, 21339), (264, 21534), (274, 21564), (299, 21669), (311, 21726), (317, 21756), (328, 21792), (345, 21864),

Gene: Abinghost\_23 Start: 17721, Stop: 18479, Start Num: 93

Candidate Starts for Abinghost\_23:

(Start: 67 @17646 has 8 MA's), (76, 17664), (Start: 93 @17721 has 307 MA's), (Start: 101 @17739 has 25 MA's), (158, 17859), (Start: 160 @17871 has 1 MA's), (190, 17955), (247, 18084), (251, 18102), (271, 18162), (285, 18219), (299, 18273), (316, 18354), (319, 18366), (325, 18384), (341, 18459),

Gene: AbsoluteMadLad\_21 Start: 17065, Stop: 17802, Start Num: 93

Candidate Starts for AbsoluteMadLad\_21:

(Start: 93 @17065 has 307 MA's), (154, 17179), (155, 17185), (159, 17194), (Start: 160 @17203 has 1 MA's), (203, 17299), (237, 17371), (239, 17377), (241, 17389), (255, 17440), (282, 17521), (287, 17554), (289, 17560), (310, 17641), (311, 17653), (316, 17677), (323, 17704), (332, 17746), (340, 17779), (345, 17794),

Gene: Abt2graduatex2\_18 Start: 18225, Stop: 19085, Start Num: 104

Candidate Starts for Abt2graduatex2\_18:

(Start: 104 @18225 has 13 MA's), (154, 18333), (168, 18396), (199, 18459), (206, 18480), (210, 18489), (220, 18504), (241, 18585), (244, 18597), (247, 18603), (249, 18609), (251, 18621), (252, 18624), (264, 18666), (284, 18765), (291, 18798), (316, 18909), (320, 18924), (325, 18939), (331, 18972), (337, 18993), (343, 19020), (345, 19026),

Gene: Acadian\_22 Start: 17799, Stop: 18554, Start Num: 93

Candidate Starts for Acadian\_22:

(51, 17634), (56, 17664), (61, 17685), (Start: 67 @17724 has 8 MA's), (Start: 93 @17799 has 307 MA's), (110, 17829), (139, 17877), (154, 17913), (158, 17925), (Start: 160 @17937 has 1 MA's), (166, 17967), (168, 17973), (174, 17994), (236, 18120), (247, 18159), (251, 18177), (262, 18213), (277, 18252), (316, 18429), (319, 18441), (323, 18456), (332, 18498), (345, 18546),

Gene: Adriana\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Adriana\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (332, 17748), (340, 17781), (345, 17796),

Gene: Aelin\_21 Start: 16630, Stop: 17367, Start Num: 93

Candidate Starts for Aelin\_21:

(Start: 93 @16630 has 307 MA's), (Start: 118 @16672 has 1 MA's), (154, 16744), (155, 16750), (159, 16759), (Start: 160 @16768 has 1 MA's), (203, 16864), (237, 16936), (239, 16942), (241, 16954), (255, 17005), (282, 17086), (287, 17119), (289, 17125), (310, 17206), (311, 17218), (316, 17242), (323, 17269), (340, 17344), (345, 17359),

Gene: Affeca\_25 Start: 21146, Stop: 21919, Start Num: 108

Candidate Starts for Affeca\_25:

(Start: 108 @21146 has 63 MA's), (133, 21194), (168, 21299), (213, 21389), (237, 21446), (250, 21497), (264, 21542), (284, 21620), (287, 21638), (299, 21677), (328, 21800), (356, 21902),

Gene: Ailee\_25 Start: 21858, Stop: 22631, Start Num: 108

Candidate Starts for Ailee\_25:

(Start: 108 @21858 has 63 MA's), (133, 21906), (158, 21963), (168, 22011), (237, 22158), (264, 22254), (284, 22332), (287, 22350), (299, 22389), (328, 22512), (356, 22614),

Gene: Akoma\_23 Start: 17737, Stop: 18477, Start Num: 101

Candidate Starts for Akoma\_23:

(Start: 67 @17644 has 8 MA's), (76, 17662), (Start: 93 @17719 has 307 MA's), (Start: 101 @17737 has 25 MA's), (158, 17857), (Start: 160 @17869 has 1 MA's), (190, 17953), (247, 18082), (251, 18100), (271, 18160), (285, 18217), (299, 18271), (316, 18352), (319, 18364), (325, 18382), (341, 18457),

Gene: AlanGrant\_21 Start: 18471, Stop: 19205, Start Num: 93

Candidate Starts for AlanGrant\_21:

(60, 18354), (Start: 93 @18471 has 307 MA's), (144, 18549), (158, 18588), (168, 18636), (174, 18657), (194, 18681), (201, 18693), (247, 18810), (262, 18864), (274, 18894), (284, 18939), (289, 18963), (333, 19152), (340, 19182), (345, 19197),

Gene: Ali17\_23 Start: 18977, Stop: 19768, Start Num: 108

Candidate Starts for Ali17\_23:

(Start: 108 @18977 has 63 MA's), (122, 18998), (147, 19049), (168, 19130), (198, 19190), (204, 19208), (205, 19211), (251, 19352), (259, 19376), (264, 19394), (288, 19493), (311, 19586), (312, 19589), (317, 19616), (328, 19652), (349, 19739), (355, 19751),

Gene: Allegro\_24 Start: 19129, Stop: 19914, Start Num: 85

Candidate Starts for Allegro\_24:

(Start: 85 @19129 has 29 MA's), (135, 19240), (150, 19276), (Start: 156 @19297 has 3 MA's), (158, 19300), (168, 19348), (181, 19384), (237, 19486), (243, 19513), (247, 19522), (251, 19540), (258, 19561), (284, 19654), (289, 19678), (295, 19699), (310, 19756), (311, 19768), (312, 19771), (319, 19801), (331, 19852), (344, 19903),

Gene: AltPhacts\_22 Start: 17059, Stop: 17796, Start Num: 93

Candidate Starts for AltPhacts\_22:

(Start: 93 @17059 has 307 MA's), (154, 17173), (155, 17179), (159, 17188), (Start: 160 @17197 has 1 MA's), (203, 17293), (237, 17365), (239, 17371), (241, 17383), (255, 17434), (282, 17515), (287, 17548), (289, 17554), (310, 17635), (311, 17647), (316, 17671), (323, 17698), (340, 17773), (345, 17788),

Gene: Altheas\_33 Start: 21050, Stop: 21898, Start Num: 99

Candidate Starts for Altheas\_33:

(Start: 99 @21050 has 36 MA's), (136, 21113), (148, 21143), (186, 21263), (223, 21356), (251, 21464), (272, 21530),

Gene: Altwerkus\_21 Start: 16759, Stop: 17496, Start Num: 93

Candidate Starts for Altwerkus\_21:

(Start: 93 @16759 has 307 MA's), (Start: 118 @16801 has 1 MA's), (154, 16873), (155, 16879), (159, 16888), (Start: 160 @16897 has 1 MA's), (203, 16993), (237, 17065), (239, 17071), (241, 17083), (255, 17134), (282, 17215), (287, 17248), (289, 17254), (310, 17335), (311, 17347), (316, 17371),

(323, 17398), (340, 17473), (345, 17488),

Gene: AluminumJesus\_29 Start: 20547, Stop: 21395, Start Num: 99

Candidate Starts for AluminumJesus\_29:

(Start: 99 @20547 has 36 MA's), (136, 20610), (148, 20640), (165, 20703), (186, 20760), (193, 20772), (223, 20853), (251, 20961), (284, 21084), (287, 21102), (333, 21294),

Gene: AnClar\_20 Start: 17804, Stop: 18550, Start Num: 93

Candidate Starts for AnClar\_20:

(69, 17750), (Start: 93 @17804 has 307 MA's), (Start: 101 @17822 has 25 MA's), (146, 17906), (159, 17945), (178, 18014), (184, 18023), (247, 18158), (250, 18173), (253, 18179), (262, 18212), (311, 18401), (314, 18410), (316, 18425), (319, 18437), (332, 18494), (340, 18527), (344, 18539), (345, 18542),

Gene: AnarQue\_21 Start: 16990, Stop: 17733, Start Num: 101

Candidate Starts for AnarQue\_21:

(34, 16657), (36, 16672), (Start: 101 @16990 has 25 MA's), (116, 17014), (126, 17032), (154, 17110), (155, 17116), (165, 17155), (201, 17224), (203, 17230), (247, 17341), (286, 17479), (298, 17524), (332, 17677), (337, 17692), (340, 17710),

Gene: Anderson\_22 Start: 17057, Stop: 17794, Start Num: 93

Candidate Starts for Anderson\_22:

(Start: 93 @17057 has 307 MA's), (154, 17171), (155, 17177), (159, 17186), (Start: 160 @17195 has 1 MA's), (203, 17291), (237, 17363), (239, 17369), (241, 17381), (255, 17432), (282, 17513), (287, 17546), (289, 17552), (310, 17633), (311, 17645), (316, 17669), (323, 17696), (332, 17738), (340, 17771), (345, 17786),

Gene: Andre\_22 Start: 17055, Stop: 17792, Start Num: 93

Candidate Starts for Andre\_22:

(Start: 93 @17055 has 307 MA's), (154, 17169), (155, 17175), (159, 17184), (Start: 160 @17193 has 1 MA's), (203, 17289), (237, 17361), (239, 17367), (241, 17379), (255, 17430), (282, 17511), (287, 17544), (289, 17550), (310, 17631), (311, 17643), (316, 17667), (323, 17694), (340, 17769), (345, 17784),

Gene: Angelicage\_25 Start: 21566, Stop: 22339, Start Num: 108

Candidate Starts for Angelicage\_25:

(Start: 108 @21566 has 63 MA's), (133, 21614), (168, 21719), (234, 21860), (250, 21917), (264, 21962), (284, 22040), (287, 22058), (299, 22097), (311, 22154), (328, 22220), (356, 22322),

Gene: Antares\_31 Start: 18205, Stop: 19119, Start Num: 71

Candidate Starts for Antares\_31:

(Start: 71 @18205 has 25 MA's), (113, 18307), (166, 18451), (203, 18559), (212, 18586), (215, 18592), (251, 18721), (277, 18805), (304, 18916), (317, 18988), (322, 19006), (337, 19060),

Gene: Antonia\_21 Start: 16630, Stop: 17367, Start Num: 93

Candidate Starts for Antonia\_21:

(Start: 93 @16630 has 307 MA's), (Start: 118 @16672 has 1 MA's), (154, 16744), (155, 16750), (159, 16759), (Start: 160 @16768 has 1 MA's), (203, 16864), (237, 16936), (239, 16942), (241, 16954), (255, 17005), (282, 17086), (287, 17119), (289, 17125), (310, 17206), (311, 17218), (316, 17242), (323, 17269), (340, 17344), (345, 17359),

Gene: Apex\_20 Start: 17873, Stop: 18616, Start Num: 93

Candidate Starts for Apex\_20:

(Start: 93 @17873 has 307 MA's), (155, 17984), (158, 17990), (159, 17993), (168, 18038), (231, 18167), (237, 18185), (243, 18212), (251, 18239), (259, 18263), (262, 18275), (274, 18305), (284, 18350), (289, 18374), (295, 18395), (333, 18563), (337, 18575), (340, 18593), (345, 18608),

Gene: Apizium\_21 Start: 16800, Stop: 17537, Start Num: 93

Candidate Starts for Apizium\_21:

(Start: 93 @16800 has 307 MA's), (154, 16914), (155, 16920), (159, 16929), (Start: 160 @16938 has 1 MA's), (203, 17034), (237, 17106), (239, 17112), (241, 17124), (255, 17175), (282, 17256), (287, 17289), (289, 17295), (310, 17376), (311, 17388), (316, 17412), (323, 17439), (340, 17514), (345, 17529),

Gene: Arbitrator\_24 Start: 19385, Stop: 20002, Start Num: 156

Candidate Starts for Arbitrator\_24:

(Start: 85 @19217 has 29 MA's), (135, 19328), (150, 19364), (Start: 156 @19385 has 3 MA's), (158, 19388), (168, 19436), (181, 19472), (237, 19574), (243, 19601), (247, 19610), (251, 19628), (258, 19649), (284, 19742), (289, 19766), (295, 19787), (310, 19844), (311, 19856), (312, 19859), (319, 19889), (331, 19940), (344, 19991),

Gene: Ares\_24 Start: 19133, Stop: 19918, Start Num: 85

Candidate Starts for Ares\_24:

(Start: 85 @19133 has 29 MA's), (135, 19244), (150, 19280), (Start: 156 @19301 has 3 MA's), (158, 19304), (168, 19352), (181, 19388), (237, 19490), (243, 19517), (247, 19526), (251, 19544), (258, 19565), (284, 19658), (289, 19682), (295, 19703), (310, 19760), (311, 19772), (312, 19775), (319, 19805), (331, 19856), (344, 19907),

Gene: Argie\_17 Start: 16825, Stop: 17562, Start Num: 97

Candidate Starts for Argie\_17:

(Start: 97 @16825 has 8 MA's), (Start: 105 @16837 has 2 MA's), (159, 16960), (Start: 160 @16969 has 1 MA's), (174, 17026), (181, 17041), (189, 17056), (218, 17083), (228, 17104), (231, 17119), (237, 17137), (244, 17167), (247, 17173), (250, 17188), (284, 17302), (285, 17305), (292, 17338), (294, 17344), (295, 17347), (299, 17359), (311, 17416), (314, 17425), (316, 17440), (332, 17506), (337, 17521), (340, 17539), (345, 17554),

Gene: Ariadne\_39 Start: 19895, Stop: 20809, Start Num: 74

Candidate Starts for Ariadne\_39:

(44, 19730), (62, 19847), (Start: 74 @19895 has 8 MA's), (80, 19910), (113, 20000), (117, 20006), (163, 20126), (212, 20279), (215, 20285), (236, 20357), (252, 20417), (277, 20495), (282, 20516), (284, 20531), (287, 20549), (289, 20555), (304, 20606), (322, 20696), (327, 20711), (337, 20750), (345, 20777),

Gene: Arri\_26 Start: 16626, Stop: 17396, Start Num: 112

Candidate Starts for Arri\_26:

(Start: 112 @16626 has 29 MA's), (133, 16668), (163, 16749), (168, 16773), (202, 16854), (237, 16929), (239, 16935), (243, 16956), (247, 16965), (258, 17004), (264, 17025), (301, 17166), (303, 17175), (317, 17247), (335, 17316), (356, 17379),

Gene: Ashertheman\_27 Start: 20464, Stop: 21231, Start Num: 108

Candidate Starts for Ashertheman\_27:

(Start: 108 @20464 has 63 MA's), (133, 20512), (158, 20569), (Start: 160 @20581 has 1 MA's), (234, 20758), (251, 20818), (264, 20860), (284, 20938), (287, 20956), (298, 20992), (311, 21052), (328, 21118),

Gene: Ashraf\_21 Start: 16621, Stop: 17358, Start Num: 93

Candidate Starts for Ashraf\_21:

(Start: 93 @16621 has 307 MA's), (154, 16735), (155, 16741), (159, 16750), (Start: 160 @16759 has 1 MA's), (203, 16855), (237, 16927), (239, 16933), (241, 16945), (255, 16996), (282, 17077), (287, 17110), (289, 17116), (310, 17197), (311, 17209), (316, 17233), (323, 17260), (340, 17335), (345, 17350),

Gene: Asis\_17 Start: 17740, Stop: 18600, Start Num: 104

Candidate Starts for Asis\_17:

(64, 17608), (Start: 104 @17740 has 13 MA's), (154, 17848), (206, 17995), (210, 18004), (220, 18019), (247, 18118), (249, 18124), (251, 18136), (252, 18139), (277, 18244), (280, 18253), (284, 18280), (291, 18313), (293, 18319), (316, 18424), (320, 18439), (325, 18454), (331, 18487), (337, 18508), (343, 18535), (345, 18541),

Gene: Athena\_24 Start: 18502, Stop: 19242, Start Num: 101

Candidate Starts for Athena\_24:

(Start: 67 @18409 has 8 MA's), (76, 18427), (Start: 93 @18484 has 307 MA's), (Start: 101 @18502 has 25 MA's), (158, 18622), (Start: 160 @18634 has 1 MA's), (190, 18718), (247, 18847), (251, 18865), (271, 18925), (285, 18982), (299, 19036), (316, 19117), (319, 19129), (325, 19147), (341, 19222),

Gene: Atuin\_82 Start: 50510, Stop: 51199, Start Num: 160

Candidate Starts for Atuin\_82:

(Start: 145 @50459 has 6 MA's), (Start: 160 @50510 has 1 MA's), (235, 50693), (240, 50717), (256, 50777), (280, 50873), (281, 50876), (297, 50951), (299, 50957), (307, 50984), (310, 51005), (320, 51056),

Gene: Audrey\_23 Start: 17739, Stop: 18479, Start Num: 101

Candidate Starts for Audrey\_23:

(Start: 67 @17646 has 8 MA's), (76, 17664), (Start: 93 @17721 has 307 MA's), (Start: 101 @17739 has 25 MA's), (158, 17859), (Start: 160 @17871 has 1 MA's), (190, 17955), (247, 18084), (251, 18102), (271, 18162), (285, 18219), (299, 18273), (316, 18354), (319, 18366), (325, 18384), (341, 18459),

Gene: Austelle\_21 Start: 18329, Stop: 19072, Start Num: 93

Candidate Starts for Austelle\_21:

(Start: 93 @18329 has 307 MA's), (155, 18440), (158, 18446), (159, 18449), (168, 18494), (231, 18623), (237, 18641), (243, 18668), (251, 18695), (259, 18719), (262, 18731), (274, 18761), (284, 18806), (289, 18830), (295, 18851), (333, 19019), (337, 19031), (340, 19049), (345, 19064),

Gene: Axumite\_19 Start: 15569, Stop: 16345, Start Num: 84

Candidate Starts for Axumite\_19:

(Start: 84 @15569 has 3 MA's), (Start: 93 @15599 has 307 MA's), (Start: 101 @15617 has 25 MA's), (111, 15632), (184, 15818), (247, 15953), (250, 15968), (262, 16007), (311, 16196), (314, 16205), (316, 16220), (319, 16232), (332, 16289), (337, 16304), (345, 16337),

Gene: BabyDotz\_30 Start: 20815, Stop: 21663, Start Num: 99

Candidate Starts for BabyDotz\_30:

(Start: 99 @20815 has 36 MA's), (136, 20878), (148, 20908), (165, 20971), (186, 21028), (193, 21040), (223, 21121), (251, 21229), (284, 21352), (287, 21370), (339, 21589),

Gene: BabyGotBac\_17 Start: 17740, Stop: 18600, Start Num: 104

Candidate Starts for BabyGotBac\_17:

(64, 17608), (Start: 104 @17740 has 13 MA's), (154, 17848), (206, 17995), (210, 18004), (220, 18019), (247, 18118), (249, 18124), (251, 18136), (252, 18139), (277, 18244), (280, 18253), (284, 18280), (291, 18313), (293, 18319), (316, 18424), (320, 18439), (325, 18454), (331, 18487), (337, 18508), (343, 18535), (345, 18541),

Gene: Baddon\_26 Start: 21276, Stop: 22043, Start Num: 108

Candidate Starts for Baddon\_26:

(Start: 108 @21276 has 63 MA's), (133, 21324), (158, 21381), (Start: 160 @21393 has 1 MA's), (234, 21570), (251, 21630), (264, 21672), (284, 21750), (287, 21768), (298, 21804), (311, 21864), (328, 21930), (353, 22023),

Gene: Badfish\_22 Start: 17089, Stop: 17826, Start Num: 93

Candidate Starts for Badfish\_22:

(Start: 93 @17089 has 307 MA's), (154, 17203), (155, 17209), (159, 17218), (Start: 160 @17227 has 1 MA's), (203, 17323), (237, 17395), (239, 17401), (241, 17413), (255, 17464), (282, 17545), (287, 17578), (289, 17584), (310, 17665), (311, 17677), (316, 17701), (323, 17728), (332, 17770), (340, 17803), (345, 17818),

Gene: Bae\_21 Start: 17557, Stop: 18312, Start Num: 93

Candidate Starts for Bae\_21:

(Start: 93 @17557 has 307 MA's), (139, 17635), (158, 17683), (166, 17725), (236, 17878), (243, 17908), (254, 17944), (262, 17971), (268, 17983), (277, 18010), (289, 18070), (319, 18199), (323, 18214), (332, 18256), (345, 18304),

Gene: Bakery\_24 Start: 15814, Stop: 16584, Start Num: 112

Candidate Starts for Bakery\_24:

(Start: 112 @15814 has 29 MA's), (163, 15937), (168, 15961), (237, 16117), (239, 16123), (247, 16153), (335, 16504), (356, 16567),

Gene: Baloo\_23 Start: 17718, Stop: 18476, Start Num: 93

Candidate Starts for Baloo\_23:

(Start: 67 @17643 has 8 MA's), (76, 17661), (Start: 93 @17718 has 307 MA's), (Start: 101 @17736 has 25 MA's), (158, 17856), (Start: 160 @17868 has 1 MA's), (190, 17952), (247, 18081), (251, 18099), (271, 18159), (285, 18216), (299, 18270), (316, 18351), (319, 18363), (325, 18381), (341, 18456),

Gene: Bananafish\_24 Start: 19126, Stop: 19911, Start Num: 85

Candidate Starts for Bananafish\_24:

(Start: 85 @19126 has 29 MA's), (135, 19237), (150, 19273), (Start: 156 @19294 has 3 MA's), (158, 19297), (168, 19345), (181, 19381), (237, 19483), (243, 19510), (247, 19519), (251, 19537), (258, 19558), (284, 19651), (289, 19675), (295, 19696), (310, 19753), (311, 19765), (312, 19768), (319, 19798), (331, 19849), (344, 19900),

Gene: Banjo\_21 Start: 16766, Stop: 17503, Start Num: 93

Candidate Starts for Banjo\_21:

(Start: 93 @16766 has 307 MA's), (Start: 118 @16808 has 1 MA's), (154, 16880), (155, 16886), (159, 16895), (Start: 160 @16904 has 1 MA's), (203, 17000), (237, 17072), (239, 17078), (241, 17090), (255, 17141), (282, 17222), (287, 17255), (289, 17261), (310, 17342), (311, 17354), (316, 17378), (323, 17405), (340, 17480), (345, 17495),

Gene: Barb\_25 Start: 16659, Stop: 17429, Start Num: 112

Candidate Starts for Barb\_25:

(Start: 112 @16659 has 29 MA's), (133, 16701), (163, 16782), (202, 16887), (237, 16962), (239, 16968), (243, 16989), (247, 16998), (258, 17037), (301, 17199), (335, 17349), (337, 17355), (356, 17412),

Gene: Barsten\_27 Start: 20990, Stop: 21763, Start Num: 108

Candidate Starts for Barsten\_27:

(Start: 108 @20990 has 63 MA's), (133, 21038), (168, 21143), (190, 21194), (237, 21290), (250, 21341), (264, 21386), (284, 21464), (287, 21482), (299, 21521), (328, 21644), (356, 21746),

Gene: Basato\_23 Start: 17291, Stop: 18028, Start Num: 93

Candidate Starts for Basato\_23:

(Start: 93 @17291 has 307 MA's), (Start: 118 @17333 has 1 MA's), (154, 17405), (155, 17411), (159, 17420), (Start: 160 @17429 has 1 MA's), (203, 17525), (237, 17597), (239, 17603), (241, 17615), (255, 17666), (282, 17747), (287, 17780), (289, 17786), (310, 17867), (311, 17879), (316, 17903), (323, 17930), (332, 17972), (340, 18005), (345, 18020),

Gene: BatteryCK\_21 Start: 16623, Stop: 17360, Start Num: 93

Candidate Starts for BatteryCK\_21:

(Start: 93 @16623 has 307 MA's), (154, 16737), (155, 16743), (159, 16752), (Start: 160 @16761 has 1 MA's), (203, 16857), (237, 16929), (239, 16935), (241, 16947), (255, 16998), (282, 17079), (287, 17112), (289, 17118), (310, 17199), (311, 17211), (316, 17235), (323, 17262), (340, 17337), (345, 17352),

Gene: Baumdotcom\_26 Start: 20079, Stop: 20846, Start Num: 108

Candidate Starts for Baumdotcom\_26:

(Start: 108 @20079 has 63 MA's), (133, 20127), (158, 20184), (Start: 160 @20196 has 1 MA's), (234, 20373), (251, 20433), (264, 20475), (284, 20553), (287, 20571), (298, 20607), (311, 20667), (328, 20733),

Gene: BayC\_17 Start: 17740, Stop: 18600, Start Num: 104

Candidate Starts for BayC\_17:

(64, 17608), (Start: 104 @17740 has 13 MA's), (154, 17848), (206, 17995), (210, 18004), (220, 18019), (247, 18118), (249, 18124), (251, 18136), (252, 18139), (277, 18244), (280, 18253), (284, 18280), (291, 18313), (293, 18319), (316, 18424), (320, 18439), (325, 18454), (331, 18487), (337, 18508), (343, 18535), (345, 18541),

Gene: Beagle\_32 Start: 19188, Stop: 19814, Start Num: 152

Candidate Starts for Beagle\_32:

(Start: 152 @19188 has 8 MA's), (183, 19281), (238, 19377), (258, 19437), (276, 19485), (295, 19545), (298, 19554), (317, 19656), (329, 19698), (331, 19707), (352, 19779),

Gene: Beaglebox\_21 Start: 16786, Stop: 17523, Start Num: 93

Candidate Starts for Beaglebox\_21:

(Start: 93 @16786 has 307 MA's), (154, 16900), (155, 16906), (159, 16915), (Start: 160 @16924 has 1 MA's), (203, 17020), (237, 17092), (239, 17098), (241, 17110), (255, 17161), (282, 17242), (287, 17275), (289, 17281), (310, 17362), (311, 17374), (316, 17398), (323, 17425), (332, 17467), (340, 17500), (345, 17515),

Gene: Belphegor\_25 Start: 20523, Stop: 21317, Start Num: 108

Candidate Starts for Belphegor\_25:

(Start: 108 @20523 has 63 MA's), (147, 20595), (168, 20676), (198, 20736), (204, 20754), (205, 20757), (253, 20901), (264, 20940), (288, 21039), (311, 21132), (312, 21135), (328, 21198), (339, 21252), (345, 21270), (349, 21285), (355, 21297),

Gene: Ben11\_22 Start: 17468, Stop: 18301, Start Num: 67

Candidate Starts for Ben11\_22:

(Start: 67 @17468 has 8 MA's), (76, 17486), (Start: 93 @17543 has 307 MA's), (Start: 101 @17561 has 25 MA's), (158, 17681), (Start: 160 @17693 has 1 MA's), (190, 17777), (247, 17906), (251, 17924), (271, 17984), (285, 18041), (299, 18095), (316, 18176), (319, 18188), (325, 18206), (341, 18281),

Gene: Bernardo\_23 Start: 17736, Stop: 18476, Start Num: 101

Candidate Starts for Bernardo\_23:

(Start: 67 @17643 has 8 MA's), (76, 17661), (Start: 93 @17718 has 307 MA's), (Start: 101 @17736 has 25 MA's), (158, 17856), (Start: 160 @17868 has 1 MA's), (190, 17952), (247, 18081), (251, 18099), (271, 18159), (285, 18216), (299, 18270), (316, 18351), (319, 18363), (325, 18381), (341, 18456),

Gene: Bibwit\_26 Start: 21177, Stop: 21950, Start Num: 108

Candidate Starts for Bibwit\_26:

(Start: 108 @21177 has 63 MA's), (133, 21225), (158, 21282), (168, 21330), (237, 21477), (250, 21528), (264, 21573), (284, 21651), (287, 21669), (299, 21708), (311, 21765), (328, 21831), (356, 21933),

Gene: Big4\_80 Start: 47859, Stop: 48611, Start Num: 145

Candidate Starts for Big4\_80:

(Start: 145 @47859 has 6 MA's), (166, 47940), (216, 48030), (265, 48204), (294, 48348), (299, 48363), (318, 48459), (330, 48510), (332, 48519), (348, 48576),

Gene: BiggityBass\_19 Start: 17886, Stop: 18638, Start Num: 90

Candidate Starts for BiggityBass\_19:

(68, 17835), (Start: 90 @17886 has 1 MA's), (Start: 93 @17892 has 307 MA's), (144, 17991), (146, 17994), (184, 18111), (247, 18246), (250, 18261), (262, 18300), (314, 18498), (316, 18513), (319, 18525), (332, 18582), (340, 18615), (344, 18627), (345, 18630), (346, 18633),

Gene: BirdInFrench\_30 Start: 19479, Stop: 20336, Start Num: 95

Candidate Starts for BirdInFrench\_30:

(95, 19479), (Start: 99 @19494 has 36 MA's), (136, 19560), (148, 19590), (186, 19710), (223, 19803), (248, 19896), (277, 19998), (284, 20031), (291, 20064), (321, 20187), (333, 20235), (345, 20280),

Gene: BirdsNest\_25 Start: 17129, Stop: 17878, Start Num: 93

Candidate Starts for BirdsNest\_25:

(Start: 93 @17129 has 307 MA's), (159, 17258), (194, 17351), (247, 17480), (251, 17498), (258, 17519), (284, 17609), (289, 17633), (311, 17729), (323, 17780), (340, 17855), (345, 17870),

Gene: Bishoperium\_21 Start: 16772, Stop: 17509, Start Num: 93

Candidate Starts for Bishoperium\_21:

(Start: 93 @16772 has 307 MA's), (Start: 118 @16814 has 1 MA's), (154, 16886), (155, 16892), (159, 16901), (Start: 160 @16910 has 1 MA's), (203, 17006), (237, 17078), (239, 17084), (241, 17096), (255, 17147), (282, 17228), (287, 17261), (289, 17267), (310, 17348), (311, 17360), (316, 17384), (323, 17411), (340, 17486), (345, 17501),

Gene: Bizzy\_27 Start: 20423, Stop: 21190, Start Num: 108

Candidate Starts for Bizzy\_27:

(Start: 108 @20423 has 63 MA's), (133, 20471), (158, 20528), (Start: 160 @20540 has 1 MA's), (234, 20717), (251, 20777), (264, 20819), (284, 20897), (287, 20915), (298, 20951), (311, 21011), (328,



21077), (353, 21170),

Gene: Blab\_29 Start: 20472, Stop: 21320, Start Num: 99

Candidate Starts for Blab\_29:

(Start: 99 @20472 has 36 MA's), (132, 20526), (136, 20535), (148, 20565), (165, 20628), (186, 20685), (193, 20697), (223, 20778), (251, 20886), (284, 21009), (287, 21027), (333, 21219),

Gene: BlackStallion\_22 Start: 17077, Stop: 17814, Start Num: 93

Candidate Starts for BlackStallion\_22:

(Start: 93 @17077 has 307 MA's), (154, 17191), (155, 17197), (159, 17206), (Start: 160 @17215 has 1 MA's), (203, 17311), (237, 17383), (239, 17389), (241, 17401), (255, 17452), (282, 17533), (287, 17566), (289, 17572), (310, 17653), (311, 17665), (316, 17689), (323, 17716), (332, 17758), (340, 17791), (345, 17806),

Gene: Blocker23\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for Blocker23\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: Bloom\_88 Start: 51920, Stop: 52609, Start Num: 160

Candidate Starts for Bloom\_88:

(Start: 160 @51920 has 1 MA's), (238, 52118), (263, 52205), (266, 52217), (270, 52238), (273, 52256), (277, 52274), (282, 52295), (288, 52331), (302, 52379), (307, 52394), (319, 52463), (320, 52466),

Gene: BlueHusk\_22 Start: 16573, Stop: 17310, Start Num: 93

Candidate Starts for BlueHusk\_22:

(Start: 93 @16573 has 307 MA's), (Start: 118 @16615 has 1 MA's), (154, 16687), (155, 16693), (159, 16702), (Start: 160 @16711 has 1 MA's), (203, 16807), (237, 16879), (239, 16885), (241, 16897), (255, 16948), (282, 17029), (287, 17062), (289, 17068), (310, 17149), (311, 17161), (316, 17185), (323, 17212), (340, 17287), (345, 17302),

Gene: Bluephacebaby\_21 Start: 16772, Stop: 17509, Start Num: 93

Candidate Starts for Bluephacebaby\_21:

(Start: 93 @16772 has 307 MA's), (Start: 118 @16814 has 1 MA's), (154, 16886), (155, 16892), (159, 16901), (Start: 160 @16910 has 1 MA's), (203, 17006), (237, 17078), (239, 17084), (241, 17096), (255, 17147), (282, 17228), (287, 17261), (289, 17267), (310, 17348), (311, 17360), (316, 17384), (323, 17411), (340, 17486), (345, 17501),

Gene: BobBob\_24 Start: 20455, Stop: 21228, Start Num: 108

Candidate Starts for BobBob\_24:

(Start: 108 @20455 has 63 MA's), (133, 20503), (158, 20560), (168, 20608), (213, 20698), (237, 20755), (250, 20806), (264, 20851), (284, 20929), (287, 20947), (299, 20986), (311, 21043), (328, 21109), (356, 21211),

Gene: BobbyK\_20 Start: 17692, Stop: 18435, Start Num: 93

Candidate Starts for BobbyK\_20:

(Start: 93 @17692 has 307 MA's), (155, 17803), (158, 17809), (159, 17812), (168, 17857), (231, 17986), (237, 18004), (243, 18031), (251, 18058), (259, 18082), (262, 18094), (274, 18124), (284, 18169), (289, 18193), (333, 18382), (337, 18394), (340, 18412), (345, 18427),

Gene: Boehler\_22 Start: 17082, Stop: 17819, Start Num: 93

Candidate Starts for Boehler\_22:

(Start: 93 @17082 has 307 MA's), (Start: 118 @17124 has 1 MA's), (154, 17196), (155, 17202), (159, 17211), (Start: 160 @17220 has 1 MA's), (203, 17316), (237, 17388), (239, 17394), (241, 17406), (255, 17457), (282, 17538), (287, 17571), (289, 17577), (310, 17658), (311, 17670), (316, 17694), (323, 17721), (340, 17796), (345, 17811),

Gene: Boyle\_24 Start: 19251, Stop: 20036, Start Num: 85

Candidate Starts for Boyle\_24:

(Start: 85 @19251 has 29 MA's), (135, 19362), (150, 19398), (Start: 156 @19419 has 3 MA's), (158, 19422), (168, 19470), (181, 19506), (237, 19608), (243, 19635), (247, 19644), (251, 19662), (258, 19683), (284, 19776), (289, 19800), (295, 19821), (310, 19878), (311, 19890), (312, 19893), (319, 19923), (331, 19974), (344, 20025),

Gene: Brandonk123\_28 Start: 21524, Stop: 22297, Start Num: 108

Candidate Starts for Brandonk123\_28:

(Start: 108 @21524 has 63 MA's), (133, 21572), (168, 21677), (237, 21824), (250, 21875), (264, 21920), (284, 21998), (287, 22016), (299, 22055), (311, 22112), (328, 22178), (356, 22280),

Gene: BrazzalePHS\_30 Start: 18000, Stop: 18914, Start Num: 71

Candidate Starts for BrazzalePHS\_30:

(Start: 71 @18000 has 25 MA's), (113, 18102), (166, 18246), (203, 18354), (212, 18381), (215, 18387), (251, 18516), (277, 18600), (304, 18711), (317, 18783), (322, 18801), (337, 18855),

Gene: Briakila\_23 Start: 18486, Stop: 19244, Start Num: 93

Candidate Starts for Briakila\_23:

(Start: 67 @18411 has 8 MA's), (76, 18429), (Start: 93 @18486 has 307 MA's), (Start: 101 @18504 has 25 MA's), (158, 18624), (Start: 160 @18636 has 1 MA's), (190, 18720), (247, 18849), (251, 18867), (271, 18927), (285, 18984), (299, 19038), (316, 19119), (319, 19131), (325, 19149), (341, 19224),

Gene: Brilliant\_22 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for Brilliant\_22:

(Start: 93 @16777 has 307 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (340, 17491), (345, 17506),

Gene: BrownCNA\_21 Start: 17944, Stop: 18687, Start Num: 93

Candidate Starts for BrownCNA\_21:

(Start: 93 @17944 has 307 MA's), (155, 18055), (158, 18061), (168, 18109), (231, 18238), (243, 18283), (251, 18310), (259, 18334), (262, 18346), (274, 18376), (284, 18421), (289, 18445), (316, 18562), (323, 18589), (333, 18634), (337, 18646), (340, 18664), (345, 18679),

Gene: Brownie5\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for Brownie5\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: BruhMoment\_26 Start: 18674, Stop: 19393, Start Num: 152

Candidate Starts for BruhMoment\_26:

(128, 18626), (Start: 152 @18674 has 8 MA's), (155, 18686), (243, 18971), (247, 18980), (249, 18986), (251, 18998), (275, 19076), (298, 19148), (311, 19211), (314, 19220), (319, 19247), (322, 19259), (331, 19292), (351, 19361), (359, 19379), (361, 19382),

Gene: Buckeye\_22 Start: 17096, Stop: 17833, Start Num: 93

Candidate Starts for Buckeye\_22:

(Start: 93 @17096 has 307 MA's), (154, 17210), (155, 17216), (159, 17225), (Start: 160 @17234 has 1 MA's), (203, 17330), (237, 17402), (239, 17408), (241, 17420), (255, 17471), (282, 17552), (287, 17585), (289, 17591), (310, 17672), (311, 17684), (316, 17708), (323, 17735), (332, 17777), (340, 17810), (345, 17825),

Gene: Burr\_21 Start: 16771, Stop: 17508, Start Num: 93

Candidate Starts for Burr\_21:

(Start: 93 @16771 has 307 MA's), (154, 16885), (155, 16891), (159, 16900), (Start: 160 @16909 has 1 MA's), (203, 17005), (237, 17077), (239, 17083), (241, 17095), (255, 17146), (282, 17227), (287, 17260), (289, 17266), (310, 17347), (311, 17359), (316, 17383), (323, 17410), (332, 17452), (340, 17485), (345, 17500),

Gene: Busephilis\_30 Start: 17935, Stop: 18849, Start Num: 71

Candidate Starts for Busephilis\_30:

(Start: 71 @17935 has 25 MA's), (Start: 79 @17947 has 3 MA's), (113, 18037), (166, 18181), (203, 18289), (212, 18316), (215, 18322), (251, 18451), (277, 18535), (304, 18646), (317, 18718), (322, 18736), (337, 18790),

Gene: CRB2\_24 Start: 19413, Stop: 20183, Start Num: 93

Candidate Starts for CRB2\_24:

(Start: 93 @19413 has 307 MA's), (158, 19551), (159, 19554), (168, 19599), (194, 19656), (243, 19776), (247, 19785), (277, 19878), (284, 19914), (316, 20058), (323, 20085), (345, 20175),

Gene: CaiB\_21 Start: 16976, Stop: 17719, Start Num: 101

Candidate Starts for CaiB\_21:

(Start: 101 @16976 has 25 MA's), (116, 17000), (126, 17018), (154, 17096), (155, 17102), (165, 17141), (201, 17210), (203, 17216), (247, 17327), (286, 17465), (332, 17663), (337, 17678), (340, 17696),

Gene: Calamitous\_24 Start: 19130, Stop: 19915, Start Num: 85

Candidate Starts for Calamitous\_24:

(Start: 85 @19130 has 29 MA's), (135, 19241), (150, 19277), (Start: 156 @19298 has 3 MA's), (158, 19301), (168, 19349), (181, 19385), (237, 19487), (243, 19514), (247, 19523), (251, 19541), (258, 19562), (284, 19655), (289, 19679), (295, 19700), (310, 19757), (311, 19769), (312, 19772), (319, 19802), (331, 19853), (344, 19904),

Gene: CamL\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for CamL\_22:

(Start: 93 @17070 has 307 MA's), (Start: 118 @17112 has 1 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: CampRoach\_21 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for CampRoach\_21:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287,

17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (332, 17744), (340, 17777), (345, 17792),

Gene: CandC\_29 Start: 19185, Stop: 20030, Start Num: 99

Candidate Starts for CandC\_29:

(Start: 99 @19185 has 36 MA's), (136, 19251), (148, 19281), (186, 19401), (223, 19494), (248, 19587), (277, 19689), (278, 19692), (291, 19755), (333, 19926), (345, 19971),

Gene: Cannibal\_22 Start: 17056, Stop: 17793, Start Num: 93

Candidate Starts for Cannibal\_22:

(Start: 93 @17056 has 307 MA's), (154, 17170), (155, 17176), (159, 17185), (Start: 160 @17194 has 1 MA's), (203, 17290), (237, 17362), (239, 17368), (241, 17380), (255, 17431), (282, 17512), (287, 17545), (289, 17551), (310, 17632), (311, 17644), (316, 17668), (323, 17695), (332, 17737), (340, 17770), (345, 17785),

Gene: Carthage\_20 Start: 15982, Stop: 16719, Start Num: 93

Candidate Starts for Carthage\_20:

(Start: 93 @15982 has 307 MA's), (154, 16096), (155, 16102), (159, 16111), (Start: 160 @16120 has 1 MA's), (203, 16216), (237, 16288), (239, 16294), (241, 16306), (255, 16357), (282, 16438), (287, 16471), (289, 16477), (311, 16570), (316, 16594), (323, 16621), (340, 16696), (345, 16711),

Gene: Casbah\_22 Start: 17573, Stop: 18331, Start Num: 93

Candidate Starts for Casbah\_22:

(Start: 67 @17498 has 8 MA's), (76, 17516), (Start: 93 @17573 has 307 MA's), (Start: 101 @17591 has 25 MA's), (158, 17711), (Start: 160 @17723 has 1 MA's), (190, 17807), (247, 17936), (251, 17954), (271, 18014), (285, 18071), (299, 18125), (316, 18206), (319, 18218), (325, 18236), (341, 18311),

Gene: Casend\_32 Start: 21224, Stop: 22072, Start Num: 99

Candidate Starts for Casend\_32:

(Start: 99 @21224 has 36 MA's), (136, 21287), (148, 21317), (165, 21380), (186, 21437), (193, 21449), (223, 21530), (251, 21638), (284, 21761), (287, 21779), (333, 21971),

Gene: Cece\_74 Start: 43934, Stop: 44686, Start Num: 145

Candidate Starts for Cece\_74:

(Start: 145 @43934 has 6 MA's), (227, 44132), (239, 44186), (247, 44216), (294, 44423), (299, 44438), (301, 44444), (311, 44501), (314, 44510), (316, 44525), (331, 44588), (332, 44594), (341, 44630), (348, 44651),

Gene: Cepens\_16 Start: 16549, Stop: 17286, Start Num: 97

Candidate Starts for Cepens\_16:

(Start: 97 @16549 has 8 MA's), (Start: 105 @16561 has 2 MA's), (159, 16684), (Start: 160 @16693 has 1 MA's), (174, 16750), (181, 16765), (189, 16780), (228, 16828), (231, 16843), (236, 16858), (237, 16861), (244, 16891), (247, 16897), (250, 16912), (272, 16972), (284, 17026), (285, 17029), (292, 17062), (294, 17068), (295, 17071), (299, 17083), (311, 17140), (314, 17149), (316, 17164), (332, 17230), (337, 17245), (340, 17263), (345, 17278),

Gene: ChaChing\_23 Start: 17736, Stop: 18494, Start Num: 93

Candidate Starts for ChaChing\_23:

(Start: 67 @17661 has 8 MA's), (76, 17679), (Start: 93 @17736 has 307 MA's), (Start: 101 @17754 has 25 MA's), (158, 17874), (Start: 160 @17886 has 1 MA's), (190, 17970), (247, 18099), (251, 18117), (271, 18177), (285, 18234), (299, 18288), (316, 18369), (319, 18381), (325, 18399), (341, 18474),

Gene: ChadMasterC\_27 Start: 22182, Stop: 22955, Start Num: 108

Candidate Starts for ChadMasterC\_27:

(Start: 108 @22182 has 63 MA's), (133, 22230), (158, 22287), (168, 22335), (237, 22482), (250, 22533), (264, 22578), (284, 22656), (287, 22674), (299, 22713), (328, 22836), (356, 22938),

Gene: Chaelin\_21 Start: 16739, Stop: 17476, Start Num: 93

Candidate Starts for Chaelin\_21:

(Start: 93 @16739 has 307 MA's), (154, 16853), (155, 16859), (159, 16868), (Start: 160 @16877 has 1 MA's), (203, 16973), (237, 17045), (239, 17051), (241, 17063), (255, 17114), (282, 17195), (287, 17228), (289, 17234), (310, 17315), (311, 17327), (316, 17351), (323, 17378), (332, 17420), (340, 17453), (345, 17468),

Gene: Chah\_23 Start: 17090, Stop: 17827, Start Num: 93

Candidate Starts for Chah\_23:

(Start: 93 @17090 has 307 MA's), (Start: 118 @17132 has 1 MA's), (154, 17204), (155, 17210), (159, 17219), (Start: 160 @17228 has 1 MA's), (203, 17324), (237, 17396), (239, 17402), (241, 17414), (255, 17465), (282, 17546), (287, 17579), (289, 17585), (310, 17666), (311, 17678), (316, 17702), (323, 17729), (340, 17804), (345, 17819),

Gene: Chandler\_23 Start: 18513, Stop: 19253, Start Num: 101

Candidate Starts for Chandler\_23:

(Start: 67 @18420 has 8 MA's), (76, 18438), (Start: 93 @18495 has 307 MA's), (Start: 101 @18513 has 25 MA's), (158, 18633), (Start: 160 @18645 has 1 MA's), (190, 18729), (247, 18858), (251, 18876), (271, 18936), (285, 18993), (299, 19047), (316, 19128), (319, 19140), (325, 19158), (341, 19233),

Gene: Charles1\_22 Start: 17054, Stop: 17791, Start Num: 93

Candidate Starts for Charles1\_22:

(Start: 93 @17054 has 307 MA's), (154, 17168), (155, 17174), (159, 17183), (Start: 160 @17192 has 1 MA's), (203, 17288), (237, 17360), (239, 17366), (241, 17378), (255, 17429), (282, 17510), (287, 17543), (289, 17549), (310, 17630), (311, 17642), (316, 17666), (323, 17693), (332, 17735), (340, 17768), (345, 17783),

Gene: CharlieGBrown\_21 Start: 16641, Stop: 17378, Start Num: 93

Candidate Starts for CharlieGBrown\_21:

(Start: 93 @16641 has 307 MA's), (154, 16755), (155, 16761), (159, 16770), (Start: 160 @16779 has 1 MA's), (203, 16875), (237, 16947), (239, 16953), (241, 16965), (255, 17016), (282, 17097), (287, 17130), (289, 17136), (310, 17217), (311, 17229), (316, 17253), (323, 17280), (340, 17355), (345, 17370),

Gene: CharlottesWeb\_19 Start: 15493, Stop: 16239, Start Num: 93

Candidate Starts for CharlottesWeb\_19:

(10, 14905), (Start: 93 @15493 has 307 MA's), (Start: 101 @15511 has 25 MA's), (111, 15526), (Start: 152 @15613 has 8 MA's), (203, 15736), (241, 15829), (247, 15847), (250, 15862), (311, 16090), (314, 16099), (316, 16114), (319, 16126), (332, 16183), (340, 16216), (344, 16228),

Gene: Charming\_27 Start: 21039, Stop: 21806, Start Num: 108

Candidate Starts for Charming\_27:

(Start: 108 @21039 has 63 MA's), (133, 21087), (158, 21144), (168, 21192), (237, 21339), (251, 21393), (264, 21429), (284, 21507), (287, 21525), (299, 21564), (311, 21621), (328, 21687), (356, 21789),

Gene: CheetO\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for CheetO\_22:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: Cher\_21 Start: 16795, Stop: 17532, Start Num: 93

Candidate Starts for Cher\_21:

(Start: 93 @16795 has 307 MA's), (Start: 118 @16837 has 1 MA's), (154, 16909), (155, 16915), (159, 16924), (Start: 160 @16933 has 1 MA's), (203, 17029), (237, 17101), (239, 17107), (241, 17119), (255, 17170), (282, 17251), (287, 17284), (289, 17290), (310, 17371), (311, 17383), (316, 17407), (323, 17434), (340, 17509), (345, 17524),

Gene: Chickadee\_24 Start: 17962, Stop: 18759, Start Num: 108

Candidate Starts for Chickadee\_24:

(Start: 108 @17962 has 63 MA's), (163, 18091), (168, 18115), (204, 18205), (205, 18208), (243, 18322), (283, 18466), (298, 18523), (301, 18532), (303, 18541), (328, 18649), (345, 18721), (346, 18724), (354, 18739),

Gene: Childish\_21 Start: 16783, Stop: 17520, Start Num: 93

Candidate Starts for Childish\_21:

(Start: 93 @16783 has 307 MA's), (Start: 118 @16825 has 1 MA's), (154, 16897), (155, 16903), (159, 16912), (Start: 160 @16921 has 1 MA's), (203, 17017), (237, 17089), (239, 17095), (241, 17107), (255, 17158), (282, 17239), (287, 17272), (289, 17278), (310, 17359), (311, 17371), (316, 17395), (323, 17422), (340, 17497), (345, 17512),

Gene: Chorkpop\_22 Start: 16794, Stop: 17531, Start Num: 93

Candidate Starts for Chorkpop\_22:

(Start: 93 @16794 has 307 MA's), (Start: 118 @16836 has 1 MA's), (154, 16908), (155, 16914), (159, 16923), (Start: 160 @16932 has 1 MA's), (203, 17028), (237, 17100), (239, 17106), (241, 17118), (255, 17169), (282, 17250), (287, 17283), (289, 17289), (310, 17370), (311, 17382), (316, 17406), (323, 17433), (340, 17508), (345, 17523),

Gene: ChrisnMich\_19 Start: 16601, Stop: 17392, Start Num: 73

Candidate Starts for ChrisnMich\_19:

(Start: 73 @16601 has 1 MA's), (Start: 93 @16649 has 307 MA's), (155, 16760), (158, 16766), (159, 16769), (168, 16814), (231, 16943), (243, 16988), (251, 17015), (259, 17039), (262, 17051), (274, 17081), (284, 17126), (289, 17150), (323, 17294), (333, 17339), (337, 17351), (340, 17369), (345, 17384),

Gene: Chunky\_22 Start: 17082, Stop: 17819, Start Num: 93

Candidate Starts for Chunky\_22:

(Start: 93 @17082 has 307 MA's), (Start: 118 @17124 has 1 MA's), (154, 17196), (155, 17202), (159, 17211), (Start: 160 @17220 has 1 MA's), (203, 17316), (237, 17388), (239, 17394), (241, 17406), (255, 17457), (282, 17538), (287, 17571), (289, 17577), (310, 17658), (311, 17670), (316, 17694), (323, 17721), (340, 17796), (345, 17811),

Gene: Chute\_21 Start: 17087, Stop: 17824, Start Num: 93

Candidate Starts for Chute\_21:

(Start: 93 @17087 has 307 MA's), (154, 17201), (155, 17207), (159, 17216), (Start: 160 @17225 has 1 MA's), (203, 17321), (237, 17393), (239, 17399), (241, 17411), (255, 17462), (282, 17543), (287, 17576), (289, 17582), (310, 17663), (311, 17675), (316, 17699), (323, 17726), (340, 17801), (345,

17816),

Gene: Cinna\_26 Start: 17367, Stop: 18272, Start Num: 81

Candidate Starts for Cinna\_26:

(62, 17319), (Start: 81 @17367 has 7 MA's), (86, 17394), (Start: 87 @17397 has 2 MA's), (163, 17580), (221, 17754), (241, 17832), (247, 17850), (249, 17856), (251, 17868), (252, 17871), (258, 17892), (264, 17913), (289, 18012), (293, 18027), (334, 18198), (345, 18237),

Gene: ClamChowder\_25 Start: 16659, Stop: 17429, Start Num: 112

Candidate Starts for ClamChowder\_25:

(Start: 112 @16659 has 29 MA's), (133, 16701), (163, 16782), (202, 16887), (237, 16962), (239, 16968), (243, 16989), (247, 16998), (258, 17037), (301, 17199), (335, 17349), (337, 17355), (356, 17412),

Gene: Clawz\_50 Start: 27796, Stop: 28542, Start Num: 105

Candidate Starts for Clawz\_50:

(Start: 105 @27796 has 2 MA's), (158, 27904), (Start: 160 @27916 has 1 MA's), (166, 27946), (203, 28012), (247, 28123), (294, 28297), (305, 28333), (332, 28462), (345, 28510),

Gene: ClearAsMud\_33 Start: 18714, Stop: 19628, Start Num: 71

Candidate Starts for ClearAsMud\_33:

(Start: 71 @18714 has 25 MA's), (113, 18816), (166, 18960), (203, 19068), (212, 19095), (215, 19101), (277, 19314), (304, 19425), (314, 19476), (322, 19515), (337, 19569),

Gene: CloverMinnie\_21 Start: 16916, Stop: 17659, Start Num: 101

Candidate Starts for CloverMinnie\_21:

(Start: 101 @16916 has 25 MA's), (116, 16940), (126, 16958), (154, 17036), (155, 17042), (165, 17081), (201, 17150), (203, 17156), (247, 17267), (286, 17405), (299, 17453), (332, 17603), (337, 17618), (340, 17636),

Gene: Clown\_27 Start: 18589, Stop: 19353, Start Num: 112

Candidate Starts for Clown\_27:

(Start: 112 @18589 has 29 MA's), (114, 18592), (123, 18607), (154, 18676), (163, 18712), (204, 18823), (234, 18886), (237, 18892), (239, 18898), (243, 18919), (250, 18943), (253, 18949), (259, 18970), (298, 19120), (306, 19147), (316, 19204), (317, 19210), (319, 19216), (335, 19279), (337, 19285), (356, 19342),

Gene: Cobra\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for Cobra\_22:

(Start: 93 @17075 has 307 MA's), (Start: 118 @17117 has 1 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (340, 17789), (345, 17804),

Gene: Coffee\_24 Start: 19243, Stop: 20028, Start Num: 85

Candidate Starts for Coffee\_24:

(Start: 85 @19243 has 29 MA's), (135, 19354), (150, 19390), (Start: 156 @19411 has 3 MA's), (158, 19414), (168, 19462), (181, 19498), (237, 19600), (243, 19627), (247, 19636), (251, 19654), (258, 19675), (284, 19768), (289, 19792), (295, 19813), (310, 19870), (311, 19882), (312, 19885), (319, 19915), (331, 19966), (344, 20017),

Gene: Colbert\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Colbert\_22:

(Start: 93 @17072 has 307 MA's), (Start: 118 @17114 has 1 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340, 17786), (345, 17801),

Gene: Coletti\_21 Start: 17087, Stop: 17824, Start Num: 93

Candidate Starts for Coletti\_21:

(Start: 93 @17087 has 307 MA's), (154, 17201), (155, 17207), (159, 17216), (Start: 160 @17225 has 1 MA's), (203, 17321), (237, 17393), (239, 17399), (241, 17411), (255, 17462), (282, 17543), (287, 17576), (289, 17582), (310, 17663), (311, 17675), (316, 17699), (323, 17726), (340, 17801), (345, 17816),

Gene: Compostia\_24 Start: 18079, Stop: 18912, Start Num: 67

Candidate Starts for Compostia\_24:

(Start: 67 @18079 has 8 MA's), (76, 18097), (Start: 93 @18154 has 307 MA's), (Start: 101 @18172 has 25 MA's), (158, 18292), (Start: 160 @18304 has 1 MA's), (190, 18388), (247, 18517), (251, 18535), (271, 18595), (285, 18652), (299, 18706), (316, 18787), (319, 18799), (325, 18817), (341, 18892),

Gene: Cooper\_20 Start: 16766, Stop: 17506, Start Num: 93

Candidate Starts for Cooper\_20:

(58, 16646), (66, 16691), (Start: 93 @16766 has 307 MA's), (158, 16883), (159, 16886), (166, 16925), (177, 16958), (237, 17075), (241, 17093), (243, 17102), (251, 17129), (262, 17165), (284, 17240), (289, 17264), (311, 17357), (316, 17381), (333, 17453), (337, 17465), (340, 17483), (345, 17498),

Gene: Cornobble\_21 Start: 16630, Stop: 17367, Start Num: 93

Candidate Starts for Cornobble\_21:

(Start: 93 @16630 has 307 MA's), (154, 16744), (155, 16750), (159, 16759), (Start: 160 @16768 has 1 MA's), (203, 16864), (237, 16936), (239, 16942), (241, 16954), (255, 17005), (282, 17086), (287, 17119), (289, 17125), (310, 17206), (311, 17218), (316, 17242), (323, 17269), (332, 17311), (340, 17344), (345, 17359),

Gene: Corofin\_23 Start: 17764, Stop: 18504, Start Num: 101

Candidate Starts for Corofin\_23:

(Start: 67 @17671 has 8 MA's), (76, 17689), (Start: 93 @17746 has 307 MA's), (Start: 101 @17764 has 25 MA's), (158, 17884), (Start: 160 @17896 has 1 MA's), (190, 17980), (247, 18109), (251, 18127), (271, 18187), (285, 18244), (299, 18298), (316, 18379), (319, 18391), (325, 18409), (341, 18484),

Gene: Cosmolli16\_21 Start: 16789, Stop: 17526, Start Num: 93

Candidate Starts for Cosmolli16\_21:

(Start: 93 @16789 has 307 MA's), (154, 16903), (155, 16909), (159, 16918), (Start: 160 @16927 has 1 MA's), (203, 17023), (237, 17095), (239, 17101), (241, 17113), (255, 17164), (282, 17245), (287, 17278), (289, 17284), (310, 17365), (311, 17377), (316, 17401), (323, 17428), (332, 17470), (340, 17503), (345, 17518),

Gene: Craff\_22 Start: 17076, Stop: 17813, Start Num: 93

Candidate Starts for Craff\_22:

(Start: 93 @17076 has 307 MA's), (154, 17190), (155, 17196), (159, 17205), (Start: 160 @17214 has 1 MA's), (203, 17310), (237, 17382), (239, 17388), (241, 17400), (255, 17451), (282, 17532), (287, 17565), (289, 17571), (310, 17652), (311, 17664), (316, 17688), (323, 17715), (332, 17757), (340, 17790), (345, 17805),



Gene: Cranjjs\_32 Start: 18160, Stop: 19074, Start Num: 71

Candidate Starts for Cranjjs\_32:

(Start: 71 @18160 has 25 MA's), (113, 18262), (166, 18406), (203, 18514), (212, 18541), (215, 18547), (251, 18676), (277, 18760), (304, 18871), (317, 18943), (322, 18961), (337, 19015),

Gene: CrazyRich\_30 Start: 17969, Stop: 18883, Start Num: 71

Candidate Starts for CrazyRich\_30:

(Start: 71 @17969 has 25 MA's), (Start: 79 @17981 has 3 MA's), (113, 18071), (166, 18215), (203, 18323), (212, 18350), (215, 18356), (251, 18485), (277, 18569), (304, 18680), (317, 18752), (322, 18770), (337, 18824),

Gene: Cressida\_28 Start: 17425, Stop: 18330, Start Num: 81

Candidate Starts for Cressida\_28:

(Start: 81 @17425 has 7 MA's), (86, 17452), (Start: 87 @17455 has 2 MA's), (127, 17536), (132, 17545), (165, 17647), (205, 17767), (242, 17893), (247, 17908), (251, 17926), (252, 17929), (258, 17950), (264, 17971), (277, 18010), (289, 18070), (290, 18076), (293, 18085), (304, 18121), (316, 18187), (334, 18256), (345, 18295), (348, 18304), (349, 18310),

Gene: Crisis\_32 Start: 17954, Stop: 18868, Start Num: 71

Candidate Starts for Crisis\_32:

(Start: 71 @17954 has 25 MA's), (113, 18056), (166, 18200), (203, 18308), (212, 18335), (215, 18341), (251, 18470), (277, 18554), (304, 18665), (322, 18755), (337, 18809),

Gene: Crownjwl\_22 Start: 16843, Stop: 17580, Start Num: 93

Candidate Starts for Crownjwl\_22:

(Start: 93 @16843 has 307 MA's), (Start: 118 @16885 has 1 MA's), (154, 16957), (155, 16963), (159, 16972), (Start: 160 @16981 has 1 MA's), (203, 17077), (237, 17149), (239, 17155), (241, 17167), (255, 17218), (282, 17299), (287, 17332), (289, 17338), (310, 17419), (311, 17431), (316, 17455), (323, 17482), (340, 17557), (345, 17572),

Gene: D12\_16 Start: 16542, Stop: 17279, Start Num: 97

Candidate Starts for D12\_16:

(Start: 97 @16542 has 8 MA's), (Start: 105 @16554 has 2 MA's), (159, 16677), (174, 16743), (181, 16758), (189, 16773), (218, 16800), (228, 16821), (231, 16836), (236, 16851), (237, 16854), (244, 16884), (247, 16890), (250, 16905), (263, 16947), (272, 16965), (284, 17019), (285, 17022), (292, 17055), (294, 17061), (295, 17064), (299, 17076), (311, 17133), (314, 17142), (316, 17157), (332, 17223), (337, 17238), (340, 17256), (345, 17271),

Gene: DaddyDaniels\_22 Start: 16768, Stop: 17505, Start Num: 93

Candidate Starts for DaddyDaniels\_22:

(Start: 93 @16768 has 307 MA's), (154, 16882), (155, 16888), (159, 16897), (Start: 160 @16906 has 1 MA's), (203, 17002), (237, 17074), (239, 17080), (241, 17092), (255, 17143), (282, 17224), (287, 17257), (289, 17263), (310, 17344), (311, 17356), (316, 17380), (323, 17407), (340, 17482), (345, 17497),

Gene: Daffy\_22 Start: 16795, Stop: 17532, Start Num: 93

Candidate Starts for Daffy\_22:

(Start: 93 @16795 has 307 MA's), (Start: 118 @16837 has 1 MA's), (154, 16909), (155, 16915), (159, 16924), (Start: 160 @16933 has 1 MA's), (203, 17029), (237, 17101), (239, 17107), (241, 17119), (255, 17170), (282, 17251), (287, 17284), (289, 17290), (310, 17371), (311, 17383), (316, 17407), (323, 17434), (340, 17509), (345, 17524),

Gene: Daisy\_23 Start: 17760, Stop: 18500, Start Num: 101

Candidate Starts for Daisy\_23:

(Start: 67 @17667 has 8 MA's), (76, 17685), (Start: 93 @17742 has 307 MA's), (Start: 101 @17760 has 25 MA's), (158, 17880), (Start: 160 @17892 has 1 MA's), (190, 17976), (247, 18105), (251, 18123), (271, 18183), (285, 18240), (299, 18294), (316, 18375), (319, 18387), (325, 18405), (341, 18480),

Gene: Daka\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Daka\_22:

(Start: 93 @17072 has 307 MA's), (Start: 118 @17114 has 1 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (340, 17786), (345, 17801),

Gene: Danyall\_25 Start: 16459, Stop: 17229, Start Num: 112

Candidate Starts for Danyall\_25:

(Start: 112 @16459 has 29 MA's), (133, 16501), (163, 16582), (168, 16606), (202, 16687), (237, 16762), (239, 16768), (243, 16789), (247, 16798), (258, 16837), (301, 16999), (335, 17149), (337, 17155), (356, 17212),

Gene: Dati\_22 Start: 16785, Stop: 17522, Start Num: 93

Candidate Starts for Dati\_22:

(Start: 93 @16785 has 307 MA's), (154, 16899), (155, 16905), (159, 16914), (Start: 160 @16923 has 1 MA's), (203, 17019), (237, 17091), (239, 17097), (241, 17109), (255, 17160), (282, 17241), (287, 17274), (289, 17280), (310, 17361), (311, 17373), (316, 17397), (323, 17424), (340, 17499), (345, 17514),

Gene: Deenasa\_23 Start: 18484, Stop: 19242, Start Num: 93

Candidate Starts for Deenasa\_23:

(Start: 67 @18409 has 8 MA's), (76, 18427), (Start: 93 @18484 has 307 MA's), (Start: 101 @18502 has 25 MA's), (158, 18622), (Start: 160 @18634 has 1 MA's), (190, 18718), (247, 18847), (251, 18865), (271, 18925), (285, 18982), (299, 19036), (316, 19117), (319, 19129), (325, 19147), (341, 19222),

Gene: DelRivs\_21 Start: 16784, Stop: 17521, Start Num: 93

Candidate Starts for DelRivs\_21:

(Start: 93 @16784 has 307 MA's), (154, 16898), (155, 16904), (159, 16913), (Start: 160 @16922 has 1 MA's), (203, 17018), (237, 17090), (239, 17096), (241, 17108), (255, 17159), (282, 17240), (287, 17273), (289, 17279), (310, 17360), (311, 17372), (316, 17396), (323, 17423), (332, 17465), (340, 17498), (345, 17513),

Gene: Delrey21\_26 Start: 21299, Stop: 22135, Start Num: 89

Candidate Starts for Delrey21\_26:

(Start: 89 @21299 has 2 MA's), (Start: 108 @21344 has 63 MA's), (149, 21422), (163, 21473), (190, 21548), (197, 21569), (248, 21707), (264, 21764), (274, 21794), (299, 21899), (311, 21956), (317, 21986), (328, 22022), (335, 22055), (345, 22094),

Gene: Derg\_24 Start: 20019, Stop: 20786, Start Num: 108

Candidate Starts for Derg\_24:

(Start: 108 @20019 has 63 MA's), (133, 20067), (158, 20124), (Start: 160 @20136 has 1 MA's), (234, 20313), (251, 20373), (264, 20415), (284, 20493), (287, 20511), (298, 20547), (311, 20607), (328, 20673), (353, 20766),

Gene: Derpp\_21 Start: 16631, Stop: 17368, Start Num: 93

Candidate Starts for Derpp\_21:

(Start: 93 @16631 has 307 MA's), (Start: 118 @16673 has 1 MA's), (154, 16745), (155, 16751), (159, 16760), (Start: 160 @16769 has 1 MA's), (203, 16865), (237, 16937), (239, 16943), (241, 16955), (255, 17006), (282, 17087), (287, 17120), (289, 17126), (310, 17207), (311, 17219), (316, 17243), (323, 17270), (340, 17345), (345, 17360),

Gene: Devonte\_23 Start: 17721, Stop: 18479, Start Num: 93

Candidate Starts for Devonte\_23:

(Start: 67 @17646 has 8 MA's), (76, 17664), (Start: 93 @17721 has 307 MA's), (Start: 101 @17739 has 25 MA's), (158, 17859), (Start: 160 @17871 has 1 MA's), (190, 17955), (247, 18084), (251, 18102), (271, 18162), (285, 18219), (299, 18273), (316, 18354), (319, 18366), (325, 18384), (341, 18459),

Gene: Dewdrop\_68 Start: 37486, Stop: 38313, Start Num: 104

Candidate Starts for Dewdrop\_68:

(1, 36382), (2, 36514), (4, 36622), (5, 36784), (6, 36832), (14, 36922), (15, 36931), (22, 37045), (26, 37075), (49, 37276), (Start: 104 @37486 has 13 MA's), (138, 37546), (154, 37588), (166, 37642), (168, 37648), (208, 37753), (212, 37759), (215, 37765), (224, 37786), (247, 37876), (251, 37894), (264, 37939), (272, 37957), (284, 38014), (287, 38032), (289, 38038), (311, 38131), (315, 38143), (320, 38170), (334, 38230), (337, 38239), (345, 38266), (349, 38281), (358, 38293),

Gene: Dextert\_25 Start: 18402, Stop: 19199, Start Num: 108

Candidate Starts for Dextert\_25:

(Start: 108 @18402 has 63 MA's), (141, 18462), (163, 18531), (168, 18555), (205, 18648), (264, 18831), (283, 18906), (301, 18972), (303, 18981), (328, 19089), (345, 19161), (346, 19164), (354, 19179),

Gene: Dice\_23 Start: 16772, Stop: 17509, Start Num: 93

Candidate Starts for Dice\_23:

(Start: 93 @16772 has 307 MA's), (154, 16886), (155, 16892), (159, 16901), (Start: 160 @16910 has 1 MA's), (203, 17006), (237, 17078), (239, 17084), (241, 17096), (255, 17147), (282, 17228), (287, 17261), (289, 17267), (310, 17348), (311, 17360), (316, 17384), (323, 17411), (332, 17453), (340, 17486), (345, 17501),

Gene: DigitDog\_22 Start: 17386, Stop: 18144, Start Num: 93

Candidate Starts for DigitDog\_22:

(Start: 93 @17386 has 307 MA's), (158, 17512), (166, 17554), (219, 17659), (236, 17710), (251, 17767), (262, 17803), (274, 17833), (277, 17842), (289, 17902), (323, 18046), (332, 18088), (345, 18136),

Gene: Dingo\_22 Start: 17056, Stop: 17793, Start Num: 93

Candidate Starts for Dingo\_22:

(Start: 93 @17056 has 307 MA's), (154, 17170), (155, 17176), (159, 17185), (Start: 160 @17194 has 1 MA's), (203, 17290), (237, 17362), (239, 17368), (241, 17380), (255, 17431), (282, 17512), (287, 17545), (289, 17551), (310, 17632), (311, 17644), (316, 17668), (323, 17695), (340, 17770), (345, 17785),

Gene: Dione\_21 Start: 16773, Stop: 17510, Start Num: 93

Candidate Starts for Dione\_21:

(Start: 93 @16773 has 307 MA's), (154, 16887), (155, 16893), (159, 16902), (Start: 160 @16911 has 1 MA's), (203, 17007), (237, 17079), (239, 17085), (241, 17097), (255, 17148), (282, 17229), (287, 17262), (289, 17268), (310, 17349), (311, 17361), (316, 17385), (323, 17412), (340, 17487), (345, 17502),

Gene: DirtJuice\_22 Start: 17058, Stop: 17795, Start Num: 93

Candidate Starts for DirtJuice\_22:

(Start: 93 @17058 has 307 MA's), (Start: 118 @17100 has 1 MA's), (154, 17172), (155, 17178), (159, 17187), (Start: 160 @17196 has 1 MA's), (203, 17292), (237, 17364), (239, 17370), (241, 17382), (255, 17433), (282, 17514), (287, 17547), (289, 17553), (310, 17634), (311, 17646), (316, 17670), (323, 17697), (340, 17772), (345, 17787),

Gene: DoctorFroggo\_26 Start: 21344, Stop: 22135, Start Num: 108

Candidate Starts for DoctorFroggo\_26:

(Start: 89 @21299 has 2 MA's), (Start: 108 @21344 has 63 MA's), (149, 21422), (163, 21473), (190, 21548), (197, 21569), (248, 21707), (264, 21764), (274, 21794), (299, 21899), (311, 21956), (317, 21986), (328, 22022), (335, 22055), (345, 22094),

Gene: Doddsville\_22 Start: 16785, Stop: 17522, Start Num: 93

Candidate Starts for Doddsville\_22:

(Start: 93 @16785 has 307 MA's), (154, 16899), (155, 16905), (159, 16914), (Start: 160 @16923 has 1 MA's), (203, 17019), (237, 17091), (239, 17097), (241, 17109), (255, 17160), (282, 17241), (287, 17274), (289, 17280), (310, 17361), (311, 17373), (316, 17397), (323, 17424), (340, 17499), (345, 17514),

Gene: DoesntMatter\_22 Start: 17054, Stop: 17791, Start Num: 93

Candidate Starts for DoesntMatter\_22:

(Start: 93 @17054 has 307 MA's), (154, 17168), (155, 17174), (159, 17183), (Start: 160 @17192 has 1 MA's), (203, 17288), (237, 17360), (239, 17366), (241, 17378), (255, 17429), (282, 17510), (287, 17543), (289, 17549), (310, 17630), (311, 17642), (316, 17666), (323, 17693), (332, 17735), (340, 17768), (345, 17783),

Gene: DonSanchon\_21 Start: 16771, Stop: 17508, Start Num: 93

Candidate Starts for DonSanchon\_21:

(Start: 93 @16771 has 307 MA's), (Start: 118 @16813 has 1 MA's), (154, 16885), (155, 16891), (159, 16900), (Start: 160 @16909 has 1 MA's), (203, 17005), (237, 17077), (239, 17083), (241, 17095), (255, 17146), (282, 17227), (287, 17260), (289, 17266), (310, 17347), (311, 17359), (316, 17383), (323, 17410), (340, 17485), (345, 17500),

Gene: DonTron\_50 Start: 27921, Stop: 28667, Start Num: 105

Candidate Starts for DonTron\_50:

(94, 27897), (102, 27915), (Start: 105 @27921 has 2 MA's), (113, 27936), (166, 28071), (177, 28104), (179, 28107), (192, 28128), (203, 28137), (332, 28587), (346, 28638),

Gene: DonaldDuck\_31 Start: 20570, Stop: 21418, Start Num: 99

Candidate Starts for DonaldDuck\_31:

(Start: 99 @20570 has 36 MA's), (136, 20633), (148, 20663), (165, 20726), (186, 20783), (193, 20795), (223, 20876), (251, 20984), (284, 21107), (287, 21125), (333, 21317),

Gene: Donny\_22 Start: 17804, Stop: 18559, Start Num: 93

Candidate Starts for Donny\_22:

(51, 17639), (56, 17669), (61, 17690), (Start: 67 @17729 has 8 MA's), (Start: 93 @17804 has 307 MA's), (110, 17834), (139, 17882), (154, 17918), (158, 17930), (Start: 160 @17942 has 1 MA's), (166, 17972), (168, 17978), (174, 17999), (236, 18125), (247, 18164), (251, 18182), (262, 18218), (277, 18257), (289, 18317), (316, 18434), (319, 18446), (323, 18461), (332, 18503), (345, 18551),

Gene: Dori\_19 Start: 14673, Stop: 15431, Start Num: 92

Candidate Starts for Dori\_19:

(Start: 92 @14673 has 4 MA's), (96, 14682), (120, 14724), (125, 14733), (157, 14817), (Start: 160 @14829 has 1 MA's), (165, 14850), (189, 14916), (231, 14982), (236, 14997), (237, 15000), (241, 15018), (244, 15030), (254, 15063), (298, 15219), (328, 15351), (334, 15381), (337, 15390), (345, 15423),

Gene: DuchessDung\_20 Start: 15922, Stop: 16659, Start Num: 93

Candidate Starts for DuchessDung\_20:

(Start: 93 @15922 has 307 MA's), (154, 16036), (155, 16042), (159, 16051), (Start: 160 @16060 has 1 MA's), (203, 16156), (237, 16228), (239, 16234), (241, 16246), (255, 16297), (282, 16378), (287, 16411), (289, 16417), (310, 16498), (311, 16510), (316, 16534), (323, 16561), (340, 16636), (345, 16651),

Gene: Duggie\_21 Start: 16787, Stop: 17524, Start Num: 93

Candidate Starts for Duggie\_21:

(Start: 93 @16787 has 307 MA's), (154, 16901), (155, 16907), (159, 16916), (Start: 160 @16925 has 1 MA's), (203, 17021), (237, 17093), (239, 17099), (241, 17111), (255, 17162), (282, 17243), (287, 17276), (289, 17282), (310, 17363), (311, 17375), (316, 17399), (323, 17426), (340, 17501), (345, 17516),

Gene: DunneganBoMo\_78 Start: 47358, Stop: 48047, Start Num: 160

Candidate Starts for DunneganBoMo\_78:

(Start: 160 @47358 has 1 MA's), (280, 47721), (297, 47799), (299, 47805), (307, 47832), (310, 47853), (320, 47904),

Gene: Durga\_22 Start: 17084, Stop: 17821, Start Num: 93

Candidate Starts for Durga\_22:

(Start: 93 @17084 has 307 MA's), (154, 17198), (155, 17204), (159, 17213), (Start: 160 @17222 has 1 MA's), (203, 17318), (237, 17390), (239, 17396), (241, 17408), (255, 17459), (282, 17540), (287, 17573), (289, 17579), (310, 17660), (311, 17672), (316, 17696), (323, 17723), (340, 17798), (345, 17813),

Gene: EMoore\_23 Start: 19818, Stop: 20612, Start Num: 108

Candidate Starts for EMoore\_23:

(18, 19347), (23, 19377), (24, 19389), (25, 19392), (28, 19413), (30, 19434), (35, 19467), (Start: 108 @19818 has 63 MA's), (122, 19839), (165, 19956), (168, 19971), (198, 20031), (204, 20049), (247, 20175), (259, 20217), (264, 20235), (284, 20313), (288, 20334), (312, 20430), (317, 20457), (328, 20493), (345, 20565), (355, 20592),

Gene: Eaglehorse\_24 Start: 19151, Stop: 19936, Start Num: 85

Candidate Starts for Eaglehorse\_24:

(Start: 85 @19151 has 29 MA's), (135, 19262), (150, 19298), (Start: 156 @19319 has 3 MA's), (158, 19322), (168, 19370), (181, 19406), (237, 19508), (243, 19535), (247, 19544), (251, 19562), (258, 19583), (284, 19676), (289, 19700), (295, 19721), (310, 19778), (311, 19790), (312, 19793), (319, 19823), (331, 19874), (344, 19925),

Gene: EarickHC\_31 Start: 17880, Stop: 18794, Start Num: 71

Candidate Starts for EarickHC\_31:

(Start: 71 @17880 has 25 MA's), (113, 17982), (166, 18126), (203, 18234), (212, 18261), (215, 18267), (251, 18396), (277, 18480), (304, 18591), (317, 18663), (322, 18681), (337, 18735),

Gene: EastView9101\_22 Start: 17434, Stop: 18189, Start Num: 93

Candidate Starts for EastView9101\_22:

(Start: 93 @17434 has 307 MA's), (110, 17464), (154, 17548), (158, 17560), (166, 17602), (174, 17629), (236, 17755), (247, 17794), (262, 17848), (277, 17887), (289, 17947), (316, 18064), (319, 18076), (323, 18091), (332, 18133), (345, 18181),

Gene: EdmundFerry\_23 Start: 17991, Stop: 18788, Start Num: 108

Candidate Starts for EdmundFerry\_23:

(Start: 108 @17991 has 63 MA's), (141, 18051), (155, 18090), (163, 18120), (168, 18144), (204, 18234), (205, 18237), (243, 18351), (283, 18495), (298, 18552), (301, 18561), (303, 18570), (328, 18678), (345, 18750), (346, 18753), (354, 18768),

Gene: Emiris\_22 Start: 17065, Stop: 17802, Start Num: 93

Candidate Starts for Emiris\_22:

(Start: 93 @17065 has 307 MA's), (Start: 118 @17107 has 1 MA's), (154, 17179), (155, 17185), (159, 17194), (Start: 160 @17203 has 1 MA's), (203, 17299), (237, 17371), (239, 17377), (241, 17389), (255, 17440), (282, 17521), (287, 17554), (289, 17560), (310, 17641), (311, 17653), (316, 17677), (323, 17704), (340, 17779), (345, 17794),

Gene: EmpTee\_22 Start: 17071, Stop: 17808, Start Num: 93

Candidate Starts for EmpTee\_22:

(Start: 93 @17071 has 307 MA's), (154, 17185), (155, 17191), (159, 17200), (Start: 160 @17209 has 1 MA's), (203, 17305), (237, 17377), (239, 17383), (241, 17395), (255, 17446), (282, 17527), (287, 17560), (289, 17566), (310, 17647), (311, 17659), (316, 17683), (323, 17710), (340, 17785), (345, 17800),

Gene: Eremos\_22 Start: 17071, Stop: 17808, Start Num: 93

Candidate Starts for Eremos\_22:

(Start: 93 @17071 has 307 MA's), (154, 17185), (155, 17191), (159, 17200), (Start: 160 @17209 has 1 MA's), (203, 17305), (237, 17377), (239, 17383), (241, 17395), (255, 17446), (282, 17527), (287, 17560), (289, 17566), (311, 17659), (316, 17683), (323, 17710), (340, 17785), (345, 17800),

Gene: Etaye\_22 Start: 17057, Stop: 17794, Start Num: 93

Candidate Starts for Etaye\_22:

(Start: 93 @17057 has 307 MA's), (154, 17171), (155, 17177), (159, 17186), (Start: 160 @17195 has 1 MA's), (203, 17291), (237, 17363), (239, 17369), (241, 17381), (255, 17432), (282, 17513), (287, 17546), (289, 17552), (310, 17633), (311, 17645), (316, 17669), (323, 17696), (340, 17771), (345, 17786),

Gene: Eugenia\_22 Start: 17084, Stop: 17821, Start Num: 93

Candidate Starts for Eugenia\_22:

(Start: 93 @17084 has 307 MA's), (154, 17198), (155, 17204), (159, 17213), (Start: 160 @17222 has 1 MA's), (203, 17318), (237, 17390), (239, 17396), (241, 17408), (255, 17459), (282, 17540), (287, 17573), (289, 17579), (310, 17660), (311, 17672), (316, 17696), (323, 17723), (332, 17765), (340, 17798), (345, 17813),

Gene: Evaa\_20 Start: 16832, Stop: 17593, Start Num: 93

Candidate Starts for Evaa\_20:

(19, 16421), (29, 16499), (Start: 93 @16832 has 307 MA's), (125, 16883), (142, 16928), (154, 16958), (173, 17036), (180, 17048), (230, 17138), (241, 17177), (247, 17195), (279, 17297), (287, 17345), (289, 17351), (292, 17363), (303, 17399), (311, 17444), (312, 17447), (314, 17453), (316, 17468),

Gene: Evamon\_23 Start: 15945, Stop: 16715, Start Num: 112

Candidate Starts for Evamon\_23:

(Start: 112 @15945 has 29 MA's), (133, 15987), (163, 16068), (168, 16092), (202, 16173), (237, 16248), (239, 16254), (243, 16275), (247, 16284), (258, 16323), (301, 16485), (335, 16635), (337, 16641), (356, 16698),

Gene: Fang\_22 Start: 17127, Stop: 17822, Start Num: 118

Candidate Starts for Fang\_22:

(Start: 93 @17085 has 307 MA's), (Start: 118 @17127 has 1 MA's), (154, 17199), (155, 17205), (159, 17214), (Start: 160 @17223 has 1 MA's), (203, 17319), (237, 17391), (239, 17397), (241, 17409), (255, 17460), (282, 17541), (287, 17574), (289, 17580), (310, 17661), (311, 17673), (316, 17697), (323, 17724), (332, 17766), (340, 17799), (345, 17814),

Gene: Faze9\_24 Start: 19247, Stop: 20032, Start Num: 85

Candidate Starts for Faze9\_24:

(Start: 85 @19247 has 29 MA's), (135, 19358), (150, 19394), (Start: 156 @19415 has 3 MA's), (158, 19418), (168, 19466), (181, 19502), (237, 19604), (243, 19631), (247, 19640), (251, 19658), (258, 19679), (284, 19772), (289, 19796), (295, 19817), (310, 19874), (311, 19886), (312, 19889), (319, 19919), (331, 19970), (344, 20021),

Gene: Fireball\_24 Start: 16077, Stop: 16847, Start Num: 112

Candidate Starts for Fireball\_24:

(Start: 78 @15984 has 1 MA's), (Start: 112 @16077 has 29 MA's), (133, 16119), (163, 16200), (202, 16305), (237, 16380), (239, 16386), (243, 16407), (247, 16416), (258, 16455), (264, 16476), (301, 16617), (303, 16626), (335, 16767), (337, 16773), (356, 16830),

Gene: Fireman\_31 Start: 17773, Stop: 18684, Start Num: 74

Candidate Starts for Fireman\_31:

(Start: 74 @17773 has 8 MA's), (113, 17875), (163, 18001), (165, 18010), (166, 18019), (212, 18154), (215, 18160), (269, 18349), (277, 18370), (282, 18391), (284, 18406), (287, 18424), (289, 18430), (304, 18481), (317, 18553), (322, 18571), (337, 18625), (345, 18652),

Gene: Fitzgerald\_25 Start: 21613, Stop: 22386, Start Num: 108

Candidate Starts for Fitzgerald\_25:

(Start: 108 @21613 has 63 MA's), (133, 21661), (168, 21766), (237, 21913), (250, 21964), (264, 22009), (284, 22087), (287, 22105), (299, 22144), (328, 22267), (356, 22369),

Gene: Fizzles\_31 Start: 20286, Stop: 21131, Start Num: 99

Candidate Starts for Fizzles\_31:

(3, 19419), (7, 19665), (33, 19953), (38, 20001), (65, 20169), (75, 20208), (Start: 99 @20286 has 36 MA's), (136, 20349), (140, 20364), (148, 20379), (165, 20442), (167, 20454), (186, 20499), (220, 20586), (223, 20592), (265, 20751), (287, 20841), (319, 20976), (322, 20988), (329, 21012), (333, 21030), (336, 21039), (350, 21090),

Gene: Flatwoods\_27 Start: 20380, Stop: 21147, Start Num: 108

Candidate Starts for Flatwoods\_27:

(Start: 108 @20380 has 63 MA's), (133, 20428), (158, 20485), (Start: 160 @20497 has 1 MA's), (234, 20674), (251, 20734), (264, 20776), (284, 20854), (287, 20872), (298, 20908), (311, 20968), (328, 21034), (353, 21127),

Gene: FluffyNinja\_22 Start: 17077, Stop: 17814, Start Num: 93

Candidate Starts for FluffyNinja\_22:

(Start: 93 @17077 has 307 MA's), (154, 17191), (155, 17197), (159, 17206), (Start: 160 @17215 has 1 MA's), (203, 17311), (237, 17383), (239, 17389), (241, 17401), (255, 17452), (282, 17533), (287, 17566), (289, 17572), (310, 17653), (311, 17665), (316, 17689), (323, 17716), (332, 17758), (340,

17791), (345, 17806),

Gene: Fortunato\_20 Start: 17686, Stop: 18429, Start Num: 93

Candidate Starts for Fortunato\_20:

(Start: 93 @17686 has 307 MA's), (155, 17797), (158, 17803), (168, 17851), (231, 17980), (237, 17998), (243, 18025), (251, 18052), (259, 18076), (262, 18088), (274, 18118), (284, 18163), (289, 18187), (295, 18208), (333, 18376), (337, 18388), (340, 18406), (345, 18421),

Gene: Fosterous\_25 Start: 21452, Stop: 22219, Start Num: 108

Candidate Starts for Fosterous\_25:

(Start: 108 @21452 has 63 MA's), (133, 21500), (168, 21605), (234, 21746), (251, 21806), (264, 21842), (284, 21920), (287, 21938), (299, 21977), (311, 22034), (328, 22100), (356, 22202),

Gene: Fozzie\_21 Start: 17080, Stop: 17817, Start Num: 93

Candidate Starts for Fozzie\_21:

(Start: 93 @17080 has 307 MA's), (154, 17194), (155, 17200), (159, 17209), (Start: 160 @17218 has 1 MA's), (203, 17314), (237, 17386), (239, 17392), (241, 17404), (255, 17455), (282, 17536), (287, 17569), (289, 17575), (310, 17656), (311, 17668), (316, 17692), (323, 17719), (340, 17794), (345, 17809),

Gene: Frankicide\_22 Start: 17071, Stop: 17808, Start Num: 93

Candidate Starts for Frankicide\_22:

(Start: 93 @17071 has 307 MA's), (154, 17185), (155, 17191), (159, 17200), (Start: 160 @17209 has 1 MA's), (203, 17305), (237, 17377), (239, 17383), (241, 17395), (255, 17446), (282, 17527), (287, 17560), (289, 17566), (310, 17647), (311, 17659), (316, 17683), (323, 17710), (332, 17752), (340, 17785), (345, 17800),

Gene: Fransoyer\_33 Start: 20394, Stop: 21245, Start Num: 99

Candidate Starts for Fransoyer\_33:

(Start: 99 @20394 has 36 MA's), (136, 20460), (148, 20490), (165, 20553), (168, 20568), (170, 20577), (186, 20610), (200, 20652), (220, 20700), (223, 20706), (258, 20838), (333, 21144), (336, 21153),

Gene: Frederick\_20 Start: 17695, Stop: 18438, Start Num: 93

Candidate Starts for Frederick\_20:

(Start: 93 @17695 has 307 MA's), (155, 17806), (158, 17812), (159, 17815), (168, 17860), (231, 17989), (237, 18007), (243, 18034), (251, 18061), (259, 18085), (262, 18097), (274, 18127), (284, 18172), (289, 18196), (295, 18217), (333, 18385), (337, 18397), (340, 18415), (345, 18430),

Gene: Fregley\_31 Start: 19755, Stop: 20600, Start Num: 99

Candidate Starts for Fregley\_31:

(Start: 99 @19755 has 36 MA's), (136, 19821), (148, 19851), (186, 19971), (223, 20064), (248, 20157), (277, 20259), (291, 20325), (311, 20406), (333, 20496), (345, 20541),

Gene: FrenchFry\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for FrenchFry\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: Fresco\_19 Start: 15599, Stop: 16345, Start Num: 93

Candidate Starts for Fresco\_19:



(Start: 84 @15569 has 3 MA's), (Start: 93 @15599 has 307 MA's), (Start: 101 @15617 has 25 MA's), (111, 15632), (184, 15818), (247, 15953), (250, 15968), (262, 16007), (311, 16196), (314, 16205), (316, 16220), (319, 16232), (332, 16289), (337, 16304), (345, 16337),

Gene: Freya\_21 Start: 16766, Stop: 17503, Start Num: 93

Candidate Starts for Freya\_21:

(Start: 93 @16766 has 307 MA's), (Start: 118 @16808 has 1 MA's), (154, 16880), (155, 16886), (159, 16895), (Start: 160 @16904 has 1 MA's), (203, 17000), (237, 17072), (239, 17078), (241, 17090), (255, 17141), (282, 17222), (287, 17255), (289, 17261), (310, 17342), (311, 17354), (316, 17378), (323, 17405), (340, 17480), (345, 17495),

Gene: FriarPreacher\_22 Start: 17091, Stop: 17828, Start Num: 93

Candidate Starts for FriarPreacher\_22:

(Start: 93 @17091 has 307 MA's), (Start: 118 @17133 has 1 MA's), (154, 17205), (155, 17211), (159, 17220), (Start: 160 @17229 has 1 MA's), (203, 17325), (237, 17397), (239, 17403), (241, 17415), (255, 17466), (282, 17547), (287, 17580), (289, 17586), (310, 17667), (311, 17679), (316, 17703), (323, 17730), (340, 17805), (345, 17820),

Gene: Fringe\_22 Start: 17055, Stop: 17792, Start Num: 93

Candidate Starts for Fringe\_22:

(Start: 93 @17055 has 307 MA's), (154, 17169), (155, 17175), (159, 17184), (Start: 160 @17193 has 1 MA's), (203, 17289), (237, 17361), (239, 17367), (241, 17379), (255, 17430), (282, 17511), (287, 17544), (289, 17550), (310, 17631), (311, 17643), (316, 17667), (323, 17694), (332, 17736), (340, 17769), (345, 17784),

Gene: FugateOSU\_21 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for FugateOSU\_21:

(Start: 93 @16777 has 307 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (340, 17491), (345, 17506),

Gene: Fugax\_25 Start: 16659, Stop: 17429, Start Num: 112

Candidate Starts for Fugax\_25:

(Start: 112 @16659 has 29 MA's), (133, 16701), (163, 16782), (202, 16887), (237, 16962), (239, 16968), (243, 16989), (247, 16998), (258, 17037), (301, 17199), (335, 17349), (337, 17355), (356, 17412),

Gene: Funsized\_25 Start: 20162, Stop: 20899, Start Num: 93

Candidate Starts for Funsized\_25:

(Start: 93 @20162 has 307 MA's), (155, 20273), (159, 20282), (174, 20348), (177, 20357), (201, 20384), (243, 20492), (251, 20519), (255, 20534), (289, 20654), (309, 20723), (310, 20738), (313, 20756), (329, 20828), (331, 20837), (332, 20843), (345, 20891),

Gene: FuzzBuster\_35 Start: 18082, Stop: 18993, Start Num: 78

Candidate Starts for FuzzBuster\_35:

(Start: 78 @18082 has 1 MA's), (Start: 87 @18112 has 2 MA's), (154, 18259), (158, 18271), (208, 18424), (224, 18457), (242, 18532), (247, 18547), (258, 18589), (264, 18610), (284, 18685), (289, 18709), (337, 18910),

Gene: GTE6\_24 Start: 18480, Stop: 19277, Start Num: 108

Candidate Starts for GTE6\_24:

(Start: 108 @18480 has 63 MA's), (163, 18609), (168, 18633), (204, 18723), (205, 18726), (243, 18840), (283, 18984), (298, 19041), (301, 19050), (303, 19059), (328, 19167), (334, 19197), (345, 19239), (346, 19242), (354, 19257),

Gene: Gadjet\_24 Start: 17743, Stop: 18483, Start Num: 101

Candidate Starts for Gadjet\_24:

(Start: 67 @17650 has 8 MA's), (76, 17668), (Start: 93 @17725 has 307 MA's), (Start: 101 @17743 has 25 MA's), (158, 17863), (Start: 160 @17875 has 1 MA's), (190, 17959), (251, 18106), (271, 18166), (285, 18223), (299, 18277), (316, 18358), (319, 18370), (325, 18388), (341, 18463),

Gene: Gaea\_26 Start: 20031, Stop: 20798, Start Num: 108

Candidate Starts for Gaea\_26:

(Start: 108 @20031 has 63 MA's), (133, 20079), (158, 20136), (Start: 160 @20148 has 1 MA's), (234, 20325), (251, 20385), (264, 20427), (284, 20505), (287, 20523), (298, 20559), (311, 20619), (328, 20685), (353, 20778),

Gene: Galadriel\_27 Start: 21938, Stop: 22711, Start Num: 108

Candidate Starts for Galadriel\_27:

(Start: 108 @21938 has 63 MA's), (133, 21986), (158, 22043), (168, 22091), (213, 22181), (237, 22238), (250, 22289), (264, 22334), (284, 22412), (287, 22430), (299, 22469), (311, 22526), (328, 22592), (356, 22694),

Gene: Ganandorf\_30 Start: 18016, Stop: 18930, Start Num: 71

Candidate Starts for Ganandorf\_30:

(Start: 71 @18016 has 25 MA's), (Start: 79 @18028 has 3 MA's), (113, 18118), (166, 18262), (203, 18370), (212, 18397), (215, 18403), (251, 18532), (277, 18616), (304, 18727), (317, 18799), (322, 18817), (337, 18871),

Gene: Gareth\_21 Start: 16774, Stop: 17511, Start Num: 93

Candidate Starts for Gareth\_21:

(Start: 93 @16774 has 307 MA's), (Start: 118 @16816 has 1 MA's), (154, 16888), (155, 16894), (159, 16903), (Start: 160 @16912 has 1 MA's), (203, 17008), (237, 17080), (239, 17086), (241, 17098), (255, 17149), (282, 17230), (287, 17263), (289, 17269), (310, 17350), (311, 17362), (316, 17386), (323, 17413), (340, 17488), (345, 17503),

Gene: Gazebo\_30 Start: 21010, Stop: 21858, Start Num: 99

Candidate Starts for Gazebo\_30:

(Start: 99 @21010 has 36 MA's), (136, 21073), (148, 21103), (165, 21166), (186, 21223), (223, 21316), (251, 21424), (284, 21547), (287, 21565), (333, 21757),

Gene: GeneCoco\_22 Start: 17076, Stop: 17813, Start Num: 93

Candidate Starts for GeneCoco\_22:

(Start: 93 @17076 has 307 MA's), (154, 17190), (155, 17196), (159, 17205), (Start: 160 @17214 has 1 MA's), (203, 17310), (237, 17382), (239, 17388), (241, 17400), (255, 17451), (282, 17532), (287, 17565), (289, 17571), (310, 17652), (311, 17664), (316, 17688), (323, 17715), (340, 17790), (345, 17805),

Gene: Geodirt\_24 Start: 20921, Stop: 21694, Start Num: 108

Candidate Starts for Geodirt\_24:

(Start: 108 @20921 has 63 MA's), (133, 20969), (168, 21074), (213, 21164), (237, 21221), (250, 21272), (264, 21317), (284, 21395), (287, 21413), (299, 21452), (311, 21509), (328, 21575), (356, 21677),

Gene: Gervas\_23 Start: 17627, Stop: 18460, Start Num: 67

Candidate Starts for Gervas\_23:

(Start: 67 @17627 has 8 MA's), (76, 17645), (Start: 93 @17702 has 307 MA's), (Start: 101 @17720 has 25 MA's), (158, 17840), (Start: 160 @17852 has 1 MA's), (190, 17936), (247, 18065), (251, 18083), (271, 18143), (285, 18200), (299, 18254), (316, 18335), (319, 18347), (325, 18365), (341, 18440),

Gene: Gezellig\_24 Start: 16077, Stop: 16847, Start Num: 112

Candidate Starts for Gezellig\_24:

(Start: 78 @15984 has 1 MA's), (Start: 112 @16077 has 29 MA's), (133, 16119), (163, 16200), (202, 16305), (237, 16380), (239, 16386), (243, 16407), (247, 16416), (258, 16455), (264, 16476), (301, 16617), (303, 16626), (335, 16767), (337, 16773), (356, 16830),

Gene: Gina\_32 Start: 17796, Stop: 18707, Start Num: 74

Candidate Starts for Gina\_32:

(Start: 74 @17796 has 8 MA's), (Start: 79 @17808 has 3 MA's), (113, 17898), (163, 18024), (166, 18042), (168, 18048), (212, 18177), (251, 18312), (277, 18393), (282, 18414), (284, 18429), (287, 18447), (289, 18453), (304, 18504), (317, 18576), (322, 18594), (337, 18648), (345, 18675),

Gene: Giraffe\_22 Start: 16779, Stop: 17516, Start Num: 93

Candidate Starts for Giraffe\_22:

(Start: 93 @16779 has 307 MA's), (Start: 118 @16821 has 1 MA's), (154, 16893), (155, 16899), (159, 16908), (Start: 160 @16917 has 1 MA's), (203, 17013), (237, 17085), (239, 17091), (241, 17103), (255, 17154), (282, 17235), (287, 17268), (289, 17274), (310, 17355), (311, 17367), (316, 17391), (323, 17418), (340, 17493), (345, 17508),

Gene: Glass\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for Glass\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: GlenHope\_24 Start: 17636, Stop: 18469, Start Num: 67

Candidate Starts for GlenHope\_24:

(Start: 67 @17636 has 8 MA's), (76, 17654), (Start: 93 @17711 has 307 MA's), (Start: 101 @17729 has 25 MA's), (158, 17849), (Start: 160 @17861 has 1 MA's), (190, 17945), (247, 18074), (251, 18092), (271, 18152), (285, 18209), (299, 18263), (316, 18344), (319, 18356), (325, 18374), (341, 18449),

Gene: GodPhather\_17 Start: 16807, Stop: 17544, Start Num: 97

Candidate Starts for GodPhather\_17:

(Start: 97 @16807 has 8 MA's), (Start: 105 @16819 has 2 MA's), (159, 16942), (Start: 160 @16951 has 1 MA's), (174, 17008), (181, 17023), (189, 17038), (218, 17065), (228, 17086), (231, 17101), (237, 17119), (244, 17149), (247, 17155), (250, 17170), (272, 17230), (284, 17284), (285, 17287), (292, 17320), (294, 17326), (295, 17329), (311, 17398), (314, 17407), (316, 17422), (332, 17488), (337, 17503), (340, 17521), (345, 17536),

Gene: Godines\_24 Start: 19143, Stop: 19928, Start Num: 85

Candidate Starts for Godines\_24:

(Start: 85 @19143 has 29 MA's), (135, 19254), (150, 19290), (Start: 156 @19311 has 3 MA's), (158, 19314), (168, 19362), (181, 19398), (237, 19500), (243, 19527), (244, 19530), (247, 19536), (251, 19554), (258, 19575), (284, 19668), (289, 19692), (295, 19713), (310, 19770), (311, 19782), (312,

19785), (319, 19815), (331, 19866), (344, 19917),

Gene: Gophee\_22 Start: 17057, Stop: 17794, Start Num: 93

Candidate Starts for Gophee\_22:

(Start: 93 @17057 has 307 MA's), (154, 17171), (155, 17177), (159, 17186), (Start: 160 @17195 has 1 MA's), (203, 17291), (237, 17363), (239, 17369), (241, 17381), (255, 17432), (282, 17513), (287, 17546), (289, 17552), (310, 17633), (311, 17645), (316, 17669), (323, 17696), (332, 17738), (340, 17771), (345, 17786),

Gene: Grand2040\_21 Start: 16794, Stop: 17531, Start Num: 93

Candidate Starts for Grand2040\_21:

(Start: 93 @16794 has 307 MA's), (Start: 118 @16836 has 1 MA's), (154, 16908), (155, 16914), (159, 16923), (Start: 160 @16932 has 1 MA's), (203, 17028), (237, 17100), (239, 17106), (241, 17118), (255, 17169), (282, 17250), (287, 17283), (289, 17289), (310, 17370), (311, 17382), (316, 17406), (323, 17433), (340, 17508), (345, 17523),

Gene: Grassboy\_32 Start: 21184, Stop: 22032, Start Num: 99

Candidate Starts for Grassboy\_32:

(Start: 99 @21184 has 36 MA's), (136, 21247), (148, 21277), (165, 21340), (186, 21397), (193, 21409), (223, 21490), (251, 21598), (284, 21721), (287, 21739), (333, 21931),

Gene: Gustavo\_26 Start: 20171, Stop: 20938, Start Num: 108

Candidate Starts for Gustavo\_26:

(Start: 108 @20171 has 63 MA's), (133, 20219), (158, 20276), (Start: 160 @20288 has 1 MA's), (234, 20465), (251, 20525), (264, 20567), (284, 20645), (287, 20663), (298, 20699), (311, 20759), (328, 20825),

Gene: Gwilliam\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Gwilliam\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (340, 17781), (345, 17796),

Gene: Gyarad\_0022 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for Gyarad\_0022:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: HSavage\_22 Start: 17077, Stop: 17814, Start Num: 93

Candidate Starts for HSavage\_22:

(Start: 93 @17077 has 307 MA's), (Start: 118 @17119 has 1 MA's), (154, 17191), (155, 17197), (159, 17206), (Start: 160 @17215 has 1 MA's), (203, 17311), (237, 17383), (239, 17389), (241, 17401), (255, 17452), (282, 17533), (287, 17566), (289, 17572), (310, 17653), (311, 17665), (316, 17689), (323, 17716), (332, 17758), (340, 17791), (345, 17806),

Gene: Haimas\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Haimas\_22:

(Start: 93 @17072 has 307 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340,

17786), (345, 17801),

Gene: Haleema\_21 Start: 16794, Stop: 17531, Start Num: 93

Candidate Starts for Haleema\_21:

(Start: 93 @16794 has 307 MA's), (154, 16908), (155, 16914), (159, 16923), (Start: 160 @16932 has 1 MA's), (203, 17028), (237, 17100), (239, 17106), (241, 17118), (255, 17169), (282, 17250), (287, 17283), (289, 17289), (310, 17370), (311, 17382), (316, 17406), (323, 17433), (332, 17475), (340, 17508), (345, 17523),

Gene: Halfpint\_22 Start: 17471, Stop: 18304, Start Num: 67

Candidate Starts for Halfpint\_22:

(Start: 67 @17471 has 8 MA's), (76, 17489), (Start: 93 @17546 has 307 MA's), (Start: 101 @17564 has 25 MA's), (158, 17684), (Start: 160 @17696 has 1 MA's), (190, 17780), (247, 17909), (251, 17927), (271, 17987), (285, 18044), (299, 18098), (316, 18179), (319, 18191), (325, 18209), (341, 18284),

Gene: Halo3\_24 Start: 16370, Stop: 17140, Start Num: 112

Candidate Starts for Halo3\_24:

(Start: 112 @16370 has 29 MA's), (133, 16412), (163, 16493), (168, 16517), (202, 16598), (237, 16673), (239, 16679), (243, 16700), (247, 16709), (258, 16748), (301, 16910), (335, 17060), (337, 17066), (356, 17123),

Gene: Hamish\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for Hamish\_22:

(Start: 93 @17064 has 307 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (332, 17745), (340, 17778), (345, 17793),

Gene: Hangman\_20 Start: 17693, Stop: 18436, Start Num: 93

Candidate Starts for Hangman\_20:

(Start: 93 @17693 has 307 MA's), (155, 17804), (158, 17810), (168, 17858), (231, 17987), (243, 18032), (251, 18059), (259, 18083), (262, 18095), (274, 18125), (284, 18170), (289, 18194), (316, 18311), (323, 18338), (333, 18383), (337, 18395), (340, 18413), (345, 18428),

Gene: Hans\_27 Start: 19636, Stop: 20430, Start Num: 108

Candidate Starts for Hans\_27:

(Start: 108 @19636 has 63 MA's), (122, 19657), (147, 19708), (168, 19789), (198, 19849), (204, 19867), (205, 19870), (251, 20011), (259, 20035), (264, 20053), (288, 20152), (311, 20245), (312, 20248), (317, 20275), (328, 20311), (345, 20383), (355, 20410),

Gene: Hartsy\_21 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Hartsy\_21:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (340, 17781), (345, 17796),

Gene: Harvey\_22 Start: 17093, Stop: 17830, Start Num: 93

Candidate Starts for Harvey\_22:

(Start: 93 @17093 has 307 MA's), (154, 17207), (155, 17213), (159, 17222), (Start: 160 @17231 has 1 MA's), (203, 17327), (237, 17399), (239, 17405), (241, 17417), (255, 17468), (282, 17549), (287, 17582), (289, 17588), (310, 17669), (311, 17681), (316, 17705), (323, 17732), (340, 17807), (345,

17822),

Gene: HarveySr\_23 Start: 17698, Stop: 18456, Start Num: 93

Candidate Starts for HarveySr\_23:

(Start: 67 @17623 has 8 MA's), (76, 17641), (Start: 93 @17698 has 307 MA's), (Start: 101 @17716 has 25 MA's), (158, 17836), (Start: 160 @17848 has 1 MA's), (190, 17932), (251, 18079), (271, 18139), (285, 18196), (299, 18250), (316, 18331), (319, 18343), (325, 18361), (341, 18436),

Gene: Hashim76\_26 Start: 17548, Stop: 18297, Start Num: 93

Candidate Starts for Hashim76\_26:

(Start: 93 @17548 has 307 MA's), (159, 17677), (194, 17770), (247, 17899), (251, 17917), (258, 17938), (284, 18028), (289, 18052), (292, 18064), (311, 18148), (323, 18199), (345, 18289),

Gene: Heath\_19 Start: 17324, Stop: 18067, Start Num: 93

Candidate Starts for Heath\_19:

(Start: 82 @17282 has 1 MA's), (Start: 93 @17324 has 307 MA's), (155, 17435), (158, 17441), (168, 17489), (231, 17618), (243, 17663), (251, 17690), (253, 17693), (259, 17714), (262, 17726), (274, 17756), (284, 17801), (289, 17825), (316, 17942), (323, 17969), (333, 18014), (337, 18026), (340, 18044), (345, 18059),

Gene: Heathcliff\_23 Start: 17701, Stop: 18441, Start Num: 101

Candidate Starts for Heathcliff\_23:

(Start: 67 @17608 has 8 MA's), (76, 17626), (Start: 93 @17683 has 307 MA's), (Start: 101 @17701 has 25 MA's), (158, 17821), (Start: 160 @17833 has 1 MA's), (190, 17917), (247, 18046), (251, 18064), (271, 18124), (285, 18181), (299, 18235), (316, 18316), (319, 18328), (325, 18346), (341, 18421),

Gene: Hedgerow\_24 Start: 19232, Stop: 20017, Start Num: 85

Candidate Starts for Hedgerow\_24:

(Start: 85 @19232 has 29 MA's), (135, 19343), (150, 19379), (Start: 156 @19400 has 3 MA's), (158, 19403), (168, 19451), (181, 19487), (237, 19589), (243, 19616), (247, 19625), (251, 19643), (258, 19664), (284, 19757), (289, 19781), (295, 19802), (310, 19859), (311, 19871), (312, 19874), (319, 19904), (331, 19955), (344, 20006),

Gene: Held\_22 Start: 16778, Stop: 17515, Start Num: 93

Candidate Starts for Held\_22:

(Start: 93 @16778 has 307 MA's), (Start: 118 @16820 has 1 MA's), (154, 16892), (155, 16898), (159, 16907), (Start: 160 @16916 has 1 MA's), (203, 17012), (237, 17084), (239, 17090), (241, 17102), (255, 17153), (282, 17234), (287, 17267), (289, 17273), (310, 17354), (311, 17366), (316, 17390), (323, 17417), (340, 17492), (345, 17507),

Gene: Hendrix\_63 Start: 36633, Stop: 37523, Start Num: 87

Candidate Starts for Hendrix\_63:

(Start: 87 @36633 has 2 MA's), (140, 36747), (154, 36780), (166, 36834), (208, 36945), (212, 36951), (224, 36978), (241, 37050), (243, 37059), (247, 37068), (250, 37083), (258, 37110), (259, 37113), (264, 37131), (272, 37149), (284, 37224), (289, 37248), (298, 37278), (315, 37353), (320, 37380), (334, 37440), (338, 37452), (349, 37491), (358, 37503),

Gene: HenryJackson\_21 Start: 16794, Stop: 17531, Start Num: 93

Candidate Starts for HenryJackson\_21:

(Start: 93 @16794 has 307 MA's), (154, 16908), (155, 16914), (159, 16923), (Start: 160 @16932 has 1 MA's), (203, 17028), (237, 17100), (239, 17106), (241, 17118), (255, 17169), (282, 17250), (287, 17283), (289, 17289), (310, 17370), (311, 17382), (316, 17406), (323, 17433), (332, 17475), (340,

17508), (345, 17523),

Gene: Hermeonysus\_30 Start: 17889, Stop: 18803, Start Num: 71

Candidate Starts for Hermeonysus\_30:

(Start: 71 @17889 has 25 MA's), (113, 17991), (166, 18135), (203, 18243), (212, 18270), (215, 18276), (251, 18405), (277, 18489), (304, 18600), (317, 18672), (322, 18690), (337, 18744),

Gene: Hertubise\_22 Start: 17086, Stop: 17823, Start Num: 93

Candidate Starts for Hertubise\_22:

(Start: 93 @17086 has 307 MA's), (154, 17200), (155, 17206), (159, 17215), (Start: 160 @17224 has 1 MA's), (203, 17320), (237, 17392), (239, 17398), (241, 17410), (255, 17461), (282, 17542), (287, 17575), (289, 17581), (310, 17662), (311, 17674), (316, 17698), (323, 17725), (332, 17767), (340, 17800), (345, 17815),

Gene: Hetaeria\_22 Start: 17087, Stop: 17824, Start Num: 93

Candidate Starts for Hetaeria\_22:

(Start: 93 @17087 has 307 MA's), (Start: 118 @17129 has 1 MA's), (154, 17201), (155, 17207), (159, 17216), (Start: 160 @17225 has 1 MA's), (203, 17321), (237, 17393), (239, 17399), (241, 17411), (255, 17462), (282, 17543), (287, 17576), (289, 17582), (310, 17663), (311, 17675), (316, 17699), (323, 17726), (340, 17801), (345, 17816),

Gene: HighStump\_21 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for HighStump\_21:

(Start: 93 @16777 has 307 MA's), (Start: 118 @16819 has 1 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (340, 17491), (345, 17506),

Gene: Hocus\_21 Start: 16780, Stop: 17517, Start Num: 93

Candidate Starts for Hocus\_21:

(Start: 93 @16780 has 307 MA's), (154, 16894), (155, 16900), (159, 16909), (Start: 160 @16918 has 1 MA's), (203, 17014), (237, 17086), (239, 17092), (241, 17104), (255, 17155), (282, 17236), (287, 17269), (289, 17275), (310, 17356), (311, 17368), (316, 17392), (323, 17419), (340, 17494), (345, 17509),

Gene: Holeinone\_24 Start: 19128, Stop: 19913, Start Num: 85

Candidate Starts for Holeinone\_24:

(Start: 85 @19128 has 29 MA's), (135, 19239), (150, 19275), (Start: 156 @19296 has 3 MA's), (158, 19299), (168, 19347), (181, 19383), (237, 19485), (243, 19512), (247, 19521), (251, 19539), (258, 19560), (284, 19653), (289, 19677), (295, 19698), (310, 19755), (311, 19767), (312, 19770), (319, 19800), (331, 19851), (344, 19902),

Gene: Honeyfin\_32 Start: 18204, Stop: 19118, Start Num: 71

Candidate Starts for Honeyfin\_32:

(Start: 71 @18204 has 25 MA's), (Start: 79 @18216 has 3 MA's), (113, 18306), (166, 18450), (203, 18558), (212, 18585), (215, 18591), (251, 18720), (277, 18804), (304, 18915), (317, 18987), (322, 19005), (337, 19059),

Gene: Horchata\_22 Start: 17056, Stop: 17793, Start Num: 93

Candidate Starts for Horchata\_22:

(Start: 93 @17056 has 307 MA's), (Start: 118 @17098 has 1 MA's), (154, 17170), (155, 17176), (159, 17185), (Start: 160 @17194 has 1 MA's), (203, 17290), (237, 17362), (239, 17368), (241, 17380), (255, 17431), (282, 17512), (287, 17545), (289, 17551), (310, 17632), (311, 17644), (316, 17668),

(323, 17695), (340, 17770), (345, 17785),

Gene: Hosp\_016 Start: 14439, Stop: 15182, Start Num: 92

Candidate Starts for Hosp\_016:

(Start: 92 @14439 has 4 MA's), (106, 14466), (126, 14499), (154, 14550), (166, 14604), (168, 14610), (188, 14658), (202, 14673), (222, 14703), (236, 14748), (241, 14769), (247, 14787), (248, 14790), (250, 14802), (284, 14916), (289, 14940), (311, 15033), (316, 15057), (323, 15084), (340, 15159), (345, 15174),

Gene: Hydro\_20 Start: 17692, Stop: 18435, Start Num: 93

Candidate Starts for Hydro\_20:

(Start: 93 @17692 has 307 MA's), (155, 17803), (158, 17809), (168, 17857), (231, 17986), (237, 18004), (243, 18031), (251, 18058), (259, 18082), (262, 18094), (274, 18124), (284, 18169), (289, 18193), (323, 18337), (333, 18382), (337, 18394), (340, 18412), (345, 18427),

Gene: Hyperion\_30 Start: 20967, Stop: 21815, Start Num: 99

Candidate Starts for Hyperion\_30:

(Start: 99 @20967 has 36 MA's), (136, 21030), (148, 21060), (165, 21123), (186, 21180), (193, 21192), (223, 21273), (251, 21381), (284, 21504), (287, 21522), (333, 21714),

Gene: ImtiyazSitla\_21 Start: 16621, Stop: 17358, Start Num: 93

Candidate Starts for ImtiyazSitla\_21:

(Start: 93 @16621 has 307 MA's), (154, 16735), (155, 16741), (159, 16750), (Start: 160 @16759 has 1 MA's), (203, 16855), (237, 16927), (239, 16933), (241, 16945), (255, 16996), (282, 17077), (287, 17110), (289, 17116), (310, 17197), (311, 17209), (316, 17233), (323, 17260), (340, 17335), (345, 17350),

Gene: Imvubu\_16 Start: 14833, Stop: 15573, Start Num: 93

Candidate Starts for Imvubu\_16:

(Start: 93 @14833 has 307 MA's), (Start: 101 @14851 has 25 MA's), (159, 14953), (194, 15046), (201, 15058), (243, 15166), (247, 15175), (250, 15190), (258, 15214), (289, 15328), (292, 15340), (302, 15373), (314, 15433), (331, 15511), (332, 15517), (340, 15550),

Gene: Inchworm\_22 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for Inchworm\_22:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287, 17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (332, 17744), (340, 17777), (345, 17792),

Gene: Indlovu\_20 Start: 17400, Stop: 18170, Start Num: 93

Candidate Starts for Indlovu\_20:

(Start: 93 @17400 has 307 MA's), (Start: 101 @17418 has 25 MA's), (130, 17463), (155, 17532), (158, 17538), (182, 17622), (201, 17655), (219, 17682), (243, 17763), (249, 17778), (253, 17793), (258, 17811), (277, 17865), (289, 17925), (295, 17946), (323, 18072), (345, 18162),

Gene: Inspectinfecti\_26 Start: 20060, Stop: 20854, Start Num: 108

Candidate Starts for Inspectinfecti\_26:

(Start: 108 @20060 has 63 MA's), (122, 20081), (147, 20132), (168, 20213), (198, 20273), (204, 20291), (205, 20294), (251, 20435), (259, 20459), (264, 20477), (288, 20576), (311, 20669), (312, 20672), (317, 20699), (328, 20735), (345, 20807), (355, 20834),

Gene: Inverness\_22 Start: 17077, Stop: 17814, Start Num: 93



Candidate Starts for Inverness\_22:

(Start: 93 @17077 has 307 MA's), (Start: 118 @17119 has 1 MA's), (154, 17191), (155, 17197), (159, 17206), (Start: 160 @17215 has 1 MA's), (203, 17311), (237, 17383), (239, 17389), (241, 17401), (255, 17452), (282, 17533), (287, 17566), (289, 17572), (311, 17665), (316, 17689), (323, 17716), (340, 17791), (345, 17806),

Gene: Iridoclysis\_22 Start: 17051, Stop: 17788, Start Num: 93

Candidate Starts for Iridoclysis\_22:

(Start: 93 @17051 has 307 MA's), (154, 17165), (155, 17171), (159, 17180), (Start: 160 @17189 has 1 MA's), (203, 17285), (237, 17357), (239, 17363), (241, 17375), (255, 17426), (282, 17507), (287, 17540), (289, 17546), (310, 17627), (311, 17639), (316, 17663), (323, 17690), (332, 17732), (340, 17765), (345, 17780),

Gene: IsaacEli\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for IsaacEli\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: ItsyBitsy1\_24 Start: 19121, Stop: 19906, Start Num: 85

Candidate Starts for ItsyBitsy1\_24:

(Start: 85 @19121 has 29 MA's), (135, 19232), (150, 19268), (Start: 156 @19289 has 3 MA's), (158, 19292), (168, 19340), (181, 19376), (237, 19478), (243, 19505), (247, 19514), (251, 19532), (258, 19553), (284, 19646), (289, 19670), (295, 19691), (310, 19748), (311, 19760), (312, 19763), (319, 19793), (331, 19844), (344, 19895),

Gene: JAMaL\_20 Start: 17843, Stop: 18616, Start Num: 82

Candidate Starts for JAMaL\_20:

(Start: 82 @17843 has 1 MA's), (Start: 93 @17873 has 307 MA's), (144, 17951), (155, 17984), (158, 17990), (159, 17993), (168, 18038), (201, 18104), (219, 18131), (228, 18152), (231, 18167), (239, 18191), (243, 18212), (251, 18239), (253, 18242), (262, 18275), (284, 18350), (289, 18374), (311, 18467), (316, 18491), (333, 18563), (340, 18593), (345, 18608),

Gene: JDog\_22 Start: 16787, Stop: 17524, Start Num: 93

Candidate Starts for JDog\_22:

(Start: 93 @16787 has 307 MA's), (154, 16901), (155, 16907), (159, 16916), (Start: 160 @16925 has 1 MA's), (203, 17021), (237, 17093), (239, 17099), (241, 17111), (255, 17162), (282, 17243), (287, 17276), (289, 17282), (310, 17363), (311, 17375), (316, 17399), (323, 17426), (340, 17501), (345, 17516),

Gene: JKSyngboy\_24 Start: 20740, Stop: 21507, Start Num: 108

Candidate Starts for JKSyngboy\_24:

(Start: 108 @20740 has 63 MA's), (133, 20788), (158, 20845), (Start: 160 @20857 has 1 MA's), (234, 21034), (251, 21094), (264, 21136), (284, 21214), (287, 21232), (298, 21268), (311, 21328), (328, 21394), (353, 21487),

Gene: Jabberwocky\_25 Start: 22080, Stop: 22853, Start Num: 108

Candidate Starts for Jabberwocky\_25:

(Start: 108 @22080 has 63 MA's), (133, 22128), (168, 22233), (237, 22380), (264, 22476), (284, 22554), (287, 22572), (299, 22611), (328, 22734), (356, 22836),

Gene: JacAttac\_22 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for JacAttac\_22:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287, 17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (332, 17744), (340, 17777), (345, 17792),

Gene: Jackstina\_21 Start: 17572, Stop: 18405, Start Num: 67

Candidate Starts for Jackstina\_21:

(Start: 67 @17572 has 8 MA's), (76, 17590), (Start: 93 @17647 has 307 MA's), (Start: 101 @17665 has 25 MA's), (158, 17785), (Start: 160 @17797 has 1 MA's), (190, 17881), (247, 18010), (251, 18028), (271, 18088), (285, 18145), (299, 18199), (316, 18280), (319, 18292), (325, 18310), (341, 18385),

Gene: JaguarMi\_20 Start: 17154, Stop: 17897, Start Num: 93

Candidate Starts for JaguarMi\_20:

(Start: 82 @17112 has 1 MA's), (Start: 93 @17154 has 307 MA's), (155, 17265), (158, 17271), (168, 17319), (231, 17448), (243, 17493), (251, 17520), (259, 17544), (262, 17556), (274, 17586), (284, 17631), (289, 17655), (310, 17736), (323, 17799), (333, 17844), (337, 17856), (340, 17874), (345, 17889),

Gene: JakeO\_21 Start: 16787, Stop: 17524, Start Num: 93

Candidate Starts for JakeO\_21:

(Start: 93 @16787 has 307 MA's), (154, 16901), (155, 16907), (159, 16916), (Start: 160 @16925 has 1 MA's), (203, 17021), (237, 17093), (239, 17099), (241, 17111), (255, 17162), (282, 17243), (287, 17276), (289, 17282), (310, 17363), (311, 17375), (316, 17399), (323, 17426), (340, 17501), (345, 17516),

Gene: Jambalaya\_23 Start: 15724, Stop: 16494, Start Num: 112

Candidate Starts for Jambalaya\_23:

(Start: 112 @15724 has 29 MA's), (133, 15766), (163, 15847), (168, 15871), (202, 15952), (237, 16027), (239, 16033), (243, 16054), (247, 16063), (258, 16102), (301, 16264), (335, 16414), (337, 16420), (356, 16477),

Gene: JangoPhett\_22 Start: 17061, Stop: 17798, Start Num: 93

Candidate Starts for JangoPhett\_22:

(Start: 93 @17061 has 307 MA's), (154, 17175), (155, 17181), (159, 17190), (Start: 160 @17199 has 1 MA's), (203, 17295), (237, 17367), (239, 17373), (241, 17385), (255, 17436), (282, 17517), (287, 17550), (289, 17556), (310, 17637), (311, 17649), (316, 17673), (323, 17700), (332, 17742), (340, 17775), (345, 17790),

Gene: Jayden\_32 Start: 17952, Stop: 18854, Start Num: 79

Candidate Starts for Jayden\_32:

(44, 17778), (62, 17895), (Start: 71 @17940 has 25 MA's), (Start: 79 @17952 has 3 MA's), (113, 18042), (163, 18168), (166, 18186), (212, 18321), (251, 18456), (277, 18540), (282, 18561), (284, 18576), (304, 18651), (317, 18723), (322, 18741), (337, 18795), (345, 18822),

Gene: Jefe\_31 Start: 17941, Stop: 18855, Start Num: 71

Candidate Starts for Jefe\_31:

(Start: 71 @17941 has 25 MA's), (Start: 79 @17953 has 3 MA's), (113, 18043), (166, 18187), (203, 18295), (212, 18322), (215, 18328), (251, 18457), (277, 18541), (304, 18652), (317, 18724), (322, 18742), (337, 18796),

Gene: Jehoshaphat\_33 Start: 21489, Stop: 22337, Start Num: 99

Candidate Starts for Jehoshaphat\_33:

(Start: 99 @21489 has 36 MA's), (136, 21552), (148, 21582), (165, 21645), (186, 21702), (193, 21714), (223, 21795), (251, 21903), (284, 22026), (287, 22044), (333, 22236),

Gene: Jeon\_16 Start: 16549, Stop: 17286, Start Num: 97

Candidate Starts for Jeon\_16:

(Start: 97 @16549 has 8 MA's), (Start: 105 @16561 has 2 MA's), (159, 16684), (Start: 160 @16693 has 1 MA's), (174, 16750), (181, 16765), (189, 16780), (218, 16807), (228, 16828), (231, 16843), (237, 16861), (244, 16891), (247, 16897), (250, 16912), (272, 16972), (284, 17026), (285, 17029), (292, 17062), (294, 17068), (295, 17071), (311, 17140), (314, 17149), (316, 17164), (332, 17230), (337, 17245), (340, 17263), (345, 17278),

Gene: Jillium\_21 Start: 16787, Stop: 17524, Start Num: 93

Candidate Starts for Jillium\_21:

(Start: 93 @16787 has 307 MA's), (154, 16901), (155, 16907), (159, 16916), (Start: 160 @16925 has 1 MA's), (203, 17021), (237, 17093), (239, 17099), (241, 17111), (255, 17162), (282, 17243), (287, 17276), (289, 17282), (310, 17363), (311, 17375), (316, 17399), (323, 17426), (332, 17468), (340, 17501), (345, 17516),

Gene: Jiminy\_21 Start: 16625, Stop: 17362, Start Num: 93

Candidate Starts for Jiminy\_21:

(Start: 93 @16625 has 307 MA's), (154, 16739), (155, 16745), (159, 16754), (Start: 160 @16763 has 1 MA's), (203, 16859), (237, 16931), (239, 16937), (241, 16949), (255, 17000), (282, 17081), (287, 17114), (289, 17120), (310, 17201), (311, 17213), (316, 17237), (323, 17264), (340, 17339), (345, 17354),

Gene: Jolie1\_018 Start: 16207, Stop: 16956, Start Num: 92

Candidate Starts for Jolie1\_018:

(72, 16150), (Start: 92 @16207 has 4 MA's), (106, 16234), (126, 16267), (154, 16318), (166, 16372), (168, 16378), (194, 16432), (219, 16471), (236, 16522), (244, 16555), (247, 16561), (249, 16567), (250, 16576), (277, 16654), (284, 16690), (311, 16807), (316, 16831), (323, 16858), (340, 16933), (345, 16948),

Gene: Jollipop\_31 Start: 18286, Stop: 19200, Start Num: 71

Candidate Starts for Jollipop\_31:

(Start: 71 @18286 has 25 MA's), (Start: 79 @18298 has 3 MA's), (113, 18388), (166, 18532), (203, 18640), (212, 18667), (215, 18673), (251, 18802), (277, 18886), (304, 18997), (317, 19069), (322, 19087), (337, 19141),

Gene: Judebell\_33 Start: 20998, Stop: 21846, Start Num: 99

Candidate Starts for Judebell\_33:

(Start: 99 @20998 has 36 MA's), (136, 21061), (148, 21091), (165, 21154), (186, 21211), (193, 21223), (223, 21304), (251, 21412), (284, 21535), (287, 21553), (333, 21745),

Gene: KLucky39\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for KLucky39\_22:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: Kahve\_21 Start: 16791, Stop: 17528, Start Num: 93

Candidate Starts for Kahve\_21:

(Start: 93 @16791 has 307 MA's), (Start: 118 @16833 has 1 MA's), (154, 16905), (155, 16911), (159, 16920), (Start: 160 @16929 has 1 MA's), (203, 17025), (237, 17097), (239, 17103), (241, 17115), (255, 17166), (282, 17247), (287, 17280), (289, 17286), (310, 17367), (311, 17379), (316, 17403), (323, 17430), (340, 17505), (345, 17520),

Gene: KaiHaiDragon\_31 Start: 17880, Stop: 18794, Start Num: 71

Candidate Starts for KaiHaiDragon\_31:

(Start: 71 @17880 has 25 MA's), (113, 17982), (166, 18126), (203, 18234), (212, 18261), (215, 18267), (251, 18396), (277, 18480), (304, 18591), (317, 18663), (322, 18681), (337, 18735),

Gene: Kailash\_22 Start: 17079, Stop: 17816, Start Num: 93

Candidate Starts for Kailash\_22:

(Start: 93 @17079 has 307 MA's), (154, 17193), (155, 17199), (159, 17208), (Start: 160 @17217 has 1 MA's), (203, 17313), (237, 17385), (239, 17391), (241, 17403), (255, 17454), (282, 17535), (287, 17568), (289, 17574), (310, 17655), (311, 17667), (316, 17691), (323, 17718), (340, 17793), (345, 17808),

Gene: Kaleb\_24 Start: 19247, Stop: 20032, Start Num: 85

Candidate Starts for Kaleb\_24:

(Start: 85 @19247 has 29 MA's), (135, 19358), (150, 19394), (Start: 156 @19415 has 3 MA's), (158, 19418), (168, 19466), (181, 19502), (237, 19604), (243, 19631), (247, 19640), (251, 19658), (258, 19679), (284, 19772), (289, 19796), (295, 19817), (310, 19874), (311, 19886), (312, 19889), (319, 19919), (331, 19970), (344, 20021),

Gene: Kamashten\_26 Start: 21526, Stop: 22299, Start Num: 108

Candidate Starts for Kamashten\_26:

(Start: 108 @21526 has 63 MA's), (133, 21574), (168, 21679), (237, 21826), (250, 21877), (264, 21922), (284, 22000), (287, 22018), (299, 22057), (311, 22114), (328, 22180), (356, 22282),

Gene: Kamiyu\_23 Start: 17708, Stop: 18448, Start Num: 101

Candidate Starts for Kamiyu\_23:

(Start: 67 @17615 has 8 MA's), (Start: 93 @17690 has 307 MA's), (Start: 101 @17708 has 25 MA's), (158, 17828), (190, 17924), (247, 18053), (251, 18071), (271, 18131), (285, 18188), (299, 18242), (316, 18323), (319, 18335), (325, 18353), (341, 18428),

Gene: Katniss\_22 Start: 17089, Stop: 17826, Start Num: 93

Candidate Starts for Katniss\_22:

(Start: 93 @17089 has 307 MA's), (154, 17203), (155, 17209), (159, 17218), (Start: 160 @17227 has 1 MA's), (203, 17323), (237, 17395), (239, 17401), (241, 17413), (255, 17464), (282, 17545), (287, 17578), (289, 17584), (310, 17665), (311, 17677), (316, 17701), (323, 17728), (332, 17770), (340, 17803), (345, 17818),

Gene: KayaCho\_18 Start: 16223, Stop: 16966, Start Num: 92

Candidate Starts for KayaCho\_18:

(Start: 92 @16223 has 4 MA's), (106, 16250), (126, 16283), (154, 16334), (166, 16388), (188, 16442), (202, 16457), (236, 16532), (247, 16571), (248, 16574), (250, 16586), (284, 16700), (289, 16724), (314, 16826), (323, 16868), (340, 16943), (345, 16958),

Gene: Keitabear\_27 Start: 22888, Stop: 23655, Start Num: 108

Candidate Starts for Keitabear\_27:

(Start: 108 @22888 has 63 MA's), (133, 22936), (158, 22993), (168, 23041), (237, 23188), (251, 23242), (264, 23278), (284, 23356), (287, 23374), (299, 23413), (328, 23536), (356, 23638),

Gene: Keitherie\_22 Start: 17092, Stop: 17829, Start Num: 93

Candidate Starts for Keitherie\_22:

(Start: 93 @17092 has 307 MA's), (154, 17206), (155, 17212), (159, 17221), (Start: 160 @17230 has 1 MA's), (203, 17326), (237, 17398), (239, 17404), (241, 17416), (255, 17467), (282, 17548), (287, 17581), (289, 17587), (310, 17668), (311, 17680), (316, 17704), (323, 17731), (332, 17773), (340, 17806), (345, 17821),

Gene: Kelcole\_29 Start: 19637, Stop: 20482, Start Num: 99

Candidate Starts for Kelcole\_29:

(Start: 99 @19637 has 36 MA's), (136, 19703), (148, 19733), (186, 19853), (223, 19946), (248, 20039), (277, 20141), (278, 20144), (291, 20207), (333, 20378), (345, 20423),

Gene: Kewpiedoll\_26 Start: 20723, Stop: 21496, Start Num: 108

Candidate Starts for Kewpiedoll\_26:

(Start: 108 @20723 has 63 MA's), (133, 20771), (158, 20828), (168, 20876), (237, 21023), (264, 21119), (284, 21197), (287, 21215), (299, 21254), (311, 21311), (328, 21377), (356, 21479),

Gene: Kheth\_24 Start: 19133, Stop: 19918, Start Num: 85

Candidate Starts for Kheth\_24:

(Start: 85 @19133 has 29 MA's), (135, 19244), (150, 19280), (Start: 156 @19301 has 3 MA's), (158, 19304), (168, 19352), (181, 19388), (237, 19490), (243, 19517), (247, 19526), (251, 19544), (258, 19565), (284, 19658), (289, 19682), (295, 19703), (310, 19760), (311, 19772), (312, 19775), (319, 19805), (331, 19856), (344, 19907),

Gene: Kikipoo\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for Kikipoo\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: Kimbrough\_22 Start: 16783, Stop: 17520, Start Num: 93

Candidate Starts for Kimbrough\_22:

(Start: 93 @16783 has 307 MA's), (154, 16897), (155, 16903), (159, 16912), (Start: 160 @16921 has 1 MA's), (203, 17017), (237, 17089), (239, 17095), (241, 17107), (255, 17158), (282, 17239), (287, 17272), (289, 17278), (310, 17359), (311, 17371), (316, 17395), (323, 17422), (332, 17464), (340, 17497), (345, 17512),

Gene: KimmyK\_25 Start: 16659, Stop: 17429, Start Num: 112

Candidate Starts for KimmyK\_25:

(Start: 112 @16659 has 29 MA's), (133, 16701), (163, 16782), (202, 16887), (237, 16962), (239, 16968), (243, 16989), (247, 16998), (258, 17037), (301, 17199), (335, 17349), (337, 17355), (356, 17412),

Gene: KingVeVeVe\_22 Start: 17060, Stop: 17797, Start Num: 93

Candidate Starts for KingVeVeVe\_22:

(Start: 93 @17060 has 307 MA's), (154, 17174), (155, 17180), (159, 17189), (Start: 160 @17198 has 1 MA's), (203, 17294), (237, 17366), (239, 17372), (241, 17384), (255, 17435), (282, 17516), (287, 17549), (289, 17555), (310, 17636), (311, 17648), (316, 17672), (323, 17699), (340, 17774), (345, 17789),

Gene: KlimbOn\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for KlimbOn\_22:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: Kloppinator\_22 Start: 17089, Stop: 17826, Start Num: 93

Candidate Starts for Kloppinator\_22:

(Start: 93 @17089 has 307 MA's), (154, 17203), (155, 17209), (159, 17218), (Start: 160 @17227 has 1 MA's), (203, 17323), (237, 17395), (239, 17401), (241, 17413), (255, 17464), (282, 17545), (287, 17578), (289, 17584), (310, 17665), (311, 17677), (316, 17701), (323, 17728), (332, 17770), (340, 17803), (345, 17818),

Gene: Knocker\_24 Start: 20201, Stop: 20941, Start Num: 93

Candidate Starts for Knocker\_24:

(Start: 93 @20201 has 307 MA's), (Start: 118 @20243 has 1 MA's), (155, 20312), (158, 20318), (159, 20321), (168, 20366), (222, 20459), (243, 20534), (255, 20576), (258, 20582), (289, 20696), (292, 20708), (295, 20717), (302, 20741), (309, 20765), (311, 20792), (314, 20801), (345, 20933),

Gene: Kowalski\_30 Start: 18008, Stop: 18910, Start Num: 79

Candidate Starts for Kowalski\_30:

(Start: 71 @17996 has 25 MA's), (Start: 79 @18008 has 3 MA's), (113, 18098), (166, 18242), (203, 18350), (212, 18377), (215, 18383), (251, 18512), (277, 18596), (304, 18707), (317, 18779), (322, 18797), (337, 18851),

Gene: Kozie\_27 Start: 17670, Stop: 18578, Start Num: 81

Candidate Starts for Kozie\_27:

(20, 17322), (42, 17505), (62, 17631), (Start: 81 @17670 has 7 MA's), (86, 17697), (Start: 87 @17700 has 2 MA's), (88, 17703), (168, 17904), (212, 18033), (247, 18150), (252, 18171), (258, 18192), (264, 18213), (277, 18252), (287, 18306), (293, 18327), (334, 18498), (342, 18528),

Gene: Kronus\_22 Start: 18304, Stop: 19062, Start Num: 93

Candidate Starts for Kronus\_22:

(Start: 67 @18229 has 8 MA's), (76, 18247), (Start: 93 @18304 has 307 MA's), (Start: 101 @18322 has 25 MA's), (158, 18442), (Start: 160 @18454 has 1 MA's), (190, 18538), (247, 18667), (251, 18685), (271, 18745), (285, 18802), (299, 18856), (316, 18937), (319, 18949), (325, 18967), (341, 19042),

Gene: Kroos\_27 Start: 20924, Stop: 21691, Start Num: 108

Candidate Starts for Kroos\_27:

(Start: 108 @20924 has 63 MA's), (133, 20972), (158, 21029), (Start: 160 @21041 has 1 MA's), (234, 21218), (251, 21278), (264, 21320), (284, 21398), (287, 21416), (298, 21452), (311, 21512), (328, 21578), (353, 21671),

Gene: Kwadwo\_21 Start: 16773, Stop: 17510, Start Num: 93

Candidate Starts for Kwadwo\_21:

(Start: 93 @16773 has 307 MA's), (154, 16887), (155, 16893), (159, 16902), (Start: 160 @16911 has 1 MA's), (203, 17007), (237, 17079), (239, 17085), (241, 17097), (255, 17148), (282, 17229), (287, 17262), (289, 17268), (310, 17349), (311, 17361), (316, 17385), (323, 17412), (332, 17454), (340, 17487), (345, 17502),

Gene: Kwekel\_24 Start: 17921, Stop: 18718, Start Num: 108

Candidate Starts for Kwekel\_24:

(Start: 108 @17921 has 63 MA's), (141, 17981), (163, 18050), (168, 18074), (205, 18167), (264, 18350), (277, 18392), (283, 18425), (301, 18491), (303, 18500), (328, 18608), (345, 18680), (354, 18698),

Gene: Kwksand96\_21 Start: 16635, Stop: 17372, Start Num: 93

Candidate Starts for Kwksand96\_21:

(Start: 93 @16635 has 307 MA's), (154, 16749), (155, 16755), (159, 16764), (Start: 160 @16773 has 1 MA's), (203, 16869), (237, 16941), (239, 16947), (241, 16959), (255, 17010), (282, 17091), (287, 17124), (289, 17130), (310, 17211), (311, 17223), (316, 17247), (323, 17274), (340, 17349), (345, 17364),

Gene: Kwobi\_27 Start: 20910, Stop: 21677, Start Num: 108

Candidate Starts for Kwobi\_27:

(Start: 108 @20910 has 63 MA's), (133, 20958), (158, 21015), (Start: 160 @21027 has 1 MA's), (234, 21204), (251, 21264), (264, 21306), (284, 21384), (287, 21402), (298, 21438), (311, 21498), (328, 21564),

Gene: Kyva\_33 Start: 21219, Stop: 22067, Start Num: 99

Candidate Starts for Kyva\_33:

(Start: 99 @21219 has 36 MA's), (136, 21282), (148, 21312), (165, 21375), (186, 21432), (193, 21444), (223, 21525), (251, 21633), (284, 21756), (287, 21774), (333, 21966),

Gene: Labeouficaum\_21 Start: 16631, Stop: 17368, Start Num: 93

Candidate Starts for Labeouficaum\_21:

(Start: 93 @16631 has 307 MA's), (Start: 118 @16673 has 1 MA's), (154, 16745), (155, 16751), (159, 16760), (Start: 160 @16769 has 1 MA's), (203, 16865), (237, 16937), (239, 16943), (241, 16955), (255, 17006), (282, 17087), (287, 17120), (289, 17126), (310, 17207), (311, 17219), (316, 17243), (323, 17270), (340, 17345), (345, 17360),

Gene: Lars\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for Lars\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: LasagnaCat\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for LasagnaCat\_22:

(Start: 93 @17075 has 307 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (332, 17756), (340, 17789), (345, 17804),

Gene: Lasso\_22 Start: 17048, Stop: 17785, Start Num: 93

Candidate Starts for Lasso\_22:

(Start: 93 @17048 has 307 MA's), (154, 17162), (155, 17168), (159, 17177), (Start: 160 @17186 has 1 MA's), (203, 17282), (237, 17354), (239, 17360), (241, 17372), (255, 17423), (282, 17504), (287, 17537), (289, 17543), (310, 17624), (311, 17636), (316, 17660), (323, 17687), (332, 17729), (340, 17762), (345, 17777),

Gene: Laurie\_24 Start: 19124, Stop: 19909, Start Num: 85

Candidate Starts for Laurie\_24:

(Start: 85 @19124 has 29 MA's), (135, 19235), (150, 19271), (Start: 156 @19292 has 3 MA's), (158, 19295), (168, 19343), (181, 19379), (237, 19481), (243, 19508), (247, 19517), (251, 19535), (258, 19556), (284, 19649), (289, 19673), (295, 19694), (310, 19751), (311, 19763), (312, 19766), (319, 19796), (331, 19847), (344, 19898),

Gene: Leaf\_68 Start: 37486, Stop: 38313, Start Num: 104

Candidate Starts for Leaf\_68:

(1, 36382), (2, 36514), (4, 36622), (5, 36784), (6, 36832), (14, 36922), (15, 36931), (22, 37045), (26, 37075), (49, 37276), (Start: 104 @37486 has 13 MA's), (138, 37546), (154, 37588), (166, 37642), (168, 37648), (208, 37753), (212, 37759), (215, 37765), (224, 37786), (247, 37876), (251, 37894), (264, 37939), (272, 37957), (284, 38014), (287, 38032), (289, 38038), (311, 38131), (315, 38143), (320, 38170), (334, 38230), (337, 38239), (345, 38266), (349, 38281), (358, 38293),

Gene: LeeLot\_22 Start: 17073, Stop: 17810, Start Num: 93

Candidate Starts for LeeLot\_22:

(Start: 93 @17073 has 307 MA's), (154, 17187), (155, 17193), (159, 17202), (Start: 160 @17211 has 1 MA's), (203, 17307), (237, 17379), (239, 17385), (241, 17397), (255, 17448), (282, 17529), (287, 17562), (289, 17568), (310, 17649), (311, 17661), (316, 17685), (323, 17712), (332, 17754), (340, 17787), (345, 17802),

Gene: Lego3393\_22 Start: 17085, Stop: 17822, Start Num: 93

Candidate Starts for Lego3393\_22:

(Start: 93 @17085 has 307 MA's), (Start: 118 @17127 has 1 MA's), (154, 17199), (155, 17205), (159, 17214), (Start: 160 @17223 has 1 MA's), (203, 17319), (237, 17391), (239, 17397), (241, 17409), (255, 17460), (282, 17541), (287, 17574), (289, 17580), (310, 17661), (311, 17673), (316, 17697), (323, 17724), (332, 17766), (340, 17799), (345, 17814),

Gene: Legolas\_21 Start: 16789, Stop: 17526, Start Num: 93

Candidate Starts for Legolas\_21:

(Start: 93 @16789 has 307 MA's), (154, 16903), (155, 16909), (159, 16918), (Start: 160 @16927 has 1 MA's), (203, 17023), (237, 17095), (239, 17101), (241, 17113), (255, 17164), (282, 17245), (287, 17278), (289, 17284), (310, 17365), (311, 17377), (316, 17401), (323, 17428), (332, 17470), (340, 17503), (345, 17518),

Gene: LeiMonet\_22 Start: 16780, Stop: 17517, Start Num: 93

Candidate Starts for LeiMonet\_22:

(Start: 93 @16780 has 307 MA's), (Start: 118 @16822 has 1 MA's), (154, 16894), (155, 16900), (159, 16909), (Start: 160 @16918 has 1 MA's), (203, 17014), (237, 17086), (239, 17092), (241, 17104), (255, 17155), (282, 17236), (287, 17269), (289, 17275), (310, 17356), (311, 17368), (316, 17392), (323, 17419), (340, 17494), (345, 17509),

Gene: LemonSlice\_22 Start: 16780, Stop: 17517, Start Num: 93

Candidate Starts for LemonSlice\_22:

(Start: 93 @16780 has 307 MA's), (Start: 118 @16822 has 1 MA's), (154, 16894), (155, 16900), (159, 16909), (Start: 160 @16918 has 1 MA's), (203, 17014), (237, 17086), (239, 17092), (241, 17104), (255, 17155), (282, 17236), (287, 17269), (289, 17275), (310, 17356), (311, 17368), (316, 17392), (323, 17419), (332, 17461), (340, 17494), (345, 17509),

Gene: Lennon\_27 Start: 22681, Stop: 23454, Start Num: 108

Candidate Starts for Lennon\_27:

(Start: 108 @22681 has 63 MA's), (133, 22729), (158, 22786), (168, 22834), (237, 22981), (250, 23032), (264, 23077), (284, 23155), (287, 23173), (299, 23212), (328, 23335), (356, 23437),



Gene: Leonard\_25 Start: 19637, Stop: 20428, Start Num: 108

Candidate Starts for Leonard\_25:

(Start: 108 @19637 has 63 MA's), (122, 19658), (147, 19709), (168, 19790), (198, 19850), (204, 19868), (205, 19871), (251, 20012), (259, 20036), (264, 20054), (288, 20153), (311, 20246), (312, 20249), (317, 20276), (328, 20312), (349, 20399), (355, 20411),

Gene: Lephleur\_24 Start: 19130, Stop: 19915, Start Num: 85

Candidate Starts for Lephleur\_24:

(Start: 85 @19130 has 29 MA's), (135, 19241), (150, 19277), (Start: 156 @19298 has 3 MA's), (158, 19301), (168, 19349), (181, 19385), (237, 19487), (243, 19514), (247, 19523), (251, 19541), (258, 19562), (284, 19655), (289, 19679), (295, 19700), (310, 19757), (311, 19769), (312, 19772), (319, 19802), (331, 19853), (344, 19904),

Gene: LestyG\_23 Start: 17650, Stop: 18483, Start Num: 67

Candidate Starts for LestyG\_23:

(Start: 67 @17650 has 8 MA's), (76, 17668), (Start: 93 @17725 has 307 MA's), (Start: 101 @17743 has 25 MA's), (158, 17863), (Start: 160 @17875 has 1 MA's), (190, 17959), (247, 18088), (251, 18106), (271, 18166), (285, 18223), (299, 18277), (316, 18358), (319, 18370), (325, 18388), (341, 18463),

Gene: Ligma\_19 Start: 15599, Stop: 16345, Start Num: 93

Candidate Starts for Ligma\_19:

(Start: 84 @15569 has 3 MA's), (Start: 93 @15599 has 307 MA's), (Start: 101 @15617 has 25 MA's), (111, 15632), (184, 15818), (247, 15953), (250, 15968), (262, 16007), (311, 16196), (314, 16205), (316, 16220), (319, 16232), (332, 16289), (337, 16304), (345, 16337),

Gene: LilHam\_24 Start: 19504, Stop: 20271, Start Num: 108

Candidate Starts for LilHam\_24:

(Start: 108 @19504 has 63 MA's), (133, 19552), (158, 19609), (Start: 160 @19621 has 1 MA's), (234, 19798), (251, 19858), (264, 19900), (284, 19978), (287, 19996), (298, 20032), (311, 20092), (328, 20158),

Gene: LilMcDreamy\_19 Start: 17763, Stop: 18494, Start Num: 93

Candidate Starts for LilMcDreamy\_19:

(Start: 93 @17763 has 307 MA's), (137, 17832), (171, 17934), (201, 17982), (237, 18063), (247, 18099), (250, 18114), (253, 18120), (277, 18192), (284, 18228), (289, 18252), (303, 18300), (310, 18333), (311, 18345), (323, 18396), (332, 18438), (340, 18471), (345, 18486),

Gene: Lilbeanie\_22 Start: 14957, Stop: 15703, Start Num: 108

Candidate Starts for Lilbeanie\_22:

(Start: 108 @14957 has 63 MA's), (129, 14996), (158, 15062), (163, 15086), (169, 15110), (207, 15191), (246, 15284), (251, 15299), (259, 15323), (285, 15422), (306, 15500), (316, 15557), (328, 15599), (346, 15665), (357, 15689),

Gene: LittleFortune\_32 Start: 18246, Stop: 19160, Start Num: 71

Candidate Starts for LittleFortune\_32:

(Start: 71 @18246 has 25 MA's), (Start: 79 @18258 has 3 MA's), (113, 18348), (166, 18492), (203, 18600), (212, 18627), (215, 18633), (251, 18762), (277, 18846), (304, 18957), (317, 19029), (322, 19047), (337, 19101),

Gene: LittleMunchkin\_21 Start: 18438, Stop: 19184, Start Num: 93

Candidate Starts for LittleMunchkin\_21:

(69, 18384), (Start: 93 @18438 has 307 MA's), (Start: 101 @18456 has 25 MA's), (146, 18540), (159, 18579), (178, 18648), (184, 18657), (262, 18846), (314, 19044), (316, 19059), (319, 19071), (332, 19128), (344, 19173), (345, 19176),

Gene: LizLemon\_24 Start: 19247, Stop: 20032, Start Num: 85

Candidate Starts for LizLemon\_24:

(Start: 85 @19247 has 29 MA's), (135, 19358), (150, 19394), (Start: 156 @19415 has 3 MA's), (158, 19418), (168, 19466), (181, 19502), (237, 19604), (243, 19631), (247, 19640), (251, 19658), (258, 19679), (284, 19772), (289, 19796), (295, 19817), (310, 19874), (311, 19886), (312, 19889), (319, 19919), (331, 19970), (344, 20021),

Gene: Llemily\_31 Start: 20265, Stop: 21113, Start Num: 99

Candidate Starts for Llemily\_31:

(Start: 99 @20265 has 36 MA's), (136, 20328), (148, 20358), (165, 20421), (186, 20478), (193, 20490), (223, 20571), (251, 20679), (284, 20802), (287, 20820), (333, 21012),

Gene: Lolalove\_20 Start: 17689, Stop: 18432, Start Num: 93

Candidate Starts for Lolalove\_20:

(Start: 93 @17689 has 307 MA's), (155, 17800), (158, 17806), (168, 17854), (231, 17983), (237, 18001), (243, 18028), (251, 18055), (259, 18079), (262, 18091), (274, 18121), (284, 18166), (289, 18190), (323, 18334), (333, 18379), (337, 18391), (340, 18409), (345, 18424),

Gene: Lonelysoil\_30 Start: 20510, Stop: 21358, Start Num: 99

Candidate Starts for Lonelysoil\_30:

(Start: 99 @20510 has 36 MA's), (136, 20573), (148, 20603), (165, 20666), (186, 20723), (193, 20735), (223, 20816), (251, 20924), (284, 21047), (287, 21065), (333, 21257),

Gene: Longacauda\_21 Start: 16775, Stop: 17512, Start Num: 93

Candidate Starts for Longacauda\_21:

(Start: 93 @16775 has 307 MA's), (154, 16889), (155, 16895), (159, 16904), (Start: 160 @16913 has 1 MA's), (203, 17009), (237, 17081), (239, 17087), (241, 17099), (255, 17150), (282, 17231), (287, 17264), (289, 17270), (310, 17351), (311, 17363), (316, 17387), (323, 17414), (340, 17489), (345, 17504),

Gene: Lopsy\_21 Start: 16631, Stop: 17368, Start Num: 93

Candidate Starts for Lopsy\_21:

(Start: 93 @16631 has 307 MA's), (154, 16745), (155, 16751), (159, 16760), (Start: 160 @16769 has 1 MA's), (203, 16865), (237, 16937), (239, 16943), (241, 16955), (255, 17006), (282, 17087), (287, 17120), (289, 17126), (311, 17219), (316, 17243), (323, 17270), (332, 17312), (340, 17345), (345, 17360),

Gene: LostAndPhound\_21 Start: 16782, Stop: 17519, Start Num: 93

Candidate Starts for LostAndPhound\_21:

(Start: 93 @16782 has 307 MA's), (Start: 118 @16824 has 1 MA's), (154, 16896), (155, 16902), (159, 16911), (Start: 160 @16920 has 1 MA's), (203, 17016), (237, 17088), (239, 17094), (241, 17106), (255, 17157), (282, 17238), (287, 17271), (289, 17277), (310, 17358), (311, 17370), (316, 17394), (323, 17421), (340, 17496), (345, 17511),

Gene: Love\_30 Start: 22448, Stop: 23221, Start Num: 108

Candidate Starts for Love\_30:

(Start: 108 @22448 has 63 MA's), (133, 22496), (158, 22553), (168, 22601), (237, 22748), (250, 22799), (264, 22844), (284, 22922), (287, 22940), (299, 22979), (311, 23036), (328, 23102), (356, 23204),

Gene: LuckyMarjie\_21 Start: 16795, Stop: 17532, Start Num: 93

Candidate Starts for LuckyMarjie\_21:

(Start: 93 @16795 has 307 MA's), (154, 16909), (155, 16915), (159, 16924), (Start: 160 @16933 has 1 MA's), (203, 17029), (237, 17101), (239, 17107), (241, 17119), (255, 17170), (282, 17251), (287, 17284), (289, 17290), (310, 17371), (311, 17383), (316, 17407), (323, 17434), (332, 17476), (340, 17509), (345, 17524),

Gene: Lulumae\_21 Start: 16773, Stop: 17510, Start Num: 93

Candidate Starts for Lulumae\_21:

(Start: 93 @16773 has 307 MA's), (154, 16887), (155, 16893), (159, 16902), (Start: 160 @16911 has 1 MA's), (203, 17007), (237, 17079), (239, 17085), (241, 17097), (255, 17148), (282, 17229), (287, 17262), (289, 17268), (310, 17349), (311, 17361), (316, 17385), (323, 17412), (332, 17454), (340, 17487), (345, 17502),

Gene: Lulwa\_22 Start: 17060, Stop: 17797, Start Num: 93

Candidate Starts for Lulwa\_22:

(Start: 93 @17060 has 307 MA's), (154, 17174), (155, 17180), (159, 17189), (Start: 160 @17198 has 1 MA's), (203, 17294), (237, 17366), (239, 17372), (241, 17384), (255, 17435), (282, 17516), (287, 17549), (289, 17555), (310, 17636), (311, 17648), (316, 17672), (323, 17699), (332, 17741), (340, 17774), (345, 17789),

Gene: Lumine\_21 Start: 16769, Stop: 17506, Start Num: 93

Candidate Starts for Lumine\_21:

(Start: 93 @16769 has 307 MA's), (154, 16883), (155, 16889), (159, 16898), (Start: 160 @16907 has 1 MA's), (203, 17003), (237, 17075), (239, 17081), (241, 17093), (255, 17144), (282, 17225), (287, 17258), (289, 17264), (310, 17345), (311, 17357), (316, 17381), (323, 17408), (332, 17450), (340, 17483), (345, 17498),

Gene: MRabcd\_21 Start: 16774, Stop: 17511, Start Num: 93

Candidate Starts for MRabcd\_21:

(Start: 93 @16774 has 307 MA's), (154, 16888), (155, 16894), (159, 16903), (Start: 160 @16912 has 1 MA's), (203, 17008), (237, 17080), (239, 17086), (241, 17098), (255, 17149), (282, 17230), (287, 17263), (289, 17269), (310, 17350), (311, 17362), (316, 17386), (323, 17413), (332, 17455), (340, 17488), (345, 17503),

Gene: Mag7\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for Mag7\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: Magic8\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Magic8\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (340, 17781), (345, 17796),

Gene: Magpie\_19 Start: 17512, Stop: 18255, Start Num: 93

Candidate Starts for Magpie\_19:

(Start: 82 @17470 has 1 MA's), (Start: 93 @17512 has 307 MA's), (155, 17623), (158, 17629), (168, 17677), (231, 17806), (243, 17851), (251, 17878), (259, 17902), (262, 17914), (274, 17944), (284, 17989), (289, 18013), (323, 18157), (333, 18202), (337, 18214), (340, 18232), (345, 18247),

Gene: Maih\_17 Start: 17739, Stop: 18599, Start Num: 104

Candidate Starts for Maih\_17:

(64, 17607), (Start: 104 @17739 has 13 MA's), (154, 17847), (206, 17994), (210, 18003), (220, 18018), (247, 18117), (249, 18123), (251, 18135), (252, 18138), (277, 18243), (280, 18252), (284, 18279), (291, 18312), (293, 18318), (316, 18423), (320, 18438), (325, 18453), (331, 18486), (337, 18507), (343, 18534), (345, 18540),

Gene: MakoManhole\_21 Start: 16994, Stop: 17737, Start Num: 101

Candidate Starts for MakoManhole\_21:

(Start: 101 @16994 has 25 MA's), (116, 17018), (126, 17036), (147, 17093), (154, 17114), (155, 17120), (165, 17159), (201, 17228), (203, 17234), (247, 17345), (286, 17483), (332, 17681), (337, 17696), (340, 17714),

Gene: Mana\_21 Start: 16776, Stop: 17513, Start Num: 93

Candidate Starts for Mana\_21:

(Start: 93 @16776 has 307 MA's), (154, 16890), (155, 16896), (159, 16905), (Start: 160 @16914 has 1 MA's), (203, 17010), (237, 17082), (239, 17088), (241, 17100), (255, 17151), (282, 17232), (287, 17265), (289, 17271), (310, 17352), (311, 17364), (316, 17388), (323, 17415), (340, 17490), (345, 17505),

Gene: Manad\_21 Start: 16626, Stop: 17363, Start Num: 93

Candidate Starts for Manad\_21:

(Start: 93 @16626 has 307 MA's), (Start: 118 @16668 has 1 MA's), (154, 16740), (155, 16746), (159, 16755), (Start: 160 @16764 has 1 MA's), (203, 16860), (237, 16932), (239, 16938), (241, 16950), (255, 17001), (282, 17082), (287, 17115), (289, 17121), (310, 17202), (311, 17214), (316, 17238), (323, 17265), (340, 17340), (345, 17355),

Gene: Mao1\_18 Start: 15069, Stop: 15827, Start Num: 92

Candidate Starts for Mao1\_18:

(Start: 92 @15069 has 4 MA's), (96, 15078), (120, 15120), (125, 15129), (157, 15213), (Start: 160 @15225 has 1 MA's), (165, 15246), (189, 15312), (231, 15378), (236, 15393), (237, 15396), (241, 15414), (244, 15426), (254, 15459), (298, 15615), (328, 15747), (334, 15777), (337, 15786), (345, 15819),

Gene: Marcie\_35 Start: 20293, Stop: 21138, Start Num: 99

Candidate Starts for Marcie\_35:

(Start: 99 @20293 has 36 MA's), (136, 20359), (147, 20386), (148, 20389), (186, 20509), (200, 20551), (214, 20584), (223, 20602), (248, 20695), (277, 20797), (284, 20830), (291, 20863), (321, 20986), (333, 21034), (345, 21079),

Gene: Margaery\_26 Start: 17314, Stop: 18219, Start Num: 81

Candidate Starts for Margaery\_26:

(Start: 81 @17314 has 7 MA's), (86, 17341), (Start: 87 @17344 has 2 MA's), (127, 17425), (163, 17527), (212, 17680), (228, 17722), (243, 17788), (247, 17797), (252, 17818), (258, 17839), (264, 17860), (277, 17899), (289, 17959), (293, 17974), (334, 18145), (345, 18184), (348, 18193), (349, 18199),

Gene: Mariokart\_19 Start: 15510, Stop: 16238, Start Num: 101

Candidate Starts for Mariokart\_19:

(10, 14904), (Start: 93 @15492 has 307 MA's), (Start: 101 @15510 has 25 MA's), (111, 15525), (144, 15591), (Start: 152 @15612 has 8 MA's), (165, 15663), (203, 15735), (241, 15828), (247, 15846), (250, 15861), (262, 15900), (311, 16089), (314, 16098), (319, 16125), (332, 16182), (340, 16215), (344, 16227),

Gene: Marley1013\_23 Start: 18428, Stop: 19261, Start Num: 67

Candidate Starts for Marley1013\_23:

(Start: 67 @18428 has 8 MA's), (76, 18446), (Start: 93 @18503 has 307 MA's), (Start: 101 @18521 has 25 MA's), (158, 18641), (Start: 160 @18653 has 1 MA's), (190, 18737), (247, 18866), (251, 18884), (271, 18944), (285, 19001), (299, 19055), (316, 19136), (319, 19148), (325, 19166), (341, 19241),

Gene: Maru\_21 Start: 16775, Stop: 17512, Start Num: 93

Candidate Starts for Maru\_21:

(Start: 93 @16775 has 307 MA's), (Start: 118 @16817 has 1 MA's), (154, 16889), (155, 16895), (159, 16904), (Start: 160 @16913 has 1 MA's), (203, 17009), (237, 17081), (239, 17087), (241, 17099), (255, 17150), (282, 17231), (287, 17264), (289, 17270), (310, 17351), (311, 17363), (316, 17387), (323, 17414), (340, 17489), (345, 17504),

Gene: Mashley\_29 Start: 20782, Stop: 21630, Start Num: 99

Candidate Starts for Mashley\_29:

(Start: 99 @20782 has 36 MA's), (136, 20845), (148, 20875), (165, 20938), (186, 20995), (193, 21007), (223, 21088), (251, 21196), (284, 21319), (287, 21337), (333, 21529),

Gene: Mask\_19 Start: 15070, Stop: 15828, Start Num: 92

Candidate Starts for Mask\_19:

(Start: 92 @15070 has 4 MA's), (96, 15079), (120, 15121), (125, 15130), (157, 15214), (Start: 160 @15226 has 1 MA's), (165, 15247), (189, 15313), (231, 15379), (236, 15394), (237, 15397), (241, 15415), (244, 15427), (254, 15460), (298, 15616), (328, 15748), (334, 15778), (337, 15787), (345, 15820),

Gene: Maskar\_21 Start: 16621, Stop: 17358, Start Num: 93

Candidate Starts for Maskar\_21:

(Start: 93 @16621 has 307 MA's), (154, 16735), (155, 16741), (159, 16750), (Start: 160 @16759 has 1 MA's), (203, 16855), (237, 16927), (239, 16933), (241, 16945), (255, 16996), (282, 17077), (287, 17110), (289, 17116), (310, 17197), (311, 17209), (316, 17233), (323, 17260), (340, 17335), (345, 17350),

Gene: MasterPo\_24 Start: 19130, Stop: 19915, Start Num: 85

Candidate Starts for MasterPo\_24:

(Start: 85 @19130 has 29 MA's), (135, 19241), (150, 19277), (Start: 156 @19298 has 3 MA's), (158, 19301), (168, 19349), (181, 19385), (237, 19487), (243, 19514), (247, 19523), (251, 19541), (258, 19562), (284, 19655), (289, 19679), (295, 19700), (310, 19757), (311, 19769), (312, 19772), (319, 19802), (331, 19853), (344, 19904),

Gene: Matalotodo\_21 Start: 17068, Stop: 17805, Start Num: 93

Candidate Starts for Matalotodo\_21:

(Start: 93 @17068 has 307 MA's), (154, 17182), (155, 17188), (159, 17197), (Start: 160 @17206 has 1 MA's), (203, 17302), (237, 17374), (239, 17380), (241, 17392), (255, 17443), (282, 17524), (287, 17557), (289, 17563), (310, 17644), (311, 17656), (316, 17680), (323, 17707), (332, 17749), (340, 17782), (345, 17797),

Gene: Matzah\_27 Start: 17344, Stop: 18249, Start Num: 81

Candidate Starts for Matzah\_27:

(62, 17296), (Start: 81 @17344 has 7 MA's), (86, 17371), (Start: 87 @17374 has 2 MA's), (163, 17557), (221, 17731), (241, 17809), (247, 17827), (249, 17833), (252, 17848), (258, 17869), (264, 17890), (284, 17965), (289, 17989), (293, 18004), (334, 18175), (345, 18214),

Gene: McKinley\_29 Start: 22480, Stop: 23253, Start Num: 108

Candidate Starts for McKinley\_29:

(Start: 108 @22480 has 63 MA's), (133, 22528), (158, 22585), (168, 22633), (213, 22723), (237, 22780), (250, 22831), (264, 22876), (284, 22954), (287, 22972), (299, 23011), (311, 23068), (328, 23134), (356, 23236),

Gene: Mcshane\_21 Start: 16771, Stop: 17508, Start Num: 93

Candidate Starts for Mcshane\_21:

(Start: 93 @16771 has 307 MA's), (154, 16885), (155, 16891), (159, 16900), (Start: 160 @16909 has 1 MA's), (203, 17005), (237, 17077), (239, 17083), (241, 17095), (255, 17146), (282, 17227), (287, 17260), (289, 17266), (310, 17347), (311, 17359), (316, 17383), (323, 17410), (332, 17452), (340, 17485), (345, 17500),

Gene: Mecca\_21 Start: 16768, Stop: 17505, Start Num: 93

Candidate Starts for Mecca\_21:

(Start: 93 @16768 has 307 MA's), (Start: 118 @16810 has 1 MA's), (154, 16882), (155, 16888), (159, 16897), (Start: 160 @16906 has 1 MA's), (203, 17002), (237, 17074), (239, 17080), (241, 17092), (255, 17143), (282, 17224), (287, 17257), (289, 17263), (310, 17344), (311, 17356), (316, 17380), (323, 17407), (340, 17482), (345, 17497),

Gene: Megabear\_16 Start: 16492, Stop: 17229, Start Num: 97

Candidate Starts for Megabear\_16:

(Start: 97 @16492 has 8 MA's), (Start: 105 @16504 has 2 MA's), (159, 16627), (Start: 160 @16636 has 1 MA's), (174, 16693), (181, 16708), (189, 16723), (218, 16750), (228, 16771), (231, 16786), (236, 16801), (237, 16804), (244, 16834), (247, 16840), (250, 16855), (272, 16915), (284, 16969), (285, 16972), (292, 17005), (294, 17011), (295, 17014), (299, 17026), (311, 17083), (314, 17092), (316, 17107), (332, 17173), (337, 17188), (340, 17206), (345, 17221),

Gene: Megamind20\_22 Start: 16789, Stop: 17526, Start Num: 93

Candidate Starts for Megamind20\_22:

(Start: 93 @16789 has 307 MA's), (Start: 118 @16831 has 1 MA's), (154, 16903), (155, 16909), (159, 16918), (Start: 160 @16927 has 1 MA's), (203, 17023), (237, 17095), (239, 17101), (241, 17113), (255, 17164), (282, 17245), (287, 17278), (289, 17284), (310, 17365), (311, 17377), (316, 17401), (323, 17428), (332, 17470), (340, 17503), (345, 17518),

Gene: Megan\_25 Start: 19147, Stop: 20109, Start Num: 63

Candidate Starts for Megan\_25:

(Start: 63 @19147 has 1 MA's), (Start: 70 @19189 has 1 MA's), (Start: 81 @19207 has 7 MA's), (Start: 87 @19237 has 2 MA's), (96, 19261), (146, 19360), (158, 19396), (163, 19420), (165, 19429), (168, 19444), (203, 19546), (212, 19576), (215, 19582), (236, 19654), (241, 19675), (250, 19708), (252, 19714), (272, 19774), (277, 19795), (284, 19831), (317, 19978), (324, 19999), (334, 20041), (345, 20077),

Gene: Megatron\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Megatron\_22:

(Start: 93 @17072 has 307 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340,

17786), (345, 17801),

Gene: MelBins\_26 Start: 19842, Stop: 20636, Start Num: 108

Candidate Starts for MelBins\_26:

(Start: 108 @19842 has 63 MA's), (122, 19863), (147, 19914), (168, 19995), (198, 20055), (204, 20073), (205, 20076), (251, 20217), (259, 20241), (264, 20259), (288, 20358), (311, 20451), (312, 20454), (317, 20481), (328, 20517), (345, 20589), (355, 20616),

Gene: Melc17\_22 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for Melc17\_22:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287, 17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (340, 17777), (345, 17792),

Gene: MellowYellow\_26 Start: 17923, Stop: 18549, Start Num: 152

Candidate Starts for MellowYellow\_26:

(Start: 152 @17923 has 8 MA's), (183, 18016), (238, 18112), (258, 18172), (276, 18220), (295, 18280), (317, 18391), (329, 18433), (331, 18442), (352, 18514),

Gene: MelsMeow\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for MelsMeow\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: MementoMori\_27 Start: 17073, Stop: 17978, Start Num: 81

Candidate Starts for MementoMori\_27:

(Start: 81 @17073 has 7 MA's), (86, 17100), (Start: 87 @17103 has 2 MA's), (163, 17286), (165, 17295), (221, 17460), (241, 17538), (247, 17556), (249, 17562), (252, 17577), (258, 17598), (264, 17619), (284, 17694), (289, 17718), (293, 17733), (334, 17904), (345, 17943),

Gene: Mesh1\_22 Start: 17080, Stop: 17817, Start Num: 93

Candidate Starts for Mesh1\_22:

(Start: 93 @17080 has 307 MA's), (Start: 118 @17122 has 1 MA's), (154, 17194), (155, 17200), (159, 17209), (Start: 160 @17218 has 1 MA's), (203, 17314), (237, 17386), (239, 17392), (241, 17404), (255, 17455), (282, 17536), (287, 17569), (289, 17575), (310, 17656), (311, 17668), (316, 17692), (323, 17719), (332, 17761), (340, 17794), (345, 17809),

Gene: Metamorphoo\_31 Start: 17795, Stop: 18706, Start Num: 74

Candidate Starts for Metamorphoo\_31:

(Start: 74 @17795 has 8 MA's), (113, 17897), (163, 18023), (165, 18032), (166, 18041), (212, 18176), (215, 18182), (269, 18371), (277, 18392), (282, 18413), (284, 18428), (287, 18446), (289, 18452), (304, 18503), (317, 18575), (322, 18593), (337, 18647), (345, 18674),

Gene: MichaelPhcott\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for MichaelPhcott\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: Mikota\_22 Start: 17056, Stop: 17793, Start Num: 93

Candidate Starts for Mikota\_22:

(Start: 93 @17056 has 307 MA's), (154, 17170), (155, 17176), (159, 17185), (Start: 160 @17194 has 1 MA's), (203, 17290), (237, 17362), (239, 17368), (241, 17380), (255, 17431), (282, 17512), (287, 17545), (289, 17551), (310, 17632), (311, 17644), (316, 17668), (323, 17695), (340, 17770), (345, 17785),

Gene: Mimi\_91 Start: 51267, Stop: 51956, Start Num: 160

Candidate Starts for Mimi\_91:

(Start: 160 @51267 has 1 MA's), (238, 51465), (263, 51552), (266, 51564), (270, 51585), (273, 51603), (277, 51621), (282, 51642), (288, 51678), (302, 51726), (307, 51741), (319, 51810), (320, 51813),

Gene: MiniBoss\_22 Start: 17059, Stop: 17796, Start Num: 93

Candidate Starts for MiniBoss\_22:

(Start: 93 @17059 has 307 MA's), (154, 17173), (155, 17179), (159, 17188), (Start: 160 @17197 has 1 MA's), (203, 17293), (237, 17365), (239, 17371), (241, 17383), (255, 17434), (282, 17515), (287, 17548), (289, 17554), (310, 17635), (311, 17647), (316, 17671), (323, 17698), (340, 17773), (345, 17788),

Gene: Mischief19\_25 Start: 27659, Stop: 28531, Start Num: 104

Candidate Starts for Mischief19\_25:

(Start: 104 @27659 has 13 MA's), (137, 27716), (Start: 160 @27785 has 1 MA's), (168, 27824), (264, 28106), (296, 28274), (314, 28355), (325, 28400), (343, 28481), (345, 28487), (349, 28502),

Gene: MitKao\_22 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for MitKao\_22:

(Start: 93 @16777 has 307 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (332, 17458), (340, 17491), (345, 17506),

Gene: Mithril\_20 Start: 17693, Stop: 18436, Start Num: 93

Candidate Starts for Mithril\_20:

(Start: 93 @17693 has 307 MA's), (155, 17804), (158, 17810), (168, 17858), (231, 17987), (243, 18032), (251, 18059), (259, 18083), (262, 18095), (274, 18125), (284, 18170), (289, 18194), (316, 18311), (323, 18338), (333, 18383), (337, 18395), (340, 18413), (345, 18428),

Gene: MmasiCarm\_23 Start: 17716, Stop: 18474, Start Num: 93

Candidate Starts for MmasiCarm\_23:

(Start: 67 @17641 has 8 MA's), (Start: 93 @17716 has 307 MA's), (Start: 101 @17734 has 25 MA's), (158, 17854), (Start: 160 @17866 has 1 MA's), (190, 17950), (247, 18079), (251, 18097), (271, 18157), (285, 18214), (299, 18268), (316, 18349), (319, 18361), (325, 18379), (341, 18454),

Gene: MoontowerMania\_26 Start: 21288, Stop: 22061, Start Num: 108

Candidate Starts for MoontowerMania\_26:

(Start: 108 @21288 has 63 MA's), (133, 21336), (168, 21441), (237, 21588), (250, 21639), (264, 21684), (284, 21762), (287, 21780), (299, 21819), (328, 21942), (356, 22044),

Gene: Morgushi\_22 Start: 16782, Stop: 17519, Start Num: 93

Candidate Starts for Morgushi\_22:

(Start: 93 @16782 has 307 MA's), (154, 16896), (155, 16902), (159, 16911), (Start: 160 @16920 has 1 MA's), (203, 17016), (237, 17088), (239, 17094), (241, 17106), (255, 17157), (282, 17238), (287,



17271), (289, 17277), (310, 17358), (311, 17370), (316, 17394), (323, 17421), (340, 17496), (345, 17511),

Gene: Mortcellus\_22 Start: 18377, Stop: 19117, Start Num: 101

Candidate Starts for Mortcellus\_22:

(Start: 67 @18284 has 8 MA's), (76, 18302), (Start: 93 @18359 has 307 MA's), (Start: 101 @18377 has 25 MA's), (158, 18497), (Start: 160 @18509 has 1 MA's), (190, 18593), (247, 18722), (251, 18740), (271, 18800), (285, 18857), (299, 18911), (316, 18992), (319, 19004), (325, 19022), (341, 19097),

Gene: Morty\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for Morty\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: Morty007\_23 Start: 18521, Stop: 19261, Start Num: 101

Candidate Starts for Morty007\_23:

(Start: 67 @18428 has 8 MA's), (76, 18446), (Start: 93 @18503 has 307 MA's), (Start: 101 @18521 has 25 MA's), (158, 18641), (Start: 160 @18653 has 1 MA's), (190, 18737), (247, 18866), (251, 18884), (271, 18944), (285, 19001), (299, 19055), (316, 19136), (319, 19148), (325, 19166), (341, 19241),

Gene: Mosaic\_21 Start: 16783, Stop: 17520, Start Num: 93

Candidate Starts for Mosaic\_21:

(Start: 93 @16783 has 307 MA's), (Start: 118 @16825 has 1 MA's), (154, 16897), (155, 16903), (159, 16912), (Start: 160 @16921 has 1 MA's), (203, 17017), (237, 17089), (239, 17095), (241, 17107), (255, 17158), (282, 17239), (287, 17272), (289, 17278), (310, 17359), (311, 17371), (316, 17395), (323, 17422), (332, 17464), (340, 17497), (345, 17512),

Gene: MossRose\_21 Start: 16973, Stop: 17716, Start Num: 101

Candidate Starts for MossRose\_21:

(Start: 101 @16973 has 25 MA's), (116, 16997), (126, 17015), (154, 17093), (155, 17099), (165, 17138), (201, 17207), (203, 17213), (247, 17324), (286, 17462), (332, 17660), (337, 17675), (340, 17693),

Gene: MrPhizzler\_21 Start: 16782, Stop: 17519, Start Num: 93

Candidate Starts for MrPhizzler\_21:

(Start: 93 @16782 has 307 MA's), (154, 16896), (155, 16902), (159, 16911), (Start: 160 @16920 has 1 MA's), (203, 17016), (237, 17088), (239, 17094), (241, 17106), (255, 17157), (282, 17238), (287, 17271), (289, 17277), (310, 17358), (311, 17370), (316, 17394), (323, 17421), (340, 17496), (345, 17511),

Gene: Mudslide\_20 Start: 17940, Stop: 18683, Start Num: 93

Candidate Starts for Mudslide\_20:

(Start: 93 @17940 has 307 MA's), (155, 18051), (158, 18057), (168, 18105), (231, 18234), (237, 18252), (243, 18279), (251, 18306), (259, 18330), (262, 18342), (274, 18372), (284, 18417), (289, 18441), (295, 18462), (323, 18585), (333, 18630), (337, 18642), (340, 18660), (345, 18675),

Gene: Mulan\_21 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for Mulan\_21:

(Start: 93 @16777 has 307 MA's), (Start: 118 @16819 has 1 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (340, 17491), (345, 17506),

Gene: Murdoc\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Murdoc\_22:

(Start: 93 @17070 has 307 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (332, 17751), (340, 17784), (345, 17799),

Gene: Mutante\_21 Start: 16780, Stop: 17517, Start Num: 93

Candidate Starts for Mutante\_21:

(Start: 93 @16780 has 307 MA's), (154, 16894), (155, 16900), (159, 16909), (Start: 160 @16918 has 1 MA's), (203, 17014), (237, 17086), (239, 17092), (241, 17104), (255, 17155), (282, 17236), (287, 17269), (289, 17275), (310, 17356), (311, 17368), (316, 17392), (323, 17419), (332, 17461), (340, 17494), (345, 17509),

Gene: Mutzi\_25 Start: 16313, Stop: 17083, Start Num: 112

Candidate Starts for Mutzi\_25:

(91, 16268), (103, 16301), (Start: 112 @16313 has 29 MA's), (Start: 160 @16424 has 1 MA's), (163, 16436), (168, 16460), (239, 16622), (243, 16643), (247, 16652), (258, 16691), (301, 16853), (317, 16934), (335, 17003), (337, 17009), (356, 17066),

Gene: Mysterious\_23 Start: 18051, Stop: 18806, Start Num: 93

Candidate Starts for Mysterious\_23:

(Start: 93 @18051 has 307 MA's), (154, 18165), (158, 18177), (236, 18372), (237, 18375), (251, 18429), (262, 18465), (277, 18504), (292, 18576), (316, 18681), (323, 18708), (332, 18750), (345, 18798),

Gene: NHagos\_19 Start: 15506, Stop: 16258, Start Num: 93

Candidate Starts for NHagos\_19:

(Start: 93 @15506 has 307 MA's), (Start: 101 @15524 has 25 MA's), (116, 15545), (144, 15605), (154, 15632), (166, 15686), (201, 15746), (203, 15752), (222, 15779), (230, 15806), (236, 15824), (241, 15845), (247, 15863), (251, 15881), (262, 15917), (268, 15929), (284, 15992), (314, 16118), (331, 16196), (332, 16202),

Gene: Nacho\_0022 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for Nacho\_0022:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: Namago\_31 Start: 20349, Stop: 21197, Start Num: 99

Candidate Starts for Namago\_31:

(Start: 99 @20349 has 36 MA's), (136, 20412), (148, 20442), (165, 20505), (186, 20562), (193, 20574), (223, 20655), (251, 20763), (284, 20886), (287, 20904), (333, 21096),

Gene: Nanao\_19 Start: 16590, Stop: 17402, Start Num: 68

Candidate Starts for Nanao\_19:

(68, 16590), (Start: 78 @16611 has 1 MA's), (83, 16626), (Start: 93 @16659 has 307 MA's), (155, 16770), (158, 16776), (159, 16779), (168, 16824), (231, 16953), (243, 16998), (251, 17025), (259, 17049), (262, 17061), (274, 17091), (284, 17136), (289, 17160), (311, 17253), (323, 17304), (333, 17349), (337, 17361), (340, 17379), (345, 17394),

Gene: Nangang\_22 Start: 17747, Stop: 18505, Start Num: 93

Candidate Starts for Nangang\_22:

(Start: 93 @17747 has 307 MA's), (Start: 112 @17780 has 29 MA's), (158, 17873), (166, 17915), (219, 18020), (236, 18071), (262, 18164), (274, 18194), (277, 18203), (289, 18263), (332, 18449), (345, 18497),

Gene: Natkenzie\_26 Start: 21114, Stop: 21905, Start Num: 108

Candidate Starts for Natkenzie\_26:

(Start: 108 @21114 has 63 MA's), (163, 21243), (197, 21339), (264, 21534), (274, 21564), (299, 21669), (311, 21726), (317, 21756), (328, 21792), (345, 21864),

Gene: Neos5\_23 Start: 18531, Stop: 19271, Start Num: 101

Candidate Starts for Neos5\_23:

(Start: 67 @18438 has 8 MA's), (76, 18456), (Start: 93 @18513 has 307 MA's), (Start: 101 @18531 has 25 MA's), (158, 18651), (Start: 160 @18663 has 1 MA's), (190, 18747), (247, 18876), (251, 18894), (271, 18954), (285, 19011), (299, 19065), (316, 19146), (319, 19158), (325, 19176), (341, 19251),

Gene: Newman\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for Newman\_22:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (340, 17783), (345, 17798),

Gene: Nicole21\_22 Start: 17061, Stop: 17798, Start Num: 93

Candidate Starts for Nicole21\_22:

(Start: 93 @17061 has 307 MA's), (154, 17175), (155, 17181), (159, 17190), (Start: 160 @17199 has 1 MA's), (203, 17295), (237, 17367), (239, 17373), (241, 17385), (255, 17436), (282, 17517), (287, 17550), (289, 17556), (310, 17637), (311, 17649), (316, 17673), (323, 17700), (332, 17742), (340, 17775), (345, 17790),

Gene: Nicole72\_26 Start: 19571, Stop: 20485, Start Num: 70

Candidate Starts for Nicole72\_26:

(Start: 70 @19571 has 1 MA's), (98, 19652), (154, 19763), (163, 19799), (165, 19808), (168, 19823), (178, 19856), (202, 19922), (212, 19955), (215, 19961), (241, 20054), (250, 20087), (252, 20093), (258, 20114), (272, 20153), (277, 20174), (284, 20210), (289, 20234), (291, 20243), (317, 20357), (324, 20378), (334, 20420), (337, 20429), (345, 20456), (348, 20465),

Gene: Nigel\_18 Start: 16503, Stop: 17285, Start Num: 77

Candidate Starts for Nigel\_18:

(Start: 77 @16503 has 1 MA's), (Start: 93 @16542 has 307 MA's), (144, 16620), (155, 16653), (158, 16659), (159, 16662), (201, 16773), (219, 16800), (228, 16821), (231, 16836), (239, 16860), (243, 16881), (251, 16908), (253, 16911), (262, 16944), (284, 17019), (289, 17043), (311, 17136), (316, 17160), (329, 17214), (333, 17232), (340, 17262), (345, 17277),

Gene: Nike\_31 Start: 21301, Stop: 22149, Start Num: 99

Candidate Starts for Nike\_31:

(Start: 99 @21301 has 36 MA's), (136, 21364), (148, 21394), (165, 21457), (186, 21514), (193, 21526), (223, 21607), (251, 21715), (284, 21838), (287, 21856), (339, 22075),

Gene: NoodlelyBoi\_31 Start: 18324, Stop: 19238, Start Num: 71

Candidate Starts for NoodlelyBoi\_31:

(Start: 71 @18324 has 25 MA's), (113, 18426), (166, 18570), (203, 18678), (212, 18705), (215, 18711), (277, 18924), (304, 19035), (314, 19086), (322, 19125), (337, 19179),

Gene: Nordenberg\_21 Start: 20650, Stop: 21423, Start Num: 108

Candidate Starts for Nordenberg\_21:

(Start: 108 @20650 has 63 MA's), (133, 20698), (158, 20755), (168, 20803), (213, 20893), (237, 20950), (250, 21001), (264, 21046), (284, 21124), (287, 21142), (299, 21181), (311, 21238), (328, 21304), (356, 21406),

Gene: Nozo\_23 Start: 18483, Stop: 19241, Start Num: 93

Candidate Starts for Nozo\_23:

(Start: 67 @18408 has 8 MA's), (76, 18426), (Start: 93 @18483 has 307 MA's), (Start: 101 @18501 has 25 MA's), (158, 18621), (Start: 160 @18633 has 1 MA's), (190, 18717), (247, 18846), (251, 18864), (271, 18924), (285, 18981), (299, 19035), (316, 19116), (319, 19128), (325, 19146), (341, 19221),

Gene: Nubi\_23 Start: 15965, Stop: 16735, Start Num: 112

Candidate Starts for Nubi\_23:

(Start: 112 @15965 has 29 MA's), (133, 16007), (163, 16088), (168, 16112), (202, 16193), (237, 16268), (239, 16274), (243, 16295), (247, 16304), (258, 16343), (301, 16505), (335, 16655), (337, 16661), (356, 16718),

Gene: Numberten\_22 Start: 17074, Stop: 17811, Start Num: 93

Candidate Starts for Numberten\_22:

(Start: 93 @17074 has 307 MA's), (154, 17188), (155, 17194), (159, 17203), (Start: 160 @17212 has 1 MA's), (203, 17308), (237, 17380), (239, 17386), (241, 17398), (255, 17449), (282, 17530), (287, 17563), (289, 17569), (310, 17650), (311, 17662), (316, 17686), (323, 17713), (332, 17755), (340, 17788), (345, 17803),

Gene: Nyala\_21 Start: 16772, Stop: 17509, Start Num: 93

Candidate Starts for Nyala\_21:

(Start: 93 @16772 has 307 MA's), (Start: 118 @16814 has 1 MA's), (154, 16886), (155, 16892), (159, 16901), (Start: 160 @16910 has 1 MA's), (203, 17006), (237, 17078), (239, 17084), (241, 17096), (255, 17147), (282, 17228), (287, 17261), (289, 17267), (310, 17348), (311, 17360), (316, 17384), (323, 17411), (340, 17486), (345, 17501),

Gene: OSmaximus\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for OSmaximus\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: Obutu\_23 Start: 17734, Stop: 18474, Start Num: 101

Candidate Starts for Obutu\_23:

(Start: 67 @17641 has 8 MA's), (76, 17659), (Start: 93 @17716 has 307 MA's), (Start: 101 @17734 has 25 MA's), (158, 17854), (Start: 160 @17866 has 1 MA's), (190, 17950), (247, 18079), (251, 18097), (271, 18157), (285, 18214), (299, 18268), (316, 18349), (319, 18361), (325, 18379), (341,

18454),

Gene: Odyssey395\_33 Start: 19210, Stop: 19827, Start Num: 152

Candidate Starts for Odyssey395\_33:

(Start: 152 @19210 has 8 MA's), (183, 19303), (238, 19399), (258, 19459), (276, 19507), (295, 19567), (298, 19576), (317, 19669), (329, 19711), (331, 19720), (352, 19792),

Gene: Olak\_22 Start: 16773, Stop: 17510, Start Num: 93

Candidate Starts for Olak\_22:

(Start: 93 @16773 has 307 MA's), (154, 16887), (155, 16893), (159, 16902), (Start: 160 @16911 has 1 MA's), (203, 17007), (237, 17079), (239, 17085), (241, 17097), (255, 17148), (282, 17229), (287, 17262), (289, 17268), (310, 17349), (311, 17361), (316, 17385), (323, 17412), (332, 17454), (340, 17487), (345, 17502),

Gene: Oline\_21 Start: 16635, Stop: 17372, Start Num: 93

Candidate Starts for Oline\_21:

(Start: 93 @16635 has 307 MA's), (154, 16749), (155, 16755), (159, 16764), (Start: 160 @16773 has 1 MA's), (203, 16869), (237, 16941), (239, 16947), (241, 16959), (255, 17010), (282, 17091), (287, 17124), (289, 17130), (310, 17211), (311, 17223), (316, 17247), (323, 17274), (340, 17349), (345, 17364),

Gene: Olive\_22 Start: 17062, Stop: 17799, Start Num: 93

Candidate Starts for Olive\_22:

(Start: 93 @17062 has 307 MA's), (154, 17176), (155, 17182), (159, 17191), (Start: 160 @17200 has 1 MA's), (203, 17296), (237, 17368), (239, 17374), (241, 17386), (255, 17437), (282, 17518), (287, 17551), (289, 17557), (310, 17638), (311, 17650), (316, 17674), (323, 17701), (340, 17776), (345, 17791),

Gene: OliverWalter\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for OliverWalter\_22:

(Start: 93 @17078 has 307 MA's), (Start: 118 @17120 has 1 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (340, 17792), (345, 17807),

Gene: Omniscient\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for Omniscient\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: OneinaGillian\_30 Start: 19284, Stop: 20129, Start Num: 99

Candidate Starts for OneinaGillian\_30:

(Start: 99 @19284 has 36 MA's), (136, 19350), (148, 19380), (186, 19500), (223, 19593), (248, 19686), (277, 19788), (291, 19854), (311, 19935), (321, 19977), (333, 20025), (345, 20070),

Gene: Onika\_30 Start: 17971, Stop: 18885, Start Num: 71

Candidate Starts for Onika\_30:

(Start: 71 @17971 has 25 MA's), (113, 18073), (166, 18217), (203, 18325), (212, 18352), (215, 18358), (251, 18487), (277, 18571), (304, 18682), (317, 18754), (322, 18772), (337, 18826),

Gene: Oosterbaan\_22 Start: 17073, Stop: 17810, Start Num: 93

Candidate Starts for Oosterbaan\_22:

(Start: 93 @17073 has 307 MA's), (154, 17187), (155, 17193), (159, 17202), (Start: 160 @17211 has 1 MA's), (203, 17307), (237, 17379), (239, 17385), (241, 17397), (255, 17448), (282, 17529), (287, 17562), (289, 17568), (310, 17649), (311, 17661), (316, 17685), (323, 17712), (332, 17754), (340, 17787), (345, 17802),

Gene: Opia\_24 Start: 19130, Stop: 19915, Start Num: 85

Candidate Starts for Opia\_24:

(Start: 85 @19130 has 29 MA's), (135, 19241), (150, 19277), (Start: 156 @19298 has 3 MA's), (158, 19301), (168, 19349), (181, 19385), (237, 19487), (243, 19514), (247, 19523), (251, 19541), (258, 19562), (284, 19655), (289, 19679), (295, 19700), (310, 19757), (311, 19769), (312, 19772), (319, 19802), (331, 19853), (344, 19904),

Gene: OrangeOswald\_23 Start: 17721, Stop: 18479, Start Num: 93

Candidate Starts for OrangeOswald\_23:

(Start: 67 @17646 has 8 MA's), (76, 17664), (Start: 93 @17721 has 307 MA's), (Start: 101 @17739 has 25 MA's), (158, 17859), (Start: 160 @17871 has 1 MA's), (190, 17955), (247, 18084), (251, 18102), (271, 18162), (285, 18219), (299, 18273), (316, 18354), (319, 18366), (325, 18384), (341, 18459),

Gene: Orfeu\_21 Start: 16772, Stop: 17509, Start Num: 93

Candidate Starts for Orfeu\_21:

(Start: 93 @16772 has 307 MA's), (154, 16886), (155, 16892), (159, 16901), (Start: 160 @16910 has 1 MA's), (203, 17006), (237, 17078), (239, 17084), (241, 17096), (255, 17147), (282, 17228), (287, 17261), (289, 17267), (310, 17348), (311, 17360), (316, 17384), (323, 17411), (332, 17453), (340, 17486), (345, 17501),

Gene: Orion\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Orion\_22:

(Start: 93 @17070 has 307 MA's), (Start: 118 @17112 has 1 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Orwigg\_22 Start: 16767, Stop: 17504, Start Num: 93

Candidate Starts for Orwigg\_22:

(Start: 93 @16767 has 307 MA's), (154, 16881), (155, 16887), (159, 16896), (Start: 160 @16905 has 1 MA's), (203, 17001), (237, 17073), (239, 17079), (241, 17091), (255, 17142), (282, 17223), (287, 17256), (289, 17262), (310, 17343), (311, 17355), (316, 17379), (323, 17406), (332, 17448), (340, 17481), (345, 17496),

Gene: PG1\_22 Start: 17083, Stop: 17820, Start Num: 93

Candidate Starts for PG1\_22:

(Start: 93 @17083 has 307 MA's), (154, 17197), (155, 17203), (159, 17212), (Start: 160 @17221 has 1 MA's), (203, 17317), (237, 17389), (239, 17395), (241, 17407), (255, 17458), (282, 17539), (287, 17572), (289, 17578), (310, 17659), (311, 17671), (316, 17695), (323, 17722), (340, 17797), (345, 17812),

Gene: PR\_16 Start: 16519, Stop: 17256, Start Num: 97

Candidate Starts for PR\_16:

(Start: 97 @16519 has 8 MA's), (Start: 105 @16531 has 2 MA's), (159, 16654), (174, 16720), (181, 16735), (189, 16750), (218, 16777), (228, 16798), (231, 16813), (236, 16828), (237, 16831), (244, 16861), (247, 16867), (250, 16882), (263, 16924), (272, 16942), (284, 16996), (285, 16999), (292,

17032), (294, 17038), (295, 17041), (299, 17053), (311, 17110), (314, 17119), (316, 17134), (332, 17200), (337, 17215), (340, 17233), (345, 17248),

Gene: Pacifista\_23 Start: 16774, Stop: 17511, Start Num: 93

Candidate Starts for Pacifista\_23:

(Start: 93 @16774 has 307 MA's), (154, 16888), (155, 16894), (159, 16903), (Start: 160 @16912 has 1 MA's), (203, 17008), (237, 17080), (239, 17086), (241, 17098), (255, 17149), (282, 17230), (287, 17263), (289, 17269), (310, 17350), (311, 17362), (316, 17386), (323, 17413), (332, 17455), (340, 17488), (345, 17503),

Gene: Paries\_29 Start: 22107, Stop: 22880, Start Num: 108

Candidate Starts for Paries\_29:

(Start: 108 @22107 has 63 MA's), (133, 22155), (158, 22212), (168, 22260), (213, 22350), (237, 22407), (250, 22458), (264, 22503), (284, 22581), (287, 22599), (299, 22638), (328, 22761), (356, 22863),

Gene: Paschalis\_30 Start: 17984, Stop: 18898, Start Num: 71

Candidate Starts for Paschalis\_30:

(Start: 71 @17984 has 25 MA's), (Start: 79 @17996 has 3 MA's), (113, 18086), (166, 18230), (203, 18338), (212, 18365), (215, 18371), (251, 18500), (277, 18584), (304, 18695), (317, 18767), (322, 18785), (337, 18839),

Gene: Patbob\_85 Start: 52139, Stop: 52828, Start Num: 160

Candidate Starts for Patbob\_85:

(Start: 160 @52139 has 1 MA's), (238, 52337), (263, 52424), (266, 52436), (270, 52457), (273, 52475), (277, 52493), (282, 52514), (288, 52550), (302, 52598), (307, 52613), (319, 52682), (320, 52685),

Gene: PauloDiaboli\_91 Start: 48380, Stop: 49141, Start Num: 145

Candidate Starts for PauloDiaboli\_91:

(Start: 145 @48380 has 6 MA's), (166, 48461), (188, 48518), (221, 48563), (233, 48614), (239, 48635), (245, 48662), (247, 48665), (265, 48734), (284, 48836), (290, 48866), (294, 48878), (299, 48893), (316, 48980), (330, 49040), (331, 49043), (332, 49049), (348, 49106),

Gene: PenguinLover67\_24 Start: 19278, Stop: 20039, Start Num: 93

Candidate Starts for PenguinLover67\_24:

(Start: 93 @19278 has 307 MA's), (119, 19323), (158, 19407), (159, 19410), (168, 19455), (194, 19512), (236, 19602), (243, 19632), (247, 19641), (284, 19770), (289, 19794), (316, 19914), (323, 19941), (345, 20031),

Gene: Pepe25\_29 Start: 19511, Stop: 20353, Start Num: 99

Candidate Starts for Pepe25\_29:

(95, 19496), (Start: 99 @19511 has 36 MA's), (136, 19577), (148, 19607), (186, 19727), (223, 19820), (248, 19913), (277, 20015), (284, 20048), (291, 20081), (321, 20204), (333, 20252), (345, 20297),

Gene: Phabia\_31 Start: 20683, Stop: 21531, Start Num: 99

Candidate Starts for Phabia\_31:

(Start: 99 @20683 has 36 MA's), (136, 20746), (148, 20776), (165, 20839), (186, 20896), (193, 20908), (223, 20989), (251, 21097), (284, 21220), (287, 21238), (333, 21430),

Gene: Phaedrus\_21 Start: 17655, Stop: 18395, Start Num: 101

Candidate Starts for Phaedrus\_21:

(Start: 67 @17562 has 8 MA's), (Start: 93 @17637 has 307 MA's), (Start: 101 @17655 has 25 MA's), (158, 17775), (Start: 160 @17787 has 1 MA's), (190, 17871), (247, 18000), (251, 18018), (271, 18078), (285, 18135), (299, 18189), (316, 18270), (319, 18282), (325, 18300), (341, 18375),

Gene: Phamished\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for Phamished\_22:

(Start: 93 @17078 has 307 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (332, 17759), (340, 17792), (345, 17807),

Gene: Phantasmagoria\_24 Start: 19126, Stop: 19911, Start Num: 85

Candidate Starts for Phantasmagoria\_24:

(Start: 85 @19126 has 29 MA's), (135, 19237), (150, 19273), (Start: 156 @19294 has 3 MA's), (158, 19297), (168, 19345), (181, 19381), (237, 19483), (243, 19510), (247, 19519), (251, 19537), (258, 19558), (284, 19651), (289, 19675), (295, 19696), (310, 19753), (311, 19765), (312, 19768), (319, 19798), (331, 19849), (344, 19900),

Gene: Phareon\_22 Start: 16778, Stop: 17515, Start Num: 93

Candidate Starts for Phareon\_22:

(Start: 93 @16778 has 307 MA's), (Start: 118 @16820 has 1 MA's), (154, 16892), (155, 16898), (159, 16907), (Start: 160 @16916 has 1 MA's), (203, 17012), (237, 17084), (239, 17090), (241, 17102), (255, 17153), (282, 17234), (287, 17267), (289, 17273), (310, 17354), (311, 17366), (316, 17390), (323, 17417), (340, 17492), (345, 17507),

Gene: PhatCats2014\_22 Start: 17088, Stop: 17825, Start Num: 93

Candidate Starts for PhatCats2014\_22:

(Start: 93 @17088 has 307 MA's), (154, 17202), (155, 17208), (159, 17217), (Start: 160 @17226 has 1 MA's), (203, 17322), (237, 17394), (239, 17400), (241, 17412), (255, 17463), (282, 17544), (287, 17577), (289, 17583), (310, 17664), (311, 17676), (316, 17700), (323, 17727), (332, 17769), (340, 17802), (345, 17817),

Gene: PhatLouie\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for PhatLouie\_22:

(Start: 93 @17070 has 307 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Phauci\_18 Start: 16223, Stop: 17017, Start Num: 108

Candidate Starts for Phauci\_18:

(Start: 108 @16223 has 63 MA's), (122, 16244), (147, 16295), (168, 16376), (198, 16436), (204, 16454), (205, 16457), (251, 16598), (259, 16622), (264, 16640), (288, 16739), (311, 16832), (312, 16835), (328, 16898), (345, 16970), (355, 16997),

Gene: Phayeta\_23 Start: 17597, Stop: 18355, Start Num: 93

Candidate Starts for Phayeta\_23:

(Start: 67 @17522 has 8 MA's), (76, 17540), (Start: 93 @17597 has 307 MA's), (Start: 101 @17615 has 25 MA's), (158, 17735), (Start: 160 @17747 has 1 MA's), (190, 17831), (247, 17960), (251, 17978), (271, 18038), (285, 18095), (299, 18149), (316, 18230), (319, 18242), (325, 18260), (341, 18335),

Gene: Phelemich\_22 Start: 18047, Stop: 18802, Start Num: 93



Candidate Starts for Phelemich\_22:

(Start: 93 @18047 has 307 MA's), (154, 18161), (158, 18173), (168, 18221), (236, 18368), (237, 18371), (251, 18425), (262, 18461), (277, 18500), (292, 18572), (316, 18677), (319, 18689), (323, 18704), (332, 18746), (345, 18794),

Gene: PhenghisKhan\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for PhenghisKhan\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: Pherdinand\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for Pherdinand\_22:

(Start: 93 @17078 has 307 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (332, 17759), (340, 17792), (345, 17807),

Gene: Phergie\_21 Start: 16623, Stop: 17360, Start Num: 93

Candidate Starts for Phergie\_21:

(Start: 93 @16623 has 307 MA's), (154, 16737), (155, 16743), (159, 16752), (Start: 160 @16761 has 1 MA's), (203, 16857), (237, 16929), (239, 16935), (241, 16947), (255, 16998), (282, 17079), (287, 17112), (289, 17118), (310, 17199), (311, 17211), (316, 17235), (323, 17262), (340, 17337), (345, 17352),

Gene: Philly\_22 Start: 17587, Stop: 18345, Start Num: 93

Candidate Starts for Philly\_22:

(Start: 67 @17512 has 8 MA's), (76, 17530), (Start: 93 @17587 has 307 MA's), (Start: 101 @17605 has 25 MA's), (158, 17725), (Start: 160 @17737 has 1 MA's), (190, 17821), (247, 17950), (251, 17968), (271, 18028), (285, 18085), (299, 18139), (316, 18220), (319, 18232), (325, 18250), (341, 18325),

Gene: Phinally\_25 Start: 19634, Stop: 20425, Start Num: 108

Candidate Starts for Phinally\_25:

(Start: 108 @19634 has 63 MA's), (122, 19655), (147, 19706), (168, 19787), (198, 19847), (204, 19865), (205, 19868), (251, 20009), (259, 20033), (264, 20051), (288, 20150), (311, 20243), (312, 20246), (317, 20273), (328, 20309), (349, 20396), (355, 20408),

Gene: Phinky\_37 Start: 21853, Stop: 22707, Start Num: 99

Candidate Starts for Phinky\_37:

(8, 21229), (12, 21280), (13, 21286), (37, 21535), (47, 21640), (Start: 99 @21853 has 36 MA's), (136, 21916), (143, 21937), (148, 21946), (168, 22024), (170, 22033), (193, 22078), (223, 22168), (262, 22315), (277, 22363), (284, 22399), (311, 22516), (336, 22615), (348, 22660),

Gene: Phipps\_22 Start: 17048, Stop: 17785, Start Num: 93

Candidate Starts for Phipps\_22:

(Start: 93 @17048 has 307 MA's), (154, 17162), (155, 17168), (159, 17177), (Start: 160 @17186 has 1 MA's), (203, 17282), (237, 17354), (239, 17360), (241, 17372), (255, 17423), (282, 17504), (287, 17537), (289, 17543), (310, 17624), (311, 17636), (316, 17660), (323, 17687), (332, 17729), (340, 17762), (345, 17777),

Gene: Phleuron\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for Phleuron\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: Phlop\_23 Start: 16029, Stop: 16799, Start Num: 112

Candidate Starts for Phlop\_23:

(Start: 78 @15936 has 1 MA's), (Start: 112 @16029 has 29 MA's), (133, 16071), (163, 16152), (202, 16257), (237, 16332), (239, 16338), (243, 16359), (247, 16368), (258, 16407), (264, 16428), (301, 16569), (303, 16578), (335, 16719), (337, 16725), (356, 16782),

Gene: Phlyer\_23 Start: 18474, Stop: 19214, Start Num: 101

Candidate Starts for Phlyer\_23:

(Start: 67 @18381 has 8 MA's), (76, 18399), (Start: 93 @18456 has 307 MA's), (Start: 101 @18474 has 25 MA's), (158, 18594), (Start: 160 @18606 has 1 MA's), (190, 18690), (247, 18819), (251, 18837), (271, 18897), (285, 18954), (299, 19008), (316, 19089), (319, 19101), (325, 19119), (341, 19194),

Gene: Phorgeous\_30 Start: 17838, Stop: 18752, Start Num: 71

Candidate Starts for Phorgeous\_30:

(Start: 71 @17838 has 25 MA's), (113, 17940), (166, 18084), (203, 18192), (212, 18219), (215, 18225), (251, 18354), (277, 18438), (304, 18549), (317, 18621), (322, 18639), (337, 18693),

Gene: Phrancesco\_31 Start: 18116, Stop: 19030, Start Num: 71

Candidate Starts for Phrancesco\_31:

(Start: 71 @18116 has 25 MA's), (113, 18218), (166, 18362), (203, 18470), (212, 18497), (215, 18503), (251, 18632), (277, 18716), (304, 18827), (310, 18857), (317, 18899), (322, 18917), (337, 18971),

Gene: PhrankReynolds\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for PhrankReynolds\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: PhrodoBaggins\_21 Start: 17066, Stop: 17803, Start Num: 93

Candidate Starts for PhrodoBaggins\_21:

(Start: 93 @17066 has 307 MA's), (154, 17180), (155, 17186), (159, 17195), (Start: 160 @17204 has 1 MA's), (203, 17300), (237, 17372), (239, 17378), (241, 17390), (255, 17441), (282, 17522), (287, 17555), (289, 17561), (310, 17642), (311, 17654), (316, 17678), (323, 17705), (332, 17747), (340, 17780), (345, 17795),

Gene: Phunky\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Phunky\_22:

(Start: 93 @17072 has 307 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340, 17786), (345, 17801),

Gene: PierreOrion\_31 Start: 18151, Stop: 19053, Start Num: 79

Candidate Starts for PierreOrion\_31:

(Start: 71 @18139 has 25 MA's), (Start: 79 @18151 has 3 MA's), (113, 18241), (166, 18385), (203, 18493), (212, 18520), (215, 18526), (251, 18655), (277, 18739), (304, 18850), (317, 18922), (322, 18940), (337, 18994),

Gene: Piglet\_0021 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Piglet\_0021:

(Start: 93 @17072 has 307 MA's), (Start: 118 @17114 has 1 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340, 17786), (345, 17801),

Gene: Pine5\_22 Start: 17894, Stop: 18637, Start Num: 99

Candidate Starts for Pine5\_22:

(Start: 99 @17894 has 36 MA's), (190, 18095), (207, 18131), (284, 18374), (319, 18524), (334, 18587), (337, 18596), (345, 18629),

Gene: PinheadLarry\_22 Start: 16789, Stop: 17526, Start Num: 93

Candidate Starts for PinheadLarry\_22:

(Start: 93 @16789 has 307 MA's), (Start: 118 @16831 has 1 MA's), (154, 16903), (155, 16909), (159, 16918), (Start: 160 @16927 has 1 MA's), (203, 17023), (237, 17095), (239, 17101), (241, 17113), (255, 17164), (282, 17245), (287, 17278), (289, 17284), (310, 17365), (311, 17377), (316, 17401), (323, 17428), (340, 17503), (345, 17518),

Gene: PinkCoffee\_25 Start: 16668, Stop: 17438, Start Num: 112

Candidate Starts for PinkCoffee\_25:

(Start: 112 @16668 has 29 MA's), (133, 16710), (163, 16791), (202, 16896), (237, 16971), (239, 16977), (243, 16998), (247, 17007), (258, 17046), (301, 17208), (335, 17358), (337, 17364), (356, 17421),

Gene: Pinkman\_21 Start: 16629, Stop: 17366, Start Num: 93

Candidate Starts for Pinkman\_21:

(Start: 93 @16629 has 307 MA's), (154, 16743), (155, 16749), (159, 16758), (Start: 160 @16767 has 1 MA's), (203, 16863), (237, 16935), (239, 16941), (241, 16953), (255, 17004), (282, 17085), (287, 17118), (289, 17124), (310, 17205), (311, 17217), (316, 17241), (323, 17268), (340, 17343), (345, 17358),

Gene: Pipefish\_23 Start: 18603, Stop: 19361, Start Num: 93

Candidate Starts for Pipefish\_23:

(Start: 67 @18528 has 8 MA's), (Start: 93 @18603 has 307 MA's), (Start: 101 @18621 has 25 MA's), (158, 18741), (190, 18837), (247, 18966), (251, 18984), (271, 19044), (285, 19101), (299, 19155), (316, 19236), (319, 19248), (325, 19266), (341, 19341),

Gene: PiperSansNom\_31 Start: 18291, Stop: 19205, Start Num: 71

Candidate Starts for PiperSansNom\_31:

(Start: 71 @18291 has 25 MA's), (Start: 79 @18303 has 3 MA's), (113, 18393), (166, 18537), (203, 18645), (212, 18672), (215, 18678), (251, 18807), (277, 18891), (304, 19002), (317, 19074), (322, 19092), (337, 19146),

Gene: Piperis\_31 Start: 17961, Stop: 18875, Start Num: 71

Candidate Starts for Piperis\_31:

(Start: 71 @17961 has 25 MA's), (113, 18063), (166, 18207), (203, 18315), (212, 18342), (215, 18348), (251, 18477), (277, 18561), (304, 18672), (317, 18744), (322, 18762), (337, 18816),

Gene: Pipsqueak\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for Pipsqueak\_22:

(Start: 93 @17078 has 307 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (340, 17792), (345, 17807),

Gene: Placalicious\_21 Start: 16771, Stop: 17508, Start Num: 93

Candidate Starts for Placalicious\_21:

(Start: 93 @16771 has 307 MA's), (154, 16885), (155, 16891), (159, 16900), (Start: 160 @16909 has 1 MA's), (203, 17005), (237, 17077), (239, 17083), (241, 17095), (255, 17146), (282, 17227), (287, 17260), (289, 17266), (310, 17347), (311, 17359), (316, 17383), (323, 17410), (332, 17452), (340, 17485), (345, 17500),

Gene: Plmatters\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for Plmatters\_22:

(Start: 93 @17075 has 307 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (332, 17756), (340, 17789), (345, 17804),

Gene: Podrick\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Podrick\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (332, 17748), (340, 17781), (345, 17796),

Gene: Pointis\_31 Start: 19214, Stop: 19831, Start Num: 152

Candidate Starts for Pointis\_31:

(Start: 152 @19214 has 8 MA's), (183, 19307), (238, 19403), (258, 19463), (276, 19511), (295, 19571), (298, 19580), (317, 19673), (329, 19715), (331, 19724), (352, 19796),

Gene: Pops\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for Pops\_22:

(Start: 93 @17075 has 307 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (340, 17789), (345, 17804),

Gene: Portcullis\_23 Start: 15972, Stop: 16742, Start Num: 112

Candidate Starts for Portcullis\_23:

(Start: 78 @15879 has 1 MA's), (Start: 112 @15972 has 29 MA's), (133, 16014), (163, 16095), (202, 16200), (237, 16275), (239, 16281), (243, 16302), (247, 16311), (258, 16350), (264, 16371), (301, 16512), (303, 16521), (335, 16662), (337, 16668), (356, 16725),

Gene: Poster\_19 Start: 16591, Stop: 17403, Start Num: 68

Candidate Starts for Poster\_19:

(68, 16591), (Start: 78 @16612 has 1 MA's), (83, 16627), (Start: 93 @16660 has 307 MA's), (155, 16771), (158, 16777), (159, 16780), (168, 16825), (231, 16954), (243, 16999), (251, 17026), (259, 17050), (262, 17062), (274, 17092), (284, 17137), (289, 17161), (311, 17254), (323, 17305), (333, 17350), (337, 17362), (340, 17380), (345, 17395),

Gene: Potter\_21 Start: 16785, Stop: 17522, Start Num: 93

Candidate Starts for Potter\_21:

(Start: 93 @16785 has 307 MA's), (154, 16899), (155, 16905), (159, 16914), (Start: 160 @16923 has 1 MA's), (203, 17019), (237, 17091), (239, 17097), (241, 17109), (255, 17160), (282, 17241), (287, 17274), (289, 17280), (310, 17361), (311, 17373), (316, 17397), (323, 17424), (340, 17499), (345, 17514),

Gene: Prickles\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for Prickles\_22:

(Start: 93 @17064 has 307 MA's), (Start: 118 @17106 has 1 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (340, 17778), (345, 17793),

Gene: Prince\_21 Start: 17852, Stop: 18595, Start Num: 93

Candidate Starts for Prince\_21:

(Start: 93 @17852 has 307 MA's), (155, 17963), (158, 17969), (159, 17972), (168, 18017), (231, 18146), (237, 18164), (243, 18191), (251, 18218), (259, 18242), (262, 18254), (274, 18284), (284, 18329), (289, 18353), (295, 18374), (333, 18542), (337, 18554), (340, 18572), (345, 18587),

Gene: ProfessorX\_22 Start: 17062, Stop: 17799, Start Num: 93

Candidate Starts for ProfessorX\_22:

(Start: 93 @17062 has 307 MA's), (154, 17176), (155, 17182), (159, 17191), (Start: 160 @17200 has 1 MA's), (203, 17296), (237, 17368), (239, 17374), (241, 17386), (255, 17437), (282, 17518), (287, 17551), (289, 17557), (310, 17638), (311, 17650), (316, 17674), (323, 17701), (340, 17776), (345, 17791),

Gene: Puhltonio\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for Puhltonio\_22:

(Start: 93 @17078 has 307 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (332, 17759), (340, 17792), (345, 17807),

Gene: Pulchra\_32 Start: 18361, Stop: 19275, Start Num: 71

Candidate Starts for Pulchra\_32:

(Start: 71 @18361 has 25 MA's), (Start: 79 @18373 has 3 MA's), (113, 18463), (166, 18607), (203, 18715), (212, 18742), (215, 18748), (251, 18877), (277, 18961), (304, 19072), (317, 19144), (322, 19162), (337, 19216),

Gene: PullumCavea\_23 Start: 16029, Stop: 16799, Start Num: 112

Candidate Starts for PullumCavea\_23:

(Start: 78 @15936 has 1 MA's), (Start: 112 @16029 has 29 MA's), (133, 16071), (163, 16152), (202, 16257), (237, 16332), (239, 16338), (243, 16359), (247, 16368), (258, 16407), (264, 16428), (301, 16569), (303, 16578), (335, 16719), (337, 16725), (356, 16782),

Gene: Pumpernickel\_88 Start: 49587, Stop: 50351, Start Num: 145

Candidate Starts for Pumpernickel\_88:

(124, 49530), (131, 49551), (Start: 145 @49587 has 6 MA's), (158, 49626), (164, 49653), (179, 49710), (229, 49800), (232, 49818), (252, 49893), (265, 49941), (349, 50322),

Gene: Pureglobe5\_33 Start: 19397, Stop: 20014, Start Num: 152

Candidate Starts for Pureglobe5\_33:

(Start: 152 @19397 has 8 MA's), (183, 19490), (238, 19586), (258, 19646), (276, 19694), (295, 19754), (298, 19763), (317, 19856), (329, 19898), (331, 19907), (352, 19979),

Gene: Quammi\_29 Start: 20255, Stop: 21103, Start Num: 99

Candidate Starts for Quammi\_29:

(Start: 99 @20255 has 36 MA's), (136, 20318), (148, 20348), (165, 20411), (186, 20468), (193, 20480), (223, 20561), (251, 20669), (284, 20792), (287, 20810), (333, 21002),

Gene: QueenBeane\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for QueenBeane\_22:

(Start: 93 @17070 has 307 MA's), (Start: 118 @17112 has 1 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Quesadilla\_23 Start: 19181, Stop: 19939, Start Num: 93

Candidate Starts for Quesadilla\_23:

(Start: 93 @19181 has 307 MA's), (158, 19310), (159, 19313), (194, 19406), (202, 19421), (241, 19523), (243, 19532), (247, 19541), (251, 19559), (282, 19655), (284, 19670), (289, 19694), (299, 19727), (316, 19814), (323, 19841), (331, 19877), (345, 19931),

Gene: Quhwah\_34 Start: 18587, Stop: 19501, Start Num: 71

Candidate Starts for Quhwah\_34:

(Start: 71 @18587 has 25 MA's), (Start: 79 @18599 has 3 MA's), (113, 18689), (166, 18833), (203, 18941), (212, 18968), (215, 18974), (251, 19103), (277, 19187), (304, 19298), (317, 19370), (322, 19388), (337, 19442),

Gene: Quisquilliae\_22 Start: 17085, Stop: 17822, Start Num: 93

Candidate Starts for Quisquilliae\_22:

(Start: 93 @17085 has 307 MA's), (154, 17199), (155, 17205), (159, 17214), (Start: 160 @17223 has 1 MA's), (203, 17319), (237, 17391), (239, 17397), (241, 17409), (255, 17460), (282, 17541), (287, 17574), (289, 17580), (310, 17661), (311, 17673), (316, 17697), (323, 17724), (332, 17766), (340, 17799), (345, 17814),

Gene: Qyrzula\_22 Start: 19384, Stop: 20001, Start Num: 156

Candidate Starts for Qyrzula\_22:

(Start: 85 @19216 has 29 MA's), (135, 19327), (150, 19363), (Start: 156 @19384 has 3 MA's), (158, 19387), (168, 19435), (181, 19471), (237, 19573), (243, 19600), (247, 19609), (251, 19627), (258, 19648), (284, 19741), (289, 19765), (295, 19786), (310, 19843), (311, 19855), (312, 19858), (319, 19888), (331, 19939), (344, 19990),

Gene: Racecar\_85 Start: 51920, Stop: 52609, Start Num: 160

Candidate Starts for Racecar\_85:

(Start: 160 @51920 has 1 MA's), (238, 52118), (263, 52205), (266, 52217), (270, 52238), (273, 52256), (277, 52274), (282, 52295), (288, 52331), (302, 52379), (307, 52394), (319, 52463), (320, 52466),

Gene: RagingRooster\_23 Start: 17722, Stop: 18480, Start Num: 93

Candidate Starts for RagingRooster\_23:

(Start: 67 @17647 has 8 MA's), (76, 17665), (Start: 93 @17722 has 307 MA's), (Start: 101 @17740 has 25 MA's), (158, 17860), (Start: 160 @17872 has 1 MA's), (190, 17956), (247, 18085), (251, 18103), (271, 18163), (285, 18220), (299, 18274), (316, 18355), (319, 18367), (325, 18385), (341, 18460),

Gene: RainyPolka\_18 Start: 18081, Stop: 18941, Start Num: 104

Candidate Starts for RainyPolka\_18:

(64, 17961), (Start: 85 @18036 has 29 MA's), (Start: 90 @18048 has 1 MA's), (Start: 104 @18081 has 13 MA's), (154, 18189), (206, 18336), (210, 18345), (220, 18360), (244, 18453), (247, 18459), (249, 18465), (251, 18477), (252, 18480), (277, 18585), (280, 18594), (284, 18621), (291, 18654), (316, 18765), (320, 18780), (325, 18795), (331, 18828), (337, 18849), (343, 18876), (345, 18882),

Gene: Ramiel05\_30 Start: 18008, Stop: 18910, Start Num: 79

Candidate Starts for Ramiel05\_30:

(Start: 71 @17996 has 25 MA's), (Start: 79 @18008 has 3 MA's), (113, 18098), (166, 18242), (203, 18350), (212, 18377), (215, 18383), (251, 18512), (277, 18596), (304, 18707), (317, 18779), (322, 18797), (337, 18851),

Gene: Ranunculus\_25 Start: 18319, Stop: 18939, Start Num: 152

Candidate Starts for Ranunculus\_25:

(Start: 152 @18319 has 8 MA's), (172, 18397), (175, 18403), (196, 18457), (257, 18571), (258, 18574), (295, 18682), (298, 18691), (311, 18751), (314, 18760), (316, 18775), (317, 18781), (322, 18799), (331, 18832), (344, 18883), (359, 18919),

Gene: Rasputia\_62 Start: 36323, Stop: 37183, Start Num: 87

Candidate Starts for Rasputia\_62:

(Start: 87 @36323 has 2 MA's), (134, 36389), (140, 36407), (154, 36440), (212, 36611), (231, 36674), (241, 36710), (247, 36728), (259, 36773), (264, 36791), (284, 36884), (289, 36908), (311, 37001), (315, 37013), (319, 37037), (320, 37040), (326, 37061), (334, 37100), (345, 37136), (349, 37151), (358, 37163),

Gene: RawrgerThat\_20 Start: 17689, Stop: 18432, Start Num: 93

Candidate Starts for RawrgerThat\_20:

(Start: 93 @17689 has 307 MA's), (155, 17800), (158, 17806), (168, 17854), (231, 17983), (237, 18001), (243, 18028), (251, 18055), (259, 18079), (262, 18091), (274, 18121), (284, 18166), (289, 18190), (295, 18211), (333, 18379), (337, 18391), (340, 18409), (345, 18424),

Gene: RedMaple\_21 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for RedMaple\_21:

(Start: 93 @17081 has 307 MA's), (Start: 118 @17123 has 1 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (340, 17795), (345, 17810),

Gene: Reprobate\_22 Start: 18052, Stop: 18807, Start Num: 93

Candidate Starts for Reprobate\_22:

(Start: 93 @18052 has 307 MA's), (154, 18166), (158, 18178), (236, 18373), (237, 18376), (251, 18430), (262, 18466), (277, 18505), (292, 18577), (316, 18682), (319, 18694), (323, 18709), (332, 18751), (345, 18799),

Gene: Rhinoforte\_24 Start: 19247, Stop: 20032, Start Num: 85

Candidate Starts for Rhinoforte\_24:

(Start: 85 @19247 has 29 MA's), (135, 19358), (150, 19394), (Start: 156 @19415 has 3 MA's), (158, 19418), (168, 19466), (181, 19502), (237, 19604), (243, 19631), (247, 19640), (251, 19658), (258, 19679), (284, 19772), (289, 19796), (295, 19817), (310, 19874), (311, 19886), (312, 19889), (319, 19919), (331, 19970), (344, 20021),

Gene: Ribeye\_27 Start: 21337, Stop: 22104, Start Num: 108

Candidate Starts for Ribeye\_27:

(Start: 108 @21337 has 63 MA's), (133, 21385), (158, 21442), (Start: 160 @21454 has 1 MA's), (234, 21631), (264, 21733), (284, 21811), (287, 21829), (298, 21865), (311, 21925), (328, 21991), (353, 22084),

Gene: Rich\_21 Start: 17554, Stop: 18309, Start Num: 93

Candidate Starts for Rich\_21:

(Start: 93 @17554 has 307 MA's), (139, 17632), (154, 17668), (158, 17680), (166, 17722), (236, 17875), (243, 17905), (262, 17968), (268, 17980), (277, 18007), (289, 18067), (319, 18196), (323, 18211), (332, 18253), (345, 18301),

Gene: Ricotta\_22 Start: 16793, Stop: 17530, Start Num: 93

Candidate Starts for Ricotta\_22:

(Start: 93 @16793 has 307 MA's), (Start: 118 @16835 has 1 MA's), (154, 16907), (155, 16913), (159, 16922), (Start: 160 @16931 has 1 MA's), (203, 17027), (237, 17099), (239, 17105), (241, 17117), (255, 17168), (282, 17249), (287, 17282), (289, 17288), (310, 17369), (311, 17381), (316, 17405), (323, 17432), (332, 17474), (340, 17507), (345, 17522),

Gene: Riggan\_22 Start: 17053, Stop: 17790, Start Num: 93

Candidate Starts for Riggan\_22:

(Start: 93 @17053 has 307 MA's), (154, 17167), (155, 17173), (159, 17182), (Start: 160 @17191 has 1 MA's), (203, 17287), (237, 17359), (239, 17365), (241, 17377), (255, 17428), (282, 17509), (287, 17542), (289, 17548), (310, 17629), (311, 17641), (316, 17665), (323, 17692), (332, 17734), (340, 17767), (345, 17782),

Gene: Rimu\_22 Start: 16782, Stop: 17519, Start Num: 93

Candidate Starts for Rimu\_22:

(Start: 93 @16782 has 307 MA's), (154, 16896), (155, 16902), (159, 16911), (Start: 160 @16920 has 1 MA's), (203, 17016), (237, 17088), (239, 17094), (241, 17106), (255, 17157), (282, 17238), (287, 17271), (289, 17277), (310, 17358), (311, 17370), (316, 17394), (323, 17421), (340, 17496), (345, 17511),

Gene: Rita1961\_23 Start: 17642, Stop: 18475, Start Num: 67

Candidate Starts for Rita1961\_23:

(Start: 67 @17642 has 8 MA's), (76, 17660), (Start: 93 @17717 has 307 MA's), (Start: 101 @17735 has 25 MA's), (158, 17855), (Start: 160 @17867 has 1 MA's), (190, 17951), (247, 18080), (251, 18098), (271, 18158), (285, 18215), (299, 18269), (316, 18350), (319, 18362), (325, 18380), (341, 18455),

Gene: RiverRaider\_28 Start: 19712, Stop: 20485, Start Num: 108

Candidate Starts for RiverRaider\_28:

(Start: 108 @19712 has 63 MA's), (114, 19724), (133, 19763), (168, 19868), (234, 20006), (242, 20033), (243, 20039), (247, 20048), (264, 20108), (317, 20330), (356, 20468),

Gene: Rizwana\_25 Start: 18364, Stop: 19080, Start Num: 152

Candidate Starts for Rizwana\_25:

(Start: 152 @18364 has 8 MA's), (164, 18409), (196, 18502), (198, 18505), (209, 18544), (221, 18571), (227, 18589), (238, 18634), (243, 18658), (247, 18667), (254, 18697), (272, 18748), (284, 18781), (308, 18868), (322, 18949), (331, 18982), (341, 19024), (359, 19069),

Gene: RoadKill\_22 Start: 17468, Stop: 18265, Start Num: 108

Candidate Starts for RoadKill\_22:



(Start: 108 @17468 has 63 MA's), (155, 17567), (Start: 160 @17585 has 1 MA's), (163, 17597), (168, 17621), (204, 17711), (205, 17714), (298, 18029), (301, 18038), (303, 18047), (328, 18155), (345, 18227), (346, 18230), (354, 18245),

Gene: RobinRose\_32 Start: 19788, Stop: 20633, Start Num: 99

Candidate Starts for RobinRose\_32:

(Start: 99 @19788 has 36 MA's), (136, 19854), (148, 19884), (186, 20004), (223, 20097), (248, 20190), (277, 20292), (291, 20358), (311, 20439), (333, 20529), (345, 20574),

Gene: RobsFeet\_32 Start: 18076, Stop: 18987, Start Num: 74

Candidate Starts for RobsFeet\_32:

(Start: 74 @18076 has 8 MA's), (113, 18178), (163, 18304), (165, 18313), (212, 18457), (215, 18463), (269, 18652), (277, 18673), (282, 18694), (284, 18709), (287, 18727), (289, 18733), (304, 18784), (317, 18856), (322, 18874), (337, 18928), (345, 18955),

Gene: Robyn\_21 Start: 16644, Stop: 17381, Start Num: 93

Candidate Starts for Robyn\_21:

(Start: 93 @16644 has 307 MA's), (154, 16758), (155, 16764), (159, 16773), (Start: 160 @16782 has 1 MA's), (203, 16878), (237, 16950), (239, 16956), (241, 16968), (255, 17019), (282, 17100), (287, 17133), (289, 17139), (311, 17232), (316, 17256), (323, 17283), (332, 17325), (340, 17358), (345, 17373),

Gene: Rofo\_27 Start: 21511, Stop: 22284, Start Num: 108

Candidate Starts for Rofo\_27:

(Start: 108 @21511 has 63 MA's), (133, 21559), (158, 21616), (168, 21664), (213, 21754), (237, 21811), (250, 21862), (264, 21907), (284, 21985), (287, 22003), (299, 22042), (311, 22099), (328, 22165), (356, 22267),

Gene: RogerDodger\_26 Start: 16822, Stop: 17592, Start Num: 112

Candidate Starts for RogerDodger\_26:

(Start: 112 @16822 has 29 MA's), (133, 16864), (163, 16945), (168, 16969), (202, 17050), (237, 17125), (239, 17131), (243, 17152), (247, 17161), (258, 17200), (264, 17221), (301, 17362), (303, 17371), (317, 17443), (335, 17512), (356, 17575),

Gene: Roliet\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for Roliet\_22:

(Start: 93 @17069 has 307 MA's), (Start: 118 @17111 has 1 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (340, 17783), (345, 17798),

Gene: RomaT\_23 Start: 18519, Stop: 19259, Start Num: 101

Candidate Starts for RomaT\_23:

(Start: 67 @18426 has 8 MA's), (76, 18444), (Start: 93 @18501 has 307 MA's), (Start: 101 @18519 has 25 MA's), (158, 18639), (190, 18735), (247, 18864), (251, 18882), (271, 18942), (285, 18999), (299, 19053), (316, 19134), (319, 19146), (325, 19164), (341, 19239),

Gene: RomansRevenge\_22 Start: 17569, Stop: 18318, Start Num: 149

Candidate Starts for RomansRevenge\_22:

(149, 17569), (161, 17614), (178, 17671), (198, 17719), (206, 17752), (225, 17800), (241, 17869), (250, 17902), (254, 17917), (258, 17929), (264, 17950), (322, 18175), (336, 18226), (337, 18229), (341, 18250),

Gene: Romm\_32 Start: 19788, Stop: 20633, Start Num: 99

Candidate Starts for Romm\_32:

(Start: 99 @19788 has 36 MA's), (136, 19854), (148, 19884), (186, 20004), (223, 20097), (248, 20190), (277, 20292), (291, 20358), (311, 20439), (333, 20529), (345, 20574),

Gene: Roscoe\_23 Start: 17311, Stop: 18048, Start Num: 93

Candidate Starts for Roscoe\_23:

(Start: 93 @17311 has 307 MA's), (Start: 118 @17353 has 1 MA's), (154, 17425), (155, 17431), (159, 17440), (Start: 160 @17449 has 1 MA's), (203, 17545), (237, 17617), (239, 17623), (241, 17635), (255, 17686), (282, 17767), (287, 17800), (289, 17806), (310, 17887), (311, 17899), (316, 17923), (323, 17950), (340, 18025), (345, 18040),

Gene: Rosebush\_24 Start: 19415, Stop: 20032, Start Num: 156

Candidate Starts for Rosebush\_24:

(Start: 85 @19247 has 29 MA's), (135, 19358), (150, 19394), (Start: 156 @19415 has 3 MA's), (158, 19418), (168, 19466), (181, 19502), (237, 19604), (243, 19631), (247, 19640), (251, 19658), (258, 19679), (284, 19772), (289, 19796), (295, 19817), (310, 19874), (311, 19886), (312, 19889), (319, 19919), (331, 19970), (344, 20021),

Gene: Rowlf\_28 Start: 20430, Stop: 21278, Start Num: 100

Candidate Starts for Rowlf\_28:

(11, 19854), (12, 19860), (13, 19866), (16, 19896), (100, 20430), (136, 20493), (148, 20523), (165, 20586), (186, 20643), (193, 20655), (223, 20736), (251, 20844), (284, 20967), (287, 20985), (333, 21177),

Gene: Roy17\_22 Start: 16773, Stop: 17510, Start Num: 93

Candidate Starts for Roy17\_22:

(Start: 93 @16773 has 307 MA's), (154, 16887), (155, 16893), (159, 16902), (Start: 160 @16911 has 1 MA's), (203, 17007), (237, 17079), (239, 17085), (241, 17097), (255, 17148), (282, 17229), (287, 17262), (289, 17268), (310, 17349), (311, 17361), (316, 17385), (323, 17412), (332, 17454), (340, 17487), (345, 17502),

Gene: RubyRalph\_33 Start: 20322, Stop: 21173, Start Num: 99

Candidate Starts for RubyRalph\_33:

(Start: 99 @20322 has 36 MA's), (136, 20388), (148, 20418), (165, 20481), (168, 20496), (170, 20505), (186, 20538), (200, 20580), (220, 20628), (223, 20634), (258, 20766), (272, 20808), (333, 21072), (336, 21081),

Gene: Rudy\_29 Start: 20288, Stop: 21136, Start Num: 99

Candidate Starts for Rudy\_29:

(Start: 99 @20288 has 36 MA's), (136, 20351), (148, 20381), (165, 20444), (186, 20501), (193, 20513), (223, 20594), (251, 20702), (284, 20825), (287, 20843), (333, 21035),

Gene: SDcharge11\_22 Start: 17051, Stop: 17788, Start Num: 93

Candidate Starts for SDcharge11\_22:

(Start: 93 @17051 has 307 MA's), (154, 17165), (155, 17171), (159, 17180), (Start: 160 @17189 has 1 MA's), (203, 17285), (237, 17357), (239, 17363), (241, 17375), (255, 17426), (282, 17507), (287, 17540), (289, 17546), (310, 17627), (311, 17639), (316, 17663), (323, 17690), (340, 17765), (345, 17780),

Gene: SJReid\_89 Start: 53179, Stop: 53868, Start Num: 160

Candidate Starts for SJReid\_89:

(Start: 160 @53179 has 1 MA's), (229, 53338), (235, 53362), (283, 53566), (320, 53725), (347, 53833),

Gene: Sabella\_24 Start: 19133, Stop: 19918, Start Num: 85

Candidate Starts for Sabella\_24:

(Start: 85 @19133 has 29 MA's), (135, 19244), (150, 19280), (Start: 156 @19301 has 3 MA's), (158, 19304), (168, 19352), (181, 19388), (237, 19490), (243, 19517), (247, 19526), (251, 19544), (258, 19565), (284, 19658), (289, 19682), (295, 19703), (310, 19760), (311, 19772), (312, 19775), (319, 19805), (331, 19856), (344, 19907),

Gene: SadLad\_35 Start: 21265, Stop: 22116, Start Num: 99

Candidate Starts for SadLad\_35:

(Start: 99 @21265 has 36 MA's), (136, 21331), (148, 21361), (165, 21424), (168, 21439), (170, 21448), (186, 21481), (200, 21523), (220, 21571), (223, 21577), (258, 21709), (333, 22015), (336, 22024),

Gene: Saguaro\_23 Start: 19099, Stop: 19845, Start Num: 93

Candidate Starts for Saguaro\_23:

(Start: 93 @19099 has 307 MA's), (158, 19225), (168, 19273), (241, 19432), (243, 19441), (277, 19543), (289, 19603), (292, 19615), (311, 19696), (316, 19720), (332, 19789), (334, 19795), (345, 19837),

Gene: Salete\_17 Start: 17740, Stop: 18600, Start Num: 104

Candidate Starts for Salete\_17:

(64, 17608), (Start: 104 @17740 has 13 MA's), (154, 17848), (206, 17995), (210, 18004), (220, 18019), (247, 18118), (249, 18124), (251, 18136), (252, 18139), (277, 18244), (280, 18253), (284, 18280), (291, 18313), (293, 18319), (316, 18424), (320, 18439), (325, 18454), (331, 18487), (337, 18508), (343, 18535), (345, 18541),

Gene: SallyK\_32 Start: 21363, Stop: 22211, Start Num: 99

Candidate Starts for SallyK\_32:

(Start: 99 @21363 has 36 MA's), (136, 21426), (148, 21456), (165, 21519), (186, 21576), (193, 21588), (223, 21669), (251, 21777), (284, 21900), (287, 21918), (339, 22137),

Gene: Salvador\_23 Start: 15943, Stop: 16713, Start Num: 112

Candidate Starts for Salvador\_23:

(Start: 112 @15943 has 29 MA's), (133, 15985), (163, 16066), (168, 16090), (202, 16171), (237, 16246), (239, 16252), (243, 16273), (247, 16282), (258, 16321), (301, 16483), (335, 16633), (337, 16639), (356, 16696),

Gene: Samaymay\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Samaymay\_22:

(Start: 93 @17070 has 307 MA's), (Start: 118 @17112 has 1 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Sampson\_26 Start: 21059, Stop: 21850, Start Num: 108

Candidate Starts for Sampson\_26:

(Start: 108 @21059 has 63 MA's), (163, 21188), (197, 21284), (264, 21479), (274, 21509), (299, 21614), (311, 21671), (317, 21701), (328, 21737), (345, 21809),

Gene: Sanjuju\_25 Start: 21692, Stop: 22465, Start Num: 108

Candidate Starts for Sanjuju\_25:

(Start: 108 @21692 has 63 MA's), (133, 21740), (168, 21845), (237, 21992), (264, 22088), (284, 22166), (287, 22184), (299, 22223), (328, 22346), (356, 22448),

Gene: Saronaya\_26 Start: 20171, Stop: 20938, Start Num: 108

Candidate Starts for Saronaya\_26:

(Start: 108 @20171 has 63 MA's), (133, 20219), (158, 20276), (Start: 160 @20288 has 1 MA's), (234, 20465), (251, 20525), (264, 20567), (284, 20645), (287, 20663), (298, 20699), (311, 20759), (328, 20825),

Gene: SassyCat97\_21 Start: 16779, Stop: 17516, Start Num: 93

Candidate Starts for SassyCat97\_21:

(Start: 93 @16779 has 307 MA's), (154, 16893), (155, 16899), (159, 16908), (Start: 160 @16917 has 1 MA's), (203, 17013), (237, 17085), (239, 17091), (241, 17103), (255, 17154), (282, 17235), (287, 17268), (289, 17274), (310, 17355), (311, 17367), (316, 17391), (323, 17418), (332, 17460), (340, 17493), (345, 17508),

Gene: Savannah\_30 Start: 18023, Stop: 18937, Start Num: 71

Candidate Starts for Savannah\_30:

(Start: 71 @18023 has 25 MA's), (Start: 79 @18035 has 3 MA's), (113, 18125), (166, 18269), (203, 18377), (212, 18404), (215, 18410), (251, 18539), (277, 18623), (304, 18734), (317, 18806), (322, 18824), (337, 18878),

Gene: Savbucketdawg\_23 Start: 15724, Stop: 16494, Start Num: 112

Candidate Starts for Savbucketdawg\_23:

(Start: 112 @15724 has 29 MA's), (133, 15766), (163, 15847), (168, 15871), (202, 15952), (237, 16027), (239, 16033), (243, 16054), (247, 16063), (258, 16102), (301, 16264), (335, 16414), (337, 16420), (356, 16477),

Gene: Schadenfreude\_21 Start: 16627, Stop: 17364, Start Num: 93

Candidate Starts for Schadenfreude\_21:

(Start: 93 @16627 has 307 MA's), (154, 16741), (155, 16747), (159, 16756), (Start: 160 @16765 has 1 MA's), (203, 16861), (237, 16933), (239, 16939), (241, 16951), (255, 17002), (282, 17083), (287, 17116), (289, 17122), (310, 17203), (311, 17215), (316, 17239), (323, 17266), (332, 17308), (340, 17341), (345, 17356),

Gene: SchottB\_25 Start: 21183, Stop: 21950, Start Num: 108

Candidate Starts for SchottB\_25:

(Start: 108 @21183 has 63 MA's), (133, 21231), (158, 21288), (Start: 160 @21300 has 1 MA's), (234, 21477), (251, 21537), (264, 21579), (284, 21657), (287, 21675), (298, 21711), (311, 21771), (328, 21837),

Gene: Schueller\_22 Start: 16770, Stop: 17507, Start Num: 93

Candidate Starts for Schueller\_22:

(Start: 93 @16770 has 307 MA's), (154, 16884), (155, 16890), (159, 16899), (Start: 160 @16908 has 1 MA's), (203, 17004), (237, 17076), (239, 17082), (241, 17094), (255, 17145), (282, 17226), (287, 17259), (289, 17265), (310, 17346), (311, 17358), (316, 17382), (323, 17409), (340, 17484), (345, 17499),

Gene: Scioto\_26 Start: 21114, Stop: 21905, Start Num: 108

Candidate Starts for Scioto\_26:

(Start: 108 @21114 has 63 MA's), (163, 21243), (197, 21339), (264, 21534), (274, 21564), (299, 21669), (311, 21726), (317, 21756), (328, 21792), (345, 21864),

Gene: Scoot17C\_22 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Scoot17C\_22:

(Start: 93 @17072 has 307 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (340, 17786), (345, 17801),

Gene: Scrick\_22 Start: 16797, Stop: 17534, Start Num: 93

Candidate Starts for Scrick\_22:

(Start: 93 @16797 has 307 MA's), (154, 16911), (155, 16917), (159, 16926), (Start: 160 @16935 has 1 MA's), (203, 17031), (237, 17103), (239, 17109), (241, 17121), (255, 17172), (282, 17253), (287, 17286), (289, 17292), (310, 17373), (311, 17385), (316, 17409), (323, 17436), (332, 17478), (340, 17511), (345, 17526),

Gene: Scumberland\_32 Start: 18212, Stop: 19126, Start Num: 71

Candidate Starts for Scumberland\_32:

(Start: 71 @18212 has 25 MA's), (113, 18314), (166, 18458), (203, 18566), (212, 18593), (215, 18599), (251, 18728), (277, 18812), (304, 18923), (317, 18995), (322, 19013), (337, 19067),

Gene: Sedona\_27 Start: 22617, Stop: 23390, Start Num: 108

Candidate Starts for Sedona\_27:

(Start: 108 @22617 has 63 MA's), (133, 22665), (158, 22722), (168, 22770), (237, 22917), (250, 22968), (264, 23013), (284, 23091), (287, 23109), (299, 23148), (311, 23205), (328, 23271), (356, 23373),

Gene: Sejanus\_19 Start: 16003, Stop: 16761, Start Num: 92

Candidate Starts for Sejanus\_19:

(Start: 92 @16003 has 4 MA's), (96, 16012), (120, 16054), (125, 16063), (157, 16147), (Start: 160 @16159 has 1 MA's), (165, 16180), (189, 16246), (231, 16312), (236, 16327), (237, 16330), (241, 16348), (244, 16360), (254, 16393), (298, 16549), (328, 16681), (334, 16711), (337, 16720), (345, 16753),

Gene: Selr12\_22 Start: 16794, Stop: 17531, Start Num: 93

Candidate Starts for Selr12\_22:

(Start: 93 @16794 has 307 MA's), (Start: 118 @16836 has 1 MA's), (154, 16908), (155, 16914), (159, 16923), (Start: 160 @16932 has 1 MA's), (203, 17028), (237, 17100), (239, 17106), (241, 17118), (255, 17169), (282, 17250), (287, 17283), (289, 17289), (310, 17370), (311, 17382), (316, 17406), (323, 17433), (332, 17475), (340, 17508), (345, 17523),

Gene: Selwyn23\_32 Start: 18189, Stop: 19103, Start Num: 71

Candidate Starts for Selwyn23\_32:

(Start: 71 @18189 has 25 MA's), (Start: 79 @18201 has 3 MA's), (113, 18291), (166, 18435), (203, 18543), (212, 18570), (215, 18576), (251, 18705), (277, 18789), (284, 18825), (304, 18900), (317, 18972), (322, 18990), (337, 19044),

Gene: Serendipitous\_21 Start: 17607, Stop: 18365, Start Num: 93

Candidate Starts for Serendipitous\_21:

(Start: 93 @17607 has 307 MA's), (144, 17694), (154, 17721), (158, 17733), (219, 17880), (236, 17931), (262, 18024), (274, 18054), (277, 18063), (289, 18123), (323, 18267), (332, 18309), (340, 18342),

Gene: Serendipity\_22 Start: 17092, Stop: 17829, Start Num: 93

Candidate Starts for Serendipity\_22:

(Start: 93 @17092 has 307 MA's), (154, 17206), (155, 17212), (159, 17221), (Start: 160 @17230 has 1 MA's), (203, 17326), (237, 17398), (239, 17404), (241, 17416), (255, 17467), (282, 17548), (287, 17581), (289, 17587), (310, 17668), (311, 17680), (316, 17704), (323, 17731), (340, 17806), (345, 17821),

Gene: Serpentine\_0022 Start: 17072, Stop: 17809, Start Num: 93

Candidate Starts for Serpentine\_0022:

(Start: 93 @17072 has 307 MA's), (Start: 118 @17114 has 1 MA's), (154, 17186), (155, 17192), (159, 17201), (Start: 160 @17210 has 1 MA's), (203, 17306), (237, 17378), (239, 17384), (241, 17396), (255, 17447), (282, 17528), (287, 17561), (289, 17567), (310, 17648), (311, 17660), (316, 17684), (323, 17711), (332, 17753), (340, 17786), (345, 17801),

Gene: Shatter\_19 Start: 15599, Stop: 16345, Start Num: 93

Candidate Starts for Shatter\_19:

(Start: 84 @15569 has 3 MA's), (Start: 93 @15599 has 307 MA's), (Start: 101 @15617 has 25 MA's), (111, 15632), (184, 15818), (247, 15953), (250, 15968), (262, 16007), (311, 16196), (314, 16205), (316, 16220), (319, 16232), (332, 16289), (337, 16304), (345, 16337),

Gene: Sheila\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for Sheila\_22:

(Start: 93 @17064 has 307 MA's), (Start: 118 @17106 has 1 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (340, 17778), (345, 17793),

Gene: ShiVal\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for ShiVal\_22:

(Start: 93 @17064 has 307 MA's), (Start: 118 @17106 has 1 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (332, 17745), (340, 17778), (345, 17793),

Gene: Shinji\_23 Start: 15913, Stop: 16683, Start Num: 112

Candidate Starts for Shinji\_23:

(Start: 78 @15820 has 1 MA's), (Start: 112 @15913 has 29 MA's), (133, 15955), (163, 16036), (202, 16141), (237, 16216), (239, 16222), (243, 16243), (247, 16252), (258, 16291), (264, 16312), (301, 16453), (303, 16462), (335, 16603), (337, 16609), (356, 16666),

Gene: Shivanishola\_28 Start: 21591, Stop: 22364, Start Num: 108

Candidate Starts for Shivanishola\_28:

(Start: 108 @21591 has 63 MA's), (133, 21639), (168, 21744), (237, 21891), (250, 21942), (264, 21987), (284, 22065), (287, 22083), (299, 22122), (311, 22179), (328, 22245), (356, 22347),

Gene: Shotgun\_30 Start: 17822, Stop: 18736, Start Num: 71

Candidate Starts for Shotgun\_30:

(Start: 71 @17822 has 25 MA's), (113, 17924), (166, 18068), (203, 18176), (212, 18203), (215, 18209), (251, 18338), (277, 18422), (304, 18533), (317, 18605), (322, 18623), (337, 18677),

Gene: Sigman\_22 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for Sigman\_22:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287,

17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (332, 17744), (340, 17777), (345, 17792),

Gene: SilentRX\_26 Start: 19358, Stop: 20092, Start Num: 152

Candidate Starts for SilentRX\_26:

(Start: 152 @19358 has 8 MA's), (168, 19424), (183, 19463), (193, 19481), (196, 19502), (198, 19505), (206, 19538), (211, 19550), (217, 19562), (229, 19607), (234, 19628), (237, 19637), (247, 19673), (250, 19688), (251, 19691), (258, 19715), (289, 19811), (291, 19820), (298, 19841), (306, 19868), (314, 19913), (316, 19928), (317, 19934), (334, 19997), (336, 20003),

Gene: Sillytadpoles\_32 Start: 20253, Stop: 21101, Start Num: 99

Candidate Starts for Sillytadpoles\_32:

(Start: 99 @20253 has 36 MA's), (136, 20316), (148, 20346), (165, 20409), (186, 20466), (193, 20478), (223, 20559), (251, 20667), (284, 20790), (287, 20808), (333, 21000),

Gene: Simielle\_21 Start: 16762, Stop: 17499, Start Num: 93

Candidate Starts for Simielle\_21:

(Start: 93 @16762 has 307 MA's), (Start: 118 @16804 has 1 MA's), (154, 16876), (155, 16882), (159, 16891), (Start: 160 @16900 has 1 MA's), (203, 16996), (237, 17068), (239, 17074), (241, 17086), (255, 17137), (282, 17218), (287, 17251), (289, 17257), (310, 17338), (311, 17350), (316, 17374), (323, 17401), (340, 17476), (345, 17491),

Gene: SirJeffery\_22 Start: 17792, Stop: 18547, Start Num: 93

Candidate Starts for SirJeffery\_22:

(51, 17627), (56, 17657), (61, 17678), (Start: 93 @17792 has 307 MA's), (110, 17822), (139, 17870), (154, 17906), (158, 17918), (Start: 160 @17930 has 1 MA's), (166, 17960), (168, 17966), (174, 17987), (236, 18113), (247, 18152), (251, 18170), (262, 18206), (277, 18245), (289, 18305), (316, 18422), (319, 18434), (323, 18449), (332, 18491), (345, 18539),

Gene: Sisko\_19 Start: 15847, Stop: 16623, Start Num: 84

Candidate Starts for Sisko\_19:

(29, 15544), (32, 15559), (Start: 84 @15847 has 3 MA's), (Start: 93 @15877 has 307 MA's), (Start: 101 @15895 has 25 MA's), (146, 15979), (159, 16018), (184, 16096), (247, 16231), (250, 16246), (253, 16252), (262, 16285), (311, 16474), (314, 16483), (316, 16498), (319, 16510), (332, 16567), (340, 16600), (344, 16612), (345, 16615),

Gene: Sitar\_27 Start: 22681, Stop: 23454, Start Num: 108

Candidate Starts for Sitar\_27:

(Start: 108 @22681 has 63 MA's), (133, 22729), (158, 22786), (168, 22834), (237, 22981), (250, 23032), (264, 23077), (284, 23155), (287, 23173), (299, 23212), (328, 23335), (356, 23437),

Gene: Skippy\_22 Start: 17057, Stop: 17794, Start Num: 93

Candidate Starts for Skippy\_22:

(Start: 93 @17057 has 307 MA's), (154, 17171), (155, 17177), (159, 17186), (Start: 160 @17195 has 1 MA's), (203, 17291), (237, 17363), (239, 17369), (241, 17381), (255, 17432), (282, 17513), (287, 17546), (289, 17552), (310, 17633), (311, 17645), (316, 17669), (323, 17696), (332, 17738), (340, 17771), (345, 17786),

Gene: Slatt\_22 Start: 17086, Stop: 17823, Start Num: 93

Candidate Starts for Slatt\_22:

(Start: 93 @17086 has 307 MA's), (154, 17200), (155, 17206), (159, 17215), (Start: 160 @17224 has 1 MA's), (203, 17320), (237, 17392), (239, 17398), (241, 17410), (255, 17461), (282, 17542), (287, 17575), (289, 17581), (310, 17662), (311, 17674), (316, 17698), (323, 17725), (332, 17767), (340,

17800), (345, 17815),

Gene: SlippinJimmy\_23 Start: 18411, Stop: 19244, Start Num: 67

Candidate Starts for SlippinJimmy\_23:

(Start: 67 @18411 has 8 MA's), (76, 18429), (Start: 93 @18486 has 307 MA's), (Start: 101 @18504 has 25 MA's), (158, 18624), (Start: 160 @18636 has 1 MA's), (190, 18720), (247, 18849), (251, 18867), (271, 18927), (285, 18984), (299, 19038), (316, 19119), (319, 19131), (325, 19149), (341, 19224),

Gene: Smarties\_39 Start: 19895, Stop: 20809, Start Num: 74

Candidate Starts for Smarties\_39:

(44, 19730), (62, 19847), (Start: 74 @19895 has 8 MA's), (80, 19910), (113, 20000), (117, 20006), (163, 20126), (212, 20279), (215, 20285), (236, 20357), (252, 20417), (277, 20495), (282, 20516), (284, 20531), (287, 20549), (289, 20555), (304, 20606), (322, 20696), (327, 20711), (337, 20750), (345, 20777),

Gene: SmokingBunny\_23 Start: 15943, Stop: 16713, Start Num: 112

Candidate Starts for SmokingBunny\_23:

(Start: 112 @15943 has 29 MA's), (133, 15985), (163, 16066), (168, 16090), (202, 16171), (237, 16246), (239, 16252), (243, 16273), (247, 16282), (258, 16321), (301, 16483), (335, 16633), (337, 16639), (356, 16696),

Gene: Soile\_22 Start: 16784, Stop: 17521, Start Num: 93

Candidate Starts for Soile\_22:

(Start: 93 @16784 has 307 MA's), (154, 16898), (155, 16904), (159, 16913), (Start: 160 @16922 has 1 MA's), (203, 17018), (237, 17090), (239, 17096), (241, 17108), (255, 17159), (282, 17240), (287, 17273), (289, 17279), (310, 17360), (311, 17372), (316, 17396), (323, 17423), (332, 17465), (340, 17498), (345, 17513),

Gene: Solosis\_21 Start: 16789, Stop: 17526, Start Num: 93

Candidate Starts for Solosis\_21:

(Start: 93 @16789 has 307 MA's), (154, 16903), (155, 16909), (159, 16918), (Start: 160 @16927 has 1 MA's), (203, 17023), (237, 17095), (239, 17101), (241, 17113), (255, 17164), (282, 17245), (287, 17278), (289, 17284), (310, 17365), (311, 17377), (316, 17401), (323, 17428), (332, 17470), (340, 17503), (345, 17518),

Gene: Soos\_46 Start: 27088, Stop: 27834, Start Num: 105

Candidate Starts for Soos\_46:

(94, 27064), (102, 27082), (Start: 105 @27088 has 2 MA's), (113, 27103), (166, 27238), (177, 27271), (179, 27274), (188, 27289), (192, 27295), (203, 27304), (332, 27754), (346, 27805),

Gene: Sophia\_21 Start: 16782, Stop: 17519, Start Num: 93

Candidate Starts for Sophia\_21:

(Start: 93 @16782 has 307 MA's), (154, 16896), (155, 16902), (159, 16911), (Start: 160 @16920 has 1 MA's), (203, 17016), (237, 17088), (239, 17094), (241, 17106), (255, 17157), (282, 17238), (287, 17271), (289, 17277), (310, 17358), (311, 17370), (316, 17394), (323, 17421), (332, 17463), (340, 17496), (345, 17511),

Gene: Soto\_22 Start: 17066, Stop: 17803, Start Num: 93

Candidate Starts for Soto\_22:

(Start: 93 @17066 has 307 MA's), (Start: 118 @17108 has 1 MA's), (154, 17180), (155, 17186), (159, 17195), (Start: 160 @17204 has 1 MA's), (203, 17300), (237, 17372), (239, 17378), (241, 17390), (255, 17441), (282, 17522), (287, 17555), (289, 17561), (310, 17642), (311, 17654), (316, 17678),



(323, 17705), (340, 17780), (345, 17795),

Gene: Sour\_23 Start: 19558, Stop: 20337, Start Num: 84

Candidate Starts for Sour\_23:

(Start: 84 @19558 has 3 MA's), (Start: 93 @19588 has 307 MA's), (Start: 101 @19606 has 25 MA's), (111, 19621), (155, 19720), (158, 19726), (159, 19729), (236, 19906), (262, 19999), (284, 20071), (289, 20095), (311, 20188), (314, 20197), (316, 20212), (319, 20224), (327, 20251), (332, 20281), (344, 20326), (345, 20329),

Gene: Spartan300\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Spartan300\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (340, 17781), (345, 17796),

Gene: Squash\_33 Start: 21312, Stop: 22160, Start Num: 99

Candidate Starts for Squash\_33:

(Start: 99 @21312 has 36 MA's), (136, 21375), (148, 21405), (165, 21468), (186, 21525), (193, 21537), (223, 21618), (251, 21726), (284, 21849), (287, 21867), (333, 22059), (339, 22086),

Gene: Squid\_22 Start: 16779, Stop: 17516, Start Num: 93

Candidate Starts for Squid\_22:

(Start: 93 @16779 has 307 MA's), (154, 16893), (155, 16899), (159, 16908), (Start: 160 @16917 has 1 MA's), (203, 17013), (237, 17085), (239, 17091), (241, 17103), (255, 17154), (282, 17235), (287, 17268), (289, 17274), (310, 17355), (311, 17367), (316, 17391), (323, 17418), (332, 17460), (340, 17493), (345, 17508),

Gene: Squiggle\_22 Start: 16776, Stop: 17513, Start Num: 93

Candidate Starts for Squiggle\_22:

(Start: 93 @16776 has 307 MA's), (154, 16890), (155, 16896), (159, 16905), (Start: 160 @16914 has 1 MA's), (203, 17010), (237, 17082), (239, 17088), (241, 17100), (255, 17151), (282, 17232), (287, 17265), (289, 17271), (310, 17352), (311, 17364), (316, 17388), (323, 17415), (332, 17457), (340, 17490), (345, 17505),

Gene: StAugustine\_27 Start: 20056, Stop: 20868, Start Num: 93

Candidate Starts for StAugustine\_27:

(Start: 93 @20056 has 307 MA's), (144, 20161), (151, 20179), (181, 20284), (185, 20290), (191, 20302), (201, 20332), (228, 20398), (284, 20605), (295, 20650), (314, 20731), (316, 20746), (322, 20767), (340, 20845),

Gene: Sting\_50 Start: 27503, Stop: 28273, Start Num: 94

Candidate Starts for Sting\_50:

(94, 27503), (102, 27521), (Start: 105 @27527 has 2 MA's), (113, 27542), (166, 27677), (177, 27710), (179, 27713), (192, 27734), (203, 27743), (332, 28193), (346, 28244),

Gene: Stinger\_18 Start: 16220, Stop: 16960, Start Num: 93

Candidate Starts for Stinger\_18:

(39, 15959), (40, 15965), (45, 16022), (46, 16025), (48, 16040), (50, 16064), (53, 16076), (54, 16088), (55, 16091), (57, 16100), (66, 16145), (Start: 93 @16220 has 307 MA's), (144, 16298), (155, 16331), (158, 16337), (168, 16385), (177, 16412), (237, 16529), (243, 16556), (251, 16583), (262, 16619), (284, 16694), (289, 16718), (303, 16766), (311, 16811), (316, 16835), (333, 16907), (337, 16919), (340, 16937), (345, 16952),

Gene: StinkyVeggy\_24 Start: 17919, Stop: 18677, Start Num: 93

Candidate Starts for StinkyVeggy\_24:

(Start: 93 @17919 has 307 MA's), (158, 18045), (166, 18087), (202, 18168), (219, 18192), (236, 18243), (251, 18300), (262, 18336), (274, 18366), (277, 18375), (289, 18435), (323, 18579), (332, 18621), (345, 18669),

Gene: StorminNorm\_26 Start: 20050, Stop: 20817, Start Num: 108

Candidate Starts for StorminNorm\_26:

(Start: 108 @20050 has 63 MA's), (133, 20098), (158, 20155), (Start: 160 @20167 has 1 MA's), (234, 20344), (251, 20404), (264, 20446), (284, 20524), (287, 20542), (298, 20578), (311, 20638), (328, 20704),

Gene: StrawberryJamm\_33 Start: 20492, Stop: 21340, Start Num: 99

Candidate Starts for StrawberryJamm\_33:

(Start: 99 @20492 has 36 MA's), (136, 20555), (148, 20585), (165, 20648), (186, 20705), (193, 20717), (223, 20798), (251, 20906), (284, 21029), (287, 21047), (333, 21239),

Gene: Struggle\_21 Start: 16623, Stop: 17360, Start Num: 93

Candidate Starts for Struggle\_21:

(Start: 93 @16623 has 307 MA's), (154, 16737), (155, 16743), (159, 16752), (Start: 160 @16761 has 1 MA's), (203, 16857), (237, 16929), (239, 16935), (241, 16947), (255, 16998), (282, 17079), (287, 17112), (289, 17118), (310, 17199), (311, 17211), (316, 17235), (323, 17262), (340, 17337), (345, 17352),

Gene: Stultus\_25 Start: 20596, Stop: 21369, Start Num: 108

Candidate Starts for Stultus\_25:

(Start: 108 @20596 has 63 MA's), (133, 20644), (168, 20749), (237, 20896), (264, 20992), (284, 21070), (287, 21088), (299, 21127), (328, 21250), (356, 21352),

Gene: Suffolk\_22 Start: 17069, Stop: 17806, Start Num: 93

Candidate Starts for Suffolk\_22:

(Start: 93 @17069 has 307 MA's), (154, 17183), (155, 17189), (159, 17198), (Start: 160 @17207 has 1 MA's), (203, 17303), (237, 17375), (239, 17381), (241, 17393), (255, 17444), (282, 17525), (287, 17558), (289, 17564), (310, 17645), (311, 17657), (316, 17681), (323, 17708), (332, 17750), (340, 17783), (345, 17798),

Gene: Suigeneris\_22 Start: 17804, Stop: 18559, Start Num: 93

Candidate Starts for Suigeneris\_22:

(51, 17639), (56, 17669), (61, 17690), (Start: 67 @17729 has 8 MA's), (Start: 93 @17804 has 307 MA's), (110, 17834), (139, 17882), (154, 17918), (158, 17930), (Start: 160 @17942 has 1 MA's), (166, 17972), (168, 17978), (174, 17999), (236, 18125), (247, 18164), (251, 18182), (262, 18218), (277, 18257), (289, 18317), (316, 18434), (319, 18446), (323, 18461), (332, 18503), (345, 18551),

Gene: Surely\_22 Start: 17081, Stop: 17818, Start Num: 93

Candidate Starts for Surely\_22:

(Start: 93 @17081 has 307 MA's), (154, 17195), (155, 17201), (159, 17210), (Start: 160 @17219 has 1 MA's), (203, 17315), (237, 17387), (239, 17393), (241, 17405), (255, 17456), (282, 17537), (287, 17570), (289, 17576), (310, 17657), (311, 17669), (316, 17693), (323, 17720), (332, 17762), (340, 17795), (345, 17810),

Gene: Swiphy\_23 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Swiphy\_23:

(Start: 93 @17070 has 307 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Swish\_22 Start: 17064, Stop: 17801, Start Num: 93

Candidate Starts for Swish\_22:

(Start: 93 @17064 has 307 MA's), (154, 17178), (155, 17184), (159, 17193), (Start: 160 @17202 has 1 MA's), (203, 17298), (237, 17370), (239, 17376), (241, 17388), (255, 17439), (282, 17520), (287, 17553), (289, 17559), (310, 17640), (311, 17652), (316, 17676), (323, 17703), (332, 17745), (340, 17778), (345, 17793),

Gene: SynergyX\_23 Start: 17722, Stop: 18480, Start Num: 93

Candidate Starts for SynergyX\_23:

(Start: 67 @17647 has 8 MA's), (76, 17665), (Start: 93 @17722 has 307 MA's), (Start: 101 @17740 has 25 MA's), (158, 17860), (Start: 160 @17872 has 1 MA's), (190, 17956), (247, 18085), (251, 18103), (271, 18163), (285, 18220), (299, 18274), (316, 18355), (319, 18367), (325, 18385), (341, 18460),

Gene: TA17A\_24 Start: 19127, Stop: 19912, Start Num: 85

Candidate Starts for TA17A\_24:

(Start: 85 @19127 has 29 MA's), (135, 19238), (150, 19274), (Start: 156 @19295 has 3 MA's), (158, 19298), (168, 19346), (181, 19382), (237, 19484), (243, 19511), (247, 19520), (251, 19538), (258, 19559), (284, 19652), (289, 19676), (295, 19697), (310, 19754), (311, 19766), (312, 19769), (319, 19799), (331, 19850), (344, 19901),

Gene: TP1604\_17 Start: 17740, Stop: 18600, Start Num: 104

Candidate Starts for TP1604\_17:

(64, 17608), (Start: 104 @17740 has 13 MA's), (154, 17848), (206, 17995), (210, 18004), (220, 18019), (247, 18118), (249, 18124), (251, 18136), (252, 18139), (277, 18244), (280, 18253), (284, 18280), (291, 18313), (293, 18319), (316, 18424), (320, 18439), (325, 18454), (331, 18487), (337, 18508), (343, 18535), (345, 18541),

Gene: TPA2\_28 Start: 17959, Stop: 18726, Start Num: 93

Candidate Starts for TPA2\_28:

(Start: 93 @17959 has 307 MA's), (Start: 101 @17977 has 25 MA's), (122, 18007), (125, 18010), (Start: 160 @18109 has 1 MA's), (165, 18130), (201, 18214), (228, 18262), (236, 18292), (247, 18331), (251, 18349), (284, 18460), (319, 18613), (329, 18655), (332, 18670), (337, 18685),

Gene: TallGrassMM\_22 Start: 16796, Stop: 17533, Start Num: 93

Candidate Starts for TallGrassMM\_22:

(Start: 93 @16796 has 307 MA's), (154, 16910), (155, 16916), (159, 16925), (Start: 160 @16934 has 1 MA's), (203, 17030), (237, 17102), (239, 17108), (241, 17120), (255, 17171), (282, 17252), (287, 17285), (289, 17291), (310, 17372), (311, 17384), (316, 17408), (323, 17435), (332, 17477), (340, 17510), (345, 17525),

Gene: Tangent\_27 Start: 21039, Stop: 21806, Start Num: 108

Candidate Starts for Tangent\_27:

(Start: 108 @21039 has 63 MA's), (133, 21087), (158, 21144), (168, 21192), (237, 21339), (251, 21393), (264, 21429), (284, 21507), (287, 21525), (299, 21564), (311, 21621), (328, 21687), (356, 21789),

Gene: Tangerine\_26 Start: 20056, Stop: 20823, Start Num: 108

Candidate Starts for Tangerine\_26:

(Start: 108 @20056 has 63 MA's), (133, 20104), (158, 20161), (Start: 160 @20173 has 1 MA's), (234, 20350), (251, 20410), (264, 20452), (284, 20530), (287, 20548), (298, 20584), (311, 20644), (328, 20710),

Gene: Tank\_26 Start: 18308, Stop: 19024, Start Num: 152

Candidate Starts for Tank\_26:

(Start: 152 @18308 has 8 MA's), (164, 18353), (176, 18395), (195, 18440), (198, 18449), (209, 18488), (221, 18515), (243, 18602), (258, 18653), (272, 18692), (298, 18779), (299, 18782), (308, 18812), (314, 18854), (322, 18893), (331, 18926), (345, 18980),

Gene: Taptic\_16 Start: 16492, Stop: 17229, Start Num: 97

Candidate Starts for Taptic\_16:

(Start: 97 @16492 has 8 MA's), (Start: 105 @16504 has 2 MA's), (159, 16627), (Start: 160 @16636 has 1 MA's), (174, 16693), (181, 16708), (189, 16723), (218, 16750), (228, 16771), (231, 16786), (236, 16801), (237, 16804), (244, 16834), (247, 16840), (250, 16855), (272, 16915), (284, 16969), (285, 16972), (292, 17005), (294, 17011), (295, 17014), (299, 17026), (311, 17083), (314, 17092), (316, 17107), (332, 17173), (337, 17188), (340, 17206), (345, 17221),

Gene: Tardus\_27 Start: 20395, Stop: 21186, Start Num: 108

Candidate Starts for Tardus\_27:

(Start: 108 @20395 has 63 MA's), (163, 20524), (197, 20620), (264, 20815), (274, 20845), (299, 20950), (311, 21007), (317, 21037), (328, 21073), (345, 21145),

Gene: Teamocil\_32 Start: 17895, Stop: 18806, Start Num: 74

Candidate Starts for Teamocil\_32:

(Start: 74 @17895 has 8 MA's), (Start: 79 @17907 has 3 MA's), (113, 17997), (163, 18123), (166, 18141), (168, 18147), (212, 18276), (251, 18411), (277, 18492), (282, 18513), (284, 18528), (287, 18546), (289, 18552), (304, 18603), (317, 18675), (322, 18693), (337, 18747), (345, 18774),

Gene: Teehee\_32 Start: 21489, Stop: 22337, Start Num: 99

Candidate Starts for Teehee\_32:

(Start: 99 @21489 has 36 MA's), (136, 21552), (148, 21582), (165, 21645), (186, 21702), (193, 21714), (223, 21795), (251, 21903), (284, 22026), (287, 22044), (333, 22236),

Gene: Telesworld\_21 Start: 16775, Stop: 17512, Start Num: 93

Candidate Starts for Telesworld\_21:

(Start: 93 @16775 has 307 MA's), (Start: 118 @16817 has 1 MA's), (154, 16889), (155, 16895), (159, 16904), (Start: 160 @16913 has 1 MA's), (203, 17009), (237, 17081), (239, 17087), (241, 17099), (255, 17150), (282, 17231), (287, 17264), (289, 17270), (310, 17351), (311, 17363), (316, 17387), (323, 17414), (340, 17489), (345, 17504),

Gene: Tempo\_30 Start: 19664, Stop: 20509, Start Num: 99

Candidate Starts for Tempo\_30:

(Start: 99 @19664 has 36 MA's), (136, 19730), (148, 19760), (186, 19880), (223, 19973), (248, 20066), (277, 20168), (278, 20171), (291, 20234), (333, 20405), (345, 20450),

Gene: Terij\_27 Start: 17406, Stop: 18302, Start Num: 81

Candidate Starts for Terij\_27:

(Start: 81 @17406 has 7 MA's), (86, 17433), (Start: 87 @17436 has 2 MA's), (98, 17469), (168, 17640), (212, 17763), (243, 17871), (247, 17880), (258, 17922), (264, 17943), (277, 17982), (290, 18048), (293, 18057), (345, 18267), (348, 18276),

Gene: Thing3\_26 Start: 21526, Stop: 22299, Start Num: 108

Candidate Starts for Thing3\_26:

(Start: 108 @21526 has 63 MA's), (133, 21574), (168, 21679), (237, 21826), (250, 21877), (264, 21922), (284, 22000), (287, 22018), (299, 22057), (311, 22114), (328, 22180), (356, 22282),

Gene: Thonko\_21 Start: 15507, Stop: 16247, Start Num: 93

Candidate Starts for Thonko\_21:

(Start: 93 @15507 has 307 MA's), (154, 15612), (155, 15618), (158, 15624), (168, 15672), (237, 15816), (243, 15843), (255, 15885), (262, 15906), (289, 16005), (298, 16035), (311, 16098), (340, 16224), (345, 16239),

Gene: Thora\_22 Start: 17080, Stop: 17817, Start Num: 93

Candidate Starts for Thora\_22:

(Start: 93 @17080 has 307 MA's), (154, 17194), (155, 17200), (159, 17209), (Start: 160 @17218 has 1 MA's), (203, 17314), (237, 17386), (239, 17392), (241, 17404), (255, 17455), (282, 17536), (287, 17569), (289, 17575), (310, 17656), (311, 17668), (316, 17692), (323, 17719), (332, 17761), (340, 17794), (345, 17809),

Gene: ThreeOh3D2\_22 Start: 17079, Stop: 17816, Start Num: 93

Candidate Starts for ThreeOh3D2\_22:

(Start: 93 @17079 has 307 MA's), (Start: 118 @17121 has 1 MA's), (154, 17193), (155, 17199), (159, 17208), (Start: 160 @17217 has 1 MA's), (203, 17313), (237, 17385), (239, 17391), (241, 17403), (255, 17454), (282, 17535), (287, 17568), (289, 17574), (310, 17655), (311, 17667), (316, 17691), (323, 17718), (332, 17760), (340, 17793), (345, 17808),

Gene: Tiamoceli\_25 Start: 18819, Stop: 19616, Start Num: 108

Candidate Starts for Tiamoceli\_25:

(Start: 108 @18819 has 63 MA's), (163, 18948), (168, 18972), (204, 19062), (205, 19065), (243, 19179), (283, 19323), (298, 19380), (301, 19389), (303, 19398), (328, 19506), (345, 19578), (346, 19581), (354, 19596),

Gene: TillyBobJoe\_23 Start: 15727, Stop: 16497, Start Num: 112

Candidate Starts for TillyBobJoe\_23:

(Start: 78 @15634 has 1 MA's), (Start: 112 @15727 has 29 MA's), (133, 15769), (163, 15850), (202, 15955), (237, 16030), (239, 16036), (243, 16057), (247, 16066), (258, 16105), (264, 16126), (301, 16267), (303, 16276), (335, 16417), (337, 16423), (356, 16480),

Gene: Timmi\_21 Start: 16790, Stop: 17527, Start Num: 93

Candidate Starts for Timmi\_21:

(Start: 93 @16790 has 307 MA's), (154, 16904), (155, 16910), (159, 16919), (Start: 160 @16928 has 1 MA's), (203, 17024), (237, 17096), (239, 17102), (241, 17114), (255, 17165), (282, 17246), (287, 17279), (289, 17285), (310, 17366), (311, 17378), (316, 17402), (323, 17429), (332, 17471), (340, 17504), (345, 17519),

Gene: Tinciduntolum\_25 Start: 19249, Stop: 20034, Start Num: 85

Candidate Starts for Tinciduntolum\_25:

(Start: 85 @19249 has 29 MA's), (135, 19360), (150, 19396), (Start: 156 @19417 has 3 MA's), (158, 19420), (168, 19468), (181, 19504), (237, 19606), (243, 19633), (247, 19642), (251, 19660), (258, 19681), (284, 19774), (289, 19798), (295, 19819), (310, 19876), (311, 19888), (312, 19891), (319, 19921), (331, 19972), (344, 20023),

Gene: Tissue\_31 Start: 21009, Stop: 21857, Start Num: 99

Candidate Starts for Tissue\_31:

(Start: 99 @21009 has 36 MA's), (136, 21072), (148, 21102), (165, 21165), (186, 21222), (193, 21234), (223, 21315), (251, 21423), (284, 21546), (287, 21564), (333, 21756),

Gene: Togo\_23 Start: 15943, Stop: 16713, Start Num: 112

Candidate Starts for Togo\_23:

(Start: 112 @15943 has 29 MA's), (133, 15985), (163, 16066), (168, 16090), (202, 16171), (237, 16246), (239, 16252), (243, 16273), (247, 16282), (258, 16321), (301, 16483), (335, 16633), (337, 16639), (356, 16696),

Gene: TomBombadil\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for TomBombadil\_22:

(Start: 93 @17075 has 307 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (332, 17756), (340, 17789), (345, 17804),

Gene: Tomlarah\_22 Start: 17065, Stop: 17802, Start Num: 93

Candidate Starts for Tomlarah\_22:

(Start: 93 @17065 has 307 MA's), (Start: 118 @17107 has 1 MA's), (154, 17179), (155, 17185), (159, 17194), (Start: 160 @17203 has 1 MA's), (203, 17299), (237, 17371), (239, 17377), (241, 17389), (255, 17440), (282, 17521), (287, 17554), (289, 17560), (310, 17641), (311, 17653), (316, 17677), (323, 17704), (340, 17779), (345, 17794),

Gene: Toni\_21 Start: 16774, Stop: 17511, Start Num: 93

Candidate Starts for Toni\_21:

(Start: 93 @16774 has 307 MA's), (Start: 118 @16816 has 1 MA's), (154, 16888), (155, 16894), (159, 16903), (Start: 160 @16912 has 1 MA's), (203, 17008), (237, 17080), (239, 17086), (241, 17098), (255, 17149), (282, 17230), (287, 17263), (289, 17269), (310, 17350), (311, 17362), (316, 17386), (323, 17413), (332, 17455), (340, 17488), (345, 17503),

Gene: Tonitrus\_38 Start: 25747, Stop: 26508, Start Num: 109

Candidate Starts for Tonitrus\_38:

(72, 25648), (109, 25747), (146, 25819), (155, 25849), (158, 25855), (166, 25897), (177, 25930), (203, 25963), (211, 25975), (219, 25990), (226, 26002), (237, 26044), (242, 26065), (247, 26080), (251, 26098), (295, 26257), (331, 26413), (334, 26425),

Gene: Tooj\_22 Start: 17076, Stop: 17813, Start Num: 93

Candidate Starts for Tooj\_22:

(Start: 93 @17076 has 307 MA's), (Start: 118 @17118 has 1 MA's), (154, 17190), (155, 17196), (159, 17205), (Start: 160 @17214 has 1 MA's), (203, 17310), (237, 17382), (239, 17388), (241, 17400), (255, 17451), (282, 17532), (287, 17565), (289, 17571), (310, 17652), (311, 17664), (316, 17688), (323, 17715), (340, 17790), (345, 17805),

Gene: Tres\_24 Start: 19130, Stop: 19915, Start Num: 85

Candidate Starts for Tres\_24:

(Start: 85 @19130 has 29 MA's), (135, 19241), (150, 19277), (Start: 156 @19298 has 3 MA's), (158, 19301), (168, 19349), (181, 19385), (237, 19487), (243, 19514), (247, 19523), (251, 19541), (258, 19562), (284, 19655), (289, 19679), (295, 19700), (310, 19757), (311, 19769), (312, 19772), (319, 19802), (331, 19853), (344, 19904),

Gene: True\_21 Start: 16778, Stop: 17515, Start Num: 93

Candidate Starts for True\_21:

(Start: 93 @16778 has 307 MA's), (154, 16892), (155, 16898), (159, 16907), (Start: 160 @16916 has 1 MA's), (203, 17012), (237, 17084), (239, 17090), (241, 17102), (255, 17153), (282, 17234), (287, 17267), (289, 17273), (310, 17354), (311, 17366), (316, 17390), (323, 17417), (340, 17492), (345, 17507),

Gene: Trypo\_22 Start: 17067, Stop: 17804, Start Num: 93

Candidate Starts for Trypo\_22:

(Start: 93 @17067 has 307 MA's), (154, 17181), (155, 17187), (159, 17196), (Start: 160 @17205 has 1 MA's), (203, 17301), (237, 17373), (239, 17379), (241, 17391), (255, 17442), (282, 17523), (287, 17556), (289, 17562), (310, 17643), (311, 17655), (316, 17679), (323, 17706), (340, 17781), (345, 17796),

Gene: TurkishDelight\_23 Start: 20012, Stop: 20827, Start Num: 104

Candidate Starts for TurkishDelight\_23:

(Start: 104 @20012 has 13 MA's), (126, 20048), (137, 20066), (147, 20090), (162, 20141), (166, 20162), (168, 20168), (178, 20201), (206, 20252), (241, 20357), (243, 20366), (244, 20369), (260, 20420), (267, 20441), (277, 20480), (284, 20516), (296, 20564), (300, 20576), (314, 20648), (316, 20663), (317, 20669), (331, 20726), (332, 20732), (335, 20741), (337, 20747), (345, 20780),

Gene: Twister6\_25 Start: 16370, Stop: 17140, Start Num: 112

Candidate Starts for Twister6\_25:

(Start: 112 @16370 has 29 MA's), (133, 16412), (163, 16493), (168, 16517), (202, 16598), (237, 16673), (239, 16679), (243, 16700), (247, 16709), (258, 16748), (301, 16910), (335, 17060), (337, 17066), (356, 17123),

Gene: Twonlo\_22 Start: 17437, Stop: 18234, Start Num: 108

Candidate Starts for Twonlo\_22:

(Start: 108 @17437 has 63 MA's), (141, 17497), (155, 17536), (Start: 160 @17554 has 1 MA's), (163, 17566), (168, 17590), (204, 17680), (205, 17683), (243, 17797), (244, 17800), (247, 17806), (283, 17941), (298, 17998), (301, 18007), (303, 18016), (328, 18124), (345, 18196), (346, 18199), (354, 18214),

Gene: Tycho\_26 Start: 20145, Stop: 20912, Start Num: 108

Candidate Starts for Tycho\_26:

(Start: 108 @20145 has 63 MA's), (133, 20193), (158, 20250), (Start: 160 @20262 has 1 MA's), (234, 20439), (251, 20499), (264, 20541), (284, 20619), (287, 20637), (298, 20673), (311, 20733), (328, 20799),

Gene: Tydolla\_23 Start: 18384, Stop: 19217, Start Num: 67

Candidate Starts for Tydolla\_23:

(Start: 67 @18384 has 8 MA's), (76, 18402), (Start: 93 @18459 has 307 MA's), (Start: 101 @18477 has 25 MA's), (158, 18597), (Start: 160 @18609 has 1 MA's), (190, 18693), (247, 18822), (251, 18840), (271, 18900), (285, 18957), (299, 19011), (316, 19092), (319, 19104), (325, 19122), (341, 19197),

Gene: TyrionL\_21 Start: 16631, Stop: 17368, Start Num: 93

Candidate Starts for TyrionL\_21:

(Start: 93 @16631 has 307 MA's), (Start: 118 @16673 has 1 MA's), (154, 16745), (155, 16751), (159, 16760), (Start: 160 @16769 has 1 MA's), (203, 16865), (237, 16937), (239, 16943), (241, 16955), (255, 17006), (282, 17087), (287, 17120), (289, 17126), (310, 17207), (311, 17219), (316, 17243), (323, 17270), (340, 17345), (345, 17360),

Gene: Tyumbra\_29 Start: 17116, Stop: 18027, Start Num: 74

Candidate Starts for Tyrumbra\_29:

(Start: 74 @17116 has 8 MA's), (113, 17218), (163, 17344), (165, 17353), (166, 17362), (212, 17497), (215, 17503), (269, 17692), (277, 17713), (282, 17734), (284, 17749), (287, 17767), (289, 17773), (304, 17824), (317, 17896), (322, 17914), (337, 17968), (345, 17995),

Gene: UACh1\_22 Start: 17087, Stop: 17824, Start Num: 93

Candidate Starts for UACh1\_22:

(Start: 93 @17087 has 307 MA's), (Start: 118 @17129 has 1 MA's), (154, 17201), (155, 17207), (159, 17216), (Start: 160 @17225 has 1 MA's), (203, 17321), (237, 17393), (239, 17399), (241, 17411), (255, 17462), (282, 17543), (287, 17576), (289, 17582), (310, 17663), (311, 17675), (316, 17699), (323, 17726), (340, 17801), (345, 17816),

Gene: UncleHowie\_22 Start: 16777, Stop: 17514, Start Num: 93

Candidate Starts for UncleHowie\_22:

(Start: 93 @16777 has 307 MA's), (Start: 118 @16819 has 1 MA's), (154, 16891), (155, 16897), (159, 16906), (Start: 160 @16915 has 1 MA's), (203, 17011), (237, 17083), (239, 17089), (241, 17101), (255, 17152), (282, 17233), (287, 17266), (289, 17272), (310, 17353), (311, 17365), (316, 17389), (323, 17416), (340, 17491), (345, 17506),

Gene: Usavi\_22 Start: 17078, Stop: 17815, Start Num: 93

Candidate Starts for Usavi\_22:

(Start: 93 @17078 has 307 MA's), (154, 17192), (155, 17198), (159, 17207), (Start: 160 @17216 has 1 MA's), (203, 17312), (237, 17384), (239, 17390), (241, 17402), (255, 17453), (282, 17534), (287, 17567), (289, 17573), (310, 17654), (311, 17666), (316, 17690), (323, 17717), (340, 17792), (345, 17807),

Gene: Vaishali24\_21 Start: 16731, Stop: 17468, Start Num: 93

Candidate Starts for Vaishali24\_21:

(Start: 93 @16731 has 307 MA's), (154, 16845), (155, 16851), (159, 16860), (Start: 160 @16869 has 1 MA's), (203, 16965), (237, 17037), (239, 17043), (241, 17055), (255, 17106), (282, 17187), (287, 17220), (289, 17226), (311, 17319), (316, 17343), (323, 17370), (340, 17445), (345, 17460),

Gene: Valary\_26 Start: 16867, Stop: 17637, Start Num: 112

Candidate Starts for Valary\_26:

(Start: 112 @16867 has 29 MA's), (133, 16909), (163, 16990), (202, 17095), (237, 17170), (239, 17176), (243, 17197), (247, 17206), (264, 17266), (301, 17407), (303, 17416), (317, 17488), (335, 17557), (337, 17563), (356, 17620),

Gene: Valjean\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Valjean\_22:

(Start: 93 @17070 has 307 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: VanDeWege\_26 Start: 16751, Stop: 17521, Start Num: 112

Candidate Starts for VanDeWege\_26:

(Start: 112 @16751 has 29 MA's), (133, 16793), (163, 16874), (168, 16898), (202, 16979), (237, 17054), (239, 17060), (243, 17081), (247, 17090), (258, 17129), (301, 17291), (335, 17441), (337, 17447), (356, 17504),

Gene: Vaticameos\_22 Start: 16768, Stop: 17505, Start Num: 93

Candidate Starts for Vaticameos\_22:



(Start: 93 @16768 has 307 MA's), (Start: 118 @16810 has 1 MA's), (154, 16882), (155, 16888), (159, 16897), (Start: 160 @16906 has 1 MA's), (203, 17002), (237, 17074), (239, 17080), (241, 17092), (255, 17143), (282, 17224), (287, 17257), (289, 17263), (310, 17344), (311, 17356), (316, 17380), (323, 17407), (340, 17482), (345, 17497),

Gene: Veritas\_21 Start: 16617, Stop: 17354, Start Num: 93

Candidate Starts for Veritas\_21:

(Start: 93 @16617 has 307 MA's), (154, 16731), (155, 16737), (159, 16746), (Start: 160 @16755 has 1 MA's), (203, 16851), (237, 16923), (239, 16929), (241, 16941), (255, 16992), (282, 17073), (287, 17106), (289, 17112), (310, 17193), (311, 17205), (316, 17229), (323, 17256), (340, 17331), (345, 17346),

Gene: Verity\_26 Start: 21299, Stop: 22135, Start Num: 89

Candidate Starts for Verity\_26:

(Start: 89 @21299 has 2 MA's), (Start: 108 @21344 has 63 MA's), (149, 21422), (163, 21473), (190, 21548), (197, 21569), (248, 21707), (264, 21764), (274, 21794), (299, 21899), (311, 21956), (317, 21986), (328, 22022), (335, 22055), (345, 22094),

Gene: ViaConlectus\_26 Start: 19736, Stop: 20527, Start Num: 108

Candidate Starts for ViaConlectus\_26:

(Start: 108 @19736 has 63 MA's), (163, 19865), (197, 19961), (264, 20156), (274, 20186), (299, 20291), (311, 20348), (317, 20378), (328, 20414), (335, 20447), (345, 20486),

Gene: Viceroy\_30 Start: 20255, Stop: 21103, Start Num: 99

Candidate Starts for Viceroy\_30:

(Start: 99 @20255 has 36 MA's), (136, 20318), (148, 20348), (165, 20411), (186, 20468), (193, 20480), (223, 20561), (251, 20669), (284, 20792), (287, 20810), (333, 21002),

Gene: Vincenzo\_21 Start: 18471, Stop: 19205, Start Num: 93

Candidate Starts for Vincenzo\_21:

(60, 18354), (Start: 93 @18471 has 307 MA's), (144, 18549), (158, 18588), (168, 18636), (174, 18657), (250, 18825), (262, 18864), (274, 18894), (284, 18939), (289, 18963), (333, 19152), (340, 19182), (345, 19197),

Gene: VioletZ\_20 Start: 17748, Stop: 18491, Start Num: 93

Candidate Starts for VioletZ\_20:

(59, 17643), (Start: 89 @17739 has 2 MA's), (Start: 93 @17748 has 307 MA's), (155, 17859), (158, 17865), (168, 17913), (231, 18042), (243, 18087), (251, 18114), (259, 18138), (262, 18150), (274, 18180), (284, 18225), (289, 18249), (323, 18393), (333, 18438), (337, 18450), (340, 18468), (345, 18483),

Gene: Virapocalypse\_22 Start: 17061, Stop: 17798, Start Num: 93

Candidate Starts for Virapocalypse\_22:

(Start: 93 @17061 has 307 MA's), (154, 17175), (155, 17181), (159, 17190), (Start: 160 @17199 has 1 MA's), (203, 17295), (237, 17367), (239, 17373), (241, 17385), (255, 17436), (282, 17517), (287, 17550), (289, 17556), (310, 17637), (311, 17649), (316, 17673), (323, 17700), (332, 17742), (340, 17775), (345, 17790),

Gene: Virgeve\_21 Start: 16783, Stop: 17520, Start Num: 93

Candidate Starts for Virgeve\_21:

(Start: 93 @16783 has 307 MA's), (154, 16897), (155, 16903), (159, 16912), (Start: 160 @16921 has 1 MA's), (203, 17017), (237, 17089), (239, 17095), (241, 17107), (255, 17158), (282, 17239), (287, 17272), (289, 17278), (310, 17359), (311, 17371), (316, 17395), (323, 17422), (340, 17497), (345,

17512),

Gene: Vista\_22 Start: 17075, Stop: 17812, Start Num: 93

Candidate Starts for Vista\_22:

(Start: 93 @17075 has 307 MA's), (154, 17189), (155, 17195), (159, 17204), (Start: 160 @17213 has 1 MA's), (203, 17309), (237, 17381), (239, 17387), (241, 17399), (255, 17450), (282, 17531), (287, 17564), (289, 17570), (310, 17651), (311, 17663), (316, 17687), (323, 17714), (332, 17756), (340, 17789), (345, 17804),

Gene: Vivaldi\_22 Start: 17105, Stop: 17842, Start Num: 93

Candidate Starts for Vivaldi\_22:

(Start: 93 @17105 has 307 MA's), (Start: 118 @17147 has 1 MA's), (154, 17219), (155, 17225), (159, 17234), (Start: 160 @17243 has 1 MA's), (203, 17339), (237, 17411), (239, 17417), (241, 17429), (255, 17480), (282, 17561), (287, 17594), (289, 17600), (310, 17681), (311, 17693), (316, 17717), (323, 17744), (340, 17819), (345, 17834),

Gene: Vivi2\_29 Start: 22212, Stop: 22979, Start Num: 108

Candidate Starts for Vivi2\_29:

(Start: 108 @22212 has 63 MA's), (133, 22260), (158, 22317), (168, 22365), (237, 22512), (251, 22566), (264, 22602), (284, 22680), (287, 22698), (299, 22737), (311, 22794), (328, 22860), (356, 22962),

Gene: Vortex\_22 Start: 16785, Stop: 17522, Start Num: 93

Candidate Starts for Vortex\_22:

(Start: 93 @16785 has 307 MA's), (154, 16899), (155, 16905), (159, 16914), (Start: 160 @16923 has 1 MA's), (203, 17019), (237, 17091), (239, 17097), (241, 17109), (255, 17160), (282, 17241), (287, 17274), (289, 17280), (310, 17361), (311, 17373), (316, 17397), (323, 17424), (340, 17499), (345, 17514),

Gene: Waleliano\_20 Start: 17693, Stop: 18436, Start Num: 93

Candidate Starts for Waleliano\_20:

(Start: 93 @17693 has 307 MA's), (155, 17804), (158, 17810), (168, 17858), (231, 17987), (243, 18032), (251, 18059), (259, 18083), (262, 18095), (274, 18125), (284, 18170), (289, 18194), (316, 18311), (323, 18338), (333, 18383), (337, 18395), (340, 18413), (345, 18428),

Gene: Wallhey\_21 Start: 16635, Stop: 17372, Start Num: 93

Candidate Starts for Wallhey\_21:

(Start: 93 @16635 has 307 MA's), (154, 16749), (155, 16755), (159, 16764), (Start: 160 @16773 has 1 MA's), (203, 16869), (237, 16941), (239, 16947), (241, 16959), (255, 17010), (282, 17091), (287, 17124), (289, 17130), (310, 17211), (311, 17223), (316, 17247), (323, 17274), (340, 17349), (345, 17364),

Gene: Waterdiva\_22 Start: 17070, Stop: 17807, Start Num: 93

Candidate Starts for Waterdiva\_22:

(Start: 93 @17070 has 307 MA's), (Start: 118 @17112 has 1 MA's), (154, 17184), (155, 17190), (159, 17199), (Start: 160 @17208 has 1 MA's), (203, 17304), (237, 17376), (239, 17382), (241, 17394), (255, 17445), (282, 17526), (287, 17559), (289, 17565), (310, 17646), (311, 17658), (316, 17682), (323, 17709), (340, 17784), (345, 17799),

Gene: Wayne3\_32 Start: 21252, Stop: 22100, Start Num: 99

Candidate Starts for Wayne3\_32:

(Start: 99 @21252 has 36 MA's), (136, 21315), (148, 21345), (165, 21408), (186, 21465), (193, 21477), (223, 21558), (251, 21666), (284, 21789), (287, 21807), (333, 21999),

Gene: Weher20\_22 Start: 17063, Stop: 17800, Start Num: 93

Candidate Starts for Weher20\_22:

(Start: 93 @17063 has 307 MA's), (154, 17177), (155, 17183), (159, 17192), (Start: 160 @17201 has 1 MA's), (203, 17297), (237, 17369), (239, 17375), (241, 17387), (255, 17438), (282, 17519), (287, 17552), (289, 17558), (310, 17639), (311, 17651), (316, 17675), (323, 17702), (340, 17777), (345, 17792),

Gene: West99\_24 Start: 19250, Stop: 20035, Start Num: 85

Candidate Starts for West99\_24:

(Start: 85 @19250 has 29 MA's), (135, 19361), (150, 19397), (Start: 156 @19418 has 3 MA's), (158, 19421), (168, 19469), (181, 19505), (237, 19607), (243, 19634), (247, 19643), (251, 19661), (258, 19682), (284, 19775), (289, 19799), (295, 19820), (310, 19877), (311, 19889), (312, 19892), (319, 19922), (331, 19973), (344, 20024),

Gene: Wheelie\_30 Start: 20570, Stop: 21418, Start Num: 99

Candidate Starts for Wheelie\_30:

(Start: 99 @20570 has 36 MA's), (136, 20633), (148, 20663), (165, 20726), (186, 20783), (193, 20795), (223, 20876), (251, 20984), (284, 21107), (287, 21125), (333, 21317),

Gene: Wilca\_30 Start: 19479, Stop: 20336, Start Num: 95

Candidate Starts for Wilca\_30:

(95, 19479), (Start: 99 @19494 has 36 MA's), (136, 19560), (148, 19590), (186, 19710), (223, 19803), (248, 19896), (277, 19998), (284, 20031), (291, 20064), (321, 20187), (333, 20235), (345, 20280),

Gene: Wilde\_26 Start: 18237, Stop: 18953, Start Num: 152

Candidate Starts for Wilde\_26:

(Start: 152 @18237 has 8 MA's), (164, 18282), (176, 18324), (195, 18369), (198, 18378), (209, 18417), (221, 18444), (243, 18531), (258, 18582), (272, 18621), (284, 18654), (298, 18708), (299, 18711), (308, 18741), (314, 18783), (322, 18822), (331, 18855), (339, 18891), (345, 18909),

Gene: Windsor\_21 Start: 16738, Stop: 17475, Start Num: 93

Candidate Starts for Windsor\_21:

(Start: 93 @16738 has 307 MA's), (154, 16852), (155, 16858), (159, 16867), (Start: 160 @16876 has 1 MA's), (203, 16972), (237, 17044), (239, 17050), (241, 17062), (255, 17113), (282, 17194), (287, 17227), (289, 17233), (310, 17314), (311, 17326), (316, 17350), (323, 17377), (332, 17419), (340, 17452), (345, 17467),

Gene: Wizard\_23 Start: 16077, Stop: 16847, Start Num: 112

Candidate Starts for Wizard\_23:

(Start: 78 @15984 has 1 MA's), (Start: 112 @16077 has 29 MA's), (133, 16119), (163, 16200), (202, 16305), (237, 16380), (239, 16386), (243, 16407), (247, 16416), (258, 16455), (264, 16476), (301, 16617), (303, 16626), (335, 16767), (337, 16773), (356, 16830),

Gene: Wooper\_21 Start: 16985, Stop: 17728, Start Num: 101

Candidate Starts for Wooper\_21:

(Start: 101 @16985 has 25 MA's), (116, 17009), (126, 17027), (133, 17051), (147, 17084), (154, 17105), (155, 17111), (Start: 160 @17129 has 1 MA's), (165, 17150), (201, 17219), (203, 17225), (251, 17354), (286, 17474), (332, 17672), (337, 17687), (340, 17705),

Gene: Xavier\_21 Start: 16788, Stop: 17525, Start Num: 93

Candidate Starts for Xavier\_21:

(Start: 93 @16788 has 307 MA's), (Start: 118 @16830 has 1 MA's), (154, 16902), (155, 16908), (159, 16917), (Start: 160 @16926 has 1 MA's), (203, 17022), (237, 17094), (239, 17100), (241, 17112), (255, 17163), (282, 17244), (287, 17277), (289, 17283), (310, 17364), (311, 17376), (316, 17400), (323, 17427), (332, 17469), (340, 17502), (345, 17517),

Gene: Xkcd426\_23 Start: 25110, Stop: 25982, Start Num: 104

Candidate Starts for Xkcd426\_23:

(Start: 104 @25110 has 13 MA's), (115, 25128), (134, 25167), (166, 25275), (168, 25281), (210, 25386), (220, 25401), (239, 25470), (244, 25494), (251, 25518), (252, 25521), (277, 25626), (284, 25662), (289, 25686), (310, 25764), (316, 25806), (331, 25869), (337, 25890), (343, 25917), (345, 25923), (346, 25926),

Gene: YDN12\_18 Start: 17676, Stop: 18536, Start Num: 104

Candidate Starts for YDN12\_18:

(9, 17064), (17, 17199), (21, 17235), (27, 17280), (41, 17406), (43, 17418), (Start: 84 @17619 has 3 MA's), (Start: 104 @17676 has 13 MA's), (206, 17931), (210, 17940), (220, 17955), (241, 18036), (247, 18054), (249, 18060), (251, 18072), (252, 18075), (264, 18117), (277, 18180), (280, 18189), (284, 18216), (291, 18249), (316, 18360), (320, 18375), (325, 18390), (331, 18423), (343, 18471), (345, 18477),

Gene: Yago84\_19 Start: 15903, Stop: 16631, Start Num: 101

Candidate Starts for Yago84\_19:

(31, 15561), (52, 15747), (Start: 84 @15855 has 3 MA's), (Start: 93 @15885 has 307 MA's), (Start: 101 @15903 has 25 MA's), (146, 15987), (159, 16026), (184, 16104), (247, 16239), (250, 16254), (253, 16260), (262, 16293), (311, 16482), (314, 16491), (316, 16506), (319, 16518), (332, 16575), (340, 16608), (344, 16620), (345, 16623),

Gene: Yahalom\_23 Start: 17749, Stop: 18489, Start Num: 101

Candidate Starts for Yahalom\_23:

(Start: 67 @17656 has 8 MA's), (76, 17674), (Start: 93 @17731 has 307 MA's), (Start: 101 @17749 has 25 MA's), (158, 17869), (190, 17965), (251, 18112), (271, 18172), (285, 18229), (299, 18283), (316, 18364), (319, 18376), (325, 18394), (341, 18469),

Gene: Yeti\_31 Start: 17991, Stop: 18905, Start Num: 71

Candidate Starts for Yeti\_31:

(Start: 71 @17991 has 25 MA's), (Start: 79 @18003 has 3 MA's), (113, 18093), (166, 18237), (203, 18345), (212, 18372), (215, 18378), (251, 18507), (277, 18591), (304, 18702), (317, 18774), (322, 18792), (337, 18846),

Gene: Yinz\_23 Start: 17760, Stop: 18518, Start Num: 93

Candidate Starts for Yinz\_23:

(Start: 67 @17685 has 8 MA's), (76, 17703), (Start: 93 @17760 has 307 MA's), (Start: 101 @17778 has 25 MA's), (158, 17898), (Start: 160 @17910 has 1 MA's), (190, 17994), (247, 18123), (251, 18141), (271, 18201), (285, 18258), (299, 18312), (316, 18393), (319, 18405), (325, 18423), (341, 18498),

Gene: YorkOnyx\_27 Start: 20413, Stop: 21180, Start Num: 108

Candidate Starts for YorkOnyx\_27:

(Start: 108 @20413 has 63 MA's), (133, 20461), (158, 20518), (Start: 160 @20530 has 1 MA's), (234, 20707), (251, 20767), (264, 20809), (284, 20887), (287, 20905), (298, 20941), (311, 21001), (328, 21067), (353, 21160),

Gene: Yoshand\_22 Start: 17077, Stop: 17814, Start Num: 93

Candidate Starts for Yoshand\_22:

(Start: 93 @17077 has 307 MA's), (154, 17191), (155, 17197), (159, 17206), (Start: 160 @17215 has 1 MA's), (203, 17311), (237, 17383), (239, 17389), (241, 17401), (255, 17452), (282, 17533), (287, 17566), (289, 17572), (310, 17653), (311, 17665), (316, 17689), (323, 17716), (332, 17758), (340, 17791), (345, 17806),

Gene: YouGoGlencoco\_22 Start: 17066, Stop: 17803, Start Num: 93

Candidate Starts for YouGoGlencoco\_22:

(Start: 93 @17066 has 307 MA's), (154, 17180), (155, 17186), (159, 17195), (Start: 160 @17204 has 1 MA's), (203, 17300), (237, 17372), (239, 17378), (241, 17390), (255, 17441), (282, 17522), (287, 17555), (289, 17561), (310, 17642), (311, 17654), (316, 17678), (323, 17705), (332, 17747), (340, 17780), (345, 17795),

Gene: YungMoney\_25 Start: 17365, Stop: 18135, Start Num: 112

Candidate Starts for YungMoney\_25:

(Start: 112 @17365 has 29 MA's), (163, 17488), (168, 17512), (237, 17668), (239, 17674), (247, 17704), (335, 18055), (356, 18118),

Gene: Zagie\_31 Start: 20693, Stop: 21541, Start Num: 99

Candidate Starts for Zagie\_31:

(Start: 99 @20693 has 36 MA's), (136, 20756), (148, 20786), (165, 20849), (186, 20906), (193, 20918), (223, 20999), (251, 21107), (284, 21230), (287, 21248), (333, 21440),

Gene: Zaider\_23 Start: 17302, Stop: 18039, Start Num: 93

Candidate Starts for Zaider\_23:

(Start: 93 @17302 has 307 MA's), (154, 17416), (155, 17422), (159, 17431), (Start: 160 @17440 has 1 MA's), (203, 17536), (237, 17608), (239, 17614), (241, 17626), (255, 17677), (282, 17758), (287, 17791), (289, 17797), (310, 17878), (311, 17890), (316, 17914), (323, 17941), (332, 17983), (340, 18016), (345, 18031),

Gene: Zelda\_22 Start: 17071, Stop: 17808, Start Num: 93

Candidate Starts for Zelda\_22:

(Start: 93 @17071 has 307 MA's), (Start: 118 @17113 has 1 MA's), (154, 17185), (155, 17191), (159, 17200), (Start: 160 @17209 has 1 MA's), (203, 17305), (237, 17377), (239, 17383), (241, 17395), (255, 17446), (282, 17527), (287, 17560), (289, 17566), (310, 17647), (311, 17659), (316, 17683), (323, 17710), (340, 17785), (345, 17800),

Gene: Zemanar\_21 Start: 17693, Stop: 18436, Start Num: 93

Candidate Starts for Zemanar\_21:

(Start: 93 @17693 has 307 MA's), (155, 17804), (158, 17810), (168, 17858), (231, 17987), (243, 18032), (251, 18059), (259, 18083), (262, 18095), (274, 18125), (284, 18170), (289, 18194), (316, 18311), (323, 18338), (333, 18383), (337, 18395), (340, 18413), (345, 18428),

Gene: Zenteno07\_26 Start: 17503, Stop: 18252, Start Num: 93

Candidate Starts for Zenteno07\_26:

(Start: 93 @17503 has 307 MA's), (Start: 118 @17545 has 1 MA's), (159, 17632), (194, 17725), (247, 17854), (251, 17872), (258, 17893), (284, 17983), (289, 18007), (311, 18103), (323, 18154), (345, 18244),

Gene: Zhafia\_34 Start: 21048, Stop: 21896, Start Num: 99

Candidate Starts for Zhafia\_34:

(Start: 99 @21048 has 36 MA's), (136, 21111), (148, 21141), (165, 21204), (186, 21261), (193, 21273), (223, 21354), (251, 21462), (284, 21585), (287, 21603), (333, 21795),

Gene: Zipp\_26 Start: 21241, Stop: 22032, Start Num: 108

Candidate Starts for Zipp\_26:

(Start: 108 @21241 has 63 MA's), (163, 21370), (197, 21466), (248, 21604), (264, 21661), (274, 21691), (299, 21796), (311, 21853), (317, 21883), (328, 21919), (335, 21952), (345, 21991),

Gene: Zitch\_27 Start: 19017, Stop: 19808, Start Num: 108

Candidate Starts for Zitch\_27:

(Start: 108 @19017 has 63 MA's), (163, 19146), (197, 19242), (264, 19437), (274, 19467), (299, 19572), (311, 19629), (317, 19659), (328, 19695), (335, 19728), (345, 19767),

Gene: Zonia\_22 Start: 17085, Stop: 17822, Start Num: 93

Candidate Starts for Zonia\_22:

(Start: 93 @17085 has 307 MA's), (154, 17199), (155, 17205), (159, 17214), (Start: 160 @17223 has 1 MA's), (203, 17319), (237, 17391), (239, 17397), (241, 17409), (255, 17460), (282, 17541), (287, 17574), (289, 17580), (310, 17661), (311, 17673), (316, 17697), (323, 17724), (340, 17799), (345, 17814),

Gene: Zooman\_76 Start: 46555, Stop: 47307, Start Num: 145

Candidate Starts for Zooman\_76:

(Start: 145 @46555 has 6 MA's), (153, 46579), (166, 46636), (216, 46726), (294, 47044), (299, 47059), (318, 47155), (330, 47206), (332, 47215), (348, 47272),

Gene: phiAsp2\_19 Start: 12199, Stop: 13014, Start Num: 107

Candidate Starts for phiAsp2\_19:

(107, 12199), (121, 12223), (166, 12352), (237, 12520), (243, 12547), (247, 12556), (249, 12562), (251, 12574), (260, 12598), (261, 12604), (274, 12655), (290, 12733), (311, 12817), (316, 12841), (320, 12853), (330, 12895), (331, 12898), (333, 12907), (345, 12952), (358, 12988), (360, 12994),