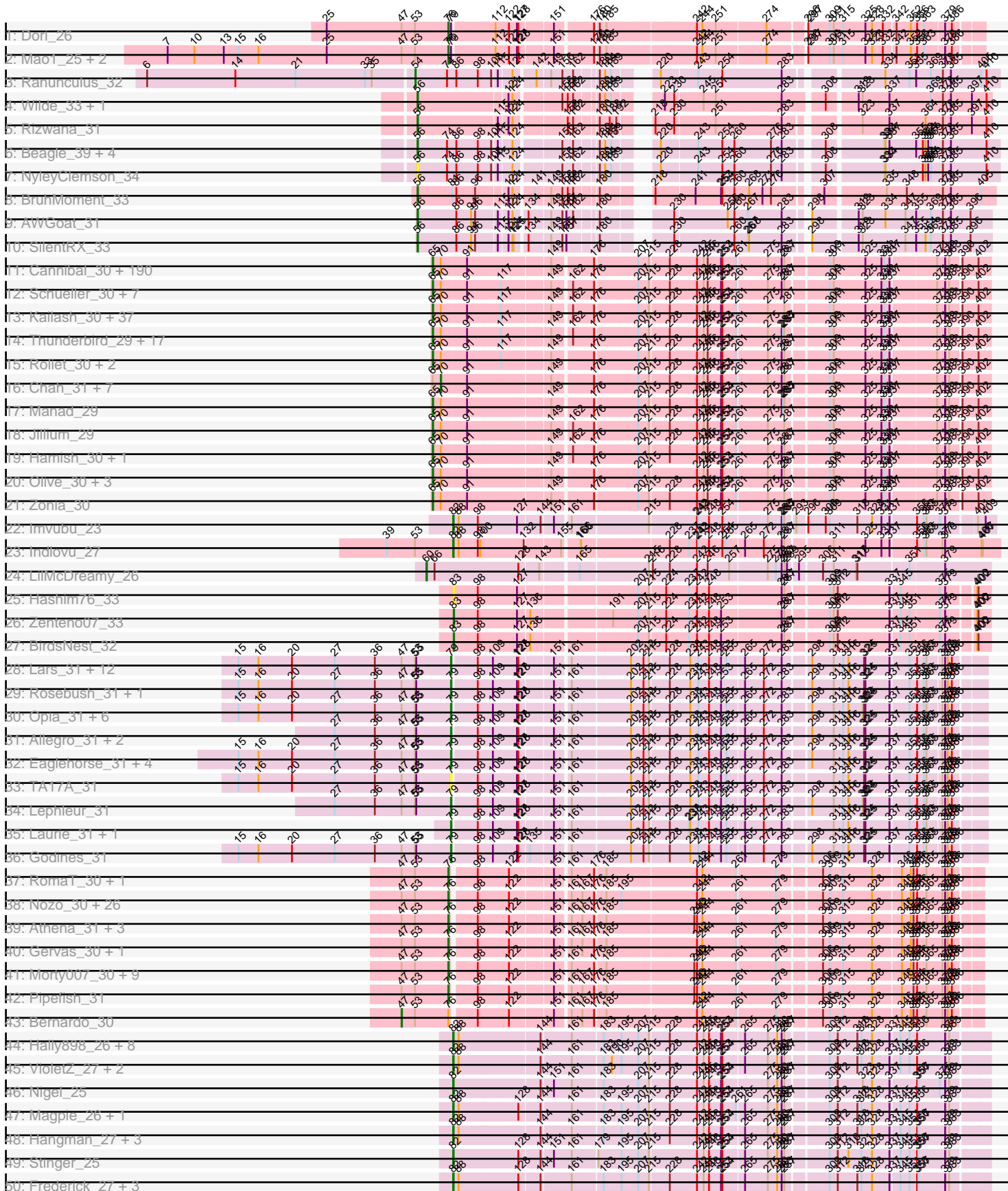
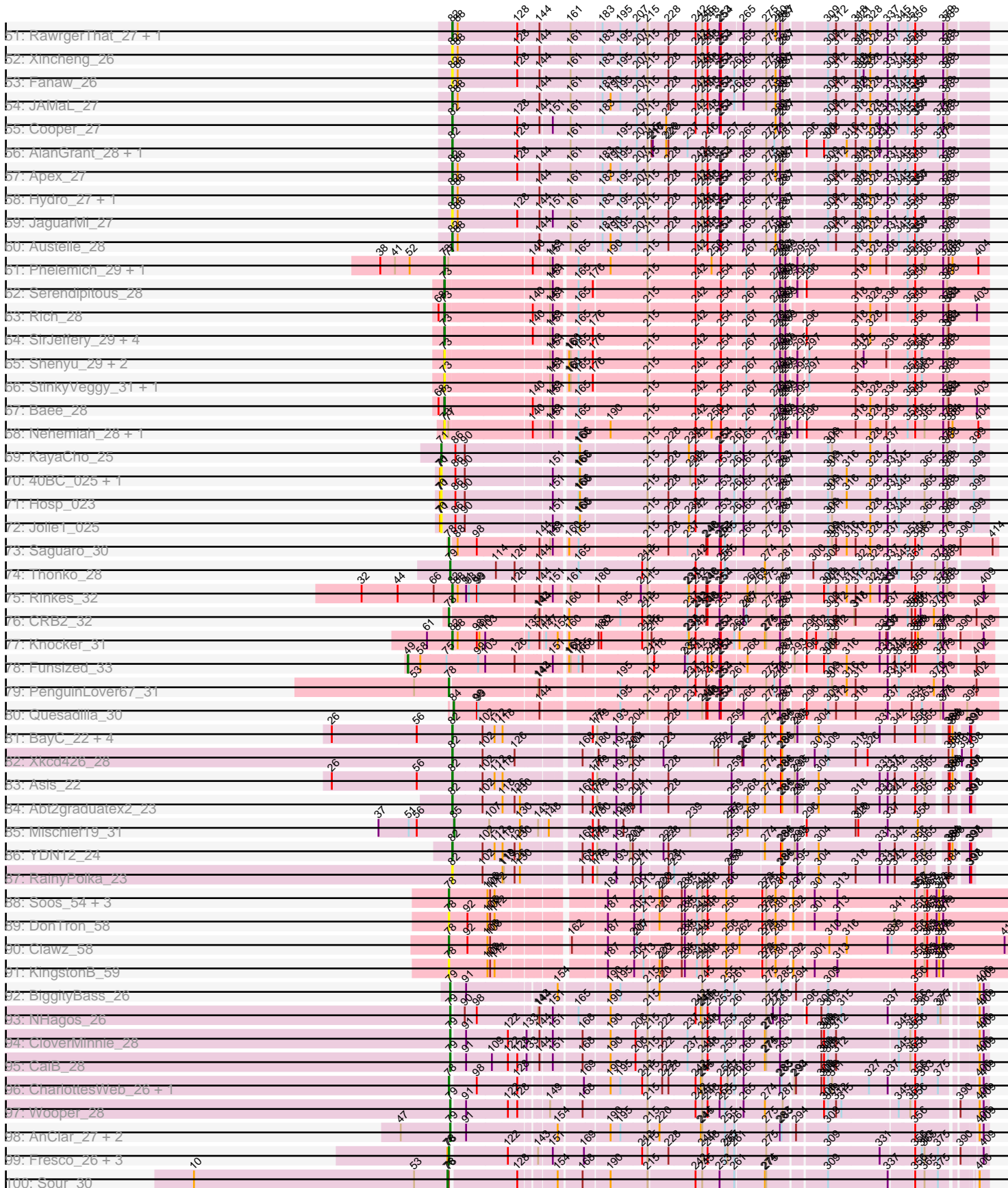


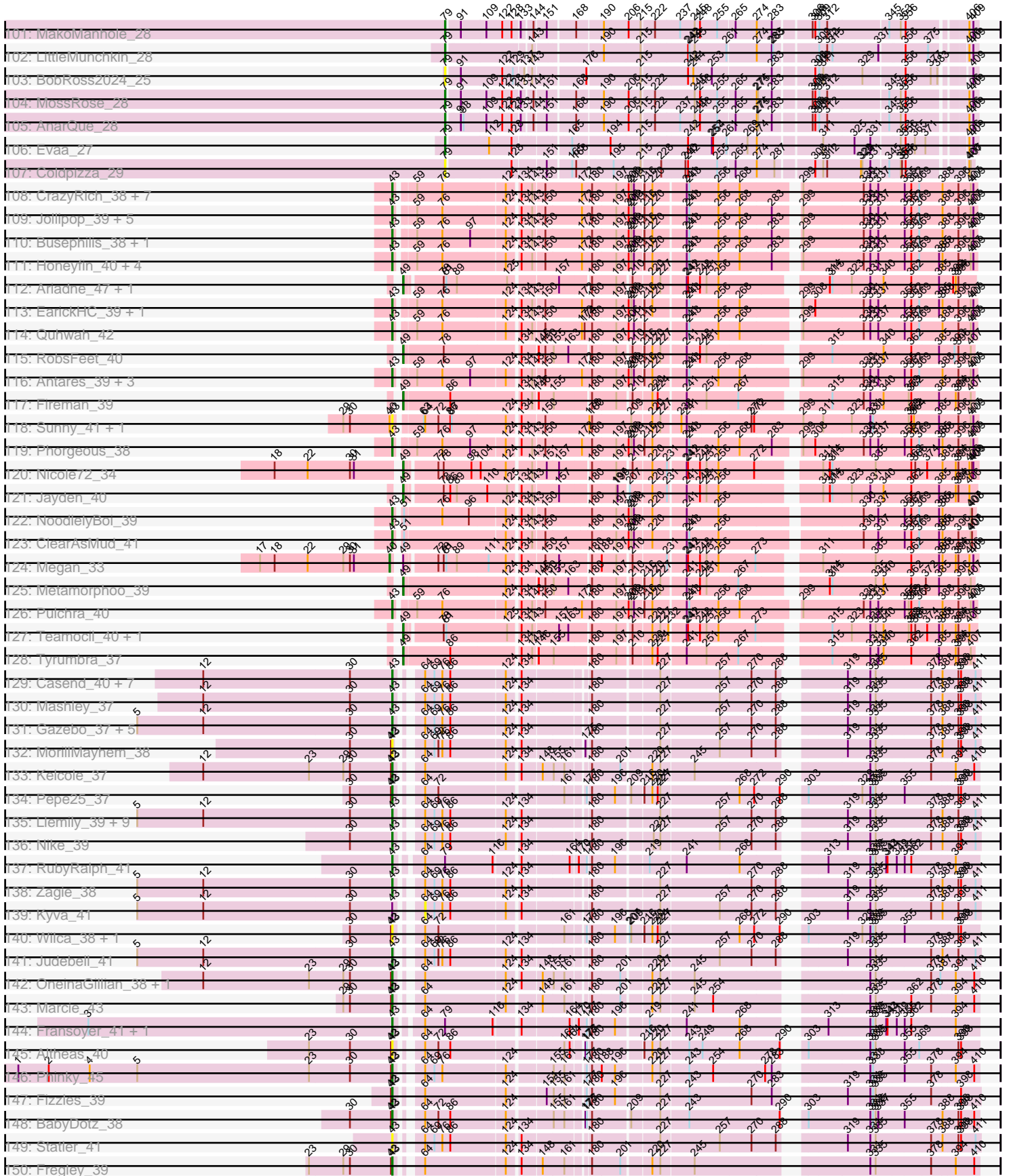
Pham 187775



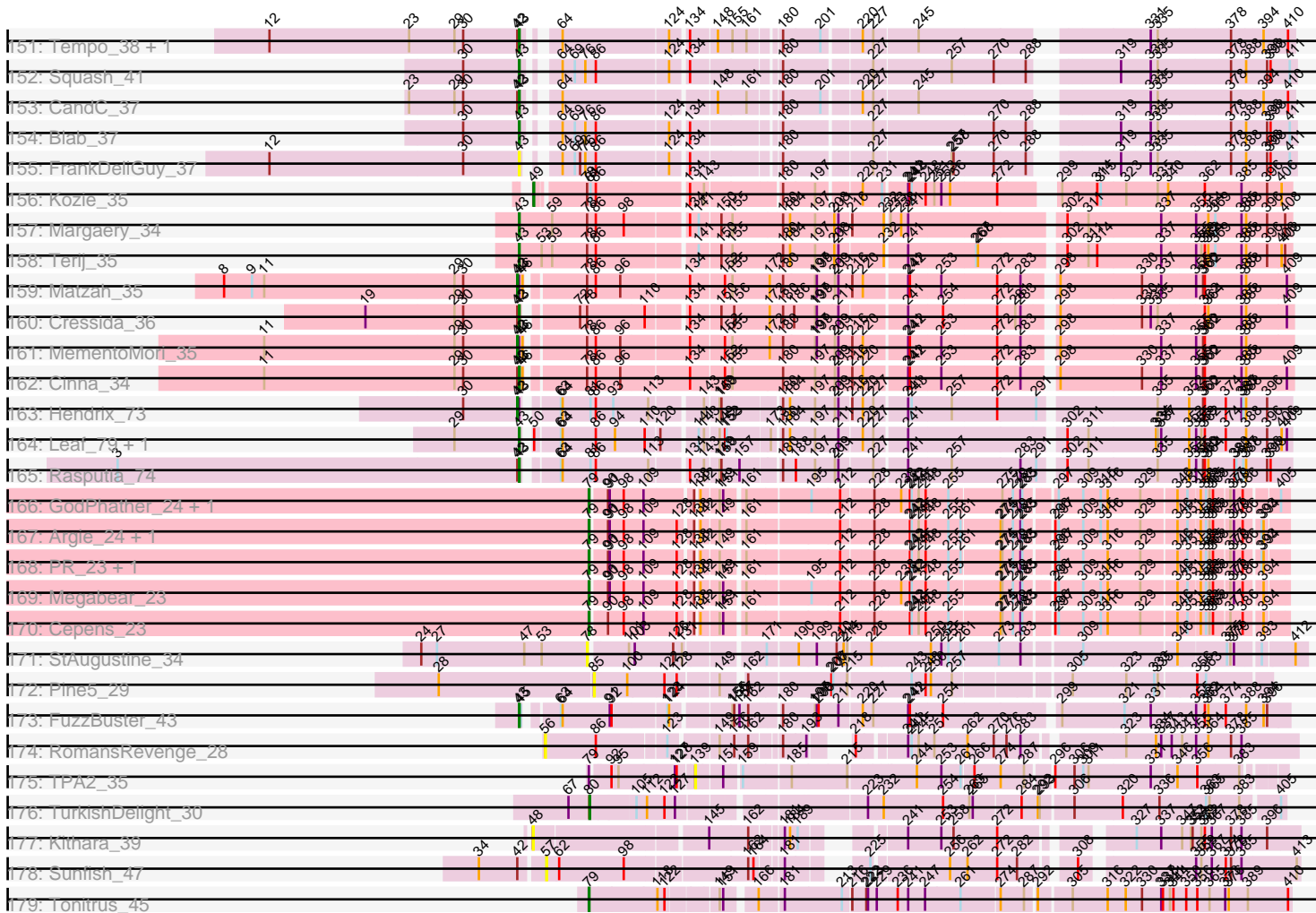
Pham 187775



Pham 187775



Pham 187775





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 187775 Report

This analysis was run 11/02/24 on database version 579.

Pham number 187775 has 612 members, 74 are drafts.

Phages represented in each track:

- Track 1 : Dori\_26
- Track 2 : Mao1\_25, Mask\_26, Sejanus\_26
- Track 3 : Ranunculus\_32
- Track 4 : Wilde\_33, Tank\_33
- Track 5 : Rizwana\_31
- Track 6 : Beagle\_39, Pureglobe5\_40, MellowYellow\_35, Pointis\_38, Odyssey395\_40
- Track 7 : NyleyClemson\_34
- Track 8 : BruhMoment\_33
- Track 9 : AWGoat\_31
- Track 10 : SilentRX\_33
- Track 11 : Cannibal\_30, Banjo\_29, Gophee\_30, KingTut\_21, Vaticameos\_30, Giraffe\_30, Sigman\_30, Scoot17C\_30, Puhltonio\_30, BlackStallion\_30, Lasso\_30, UAch1\_30, Podrick\_30, Mesh1\_30, Maru\_29, Sheila\_30, MiniBoss\_30, Scrick\_30, MitKao\_30, TomBombadil\_30, Phipps\_30, Craff\_30, AltPhacts\_30, Orion\_30, Lulwa\_30, PhrodoBaggins\_29, Mulan\_29, Morgushi\_30, Megatron\_30, Dingo\_30, LuckyMarjie\_29, Altwerkus\_29, Murdoc\_30, IsaacEli\_30, Prickles\_30, Cher\_29, Tooj\_30, CampRoach\_30, Haleema\_29, ProfessorX\_30, JacAttac\_30, FriarPreacher\_30, Chaelin\_30, Anderson\_30, Tomlarah\_30, Antonia\_29, Charles1\_30, Vortex\_30, DonSanchon\_29, QueenBeane\_30, Omniscient\_30, Kwadwo\_29, Simielle\_29, Mana\_29, Iridoclysis\_30, Phareon\_30, Badfish\_30, Adriana\_30, Freya\_29, Held\_30, Lego3393\_30, Grand2040\_29, Kimbrough\_30, UncleHowie\_30, Orfeu\_29, Mecca\_29, Oosterbaan\_30, Schadenfreude\_29, LostAndPhound\_29, KlimbOn\_30, Toni\_29, Chunky\_30, Riggan\_30, Matalotodo\_30, Bishoperium\_29, Mutante\_29, SilverBell\_30, Inverness\_30, Usavi\_30, LeiMonet\_30, Gyarad\_0030, Zelda\_30, YouGoGlencoco\_30, Xavier\_29, EmpTee\_30, Lumine\_29, Eugenia\_30, LemonSlice\_30, Thora\_30, Bluephacebaby\_29, HSavage\_30, Basato\_31, Eremos\_30, Beaglebox\_29, Harvey\_30, Lopsy\_29, Sophia\_29, Buckeye\_30, Mosaic\_29, Samaymay\_30, Solosis\_29, Gwilliam\_30, Skippy\_30, Katniss\_30, Squiggle\_30, Daffy\_30, Plmatters\_30, Kikipoo\_30, SassyCat97\_29, Megamind20\_30, Burr\_29, Childish\_29, Newman\_30, PhatCats2014\_30, Soto\_30, Ricotta\_29, PG1\_30, Morty\_30, Squid\_30, Roscoe\_31, CamL\_30, Phunky\_30, Phamished\_30, Fringe\_30, ABU\_30, Numberten\_30, BlueHusk\_30, Vista\_30, FluffyNinja\_30, Hetaeria\_30, Hertubise\_30, Vivaldi\_30, Swish\_30, Nyala\_29, Kloppinator\_30, AbsoluteMadLad\_29, Carthage\_28, Serendipity\_30, Roy17\_30, Andre\_30, Kahve\_29, Nacho\_0030, Cosmolli16\_29, Legolas\_29, Telesworld\_29, Waterdiva\_30, Serpentine\_0030, HighStump\_29, Spartan300\_30, Suffolk\_30,

Apizium\_29, Dice\_29, Nicole21\_30, Surely\_30, Chorkpop\_30, MRabcd\_29, Slatt\_30, Lulumae\_29, ThreeOh3D2\_30, Virapocalypse\_30, Dione\_29, Crownjwl\_30, True\_29, Selr12\_30, Timmi\_29, Valjean\_30, ShiVal\_30, Dati\_30, Potter\_29, Piglet\_0029, HenryJackson\_29, Pherdinand\_30, Orwigg\_30, FugateOSU\_29, JangoPhett\_30, Horchata\_30, Inchworm\_30, Olak\_29, Boehler\_30, Cornobble\_29, DoesntMatter\_30, KLucky39\_30, RedMaple\_29, Pacifista\_29, Pipsqueak\_30, Mcshane\_29, Aelin\_29, LeeLot\_30, SDcharge11\_30, Gareth\_29, Quisquilliae\_30

- Track 12 : Schueller\_30, Emiris\_30, Cobra\_30, PinheadLarry\_30, Etaye\_30, Pops\_30, Frankicide\_30, Daka\_30
- Track 13 : Kailash\_30, Phleuron\_29, DelRivs\_29, Durga\_30, BatteryCK\_29, MrPhizzler\_29, Jiraiya\_30, Maskar\_29, Derpp\_29, TyrionL\_29, Hocus\_29, Veritas\_29, ImtiyazSitla\_29, GeneCoco\_30, MichaelPhcott\_29, JakeO\_29, Pinkman\_29, DuchessDung\_28, Ashraf\_29, PhrankReynolds\_29, PhenghisKhan\_29, LasagnaCat\_30, Brilliant\_30, Swiphy\_31, Mag7\_29, Trypo\_30, Hartsy\_30, Phergie\_29, Longacauda\_29, PhatLouie\_30, Rimu\_31, Kwksand96\_29, Wallhey\_29, Labeouficaum\_29, Oline\_29, Soile\_30, Magic8\_30, CharlieGBrown\_29
- Track 14 : Thunderbird\_29, Coletti\_29, Duggie\_29, Jiminy\_29, Chute\_29, MelsMeow\_29, Windsor\_29, Virgeve\_29, OSmaximus\_30, Doddsville\_30, Fozzie\_29, Weher20\_30, Keitherie\_30, Melc17\_30, JDog\_29, DaddyDaniels\_30, Struggle\_29, Placalicious\_29
- Track 15 : Roliet\_30, Mikota\_30, CheetO\_30
- Track 16 : Chah\_31, Colbert\_30, KingVeVeVe\_30, TallGrassMM\_30, Zaider\_31, OliverWalter\_30, Yoshand\_30, Fang\_30
- Track 17 : Manad\_29
- Track 18 : Jillium\_29
- Track 19 : Hamish\_30, Haimas\_30
- Track 20 : Olive\_30, Vaishali24\_29, DirtJuice\_30, Robyn\_29
- Track 21 : Zonia\_30
- Track 22 : Imvubu\_23
- Track 23 : Indlovu\_27
- Track 24 : LilMcDreamy\_26
- Track 25 : Hashim76\_33
- Track 26 : Zenteno07\_33
- Track 27 : BirdsNest\_32
- Track 28 : Lars\_31, Kaleb\_31, Glass\_31, Sabella\_31, MasterPo\_31, Hedgerow\_31, Blocker23\_31, FrenchFry\_31, Coffee\_31, Tinciduntolum\_32, Qyrzula\_29, Tres\_31, Brownie5\_31
- Track 29 : Rosebush\_31, Ares\_31
- Track 30 : Opia\_31, Bananafish\_31, LizLemon\_31, Calamitous\_31, Phantasmagoria\_31, Faze9\_31, Arbiter\_31
- Track 31 : Allegro\_31, Kheth\_31, Holeinone\_31
- Track 32 : Eaglehorse\_31, West99\_31, ItsyBitsy1\_31, Rhinoforte\_31, Boyle\_31
- Track 33 : TA17A\_31
- Track 34 : Lephleur\_31
- Track 35 : Laurie\_31, Vic9\_32
- Track 36 : Godines\_31
- Track 37 : RomaT\_30, Kamiyu\_30
- Track 38 : Nozo\_30, ChaChing\_30, Ben11\_29, Yahalom\_30, Rita1961\_30, Phaedrus\_28, Tydolla\_30, SlippinJimmy\_30, OrangeOswald\_30, Devonte\_30, RagingRooster\_30, Phayeta\_30, Akoma\_30, Chandler\_30, LestyG\_30, Abinghost\_30, Gadjet\_31, Deenasa\_30, Heathcliff\_30, Obutu\_30, SynergyX\_30, Neos5\_30, Baloo\_30, Corofin\_30, Audrey\_30, Mortcellus\_29, Yinz\_30
- Track 39 : Athena\_31, Briakila\_30, HarveySr\_30, Casbah\_29

- Track 40 : Gervas\_30, Kronus\_29
- Track 41 : Morty007\_30, Jackstina\_27, Compostia\_31, Marley1013\_30, Phlyer\_30, MmasiCarm\_30, GlenHope\_31, Philly\_29, Halfpint\_29, Daisy\_30
- Track 42 : Pipefish\_31
- Track 43 : Bernardo\_30
- Track 44 : Hally898\_26, Antihero\_26, Poster\_26, Ahwei\_26, Lambano\_26, Epah\_26, GinPorsche\_26, Lolalove\_27, Nanao\_26
- Track 45 : VioletZ\_27, Mudslide\_27, Prince\_27
- Track 46 : Nigel\_25
- Track 47 : Magpie\_26, ChrisnMich\_26
- Track 48 : Hangman\_27, BrownCNA\_28, Waleliano\_27, Mithril\_27
- Track 49 : Stinger\_25
- Track 50 : Frederick\_27, Heath\_26, Zemanar\_28, QueenPie\_26
- Track 51 : RawrgerThat\_27, Fortunato\_27
- Track 52 : Xincheng\_26
- Track 53 : Fanaw\_26
- Track 54 : JAMaL\_27
- Track 55 : Cooper\_27
- Track 56 : AlanGrant\_28, Vincenzo\_28
- Track 57 : Apex\_27
- Track 58 : Hydro\_27, BobbyK\_27
- Track 59 : JaguarMi\_27
- Track 60 : Austelle\_28
- Track 61 : Phelemich\_29, Reprobate\_29
- Track 62 : Serendipitous\_28
- Track 63 : Rich\_28
- Track 64 : SirJeffery\_29, Acadian\_29, Donny\_29, Suigeneris\_29, EastView9101\_28
- Track 65 : Shenyu\_29, DigitDog\_29, Nangang\_29
- Track 66 : StinkyVeggy\_31, KarasumaRum\_31
- Track 67 : Bae\_28
- Track 68 : Nehemiah\_28, Mysterious\_30
- Track 69 : KayaCho\_25
- Track 70 : 40BC\_025, 39HC\_025
- Track 71 : Hosp\_023
- Track 72 : Jolie1\_025
- Track 73 : Saguaro\_30
- Track 74 : Thonko\_28
- Track 75 : Rinkes\_32
- Track 76 : CRB2\_32
- Track 77 : Knocker\_31
- Track 78 : Funsized\_33
- Track 79 : PenguinLover67\_31
- Track 80 : Quesadilla\_30
- Track 81 : BayC\_22, Salete\_22, Maih\_22, BabyGotBac\_22, TP1604\_22
- Track 82 : Xkcd426\_28
- Track 83 : Asis\_22
- Track 84 : Abt2graduatex2\_23
- Track 85 : Mischief19\_31
- Track 86 : YDN12\_24
- Track 87 : RainyPolka\_23
- Track 88 : Soos\_54, Sting\_57, ColdSoup\_59, Jollymon\_59
- Track 89 : DonTron\_58
- Track 90 : Clawz\_58

- Track 91 : KingstonB\_59
- Track 92 : BiggityBass\_26
- Track 93 : NHagos\_26
- Track 94 : CloverMinnie\_28
- Track 95 : CaiB\_28
- Track 96 : CharlottesWeb\_26, Mariokart\_26
- Track 97 : Wooper\_28
- Track 98 : AnClar\_27, Yago84\_26, Sisko\_26
- Track 99 : Fresco\_26, Axumite\_26, Shatter\_26, Ligma\_26
- Track 100 : Sour\_30
- Track 101 : MakoManhole\_28
- Track 102 : LittleMunchkin\_28
- Track 103 : BobRoss2024\_25
- Track 104 : MossRose\_28
- Track 105 : AnarQue\_28
- Track 106 : Evaa\_27
- Track 107 : Coldpizza\_29
- Track 108 : CrazyRich\_38, Crisis\_40, PiperSansNom\_39, PierreOrion\_39, Ganandorf\_38, Hermeonysus\_38, BrazzalePHS\_38, Scumberland\_40
- Track 109 : Jollipop\_39, Ramiel05\_38, Phrancesco\_39, Cranjis\_40, Paschalis\_38, Kowalski\_38
- Track 110 : Busephilis\_38, LittleFortune\_40
- Track 111 : Honeyfin\_40, Jefe\_39, Selwyn23\_40, Yeti\_39, Piperis\_39
- Track 112 : Ariadne\_47, Smarties\_47
- Track 113 : EarickHC\_39, KaiHaiDragon\_39
- Track 114 : Quhwah\_42
- Track 115 : RobsFeet\_40
- Track 116 : Antares\_39, Onika\_38, Savannah\_38, Shotgun\_38
- Track 117 : Fireman\_39
- Track 118 : Sunny\_41, Merry\_41
- Track 119 : Phorgeous\_38
- Track 120 : Nicole72\_34
- Track 121 : Jayden\_40
- Track 122 : NoodlelyBoi\_39
- Track 123 : ClearAsMud\_41
- Track 124 : Megan\_33
- Track 125 : Metamorphoo\_39
- Track 126 : Pulchra\_40
- Track 127 : Teamocil\_40, Gina\_40
- Track 128 : Tyrumbra\_37
- Track 129 : Casend\_40, Phabia\_39, Quammi\_37, Viceroy\_37, Wayne3\_40, Lonelysoil\_38, Rudy\_37, Teehee\_40
- Track 130 : Mashley\_37
- Track 131 : Gazebo\_37, Rowlf\_35, Hyperion\_38, EverythinBagel\_39, StrawberryJamm\_41, AluminumJesus\_37
- Track 132 : MorillMayhem\_38
- Track 133 : Kelcole\_37
- Track 134 : Pepe25\_37
- Track 135 : Llemily\_39, Jehoshaphat\_41, SallyK\_40, Zhafia\_42, Wheelie\_38, DonaldDuck\_39, Namago\_39, Grassboy\_40, Sillytadpoles\_40, Tissue\_39
- Track 136 : Nike\_39
- Track 137 : RubyRalph\_41
- Track 138 : Zagie\_38



- Track 139 : Kyva\_41
- Track 140 : Wilca\_38, BirdInFrench\_38
- Track 141 : Judebell\_41
- Track 142 : OneinaGillian\_38, RobinRose\_40
- Track 143 : Marcie\_43
- Track 144 : Fransoyer\_41, SadLad\_43
- Track 145 : Altheas\_40
- Track 146 : Phinky\_45
- Track 147 : Fizzles\_39
- Track 148 : BabyDotz\_38
- Track 149 : Statler\_41
- Track 150 : Fregley\_39
- Track 151 : Tempo\_38, Romm\_40
- Track 152 : Squash\_41
- Track 153 : CandC\_37
- Track 154 : Blab\_37
- Track 155 : FrankDeliGuy\_37
- Track 156 : Kozie\_35
- Track 157 : Margaery\_34
- Track 158 : Terij\_35
- Track 159 : Matzah\_35
- Track 160 : Cressida\_36
- Track 161 : MementoMori\_35
- Track 162 : Cinna\_34
- Track 163 : Hendrix\_73
- Track 164 : Leaf\_79, Dewdrop\_79
- Track 165 : Rasputia\_74
- Track 166 : GodPhather\_24, Jeon\_23
- Track 167 : Argie\_24, Taptic\_23
- Track 168 : PR\_23, D12\_23
- Track 169 : Megabear\_23
- Track 170 : Cepens\_23
- Track 171 : StAugustine\_34
- Track 172 : Pine5\_29
- Track 173 : FuzzBuster\_43
- Track 174 : RomansRevenge\_28
- Track 175 : TPA2\_35
- Track 176 : TurkishDelight\_30
- Track 177 : Kithara\_39
- Track 178 : Sunfish\_47
- Track 179 : Tonitrus\_45

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

The start number called the most often in the published annotations is 65, it was called in 255 of the 538 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ABU\_30, AbsoluteMadLad\_29, Adriana\_30, Aelin\_29, AltPhacts\_30, Altwerkus\_29, Anderson\_30, Andre\_30, Antonia\_29, Apizium\_29, Ashraf\_29, Badfish\_30, Banjo\_29,

Basato\_31, BatteryCK\_29, Beaglebox\_29, Bishoperium\_29, BlackStallion\_30, BlueHusk\_30, Bluephacebaby\_29, Boehler\_30, Brilliant\_30, Buckeye\_30, Burr\_29, CamL\_30, CampRoach\_30, Cannibal\_30, Carthage\_28, Chaelin\_30, Charles1\_30, CharlieGBrown\_29, CheetO\_30, Cher\_29, Childish\_29, Chorkpop\_30, Chunky\_30, Chute\_29, Cobra\_30, Coletti\_29, Cornobble\_29, Cosmolli16\_29, Craff\_30, Crownjwl\_30, DaddyDaniels\_30, Daffy\_30, Daka\_30, Dati\_30, DelRivs\_29, Derpp\_29, Dice\_29, Dingo\_30, Dione\_29, DirtJuice\_30, Doddsville\_30, DoesntMatter\_30, DonSanchon\_29, DuchessDung\_28, Duggie\_29, Durga\_30, Emiris\_30, EmpTee\_30, Eremos\_30, Etaye\_30, Eugenia\_30, FluffyNinja\_30, Fozzie\_29, Frankicide\_30, Freya\_29, FriarPreacher\_30, Fringe\_30, FugateOSU\_29, Gareth\_29, GeneCoco\_30, Giraffe\_30, Gophee\_30, Grand2040\_29, Gwilliam\_30, Gyarad\_0030, HSavage\_30, Haimas\_30, Haleema\_29, Hamish\_30, Hartsy\_30, Harvey\_30, Held\_30, HenryJackson\_29, Hertubise\_30, Hetaeria\_30, HighStump\_29, Hocus\_29, Horchata\_30, ImtiyazSitla\_29, Inchworm\_30, Inverness\_30, Iridoclysis\_30, IsaacEli\_30, JDog\_29, JacAttac\_30, JakeO\_29, JangoPhett\_30, Jillium\_29, Jiminy\_29, Jiraiya\_30, KLucky39\_30, Kahve\_29, Kailash\_30, Katniss\_30, Keitherie\_30, Kikipoo\_30, Kimbrough\_30, KingTut\_21, KlimbOn\_30, Kloppinator\_30, Kwadwo\_29, Kwksand96\_29, Labeouficaum\_29, LasagnaCat\_30, Lasso\_30, LeeLot\_30, Lego3393\_30, Legolas\_29, LeiMonet\_30, LemonSlice\_30, Longacauda\_29, Lopsy\_29, LostAndPhound\_29, LuckyMarjie\_29, Lulumae\_29, Lulwa\_30, Lumine\_29, MRabcd\_29, Mag7\_29, Magic8\_30, Mana\_29, Manad\_29, Maru\_29, Maskar\_29, Matalotodo\_30, Mcshane\_29, Mecca\_29, Megamind20\_30, Megatron\_30, Melc17\_30, MelsMeow\_29, Mesh1\_30, MichaelPhcott\_29, Mikota\_30, MiniBoss\_30, MitKao\_30, Morgushi\_30, Morty\_30, Mosaic\_29, MrPhizzler\_29, Mulan\_29, Murdoc\_30, Mutante\_29, Nacho\_0030, Newman\_30, Nicole21\_30, Numberten\_30, Nyala\_29, OSmaximus\_30, Olak\_29, Oline\_29, Olive\_30, Omniscient\_30, Oosterbaan\_30, Orfeu\_29, Orion\_30, Orwigg\_30, PG1\_30, Pacifista\_29, Phamished\_30, Phareon\_30, PhatCats2014\_30, PhatLouie\_30, PhenghisKhan\_29, Pherdinand\_30, Phergie\_29, Phipps\_30, Phleuron\_29, PhrankReynolds\_29, PhrodoBaggins\_29, Phunky\_30, Piglet\_0029, PinheadLarry\_30, Pinkman\_29, Pipsqueak\_30, Placalicious\_29, Plmatters\_30, Podrick\_30, Pops\_30, Potter\_29, Prickles\_30, ProfessorX\_30, Puhltonio\_30, QueenBeane\_30, Quisquilliae\_30, RedMaple\_29, Ricotta\_29, Riggan\_30, Rimu\_31, Robyn\_29, Roliet\_30, Roscoe\_31, Roy17\_30, SDcharge11\_30, Samaymay\_30, SassyCat97\_29, Schadenfreude\_29, Schueller\_30, Scoot17C\_30, Scrick\_30, Selr12\_30, Serendipity\_30, Serpentine\_0030, Sheila\_30, ShiVal\_30, Sigman\_30, SilverBell\_30, Simielle\_29, Skippy\_30, Slatt\_30, Soile\_30, Solosis\_29, Sophia\_29, Soto\_30, Spartan300\_30, Squid\_30, Squiggle\_30, Struggle\_29, Suffolk\_30, Surely\_30, Swiphy\_31, Swish\_30, Telesworld\_29, Thora\_30, ThreeOh3D2\_30, Thunderbird\_29, Timmi\_29, TomBombadil\_30, Tomlarah\_30, Toni\_29, Tooj\_30, True\_29, Trypo\_30, TyrionL\_29, UAch1\_30, UncleHowie\_30, Usavi\_30, Vaishali24\_29, Valjean\_30, Vaticameos\_30, Veritas\_29, Virapocalypse\_30, Virgeve\_29, Vista\_30, Vivaldi\_30, Vortex\_30, Wallhey\_29, Waterdiva\_30, Weher20\_30, Windsor\_29, Xavier\_29, YouGoGlencoco\_30, Zelda\_30, Zonia\_30,

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

- Chah\_31, Colbert\_30, Fang\_30, KingVeVeVe\_30, OliverWalter\_30, TallGrassMM\_30, Yoshand\_30, Zaider\_31,

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

- 39HC\_025, 40BC\_025, AWGoat\_31, Abinghost\_30, Abt2graduatex2\_23, Acadian\_29, Ahwei\_26, Akoma\_30, AlanGrant\_28, Allegro\_31, Altheas\_40, AluminumJesus\_37, AnClar\_27, AnarQue\_28, Antares\_39, Antihero\_26, Apex\_27,

Arbiter\_31, Ares\_31, Argie\_24, Ariadne\_47, Asis\_22, Athena\_31, Audrey\_30, Austelle\_28, Axumite\_26, BabyDotz\_38, BabyGotBac\_22, Bae\_28, Baloo\_30, Bananafish\_31, BayC\_22, Beagle\_39, Ben11\_29, Bernardo\_30, BiggityBass\_26, BirdInFrench\_38, BirdsNest\_32, Blab\_37, Blocker23\_31, BobRoss2024\_25, BobbyK\_27, Boyle\_31, BrazzalePHS\_38, Briakila\_30, BrownCNA\_28, Brownie5\_31, BruhMoment\_33, Busephilis\_38, CRB2\_32, CaiB\_28, Calamitous\_31, CandC\_37, Casbah\_29, Casend\_40, Cepens\_23, ChaChing\_30, Chandler\_30, CharlottesWeb\_26, ChrisnMich\_26, Cinna\_34, Clawz\_58, ClearAsMud\_41, CloverMinnie\_28, Coffee\_31, ColdSoup\_59, Coldpizza\_29, Compostia\_31, Cooper\_27, Corofin\_30, Cranjis\_40, CrazyRich\_38, Cressida\_36, Crisis\_40, D12\_23, Daisy\_30, Deenasa\_30, Devonte\_30, Dewdrop\_79, DigitDog\_29, DonTron\_58, DonaldDuck\_39, Donny\_29, Dori\_26, Eaglehorse\_31, EarickHC\_39, EastView9101\_28, Epah\_26, Evaa\_27, EverythinBagel\_39, Fanaw\_26, Faze9\_31, Fireman\_39, Fizzles\_39, Fortunato\_27, FrankDeliGuy\_37, Fransoyer\_41, Frederick\_27, Fregley\_39, FrenchFry\_31, Fresco\_26, Funsized\_33, FuzzBuster\_43, Gadget\_31, Ganandorf\_38, Gazebo\_37, Gervas\_30, GinPorsche\_26, Gina\_40, Glass\_31, GlenHope\_31, GodPhather\_24, Godines\_31, Grassboy\_40, Halfpint\_29, Hally898\_26, Hangman\_27, HarveySr\_30, Hashim76\_33, Heath\_26, Heathcliff\_30, Hedgerow\_31, Hendrix\_73, Hermeonysus\_38, Holeinone\_31, Honeyfin\_40, Hosp\_023, Hydro\_27, Hyperion\_38, Imvubu\_23, Indlovu\_27, ItsyBitsy1\_31, JAMaL\_27, Jackstina\_27, JaguarMi\_27, Jayden\_40, Jefe\_39, Jehoshaphat\_41, Jeon\_23, Jolie1\_025, Jollipop\_39, Jollymon\_59, Judebell\_41, KaiHaiDragon\_39, Kaleb\_31, Kamiyu\_30, KarasumaRum\_31, KayaCho\_25, Kelcole\_37, Kheth\_31, KingstonB\_59, Kithara\_39, Knocker\_31, Kowalski\_38, Kozie\_35, Kronus\_29, Kyva\_41, Lambano\_26, Lars\_31, Laurie\_31, Leaf\_79, Lephleur\_31, LestyG\_30, Ligma\_26, LilMcDreamy\_26, LittleFortune\_40, LittleMunchkin\_28, LizLemon\_31, Llemily\_39, Lolalove\_27, Lonelysoil\_38, Magpie\_26, Maih\_22, MakoManhole\_28, Mao1\_25, Marcie\_43, Margaery\_34, Mariokart\_26, Marley1013\_30, Mashley\_37, Mask\_26, MasterPo\_31, Matzah\_35, Megabear\_23, Megan\_33, MellowYellow\_35, MementoMori\_35, Merry\_41, Metamorphoo\_39, Mischief19\_31, Mithril\_27, MmasiCarm\_30, MorillMayhem\_38, Mortcellus\_29, Morty007\_30, MossRose\_28, Mudslide\_27, Mysterious\_30, NHagos\_26, Namago\_39, Nanao\_26, Nangang\_29, Nehemiah\_28, Neos5\_30, Nicole72\_34, Nigel\_25, Nike\_39, NoodlelyBoi\_39, Nozo\_30, NyleyClemson\_34, Obutu\_30, Odyssey395\_40, OneinaGillian\_38, Onika\_38, Opia\_31, OrangeOswald\_30, PR\_23, Paschalis\_38, PenguinLover67\_31, Pepe25\_37, Phabia\_39, Phaedrus\_28, Phantasmagoria\_31, Phayeta\_30, Phelemich\_29, Philly\_29, Phinky\_45, Phlyer\_30, Phorgeous\_38, Phrancesco\_39, PierreOrion\_39, Pine5\_29, Pipefish\_31, PiperSansNom\_39, Piperis\_39, Pointis\_38, Poster\_26, Prince\_27, Pulchra\_40, Pureglobe5\_40, Quammi\_37, QueenPie\_26, Quesadilla\_30, Quhwah\_42, Qyrzula\_29, RagingRooster\_30, RainyPolka\_23, Ramiel05\_38, Ranunculus\_32, Rasputia\_74, RawrgerThat\_27, Reprobate\_29, Rhinoforte\_31, Rich\_28, Rinkes\_32, Rita1961\_30, Rizwana\_31, RobinRose\_40, RobsFeet\_40, RomaT\_30, RomansRevenge\_28, Romm\_40, Rosebush\_31, Rowlf\_35, RubyRalph\_41, Rudy\_37, Sabella\_31, SadLad\_43, Saguaro\_30, Salete\_22, SallyK\_40, Savannah\_38, Scumberland\_40, Sejanus\_26, Selwyn23\_40, Serendipitous\_28, Shatter\_26, Shenyu\_29, Shotgun\_38, SilentRX\_33, Sillytadpoles\_40, SirJeffery\_29, Sisko\_26, SlippinJimmy\_30, Smarties\_47, Soos\_54, Sour\_30, Squash\_41, StAugustine\_34, Statler\_41, Sting\_57, Stinger\_25, StinkyVeggy\_31, StrawberryJamm\_41, Suigeneris\_29, Sunfish\_47, Sunny\_41, SynergyX\_30, TA17A\_31, TP1604\_22, TPA2\_35, Tank\_33, Taptic\_23, Teamocil\_40, Teehee\_40, Tempo\_38, Terij\_35, Thonko\_28, Tinciduntolum\_32, Tissue\_39, Tonitrus\_45, Tres\_31, TurkishDelight\_30, Tydolla\_30, Tyrumbra\_37, Vic9\_32, Viceroy\_37, Vincenzo\_28, VioletZ\_27, Waleliano\_27, Wayne3\_40, West99\_31,

Wheelie\_38, Wilca\_38, Wilde\_33, Wooper\_28, Xincheng\_26, Xkcd426\_28, YDN12\_24, Yago84\_26, Yahalom\_30, Yeti\_39, Yinz\_30, Zagie\_38, Zemanar\_28, Zenteno07\_33, Zhafia\_42,

### Summary by start number:

#### Start 40:

- Found in 3 of 612 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Megan\_33 (EC),

#### Start 42:

- Found in 23 of 612 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 3 of 538
- Called 13.0% of time when present
- Phage (with cluster) where this start called: Hendrix\_73 (GC), Matzah\_35 (EI), MementoMori\_35 (EI),

#### Start 43:

- Found in 97 of 612 ( 15.8% ) of genes in pham
- Manual Annotations of this start: 77 of 538
- Called 95.9% of time when present
- Phage (with cluster) where this start called: Altheas\_40 (EG), AluminumJesus\_37 (EG), Antares\_39 (EC), BabyDotz\_38 (EG), BirdInFrench\_38 (EG), Blab\_37 (EG), BrazzalePHS\_38 (EC), Busephilis\_38 (EC), CandC\_37 (EG), Casend\_40 (EG), Cinna\_34 (EI), ClearAsMud\_41 (EC), Cranjjs\_40 (EC), CrazyRich\_38 (EC), Cressida\_36 (EI), Crisis\_40 (EC), Dewdrop\_79 (GC), DonaldDuck\_39 (EG), EarickHC\_39 (EC), EverythinBagel\_39 (EG), Fizzles\_39 (EG), FrankDeliGuy\_37 (EG), Fransoyer\_41 (EG), Fregley\_39 (EG), FuzzBuster\_43 (singleton), Ganandorf\_38 (EC), Gazebo\_37 (EG), Grassboy\_40 (EG), Hermeonysus\_38 (EC), Honeyfin\_40 (EC), Hyperion\_38 (EG), Jefe\_39 (EC), Jehoshaphat\_41 (EG), Jollipop\_39 (EC), Judebell\_41 (EG), KaiHaiDragon\_39 (EC), Kelcole\_37 (EG), Kowalski\_38 (EC), Leaf\_79 (GC), LittleFortune\_40 (EC), Llemily\_39 (EG), Lonelysoil\_38 (EG), Marcie\_43 (EG), Margaery\_34 (EI), Mashley\_37 (EG), Merry\_41 (EC), MorillMayhem\_38 (EG), Namago\_39 (EG), Nike\_39 (EG), NoodlelyBoi\_39 (EC), OneinaGillian\_38 (EG), Onika\_38 (EC), Paschalis\_38 (EC), Pepe25\_37 (EG), Phabia\_39 (EG), Phinky\_45 (EG), Phorgeous\_38 (EC), Phrancesco\_39 (EC), PierreOrion\_39 (EC), PiperSansNom\_39 (EC), Piperis\_39 (EC), Pulchra\_40 (EC), Quammi\_37 (EG), Quhwah\_42 (EC), Ramiel05\_38 (EC), Rasputia\_74 (GC), RobinRose\_40 (EG), Romm\_40 (EG), Rowlf\_35 (EG), RubyRalph\_41 (EG), Rudy\_37 (EG), SadLad\_43 (EG), SallyK\_40 (EG), Savannah\_38 (EC), Scumberland\_40 (EC), Selwyn23\_40 (EC), Shotgun\_38 (EC), Sillytadpoles\_40 (EG), Squash\_41 (EG), Statler\_41 (EG), StrawberryJamm\_41 (EG), Sunny\_41 (EC), Teehee\_40 (EG), Tempo\_38 (EG), Terij\_35 (EI), Tissue\_39 (EG), Viceroy\_37 (EG), Wayne3\_40 (EG), Wheelie\_38 (EG), Wilca\_38 (EG), Yeti\_39 (EC), Zagie\_38 (EG), Zhafia\_42 (EG),

#### Start 47:

- Found in 88 of 612 ( 14.4% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Bernardo\_30 (B3),

Start 48:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_39 (singleton),

Start 49:

- Found in 13 of 612 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 12 of 538
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Ariadne\_47 (EC), Fireman\_39 (EC), Funsized\_33 (B9), Gina\_40 (EC), Jayden\_40 (EC), Kozie\_35 (EI), Metamorphoo\_39 (EC), Nicole72\_34 (EC), RobsFeet\_40 (EC), Smarties\_47 (EC), Teamocil\_40 (EC), Tyumbra\_37 (EC),

Start 54:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ranunculus\_32 (AP),

Start 56:

- Found in 20 of 612 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 11 of 538
- Called 65.0% of time when present
- Phage (with cluster) where this start called: AWGoat\_31 (AP4), Beagle\_39 (AP2), BruhMoment\_33 (AP3), MellowYellow\_35 (AP2), NyleyClemson\_34 (AP2), Odyssey395\_40 (AP2), Pointis\_38 (AP2), Pureglobe5\_40 (AP2), Rizwana\_31 (AP1), RomansRevenge\_28 (singleton), SilentRX\_33 (AP4), Tank\_33 (AP1), Wilde\_33 (AP1),

Start 57:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunfish\_47 (singleton),

Start 60:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilMcDreamy\_26 (B12),

Start 64:

- Found in 59 of 612 ( 9.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Kyva\_41 (EG),

Start 65:

- Found in 275 of 612 ( 44.9% ) of genes in pham
- Manual Annotations of this start: 255 of 538
- Called 97.1% of time when present

• Phage (with cluster) where this start called: ABU\_30 (B1), AbsoluteMadLad\_29 (B1), Adriana\_30 (B1), Aelin\_29 (B1), AltPhacts\_30 (B1), Altwerkus\_29 (B1), Anderson\_30 (B1), Andre\_30 (B1), Antonia\_29 (B1), Apizium\_29 (B1), Ashraf\_29 (B1), Badfish\_30 (B1), Banjo\_29 (B1), Basato\_31 (B1), BatteryCK\_29 (B1), Beaglebox\_29 (B1), Bishoperium\_29 (B1), BlackStallion\_30 (B1), BlueHusk\_30 (B1), Bluephacebaby\_29 (B1), Boehler\_30 (B1), Brilliant\_30 (B1), Buckeye\_30 (B1), Burr\_29 (B1), CamL\_30 (B1), CampRoach\_30 (B1), Cannibal\_30 (B1), Carthage\_28 (B1), Chaelin\_30 (B1), Charles1\_30 (B1), CharlieGBrown\_29 (B1), CheetO\_30 (B1), Cher\_29 (B1), Childish\_29 (B1), Chorkpop\_30 (B1), Chunky\_30 (B1), Chute\_29 (B1), Cobra\_30 (B1), Coletti\_29 (B1), Cornobble\_29 (B1), Cosmolli16\_29 (B1), Craff\_30 (B1), Crownjwl\_30 (B1), DaddyDaniels\_30 (B1), Daffy\_30 (B1), Daka\_30 (B1), Dati\_30 (B1), DelRivs\_29 (B1), Derpp\_29 (B1), Dice\_29 (B1), Dingo\_30 (B1), Dione\_29 (B1), DirtJuice\_30 (B1), Doddsville\_30 (B1), DoesntMatter\_30 (B1), DonSanchon\_29 (B1), DuchessDung\_28 (B1), Duggie\_29 (B1), Durga\_30 (B1), Emiris\_30 (B1), EmpTee\_30 (B1), Eremos\_30 (B1), Etaye\_30 (B1), Eugenia\_30 (B1), FluffyNinja\_30 (B1), Fozzie\_29 (B1), Frankicide\_30 (B1), Freya\_29 (B1), FriarPreacher\_30 (B1), Fringe\_30 (B1), FugateOSU\_29 (B1), Gareth\_29 (B1), GeneCoco\_30 (B1), Giraffe\_30 (B1), Gophee\_30 (B1), Grand2040\_29 (B1), Gwilliam\_30 (B1), Gyarad\_0030 (B1), HSavage\_30 (B1), Haimas\_30 (B1), Haleema\_29 (B1), Hamish\_30 (B1), Hartsy\_30 (B1), Harvey\_30 (B1), Held\_30 (B1), HenryJackson\_29 (B1), Hertubise\_30 (B1), Hetaeria\_30 (B1), HighStump\_29 (B1), Hocus\_29 (B1), Horchata\_30 (B1), ImtiyazSitla\_29 (B1), Inchworm\_30 (B1), Inverness\_30 (B1), Iridoclysis\_30 (B1), IsaacEli\_30 (B1), JDog\_29 (B1), JacAttac\_30 (B1), JakeO\_29 (B1), JangoPhett\_30 (B1), Jillium\_29 (B1), Jiminy\_29 (B1), Jiraiya\_30 (B1), KLucky39\_30 (B1), Kahve\_29 (B1), Kailash\_30 (B1), Katniss\_30 (B1), Keitherie\_30 (B1), Kikipoo\_30 (B1), Kimbrough\_30 (B1), KingTut\_21 (B1), KlimbOn\_30 (B1), Kloppinator\_30 (B1), Kwadwo\_29 (B1), Kwksand96\_29 (B1), Labeouficaum\_29 (B1), LasagnaCat\_30 (B1), Lasso\_30 (B1), LeeLot\_30 (B1), Lego3393\_30 (B1), Legolas\_29 (B1), LeiMonet\_30 (B1), LemonSlice\_30 (B1), Longacauda\_29 (B1), Lopsy\_29 (B1), LostAndPhound\_29 (B1), LuckyMarjie\_29 (B1), Lulumae\_29 (B1), Lulwa\_30 (B1), Lumine\_29 (B1), MRabcd\_29 (B1), Mag7\_29 (B1), Magic8\_30 (B1), Mana\_29 (B1), Manad\_29 (B1), Maru\_29 (B1), Maskar\_29 (B1), Matalotodo\_30 (B1), Mcshane\_29 (B1), Mecca\_29 (B1), Megamind20\_30 (B1), Megatron\_30 (B1), Melc17\_30 (B1), MelsMeow\_29 (B1), Mesh1\_30 (B1), MichaelPhcott\_29 (B1), Mikota\_30 (B1), MiniBoss\_30 (B1), MitKao\_30 (B1), Morgushi\_30 (B1), Morty\_30 (B1), Mosaic\_29 (B1), MrPhizzler\_29 (B1), Mulan\_29 (B1), Murdoc\_30 (B1), Mutante\_29 (B1), Nacho\_0030 (B1), Newman\_30 (B1), Nicole21\_30 (B1), Numberten\_30 (B1), Nyala\_29 (B1), OSmaximus\_30 (B1), Olak\_29 (B1), Oline\_29 (B1), Olive\_30 (B1), Omniscient\_30 (B1), Oosterbaan\_30 (B1), Orfeu\_29 (B1), Orion\_30 (B1), Orwigg\_30 (B1), PG1\_30 (B1), Pacifista\_29 (B1), Phamished\_30 (B1), Phareon\_30 (B1), PhatCats2014\_30 (B1), PhatLouie\_30 (B1), PhenghisKhan\_29 (B1), Pherdinand\_30 (B1), Phergie\_29 (B1), Phipps\_30 (B1), Phleuron\_29 (B1), PhrankReynolds\_29 (B1), PhrodoBaggins\_29 (B1), Phunky\_30 (B1), Piglet\_0029 (B1), PinheadLarry\_30 (B1), Pinkman\_29 (B1), Pipsqueak\_30 (B1), Placalicious\_29 (B1), Plmatters\_30 (B1), Podrick\_30 (B1), Pops\_30 (B1), Potter\_29 (B1), Prickles\_30 (B1), ProfessorX\_30 (B1), Puhltonio\_30 (B1), QueenBeane\_30 (B1), Quisquilliae\_30 (B1), RedMaple\_29 (B1), Ricotta\_29 (B1), Riggan\_30 (B1), Rimu\_31 (B1), Robyn\_29 (B1), Roliet\_30 (B1), Roscoe\_31 (B1), Roy17\_30 (B1), SDcharge11\_30 (B1), Samaymay\_30 (B1), SassyCat97\_29 (B1), Schadenfreude\_29 (B1), Schueller\_30 (B1), Scoot17C\_30 (B1), Scrick\_30 (B1), Selr12\_30 (B1), Serendipity\_30 (B1), Serpentine\_0030 (B1), Sheila\_30 (B1), ShiVal\_30 (B1), Sigman\_30 (B1), SilverBell\_30 (B1), Simielle\_29 (B1), Skippy\_30 (B1), Slatt\_30 (B1), Soile\_30 (B1), Solosis\_29 (B1), Sophia\_29 (B1), Soto\_30 (B1), Spartan300\_30 (B1),



Squid\_30 (B1), Squiggle\_30 (B1), Struggle\_29 (B1), Suffolk\_30 (B1), Surely\_30 (B1), Swiphy\_31 (B1), Swish\_30 (B1), Telesworld\_29 (B1), Thora\_30 (B1), ThreeOh3D2\_30 (B1), Thunderbird\_29 (B1), Timmi\_29 (B1), TomBombadil\_30 (B1), Tomlarah\_30 (B1), Toni\_29 (B1), Tooj\_30 (B1), True\_29 (B1), Trypo\_30 (B1), TyrionL\_29 (B1), UAch1\_30 (B1), UncleHowie\_30 (B1), Usavi\_30 (B1), Vaishali24\_29 (B1), Valjean\_30 (B1), Vaticameos\_30 (B1), Veritas\_29 (B1), Virapocalypse\_30 (B1), Virgeve\_29 (B1), Vista\_30 (B1), Vivaldi\_30 (B1), Vortex\_30 (B1), Wallhey\_29 (B1), Waterdiva\_30 (B1), Weher20\_30 (B1), Windsor\_29 (B1), Xavier\_29 (B1), YouGoGlencoco\_30 (B1), Zelda\_30 (B1), Zonia\_30 (B1),

#### Start 70:

- Found in 279 of 612 ( 45.6% ) of genes in pham
- Manual Annotations of this start: 8 of 538
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Chah\_31 (B1), Colbert\_30 (B1), Fang\_30 (B1), KingVeVeVe\_30 (B1), OliverWalter\_30 (B1), TallGrassMM\_30 (B1), Yoshand\_30 (B1), Zaider\_31 (B1),

#### Start 71:

- Found in 5 of 612 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_025 (B6), 40BC\_025 (B6), Hosp\_023 (B6), Jolie1\_025 (B6), KayaCho\_25 (B6),

#### Start 73:

- Found in 17 of 612 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 9 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acadian\_29 (B5), Bae\_28 (B5), DigitDog\_29 (B5), Donny\_29 (B5), EastView9101\_28 (B5), KarasumaRum\_31 (B5), Mysterious\_30 (B5), Nangang\_29 (B5), Nehemiah\_28 (B5), Phelemich\_29 (B5), Reprobate\_29 (B5), Rich\_28 (B5), Serendipitous\_28 (B5), Shenyu\_29 (B5), SirJeffery\_29 (B5), StinkyVeggy\_31 (B5), Suigeneris\_29 (B5),

#### Start 76:

- Found in 122 of 612 ( 19.9% ) of genes in pham
- Manual Annotations of this start: 49 of 538
- Called 41.8% of time when present
- Phage (with cluster) where this start called: Abinghost\_30 (B3), Akoma\_30 (B3), Athena\_31 (B3), Audrey\_30 (B3), Baloo\_30 (B3), Ben11\_29 (B3), Briakila\_30 (B3), Casbah\_29 (B3), ChaChing\_30 (B3), Chandler\_30 (B3), Compostia\_31 (B3), Corofin\_30 (B3), Daisy\_30 (B3), Deenasa\_30 (B3), Devonte\_30 (B3), Dori\_26 (AD), Gadget\_31 (B3), Gervas\_30 (B3), GlenHope\_31 (B3), Halfpint\_29 (B3), HarveySr\_30 (B3), Heathcliff\_30 (B3), Jackstina\_27 (B3), Kamiyu\_30 (B3), Kronus\_29 (B3), LestyG\_30 (B3), Mao1\_25 (AD), Marley1013\_30 (B3), Mask\_26 (AD), MmasiCarm\_30 (B3), Mortcellus\_29 (B3), Morty007\_30 (B3), Neos5\_30 (B3), Nozo\_30 (B3), Obutu\_30 (B3), OrangeOswald\_30 (B3), Phaedrus\_28 (B3), Phayeta\_30 (B3), Philly\_29 (B3), Phlyer\_30 (B3), Pipefish\_31 (B3), RagingRooster\_30 (B3), Rita1961\_30 (B3), RomaT\_30 (B3), Sejanus\_26 (AD), SlippinJimmy\_30 (B3), Sour\_30 (DR), SynergyX\_30 (B3), Tydolla\_30 (B3), Yahalom\_30 (B3), Yinz\_30 (B3),

#### Start 78:

- Found in 33 of 612 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 11 of 538
- Called 51.5% of time when present
- Phage (with cluster) where this start called: Axumite\_26 (DR), CRB2\_32 (B9), CharlottesWeb\_26 (DR), Clawz\_58 (CP), ColdSoup\_59 (CP), DonTron\_58 (CP), Fresco\_26 (DR), Jollymon\_59 (CP), KingstonB\_59 (CP), Ligma\_26 (DR), Mariokart\_26 (DR), PenguinLover67\_31 (B9), Saguario\_30 (B7), Shatter\_26 (DR), Soos\_54 (CP), StAugustine\_34 (singleton), Sting\_57 (CP),

#### Start 79:

- Found in 68 of 612 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 55 of 538
- Called 88.2% of time when present
- Phage (with cluster) where this start called: Allegro\_31 (B2), AnClar\_27 (DR), AnarQue\_28 (DR), Arbiter\_31 (B2), Ares\_31 (B2), Argie\_24 (W), Bananafish\_31 (B2), BiggityBass\_26 (DR), Blocker23\_31 (B2), BobRoss2024\_25 (DR), Boyle\_31 (B2), Brownie5\_31 (B2), CaiB\_28 (DR), Calamitous\_31 (B2), Cepens\_23 (W), CloverMinnie\_28 (DR), Coffee\_31 (B2), Coldpizza\_29 (DR), D12\_23 (W), Eaglehorse\_31 (B2), Evaa\_27 (DR), Faze9\_31 (B2), FrenchFry\_31 (B2), Glass\_31 (B2), GodPhather\_24 (W), Godines\_31 (B2), Hedgerow\_31 (B2), Holeinone\_31 (B2), ItsyBitsy1\_31 (B2), Jeon\_23 (W), Kaleb\_31 (B2), Kheth\_31 (B2), Lars\_31 (B2), Laurie\_31 (B2), Lephleur\_31 (B2), LittleMunchkin\_28 (DR), LizLemon\_31 (B2), MakoManhole\_28 (DR), MasterPo\_31 (B2), Megabear\_23 (W), MossRose\_28 (DR), NHagos\_26 (DR), Opia\_31 (B2), PR\_23 (W), Phantasmagoria\_31 (B2), Qyrzula\_29 (B2), Rhinoforte\_31 (B2), Rosebush\_31 (B2), Sabella\_31 (B2), Sisko\_26 (DR), TA17A\_31 (B2), Taptic\_23 (W), Thonko\_28 (B8), Tinciduntsolum\_32 (B2), Tonitrus\_45 (singleton), Tres\_31 (B2), Vic9\_32 (B2), West99\_31 (B2), Wooper\_28 (DR), Yago84\_26 (DR),

#### Start 80:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TurkishDelight\_30 (singleton),

#### Start 82:

- Found in 51 of 612 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 38 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2\_23 (BG), Ahwei\_26 (B4), AlanGrant\_28 (B4), Antihero\_26 (B4), Apex\_27 (B4), Asis\_22 (BG), Austelle\_28 (B4), BabyGotBac\_22 (BG), BayC\_22 (BG), BobbyK\_27 (B4), BrownCNA\_28 (B4), ChrisnMich\_26 (B4), Cooper\_27 (B4), Epah\_26 (B4), Fanaw\_26 (B4), Fortunato\_27 (B4), Frederick\_27 (B4), GinPorsche\_26 (B4), Hally898\_26 (B4), Hangman\_27 (B4), Heath\_26 (B4), Hydro\_27 (B4), Imvubu\_23 (B10), Indlovu\_27 (B11), JAMaL\_27 (B4), JaguarMi\_27 (B4), Knocker\_31 (B9), Lambano\_26 (B4), Lolalove\_27 (B4), Magpie\_26 (B4), Maih\_22 (BG), Mithril\_27 (B4), Mudslide\_27 (B4), Nanao\_26 (B4), Nigel\_25 (B4), Poster\_26 (B4), Prince\_27 (B4), QueenPie\_26 (B4), RainyPolka\_23 (BG), RawrgerThat\_27 (B4), Rinkes\_32 (B9), Salete\_22 (BG), Stinger\_25 (B4), TP1604\_22 (BG), Vincenzo\_28 (B4), VioletZ\_27 (B4), Waleliano\_27 (B4), Xincheng\_26 (B4), Xkcd426\_28 (BG), YDN12\_24 (BG), Zemanar\_28 (B4),

Start 83:

- Found in 3 of 612 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_32 (B13), Hashim76\_33 (B13), Zenteno07\_33 (B13),

Start 84:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla\_30 (B9),

Start 85:

- Found in 2 of 612 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 538
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mischief19\_31 (BG), Pine5\_29 (singleton),

Start 139:

- Found in 1 of 612 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2\_35 (singleton),

**Summary by clusters:**

There are 28 clusters represented in this pham: singleton, BG, AP2, AP3, AP1, AP4, B12, B13, B10, B11, DR, EI, AD, EG, EC, AP, GC, W, CP, B4, B5, B6, B7, B1, B2, B3, B8, B9,

Info for manual annotations of cluster AD:

- Start number 76 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster AP:

- Start number 54 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 56 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 56 was manually annotated 5 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 56 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 56 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster B1:

- Start number 65 was manually annotated 255 times for cluster B1.
- Start number 70 was manually annotated 8 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 82 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 82 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 60 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 83 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 79 was manually annotated 32 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 47 was manually annotated 1 time for cluster B3.
- Start number 76 was manually annotated 44 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 82 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 73 was manually annotated 9 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 71 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 78 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 79 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 49 was manually annotated 1 time for cluster B9.
- Start number 78 was manually annotated 2 times for cluster B9.
- Start number 82 was manually annotated 2 times for cluster B9.
- Start number 84 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster BG:

- Start number 82 was manually annotated 9 times for cluster BG.
- Start number 85 was manually annotated 1 time for cluster BG.

Info for manual annotations of cluster CP:

- Start number 78 was manually annotated 3 times for cluster CP.

Info for manual annotations of cluster DR:

- Start number 76 was manually annotated 1 time for cluster DR.
- Start number 78 was manually annotated 5 times for cluster DR.
- Start number 79 was manually annotated 13 times for cluster DR.

Info for manual annotations of cluster EC:

- Start number 40 was manually annotated 1 time for cluster EC.
- Start number 43 was manually annotated 31 times for cluster EC.
- Start number 49 was manually annotated 10 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 43 was manually annotated 38 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 42 was manually annotated 2 times for cluster EI.
- Start number 43 was manually annotated 4 times for cluster EI.
- Start number 49 was manually annotated 1 time for cluster EI.

Info for manual annotations of cluster GC:

- Start number 42 was manually annotated 1 time for cluster GC.
- Start number 43 was manually annotated 3 times for cluster GC.

Info for manual annotations of cluster W:

- Start number 79 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: 39HC\_025 Start: 26487, Stop: 27575, Start Num: 71

Candidate Starts for 39HC\_025:

(Start: 70 @26484 has 8 MA's), (Start: 71 @26487 has 1 MA's), (86, 26514), (90, 26532), (151, 26709), (165, 26751), (166, 26754), (215, 26895), (228, 26931), (239, 26976), (242, 26988), (253, 27039), (261, 27069), (265, 27084), (275, 27132), (283, 27162), (287, 27168), (309, 27249), (311, 27258), (316, 27291), (328, 27342), (337, 27381), (345, 27399), (365, 27450), (379, 27489), (383, 27498), (399, 27543),

Gene: 40BC\_025 Start: 26487, Stop: 27575, Start Num: 71

Candidate Starts for 40BC\_025:

(Start: 70 @26484 has 8 MA's), (Start: 71 @26487 has 1 MA's), (86, 26514), (90, 26532), (151, 26709), (165, 26751), (166, 26754), (215, 26895), (228, 26931), (239, 26976), (242, 26988), (253, 27039), (261, 27069), (265, 27084), (275, 27132), (283, 27162), (287, 27168), (309, 27249), (311, 27258), (316, 27291), (328, 27342), (337, 27381), (345, 27399), (365, 27450), (379, 27489), (383, 27498), (399, 27543),

Gene: ABU\_30 Start: 27647, Stop: 28759, Start Num: 65

Candidate Starts for ABU\_30:

(Start: 65 @27647 has 255 MA's), (Start: 70 @27665 has 8 MA's), (91, 27716), (149, 27884), (176, 27962), (207, 28052), (215, 28076), (228, 28112), (242, 28169), (245, 28184), (246, 28193), (253, 28220), (254, 28223), (261, 28250), (275, 28313), (283, 28343), (287, 28349), (309, 28433), (311, 28442), (325, 28511), (331, 28547), (333, 28553), (337, 28565), (371, 28655), (379, 28673), (383, 28682), (390, 28700), (402, 28733),

Gene: AWGoat\_31 Start: 27403, Stop: 28518, Start Num: 56

Candidate Starts for AWGoat\_31:

(Start: 56 @27403 has 11 MA's), (86, 27490), (94, 27523), (96, 27532), (115, 27577), (121, 27595), (124, 27604), (134, 27628), (149, 27673), (156, 27697), (157, 27706), (162, 27721), (180, 27763), (230, 27877), (256, 27991), (260, 28006), (267, 28033), (283, 28108), (298, 28147), (319, 28234),

(323, 28243), (334, 28294), (347, 28336), (355, 28357), (369, 28390), (378, 28414), (385, 28432), (396, 28474),

Gene: Abinghost\_30 Start: 27573, Stop: 28616, Start Num: 76

Candidate Starts for Abinghost\_30:

(Start: 47 @27468 has 1 MA's), (53, 27498), (Start: 76 @27573 has 49 MA's), (98, 27621), (122, 27687), (151, 27771), (161, 27795), (167, 27819), (176, 27843), (185, 27864), (195, 27897), (242, 28050), (244, 28062), (261, 28131), (279, 28212), (306, 28299), (309, 28314), (315, 28344), (328, 28407), (346, 28467), (352, 28485), (354, 28491), (356, 28494), (365, 28515), (377, 28545), (379, 28551), (382, 28557), (386, 28566),

Gene: AbsoluteMadLad\_29 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for AbsoluteMadLad\_29:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Abt2graduatex2\_23 Start: 22187, Stop: 23215, Start Num: 82

Candidate Starts for Abt2graduatex2\_23:

(Start: 82 @22187 has 38 MA's), (102, 22244), (118, 22286), (126, 22313), (130, 22325), (168, 22433), (176, 22454), (179, 22457), (193, 22499), (204, 22535), (211, 22553), (228, 22607), (259, 22733), (268, 22766), (274, 22799), (284, 22835), (286, 22838), (293, 22865), (295, 22871), (304, 22910), (318, 22991), (331, 23042), (337, 23060), (342, 23075), (356, 23120), (365, 23141), (384, 23171), (397, 23204), (398, 23207),

Gene: Acadian\_29 Start: 27893, Stop: 28981, Start Num: 73

Candidate Starts for Acadian\_29:

(Start: 73 @27893 has 9 MA's), (140, 28073), (149, 28103), (151, 28109), (165, 28151), (176, 28181), (215, 28295), (242, 28388), (254, 28442), (267, 28490), (279, 28550), (283, 28562), (287, 28568), (289, 28574), (296, 28601), (318, 28709), (328, 28742), (356, 28829), (379, 28889), (383, 28898), (384, 28901),

Gene: Adriana\_30 Start: 27645, Stop: 28757, Start Num: 65

Candidate Starts for Adriana\_30:

(Start: 65 @27645 has 255 MA's), (Start: 70 @27663 has 8 MA's), (91, 27714), (149, 27882), (176, 27960), (207, 28050), (215, 28074), (228, 28110), (242, 28167), (245, 28182), (246, 28191), (253, 28218), (254, 28221), (261, 28248), (275, 28311), (283, 28341), (287, 28347), (309, 28431), (311, 28440), (325, 28509), (331, 28545), (333, 28551), (337, 28563), (371, 28653), (379, 28671), (383, 28680), (390, 28698), (402, 28731),

Gene: Aelin\_29 Start: 27208, Stop: 28320, Start Num: 65

Candidate Starts for Aelin\_29:

(Start: 65 @27208 has 255 MA's), (Start: 70 @27226 has 8 MA's), (91, 27277), (149, 27445), (176, 27523), (207, 27613), (215, 27637), (228, 27673), (242, 27730), (245, 27745), (246, 27754), (253, 27781), (254, 27784), (261, 27811), (275, 27874), (283, 27904), (287, 27910), (309, 27994), (311, 28003), (325, 28072), (331, 28108), (333, 28114), (337, 28126), (371, 28216), (379, 28234), (383, 28243), (390, 28261), (402, 28294),

Gene: Ahwei\_26 Start: 26868, Stop: 27944, Start Num: 82

Candidate Starts for Ahwei\_26:



(Start: 82 @26868 has 38 MA's), (88, 26877), (144, 27045), (161, 27102), (183, 27165), (195, 27204), (207, 27240), (215, 27264), (228, 27300), (242, 27357), (245, 27372), (248, 27384), (253, 27408), (254, 27411), (265, 27453), (275, 27501), (280, 27522), (283, 27531), (287, 27537), (309, 27618), (312, 27636), (318, 27678), (321, 27687), (328, 27711), (337, 27750), (345, 27768), (351, 27786), (356, 27798), (379, 27858), (383, 27867),

Gene: Akoma\_30 Start: 27574, Stop: 28617, Start Num: 76

Candidate Starts for Akoma\_30:

(Start: 47 @27469 has 1 MA's), (53, 27499), (Start: 76 @27574 has 49 MA's), (98, 27622), (122, 27688), (151, 27772), (161, 27796), (167, 27820), (176, 27844), (185, 27865), (195, 27898), (242, 28051), (244, 28063), (261, 28132), (279, 28213), (306, 28300), (309, 28315), (315, 28345), (328, 28408), (346, 28468), (352, 28486), (354, 28492), (356, 28495), (365, 28516), (377, 28546), (379, 28552), (382, 28558), (386, 28567),

Gene: AlanGrant\_28 Start: 28607, Stop: 29689, Start Num: 82

Candidate Starts for AlanGrant\_28:

(Start: 82 @28607 has 38 MA's), (128, 28745), (161, 28847), (195, 28949), (207, 28985), (215, 29009), (216, 29012), (217, 29015), (226, 29042), (228, 29045), (237, 29084), (246, 29126), (257, 29171), (265, 29198), (275, 29246), (279, 29264), (287, 29282), (296, 29315), (308, 29354), (309, 29363), (316, 29405), (318, 29423), (328, 29456), (331, 29477), (337, 29495), (356, 29543), (375, 29591), (379, 29603),

Gene: Allegro\_31 Start: 28914, Stop: 29963, Start Num: 79

Candidate Starts for Allegro\_31:

(27, 28653), (36, 28743), (Start: 47 @28803 has 1 MA's), (53, 28833), (55, 28836), (Start: 79 @28914 has 55 MA's), (98, 28962), (109, 28995), (127, 29046), (128, 29049), (151, 29112), (161, 29136), (202, 29259), (212, 29286), (215, 29298), (228, 29334), (238, 29376), (243, 29394), (248, 29418), (253, 29442), (255, 29454), (265, 29487), (272, 29526), (283, 29565), (298, 29613), (311, 29661), (315, 29682), (316, 29694), (324, 29727), (325, 29730), (337, 29784), (351, 29820), (356, 29832), (363, 29847), (365, 29853), (377, 29880), (379, 29886), (382, 29892), (386, 29901),

Gene: AltPhacts\_30 Start: 27634, Stop: 28746, Start Num: 65

Candidate Starts for AltPhacts\_30:

(Start: 65 @27634 has 255 MA's), (Start: 70 @27652 has 8 MA's), (91, 27703), (149, 27871), (176, 27949), (207, 28039), (215, 28063), (228, 28099), (242, 28156), (245, 28171), (246, 28180), (253, 28207), (254, 28210), (261, 28237), (275, 28300), (283, 28330), (287, 28336), (309, 28420), (311, 28429), (325, 28498), (331, 28534), (333, 28540), (337, 28552), (371, 28642), (379, 28660), (383, 28669), (390, 28687), (402, 28720),

Gene: Altheas\_40 Start: 31029, Stop: 32177, Start Num: 43

Candidate Starts for Altheas\_40:

(23, 30843), (30, 30933), (Start: 42 @31026 has 3 MA's), (Start: 43 @31029 has 77 MA's), (64, 31062), (72, 31092), (86, 31119), (161, 31353), (164, 31365), (175, 31386), (177, 31389), (180, 31395), (216, 31497), (220, 31515), (227, 31533), (243, 31593), (249, 31623), (268, 31704), (290, 31794), (303, 31809), (331, 31944), (333, 31950), (335, 31956), (355, 32016), (369, 32049), (396, 32130), (398, 32136),

Gene: Altwerkus\_29 Start: 27334, Stop: 28446, Start Num: 65

Candidate Starts for Altwerkus\_29:

(Start: 65 @27334 has 255 MA's), (Start: 70 @27352 has 8 MA's), (91, 27403), (149, 27571), (176, 27649), (207, 27739), (215, 27763), (228, 27799), (242, 27856), (245, 27871), (246, 27880), (253, 27907), (254, 27910), (261, 27937), (275, 28000), (283, 28030), (287, 28036), (309, 28120), (311, 28129), (325, 28198), (331, 28234), (333, 28240), (337, 28252), (371, 28342), (379, 28360), (383,

28369), (390, 28387), (402, 28420),

Gene: AluminumJesus\_37 Start: 30626, Stop: 31777, Start Num: 43

Candidate Starts for AluminumJesus\_37:

(5, 30050), (12, 30200), (30, 30530), (Start: 43 @30626 has 77 MA's), (64, 30659), (69, 30680), (Start: 76 @30698 has 49 MA's), (86, 30716), (124, 30836), (134, 30860), (180, 30992), (227, 31130), (257, 31259), (270, 31328), (288, 31382), (319, 31490), (331, 31541), (335, 31553), (378, 31670), (388, 31694), (396, 31727), (398, 31733), (411, 31766),

Gene: AnClar\_27 Start: 27520, Stop: 28560, Start Num: 79

Candidate Starts for AnClar\_27:

(Start: 47 @27409 has 1 MA's), (Start: 79 @27520 has 55 MA's), (91, 27544), (154, 27718), (190, 27817), (195, 27838), (215, 27898), (220, 27916), (244, 28003), (245, 28006), (255, 28054), (261, 28072), (275, 28135), (283, 28165), (285, 28168), (294, 28189), (309, 28252), (356, 28432), (406, 28540), (409, 28549),

Gene: AnarQue\_28 Start: 27025, Stop: 28074, Start Num: 79

Candidate Starts for AnarQue\_28:

(Start: 79 @27025 has 55 MA's), (91, 27049), (93, 27055), (109, 27106), (122, 27139), (128, 27160), (133, 27175), (144, 27193), (151, 27217), (168, 27268), (190, 27322), (206, 27376), (215, 27403), (222, 27427), (237, 27478), (245, 27511), (248, 27523), (255, 27559), (265, 27592), (274, 27637), (275, 27640), (283, 27670), (306, 27742), (308, 27748), (309, 27757), (312, 27775), (345, 27907), (353, 27931), (356, 27937), (406, 28054), (409, 28063),

Gene: Anderson\_30 Start: 27640, Stop: 28752, Start Num: 65

Candidate Starts for Anderson\_30:

(Start: 65 @27640 has 255 MA's), (Start: 70 @27658 has 8 MA's), (91, 27709), (149, 27877), (176, 27955), (207, 28045), (215, 28069), (228, 28105), (242, 28162), (245, 28177), (246, 28186), (253, 28213), (254, 28216), (261, 28243), (275, 28306), (283, 28336), (287, 28342), (309, 28426), (311, 28435), (325, 28504), (331, 28540), (333, 28546), (337, 28558), (371, 28648), (379, 28666), (383, 28675), (390, 28693), (402, 28726),

Gene: Andre\_30 Start: 27638, Stop: 28750, Start Num: 65

Candidate Starts for Andre\_30:

(Start: 65 @27638 has 255 MA's), (Start: 70 @27656 has 8 MA's), (91, 27707), (149, 27875), (176, 27953), (207, 28043), (215, 28067), (228, 28103), (242, 28160), (245, 28175), (246, 28184), (253, 28211), (254, 28214), (261, 28241), (275, 28304), (283, 28334), (287, 28340), (309, 28424), (311, 28433), (325, 28502), (331, 28538), (333, 28544), (337, 28556), (371, 28646), (379, 28664), (383, 28673), (390, 28691), (402, 28724),

Gene: Antares\_39 Start: 27860, Stop: 29062, Start Num: 43

Candidate Starts for Antares\_39:

(Start: 43 @27860 has 77 MA's), (59, 27896), (Start: 76 @27953 has 49 MA's), (97, 28016), (124, 28088), (134, 28112), (143, 28136), (150, 28160), (172, 28241), (180, 28262), (197, 28316), (206, 28343), (209, 28349), (211, 28355), (216, 28373), (220, 28391), (241, 28460), (243, 28466), (256, 28529), (268, 28574), (299, 28685), (330, 28820), (331, 28835), (337, 28853), (355, 28907), (362, 28922), (369, 28940), (388, 28988), (396, 29021), (407, 29048), (409, 29054),

Gene: Antihero\_26 Start: 26868, Stop: 27944, Start Num: 82

Candidate Starts for Antihero\_26:

(Start: 82 @26868 has 38 MA's), (88, 26877), (144, 27045), (161, 27102), (183, 27165), (195, 27204), (207, 27240), (215, 27264), (228, 27300), (242, 27357), (245, 27372), (248, 27384), (253, 27408), (254, 27411), (265, 27453), (275, 27501), (280, 27522), (283, 27531), (287, 27537), (309, 27618),

(312, 27636), (318, 27678), (321, 27687), (328, 27711), (337, 27750), (345, 27768), (351, 27786), (356, 27798), (379, 27858), (383, 27867),

Gene: Antonia\_29 Start: 27208, Stop: 28320, Start Num: 65

Candidate Starts for Antonia\_29:

(Start: 65 @27208 has 255 MA's), (Start: 70 @27226 has 8 MA's), (91, 27277), (149, 27445), (176, 27523), (207, 27613), (215, 27637), (228, 27673), (242, 27730), (245, 27745), (246, 27754), (253, 27781), (254, 27784), (261, 27811), (275, 27874), (283, 27904), (287, 27910), (309, 27994), (311, 28003), (325, 28072), (331, 28108), (333, 28114), (337, 28126), (371, 28216), (379, 28234), (383, 28243), (390, 28261), (402, 28294),

Gene: Apex\_27 Start: 28075, Stop: 29151, Start Num: 82

Candidate Starts for Apex\_27:

(Start: 82 @28075 has 38 MA's), (88, 28084), (128, 28213), (144, 28252), (161, 28309), (183, 28372), (190, 28390), (195, 28411), (207, 28447), (215, 28471), (228, 28507), (242, 28564), (245, 28579), (248, 28591), (253, 28615), (254, 28618), (265, 28660), (275, 28708), (280, 28729), (283, 28738), (287, 28744), (309, 28825), (312, 28843), (318, 28885), (321, 28894), (328, 28918), (337, 28957), (345, 28975), (351, 28993), (356, 29005), (379, 29065), (383, 29074),

Gene: Apizium\_29 Start: 27399, Stop: 28511, Start Num: 65

Candidate Starts for Apizium\_29:

(Start: 65 @27399 has 255 MA's), (Start: 70 @27417 has 8 MA's), (91, 27468), (149, 27636), (176, 27714), (207, 27804), (215, 27828), (228, 27864), (242, 27921), (245, 27936), (246, 27945), (253, 27972), (254, 27975), (261, 28002), (275, 28065), (283, 28095), (287, 28101), (309, 28185), (311, 28194), (325, 28263), (331, 28299), (333, 28305), (337, 28317), (371, 28407), (379, 28425), (383, 28434), (390, 28452), (402, 28485),

Gene: Arbiter\_31 Start: 29003, Stop: 30052, Start Num: 79

Candidate Starts for Arbiter\_31:

(15, 28526), (16, 28571), (20, 28646), (27, 28742), (36, 28832), (Start: 47 @28892 has 1 MA's), (53, 28922), (55, 28925), (Start: 79 @29003 has 55 MA's), (98, 29051), (109, 29084), (127, 29135), (128, 29138), (151, 29201), (161, 29225), (202, 29348), (212, 29375), (215, 29387), (228, 29423), (238, 29465), (243, 29483), (248, 29507), (253, 29531), (255, 29543), (265, 29576), (272, 29615), (283, 29654), (298, 29702), (311, 29750), (315, 29771), (316, 29783), (323, 29813), (324, 29816), (325, 29819), (337, 29873), (351, 29909), (356, 29921), (363, 29936), (365, 29942), (377, 29969), (379, 29975), (382, 29981), (386, 29990),

Gene: Ares\_31 Start: 28925, Stop: 29974, Start Num: 79

Candidate Starts for Ares\_31:

(15, 28448), (16, 28493), (20, 28568), (27, 28664), (36, 28754), (Start: 47 @28814 has 1 MA's), (53, 28844), (55, 28847), (Start: 79 @28925 has 55 MA's), (98, 28973), (109, 29006), (127, 29057), (128, 29060), (151, 29123), (161, 29147), (202, 29270), (212, 29297), (215, 29309), (228, 29345), (238, 29387), (243, 29405), (248, 29429), (253, 29453), (265, 29498), (272, 29537), (283, 29576), (298, 29624), (311, 29672), (315, 29693), (316, 29705), (324, 29738), (325, 29741), (337, 29795), (351, 29831), (356, 29843), (363, 29858), (365, 29864), (377, 29891), (379, 29897), (382, 29903), (386, 29912),

Gene: Argie\_24 Start: 26462, Stop: 27499, Start Num: 79

Candidate Starts for Argie\_24:

(Start: 79 @26462 has 55 MA's), (90, 26483), (91, 26486), (98, 26510), (109, 26543), (128, 26597), (138, 26615), (142, 26618), (149, 26645), (161, 26675), (212, 26825), (228, 26873), (242, 26930), (243, 26933), (245, 26945), (248, 26957), (255, 26993), (261, 27011), (274, 27071), (275, 27074), (279, 27092), (283, 27104), (285, 27107), (296, 27143), (297, 27149), (309, 27191), (315, 27221),

(316, 27233), (329, 27287), (346, 27344), (351, 27359), (358, 27377), (363, 27386), (365, 27392), (368, 27398), (377, 27419), (379, 27425), (386, 27440), (393, 27461), (394, 27464),

Gene: Ariadne\_47 Start: 29437, Stop: 30585, Start Num: 49

Candidate Starts for Ariadne\_47:

(Start: 49 @29437 has 12 MA's), (Start: 78 @29512 has 11 MA's), (81, 29518), (89, 29542), (125, 29653), (157, 29752), (180, 29812), (197, 29866), (210, 29893), (220, 29929), (227, 29947), (241, 29995), (242, 29998), (248, 30025), (251, 30037), (256, 30064), (314, 30271), (315, 30277), (323, 30319), (331, 30361), (340, 30391), (362, 30448), (385, 30508), (392, 30535), (394, 30541), (396, 30547),

Gene: Ashraf\_29 Start: 27206, Stop: 28318, Start Num: 65

Candidate Starts for Ashraf\_29:

(Start: 65 @27206 has 255 MA's), (Start: 70 @27224 has 8 MA's), (91, 27275), (117, 27350), (149, 27443), (162, 27476), (176, 27521), (207, 27611), (215, 27635), (228, 27671), (242, 27728), (245, 27743), (246, 27752), (253, 27779), (254, 27782), (261, 27809), (275, 27872), (287, 27908), (309, 27992), (311, 28001), (325, 28070), (331, 28106), (333, 28112), (337, 28124), (371, 28214), (379, 28232), (383, 28241), (390, 28259), (402, 28292),

Gene: Asis\_22 Start: 21599, Stop: 22627, Start Num: 82

Candidate Starts for Asis\_22:

(26, 21332), (Start: 56 @21521 has 11 MA's), (Start: 82 @21599 has 38 MA's), (102, 21656), (112, 21683), (118, 21698), (176, 21866), (179, 21869), (193, 21911), (204, 21947), (228, 22019), (259, 22145), (274, 22211), (284, 22247), (286, 22250), (293, 22277), (295, 22283), (304, 22322), (331, 22454), (337, 22472), (342, 22487), (356, 22532), (365, 22553), (384, 22583), (386, 22586), (388, 22592), (397, 22616), (398, 22619),

Gene: Athena\_31 Start: 28324, Stop: 29367, Start Num: 76

Candidate Starts for Athena\_31:

(Start: 47 @28219 has 1 MA's), (53, 28249), (Start: 76 @28324 has 49 MA's), (98, 28372), (122, 28438), (151, 28522), (161, 28546), (167, 28570), (176, 28594), (185, 28615), (240, 28795), (242, 28801), (244, 28813), (261, 28882), (279, 28963), (306, 29050), (309, 29065), (315, 29095), (328, 29158), (346, 29218), (352, 29236), (354, 29242), (356, 29245), (365, 29266), (377, 29296), (379, 29302), (382, 29308), (386, 29317),

Gene: Audrey\_30 Start: 27573, Stop: 28616, Start Num: 76

Candidate Starts for Audrey\_30:

(Start: 47 @27468 has 1 MA's), (53, 27498), (Start: 76 @27573 has 49 MA's), (98, 27621), (122, 27687), (151, 27771), (161, 27795), (167, 27819), (176, 27843), (185, 27864), (195, 27897), (242, 28050), (244, 28062), (261, 28131), (279, 28212), (306, 28299), (309, 28314), (315, 28344), (328, 28407), (346, 28467), (352, 28485), (354, 28491), (356, 28494), (365, 28515), (377, 28545), (379, 28551), (382, 28557), (386, 28566),

Gene: Austelle\_28 Start: 28531, Stop: 29607, Start Num: 82

Candidate Starts for Austelle\_28:

(Start: 82 @28531 has 38 MA's), (88, 28540), (144, 28708), (161, 28765), (183, 28828), (190, 28846), (195, 28867), (207, 28903), (215, 28927), (228, 28963), (242, 29020), (245, 29035), (248, 29047), (253, 29071), (254, 29074), (265, 29116), (275, 29164), (280, 29185), (283, 29194), (287, 29200), (309, 29281), (312, 29299), (318, 29341), (321, 29350), (328, 29374), (337, 29413), (345, 29431), (351, 29449), (356, 29461), (357, 29464), (379, 29521), (383, 29530),

Gene: Axumite\_26 Start: 25044, Stop: 26081, Start Num: 78

Candidate Starts for Axumite\_26:

(Start: 76 @25041 has 49 MA's), (Start: 78 @25044 has 11 MA's), (122, 25158), (143, 25206), (151, 25233), (169, 25287), (212, 25407), (215, 25419), (228, 25455), (245, 25527), (248, 25539), (255, 25575), (257, 25581), (261, 25593), (275, 25656), (309, 25773), (331, 25887), (356, 25953), (363, 25968), (365, 25974), (375, 26001), (390, 26031), (409, 26070),

Gene: BabyDotz\_38 Start: 31396, Stop: 32544, Start Num: 43

Candidate Starts for BabyDotz\_38:

(30, 31300), (Start: 42 @31393 has 3 MA's), (Start: 43 @31396 has 77 MA's), (64, 31429), (72, 31459), (86, 31486), (124, 31606), (155, 31696), (161, 31720), (175, 31753), (177, 31756), (180, 31762), (209, 31840), (227, 31900), (243, 31960), (290, 32161), (303, 32176), (331, 32311), (333, 32317), (335, 32323), (337, 32329), (355, 32383), (388, 32464), (396, 32497), (398, 32503), (410, 32533),

Gene: BabyGotBac\_22 Start: 21599, Stop: 22627, Start Num: 82

Candidate Starts for BabyGotBac\_22:

(26, 21332), (Start: 56 @21521 has 11 MA's), (Start: 82 @21599 has 38 MA's), (102, 21656), (112, 21683), (118, 21698), (176, 21866), (179, 21869), (193, 21911), (204, 21947), (228, 22019), (259, 22145), (274, 22211), (284, 22247), (286, 22250), (293, 22277), (295, 22283), (304, 22322), (331, 22454), (342, 22487), (356, 22532), (365, 22553), (384, 22583), (386, 22586), (388, 22592), (397, 22616), (398, 22619),

Gene: Badfish\_30 Start: 27669, Stop: 28781, Start Num: 65

Candidate Starts for Badfish\_30:

(Start: 65 @27669 has 255 MA's), (Start: 70 @27687 has 8 MA's), (91, 27738), (149, 27906), (176, 27984), (207, 28074), (215, 28098), (228, 28134), (242, 28191), (245, 28206), (246, 28215), (253, 28242), (254, 28245), (261, 28272), (275, 28335), (283, 28365), (287, 28371), (309, 28455), (311, 28464), (325, 28533), (331, 28569), (333, 28575), (337, 28587), (371, 28677), (379, 28695), (383, 28704), (390, 28722), (402, 28755),

Gene: Bae\_28 Start: 27667, Stop: 28755, Start Num: 73

Candidate Starts for Bae\_28:

(68, 27655), (Start: 73 @27667 has 9 MA's), (140, 27847), (149, 27877), (151, 27883), (165, 27925), (215, 28069), (242, 28162), (254, 28216), (267, 28264), (279, 28324), (283, 28336), (287, 28342), (289, 28348), (295, 28363), (318, 28483), (328, 28516), (336, 28552), (351, 28591), (356, 28603), (379, 28663), (383, 28672), (384, 28675), (403, 28732),

Gene: Baloo\_30 Start: 27576, Stop: 28619, Start Num: 76

Candidate Starts for Baloo\_30:

(Start: 47 @27471 has 1 MA's), (53, 27501), (Start: 76 @27576 has 49 MA's), (98, 27624), (122, 27690), (151, 27774), (161, 27798), (167, 27822), (176, 27846), (185, 27867), (195, 27900), (242, 28053), (244, 28065), (261, 28134), (279, 28215), (306, 28302), (309, 28317), (315, 28347), (328, 28410), (346, 28470), (352, 28488), (354, 28494), (356, 28497), (365, 28518), (377, 28548), (379, 28554), (382, 28560), (386, 28569),

Gene: Bananafish\_31 Start: 28923, Stop: 29972, Start Num: 79

Candidate Starts for Bananafish\_31:

(15, 28446), (16, 28491), (20, 28566), (27, 28662), (36, 28752), (Start: 47 @28812 has 1 MA's), (53, 28842), (55, 28845), (Start: 79 @28923 has 55 MA's), (98, 28971), (109, 29004), (127, 29055), (128, 29058), (151, 29121), (161, 29145), (202, 29268), (212, 29295), (215, 29307), (228, 29343), (238, 29385), (243, 29403), (248, 29427), (253, 29451), (255, 29463), (265, 29496), (272, 29535), (283, 29574), (298, 29622), (311, 29670), (315, 29691), (316, 29703), (323, 29733), (324, 29736), (325, 29739), (337, 29793), (351, 29829), (356, 29841), (363, 29856), (365, 29862), (377, 29889), (379, 29895), (382, 29901), (386, 29910),

Gene: Banjo\_29 Start: 27345, Stop: 28457, Start Num: 65

Candidate Starts for Banjo\_29:

(Start: 65 @27345 has 255 MA's), (Start: 70 @27363 has 8 MA's), (91, 27414), (149, 27582), (176, 27660), (207, 27750), (215, 27774), (228, 27810), (242, 27867), (245, 27882), (246, 27891), (253, 27918), (254, 27921), (261, 27948), (275, 28011), (283, 28041), (287, 28047), (309, 28131), (311, 28140), (325, 28209), (331, 28245), (333, 28251), (337, 28263), (371, 28353), (379, 28371), (383, 28380), (390, 28398), (402, 28431),

Gene: Basato\_31 Start: 27873, Stop: 28985, Start Num: 65

Candidate Starts for Basato\_31:

(Start: 65 @27873 has 255 MA's), (Start: 70 @27891 has 8 MA's), (91, 27942), (149, 28110), (176, 28188), (207, 28278), (215, 28302), (228, 28338), (242, 28395), (245, 28410), (246, 28419), (253, 28446), (254, 28449), (261, 28476), (275, 28539), (283, 28569), (287, 28575), (309, 28659), (311, 28668), (325, 28737), (331, 28773), (333, 28779), (337, 28791), (371, 28881), (379, 28899), (383, 28908), (390, 28926), (402, 28959),

Gene: BatteryCK\_29 Start: 27264, Stop: 28376, Start Num: 65

Candidate Starts for BatteryCK\_29:

(Start: 65 @27264 has 255 MA's), (Start: 70 @27282 has 8 MA's), (91, 27333), (117, 27408), (149, 27501), (162, 27534), (176, 27579), (207, 27669), (215, 27693), (228, 27729), (242, 27786), (245, 27801), (246, 27810), (253, 27837), (254, 27840), (261, 27867), (275, 27930), (287, 27966), (309, 28050), (311, 28059), (325, 28128), (331, 28164), (333, 28170), (337, 28182), (371, 28272), (379, 28290), (383, 28299), (390, 28317), (402, 28350),

Gene: BayC\_22 Start: 21599, Stop: 22627, Start Num: 82

Candidate Starts for BayC\_22:

(26, 21332), (Start: 56 @21521 has 11 MA's), (Start: 82 @21599 has 38 MA's), (102, 21656), (112, 21683), (118, 21698), (176, 21866), (179, 21869), (193, 21911), (204, 21947), (228, 22019), (259, 22145), (274, 22211), (284, 22247), (286, 22250), (293, 22277), (295, 22283), (304, 22322), (331, 22454), (342, 22487), (356, 22532), (365, 22553), (384, 22583), (386, 22586), (388, 22592), (397, 22616), (398, 22619),

Gene: Beagle\_39 Start: 27630, Stop: 28763, Start Num: 56

Candidate Starts for Beagle\_39:

(Start: 56 @27630 has 11 MA's), (74, 27696), (86, 27717), (98, 27765), (108, 27795), (115, 27804), (124, 27831), (156, 27924), (162, 27948), (180, 27990), (184, 28002), (189, 28014), (220, 28074), (243, 28152), (254, 28206), (260, 28233), (276, 28311), (283, 28335), (308, 28404), (333, 28518), (334, 28521), (337, 28530), (355, 28584), (362, 28599), (364, 28605), (367, 28611), (369, 28617), (378, 28641), (385, 28659), (410, 28734),

Gene: Beaglebox\_29 Start: 27365, Stop: 28477, Start Num: 65

Candidate Starts for Beaglebox\_29:

(Start: 65 @27365 has 255 MA's), (Start: 70 @27383 has 8 MA's), (91, 27434), (149, 27602), (176, 27680), (207, 27770), (215, 27794), (228, 27830), (242, 27887), (245, 27902), (246, 27911), (253, 27938), (254, 27941), (261, 27968), (275, 28031), (283, 28061), (287, 28067), (309, 28151), (311, 28160), (325, 28229), (331, 28265), (333, 28271), (337, 28283), (371, 28373), (379, 28391), (383, 28400), (390, 28418), (402, 28451),

Gene: Ben11\_29 Start: 27395, Stop: 28438, Start Num: 76

Candidate Starts for Ben11\_29:

(Start: 47 @27290 has 1 MA's), (53, 27320), (Start: 76 @27395 has 49 MA's), (98, 27443), (122, 27509), (151, 27593), (161, 27617), (167, 27641), (176, 27665), (185, 27686), (195, 27719), (242,



27872), (244, 27884), (261, 27953), (279, 28034), (306, 28121), (309, 28136), (315, 28166), (328, 28229), (346, 28289), (352, 28307), (354, 28313), (356, 28316), (365, 28337), (377, 28367), (379, 28373), (382, 28379), (386, 28388),

Gene: Bernardo\_30 Start: 27558, Stop: 28706, Start Num: 47

Candidate Starts for Bernardo\_30:

(Start: 47 @27558 has 1 MA's), (53, 27588), (Start: 76 @27663 has 49 MA's), (98, 27711), (122, 27777), (151, 27861), (161, 27885), (167, 27909), (176, 27933), (185, 27954), (242, 28140), (244, 28152), (261, 28221), (279, 28302), (306, 28389), (309, 28404), (315, 28434), (328, 28497), (346, 28557), (352, 28575), (354, 28581), (356, 28584), (365, 28605), (377, 28635), (379, 28641), (382, 28647), (386, 28656),

Gene: BiggityBass\_26 Start: 27310, Stop: 28350, Start Num: 79

Candidate Starts for BiggityBass\_26:

(Start: 79 @27310 has 55 MA's), (91, 27334), (154, 27508), (190, 27607), (195, 27628), (215, 27688), (220, 27706), (245, 27796), (255, 27844), (261, 27862), (275, 27925), (285, 27958), (294, 27979), (309, 28042), (356, 28222), (406, 28330), (409, 28339),

Gene: BirdInFrench\_38 Start: 29203, Stop: 30351, Start Num: 43

Candidate Starts for BirdInFrench\_38:

(30, 29107), (Start: 42 @29200 has 3 MA's), (Start: 43 @29203 has 77 MA's), (64, 29236), (72, 29266), (161, 29527), (177, 29563), (180, 29569), (196, 29620), (207, 29644), (209, 29647), (216, 29671), (220, 29689), (224, 29701), (227, 29707), (268, 29878), (272, 29911), (290, 29968), (303, 29983), (329, 30100), (331, 30118), (333, 30124), (335, 30130), (355, 30190), (396, 30304), (398, 30310),

Gene: BirdsNest\_32 Start: 27260, Stop: 28324, Start Num: 83

Candidate Starts for BirdsNest\_32:

(Start: 83 @27260 has 2 MA's), (98, 27311), (127, 27395), (136, 27419), (207, 27626), (215, 27650), (224, 27680), (237, 27725), (242, 27743), (248, 27770), (253, 27794), (283, 27917), (287, 27923), (309, 28004), (311, 28013), (312, 28022), (337, 28136), (345, 28154), (351, 28172), (375, 28232), (379, 28244), (400, 28295), (402, 28298),

Gene: Bishoperium\_29 Start: 27354, Stop: 28466, Start Num: 65

Candidate Starts for Bishoperium\_29:

(Start: 65 @27354 has 255 MA's), (Start: 70 @27372 has 8 MA's), (91, 27423), (149, 27591), (176, 27669), (207, 27759), (215, 27783), (228, 27819), (242, 27876), (245, 27891), (246, 27900), (253, 27927), (254, 27930), (261, 27957), (275, 28020), (283, 28050), (287, 28056), (309, 28140), (311, 28149), (325, 28218), (331, 28254), (333, 28260), (337, 28272), (371, 28362), (379, 28380), (383, 28389), (390, 28407), (402, 28440),

Gene: Blab\_37 Start: 30539, Stop: 31690, Start Num: 43

Candidate Starts for Blab\_37:

(30, 30443), (Start: 43 @30539 has 77 MA's), (64, 30572), (69, 30593), (Start: 76 @30611 has 49 MA's), (86, 30629), (124, 30749), (134, 30773), (180, 30905), (227, 31043), (270, 31241), (288, 31295), (319, 31403), (331, 31454), (335, 31466), (378, 31583), (388, 31607), (396, 31640), (398, 31646), (411, 31679),

Gene: BlackStallion\_30 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for BlackStallion\_30:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311,

28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Blocker23\_31 Start: 29044, Stop: 30093, Start Num: 79

Candidate Starts for Blocker23\_31:

(15, 28567), (16, 28612), (20, 28687), (27, 28783), (36, 28873), (Start: 47 @28933 has 1 MA's), (53, 28963), (55, 28966), (Start: 79 @29044 has 55 MA's), (98, 29092), (109, 29125), (127, 29176), (128, 29179), (151, 29242), (161, 29266), (202, 29389), (212, 29416), (215, 29428), (228, 29464), (238, 29506), (243, 29524), (248, 29548), (253, 29572), (255, 29584), (265, 29617), (272, 29656), (283, 29695), (298, 29743), (311, 29791), (315, 29812), (316, 29824), (324, 29857), (325, 29860), (337, 29914), (351, 29950), (356, 29962), (363, 29977), (365, 29983), (377, 30010), (379, 30016), (382, 30022), (386, 30031),

Gene: BlueHusk\_30 Start: 27153, Stop: 28265, Start Num: 65

Candidate Starts for BlueHusk\_30:

(Start: 65 @27153 has 255 MA's), (Start: 70 @27171 has 8 MA's), (91, 27222), (149, 27390), (176, 27468), (207, 27558), (215, 27582), (228, 27618), (242, 27675), (245, 27690), (246, 27699), (253, 27726), (254, 27729), (261, 27756), (275, 27819), (283, 27849), (287, 27855), (309, 27939), (311, 27948), (325, 28017), (331, 28053), (333, 28059), (337, 28071), (371, 28161), (379, 28179), (383, 28188), (390, 28206), (402, 28239),

Gene: Bluephacebaby\_29 Start: 27351, Stop: 28463, Start Num: 65

Candidate Starts for Bluephacebaby\_29:

(Start: 65 @27351 has 255 MA's), (Start: 70 @27369 has 8 MA's), (91, 27420), (149, 27588), (176, 27666), (207, 27756), (215, 27780), (228, 27816), (242, 27873), (245, 27888), (246, 27897), (253, 27924), (254, 27927), (261, 27954), (275, 28017), (283, 28047), (287, 28053), (309, 28137), (311, 28146), (325, 28215), (331, 28251), (333, 28257), (337, 28269), (371, 28359), (379, 28377), (383, 28386), (390, 28404), (402, 28437),

Gene: BobRoss2024\_25 Start: 25077, Stop: 26117, Start Num: 79

Candidate Starts for BobRoss2024\_25:

(Start: 79 @25077 has 55 MA's), (91, 25101), (122, 25191), (129, 25215), (137, 25233), (143, 25242), (176, 25341), (215, 25455), (242, 25548), (244, 25560), (253, 25599), (283, 25722), (308, 25800), (309, 25809), (311, 25818), (329, 25905), (356, 25989), (377, 26043), (383, 26058), (409, 26106),

Gene: BobbyK\_27 Start: 27900, Stop: 28976, Start Num: 82

Candidate Starts for BobbyK\_27:

(Start: 82 @27900 has 38 MA's), (88, 27909), (144, 28077), (161, 28134), (183, 28197), (195, 28236), (207, 28272), (215, 28296), (228, 28332), (242, 28389), (245, 28404), (248, 28416), (253, 28440), (254, 28443), (265, 28485), (275, 28533), (283, 28563), (287, 28569), (309, 28650), (312, 28668), (318, 28710), (321, 28719), (328, 28743), (337, 28782), (345, 28800), (351, 28818), (356, 28830), (357, 28833), (379, 28890), (383, 28899),

Gene: Boehler\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Boehler\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Boyle\_31 Start: 29042, Stop: 30091, Start Num: 79

Candidate Starts for Boyle\_31:

(15, 28565), (16, 28610), (20, 28685), (27, 28781), (36, 28871), (Start: 47 @28931 has 1 MA's), (53, 28961), (55, 28964), (Start: 79 @29042 has 55 MA's), (98, 29090), (109, 29123), (127, 29174), (128, 29177), (151, 29240), (161, 29264), (202, 29387), (212, 29414), (215, 29426), (228, 29462), (238, 29504), (243, 29522), (248, 29546), (253, 29570), (255, 29582), (265, 29615), (272, 29654), (283, 29693), (298, 29741), (311, 29789), (315, 29810), (316, 29822), (324, 29855), (325, 29858), (337, 29912), (351, 29948), (356, 29960), (363, 29975), (365, 29981), (377, 30008), (379, 30014), (382, 30020), (386, 30029),

Gene: BrazzalePHS\_38 Start: 27655, Stop: 28857, Start Num: 43

Candidate Starts for BrazzalePHS\_38:

(Start: 43 @27655 has 77 MA's), (59, 27691), (Start: 76 @27748 has 49 MA's), (124, 27883), (134, 27907), (143, 27931), (150, 27955), (172, 28036), (180, 28057), (197, 28111), (206, 28138), (209, 28144), (211, 28150), (216, 28168), (220, 28186), (241, 28255), (243, 28261), (256, 28324), (268, 28369), (299, 28480), (330, 28615), (331, 28630), (337, 28648), (355, 28702), (362, 28717), (369, 28735), (388, 28783), (396, 28816), (407, 28843), (409, 28849),

Gene: Briakila\_30 Start: 28338, Stop: 29381, Start Num: 76

Candidate Starts for Briakila\_30:

(Start: 47 @28233 has 1 MA's), (53, 28263), (Start: 76 @28338 has 49 MA's), (98, 28386), (122, 28452), (151, 28536), (161, 28560), (167, 28584), (176, 28608), (185, 28629), (240, 28809), (242, 28815), (244, 28827), (261, 28896), (279, 28977), (306, 29064), (309, 29079), (315, 29109), (328, 29172), (346, 29232), (352, 29250), (354, 29256), (356, 29259), (365, 29280), (377, 29310), (379, 29316), (382, 29322), (386, 29331),

Gene: Brilliant\_30 Start: 27362, Stop: 28474, Start Num: 65

Candidate Starts for Brilliant\_30:

(Start: 65 @27362 has 255 MA's), (Start: 70 @27380 has 8 MA's), (91, 27431), (117, 27506), (149, 27599), (162, 27632), (176, 27677), (207, 27767), (215, 27791), (228, 27827), (242, 27884), (245, 27899), (246, 27908), (253, 27935), (254, 27938), (261, 27965), (275, 28028), (287, 28064), (309, 28148), (311, 28157), (325, 28226), (331, 28262), (333, 28268), (337, 28280), (371, 28370), (379, 28388), (383, 28397), (390, 28415), (402, 28448),

Gene: BrownCNA\_28 Start: 28161, Stop: 29237, Start Num: 82

Candidate Starts for BrownCNA\_28:

(Start: 82 @28161 has 38 MA's), (88, 28170), (144, 28338), (161, 28395), (183, 28458), (195, 28497), (207, 28533), (215, 28557), (228, 28593), (242, 28650), (245, 28665), (248, 28677), (253, 28701), (254, 28704), (265, 28746), (275, 28794), (280, 28815), (283, 28824), (287, 28830), (309, 28911), (312, 28929), (318, 28971), (321, 28980), (328, 29004), (337, 29043), (345, 29061), (351, 29079), (356, 29091), (357, 29094), (379, 29151), (383, 29160),

Gene: Brownie5\_31 Start: 29048, Stop: 30097, Start Num: 79

Candidate Starts for Brownie5\_31:

(15, 28571), (16, 28616), (20, 28691), (27, 28787), (36, 28877), (Start: 47 @28937 has 1 MA's), (53, 28967), (55, 28970), (Start: 79 @29048 has 55 MA's), (98, 29096), (109, 29129), (127, 29180), (128, 29183), (151, 29246), (161, 29270), (202, 29393), (212, 29420), (215, 29432), (228, 29468), (238, 29510), (243, 29528), (248, 29552), (253, 29576), (255, 29588), (265, 29621), (272, 29660), (283, 29699), (298, 29747), (311, 29795), (315, 29816), (316, 29828), (324, 29861), (325, 29864), (337, 29918), (351, 29954), (356, 29966), (363, 29981), (365, 29987), (377, 30014), (379, 30020), (382, 30026), (386, 30035),

Gene: BruhMoment\_33 Start: 27211, Stop: 28335, Start Num: 56

Candidate Starts for BruhMoment\_33:

(Start: 56 @27211 has 11 MA's), (81, 27289), (86, 27298), (96, 27340), (121, 27403), (124, 27412), (141, 27451), (149, 27481), (156, 27505), (158, 27517), (162, 27529), (180, 27571), (218, 27643), (241, 27727), (253, 27784), (254, 27787), (260, 27814), (268, 27844), (271, 27874), (276, 27892), (307, 27982), (335, 28105), (348, 28147), (378, 28222), (385, 28240), (405, 28303),

Gene: Buckeye\_30 Start: 27674, Stop: 28786, Start Num: 65

Candidate Starts for Buckeye\_30:

(Start: 65 @27674 has 255 MA's), (Start: 70 @27692 has 8 MA's), (91, 27743), (149, 27911), (176, 27989), (207, 28079), (215, 28103), (228, 28139), (242, 28196), (245, 28211), (246, 28220), (253, 28247), (254, 28250), (261, 28277), (275, 28340), (283, 28370), (287, 28376), (309, 28460), (311, 28469), (325, 28538), (331, 28574), (333, 28580), (337, 28592), (371, 28682), (379, 28700), (383, 28709), (390, 28727), (402, 28760),

Gene: Burr\_29 Start: 27350, Stop: 28462, Start Num: 65

Candidate Starts for Burr\_29:

(Start: 65 @27350 has 255 MA's), (Start: 70 @27368 has 8 MA's), (91, 27419), (149, 27587), (176, 27665), (207, 27755), (215, 27779), (228, 27815), (242, 27872), (245, 27887), (246, 27896), (253, 27923), (254, 27926), (261, 27953), (275, 28016), (283, 28046), (287, 28052), (309, 28136), (311, 28145), (325, 28214), (331, 28250), (333, 28256), (337, 28268), (371, 28358), (379, 28376), (383, 28385), (390, 28403), (402, 28436),

Gene: Busephilis\_38 Start: 27596, Stop: 28798, Start Num: 43

Candidate Starts for Busephilis\_38:

(Start: 43 @27596 has 77 MA's), (59, 27632), (Start: 76 @27689 has 49 MA's), (97, 27752), (124, 27824), (134, 27848), (143, 27872), (150, 27896), (172, 27977), (180, 27998), (197, 28052), (206, 28079), (209, 28085), (211, 28091), (216, 28109), (220, 28127), (241, 28196), (243, 28202), (256, 28265), (268, 28310), (283, 28382), (299, 28421), (330, 28556), (331, 28571), (337, 28589), (355, 28643), (362, 28658), (369, 28676), (388, 28724), (396, 28757), (407, 28784), (409, 28790),

Gene: CRB2\_32 Start: 30636, Stop: 31733, Start Num: 78

Candidate Starts for CRB2\_32:

(Start: 78 @30636 has 11 MA's), (143, 30810), (144, 30813), (160, 30858), (195, 30963), (212, 31011), (215, 31023), (237, 31098), (242, 31116), (243, 31119), (246, 31140), (248, 31143), (253, 31167), (265, 31212), (267, 31218), (275, 31260), (283, 31290), (287, 31296), (309, 31377), (312, 31395), (317, 31434), (318, 31437), (337, 31509), (351, 31545), (354, 31554), (356, 31557), (361, 31569), (370, 31596), (379, 31617), (402, 31686),

Gene: CaiB\_28 Start: 27011, Stop: 28060, Start Num: 79

Candidate Starts for CaiB\_28:

(Start: 79 @27011 has 55 MA's), (91, 27035), (109, 27092), (122, 27125), (128, 27146), (133, 27161), (144, 27179), (151, 27203), (168, 27254), (190, 27308), (206, 27362), (215, 27389), (222, 27413), (237, 27464), (245, 27497), (248, 27509), (255, 27545), (265, 27578), (274, 27623), (275, 27626), (283, 27656), (306, 27728), (308, 27734), (309, 27743), (312, 27761), (345, 27893), (353, 27917), (356, 27923), (406, 28040), (409, 28049),

Gene: Calamitous\_31 Start: 28928, Stop: 29977, Start Num: 79

Candidate Starts for Calamitous\_31:

(15, 28451), (16, 28496), (20, 28571), (27, 28667), (36, 28757), (Start: 47 @28817 has 1 MA's), (53, 28847), (55, 28850), (Start: 79 @28928 has 55 MA's), (98, 28976), (109, 29009), (127, 29060), (128, 29063), (151, 29126), (161, 29150), (202, 29273), (212, 29300), (215, 29312), (228, 29348), (238, 29390), (243, 29408), (248, 29432), (253, 29456), (255, 29468), (265, 29501), (272, 29540), (283, 29579), (298, 29627), (311, 29675), (315, 29696), (316, 29708), (323, 29738), (324, 29741), (325, 29744), (337, 29798), (351, 29834), (356, 29846), (363, 29861), (365, 29867), (377, 29894), (379,

29900), (382, 29906), (386, 29915),

Gene: CamL\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for CamL\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (149, 27889), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (283, 28348), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: CampRoach\_30 Start: 27642, Stop: 28754, Start Num: 65

Candidate Starts for CampRoach\_30:

(Start: 65 @27642 has 255 MA's), (Start: 70 @27660 has 8 MA's), (91, 27711), (149, 27879), (176, 27957), (207, 28047), (215, 28071), (228, 28107), (242, 28164), (245, 28179), (246, 28188), (253, 28215), (254, 28218), (261, 28245), (275, 28308), (283, 28338), (287, 28344), (309, 28428), (311, 28437), (325, 28506), (331, 28542), (333, 28548), (337, 28560), (371, 28650), (379, 28668), (383, 28677), (390, 28695), (402, 28728),

Gene: CandC\_37 Start: 29528, Stop: 30676, Start Num: 43

Candidate Starts for CandC\_37:

(23, 29342), (29, 29417), (30, 29432), (Start: 42 @29525 has 3 MA's), (Start: 43 @29528 has 77 MA's), (64, 29561), (148, 29804), (161, 29852), (180, 29894), (201, 29957), (220, 30014), (227, 30032), (245, 30104), (331, 30443), (335, 30455), (378, 30572), (394, 30623), (410, 30665),

Gene: Cannibal\_30 Start: 27635, Stop: 28747, Start Num: 65

Candidate Starts for Cannibal\_30:

(Start: 65 @27635 has 255 MA's), (Start: 70 @27653 has 8 MA's), (91, 27704), (149, 27872), (176, 27950), (207, 28040), (215, 28064), (228, 28100), (242, 28157), (245, 28172), (246, 28181), (253, 28208), (254, 28211), (261, 28238), (275, 28301), (283, 28331), (287, 28337), (309, 28421), (311, 28430), (325, 28499), (331, 28535), (333, 28541), (337, 28553), (371, 28643), (379, 28661), (383, 28670), (390, 28688), (402, 28721),

Gene: Carthage\_28 Start: 26561, Stop: 27673, Start Num: 65

Candidate Starts for Carthage\_28:

(Start: 65 @26561 has 255 MA's), (Start: 70 @26579 has 8 MA's), (91, 26630), (149, 26798), (176, 26876), (207, 26966), (215, 26990), (228, 27026), (242, 27083), (245, 27098), (246, 27107), (253, 27134), (254, 27137), (261, 27164), (275, 27227), (283, 27257), (287, 27263), (309, 27347), (311, 27356), (325, 27425), (331, 27461), (333, 27467), (337, 27479), (371, 27569), (379, 27587), (383, 27596), (390, 27614), (402, 27647),

Gene: Casbah\_29 Start: 27425, Stop: 28468, Start Num: 76

Candidate Starts for Casbah\_29:

(Start: 47 @27320 has 1 MA's), (53, 27350), (Start: 76 @27425 has 49 MA's), (98, 27473), (122, 27539), (151, 27623), (161, 27647), (167, 27671), (176, 27695), (185, 27716), (240, 27896), (242, 27902), (244, 27914), (261, 27983), (279, 28064), (306, 28151), (309, 28166), (315, 28196), (328, 28259), (346, 28319), (352, 28337), (354, 28343), (356, 28346), (365, 28367), (377, 28397), (379, 28403), (382, 28409), (386, 28418),

Gene: Casend\_40 Start: 31178, Stop: 32329, Start Num: 43

Candidate Starts for Casend\_40:

(12, 30752), (30, 31082), (Start: 43 @31178 has 77 MA's), (64, 31211), (69, 31232), (Start: 76 @31250 has 49 MA's), (86, 31268), (124, 31388), (134, 31412), (180, 31544), (227, 31682), (257, 31811), (270, 31880), (288, 31934), (319, 32042), (331, 32093), (335, 32105), (378, 32222), (388,

32246), (396, 32279), (398, 32285), (411, 32318),

Gene: Cepens\_23 Start: 26183, Stop: 27220, Start Num: 79

Candidate Starts for Cepens\_23:

(Start: 79 @26183 has 55 MA's), (90, 26204), (98, 26231), (109, 26264), (128, 26318), (138, 26336), (142, 26339), (149, 26366), (151, 26372), (161, 26396), (212, 26546), (228, 26594), (242, 26651), (243, 26654), (245, 26666), (248, 26678), (255, 26714), (274, 26792), (275, 26795), (279, 26813), (283, 26825), (285, 26828), (296, 26864), (297, 26870), (309, 26912), (315, 26942), (316, 26954), (329, 27008), (346, 27065), (351, 27080), (358, 27098), (363, 27107), (365, 27113), (368, 27119), (377, 27140), (386, 27161), (394, 27185),

Gene: ChaChing\_30 Start: 27588, Stop: 28631, Start Num: 76

Candidate Starts for ChaChing\_30:

(Start: 47 @27483 has 1 MA's), (53, 27513), (Start: 76 @27588 has 49 MA's), (98, 27636), (122, 27702), (151, 27786), (161, 27810), (167, 27834), (176, 27858), (185, 27879), (195, 27912), (242, 28065), (244, 28077), (261, 28146), (279, 28227), (306, 28314), (309, 28329), (315, 28359), (328, 28422), (346, 28482), (352, 28500), (354, 28506), (356, 28509), (365, 28530), (377, 28560), (379, 28566), (382, 28572), (386, 28581),

Gene: Chaelin\_30 Start: 27349, Stop: 28461, Start Num: 65

Candidate Starts for Chaelin\_30:

(Start: 65 @27349 has 255 MA's), (Start: 70 @27367 has 8 MA's), (91, 27418), (149, 27586), (176, 27664), (207, 27754), (215, 27778), (228, 27814), (242, 27871), (245, 27886), (246, 27895), (253, 27922), (254, 27925), (261, 27952), (275, 28015), (283, 28045), (287, 28051), (309, 28135), (311, 28144), (325, 28213), (331, 28249), (333, 28255), (337, 28267), (371, 28357), (379, 28375), (383, 28384), (390, 28402), (402, 28435),

Gene: Chah\_31 Start: 27687, Stop: 28781, Start Num: 70

Candidate Starts for Chah\_31:

(Start: 65 @27669 has 255 MA's), (Start: 70 @27687 has 8 MA's), (91, 27738), (149, 27906), (176, 27984), (207, 28074), (215, 28098), (228, 28134), (242, 28191), (245, 28206), (246, 28215), (253, 28242), (254, 28245), (261, 28272), (275, 28335), (283, 28365), (287, 28371), (309, 28455), (311, 28464), (325, 28533), (331, 28569), (333, 28575), (337, 28587), (371, 28677), (379, 28695), (383, 28704), (390, 28722), (402, 28755),

Gene: Chandler\_30 Start: 28353, Stop: 29396, Start Num: 76

Candidate Starts for Chandler\_30:

(Start: 47 @28248 has 1 MA's), (53, 28278), (Start: 76 @28353 has 49 MA's), (98, 28401), (122, 28467), (151, 28551), (161, 28575), (167, 28599), (176, 28623), (185, 28644), (195, 28677), (242, 28830), (244, 28842), (261, 28911), (279, 28992), (306, 29079), (309, 29094), (315, 29124), (328, 29187), (346, 29247), (352, 29265), (354, 29271), (356, 29274), (365, 29295), (377, 29325), (379, 29331), (382, 29337), (386, 29346),

Gene: Charles1\_30 Start: 27637, Stop: 28749, Start Num: 65

Candidate Starts for Charles1\_30:

(Start: 65 @27637 has 255 MA's), (Start: 70 @27655 has 8 MA's), (91, 27706), (149, 27874), (176, 27952), (207, 28042), (215, 28066), (228, 28102), (242, 28159), (245, 28174), (246, 28183), (253, 28210), (254, 28213), (261, 28240), (275, 28303), (283, 28333), (287, 28339), (309, 28423), (311, 28432), (325, 28501), (331, 28537), (333, 28543), (337, 28555), (371, 28645), (379, 28663), (383, 28672), (390, 28690), (402, 28723),

Gene: CharlieGBrown\_29 Start: 27226, Stop: 28338, Start Num: 65

Candidate Starts for CharlieGBrown\_29:



(Start: 65 @27226 has 255 MA's), (Start: 70 @27244 has 8 MA's), (91, 27295), (117, 27370), (149, 27463), (162, 27496), (176, 27541), (207, 27631), (215, 27655), (228, 27691), (242, 27748), (245, 27763), (246, 27772), (253, 27799), (254, 27802), (261, 27829), (275, 27892), (287, 27928), (309, 28012), (311, 28021), (325, 28090), (331, 28126), (333, 28132), (337, 28144), (371, 28234), (379, 28252), (383, 28261), (390, 28279), (402, 28312),

Gene: CharlottesWeb\_26 Start: 24964, Stop: 26004, Start Num: 78

Candidate Starts for CharlottesWeb\_26:

(Start: 78 @24964 has 11 MA's), (98, 25012), (128, 25099), (169, 25207), (190, 25258), (195, 25279), (212, 25327), (215, 25339), (222, 25363), (228, 25375), (242, 25432), (244, 25444), (245, 25447), (254, 25486), (257, 25501), (261, 25513), (265, 25528), (283, 25606), (285, 25609), (293, 25627), (294, 25630), (306, 25678), (308, 25684), (309, 25693), (311, 25702), (327, 25783), (337, 25825), (356, 25873), (363, 25888), (375, 25921), (406, 25984), (409, 25993),

Gene: CheetO\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for CheetO\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (117, 27795), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Cher\_29 Start: 27374, Stop: 28486, Start Num: 65

Candidate Starts for Cher\_29:

(Start: 65 @27374 has 255 MA's), (Start: 70 @27392 has 8 MA's), (91, 27443), (149, 27611), (176, 27689), (207, 27779), (215, 27803), (228, 27839), (242, 27896), (245, 27911), (246, 27920), (253, 27947), (254, 27950), (261, 27977), (275, 28040), (283, 28070), (287, 28076), (309, 28160), (311, 28169), (325, 28238), (331, 28274), (333, 28280), (337, 28292), (371, 28382), (379, 28400), (383, 28409), (390, 28427), (402, 28460),

Gene: Childish\_29 Start: 27377, Stop: 28489, Start Num: 65

Candidate Starts for Childish\_29:

(Start: 65 @27377 has 255 MA's), (Start: 70 @27395 has 8 MA's), (91, 27446), (149, 27614), (176, 27692), (207, 27782), (215, 27806), (228, 27842), (242, 27899), (245, 27914), (246, 27923), (253, 27950), (254, 27953), (261, 27980), (275, 28043), (283, 28073), (287, 28079), (309, 28163), (311, 28172), (325, 28241), (331, 28277), (333, 28283), (337, 28295), (371, 28385), (379, 28403), (383, 28412), (390, 28430), (402, 28463),

Gene: Chorkpop\_30 Start: 27373, Stop: 28485, Start Num: 65

Candidate Starts for Chorkpop\_30:

(Start: 65 @27373 has 255 MA's), (Start: 70 @27391 has 8 MA's), (91, 27442), (149, 27610), (176, 27688), (207, 27778), (215, 27802), (228, 27838), (242, 27895), (245, 27910), (246, 27919), (253, 27946), (254, 27949), (261, 27976), (275, 28039), (283, 28069), (287, 28075), (309, 28159), (311, 28168), (325, 28237), (331, 28273), (333, 28279), (337, 28291), (371, 28381), (379, 28399), (383, 28408), (390, 28426), (402, 28459),

Gene: ChrisnMich\_26 Start: 26860, Stop: 27936, Start Num: 82

Candidate Starts for ChrisnMich\_26:

(Start: 82 @26860 has 38 MA's), (88, 26869), (128, 26998), (144, 27037), (161, 27094), (183, 27157), (195, 27196), (207, 27232), (215, 27256), (228, 27292), (242, 27349), (245, 27364), (248, 27376), (253, 27400), (254, 27403), (261, 27430), (265, 27445), (275, 27493), (280, 27514), (283, 27523), (287, 27529), (309, 27610), (312, 27628), (318, 27670), (321, 27679), (328, 27703), (337, 27742), (345, 27760), (351, 27778), (356, 27790), (379, 27850), (383, 27859),

Gene: Chunky\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Chunky\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Chute\_29 Start: 27692, Stop: 28804, Start Num: 65

Candidate Starts for Chute\_29:

(Start: 65 @27692 has 255 MA's), (Start: 70 @27710 has 8 MA's), (91, 27761), (117, 27836), (149, 27929), (162, 27962), (176, 28007), (207, 28097), (215, 28121), (228, 28157), (242, 28214), (245, 28229), (246, 28238), (253, 28265), (254, 28268), (261, 28295), (275, 28358), (283, 28388), (285, 28391), (287, 28394), (309, 28478), (311, 28487), (325, 28556), (331, 28592), (333, 28598), (337, 28610), (371, 28700), (379, 28718), (383, 28727), (390, 28745), (402, 28778),

Gene: Cinna\_34 Start: 27575, Stop: 28801, Start Num: 43

Candidate Starts for Cinna\_34:

(11, 27140), (29, 27464), (30, 27479), (Start: 42 @27572 has 3 MA's), (Start: 43 @27575 has 77 MA's), (46, 27581), (Start: 78 @27668 has 11 MA's), (86, 27683), (96, 27725), (134, 27836), (152, 27890), (155, 27902), (180, 27986), (197, 28040), (209, 28073), (211, 28079), (216, 28103), (220, 28121), (241, 28190), (242, 28193), (253, 28244), (272, 28337), (283, 28376), (298, 28418), (330, 28556), (337, 28589), (355, 28643), (360, 28655), (362, 28658), (385, 28718), (388, 28724), (409, 28790),

Gene: Clawz\_58 Start: 37249, Stop: 38397, Start Num: 78

Candidate Starts for Clawz\_58:

(Start: 78 @37249 has 11 MA's), (92, 37285), (106, 37330), (108, 37336), (162, 37471), (187, 37543), (205, 37600), (207, 37606), (234, 37696), (235, 37702), (243, 37729), (245, 37741), (256, 37792), (262, 37816), (272, 37861), (275, 37870), (280, 37891), (310, 37993), (316, 38032), (337, 38122), (339, 38131), (356, 38182), (365, 38203), (368, 38209), (373, 38230), (376, 38236), (379, 38245), (415, 38383),

Gene: ClearAsMud\_41 Start: 27780, Stop: 28979, Start Num: 43

Candidate Starts for ClearAsMud\_41:

(Start: 43 @27780 has 77 MA's), (51, 27792), (124, 28008), (134, 28032), (143, 28056), (150, 28080), (180, 28182), (197, 28236), (206, 28263), (209, 28269), (211, 28275), (220, 28311), (241, 28380), (243, 28386), (256, 28449), (330, 28740), (337, 28773), (355, 28827), (362, 28842), (369, 28860), (385, 28902), (388, 28908), (396, 28941), (407, 28968), (408, 28971),

Gene: CloverMinnie\_28 Start: 26951, Stop: 28000, Start Num: 79

Candidate Starts for CloverMinnie\_28:

(Start: 79 @26951 has 55 MA's), (91, 26975), (122, 27065), (133, 27101), (144, 27119), (151, 27143), (168, 27194), (190, 27248), (206, 27302), (215, 27329), (222, 27353), (237, 27404), (245, 27437), (248, 27449), (255, 27485), (265, 27518), (274, 27563), (275, 27566), (283, 27596), (306, 27668), (308, 27674), (309, 27683), (312, 27701), (345, 27833), (353, 27857), (356, 27863), (406, 27980), (409, 27989),

Gene: Cobra\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Cobra\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (117, 27801), (149, 27894), (162, 27927), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245,

28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Coffee\_31 Start: 29031, Stop: 30080, Start Num: 79

Candidate Starts for Coffee\_31:

(15, 28554), (16, 28599), (20, 28674), (27, 28770), (36, 28860), (Start: 47 @28920 has 1 MA's), (53, 28950), (55, 28953), (Start: 79 @29031 has 55 MA's), (98, 29079), (109, 29112), (127, 29163), (128, 29166), (151, 29229), (161, 29253), (202, 29376), (212, 29403), (215, 29415), (228, 29451), (238, 29493), (243, 29511), (248, 29535), (253, 29559), (255, 29571), (265, 29604), (272, 29643), (283, 29682), (298, 29730), (311, 29778), (315, 29799), (316, 29811), (324, 29844), (325, 29847), (337, 29901), (351, 29937), (356, 29949), (363, 29964), (365, 29970), (377, 29997), (379, 30003), (382, 30009), (386, 30018),

Gene: Colbert\_30 Start: 27728, Stop: 28822, Start Num: 70

Candidate Starts for Colbert\_30:

(Start: 65 @27710 has 255 MA's), (Start: 70 @27728 has 8 MA's), (91, 27779), (149, 27947), (176, 28025), (207, 28115), (215, 28139), (228, 28175), (242, 28232), (245, 28247), (246, 28256), (253, 28283), (254, 28286), (261, 28313), (275, 28376), (283, 28406), (287, 28412), (309, 28496), (311, 28505), (325, 28574), (331, 28610), (333, 28616), (337, 28628), (371, 28718), (379, 28736), (383, 28745), (390, 28763), (402, 28796),

Gene: ColdSoup\_59 Start: 37457, Stop: 38605, Start Num: 78

Candidate Starts for ColdSoup\_59:

(Start: 78 @37457 has 11 MA's), (106, 37538), (108, 37544), (112, 37553), (187, 37751), (205, 37808), (213, 37829), (220, 37859), (222, 37865), (234, 37904), (235, 37910), (243, 37937), (245, 37949), (248, 37961), (256, 38000), (272, 38069), (275, 38078), (280, 38099), (292, 38129), (301, 38168), (313, 38219), (356, 38390), (357, 38393), (365, 38411), (368, 38417), (373, 38438), (376, 38444), (379, 38453),

Gene: Coldpizza\_29 Start: 29474, Stop: 30505, Start Num: 79

Candidate Starts for Coldpizza\_29:

(Start: 79 @29474 has 55 MA's), (128, 29609), (151, 29669), (165, 29711), (168, 29720), (195, 29795), (215, 29855), (228, 29891), (240, 29942), (242, 29948), (255, 30011), (265, 30044), (274, 30086), (287, 30125), (308, 30197), (311, 30215), (312, 30224), (328, 30299), (329, 30302), (331, 30320), (345, 30356), (353, 30380), (354, 30383), (356, 30386), (406, 30494), (407, 30497),

Gene: Coletti\_29 Start: 27692, Stop: 28804, Start Num: 65

Candidate Starts for Coletti\_29:

(Start: 65 @27692 has 255 MA's), (Start: 70 @27710 has 8 MA's), (91, 27761), (117, 27836), (149, 27929), (162, 27962), (176, 28007), (207, 28097), (215, 28121), (228, 28157), (242, 28214), (245, 28229), (246, 28238), (253, 28265), (254, 28268), (261, 28295), (275, 28358), (283, 28388), (285, 28391), (287, 28394), (309, 28478), (311, 28487), (325, 28556), (331, 28592), (333, 28598), (337, 28610), (371, 28700), (379, 28718), (383, 28727), (390, 28745), (402, 28778),

Gene: Compostia\_31 Start: 28003, Stop: 29046, Start Num: 76

Candidate Starts for Compostia\_31:

(Start: 47 @27898 has 1 MA's), (53, 27928), (Start: 76 @28003 has 49 MA's), (98, 28051), (122, 28117), (151, 28201), (161, 28225), (176, 28273), (185, 28294), (240, 28474), (242, 28480), (244, 28492), (261, 28561), (279, 28642), (306, 28729), (309, 28744), (315, 28774), (328, 28837), (346, 28897), (352, 28915), (354, 28921), (356, 28924), (365, 28945), (377, 28975), (379, 28981), (382, 28987), (386, 28996),

Gene: Cooper\_27 Start: 27082, Stop: 28158, Start Num: 82

Candidate Starts for Cooper\_27:

(Start: 82 @27082 has 38 MA's), (128, 27220), (144, 27259), (151, 27283), (161, 27316), (183, 27379), (207, 27454), (215, 27478), (226, 27511), (242, 27571), (248, 27598), (253, 27622), (254, 27625), (280, 27736), (283, 27745), (287, 27751), (309, 27832), (312, 27850), (318, 27892), (328, 27925), (331, 27946), (337, 27964), (345, 27982), (351, 28000), (356, 28012), (357, 28015), (375, 28060), (379, 28072), (383, 28081),

Gene: Cornobble\_29 Start: 27209, Stop: 28321, Start Num: 65

Candidate Starts for Cornobble\_29:

(Start: 65 @27209 has 255 MA's), (Start: 70 @27227 has 8 MA's), (91, 27278), (149, 27446), (176, 27524), (207, 27614), (215, 27638), (228, 27674), (242, 27731), (245, 27746), (246, 27755), (253, 27782), (254, 27785), (261, 27812), (275, 27875), (283, 27905), (287, 27911), (309, 27995), (311, 28004), (325, 28073), (331, 28109), (333, 28115), (337, 28127), (371, 28217), (379, 28235), (383, 28244), (390, 28262), (402, 28295),

Gene: Corofin\_30 Start: 27598, Stop: 28641, Start Num: 76

Candidate Starts for Corofin\_30:

(Start: 47 @27493 has 1 MA's), (53, 27523), (Start: 76 @27598 has 49 MA's), (98, 27646), (122, 27712), (151, 27796), (161, 27820), (167, 27844), (176, 27868), (185, 27889), (195, 27922), (242, 28075), (244, 28087), (261, 28156), (279, 28237), (306, 28324), (309, 28339), (315, 28369), (328, 28432), (346, 28492), (352, 28510), (354, 28516), (356, 28519), (365, 28540), (377, 28570), (379, 28576), (382, 28582), (386, 28591),

Gene: Cosmolli16\_29 Start: 27371, Stop: 28483, Start Num: 65

Candidate Starts for Cosmolli16\_29:

(Start: 65 @27371 has 255 MA's), (Start: 70 @27389 has 8 MA's), (91, 27440), (149, 27608), (176, 27686), (207, 27776), (215, 27800), (228, 27836), (242, 27893), (245, 27908), (246, 27917), (253, 27944), (254, 27947), (261, 27974), (275, 28037), (283, 28067), (287, 28073), (309, 28157), (311, 28166), (325, 28235), (331, 28271), (333, 28277), (337, 28289), (371, 28379), (379, 28397), (383, 28406), (390, 28424), (402, 28457),

Gene: Craff\_30 Start: 27655, Stop: 28767, Start Num: 65

Candidate Starts for Craff\_30:

(Start: 65 @27655 has 255 MA's), (Start: 70 @27673 has 8 MA's), (91, 27724), (149, 27892), (176, 27970), (207, 28060), (215, 28084), (228, 28120), (242, 28177), (245, 28192), (246, 28201), (253, 28228), (254, 28231), (261, 28258), (275, 28321), (283, 28351), (287, 28357), (309, 28441), (311, 28450), (325, 28519), (331, 28555), (333, 28561), (337, 28573), (371, 28663), (379, 28681), (383, 28690), (390, 28708), (402, 28741),

Gene: Cranjis\_40 Start: 27815, Stop: 29017, Start Num: 43

Candidate Starts for Cranjis\_40:

(Start: 43 @27815 has 77 MA's), (59, 27851), (Start: 76 @27908 has 49 MA's), (124, 28043), (134, 28067), (143, 28091), (150, 28115), (172, 28196), (180, 28217), (197, 28271), (206, 28298), (209, 28304), (211, 28310), (216, 28328), (220, 28346), (241, 28415), (243, 28421), (256, 28484), (268, 28529), (283, 28601), (299, 28640), (330, 28775), (331, 28790), (337, 28808), (355, 28862), (362, 28877), (369, 28895), (388, 28943), (396, 28976), (407, 29003), (409, 29009),

Gene: CrazyRich\_38 Start: 27624, Stop: 28826, Start Num: 43

Candidate Starts for CrazyRich\_38:

(Start: 43 @27624 has 77 MA's), (59, 27660), (Start: 76 @27717 has 49 MA's), (124, 27852), (134, 27876), (143, 27900), (150, 27924), (172, 28005), (180, 28026), (197, 28080), (206, 28107), (209, 28113), (211, 28119), (216, 28137), (220, 28155), (241, 28224), (243, 28230), (256, 28293), (268,

28338), (299, 28449), (330, 28584), (331, 28599), (337, 28617), (355, 28671), (362, 28686), (369, 28704), (388, 28752), (396, 28785), (407, 28812), (409, 28818),

Gene: Cressida\_36 Start: 27050, Stop: 28252, Start Num: 43

Candidate Starts for Cressida\_36:

(19, 26789), (29, 26939), (30, 26954), (Start: 42 @27047 has 3 MA's), (Start: 43 @27050 has 77 MA's), (72, 27125), (Start: 78 @27137 has 11 MA's), (110, 27233), (134, 27293), (150, 27341), (156, 27362), (172, 27422), (180, 27443), (186, 27461), (197, 27497), (199, 27500), (211, 27536), (241, 27641), (254, 27698), (272, 27788), (281, 27818), (283, 27827), (298, 27869), (330, 28007), (331, 28022), (335, 28034), (362, 28109), (364, 28115), (385, 28169), (388, 28175), (409, 28241),

Gene: Crisis\_40 Start: 27615, Stop: 28817, Start Num: 43

Candidate Starts for Crisis\_40:

(Start: 43 @27615 has 77 MA's), (59, 27651), (Start: 76 @27708 has 49 MA's), (124, 27843), (134, 27867), (143, 27891), (150, 27915), (172, 27996), (180, 28017), (197, 28071), (206, 28098), (209, 28104), (211, 28110), (216, 28128), (220, 28146), (241, 28215), (243, 28221), (256, 28284), (268, 28329), (299, 28440), (330, 28575), (331, 28590), (337, 28608), (355, 28662), (362, 28677), (369, 28695), (388, 28743), (396, 28776), (407, 28803), (409, 28809),

Gene: Crownjwl\_30 Start: 27424, Stop: 28536, Start Num: 65

Candidate Starts for Crownjwl\_30:

(Start: 65 @27424 has 255 MA's), (Start: 70 @27442 has 8 MA's), (91, 27493), (149, 27661), (176, 27739), (207, 27829), (215, 27853), (228, 27889), (242, 27946), (245, 27961), (246, 27970), (253, 27997), (254, 28000), (261, 28027), (275, 28090), (283, 28120), (287, 28126), (309, 28210), (311, 28219), (325, 28288), (331, 28324), (333, 28330), (337, 28342), (371, 28432), (379, 28450), (383, 28459), (390, 28477), (402, 28510),

Gene: D12\_23 Start: 26197, Stop: 27234, Start Num: 79

Candidate Starts for D12\_23:

(Start: 79 @26197 has 55 MA's), (90, 26218), (91, 26221), (98, 26245), (109, 26278), (128, 26332), (138, 26350), (142, 26353), (149, 26380), (161, 26410), (212, 26560), (228, 26608), (242, 26665), (243, 26668), (245, 26680), (248, 26692), (255, 26728), (261, 26746), (274, 26806), (275, 26809), (279, 26827), (283, 26839), (285, 26842), (296, 26878), (297, 26884), (309, 26926), (316, 26968), (329, 27022), (346, 27079), (351, 27094), (358, 27112), (363, 27121), (365, 27127), (368, 27133), (377, 27154), (379, 27160), (386, 27175), (393, 27196), (394, 27199),

Gene: DaddyDaniels\_30 Start: 27346, Stop: 28458, Start Num: 65

Candidate Starts for DaddyDaniels\_30:

(Start: 65 @27346 has 255 MA's), (Start: 70 @27364 has 8 MA's), (91, 27415), (117, 27490), (149, 27583), (162, 27616), (176, 27661), (207, 27751), (215, 27775), (228, 27811), (242, 27868), (245, 27883), (246, 27892), (253, 27919), (254, 27922), (261, 27949), (275, 28012), (283, 28042), (285, 28045), (287, 28048), (309, 28132), (311, 28141), (325, 28210), (331, 28246), (333, 28252), (337, 28264), (371, 28354), (379, 28372), (383, 28381), (390, 28399), (402, 28432),

Gene: Daffy\_30 Start: 27377, Stop: 28489, Start Num: 65

Candidate Starts for Daffy\_30:

(Start: 65 @27377 has 255 MA's), (Start: 70 @27395 has 8 MA's), (91, 27446), (149, 27614), (176, 27692), (207, 27782), (215, 27806), (228, 27842), (242, 27899), (245, 27914), (246, 27923), (253, 27950), (254, 27953), (261, 27980), (275, 28043), (283, 28073), (287, 28079), (309, 28163), (311, 28172), (325, 28241), (331, 28277), (333, 28283), (337, 28295), (371, 28385), (379, 28403), (383, 28412), (390, 28430), (402, 28463),

Gene: Daisy\_30 Start: 27600, Stop: 28643, Start Num: 76

Candidate Starts for Daisy\_30:

(Start: 47 @27495 has 1 MA's), (53, 27525), (Start: 76 @27600 has 49 MA's), (98, 27648), (122, 27714), (151, 27798), (161, 27822), (176, 27870), (185, 27891), (240, 28071), (242, 28077), (244, 28089), (261, 28158), (279, 28239), (306, 28326), (309, 28341), (315, 28371), (328, 28434), (346, 28494), (352, 28512), (354, 28518), (356, 28521), (365, 28542), (377, 28572), (379, 28578), (382, 28584), (386, 28593),

Gene: Daka\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for Daka\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (117, 27795), (149, 27888), (162, 27921), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Dati\_30 Start: 27371, Stop: 28483, Start Num: 65

Candidate Starts for Dati\_30:

(Start: 65 @27371 has 255 MA's), (Start: 70 @27389 has 8 MA's), (91, 27440), (149, 27608), (176, 27686), (207, 27776), (215, 27800), (228, 27836), (242, 27893), (245, 27908), (246, 27917), (253, 27944), (254, 27947), (261, 27974), (275, 28037), (283, 28067), (287, 28073), (309, 28157), (311, 28166), (325, 28235), (331, 28271), (333, 28277), (337, 28289), (371, 28379), (379, 28397), (383, 28406), (390, 28424), (402, 28457),

Gene: Deenasa\_30 Start: 28336, Stop: 29379, Start Num: 76

Candidate Starts for Deenasa\_30:

(Start: 47 @28231 has 1 MA's), (53, 28261), (Start: 76 @28336 has 49 MA's), (98, 28384), (122, 28450), (151, 28534), (161, 28558), (167, 28582), (176, 28606), (185, 28627), (195, 28660), (242, 28813), (244, 28825), (261, 28894), (279, 28975), (306, 29062), (309, 29077), (315, 29107), (328, 29170), (346, 29230), (352, 29248), (354, 29254), (356, 29257), (365, 29278), (377, 29308), (379, 29314), (382, 29320), (386, 29329),

Gene: DelRivs\_29 Start: 27372, Stop: 28484, Start Num: 65

Candidate Starts for DelRivs\_29:

(Start: 65 @27372 has 255 MA's), (Start: 70 @27390 has 8 MA's), (91, 27441), (117, 27516), (149, 27609), (162, 27642), (176, 27687), (207, 27777), (215, 27801), (228, 27837), (242, 27894), (245, 27909), (246, 27918), (253, 27945), (254, 27948), (261, 27975), (275, 28038), (287, 28074), (309, 28158), (311, 28167), (325, 28236), (331, 28272), (333, 28278), (337, 28290), (371, 28380), (379, 28398), (383, 28407), (390, 28425), (402, 28458),

Gene: Derpp\_29 Start: 27216, Stop: 28328, Start Num: 65

Candidate Starts for Derpp\_29:

(Start: 65 @27216 has 255 MA's), (Start: 70 @27234 has 8 MA's), (91, 27285), (117, 27360), (149, 27453), (162, 27486), (176, 27531), (207, 27621), (215, 27645), (228, 27681), (242, 27738), (245, 27753), (246, 27762), (253, 27789), (254, 27792), (261, 27819), (275, 27882), (287, 27918), (309, 28002), (311, 28011), (325, 28080), (331, 28116), (333, 28122), (337, 28134), (371, 28224), (379, 28242), (383, 28251), (390, 28269), (402, 28302),

Gene: Devonte\_30 Start: 27564, Stop: 28607, Start Num: 76

Candidate Starts for Devonte\_30:

(Start: 47 @27459 has 1 MA's), (53, 27489), (Start: 76 @27564 has 49 MA's), (98, 27612), (122, 27678), (151, 27762), (161, 27786), (167, 27810), (176, 27834), (185, 27855), (195, 27888), (242, 28041), (244, 28053), (261, 28122), (279, 28203), (306, 28290), (309, 28305), (315, 28335), (328, 28398), (346, 28458), (352, 28476), (354, 28482), (356, 28485), (365, 28506), (377, 28536), (379,

28542), (382, 28548), (386, 28557),

Gene: Dewdrop\_79 Start: 50740, Stop: 51936, Start Num: 43

Candidate Starts for Dewdrop\_79:

(29, 50629), (Start: 43 @50740 has 77 MA's), (50, 50746), (63, 50785), (64, 50788), (86, 50845), (94, 50878), (110, 50929), (120, 50950), (141, 51004), (143, 51013), (149, 51034), (152, 51043), (153, 51046), (173, 51115), (180, 51127), (184, 51139), (197, 51181), (211, 51220), (220, 51256), (227, 51274), (241, 51325), (302, 51568), (311, 51604), (334, 51718), (335, 51721), (337, 51727), (352, 51772), (355, 51781), (359, 51790), (362, 51796), (374, 51829), (388, 51862), (396, 51895), (406, 51919), (409, 51928),

Gene: Dice\_29 Start: 27351, Stop: 28463, Start Num: 65

Candidate Starts for Dice\_29:

(Start: 65 @27351 has 255 MA's), (Start: 70 @27369 has 8 MA's), (91, 27420), (149, 27588), (176, 27666), (207, 27756), (215, 27780), (228, 27816), (242, 27873), (245, 27888), (246, 27897), (253, 27924), (254, 27927), (261, 27954), (275, 28017), (283, 28047), (287, 28053), (309, 28137), (311, 28146), (325, 28215), (331, 28251), (333, 28257), (337, 28269), (371, 28359), (379, 28377), (383, 28386), (390, 28404), (402, 28437),

Gene: DigitDog\_29 Start: 27487, Stop: 28572, Start Num: 73

Candidate Starts for DigitDog\_29:

(Start: 73 @27487 has 9 MA's), (149, 27694), (151, 27700), (160, 27721), (161, 27724), (165, 27742), (176, 27772), (215, 27886), (242, 27979), (254, 28033), (267, 28081), (279, 28141), (283, 28153), (287, 28159), (289, 28165), (295, 28180), (297, 28198), (318, 28300), (325, 28318), (336, 28369), (351, 28408), (356, 28420), (363, 28435), (379, 28480), (383, 28489),

Gene: Dingo\_30 Start: 27634, Stop: 28746, Start Num: 65

Candidate Starts for Dingo\_30:

(Start: 65 @27634 has 255 MA's), (Start: 70 @27652 has 8 MA's), (91, 27703), (149, 27871), (176, 27949), (207, 28039), (215, 28063), (228, 28099), (242, 28156), (245, 28171), (246, 28180), (253, 28207), (254, 28210), (261, 28237), (275, 28300), (283, 28330), (287, 28336), (309, 28420), (311, 28429), (325, 28498), (331, 28534), (333, 28540), (337, 28552), (371, 28642), (379, 28660), (383, 28669), (390, 28687), (402, 28720),

Gene: Dione\_29 Start: 27356, Stop: 28468, Start Num: 65

Candidate Starts for Dione\_29:

(Start: 65 @27356 has 255 MA's), (Start: 70 @27374 has 8 MA's), (91, 27425), (149, 27593), (176, 27671), (207, 27761), (215, 27785), (228, 27821), (242, 27878), (245, 27893), (246, 27902), (253, 27929), (254, 27932), (261, 27959), (275, 28022), (283, 28052), (287, 28058), (309, 28142), (311, 28151), (325, 28220), (331, 28256), (333, 28262), (337, 28274), (371, 28364), (379, 28382), (383, 28391), (390, 28409), (402, 28442),

Gene: DirtJuice\_30 Start: 27640, Stop: 28752, Start Num: 65

Candidate Starts for DirtJuice\_30:

(Start: 65 @27640 has 255 MA's), (Start: 70 @27658 has 8 MA's), (91, 27709), (149, 27877), (176, 27955), (207, 28045), (215, 28069), (242, 28162), (245, 28177), (246, 28186), (253, 28213), (254, 28216), (261, 28243), (275, 28306), (283, 28336), (287, 28342), (309, 28426), (311, 28435), (325, 28504), (331, 28540), (333, 28546), (337, 28558), (371, 28648), (379, 28666), (383, 28675), (390, 28693), (402, 28726),

Gene: Doddsville\_30 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for Doddsville\_30:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (117, 27514), (149, 27607), (162, 27640), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (285, 28069), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: DoesntMatter\_30 Start: 27636, Stop: 28748, Start Num: 65

Candidate Starts for DoesntMatter\_30:

(Start: 65 @27636 has 255 MA's), (Start: 70 @27654 has 8 MA's), (91, 27705), (149, 27873), (176, 27951), (207, 28041), (215, 28065), (228, 28101), (242, 28158), (245, 28173), (246, 28182), (253, 28209), (254, 28212), (261, 28239), (275, 28302), (283, 28332), (287, 28338), (309, 28422), (311, 28431), (325, 28500), (331, 28536), (333, 28542), (337, 28554), (371, 28644), (379, 28662), (383, 28671), (390, 28689), (402, 28722),

Gene: DonSanchon\_29 Start: 27350, Stop: 28462, Start Num: 65

Candidate Starts for DonSanchon\_29:

(Start: 65 @27350 has 255 MA's), (Start: 70 @27368 has 8 MA's), (91, 27419), (149, 27587), (176, 27665), (207, 27755), (215, 27779), (228, 27815), (242, 27872), (245, 27887), (246, 27896), (253, 27923), (254, 27926), (261, 27953), (275, 28016), (283, 28046), (287, 28052), (309, 28136), (311, 28145), (325, 28214), (331, 28250), (333, 28256), (337, 28268), (371, 28358), (379, 28376), (383, 28385), (390, 28403), (402, 28436),

Gene: DonTron\_58 Start: 37498, Stop: 38646, Start Num: 78

Candidate Starts for DonTron\_58:

(Start: 78 @37498 has 11 MA's), (92, 37534), (106, 37579), (108, 37585), (112, 37594), (187, 37792), (205, 37849), (213, 37870), (220, 37900), (234, 37945), (235, 37951), (243, 37978), (245, 37990), (248, 38002), (256, 38041), (272, 38110), (275, 38119), (280, 38140), (292, 38170), (301, 38209), (313, 38260), (341, 38386), (356, 38431), (365, 38452), (368, 38458), (373, 38479), (376, 38485), (379, 38494),

Gene: DonaldDuck\_39 Start: 30527, Stop: 31678, Start Num: 43

Candidate Starts for DonaldDuck\_39:

(5, 29951), (12, 30101), (30, 30431), (Start: 43 @30527 has 77 MA's), (64, 30560), (69, 30581), (Start: 76 @30599 has 49 MA's), (86, 30617), (124, 30737), (134, 30761), (180, 30893), (227, 31031), (257, 31160), (270, 31229), (288, 31283), (319, 31391), (331, 31442), (335, 31454), (378, 31571), (388, 31595), (396, 31628), (411, 31667),

Gene: Donny\_29 Start: 27898, Stop: 28986, Start Num: 73

Candidate Starts for Donny\_29:

(Start: 73 @27898 has 9 MA's), (140, 28078), (149, 28108), (151, 28114), (165, 28156), (176, 28186), (215, 28300), (242, 28393), (254, 28447), (267, 28495), (279, 28555), (283, 28567), (287, 28573), (289, 28579), (296, 28606), (318, 28714), (328, 28747), (356, 28834), (379, 28894), (383, 28903), (384, 28906),

Gene: Dori\_26 Start: 24544, Stop: 25590, Start Num: 76

Candidate Starts for Dori\_26:

(25, 24271), (Start: 47 @24439 has 1 MA's), (53, 24469), (Start: 76 @24544 has 49 MA's), (Start: 79 @24550 has 55 MA's), (112, 24637), (122, 24664), (127, 24682), (128, 24685), (151, 24748), (176, 24820), (180, 24826), (185, 24841), (242, 25027), (244, 25039), (251, 25066), (274, 25168), (296, 25240), (297, 25246), (309, 25288), (311, 25297), (315, 25318), (325, 25366), (328, 25381), (332, 25405), (342, 25429), (352, 25459), (356, 25468), (363, 25483), (379, 25522), (386, 25537),

Gene: DuchessDung\_28 Start: 26507, Stop: 27619, Start Num: 65



Candidate Starts for DuchessDung\_28:

(Start: 65 @26507 has 255 MA's), (Start: 70 @26525 has 8 MA's), (91, 26576), (117, 26651), (149, 26744), (162, 26777), (176, 26822), (207, 26912), (215, 26936), (228, 26972), (242, 27029), (245, 27044), (246, 27053), (253, 27080), (254, 27083), (261, 27110), (275, 27173), (287, 27209), (309, 27293), (311, 27302), (325, 27371), (331, 27407), (333, 27413), (337, 27425), (371, 27515), (379, 27533), (383, 27542), (390, 27560), (402, 27593),

Gene: Duggie\_29 Start: 27372, Stop: 28484, Start Num: 65

Candidate Starts for Duggie\_29:

(Start: 65 @27372 has 255 MA's), (Start: 70 @27390 has 8 MA's), (91, 27441), (117, 27516), (149, 27609), (162, 27642), (176, 27687), (207, 27777), (215, 27801), (228, 27837), (242, 27894), (245, 27909), (246, 27918), (253, 27945), (254, 27948), (261, 27975), (275, 28038), (283, 28068), (285, 28071), (287, 28074), (309, 28158), (311, 28167), (325, 28236), (331, 28272), (333, 28278), (337, 28290), (371, 28380), (379, 28398), (383, 28407), (390, 28425), (402, 28458),

Gene: Durga\_30 Start: 27669, Stop: 28781, Start Num: 65

Candidate Starts for Durga\_30:

(Start: 65 @27669 has 255 MA's), (Start: 70 @27687 has 8 MA's), (91, 27738), (117, 27813), (149, 27906), (162, 27939), (176, 27984), (207, 28074), (215, 28098), (228, 28134), (242, 28191), (245, 28206), (246, 28215), (253, 28242), (254, 28245), (261, 28272), (275, 28335), (287, 28371), (309, 28455), (311, 28464), (325, 28533), (331, 28569), (333, 28575), (337, 28587), (371, 28677), (379, 28695), (383, 28704), (390, 28722), (402, 28755),

Gene: Eaglehorse\_31 Start: 28955, Stop: 30004, Start Num: 79

Candidate Starts for Eaglehorse\_31:

(15, 28478), (16, 28523), (20, 28598), (27, 28694), (36, 28784), (Start: 47 @28844 has 1 MA's), (53, 28874), (55, 28877), (Start: 79 @28955 has 55 MA's), (98, 29003), (109, 29036), (127, 29087), (128, 29090), (151, 29153), (161, 29177), (202, 29300), (212, 29327), (215, 29339), (228, 29375), (238, 29417), (243, 29435), (248, 29459), (253, 29483), (255, 29495), (265, 29528), (272, 29567), (283, 29606), (298, 29654), (311, 29702), (315, 29723), (316, 29735), (324, 29768), (325, 29771), (337, 29825), (351, 29861), (356, 29873), (363, 29888), (365, 29894), (377, 29921), (379, 29927), (382, 29933), (386, 29942),

Gene: EarickHC\_39 Start: 27541, Stop: 28743, Start Num: 43

Candidate Starts for EarickHC\_39:

(Start: 43 @27541 has 77 MA's), (59, 27577), (Start: 76 @27634 has 49 MA's), (124, 27769), (134, 27793), (143, 27817), (150, 27841), (172, 27922), (180, 27943), (197, 27997), (206, 28024), (209, 28030), (211, 28036), (216, 28054), (220, 28072), (241, 28141), (243, 28147), (256, 28210), (268, 28255), (299, 28366), (308, 28393), (330, 28501), (331, 28516), (337, 28534), (355, 28588), (362, 28603), (369, 28621), (385, 28663), (388, 28669), (396, 28702), (407, 28729), (409, 28735),

Gene: EastView9101\_28 Start: 27548, Stop: 28636, Start Num: 73

Candidate Starts for EastView9101\_28:

(Start: 73 @27548 has 9 MA's), (140, 27728), (149, 27758), (151, 27764), (165, 27806), (176, 27836), (215, 27950), (242, 28043), (254, 28097), (267, 28145), (279, 28205), (283, 28217), (287, 28223), (289, 28229), (296, 28256), (318, 28364), (328, 28397), (356, 28484), (379, 28544), (383, 28553), (384, 28556),

Gene: Emiris\_30 Start: 27640, Stop: 28752, Start Num: 65

Candidate Starts for Emiris\_30:

(Start: 65 @27640 has 255 MA's), (Start: 70 @27658 has 8 MA's), (91, 27709), (117, 27784), (149, 27877), (162, 27910), (176, 27955), (207, 28045), (215, 28069), (228, 28105), (242, 28162), (245, 28177), (246, 28186), (253, 28213), (254, 28216), (261, 28243), (275, 28306), (283, 28336), (287,

28342), (309, 28426), (311, 28435), (325, 28504), (331, 28540), (333, 28546), (337, 28558), (371, 28648), (379, 28666), (383, 28675), (390, 28693), (402, 28726),

Gene: EmpTee\_30 Start: 27650, Stop: 28762, Start Num: 65

Candidate Starts for EmpTee\_30:

(Start: 65 @27650 has 255 MA's), (Start: 70 @27668 has 8 MA's), (91, 27719), (149, 27887), (176, 27965), (207, 28055), (215, 28079), (228, 28115), (242, 28172), (245, 28187), (246, 28196), (253, 28223), (254, 28226), (261, 28253), (275, 28316), (283, 28346), (287, 28352), (309, 28436), (311, 28445), (325, 28514), (331, 28550), (333, 28556), (337, 28568), (371, 28658), (379, 28676), (383, 28685), (390, 28703), (402, 28736),

Gene: Epah\_26 Start: 26868, Stop: 27944, Start Num: 82

Candidate Starts for Epah\_26:

(Start: 82 @26868 has 38 MA's), (88, 26877), (144, 27045), (161, 27102), (183, 27165), (195, 27204), (207, 27240), (215, 27264), (228, 27300), (242, 27357), (245, 27372), (248, 27384), (253, 27408), (254, 27411), (265, 27453), (275, 27501), (280, 27522), (283, 27531), (287, 27537), (309, 27618), (312, 27636), (318, 27678), (321, 27687), (328, 27711), (337, 27750), (345, 27768), (351, 27786), (356, 27798), (379, 27858), (383, 27867),

Gene: Eremos\_30 Start: 27649, Stop: 28761, Start Num: 65

Candidate Starts for Eremos\_30:

(Start: 65 @27649 has 255 MA's), (Start: 70 @27667 has 8 MA's), (91, 27718), (149, 27886), (176, 27964), (207, 28054), (215, 28078), (228, 28114), (242, 28171), (245, 28186), (246, 28195), (253, 28222), (254, 28225), (261, 28252), (275, 28315), (283, 28345), (287, 28351), (309, 28435), (311, 28444), (325, 28513), (331, 28549), (333, 28555), (337, 28567), (371, 28657), (379, 28675), (383, 28684), (390, 28702), (402, 28735),

Gene: Etaye\_30 Start: 27639, Stop: 28751, Start Num: 65

Candidate Starts for Etaye\_30:

(Start: 65 @27639 has 255 MA's), (Start: 70 @27657 has 8 MA's), (91, 27708), (117, 27783), (149, 27876), (162, 27909), (176, 27954), (207, 28044), (215, 28068), (228, 28104), (242, 28161), (245, 28176), (246, 28185), (253, 28212), (254, 28215), (261, 28242), (275, 28305), (283, 28335), (287, 28341), (309, 28425), (311, 28434), (325, 28503), (331, 28539), (333, 28545), (337, 28557), (371, 28647), (379, 28665), (383, 28674), (390, 28692), (402, 28725),

Gene: Eugenia\_30 Start: 27659, Stop: 28771, Start Num: 65

Candidate Starts for Eugenia\_30:

(Start: 65 @27659 has 255 MA's), (Start: 70 @27677 has 8 MA's), (91, 27728), (149, 27896), (176, 27974), (207, 28064), (215, 28088), (228, 28124), (242, 28181), (245, 28196), (246, 28205), (253, 28232), (254, 28235), (261, 28262), (275, 28325), (283, 28355), (287, 28361), (309, 28445), (311, 28454), (325, 28523), (331, 28559), (333, 28565), (337, 28577), (371, 28667), (379, 28685), (383, 28694), (390, 28712), (402, 28745),

Gene: Evaa\_27 Start: 26530, Stop: 27573, Start Num: 79

Candidate Starts for Evaa\_27:

(Start: 79 @26530 has 55 MA's), (112, 26617), (128, 26665), (165, 26767), (194, 26845), (215, 26911), (242, 27004), (253, 27055), (254, 27058), (261, 27085), (269, 27127), (274, 27142), (311, 27271), (325, 27340), (331, 27376), (353, 27436), (356, 27442), (365, 27463), (371, 27484), (406, 27553), (409, 27562),

Gene: EverythinBagel\_39 Start: 30915, Stop: 32066, Start Num: 43

Candidate Starts for EverythinBagel\_39:

(5, 30339), (12, 30489), (30, 30819), (Start: 43 @30915 has 77 MA's), (64, 30948), (69, 30969), (Start: 76 @30987 has 49 MA's), (86, 31005), (124, 31125), (134, 31149), (180, 31281), (227, 31419), (257, 31548), (270, 31617), (288, 31671), (319, 31779), (331, 31830), (335, 31842), (378, 31959), (388, 31983), (396, 32016), (398, 32022), (411, 32055),

Gene: Fanaw\_26 Start: 27563, Stop: 28639, Start Num: 82

Candidate Starts for Fanaw\_26:

(Start: 82 @27563 has 38 MA's), (88, 27572), (128, 27701), (144, 27740), (161, 27797), (183, 27860), (195, 27899), (207, 27935), (215, 27959), (228, 27995), (242, 28052), (245, 28067), (248, 28079), (253, 28103), (254, 28106), (261, 28133), (265, 28148), (275, 28196), (280, 28217), (283, 28226), (287, 28232), (309, 28313), (312, 28331), (318, 28373), (321, 28382), (325, 28391), (328, 28406), (337, 28445), (345, 28463), (351, 28481), (356, 28493), (379, 28553), (383, 28562),

Gene: Fang\_30 Start: 27681, Stop: 28775, Start Num: 70

Candidate Starts for Fang\_30:

(Start: 65 @27663 has 255 MA's), (Start: 70 @27681 has 8 MA's), (91, 27732), (149, 27900), (176, 27978), (207, 28068), (215, 28092), (228, 28128), (242, 28185), (245, 28200), (246, 28209), (253, 28236), (254, 28239), (261, 28266), (275, 28329), (283, 28359), (287, 28365), (309, 28449), (311, 28458), (325, 28527), (331, 28563), (333, 28569), (337, 28581), (371, 28671), (379, 28689), (383, 28698), (390, 28716), (402, 28749),

Gene: Faze9\_31 Start: 29051, Stop: 30100, Start Num: 79

Candidate Starts for Faze9\_31:

(15, 28574), (16, 28619), (20, 28694), (27, 28790), (36, 28880), (Start: 47 @28940 has 1 MA's), (53, 28970), (55, 28973), (Start: 79 @29051 has 55 MA's), (98, 29099), (109, 29132), (127, 29183), (128, 29186), (151, 29249), (161, 29273), (202, 29396), (212, 29423), (215, 29435), (228, 29471), (238, 29513), (243, 29531), (248, 29555), (253, 29579), (255, 29591), (265, 29624), (272, 29663), (283, 29702), (298, 29750), (311, 29798), (315, 29819), (316, 29831), (323, 29861), (324, 29864), (325, 29867), (337, 29921), (351, 29957), (356, 29969), (363, 29984), (365, 29990), (377, 30017), (379, 30023), (382, 30029), (386, 30038),

Gene: Fireman\_39 Start: 28715, Stop: 29872, Start Num: 49

Candidate Starts for Fireman\_39:

(Start: 49 @28715 has 12 MA's), (86, 28817), (134, 28964), (143, 28988), (146, 28997), (155, 29030), (180, 29102), (197, 29156), (210, 29183), (220, 29219), (224, 29231), (241, 29285), (251, 29327), (267, 29396), (315, 29567), (330, 29636), (331, 29651), (340, 29681), (359, 29732), (362, 29738), (385, 29798), (394, 29831), (396, 29837), (407, 29864),

Gene: Fizzles\_39 Start: 30158, Stop: 31312, Start Num: 43

Candidate Starts for Fizzles\_39:

(Start: 42 @30155 has 3 MA's), (Start: 43 @30158 has 77 MA's), (64, 30194), (124, 30371), (151, 30446), (155, 30461), (161, 30485), (177, 30521), (180, 30527), (196, 30578), (227, 30665), (243, 30725), (270, 30863), (283, 30908), (319, 31025), (331, 31076), (333, 31082), (335, 31088), (378, 31205), (398, 31268),

Gene: FluffyNinja\_30 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for FluffyNinja\_30:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Fortunato\_27 Start: 27891, Stop: 28967, Start Num: 82

Candidate Starts for Fortunato\_27:

(Start: 82 @27891 has 38 MA's), (88, 27900), (128, 28029), (144, 28068), (161, 28125), (183, 28188), (195, 28227), (207, 28263), (215, 28287), (228, 28323), (242, 28380), (245, 28395), (248, 28407), (253, 28431), (254, 28434), (265, 28476), (275, 28524), (280, 28545), (283, 28554), (287, 28560), (309, 28641), (312, 28659), (318, 28701), (321, 28710), (328, 28734), (337, 28773), (345, 28791), (351, 28809), (356, 28821), (379, 28881), (383, 28890),

Gene: Fozzie\_29 Start: 27665, Stop: 28777, Start Num: 65

Candidate Starts for Fozzie\_29:

(Start: 65 @27665 has 255 MA's), (Start: 70 @27683 has 8 MA's), (91, 27734), (117, 27809), (149, 27902), (162, 27935), (176, 27980), (207, 28070), (215, 28094), (228, 28130), (242, 28187), (245, 28202), (246, 28211), (253, 28238), (254, 28241), (261, 28268), (275, 28331), (283, 28361), (285, 28364), (287, 28367), (309, 28451), (311, 28460), (325, 28529), (331, 28565), (333, 28571), (337, 28583), (371, 28673), (379, 28691), (383, 28700), (390, 28718), (402, 28751),

Gene: FrankDeliGuy\_37 Start: 30484, Stop: 31629, Start Num: 43

Candidate Starts for FrankDeliGuy\_37:

(12, 30058), (30, 30388), (Start: 43 @30484 has 77 MA's), (64, 30511), (69, 30532), (72, 30541), (Start: 76 @30550 has 49 MA's), (86, 30568), (124, 30688), (134, 30712), (180, 30844), (227, 30982), (257, 31111), (258, 31114), (270, 31180), (288, 31234), (319, 31342), (331, 31393), (335, 31405), (378, 31522), (388, 31546), (396, 31579), (398, 31585), (411, 31618),

Gene: Frankicide\_30 Start: 27668, Stop: 28780, Start Num: 65

Candidate Starts for Frankicide\_30:

(Start: 65 @27668 has 255 MA's), (Start: 70 @27686 has 8 MA's), (91, 27737), (117, 27812), (149, 27905), (162, 27938), (176, 27983), (207, 28073), (215, 28097), (228, 28133), (242, 28190), (245, 28205), (246, 28214), (253, 28241), (254, 28244), (261, 28271), (275, 28334), (283, 28364), (287, 28370), (309, 28454), (311, 28463), (325, 28532), (331, 28568), (333, 28574), (337, 28586), (371, 28676), (379, 28694), (383, 28703), (390, 28721), (402, 28754),

Gene: Fransoyer\_41 Start: 31071, Stop: 32240, Start Num: 43

Candidate Starts for Fransoyer\_41:

(3, 30381), (Start: 43 @31071 has 77 MA's), (64, 31116), (Start: 79 @31161 has 55 MA's), (116, 31269), (134, 31317), (164, 31419), (170, 31434), (177, 31452), (180, 31458), (196, 31509), (219, 31572), (241, 31650), (268, 31767), (313, 31914), (331, 32007), (333, 32013), (335, 32019), (343, 32043), (344, 32046), (349, 32064), (355, 32079), (362, 32094), (394, 32187),

Gene: Frederick\_27 Start: 27900, Stop: 28976, Start Num: 82

Candidate Starts for Frederick\_27:

(Start: 82 @27900 has 38 MA's), (88, 27909), (128, 28038), (144, 28077), (161, 28134), (183, 28197), (195, 28236), (207, 28272), (215, 28296), (228, 28332), (242, 28389), (245, 28404), (248, 28416), (253, 28440), (254, 28443), (265, 28485), (275, 28533), (280, 28554), (283, 28563), (287, 28569), (309, 28650), (312, 28668), (318, 28710), (321, 28719), (328, 28743), (337, 28782), (345, 28800), (351, 28818), (356, 28830), (357, 28833), (379, 28890), (383, 28899),

Gene: Fregley\_39 Start: 30098, Stop: 31246, Start Num: 43

Candidate Starts for Fregley\_39:

(23, 29912), (29, 29987), (30, 30002), (Start: 42 @30095 has 3 MA's), (Start: 43 @30098 has 77 MA's), (64, 30131), (124, 30308), (134, 30332), (148, 30374), (161, 30422), (180, 30464), (201, 30527), (220, 30584), (227, 30602), (245, 30674), (331, 31013), (335, 31025), (378, 31142), (394, 31193), (410, 31235),

Gene: FrenchFry\_31 Start: 29045, Stop: 30094, Start Num: 79

Candidate Starts for FrenchFry\_31:

(15, 28568), (16, 28613), (20, 28688), (27, 28784), (36, 28874), (Start: 47 @28934 has 1 MA's), (53, 28964), (55, 28967), (Start: 79 @29045 has 55 MA's), (98, 29093), (109, 29126), (127, 29177), (128, 29180), (151, 29243), (161, 29267), (202, 29390), (212, 29417), (215, 29429), (228, 29465), (238, 29507), (243, 29525), (248, 29549), (253, 29573), (255, 29585), (265, 29618), (272, 29657), (283, 29696), (298, 29744), (311, 29792), (315, 29813), (316, 29825), (324, 29858), (325, 29861), (337, 29915), (351, 29951), (356, 29963), (363, 29978), (365, 29984), (377, 30011), (379, 30017), (382, 30023), (386, 30032),

Gene: Fresco\_26 Start: 25044, Stop: 26081, Start Num: 78

Candidate Starts for Fresco\_26:

(Start: 76 @25041 has 49 MA's), (Start: 78 @25044 has 11 MA's), (122, 25158), (143, 25206), (151, 25233), (169, 25287), (212, 25407), (215, 25419), (228, 25455), (245, 25527), (248, 25539), (255, 25575), (257, 25581), (261, 25593), (275, 25656), (309, 25773), (331, 25887), (356, 25953), (363, 25968), (365, 25974), (375, 26001), (390, 26031), (409, 26070),

Gene: Freya\_29 Start: 27347, Stop: 28459, Start Num: 65

Candidate Starts for Freya\_29:

(Start: 65 @27347 has 255 MA's), (Start: 70 @27365 has 8 MA's), (91, 27416), (149, 27584), (176, 27662), (207, 27752), (215, 27776), (228, 27812), (242, 27869), (245, 27884), (246, 27893), (253, 27920), (254, 27923), (261, 27950), (275, 28013), (283, 28043), (287, 28049), (309, 28133), (311, 28142), (325, 28211), (331, 28247), (333, 28253), (337, 28265), (371, 28355), (379, 28373), (383, 28382), (390, 28400), (402, 28433),

Gene: FriarPreacher\_30 Start: 27674, Stop: 28786, Start Num: 65

Candidate Starts for FriarPreacher\_30:

(Start: 65 @27674 has 255 MA's), (Start: 70 @27692 has 8 MA's), (91, 27743), (149, 27911), (176, 27989), (207, 28079), (215, 28103), (228, 28139), (242, 28196), (245, 28211), (246, 28220), (253, 28247), (254, 28250), (261, 28277), (275, 28340), (283, 28370), (287, 28376), (309, 28460), (311, 28469), (325, 28538), (331, 28574), (333, 28580), (337, 28592), (371, 28682), (379, 28700), (383, 28709), (390, 28727), (402, 28760),

Gene: Fringe\_30 Start: 27638, Stop: 28750, Start Num: 65

Candidate Starts for Fringe\_30:

(Start: 65 @27638 has 255 MA's), (Start: 70 @27656 has 8 MA's), (91, 27707), (149, 27875), (176, 27953), (207, 28043), (215, 28067), (228, 28103), (242, 28160), (245, 28175), (246, 28184), (253, 28211), (254, 28214), (261, 28241), (275, 28304), (283, 28334), (287, 28340), (309, 28424), (311, 28433), (325, 28502), (331, 28538), (333, 28544), (337, 28556), (371, 28646), (379, 28664), (383, 28673), (390, 28691), (402, 28724),

Gene: FugateOSU\_29 Start: 27352, Stop: 28464, Start Num: 65

Candidate Starts for FugateOSU\_29:

(Start: 65 @27352 has 255 MA's), (Start: 70 @27370 has 8 MA's), (91, 27421), (149, 27589), (176, 27667), (207, 27757), (215, 27781), (228, 27817), (242, 27874), (245, 27889), (246, 27898), (253, 27925), (254, 27928), (261, 27955), (275, 28018), (283, 28048), (287, 28054), (309, 28138), (311, 28147), (325, 28216), (331, 28252), (333, 28258), (337, 28270), (371, 28360), (379, 28378), (383, 28387), (390, 28405), (402, 28438),

Gene: Funsized\_33 Start: 31480, Stop: 32649, Start Num: 49

Candidate Starts for Funsized\_33:

(Start: 49 @31480 has 12 MA's), (58, 31507), (75, 31564), (99, 31630), (103, 31642), (126, 31705), (151, 31774), (160, 31795), (161, 31798), (165, 31816), (168, 31825), (215, 31960), (218, 31969),

(235, 32029), (237, 32035), (242, 32053), (248, 32080), (250, 32086), (253, 32104), (254, 32107), (268, 32158), (283, 32227), (287, 32233), (293, 32248), (296, 32266), (308, 32305), (309, 32314), (316, 32356), (331, 32428), (337, 32446), (342, 32455), (345, 32464), (354, 32491), (356, 32494), (375, 32542), (379, 32554), (402, 32614),

Gene: FuzzBuster\_43 Start: 27006, Stop: 28205, Start Num: 43

Candidate Starts for FuzzBuster\_43:

(Start: 43 @27006 has 77 MA's), (45, 27009), (63, 27051), (64, 27054), (91, 27135), (92, 27138), (123, 27225), (124, 27228), (155, 27318), (156, 27321), (157, 27330), (162, 27345), (180, 27390), (197, 27444), (199, 27447), (200, 27450), (211, 27483), (220, 27519), (227, 27537), (241, 27597), (242, 27600), (254, 27654), (299, 27831), (321, 27936), (331, 27981), (355, 28053), (362, 28068), (364, 28074), (374, 28101), (388, 28134), (394, 28161), (396, 28167),

Gene: Gadget\_31 Start: 27580, Stop: 28623, Start Num: 76

Candidate Starts for Gadget\_31:

(Start: 47 @27475 has 1 MA's), (53, 27505), (Start: 76 @27580 has 49 MA's), (98, 27628), (122, 27694), (151, 27778), (161, 27802), (167, 27826), (176, 27850), (185, 27871), (195, 27904), (242, 28057), (244, 28069), (261, 28138), (279, 28219), (306, 28306), (309, 28321), (315, 28351), (328, 28414), (346, 28474), (352, 28492), (354, 28498), (356, 28501), (365, 28522), (377, 28552), (379, 28558), (382, 28564), (386, 28573),

Gene: Ganandorf\_38 Start: 27677, Stop: 28879, Start Num: 43

Candidate Starts for Ganandorf\_38:

(Start: 43 @27677 has 77 MA's), (59, 27713), (Start: 76 @27770 has 49 MA's), (124, 27905), (134, 27929), (143, 27953), (150, 27977), (172, 28058), (180, 28079), (197, 28133), (206, 28160), (209, 28166), (211, 28172), (216, 28190), (220, 28208), (241, 28277), (243, 28283), (256, 28346), (268, 28391), (299, 28502), (330, 28637), (331, 28652), (337, 28670), (355, 28724), (362, 28739), (369, 28757), (388, 28805), (396, 28838), (407, 28865), (409, 28871),

Gene: Gareth\_29 Start: 27354, Stop: 28466, Start Num: 65

Candidate Starts for Gareth\_29:

(Start: 65 @27354 has 255 MA's), (Start: 70 @27372 has 8 MA's), (91, 27423), (149, 27591), (176, 27669), (207, 27759), (215, 27783), (228, 27819), (242, 27876), (245, 27891), (246, 27900), (253, 27927), (254, 27930), (261, 27957), (275, 28020), (283, 28050), (287, 28056), (309, 28140), (311, 28149), (325, 28218), (331, 28254), (333, 28260), (337, 28272), (371, 28362), (379, 28380), (383, 28389), (390, 28407), (402, 28440),

Gene: Gazebo\_37 Start: 31089, Stop: 32240, Start Num: 43

Candidate Starts for Gazebo\_37:

(5, 30513), (12, 30663), (30, 30993), (Start: 43 @31089 has 77 MA's), (64, 31122), (69, 31143), (Start: 76 @31161 has 49 MA's), (86, 31179), (124, 31299), (134, 31323), (180, 31455), (227, 31593), (257, 31722), (270, 31791), (288, 31845), (319, 31953), (331, 32004), (335, 32016), (378, 32133), (388, 32157), (396, 32190), (398, 32196), (411, 32229),

Gene: GeneCoco\_30 Start: 27664, Stop: 28776, Start Num: 65

Candidate Starts for GeneCoco\_30:

(Start: 65 @27664 has 255 MA's), (Start: 70 @27682 has 8 MA's), (91, 27733), (117, 27808), (149, 27901), (162, 27934), (176, 27979), (207, 28069), (215, 28093), (228, 28129), (242, 28186), (245, 28201), (246, 28210), (253, 28237), (254, 28240), (261, 28267), (275, 28330), (287, 28366), (309, 28450), (311, 28459), (325, 28528), (331, 28564), (333, 28570), (337, 28582), (371, 28672), (379, 28690), (383, 28699), (390, 28717), (402, 28750),

Gene: Gervas\_30 Start: 27554, Stop: 28597, Start Num: 76

Candidate Starts for Gervas\_30:

(Start: 47 @27449 has 1 MA's), (53, 27479), (Start: 76 @27554 has 49 MA's), (98, 27602), (122, 27668), (151, 27752), (161, 27776), (167, 27800), (176, 27824), (185, 27845), (242, 28031), (244, 28043), (261, 28112), (279, 28193), (306, 28280), (309, 28295), (315, 28325), (328, 28388), (346, 28448), (352, 28466), (354, 28472), (356, 28475), (365, 28496), (377, 28526), (379, 28532), (382, 28538), (386, 28547),

Gene: GinPorsche\_26 Start: 26868, Stop: 27944, Start Num: 82

Candidate Starts for GinPorsche\_26:

(Start: 82 @26868 has 38 MA's), (88, 26877), (144, 27045), (161, 27102), (183, 27165), (195, 27204), (207, 27240), (215, 27264), (228, 27300), (242, 27357), (245, 27372), (248, 27384), (253, 27408), (254, 27411), (265, 27453), (275, 27501), (280, 27522), (283, 27531), (287, 27537), (309, 27618), (312, 27636), (318, 27678), (321, 27687), (328, 27711), (337, 27750), (345, 27768), (351, 27786), (356, 27798), (379, 27858), (383, 27867),

Gene: Gina\_40 Start: 27318, Stop: 28469, Start Num: 49

Candidate Starts for Gina\_40:

(Start: 49 @27318 has 12 MA's), (Start: 78 @27393 has 11 MA's), (81, 27399), (125, 27534), (134, 27555), (143, 27579), (157, 27633), (163, 27654), (180, 27693), (197, 27747), (210, 27774), (220, 27810), (227, 27828), (232, 27846), (241, 27876), (242, 27879), (248, 27906), (251, 27918), (256, 27945), (273, 28026), (315, 28158), (323, 28200), (331, 28242), (335, 28254), (340, 28272), (359, 28323), (362, 28329), (366, 28338), (374, 28362), (385, 28389), (388, 28395), (394, 28422), (396, 28428), (406, 28452),

Gene: Giraffe\_30 Start: 27358, Stop: 28470, Start Num: 65

Candidate Starts for Giraffe\_30:

(Start: 65 @27358 has 255 MA's), (Start: 70 @27376 has 8 MA's), (91, 27427), (149, 27595), (176, 27673), (207, 27763), (215, 27787), (228, 27823), (242, 27880), (245, 27895), (246, 27904), (253, 27931), (254, 27934), (261, 27961), (275, 28024), (283, 28054), (287, 28060), (309, 28144), (311, 28153), (325, 28222), (331, 28258), (333, 28264), (337, 28276), (371, 28366), (379, 28384), (383, 28393), (390, 28411), (402, 28444),

Gene: Glass\_31 Start: 29045, Stop: 30094, Start Num: 79

Candidate Starts for Glass\_31:

(15, 28568), (16, 28613), (20, 28688), (27, 28784), (36, 28874), (Start: 47 @28934 has 1 MA's), (53, 28964), (55, 28967), (Start: 79 @29045 has 55 MA's), (98, 29093), (109, 29126), (127, 29177), (128, 29180), (151, 29243), (161, 29267), (202, 29390), (212, 29417), (215, 29429), (228, 29465), (238, 29507), (243, 29525), (248, 29549), (253, 29573), (255, 29585), (265, 29618), (272, 29657), (283, 29696), (298, 29744), (311, 29792), (315, 29813), (316, 29825), (324, 29858), (325, 29861), (337, 29915), (351, 29951), (356, 29963), (363, 29978), (365, 29984), (377, 30011), (379, 30017), (382, 30023), (386, 30032),

Gene: GlenHope\_31 Start: 27566, Stop: 28609, Start Num: 76

Candidate Starts for GlenHope\_31:

(Start: 47 @27461 has 1 MA's), (53, 27491), (Start: 76 @27566 has 49 MA's), (98, 27614), (122, 27680), (151, 27764), (161, 27788), (176, 27836), (185, 27857), (240, 28037), (242, 28043), (244, 28055), (261, 28124), (279, 28205), (306, 28292), (309, 28307), (315, 28337), (328, 28400), (346, 28460), (352, 28478), (354, 28484), (356, 28487), (365, 28508), (377, 28538), (379, 28544), (382, 28550), (386, 28559),

Gene: GodPhather\_24 Start: 26459, Stop: 27496, Start Num: 79

Candidate Starts for GodPhather\_24:

(Start: 79 @26459 has 55 MA's), (90, 26480), (91, 26483), (98, 26507), (109, 26540), (138, 26612), (142, 26615), (149, 26642), (151, 26648), (161, 26672), (195, 26774), (212, 26822), (228, 26870), (238, 26912), (242, 26927), (243, 26930), (245, 26942), (248, 26954), (255, 26990), (275, 27071), (279, 27089), (283, 27101), (285, 27104), (297, 27146), (309, 27188), (315, 27218), (316, 27230), (329, 27284), (346, 27341), (351, 27356), (358, 27374), (363, 27383), (365, 27389), (368, 27395), (377, 27416), (379, 27422), (386, 27437), (405, 27485),

Gene: Godines\_31 Start: 28925, Stop: 29974, Start Num: 79

Candidate Starts for Godines\_31:

(15, 28448), (16, 28493), (20, 28568), (27, 28664), (36, 28754), (Start: 47 @28814 has 1 MA's), (53, 28844), (55, 28847), (Start: 79 @28925 has 55 MA's), (98, 28973), (109, 29006), (127, 29057), (128, 29060), (135, 29078), (151, 29123), (161, 29147), (202, 29270), (212, 29297), (215, 29309), (228, 29345), (238, 29387), (243, 29405), (248, 29429), (253, 29453), (255, 29465), (265, 29498), (272, 29537), (283, 29576), (298, 29624), (311, 29672), (315, 29693), (316, 29705), (324, 29738), (325, 29741), (337, 29795), (351, 29831), (356, 29843), (363, 29858), (365, 29864), (377, 29891), (379, 29897), (382, 29903), (386, 29912),

Gene: Gophee\_30 Start: 27640, Stop: 28752, Start Num: 65

Candidate Starts for Gophee\_30:

(Start: 65 @27640 has 255 MA's), (Start: 70 @27658 has 8 MA's), (91, 27709), (149, 27877), (176, 27955), (207, 28045), (215, 28069), (228, 28105), (242, 28162), (245, 28177), (246, 28186), (253, 28213), (254, 28216), (261, 28243), (275, 28306), (283, 28336), (287, 28342), (309, 28426), (311, 28435), (325, 28504), (331, 28540), (333, 28546), (337, 28558), (371, 28648), (379, 28666), (383, 28675), (390, 28693), (402, 28726),

Gene: Grand2040\_29 Start: 27373, Stop: 28485, Start Num: 65

Candidate Starts for Grand2040\_29:

(Start: 65 @27373 has 255 MA's), (Start: 70 @27391 has 8 MA's), (91, 27442), (149, 27610), (176, 27688), (207, 27778), (215, 27802), (228, 27838), (242, 27895), (245, 27910), (246, 27919), (253, 27946), (254, 27949), (261, 27976), (275, 28039), (283, 28069), (287, 28075), (309, 28159), (311, 28168), (325, 28237), (331, 28273), (333, 28279), (337, 28291), (371, 28381), (379, 28399), (383, 28408), (390, 28426), (402, 28459),

Gene: Grassboy\_40 Start: 31141, Stop: 32292, Start Num: 43

Candidate Starts for Grassboy\_40:

(5, 30565), (12, 30715), (30, 31045), (Start: 43 @31141 has 77 MA's), (64, 31174), (69, 31195), (Start: 76 @31213 has 49 MA's), (86, 31231), (124, 31351), (134, 31375), (180, 31507), (227, 31645), (257, 31774), (270, 31843), (288, 31897), (319, 32005), (331, 32056), (335, 32068), (378, 32185), (388, 32209), (396, 32242), (411, 32281),

Gene: Gwilliam\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for Gwilliam\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (149, 27889), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (283, 28348), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: Gyarad\_0030 Start: 27654, Stop: 28766, Start Num: 65

Candidate Starts for Gyarad\_0030:

(Start: 65 @27654 has 255 MA's), (Start: 70 @27672 has 8 MA's), (91, 27723), (149, 27891), (176, 27969), (207, 28059), (215, 28083), (228, 28119), (242, 28176), (245, 28191), (246, 28200), (253, 28227), (254, 28230), (261, 28257), (275, 28320), (283, 28350), (287, 28356), (309, 28440), (311,



28449), (325, 28518), (331, 28554), (333, 28560), (337, 28572), (371, 28662), (379, 28680), (383, 28689), (390, 28707), (402, 28740),

Gene: HSavage\_30 Start: 27659, Stop: 28771, Start Num: 65

Candidate Starts for HSavage\_30:

(Start: 65 @27659 has 255 MA's), (Start: 70 @27677 has 8 MA's), (91, 27728), (149, 27896), (176, 27974), (207, 28064), (215, 28088), (228, 28124), (242, 28181), (245, 28196), (246, 28205), (253, 28232), (254, 28235), (261, 28262), (275, 28325), (283, 28355), (287, 28361), (309, 28445), (311, 28454), (325, 28523), (331, 28559), (333, 28565), (337, 28577), (371, 28667), (379, 28685), (383, 28694), (390, 28712), (402, 28745),

Gene: Haimas\_30 Start: 27650, Stop: 28762, Start Num: 65

Candidate Starts for Haimas\_30:

(Start: 65 @27650 has 255 MA's), (Start: 70 @27668 has 8 MA's), (91, 27719), (149, 27887), (162, 27920), (176, 27965), (207, 28055), (215, 28079), (228, 28115), (242, 28172), (245, 28187), (246, 28196), (253, 28223), (254, 28226), (261, 28253), (275, 28316), (283, 28346), (287, 28352), (309, 28436), (311, 28445), (325, 28514), (331, 28550), (333, 28556), (337, 28568), (371, 28658), (379, 28676), (383, 28685), (390, 28703), (402, 28736),

Gene: Haleema\_29 Start: 27373, Stop: 28485, Start Num: 65

Candidate Starts for Haleema\_29:

(Start: 65 @27373 has 255 MA's), (Start: 70 @27391 has 8 MA's), (91, 27442), (149, 27610), (176, 27688), (207, 27778), (215, 27802), (228, 27838), (242, 27895), (245, 27910), (246, 27919), (253, 27946), (254, 27949), (261, 27976), (275, 28039), (283, 28069), (287, 28075), (309, 28159), (311, 28168), (325, 28237), (331, 28273), (333, 28279), (337, 28291), (371, 28381), (379, 28399), (383, 28408), (390, 28426), (402, 28459),

Gene: Halfpint\_29 Start: 27389, Stop: 28432, Start Num: 76

Candidate Starts for Halfpint\_29:

(Start: 47 @27284 has 1 MA's), (53, 27314), (Start: 76 @27389 has 49 MA's), (98, 27437), (122, 27503), (151, 27587), (161, 27611), (176, 27659), (185, 27680), (240, 27860), (242, 27866), (244, 27878), (261, 27947), (279, 28028), (306, 28115), (309, 28130), (315, 28160), (328, 28223), (346, 28283), (352, 28301), (354, 28307), (356, 28310), (365, 28331), (377, 28361), (379, 28367), (382, 28373), (386, 28382),

Gene: Hally898\_26 Start: 26880, Stop: 27956, Start Num: 82

Candidate Starts for Hally898\_26:

(Start: 82 @26880 has 38 MA's), (88, 26889), (144, 27057), (161, 27114), (183, 27177), (195, 27216), (207, 27252), (215, 27276), (228, 27312), (242, 27369), (245, 27384), (248, 27396), (253, 27420), (254, 27423), (265, 27465), (275, 27513), (280, 27534), (283, 27543), (287, 27549), (309, 27630), (312, 27648), (318, 27690), (321, 27699), (328, 27723), (337, 27762), (345, 27780), (351, 27798), (356, 27810), (379, 27870), (383, 27879),

Gene: Hamish\_30 Start: 27642, Stop: 28754, Start Num: 65

Candidate Starts for Hamish\_30:

(Start: 65 @27642 has 255 MA's), (Start: 70 @27660 has 8 MA's), (91, 27711), (149, 27879), (162, 27912), (176, 27957), (207, 28047), (215, 28071), (228, 28107), (242, 28164), (245, 28179), (246, 28188), (253, 28215), (254, 28218), (261, 28245), (275, 28308), (283, 28338), (287, 28344), (309, 28428), (311, 28437), (325, 28506), (331, 28542), (333, 28548), (337, 28560), (371, 28650), (379, 28668), (383, 28677), (390, 28695), (402, 28728),

Gene: Hangman\_27 Start: 27892, Stop: 28968, Start Num: 82

Candidate Starts for Hangman\_27:

(Start: 82 @27892 has 38 MA's), (88, 27901), (144, 28069), (161, 28126), (183, 28189), (195, 28228), (207, 28264), (215, 28288), (228, 28324), (242, 28381), (245, 28396), (248, 28408), (253, 28432), (254, 28435), (265, 28477), (275, 28525), (280, 28546), (283, 28555), (287, 28561), (309, 28642), (312, 28660), (318, 28702), (321, 28711), (328, 28735), (337, 28774), (345, 28792), (351, 28810), (356, 28822), (357, 28825), (379, 28882), (383, 28891),

Gene: Hartsy\_30 Start: 27693, Stop: 28805, Start Num: 65

Candidate Starts for Hartsy\_30:

(Start: 65 @27693 has 255 MA's), (Start: 70 @27711 has 8 MA's), (91, 27762), (117, 27837), (149, 27930), (162, 27963), (176, 28008), (207, 28098), (215, 28122), (228, 28158), (242, 28215), (245, 28230), (246, 28239), (253, 28266), (254, 28269), (261, 28296), (275, 28359), (287, 28395), (309, 28479), (311, 28488), (325, 28557), (331, 28593), (333, 28599), (337, 28611), (371, 28701), (379, 28719), (383, 28728), (390, 28746), (402, 28779),

Gene: Harvey\_30 Start: 27668, Stop: 28780, Start Num: 65

Candidate Starts for Harvey\_30:

(Start: 65 @27668 has 255 MA's), (Start: 70 @27686 has 8 MA's), (91, 27737), (149, 27905), (176, 27983), (207, 28073), (215, 28097), (228, 28133), (242, 28190), (245, 28205), (246, 28214), (253, 28241), (254, 28244), (261, 28271), (275, 28334), (283, 28364), (287, 28370), (309, 28454), (311, 28463), (325, 28532), (331, 28568), (333, 28574), (337, 28586), (371, 28676), (379, 28694), (383, 28703), (390, 28721), (402, 28754),

Gene: HarveySr\_30 Start: 27553, Stop: 28596, Start Num: 76

Candidate Starts for HarveySr\_30:

(Start: 47 @27448 has 1 MA's), (53, 27478), (Start: 76 @27553 has 49 MA's), (98, 27601), (122, 27667), (151, 27751), (161, 27775), (167, 27799), (176, 27823), (185, 27844), (240, 28024), (242, 28030), (244, 28042), (261, 28111), (279, 28192), (306, 28279), (309, 28294), (315, 28324), (328, 28387), (346, 28447), (352, 28465), (354, 28471), (356, 28474), (365, 28495), (377, 28525), (379, 28531), (382, 28537), (386, 28546),

Gene: Hashim76\_33 Start: 27712, Stop: 28776, Start Num: 83

Candidate Starts for Hashim76\_33:

(Start: 83 @27712 has 2 MA's), (98, 27763), (127, 27847), (207, 28078), (215, 28102), (224, 28132), (237, 28177), (242, 28195), (248, 28222), (283, 28369), (287, 28375), (309, 28456), (311, 28465), (312, 28474), (337, 28588), (345, 28606), (375, 28684), (379, 28696), (400, 28747), (402, 28750),

Gene: Heath\_26 Start: 27493, Stop: 28569, Start Num: 82

Candidate Starts for Heath\_26:

(Start: 82 @27493 has 38 MA's), (88, 27502), (128, 27631), (144, 27670), (161, 27727), (183, 27790), (195, 27829), (207, 27865), (215, 27889), (228, 27925), (242, 27982), (245, 27997), (248, 28009), (253, 28033), (254, 28036), (265, 28078), (275, 28126), (280, 28147), (283, 28156), (287, 28162), (309, 28243), (312, 28261), (318, 28303), (321, 28312), (328, 28336), (337, 28375), (345, 28393), (351, 28411), (356, 28423), (357, 28426), (379, 28483), (383, 28492),

Gene: Heathcliff\_30 Start: 27535, Stop: 28578, Start Num: 76

Candidate Starts for Heathcliff\_30:

(Start: 47 @27430 has 1 MA's), (53, 27460), (Start: 76 @27535 has 49 MA's), (98, 27583), (122, 27649), (151, 27733), (161, 27757), (167, 27781), (176, 27805), (185, 27826), (195, 27859), (242, 28012), (244, 28024), (261, 28093), (279, 28174), (306, 28261), (309, 28276), (315, 28306), (328, 28369), (346, 28429), (352, 28447), (354, 28453), (356, 28456), (365, 28477), (377, 28507), (379, 28513), (382, 28519), (386, 28528),

Gene: Hedgerow\_31 Start: 29027, Stop: 30076, Start Num: 79

Candidate Starts for Hedgerow\_31:

(15, 28550), (16, 28595), (20, 28670), (27, 28766), (36, 28856), (Start: 47 @28916 has 1 MA's), (53, 28946), (55, 28949), (Start: 79 @29027 has 55 MA's), (98, 29075), (109, 29108), (127, 29159), (128, 29162), (151, 29225), (161, 29249), (202, 29372), (212, 29399), (215, 29411), (228, 29447), (238, 29489), (243, 29507), (248, 29531), (253, 29555), (255, 29567), (265, 29600), (272, 29639), (283, 29678), (298, 29726), (311, 29774), (315, 29795), (316, 29807), (324, 29840), (325, 29843), (337, 29897), (351, 29933), (356, 29945), (363, 29960), (365, 29966), (377, 29993), (379, 29999), (382, 30005), (386, 30014),

Gene: Held\_30 Start: 27357, Stop: 28469, Start Num: 65

Candidate Starts for Held\_30:

(Start: 65 @27357 has 255 MA's), (Start: 70 @27375 has 8 MA's), (91, 27426), (149, 27594), (176, 27672), (207, 27762), (215, 27786), (228, 27822), (242, 27879), (245, 27894), (246, 27903), (253, 27930), (254, 27933), (261, 27960), (275, 28023), (283, 28053), (287, 28059), (309, 28143), (311, 28152), (325, 28221), (331, 28257), (333, 28263), (337, 28275), (371, 28365), (379, 28383), (383, 28392), (390, 28410), (402, 28443),

Gene: Hendrix\_73 Start: 49522, Stop: 50718, Start Num: 42

Candidate Starts for Hendrix\_73:

(30, 49429), (Start: 42 @49522 has 3 MA's), (Start: 43 @49525 has 77 MA's), (63, 49567), (64, 49570), (81, 49618), (86, 49627), (93, 49657), (113, 49717), (143, 49795), (149, 49816), (150, 49819), (180, 49909), (184, 49921), (197, 49963), (209, 49996), (211, 50002), (216, 50020), (220, 50038), (227, 50056), (241, 50107), (243, 50113), (257, 50179), (272, 50254), (291, 50317), (335, 50503), (352, 50554), (360, 50575), (362, 50578), (374, 50611), (385, 50638), (387, 50641), (388, 50644), (396, 50677),

Gene: HenryJackson\_29 Start: 27373, Stop: 28485, Start Num: 65

Candidate Starts for HenryJackson\_29:

(Start: 65 @27373 has 255 MA's), (Start: 70 @27391 has 8 MA's), (91, 27442), (149, 27610), (176, 27688), (207, 27778), (215, 27802), (228, 27838), (242, 27895), (245, 27910), (246, 27919), (253, 27946), (254, 27949), (261, 27976), (275, 28039), (283, 28069), (287, 28075), (309, 28159), (311, 28168), (325, 28237), (331, 28273), (333, 28279), (337, 28291), (371, 28381), (379, 28399), (383, 28408), (390, 28426), (402, 28459),

Gene: Hermeonysus\_38 Start: 27544, Stop: 28746, Start Num: 43

Candidate Starts for Hermeonysus\_38:

(Start: 43 @27544 has 77 MA's), (59, 27580), (Start: 76 @27637 has 49 MA's), (124, 27772), (134, 27796), (143, 27820), (150, 27844), (172, 27925), (180, 27946), (197, 28000), (206, 28027), (209, 28033), (211, 28039), (216, 28057), (220, 28075), (241, 28144), (243, 28150), (256, 28213), (268, 28258), (299, 28369), (330, 28504), (331, 28519), (337, 28537), (355, 28591), (362, 28606), (369, 28624), (388, 28672), (396, 28705), (407, 28732), (409, 28738),

Gene: Hertubise\_30 Start: 27664, Stop: 28776, Start Num: 65

Candidate Starts for Hertubise\_30:

(Start: 65 @27664 has 255 MA's), (Start: 70 @27682 has 8 MA's), (91, 27733), (149, 27901), (176, 27979), (207, 28069), (215, 28093), (228, 28129), (242, 28186), (245, 28201), (246, 28210), (253, 28237), (254, 28240), (261, 28267), (275, 28330), (283, 28360), (287, 28366), (309, 28450), (311, 28459), (325, 28528), (331, 28564), (333, 28570), (337, 28582), (371, 28672), (379, 28690), (383, 28699), (390, 28717), (402, 28750),

Gene: Hetaeria\_30 Start: 27666, Stop: 28778, Start Num: 65

Candidate Starts for Hetaeria\_30:

(Start: 65 @27666 has 255 MA's), (Start: 70 @27684 has 8 MA's), (91, 27735), (149, 27903), (176, 27981), (207, 28071), (215, 28095), (228, 28131), (242, 28188), (245, 28203), (246, 28212), (253, 28239), (254, 28242), (261, 28269), (275, 28332), (283, 28362), (287, 28368), (309, 28452), (311, 28461), (325, 28530), (331, 28566), (333, 28572), (337, 28584), (371, 28674), (379, 28692), (383, 28701), (390, 28719), (402, 28752),

Gene: HighStump\_29 Start: 27356, Stop: 28468, Start Num: 65

Candidate Starts for HighStump\_29:

(Start: 65 @27356 has 255 MA's), (Start: 70 @27374 has 8 MA's), (91, 27425), (149, 27593), (176, 27671), (207, 27761), (215, 27785), (228, 27821), (242, 27878), (245, 27893), (246, 27902), (253, 27929), (254, 27932), (261, 27959), (275, 28022), (283, 28052), (287, 28058), (309, 28142), (311, 28151), (325, 28220), (331, 28256), (333, 28262), (337, 28274), (371, 28364), (379, 28382), (383, 28391), (390, 28409), (402, 28442),

Gene: Hocus\_29 Start: 27365, Stop: 28477, Start Num: 65

Candidate Starts for Hocus\_29:

(Start: 65 @27365 has 255 MA's), (Start: 70 @27383 has 8 MA's), (91, 27434), (117, 27509), (149, 27602), (162, 27635), (176, 27680), (207, 27770), (215, 27794), (228, 27830), (242, 27887), (245, 27902), (246, 27911), (253, 27938), (254, 27941), (261, 27968), (275, 28031), (287, 28067), (309, 28151), (311, 28160), (325, 28229), (331, 28265), (333, 28271), (337, 28283), (371, 28373), (379, 28391), (383, 28400), (390, 28418), (402, 28451),

Gene: Holeinone\_31 Start: 28907, Stop: 29956, Start Num: 79

Candidate Starts for Holeinone\_31:

(27, 28646), (36, 28736), (Start: 47 @28796 has 1 MA's), (53, 28826), (55, 28829), (Start: 79 @28907 has 55 MA's), (98, 28955), (109, 28988), (127, 29039), (128, 29042), (151, 29105), (161, 29129), (202, 29252), (212, 29279), (215, 29291), (228, 29327), (238, 29369), (243, 29387), (248, 29411), (253, 29435), (255, 29447), (265, 29480), (272, 29519), (283, 29558), (298, 29606), (311, 29654), (315, 29675), (316, 29687), (324, 29720), (325, 29723), (337, 29777), (351, 29813), (356, 29825), (363, 29840), (365, 29846), (377, 29873), (379, 29879), (382, 29885), (386, 29894),

Gene: Honeyfin\_40 Start: 27865, Stop: 29067, Start Num: 43

Candidate Starts for Honeyfin\_40:

(Start: 43 @27865 has 77 MA's), (59, 27901), (Start: 76 @27958 has 49 MA's), (124, 28093), (134, 28117), (143, 28141), (150, 28165), (172, 28246), (180, 28267), (197, 28321), (206, 28348), (209, 28354), (211, 28360), (216, 28378), (220, 28396), (241, 28465), (243, 28471), (256, 28534), (268, 28579), (283, 28651), (299, 28690), (330, 28825), (331, 28840), (337, 28858), (355, 28912), (362, 28927), (369, 28945), (385, 28987), (388, 28993), (396, 29026), (407, 29053), (409, 29059),

Gene: Horchata\_30 Start: 27644, Stop: 28756, Start Num: 65

Candidate Starts for Horchata\_30:

(Start: 65 @27644 has 255 MA's), (Start: 70 @27662 has 8 MA's), (91, 27713), (149, 27881), (176, 27959), (207, 28049), (215, 28073), (228, 28109), (242, 28166), (245, 28181), (246, 28190), (253, 28217), (254, 28220), (261, 28247), (275, 28310), (283, 28340), (287, 28346), (309, 28430), (311, 28439), (325, 28508), (331, 28544), (333, 28550), (337, 28562), (371, 28652), (379, 28670), (383, 28679), (390, 28697), (402, 28730),

Gene: Hosp\_023 Start: 24683, Stop: 25771, Start Num: 71

Candidate Starts for Hosp\_023:

(Start: 70 @24680 has 8 MA's), (Start: 71 @24683 has 1 MA's), (86, 24710), (90, 24728), (151, 24905), (165, 24947), (166, 24950), (215, 25091), (228, 25127), (242, 25184), (253, 25235), (261, 25265), (265, 25280), (275, 25328), (283, 25358), (287, 25364), (309, 25445), (311, 25454), (316, 25487), (328, 25538), (337, 25577), (345, 25595), (365, 25646), (379, 25685), (383, 25694), (399,

25739),

Gene: Hydro\_27 Start: 27909, Stop: 28985, Start Num: 82

Candidate Starts for Hydro\_27:

(Start: 82 @27909 has 38 MA's), (88, 27918), (144, 28086), (161, 28143), (183, 28206), (195, 28245), (207, 28281), (215, 28305), (228, 28341), (242, 28398), (245, 28413), (248, 28425), (253, 28449), (254, 28452), (265, 28494), (275, 28542), (283, 28572), (287, 28578), (309, 28659), (312, 28677), (318, 28719), (321, 28728), (328, 28752), (337, 28791), (345, 28809), (351, 28827), (356, 28839), (357, 28842), (379, 28899), (383, 28908),

Gene: Hyperion\_38 Start: 31045, Stop: 32196, Start Num: 43

Candidate Starts for Hyperion\_38:

(5, 30469), (12, 30619), (30, 30949), (Start: 43 @31045 has 77 MA's), (64, 31078), (69, 31099), (Start: 76 @31117 has 49 MA's), (86, 31135), (124, 31255), (134, 31279), (180, 31411), (227, 31549), (257, 31678), (270, 31747), (288, 31801), (319, 31909), (331, 31960), (335, 31972), (378, 32089), (388, 32113), (396, 32146), (398, 32152), (411, 32185),

Gene: ImtiyazSitla\_29 Start: 27206, Stop: 28318, Start Num: 65

Candidate Starts for ImtiyazSitla\_29:

(Start: 65 @27206 has 255 MA's), (Start: 70 @27224 has 8 MA's), (91, 27275), (117, 27350), (149, 27443), (162, 27476), (176, 27521), (207, 27611), (215, 27635), (228, 27671), (242, 27728), (245, 27743), (246, 27752), (253, 27779), (254, 27782), (261, 27809), (275, 27872), (287, 27908), (309, 27992), (311, 28001), (325, 28070), (331, 28106), (333, 28112), (337, 28124), (371, 28214), (379, 28232), (383, 28241), (390, 28259), (402, 28292),

Gene: Imvubu\_23 Start: 25395, Stop: 26462, Start Num: 82

Candidate Starts for Imvubu\_23:

(Start: 82 @25395 has 38 MA's), (88, 25404), (98, 25446), (127, 25530), (144, 25572), (151, 25596), (161, 25620), (215, 25782), (242, 25875), (243, 25878), (248, 25902), (254, 25929), (275, 26019), (283, 26049), (285, 26052), (287, 26055), (293, 26070), (296, 26088), (308, 26127), (309, 26136), (318, 26196), (328, 26229), (331, 26250), (337, 26268), (356, 26316), (363, 26331), (365, 26337), (375, 26364), (379, 26376), (401, 26427), (409, 26442),

Gene: Inchworm\_30 Start: 27642, Stop: 28754, Start Num: 65

Candidate Starts for Inchworm\_30:

(Start: 65 @27642 has 255 MA's), (Start: 70 @27660 has 8 MA's), (91, 27711), (149, 27879), (176, 27957), (207, 28047), (215, 28071), (228, 28107), (242, 28164), (245, 28179), (246, 28188), (253, 28215), (254, 28218), (261, 28245), (275, 28308), (283, 28338), (287, 28344), (309, 28428), (311, 28437), (325, 28506), (331, 28542), (333, 28548), (337, 28560), (371, 28650), (379, 28668), (383, 28677), (390, 28695), (402, 28728),

Gene: Indlovu\_27 Start: 27667, Stop: 28758, Start Num: 82

Candidate Starts for Indlovu\_27:

(39, 27523), (53, 27586), (Start: 82 @27667 has 38 MA's), (88, 27676), (98, 27718), (100, 27724), (132, 27817), (155, 27880), (165, 27910), (166, 27913), (228, 28090), (237, 28129), (242, 28147), (243, 28150), (248, 28174), (254, 28201), (255, 28210), (265, 28243), (272, 28282), (283, 28321), (287, 28327), (311, 28417), (325, 28486), (331, 28522), (337, 28540), (356, 28588), (363, 28603), (365, 28609), (377, 28642), (379, 28648), (406, 28723), (407, 28726),

Gene: Inverness\_30 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for Inverness\_30:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253,

28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Iridoclysis\_30 Start: 27636, Stop: 28748, Start Num: 65

Candidate Starts for Iridoclysis\_30:

(Start: 65 @27636 has 255 MA's), (Start: 70 @27654 has 8 MA's), (91, 27705), (149, 27873), (176, 27951), (207, 28041), (215, 28065), (228, 28101), (242, 28158), (245, 28173), (246, 28182), (253, 28209), (254, 28212), (261, 28239), (275, 28302), (283, 28332), (287, 28338), (309, 28422), (311, 28431), (325, 28500), (331, 28536), (333, 28542), (337, 28554), (371, 28644), (379, 28662), (383, 28671), (390, 28689), (402, 28722),

Gene: IsaacEli\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for IsaacEli\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: ItsyBitsy1\_31 Start: 28909, Stop: 29958, Start Num: 79

Candidate Starts for ItsyBitsy1\_31:

(15, 28432), (16, 28477), (20, 28552), (27, 28648), (36, 28738), (Start: 47 @28798 has 1 MA's), (53, 28828), (55, 28831), (Start: 79 @28909 has 55 MA's), (98, 28957), (109, 28990), (127, 29041), (128, 29044), (151, 29107), (161, 29131), (202, 29254), (212, 29281), (215, 29293), (228, 29329), (238, 29371), (243, 29389), (248, 29413), (253, 29437), (255, 29449), (265, 29482), (272, 29521), (283, 29560), (298, 29608), (311, 29656), (315, 29677), (316, 29689), (324, 29722), (325, 29725), (337, 29779), (351, 29815), (356, 29827), (363, 29842), (365, 29848), (377, 29875), (379, 29881), (382, 29887), (386, 29896),

Gene: JAMaL\_27 Start: 28079, Stop: 29155, Start Num: 82

Candidate Starts for JAMaL\_27:

(Start: 82 @28079 has 38 MA's), (88, 28088), (144, 28256), (161, 28313), (183, 28376), (190, 28394), (195, 28415), (207, 28451), (215, 28475), (228, 28511), (242, 28568), (245, 28583), (248, 28595), (253, 28619), (254, 28622), (261, 28649), (265, 28664), (275, 28712), (280, 28733), (283, 28742), (287, 28748), (309, 28829), (312, 28847), (318, 28889), (321, 28898), (328, 28922), (337, 28961), (345, 28979), (351, 28997), (356, 29009), (357, 29012), (379, 29069), (383, 29078),

Gene: JDog\_29 Start: 27369, Stop: 28481, Start Num: 65

Candidate Starts for JDog\_29:

(Start: 65 @27369 has 255 MA's), (Start: 70 @27387 has 8 MA's), (91, 27438), (117, 27513), (149, 27606), (162, 27639), (176, 27684), (207, 27774), (215, 27798), (228, 27834), (242, 27891), (245, 27906), (246, 27915), (253, 27942), (254, 27945), (261, 27972), (275, 28035), (283, 28065), (285, 28068), (287, 28071), (309, 28155), (311, 28164), (325, 28233), (331, 28269), (333, 28275), (337, 28287), (371, 28377), (379, 28395), (383, 28404), (390, 28422), (402, 28455),

Gene: JacAttac\_30 Start: 27642, Stop: 28754, Start Num: 65

Candidate Starts for JacAttac\_30:

(Start: 65 @27642 has 255 MA's), (Start: 70 @27660 has 8 MA's), (91, 27711), (149, 27879), (176, 27957), (207, 28047), (215, 28071), (228, 28107), (242, 28164), (245, 28179), (246, 28188), (253, 28215), (254, 28218), (261, 28245), (275, 28308), (283, 28338), (287, 28344), (309, 28428), (311, 28437), (325, 28506), (331, 28542), (333, 28548), (337, 28560), (371, 28650), (379, 28668), (383, 28677), (390, 28695), (402, 28728),

Gene: Jackstina\_27 Start: 27496, Stop: 28539, Start Num: 76

Candidate Starts for Jackstina\_27:

(Start: 47 @27391 has 1 MA's), (53, 27421), (Start: 76 @27496 has 49 MA's), (98, 27544), (122, 27610), (151, 27694), (161, 27718), (176, 27766), (185, 27787), (240, 27967), (242, 27973), (244, 27985), (261, 28054), (279, 28135), (306, 28222), (309, 28237), (315, 28267), (328, 28330), (346, 28390), (352, 28408), (354, 28414), (356, 28417), (365, 28438), (377, 28468), (379, 28474), (382, 28480), (386, 28489),

Gene: JaguarMi\_27 Start: 27377, Stop: 28453, Start Num: 82

Candidate Starts for JaguarMi\_27:

(Start: 82 @27377 has 38 MA's), (88, 27386), (128, 27515), (144, 27554), (151, 27578), (161, 27611), (183, 27674), (195, 27713), (207, 27749), (215, 27773), (228, 27809), (242, 27866), (245, 27881), (248, 27893), (253, 27917), (254, 27920), (265, 27962), (275, 28010), (283, 28040), (287, 28046), (309, 28127), (312, 28145), (318, 28187), (321, 28196), (328, 28220), (337, 28259), (351, 28295), (356, 28307), (379, 28367), (383, 28376),

Gene: JakeO\_29 Start: 27372, Stop: 28484, Start Num: 65

Candidate Starts for JakeO\_29:

(Start: 65 @27372 has 255 MA's), (Start: 70 @27390 has 8 MA's), (91, 27441), (117, 27516), (149, 27609), (162, 27642), (176, 27687), (207, 27777), (215, 27801), (228, 27837), (242, 27894), (245, 27909), (246, 27918), (253, 27945), (254, 27948), (261, 27975), (275, 28038), (287, 28074), (309, 28158), (311, 28167), (325, 28236), (331, 28272), (333, 28278), (337, 28290), (371, 28380), (379, 28398), (383, 28407), (390, 28425), (402, 28458),

Gene: JangoPhett\_30 Start: 27643, Stop: 28755, Start Num: 65

Candidate Starts for JangoPhett\_30:

(Start: 65 @27643 has 255 MA's), (Start: 70 @27661 has 8 MA's), (91, 27712), (149, 27880), (176, 27958), (207, 28048), (215, 28072), (228, 28108), (242, 28165), (245, 28180), (246, 28189), (253, 28216), (254, 28219), (261, 28246), (275, 28309), (283, 28339), (287, 28345), (309, 28429), (311, 28438), (325, 28507), (331, 28543), (333, 28549), (337, 28561), (371, 28651), (379, 28669), (383, 28678), (390, 28696), (402, 28729),

Gene: Jayden\_40 Start: 28060, Stop: 29211, Start Num: 49

Candidate Starts for Jayden\_40:

(Start: 49 @28060 has 12 MA's), (Start: 78 @28135 has 11 MA's), (86, 28150), (89, 28165), (110, 28231), (125, 28276), (134, 28297), (143, 28321), (157, 28375), (180, 28435), (197, 28489), (199, 28492), (207, 28510), (220, 28552), (231, 28585), (241, 28618), (248, 28648), (251, 28660), (256, 28687), (311, 28879), (314, 28894), (315, 28900), (323, 28942), (331, 28984), (340, 29014), (362, 29071), (385, 29131), (394, 29164), (396, 29170), (406, 29194),

Gene: Jefe\_39 Start: 27602, Stop: 28804, Start Num: 43

Candidate Starts for Jefe\_39:

(Start: 43 @27602 has 77 MA's), (59, 27638), (Start: 76 @27695 has 49 MA's), (124, 27830), (134, 27854), (143, 27878), (150, 27902), (172, 27983), (180, 28004), (197, 28058), (206, 28085), (209, 28091), (211, 28097), (216, 28115), (220, 28133), (241, 28202), (243, 28208), (256, 28271), (268, 28316), (283, 28388), (299, 28427), (330, 28562), (331, 28577), (337, 28595), (355, 28649), (362, 28664), (369, 28682), (385, 28724), (388, 28730), (396, 28763), (407, 28790), (409, 28796),

Gene: Jehoshaphat\_41 Start: 31446, Stop: 32597, Start Num: 43

Candidate Starts for Jehoshaphat\_41:

(5, 30870), (12, 31020), (30, 31350), (Start: 43 @31446 has 77 MA's), (64, 31479), (69, 31500), (Start: 76 @31518 has 49 MA's), (86, 31536), (124, 31656), (134, 31680), (180, 31812), (227, 31950), (257,

32079), (270, 32148), (288, 32202), (319, 32310), (331, 32361), (335, 32373), (378, 32490), (388, 32514), (396, 32547), (411, 32586),

Gene: Jeon\_23 Start: 26201, Stop: 27238, Start Num: 79

Candidate Starts for Jeon\_23:

(Start: 79 @26201 has 55 MA's), (90, 26222), (91, 26225), (98, 26249), (109, 26282), (138, 26354), (142, 26357), (149, 26384), (151, 26390), (161, 26414), (195, 26516), (212, 26564), (228, 26612), (238, 26654), (242, 26669), (243, 26672), (245, 26684), (248, 26696), (255, 26732), (275, 26813), (279, 26831), (283, 26843), (285, 26846), (297, 26888), (309, 26930), (315, 26960), (316, 26972), (329, 27026), (346, 27083), (351, 27098), (358, 27116), (363, 27125), (365, 27131), (368, 27137), (377, 27158), (379, 27164), (386, 27179), (405, 27227),

Gene: Jillium\_29 Start: 27366, Stop: 28478, Start Num: 65

Candidate Starts for Jillium\_29:

(Start: 65 @27366 has 255 MA's), (Start: 70 @27384 has 8 MA's), (91, 27435), (149, 27603), (162, 27636), (176, 27681), (207, 27771), (215, 27795), (228, 27831), (242, 27888), (245, 27903), (246, 27912), (253, 27939), (254, 27942), (261, 27969), (275, 28032), (287, 28068), (309, 28152), (311, 28161), (325, 28230), (331, 28266), (333, 28272), (337, 28284), (371, 28374), (379, 28392), (383, 28401), (390, 28419), (402, 28452),

Gene: Jiminy\_29 Start: 27210, Stop: 28322, Start Num: 65

Candidate Starts for Jiminy\_29:

(Start: 65 @27210 has 255 MA's), (Start: 70 @27228 has 8 MA's), (91, 27279), (117, 27354), (149, 27447), (162, 27480), (176, 27525), (207, 27615), (215, 27639), (228, 27675), (242, 27732), (245, 27747), (246, 27756), (253, 27783), (254, 27786), (261, 27813), (275, 27876), (283, 27906), (285, 27909), (287, 27912), (309, 27996), (311, 28005), (325, 28074), (331, 28110), (333, 28116), (337, 28128), (371, 28218), (379, 28236), (383, 28245), (390, 28263), (402, 28296),

Gene: Jiraiya\_30 Start: 27363, Stop: 28475, Start Num: 65

Candidate Starts for Jiraiya\_30:

(Start: 65 @27363 has 255 MA's), (Start: 70 @27381 has 8 MA's), (91, 27432), (117, 27507), (149, 27600), (162, 27633), (176, 27678), (207, 27768), (215, 27792), (228, 27828), (242, 27885), (245, 27900), (246, 27909), (253, 27936), (254, 27939), (261, 27966), (275, 28029), (287, 28065), (309, 28149), (311, 28158), (325, 28227), (331, 28263), (333, 28269), (337, 28281), (371, 28371), (379, 28389), (383, 28398), (390, 28416), (402, 28449),

Gene: Jolie1\_025 Start: 26479, Stop: 27567, Start Num: 71

Candidate Starts for Jolie1\_025:

(Start: 70 @26476 has 8 MA's), (Start: 71 @26479 has 1 MA's), (86, 26506), (90, 26524), (151, 26701), (165, 26743), (166, 26746), (215, 26887), (228, 26923), (238, 26965), (242, 26980), (253, 27031), (261, 27061), (265, 27076), (275, 27124), (283, 27154), (287, 27160), (309, 27241), (311, 27250), (328, 27334), (337, 27373), (345, 27391), (365, 27442), (379, 27481), (383, 27490), (399, 27535),

Gene: Jollipop\_39 Start: 27941, Stop: 29143, Start Num: 43

Candidate Starts for Jollipop\_39:

(Start: 43 @27941 has 77 MA's), (59, 27977), (Start: 76 @28034 has 49 MA's), (124, 28169), (134, 28193), (143, 28217), (150, 28241), (172, 28322), (180, 28343), (197, 28397), (206, 28424), (209, 28430), (211, 28436), (216, 28454), (220, 28472), (241, 28541), (243, 28547), (256, 28610), (268, 28655), (283, 28727), (299, 28766), (330, 28901), (331, 28916), (337, 28934), (355, 28988), (362, 29003), (369, 29021), (388, 29069), (396, 29102), (407, 29129), (409, 29135),

Gene: Jollymon\_59 Start: 37457, Stop: 38605, Start Num: 78



Candidate Starts for Jollymon\_59:

(Start: 78 @37457 has 11 MA's), (106, 37538), (108, 37544), (112, 37553), (187, 37751), (205, 37808), (213, 37829), (220, 37859), (222, 37865), (234, 37904), (235, 37910), (243, 37937), (245, 37949), (248, 37961), (256, 38000), (272, 38069), (275, 38078), (280, 38099), (292, 38129), (301, 38168), (313, 38219), (356, 38390), (357, 38393), (365, 38411), (368, 38417), (373, 38438), (376, 38444), (379, 38453),

Gene: Judebell\_41 Start: 30949, Stop: 32094, Start Num: 43

Candidate Starts for Judebell\_41:

(5, 30373), (12, 30523), (30, 30853), (Start: 43 @30949 has 77 MA's), (64, 30976), (69, 30997), (72, 31006), (Start: 76 @31015 has 49 MA's), (86, 31033), (124, 31153), (134, 31177), (180, 31309), (227, 31447), (257, 31576), (270, 31645), (288, 31699), (319, 31807), (331, 31858), (335, 31870), (378, 31987), (388, 32011), (396, 32044), (411, 32083),

Gene: KLucky39\_30 Start: 27654, Stop: 28766, Start Num: 65

Candidate Starts for KLucky39\_30:

(Start: 65 @27654 has 255 MA's), (Start: 70 @27672 has 8 MA's), (91, 27723), (149, 27891), (176, 27969), (207, 28059), (215, 28083), (228, 28119), (242, 28176), (245, 28191), (246, 28200), (253, 28227), (254, 28230), (261, 28257), (275, 28320), (283, 28350), (287, 28356), (309, 28440), (311, 28449), (325, 28518), (331, 28554), (333, 28560), (337, 28572), (371, 28662), (379, 28680), (383, 28689), (390, 28707), (402, 28740),

Gene: Kahve\_29 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for Kahve\_29:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (149, 27607), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: KaiHaiDragon\_39 Start: 27541, Stop: 28743, Start Num: 43

Candidate Starts for KaiHaiDragon\_39:

(Start: 43 @27541 has 77 MA's), (59, 27577), (Start: 76 @27634 has 49 MA's), (124, 27769), (134, 27793), (143, 27817), (150, 27841), (172, 27922), (180, 27943), (197, 27997), (206, 28024), (209, 28030), (211, 28036), (216, 28054), (220, 28072), (241, 28141), (243, 28147), (256, 28210), (268, 28255), (299, 28366), (308, 28393), (330, 28501), (331, 28516), (337, 28534), (355, 28588), (362, 28603), (369, 28621), (385, 28663), (388, 28669), (396, 28702), (407, 28729), (409, 28735),

Gene: Kailash\_30 Start: 27708, Stop: 28820, Start Num: 65

Candidate Starts for Kailash\_30:

(Start: 65 @27708 has 255 MA's), (Start: 70 @27726 has 8 MA's), (91, 27777), (117, 27852), (149, 27945), (162, 27978), (176, 28023), (207, 28113), (215, 28137), (228, 28173), (242, 28230), (245, 28245), (246, 28254), (253, 28281), (254, 28284), (261, 28311), (275, 28374), (287, 28410), (309, 28494), (311, 28503), (325, 28572), (331, 28608), (333, 28614), (337, 28626), (371, 28716), (379, 28734), (383, 28743), (390, 28761), (402, 28794),

Gene: Kaleb\_31 Start: 29042, Stop: 30091, Start Num: 79

Candidate Starts for Kaleb\_31:

(15, 28565), (16, 28610), (20, 28685), (27, 28781), (36, 28871), (Start: 47 @28931 has 1 MA's), (53, 28961), (55, 28964), (Start: 79 @29042 has 55 MA's), (98, 29090), (109, 29123), (127, 29174), (128, 29177), (151, 29240), (161, 29264), (202, 29387), (212, 29414), (215, 29426), (228, 29462), (238, 29504), (243, 29522), (248, 29546), (253, 29570), (255, 29582), (265, 29615), (272, 29654), (283, 29693), (298, 29741), (311, 29789), (315, 29810), (316, 29822), (324, 29855), (325, 29858), (337,

29912), (351, 29948), (356, 29960), (363, 29975), (365, 29981), (377, 30008), (379, 30014), (382, 30020), (386, 30029),

Gene: Kamiyu\_30 Start: 27542, Stop: 28585, Start Num: 76

Candidate Starts for Kamiyu\_30:

(Start: 47 @27437 has 1 MA's), (53, 27467), (Start: 76 @27542 has 49 MA's), (98, 27590), (122, 27656), (151, 27740), (161, 27764), (176, 27812), (185, 27833), (242, 28019), (244, 28031), (261, 28100), (279, 28181), (306, 28268), (309, 28283), (315, 28313), (328, 28376), (346, 28436), (352, 28454), (354, 28460), (356, 28463), (365, 28484), (377, 28514), (379, 28520), (382, 28526), (386, 28535),

Gene: KarasumaRum\_31 Start: 28042, Stop: 29127, Start Num: 73

Candidate Starts for KarasumaRum\_31:

(Start: 73 @28042 has 9 MA's), (149, 28249), (151, 28255), (160, 28276), (161, 28279), (165, 28297), (176, 28327), (215, 28441), (242, 28534), (254, 28588), (267, 28636), (279, 28696), (283, 28708), (287, 28714), (289, 28720), (295, 28735), (297, 28753), (318, 28855), (351, 28963), (356, 28975), (363, 28990), (379, 29035), (383, 29044),

Gene: Katniss\_30 Start: 27669, Stop: 28781, Start Num: 65

Candidate Starts for Katniss\_30:

(Start: 65 @27669 has 255 MA's), (Start: 70 @27687 has 8 MA's), (91, 27738), (149, 27906), (176, 27984), (207, 28074), (215, 28098), (228, 28134), (242, 28191), (245, 28206), (246, 28215), (253, 28242), (254, 28245), (261, 28272), (275, 28335), (283, 28365), (287, 28371), (309, 28455), (311, 28464), (325, 28533), (331, 28569), (333, 28575), (337, 28587), (371, 28677), (379, 28695), (383, 28704), (390, 28722), (402, 28755),

Gene: KayaCho\_25 Start: 26481, Stop: 27569, Start Num: 71

Candidate Starts for KayaCho\_25:

(Start: 71 @26481 has 1 MA's), (86, 26508), (90, 26526), (165, 26745), (166, 26748), (215, 26889), (228, 26925), (238, 26967), (242, 26982), (253, 27033), (254, 27036), (261, 27063), (265, 27078), (275, 27126), (283, 27156), (287, 27162), (309, 27243), (311, 27252), (328, 27336), (337, 27375), (379, 27483), (383, 27492), (399, 27537),

Gene: Keitherie\_30 Start: 27701, Stop: 28813, Start Num: 65

Candidate Starts for Keitherie\_30:

(Start: 65 @27701 has 255 MA's), (Start: 70 @27719 has 8 MA's), (91, 27770), (117, 27845), (149, 27938), (162, 27971), (176, 28016), (207, 28106), (215, 28130), (228, 28166), (242, 28223), (245, 28238), (246, 28247), (253, 28274), (254, 28277), (261, 28304), (275, 28367), (283, 28397), (285, 28400), (287, 28403), (309, 28487), (311, 28496), (325, 28565), (331, 28601), (333, 28607), (337, 28619), (371, 28709), (379, 28727), (383, 28736), (390, 28754), (402, 28787),

Gene: Kelcole\_37 Start: 29980, Stop: 31128, Start Num: 43

Candidate Starts for Kelcole\_37:

(12, 29554), (23, 29794), (29, 29869), (30, 29884), (Start: 42 @29977 has 3 MA's), (Start: 43 @29980 has 77 MA's), (64, 30013), (124, 30190), (134, 30214), (148, 30256), (155, 30280), (161, 30304), (180, 30346), (201, 30409), (220, 30466), (227, 30484), (245, 30556), (331, 30895), (335, 30907), (378, 31024), (394, 31075), (410, 31117),

Gene: Kheth\_31 Start: 28927, Stop: 29976, Start Num: 79

Candidate Starts for Kheth\_31:

(27, 28666), (36, 28756), (Start: 47 @28816 has 1 MA's), (53, 28846), (55, 28849), (Start: 79 @28927 has 55 MA's), (98, 28975), (109, 29008), (127, 29059), (128, 29062), (151, 29125), (161, 29149), (202, 29272), (212, 29299), (215, 29311), (228, 29347), (238, 29389), (243, 29407), (248, 29431), (253,

29455), (255, 29467), (265, 29500), (272, 29539), (283, 29578), (298, 29626), (311, 29674), (315, 29695), (316, 29707), (324, 29740), (325, 29743), (337, 29797), (351, 29833), (356, 29845), (363, 29860), (365, 29866), (377, 29893), (379, 29899), (382, 29905), (386, 29914),

Gene: Kikipoo\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for Kikipoo\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: Kimbrough\_30 Start: 27362, Stop: 28474, Start Num: 65

Candidate Starts for Kimbrough\_30:

(Start: 65 @27362 has 255 MA's), (Start: 70 @27380 has 8 MA's), (91, 27431), (149, 27599), (176, 27677), (207, 27767), (215, 27791), (228, 27827), (242, 27884), (245, 27899), (246, 27908), (253, 27935), (254, 27938), (261, 27965), (275, 28028), (283, 28058), (287, 28064), (309, 28148), (311, 28157), (325, 28226), (331, 28262), (333, 28268), (337, 28280), (371, 28370), (379, 28388), (383, 28397), (390, 28415), (402, 28448),

Gene: KingTut\_21 Start: 23031, Stop: 24143, Start Num: 65

Candidate Starts for KingTut\_21:

(Start: 65 @23031 has 255 MA's), (Start: 70 @23049 has 8 MA's), (91, 23100), (149, 23268), (176, 23346), (207, 23436), (215, 23460), (228, 23496), (242, 23553), (245, 23568), (246, 23577), (253, 23604), (254, 23607), (261, 23634), (275, 23697), (283, 23727), (287, 23733), (309, 23817), (311, 23826), (325, 23895), (331, 23931), (333, 23937), (337, 23949), (371, 24039), (379, 24057), (383, 24066), (390, 24084), (402, 24117),

Gene: KingVeVeVe\_30 Start: 27653, Stop: 28747, Start Num: 70

Candidate Starts for KingVeVeVe\_30:

(Start: 65 @27635 has 255 MA's), (Start: 70 @27653 has 8 MA's), (91, 27704), (149, 27872), (176, 27950), (207, 28040), (215, 28064), (228, 28100), (242, 28157), (245, 28172), (246, 28181), (253, 28208), (254, 28211), (261, 28238), (275, 28301), (283, 28331), (287, 28337), (309, 28421), (311, 28430), (325, 28499), (331, 28535), (333, 28541), (337, 28553), (371, 28643), (379, 28661), (383, 28670), (390, 28688), (402, 28721),

Gene: KingstonB\_59 Start: 36936, Stop: 38084, Start Num: 78

Candidate Starts for KingstonB\_59:

(Start: 78 @36936 has 11 MA's), (106, 37017), (108, 37023), (112, 37032), (187, 37230), (205, 37287), (213, 37308), (220, 37338), (222, 37344), (234, 37383), (235, 37389), (243, 37416), (245, 37428), (248, 37440), (256, 37479), (272, 37548), (275, 37557), (280, 37578), (292, 37608), (301, 37647), (313, 37698), (356, 37869), (365, 37890), (368, 37896), (373, 37917), (376, 37923), (379, 37932),

Gene: Kithara\_39 Start: 32039, Stop: 33163, Start Num: 48

Candidate Starts for Kithara\_39:

(48, 32039), (145, 32315), (162, 32381), (181, 32426), (184, 32435), (189, 32447), (241, 32561), (253, 32618), (258, 32639), (272, 32714), (327, 32894), (337, 32936), (347, 32972), (353, 32987), (354, 32990), (359, 33002), (362, 33008), (367, 33020), (378, 33053), (385, 33071), (396, 33110),

Gene: KlimbOn\_30 Start: 27648, Stop: 28760, Start Num: 65

Candidate Starts for KlimbOn\_30:

(Start: 65 @27648 has 255 MA's), (Start: 70 @27666 has 8 MA's), (91, 27717), (149, 27885), (176, 27963), (207, 28053), (215, 28077), (228, 28113), (242, 28170), (245, 28185), (246, 28194), (253, 28221), (254, 28224), (261, 28251), (275, 28314), (283, 28344), (287, 28350), (309, 28434), (311, 28443), (325, 28512), (331, 28548), (333, 28554), (337, 28566), (371, 28656), (379, 28674), (383, 28683), (390, 28701), (402, 28734),

Gene: Kloppinator\_30 Start: 27671, Stop: 28783, Start Num: 65

Candidate Starts for Kloppinator\_30:

(Start: 65 @27671 has 255 MA's), (Start: 70 @27689 has 8 MA's), (91, 27740), (149, 27908), (176, 27986), (207, 28076), (215, 28100), (228, 28136), (242, 28193), (245, 28208), (246, 28217), (253, 28244), (254, 28247), (261, 28274), (275, 28337), (283, 28367), (287, 28373), (309, 28457), (311, 28466), (325, 28535), (331, 28571), (333, 28577), (337, 28589), (371, 28679), (379, 28697), (383, 28706), (390, 28724), (402, 28757),

Gene: Knocker\_31 Start: 30345, Stop: 31415, Start Num: 82

Candidate Starts for Knocker\_31:

(61, 30291), (Start: 82 @30345 has 38 MA's), (88, 30354), (98, 30396), (100, 30402), (103, 30414), (135, 30501), (144, 30522), (147, 30531), (154, 30555), (160, 30567), (180, 30624), (182, 30630), (212, 30720), (215, 30732), (216, 30735), (237, 30807), (238, 30810), (242, 30825), (253, 30876), (254, 30879), (261, 30906), (262, 30912), (274, 30966), (275, 30969), (283, 30999), (287, 31005), (296, 31038), (302, 31059), (309, 31086), (311, 31095), (312, 31104), (331, 31200), (336, 31215), (337, 31218), (354, 31263), (356, 31266), (358, 31272), (375, 31314), (377, 31320), (379, 31326), (390, 31353), (409, 31395),

Gene: Kowalski\_38 Start: 27651, Stop: 28853, Start Num: 43

Candidate Starts for Kowalski\_38:

(Start: 43 @27651 has 77 MA's), (59, 27687), (Start: 76 @27744 has 49 MA's), (124, 27879), (134, 27903), (143, 27927), (150, 27951), (172, 28032), (180, 28053), (197, 28107), (206, 28134), (209, 28140), (211, 28146), (216, 28164), (220, 28182), (241, 28251), (243, 28257), (256, 28320), (268, 28365), (283, 28437), (299, 28476), (330, 28611), (331, 28626), (337, 28644), (355, 28698), (362, 28713), (369, 28731), (388, 28779), (396, 28812), (407, 28839), (409, 28845),

Gene: Kozie\_35 Start: 27238, Stop: 28389, Start Num: 49

Candidate Starts for Kozie\_35:

(Start: 49 @27238 has 12 MA's), (Start: 78 @27313 has 11 MA's), (81, 27319), (86, 27328), (134, 27475), (143, 27499), (180, 27613), (197, 27667), (220, 27730), (231, 27763), (241, 27796), (242, 27799), (243, 27802), (248, 27826), (251, 27838), (253, 27850), (256, 27865), (272, 27943), (299, 28012), (314, 28072), (315, 28078), (323, 28120), (335, 28174), (340, 28192), (362, 28249), (385, 28309), (396, 28348), (406, 28372),

Gene: Kronus\_29 Start: 28156, Stop: 29199, Start Num: 76

Candidate Starts for Kronus\_29:

(Start: 47 @28051 has 1 MA's), (53, 28081), (Start: 76 @28156 has 49 MA's), (98, 28204), (122, 28270), (151, 28354), (161, 28378), (167, 28402), (176, 28426), (185, 28447), (242, 28633), (244, 28645), (261, 28714), (279, 28795), (306, 28882), (309, 28897), (315, 28927), (328, 28990), (346, 29050), (352, 29068), (354, 29074), (356, 29077), (365, 29098), (377, 29128), (379, 29134), (382, 29140), (386, 29149),

Gene: Kwadwo\_29 Start: 27352, Stop: 28464, Start Num: 65

Candidate Starts for Kwadwo\_29:

(Start: 65 @27352 has 255 MA's), (Start: 70 @27370 has 8 MA's), (91, 27421), (149, 27589), (176, 27667), (207, 27757), (215, 27781), (228, 27817), (242, 27874), (245, 27889), (246, 27898), (253, 27925), (254, 27928), (261, 27955), (275, 28018), (283, 28048), (287, 28054), (309, 28138), (311,

28147), (325, 28216), (331, 28252), (333, 28258), (337, 28270), (371, 28360), (379, 28378), (383, 28387), (390, 28405), (402, 28438),

Gene: Kwksand96\_29 Start: 27220, Stop: 28332, Start Num: 65

Candidate Starts for Kwksand96\_29:

(Start: 65 @27220 has 255 MA's), (Start: 70 @27238 has 8 MA's), (91, 27289), (117, 27364), (149, 27457), (162, 27490), (176, 27535), (207, 27625), (215, 27649), (228, 27685), (242, 27742), (245, 27757), (246, 27766), (253, 27793), (254, 27796), (261, 27823), (275, 27886), (287, 27922), (309, 28006), (311, 28015), (325, 28084), (331, 28120), (333, 28126), (337, 28138), (371, 28228), (379, 28246), (383, 28255), (390, 28273), (402, 28306),

Gene: Kyva\_41 Start: 31209, Stop: 32327, Start Num: 64

Candidate Starts for Kyva\_41:

(5, 30600), (12, 30750), (30, 31080), (Start: 43 @31176 has 77 MA's), (64, 31209), (69, 31230), (Start: 76 @31248 has 49 MA's), (86, 31266), (124, 31386), (134, 31410), (180, 31542), (227, 31680), (257, 31809), (270, 31878), (288, 31932), (319, 32040), (331, 32091), (335, 32103), (378, 32220), (388, 32244), (396, 32277), (411, 32316),

Gene: Labeouficaum\_29 Start: 27216, Stop: 28328, Start Num: 65

Candidate Starts for Labeouficaum\_29:

(Start: 65 @27216 has 255 MA's), (Start: 70 @27234 has 8 MA's), (91, 27285), (117, 27360), (149, 27453), (162, 27486), (176, 27531), (207, 27621), (215, 27645), (228, 27681), (242, 27738), (245, 27753), (246, 27762), (253, 27789), (254, 27792), (261, 27819), (275, 27882), (287, 27918), (309, 28002), (311, 28011), (325, 28080), (331, 28116), (333, 28122), (337, 28134), (371, 28224), (379, 28242), (383, 28251), (390, 28269), (402, 28302),

Gene: Lambano\_26 Start: 26880, Stop: 27956, Start Num: 82

Candidate Starts for Lambano\_26:

(Start: 82 @26880 has 38 MA's), (88, 26889), (144, 27057), (161, 27114), (183, 27177), (195, 27216), (207, 27252), (215, 27276), (228, 27312), (242, 27369), (245, 27384), (248, 27396), (253, 27420), (254, 27423), (265, 27465), (275, 27513), (280, 27534), (283, 27543), (287, 27549), (309, 27630), (312, 27648), (318, 27690), (321, 27699), (328, 27723), (337, 27762), (345, 27780), (351, 27798), (356, 27810), (379, 27870), (383, 27879),

Gene: Lars\_31 Start: 29032, Stop: 30081, Start Num: 79

Candidate Starts for Lars\_31:

(15, 28555), (16, 28600), (20, 28675), (27, 28771), (36, 28861), (Start: 47 @28921 has 1 MA's), (53, 28951), (55, 28954), (Start: 79 @29032 has 55 MA's), (98, 29080), (109, 29113), (127, 29164), (128, 29167), (151, 29230), (161, 29254), (202, 29377), (212, 29404), (215, 29416), (228, 29452), (238, 29494), (243, 29512), (248, 29536), (253, 29560), (255, 29572), (265, 29605), (272, 29644), (283, 29683), (298, 29731), (311, 29779), (315, 29800), (316, 29812), (324, 29845), (325, 29848), (337, 29902), (351, 29938), (356, 29950), (363, 29965), (365, 29971), (377, 29998), (379, 30004), (382, 30010), (386, 30019),

Gene: LasagnaCat\_30 Start: 27654, Stop: 28766, Start Num: 65

Candidate Starts for LasagnaCat\_30:

(Start: 65 @27654 has 255 MA's), (Start: 70 @27672 has 8 MA's), (91, 27723), (117, 27798), (149, 27891), (162, 27924), (176, 27969), (207, 28059), (215, 28083), (228, 28119), (242, 28176), (245, 28191), (246, 28200), (253, 28227), (254, 28230), (261, 28257), (275, 28320), (287, 28356), (309, 28440), (311, 28449), (325, 28518), (331, 28554), (333, 28560), (337, 28572), (371, 28662), (379, 28680), (383, 28689), (390, 28707), (402, 28740),

Gene: Lasso\_30 Start: 27627, Stop: 28739, Start Num: 65

Candidate Starts for Lasso\_30:

(Start: 65 @27627 has 255 MA's), (Start: 70 @27645 has 8 MA's), (91, 27696), (149, 27864), (176, 27942), (207, 28032), (215, 28056), (228, 28092), (242, 28149), (245, 28164), (246, 28173), (253, 28200), (254, 28203), (261, 28230), (275, 28293), (283, 28323), (287, 28329), (309, 28413), (311, 28422), (325, 28491), (331, 28527), (333, 28533), (337, 28545), (371, 28635), (379, 28653), (383, 28662), (390, 28680), (402, 28713),

Gene: Laurie\_31 Start: 28916, Stop: 29965, Start Num: 79

Candidate Starts for Laurie\_31:

(Start: 79 @28916 has 55 MA's), (98, 28964), (109, 28997), (127, 29048), (128, 29051), (151, 29114), (161, 29138), (202, 29261), (212, 29288), (215, 29300), (228, 29336), (237, 29375), (238, 29378), (243, 29396), (248, 29420), (253, 29444), (255, 29456), (265, 29489), (272, 29528), (283, 29567), (311, 29663), (315, 29684), (316, 29696), (324, 29729), (325, 29732), (337, 29786), (351, 29822), (356, 29834), (363, 29849), (365, 29855), (377, 29882), (379, 29888), (382, 29894), (386, 29903),

Gene: Leaf\_79 Start: 50740, Stop: 51936, Start Num: 43

Candidate Starts for Leaf\_79:

(29, 50629), (Start: 43 @50740 has 77 MA's), (50, 50746), (63, 50785), (64, 50788), (86, 50845), (94, 50878), (110, 50929), (120, 50950), (141, 51004), (143, 51013), (149, 51034), (152, 51043), (153, 51046), (173, 51115), (180, 51127), (184, 51139), (197, 51181), (211, 51220), (220, 51256), (227, 51274), (241, 51325), (302, 51568), (311, 51604), (334, 51718), (335, 51721), (337, 51727), (352, 51772), (355, 51781), (359, 51790), (362, 51796), (374, 51829), (388, 51862), (396, 51895), (406, 51919), (409, 51928),

Gene: LeeLot\_30 Start: 27658, Stop: 28770, Start Num: 65

Candidate Starts for LeeLot\_30:

(Start: 65 @27658 has 255 MA's), (Start: 70 @27676 has 8 MA's), (91, 27727), (149, 27895), (176, 27973), (207, 28063), (215, 28087), (228, 28123), (242, 28180), (245, 28195), (246, 28204), (253, 28231), (254, 28234), (261, 28261), (275, 28324), (283, 28354), (287, 28360), (309, 28444), (311, 28453), (325, 28522), (331, 28558), (333, 28564), (337, 28576), (371, 28666), (379, 28684), (383, 28693), (390, 28711), (402, 28744),

Gene: Lego3393\_30 Start: 27663, Stop: 28775, Start Num: 65

Candidate Starts for Lego3393\_30:

(Start: 65 @27663 has 255 MA's), (Start: 70 @27681 has 8 MA's), (91, 27732), (149, 27900), (176, 27978), (207, 28068), (215, 28092), (228, 28128), (242, 28185), (245, 28200), (246, 28209), (253, 28236), (254, 28239), (261, 28266), (275, 28329), (283, 28359), (287, 28365), (309, 28449), (311, 28458), (325, 28527), (331, 28563), (333, 28569), (337, 28581), (371, 28671), (379, 28689), (383, 28698), (390, 28716), (402, 28749),

Gene: Legolas\_29 Start: 27368, Stop: 28480, Start Num: 65

Candidate Starts for Legolas\_29:

(Start: 65 @27368 has 255 MA's), (Start: 70 @27386 has 8 MA's), (91, 27437), (149, 27605), (176, 27683), (207, 27773), (215, 27797), (228, 27833), (242, 27890), (245, 27905), (246, 27914), (253, 27941), (254, 27944), (261, 27971), (275, 28034), (283, 28064), (287, 28070), (309, 28154), (311, 28163), (325, 28232), (331, 28268), (333, 28274), (337, 28286), (371, 28376), (379, 28394), (383, 28403), (390, 28421), (402, 28454),

Gene: LeiMonet\_30 Start: 27359, Stop: 28471, Start Num: 65

Candidate Starts for LeiMonet\_30:

(Start: 65 @27359 has 255 MA's), (Start: 70 @27377 has 8 MA's), (91, 27428), (149, 27596), (176, 27674), (207, 27764), (215, 27788), (228, 27824), (242, 27881), (245, 27896), (246, 27905), (253, 27932), (254, 27935), (261, 27962), (275, 28025), (283, 28055), (287, 28061), (309, 28145), (311,

28154), (325, 28223), (331, 28259), (333, 28265), (337, 28277), (371, 28367), (379, 28385), (383, 28394), (390, 28412), (402, 28445),

Gene: LemonSlice\_30 Start: 27355, Stop: 28467, Start Num: 65

Candidate Starts for LemonSlice\_30:

(Start: 65 @27355 has 255 MA's), (Start: 70 @27373 has 8 MA's), (91, 27424), (149, 27592), (176, 27670), (207, 27760), (215, 27784), (228, 27820), (242, 27877), (245, 27892), (246, 27901), (253, 27928), (254, 27931), (261, 27958), (275, 28021), (283, 28051), (287, 28057), (309, 28141), (311, 28150), (325, 28219), (331, 28255), (333, 28261), (337, 28273), (371, 28363), (379, 28381), (383, 28390), (390, 28408), (402, 28441),

Gene: Lephleur\_31 Start: 28925, Stop: 29974, Start Num: 79

Candidate Starts for Lephleur\_31:

(27, 28664), (36, 28754), (Start: 47 @28814 has 1 MA's), (53, 28844), (55, 28847), (Start: 79 @28925 has 55 MA's), (98, 28973), (109, 29006), (127, 29057), (128, 29060), (151, 29123), (161, 29147), (202, 29270), (212, 29297), (215, 29309), (228, 29345), (238, 29387), (243, 29405), (248, 29429), (253, 29453), (255, 29465), (265, 29498), (272, 29537), (283, 29576), (298, 29624), (311, 29672), (315, 29693), (316, 29705), (323, 29735), (324, 29738), (325, 29741), (337, 29795), (351, 29831), (356, 29843), (363, 29858), (365, 29864), (377, 29891), (379, 29897), (382, 29903), (386, 29912),

Gene: LestyG\_30 Start: 27577, Stop: 28620, Start Num: 76

Candidate Starts for LestyG\_30:

(Start: 47 @27472 has 1 MA's), (53, 27502), (Start: 76 @27577 has 49 MA's), (98, 27625), (122, 27691), (151, 27775), (161, 27799), (167, 27823), (176, 27847), (185, 27868), (195, 27901), (242, 28054), (244, 28066), (261, 28135), (279, 28216), (306, 28303), (309, 28318), (315, 28348), (328, 28411), (346, 28471), (352, 28489), (354, 28495), (356, 28498), (365, 28519), (377, 28549), (379, 28555), (382, 28561), (386, 28570),

Gene: Ligma\_26 Start: 25044, Stop: 26081, Start Num: 78

Candidate Starts for Ligma\_26:

(Start: 76 @25041 has 49 MA's), (Start: 78 @25044 has 11 MA's), (122, 25158), (143, 25206), (151, 25233), (169, 25287), (212, 25407), (215, 25419), (228, 25455), (245, 25527), (248, 25539), (255, 25575), (257, 25581), (261, 25593), (275, 25656), (309, 25773), (331, 25887), (356, 25953), (363, 25968), (365, 25974), (375, 26001), (390, 26031), (409, 26070),

Gene: LilMcDreamy\_26 Start: 28053, Stop: 29186, Start Num: 60

Candidate Starts for LilMcDreamy\_26:

(Start: 60 @28053 has 1 MA's), (66, 28071), (128, 28248), (143, 28284), (165, 28353), (215, 28497), (216, 28500), (228, 28533), (242, 28590), (246, 28614), (257, 28659), (275, 28737), (279, 28755), (283, 28767), (287, 28773), (289, 28779), (295, 28794), (306, 28839), (311, 28863), (317, 28911), (318, 28914), (351, 29022), (379, 29094),

Gene: LittleFortune\_40 Start: 27907, Stop: 29109, Start Num: 43

Candidate Starts for LittleFortune\_40:

(Start: 43 @27907 has 77 MA's), (59, 27943), (Start: 76 @28000 has 49 MA's), (97, 28063), (124, 28135), (134, 28159), (143, 28183), (150, 28207), (172, 28288), (180, 28309), (197, 28363), (206, 28390), (209, 28396), (211, 28402), (216, 28420), (220, 28438), (241, 28507), (243, 28513), (256, 28576), (268, 28621), (283, 28693), (299, 28732), (330, 28867), (331, 28882), (337, 28900), (355, 28954), (362, 28969), (369, 28987), (388, 29035), (396, 29068), (407, 29095), (409, 29101),

Gene: LittleMunchkin\_28 Start: 28100, Stop: 29137, Start Num: 79

Candidate Starts for LittleMunchkin\_28:

(Start: 79 @28100 has 55 MA's), (143, 28262), (190, 28394), (215, 28475), (242, 28568), (243, 28571), (245, 28583), (261, 28649), (274, 28709), (283, 28742), (285, 28745), (309, 28829), (312, 28847), (315, 28859), (337, 28961), (356, 29009), (375, 29057), (406, 29117), (409, 29126),

Gene: LizLemon\_31 Start: 29041, Stop: 30090, Start Num: 79

Candidate Starts for LizLemon\_31:

(15, 28564), (16, 28609), (20, 28684), (27, 28780), (36, 28870), (Start: 47 @28930 has 1 MA's), (53, 28960), (55, 28963), (Start: 79 @29041 has 55 MA's), (98, 29089), (109, 29122), (127, 29173), (128, 29176), (151, 29239), (161, 29263), (202, 29386), (212, 29413), (215, 29425), (228, 29461), (238, 29503), (243, 29521), (248, 29545), (253, 29569), (255, 29581), (265, 29614), (272, 29653), (283, 29692), (298, 29740), (311, 29788), (315, 29809), (316, 29821), (323, 29851), (324, 29854), (325, 29857), (337, 29911), (351, 29947), (356, 29959), (363, 29974), (365, 29980), (377, 30007), (379, 30013), (382, 30019), (386, 30028),

Gene: Llemily\_39 Start: 30222, Stop: 31373, Start Num: 43

Candidate Starts for Llemily\_39:

(5, 29646), (12, 29796), (30, 30126), (Start: 43 @30222 has 77 MA's), (64, 30255), (69, 30276), (Start: 76 @30294 has 49 MA's), (86, 30312), (124, 30432), (134, 30456), (180, 30588), (227, 30726), (257, 30855), (270, 30924), (288, 30978), (319, 31086), (331, 31137), (335, 31149), (378, 31266), (388, 31290), (396, 31323), (411, 31362),

Gene: Lolalove\_27 Start: 27906, Stop: 28982, Start Num: 82

Candidate Starts for Lolalove\_27:

(Start: 82 @27906 has 38 MA's), (88, 27915), (144, 28083), (161, 28140), (183, 28203), (195, 28242), (207, 28278), (215, 28302), (228, 28338), (242, 28395), (245, 28410), (248, 28422), (253, 28446), (254, 28449), (265, 28491), (275, 28539), (280, 28560), (283, 28569), (287, 28575), (309, 28656), (312, 28674), (318, 28716), (321, 28725), (328, 28749), (337, 28788), (345, 28806), (351, 28824), (356, 28836), (379, 28896), (383, 28905),

Gene: Lonelysoil\_38 Start: 30464, Stop: 31615, Start Num: 43

Candidate Starts for Lonelysoil\_38:

(12, 30038), (30, 30368), (Start: 43 @30464 has 77 MA's), (64, 30497), (69, 30518), (Start: 76 @30536 has 49 MA's), (86, 30554), (124, 30674), (134, 30698), (180, 30830), (227, 30968), (257, 31097), (270, 31166), (288, 31220), (319, 31328), (331, 31379), (335, 31391), (378, 31508), (388, 31532), (396, 31565), (398, 31571), (411, 31604),

Gene: Longacauda\_29 Start: 27360, Stop: 28472, Start Num: 65

Candidate Starts for Longacauda\_29:

(Start: 65 @27360 has 255 MA's), (Start: 70 @27378 has 8 MA's), (91, 27429), (117, 27504), (149, 27597), (162, 27630), (176, 27675), (207, 27765), (215, 27789), (228, 27825), (242, 27882), (245, 27897), (246, 27906), (253, 27933), (254, 27936), (261, 27963), (275, 28026), (287, 28062), (309, 28146), (311, 28155), (325, 28224), (331, 28260), (333, 28266), (337, 28278), (371, 28368), (379, 28386), (383, 28395), (390, 28413), (402, 28446),

Gene: Lopsy\_29 Start: 27210, Stop: 28322, Start Num: 65

Candidate Starts for Lopsy\_29:

(Start: 65 @27210 has 255 MA's), (Start: 70 @27228 has 8 MA's), (91, 27279), (149, 27447), (176, 27525), (207, 27615), (215, 27639), (228, 27675), (242, 27732), (245, 27747), (246, 27756), (253, 27783), (254, 27786), (261, 27813), (275, 27876), (283, 27906), (287, 27912), (309, 27996), (311, 28005), (325, 28074), (331, 28110), (333, 28116), (337, 28128), (371, 28218), (379, 28236), (383, 28245), (390, 28263), (402, 28296),

Gene: LostAndPhound\_29 Start: 27361, Stop: 28473, Start Num: 65



Candidate Starts for LostAndPhound\_29:

(Start: 65 @27361 has 255 MA's), (Start: 70 @27379 has 8 MA's), (91, 27430), (149, 27598), (176, 27676), (207, 27766), (215, 27790), (228, 27826), (242, 27883), (245, 27898), (246, 27907), (253, 27934), (254, 27937), (261, 27964), (275, 28027), (283, 28057), (287, 28063), (309, 28147), (311, 28156), (325, 28225), (331, 28261), (333, 28267), (337, 28279), (371, 28369), (379, 28387), (383, 28396), (390, 28414), (402, 28447),

Gene: LuckyMarjie\_29 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for LuckyMarjie\_29:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (149, 27607), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: Lulumae\_29 Start: 27352, Stop: 28464, Start Num: 65

Candidate Starts for Lulumae\_29:

(Start: 65 @27352 has 255 MA's), (Start: 70 @27370 has 8 MA's), (91, 27421), (149, 27589), (176, 27667), (207, 27757), (215, 27781), (228, 27817), (242, 27874), (245, 27889), (246, 27898), (253, 27925), (254, 27928), (261, 27955), (275, 28018), (283, 28048), (287, 28054), (309, 28138), (311, 28147), (325, 28216), (331, 28252), (333, 28258), (337, 28270), (371, 28360), (379, 28378), (383, 28387), (390, 28405), (402, 28438),

Gene: Lulwa\_30 Start: 27639, Stop: 28751, Start Num: 65

Candidate Starts for Lulwa\_30:

(Start: 65 @27639 has 255 MA's), (Start: 70 @27657 has 8 MA's), (91, 27708), (149, 27876), (176, 27954), (207, 28044), (215, 28068), (228, 28104), (242, 28161), (245, 28176), (246, 28185), (253, 28212), (254, 28215), (261, 28242), (275, 28305), (283, 28335), (287, 28341), (309, 28425), (311, 28434), (325, 28503), (331, 28539), (333, 28545), (337, 28557), (371, 28647), (379, 28665), (383, 28674), (390, 28692), (402, 28725),

Gene: Lumine\_29 Start: 27348, Stop: 28460, Start Num: 65

Candidate Starts for Lumine\_29:

(Start: 65 @27348 has 255 MA's), (Start: 70 @27366 has 8 MA's), (91, 27417), (149, 27585), (176, 27663), (207, 27753), (215, 27777), (228, 27813), (242, 27870), (245, 27885), (246, 27894), (253, 27921), (254, 27924), (261, 27951), (275, 28014), (283, 28044), (287, 28050), (309, 28134), (311, 28143), (325, 28212), (331, 28248), (333, 28254), (337, 28266), (371, 28356), (379, 28374), (383, 28383), (390, 28401), (402, 28434),

Gene: MRabcd\_29 Start: 27352, Stop: 28464, Start Num: 65

Candidate Starts for MRabcd\_29:

(Start: 65 @27352 has 255 MA's), (Start: 70 @27370 has 8 MA's), (91, 27421), (149, 27589), (176, 27667), (207, 27757), (215, 27781), (228, 27817), (242, 27874), (245, 27889), (246, 27898), (253, 27925), (254, 27928), (261, 27955), (275, 28018), (283, 28048), (287, 28054), (309, 28138), (311, 28147), (325, 28216), (331, 28252), (333, 28258), (337, 28270), (371, 28360), (379, 28378), (383, 28387), (390, 28405), (402, 28438),

Gene: Mag7\_29 Start: 27258, Stop: 28370, Start Num: 65

Candidate Starts for Mag7\_29:

(Start: 65 @27258 has 255 MA's), (Start: 70 @27276 has 8 MA's), (91, 27327), (117, 27402), (149, 27495), (162, 27528), (176, 27573), (207, 27663), (215, 27687), (228, 27723), (242, 27780), (245, 27795), (246, 27804), (253, 27831), (254, 27834), (261, 27861), (275, 27924), (287, 27960), (309, 28044), (311, 28053), (325, 28122), (331, 28158), (333, 28164), (337, 28176), (371, 28266), (379,

28284), (383, 28293), (390, 28311), (402, 28344),

Gene: Magic8\_30 Start: 27693, Stop: 28805, Start Num: 65

Candidate Starts for Magic8\_30:

(Start: 65 @27693 has 255 MA's), (Start: 70 @27711 has 8 MA's), (91, 27762), (117, 27837), (149, 27930), (162, 27963), (176, 28008), (207, 28098), (215, 28122), (228, 28158), (242, 28215), (245, 28230), (246, 28239), (253, 28266), (254, 28269), (261, 28296), (275, 28359), (287, 28395), (309, 28479), (311, 28488), (325, 28557), (331, 28593), (333, 28599), (337, 28611), (371, 28701), (379, 28719), (383, 28728), (390, 28746), (402, 28779),

Gene: Magpie\_26 Start: 27735, Stop: 28811, Start Num: 82

Candidate Starts for Magpie\_26:

(Start: 82 @27735 has 38 MA's), (88, 27744), (128, 27873), (144, 27912), (161, 27969), (183, 28032), (195, 28071), (207, 28107), (215, 28131), (228, 28167), (242, 28224), (245, 28239), (248, 28251), (253, 28275), (254, 28278), (261, 28305), (265, 28320), (275, 28368), (280, 28389), (283, 28398), (287, 28404), (309, 28485), (312, 28503), (318, 28545), (321, 28554), (328, 28578), (337, 28617), (345, 28635), (351, 28653), (356, 28665), (379, 28725), (383, 28734),

Gene: Maih\_22 Start: 21598, Stop: 22626, Start Num: 82

Candidate Starts for Maih\_22:

(26, 21331), (Start: 56 @21520 has 11 MA's), (Start: 82 @21598 has 38 MA's), (102, 21655), (112, 21682), (118, 21697), (176, 21865), (179, 21868), (193, 21910), (204, 21946), (228, 22018), (259, 22144), (274, 22210), (284, 22246), (286, 22249), (293, 22276), (295, 22282), (304, 22321), (331, 22453), (342, 22486), (356, 22531), (365, 22552), (384, 22582), (386, 22585), (388, 22591), (397, 22615), (398, 22618),

Gene: MakoManhole\_28 Start: 27029, Stop: 28078, Start Num: 79

Candidate Starts for MakoManhole\_28:

(Start: 79 @27029 has 55 MA's), (91, 27053), (109, 27110), (122, 27143), (128, 27164), (133, 27179), (144, 27197), (151, 27221), (168, 27272), (190, 27326), (206, 27380), (215, 27407), (222, 27431), (237, 27482), (245, 27515), (248, 27527), (255, 27563), (265, 27596), (274, 27641), (283, 27674), (306, 27746), (308, 27752), (309, 27761), (312, 27779), (345, 27911), (353, 27935), (356, 27941), (406, 28058), (409, 28067),

Gene: Mana\_29 Start: 27367, Stop: 28479, Start Num: 65

Candidate Starts for Mana\_29:

(Start: 65 @27367 has 255 MA's), (Start: 70 @27385 has 8 MA's), (91, 27436), (149, 27604), (176, 27682), (207, 27772), (215, 27796), (228, 27832), (242, 27889), (245, 27904), (246, 27913), (253, 27940), (254, 27943), (261, 27970), (275, 28033), (283, 28063), (287, 28069), (309, 28153), (311, 28162), (325, 28231), (331, 28267), (333, 28273), (337, 28285), (371, 28375), (379, 28393), (383, 28402), (390, 28420), (402, 28453),

Gene: Manad\_29 Start: 27206, Stop: 28318, Start Num: 65

Candidate Starts for Manad\_29:

(Start: 65 @27206 has 255 MA's), (Start: 70 @27224 has 8 MA's), (91, 27275), (149, 27443), (176, 27521), (207, 27611), (215, 27635), (228, 27671), (242, 27728), (245, 27743), (246, 27752), (253, 27779), (254, 27782), (261, 27809), (275, 27872), (283, 27902), (285, 27905), (287, 27908), (309, 27992), (311, 28001), (325, 28070), (331, 28106), (333, 28112), (337, 28124), (371, 28214), (379, 28232), (383, 28241), (390, 28259), (402, 28292),

Gene: Mao1\_25 Start: 24950, Stop: 25996, Start Num: 76

Candidate Starts for Mao1\_25:

(7, 24320), (10, 24380), (13, 24446), (15, 24479), (16, 24524), (25, 24677), (Start: 47 @24845 has 1 MA's), (53, 24875), (Start: 76 @24950 has 49 MA's), (Start: 79 @24956 has 55 MA's), (112, 25043), (122, 25070), (127, 25088), (128, 25091), (151, 25154), (176, 25226), (180, 25232), (185, 25247), (242, 25433), (244, 25445), (251, 25472), (274, 25574), (296, 25646), (297, 25652), (309, 25694), (311, 25703), (315, 25724), (325, 25772), (328, 25787), (332, 25811), (342, 25835), (352, 25865), (356, 25874), (363, 25889), (379, 25928), (386, 25943),

Gene: Marcie\_43 Start: 30639, Stop: 31787, Start Num: 43

Candidate Starts for Marcie\_43:

(29, 30528), (30, 30543), (Start: 42 @30636 has 3 MA's), (Start: 43 @30639 has 77 MA's), (64, 30672), (124, 30849), (148, 30915), (161, 30963), (180, 31005), (201, 31068), (220, 31125), (227, 31143), (245, 31215), (254, 31257), (331, 31554), (335, 31566), (362, 31641), (378, 31683), (394, 31734), (410, 31776),

Gene: Margaery\_34 Start: 26844, Stop: 28079, Start Num: 43

Candidate Starts for Margaery\_34:

(Start: 43 @26844 has 77 MA's), (59, 26901), (Start: 78 @26961 has 11 MA's), (86, 26976), (98, 27024), (134, 27117), (141, 27132), (150, 27165), (155, 27183), (180, 27267), (184, 27279), (197, 27321), (208, 27354), (211, 27360), (216, 27378), (232, 27432), (233, 27435), (238, 27453), (241, 27465), (302, 27711), (311, 27747), (337, 27870), (355, 27924), (364, 27945), (369, 27957), (385, 27999), (388, 28005), (396, 28038), (408, 28068),

Gene: Mariokart\_26 Start: 24963, Stop: 26003, Start Num: 78

Candidate Starts for Mariokart\_26:

(Start: 78 @24963 has 11 MA's), (98, 25011), (128, 25098), (169, 25206), (190, 25257), (195, 25278), (212, 25326), (215, 25338), (222, 25362), (228, 25374), (242, 25431), (244, 25443), (245, 25446), (254, 25485), (257, 25500), (261, 25512), (265, 25527), (283, 25605), (285, 25608), (293, 25626), (294, 25629), (306, 25677), (308, 25683), (309, 25692), (311, 25701), (327, 25782), (337, 25824), (356, 25872), (363, 25887), (375, 25920), (406, 25983), (409, 25992),

Gene: Marley1013\_30 Start: 28355, Stop: 29398, Start Num: 76

Candidate Starts for Marley1013\_30:

(Start: 47 @28250 has 1 MA's), (53, 28280), (Start: 76 @28355 has 49 MA's), (98, 28403), (122, 28469), (151, 28553), (161, 28577), (176, 28625), (185, 28646), (240, 28826), (242, 28832), (244, 28844), (261, 28913), (279, 28994), (306, 29081), (309, 29096), (315, 29126), (328, 29189), (346, 29249), (352, 29267), (354, 29273), (356, 29276), (365, 29297), (377, 29327), (379, 29333), (382, 29339), (386, 29348),

Gene: Maru\_29 Start: 27360, Stop: 28472, Start Num: 65

Candidate Starts for Maru\_29:

(Start: 65 @27360 has 255 MA's), (Start: 70 @27378 has 8 MA's), (91, 27429), (149, 27597), (176, 27675), (207, 27765), (215, 27789), (228, 27825), (242, 27882), (245, 27897), (246, 27906), (253, 27933), (254, 27936), (261, 27963), (275, 28026), (283, 28056), (287, 28062), (309, 28146), (311, 28155), (325, 28224), (331, 28260), (333, 28266), (337, 28278), (371, 28368), (379, 28386), (383, 28395), (390, 28413), (402, 28446),

Gene: Mashley\_37 Start: 30861, Stop: 32012, Start Num: 43

Candidate Starts for Mashley\_37:

(12, 30435), (30, 30765), (Start: 43 @30861 has 77 MA's), (64, 30894), (69, 30915), (Start: 76 @30933 has 49 MA's), (86, 30951), (124, 31071), (134, 31095), (180, 31227), (227, 31365), (257, 31494), (270, 31563), (288, 31617), (319, 31725), (331, 31776), (335, 31788), (378, 31905), (388, 31929), (396, 31962), (398, 31968), (411, 32001),

Gene: Mask\_26 Start: 24943, Stop: 25989, Start Num: 76

Candidate Starts for Mask\_26:

(7, 24313), (10, 24373), (13, 24439), (15, 24472), (16, 24517), (25, 24670), (Start: 47 @24838 has 1 MA's), (53, 24868), (Start: 76 @24943 has 49 MA's), (Start: 79 @24949 has 55 MA's), (112, 25036), (122, 25063), (127, 25081), (128, 25084), (151, 25147), (176, 25219), (180, 25225), (185, 25240), (242, 25426), (244, 25438), (251, 25465), (274, 25567), (296, 25639), (297, 25645), (309, 25687), (311, 25696), (315, 25717), (325, 25765), (328, 25780), (332, 25804), (342, 25828), (352, 25858), (356, 25867), (363, 25882), (379, 25921), (386, 25936),

Gene: Maskar\_29 Start: 27206, Stop: 28318, Start Num: 65

Candidate Starts for Maskar\_29:

(Start: 65 @27206 has 255 MA's), (Start: 70 @27224 has 8 MA's), (91, 27275), (117, 27350), (149, 27443), (162, 27476), (176, 27521), (207, 27611), (215, 27635), (228, 27671), (242, 27728), (245, 27743), (246, 27752), (253, 27779), (254, 27782), (261, 27809), (275, 27872), (287, 27908), (309, 27992), (311, 28001), (325, 28070), (331, 28106), (333, 28112), (337, 28124), (371, 28214), (379, 28232), (383, 28241), (390, 28259), (402, 28292),

Gene: MasterPo\_31 Start: 28928, Stop: 29977, Start Num: 79

Candidate Starts for MasterPo\_31:

(15, 28451), (16, 28496), (20, 28571), (27, 28667), (36, 28757), (Start: 47 @28817 has 1 MA's), (53, 28847), (55, 28850), (Start: 79 @28928 has 55 MA's), (98, 28976), (109, 29009), (127, 29060), (128, 29063), (151, 29126), (161, 29150), (202, 29273), (212, 29300), (215, 29312), (228, 29348), (238, 29390), (243, 29408), (248, 29432), (253, 29456), (255, 29468), (265, 29501), (272, 29540), (283, 29579), (298, 29627), (311, 29675), (315, 29696), (316, 29708), (324, 29741), (325, 29744), (337, 29798), (351, 29834), (356, 29846), (363, 29861), (365, 29867), (377, 29894), (379, 29900), (382, 29906), (386, 29915),

Gene: Matalotodo\_30 Start: 27653, Stop: 28765, Start Num: 65

Candidate Starts for Matalotodo\_30:

(Start: 65 @27653 has 255 MA's), (Start: 70 @27671 has 8 MA's), (91, 27722), (149, 27890), (176, 27968), (207, 28058), (215, 28082), (228, 28118), (242, 28175), (245, 28190), (246, 28199), (253, 28226), (254, 28229), (261, 28256), (275, 28319), (283, 28349), (287, 28355), (309, 28439), (311, 28448), (325, 28517), (331, 28553), (333, 28559), (337, 28571), (371, 28661), (379, 28679), (383, 28688), (390, 28706), (402, 28739),

Gene: Matzah\_35 Start: 27512, Stop: 28741, Start Num: 42

Candidate Starts for Matzah\_35:

(8, 27011), (9, 27059), (11, 27080), (29, 27404), (30, 27419), (Start: 42 @27512 has 3 MA's), (Start: 43 @27515 has 77 MA's), (46, 27521), (Start: 78 @27608 has 11 MA's), (86, 27623), (96, 27665), (134, 27776), (152, 27830), (155, 27842), (172, 27905), (180, 27926), (197, 27980), (199, 27983), (209, 28013), (211, 28019), (216, 28043), (220, 28061), (241, 28130), (242, 28133), (253, 28184), (272, 28277), (283, 28316), (298, 28358), (330, 28496), (337, 28529), (355, 28583), (360, 28595), (362, 28598), (385, 28658), (388, 28664), (409, 28730),

Gene: Mcshane\_29 Start: 27350, Stop: 28462, Start Num: 65

Candidate Starts for Mcshane\_29:

(Start: 65 @27350 has 255 MA's), (Start: 70 @27368 has 8 MA's), (91, 27419), (149, 27587), (176, 27665), (207, 27755), (215, 27779), (228, 27815), (242, 27872), (245, 27887), (246, 27896), (253, 27923), (254, 27926), (261, 27953), (275, 28016), (283, 28046), (287, 28052), (309, 28136), (311, 28145), (325, 28214), (331, 28250), (333, 28256), (337, 28268), (371, 28358), (379, 28376), (383, 28385), (390, 28403), (402, 28436),

Gene: Mecca\_29 Start: 27353, Stop: 28465, Start Num: 65

Candidate Starts for Mecca\_29:

(Start: 65 @27353 has 255 MA's), (Start: 70 @27371 has 8 MA's), (91, 27422), (149, 27590), (176, 27668), (207, 27758), (215, 27782), (228, 27818), (242, 27875), (245, 27890), (246, 27899), (253, 27926), (254, 27929), (261, 27956), (275, 28019), (283, 28049), (287, 28055), (309, 28139), (311, 28148), (325, 28217), (331, 28253), (333, 28259), (337, 28271), (371, 28361), (379, 28379), (383, 28388), (390, 28406), (402, 28439),

Gene: Megabear\_23 Start: 26126, Stop: 27163, Start Num: 79

Candidate Starts for Megabear\_23:

(Start: 79 @26126 has 55 MA's), (90, 26147), (91, 26150), (98, 26174), (109, 26207), (128, 26261), (138, 26279), (142, 26282), (149, 26309), (151, 26315), (161, 26339), (195, 26441), (212, 26489), (228, 26537), (238, 26579), (242, 26594), (243, 26597), (248, 26621), (255, 26657), (274, 26735), (275, 26738), (279, 26756), (283, 26768), (285, 26771), (296, 26807), (297, 26813), (309, 26855), (315, 26885), (316, 26897), (329, 26951), (346, 27008), (351, 27023), (358, 27041), (363, 27050), (365, 27056), (368, 27062), (377, 27083), (379, 27089), (386, 27104), (394, 27128),

Gene: Megamind20\_30 Start: 27375, Stop: 28487, Start Num: 65

Candidate Starts for Megamind20\_30:

(Start: 65 @27375 has 255 MA's), (Start: 70 @27393 has 8 MA's), (91, 27444), (149, 27612), (176, 27690), (207, 27780), (215, 27804), (228, 27840), (242, 27897), (245, 27912), (246, 27921), (253, 27948), (254, 27951), (261, 27978), (275, 28041), (283, 28071), (287, 28077), (309, 28161), (311, 28170), (325, 28239), (331, 28275), (333, 28281), (337, 28293), (371, 28383), (379, 28401), (383, 28410), (390, 28428), (402, 28461),

Gene: Megan\_33 Start: 28385, Stop: 29542, Start Num: 40

Candidate Starts for Megan\_33:

(17, 28094), (18, 28127), (22, 28202), (29, 28280), (30, 28295), (31, 28304), (Start: 40 @28385 has 1 MA's), (Start: 49 @28391 has 12 MA's), (72, 28451), (Start: 78 @28463 has 11 MA's), (81, 28469), (89, 28493), (111, 28562), (124, 28601), (134, 28625), (150, 28673), (157, 28703), (180, 28763), (188, 28784), (197, 28817), (210, 28844), (231, 28913), (241, 28946), (242, 28949), (248, 28976), (251, 28988), (256, 29015), (273, 29096), (311, 29207), (335, 29324), (362, 29399), (385, 29459), (388, 29465), (394, 29492), (396, 29498), (406, 29522), (409, 29531),

Gene: Megatron\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for Megatron\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Melc17\_30 Start: 27648, Stop: 28760, Start Num: 65

Candidate Starts for Melc17\_30:

(Start: 65 @27648 has 255 MA's), (Start: 70 @27666 has 8 MA's), (91, 27717), (117, 27792), (149, 27885), (162, 27918), (176, 27963), (207, 28053), (215, 28077), (228, 28113), (242, 28170), (245, 28185), (246, 28194), (253, 28221), (254, 28224), (261, 28251), (275, 28314), (283, 28344), (285, 28347), (287, 28350), (309, 28434), (311, 28443), (325, 28512), (331, 28548), (333, 28554), (337, 28566), (371, 28656), (379, 28674), (383, 28683), (390, 28701), (402, 28734),

Gene: MellowYellow\_35 Start: 26365, Stop: 27498, Start Num: 56

Candidate Starts for MellowYellow\_35:

(Start: 56 @26365 has 11 MA's), (74, 26431), (86, 26452), (98, 26500), (108, 26530), (115, 26539), (124, 26566), (156, 26659), (162, 26683), (180, 26725), (184, 26737), (189, 26749), (220, 26809),

(243, 26887), (254, 26941), (260, 26968), (276, 27046), (283, 27070), (308, 27139), (333, 27253), (334, 27256), (337, 27265), (355, 27319), (362, 27334), (364, 27340), (367, 27346), (369, 27352), (378, 27376), (385, 27394), (410, 27469),

Gene: MelsMeow\_29 Start: 27252, Stop: 28364, Start Num: 65

Candidate Starts for MelsMeow\_29:

(Start: 65 @27252 has 255 MA's), (Start: 70 @27270 has 8 MA's), (91, 27321), (117, 27396), (149, 27489), (162, 27522), (176, 27567), (207, 27657), (215, 27681), (228, 27717), (242, 27774), (245, 27789), (246, 27798), (253, 27825), (254, 27828), (261, 27855), (275, 27918), (283, 27948), (285, 27951), (287, 27954), (309, 28038), (311, 28047), (325, 28116), (331, 28152), (333, 28158), (337, 28170), (371, 28260), (379, 28278), (383, 28287), (390, 28305), (402, 28338),

Gene: MementoMori\_35 Start: 27260, Stop: 28489, Start Num: 42

Candidate Starts for MementoMori\_35:

(11, 26828), (29, 27152), (30, 27167), (Start: 42 @27260 has 3 MA's), (Start: 43 @27263 has 77 MA's), (46, 27269), (Start: 78 @27356 has 11 MA's), (86, 27371), (96, 27413), (134, 27524), (152, 27578), (155, 27590), (172, 27653), (180, 27674), (197, 27728), (199, 27731), (209, 27761), (211, 27767), (216, 27791), (220, 27809), (241, 27878), (242, 27881), (253, 27932), (272, 28025), (283, 28064), (298, 28106), (337, 28277), (355, 28331), (360, 28343), (362, 28346), (385, 28406), (388, 28412),

Gene: Merry\_41 Start: 29430, Stop: 30674, Start Num: 43

Candidate Starts for Merry\_41:

(29, 29322), (30, 29337), (Start: 40 @29427 has 1 MA's), (Start: 43 @29430 has 77 MA's), (63, 29481), (64, 29484), (72, 29514), (86, 29541), (87, 29544), (124, 29664), (134, 29688), (150, 29736), (178, 29835), (180, 29841), (209, 29928), (220, 29970), (227, 29988), (238, 30027), (241, 30039), (270, 30180), (272, 30186), (299, 30294), (311, 30339), (323, 30402), (331, 30444), (333, 30450), (359, 30525), (362, 30531), (364, 30537), (385, 30591), (396, 30630), (407, 30657), (409, 30663),

Gene: Mesh1\_30 Start: 27665, Stop: 28777, Start Num: 65

Candidate Starts for Mesh1\_30:

(Start: 65 @27665 has 255 MA's), (Start: 70 @27683 has 8 MA's), (91, 27734), (149, 27902), (176, 27980), (207, 28070), (215, 28094), (228, 28130), (242, 28187), (245, 28202), (246, 28211), (253, 28238), (254, 28241), (261, 28268), (275, 28331), (283, 28361), (287, 28367), (309, 28451), (311, 28460), (325, 28529), (331, 28565), (333, 28571), (337, 28583), (371, 28673), (379, 28691), (383, 28700), (390, 28718), (402, 28751),

Gene: Metamorphoo\_39 Start: 27995, Stop: 29152, Start Num: 49

Candidate Starts for Metamorphoo\_39:

(Start: 49 @27995 has 12 MA's), (124, 28220), (134, 28244), (146, 28277), (150, 28292), (155, 28310), (163, 28343), (180, 28382), (197, 28436), (210, 28463), (216, 28481), (220, 28499), (227, 28517), (241, 28565), (248, 28595), (251, 28607), (267, 28676), (314, 28841), (315, 28847), (335, 28943), (340, 28961), (362, 29018), (372, 29048), (385, 29078), (396, 29117), (407, 29144),

Gene: MichaelPhcott\_29 Start: 27255, Stop: 28367, Start Num: 65

Candidate Starts for MichaelPhcott\_29:

(Start: 65 @27255 has 255 MA's), (Start: 70 @27273 has 8 MA's), (91, 27324), (117, 27399), (149, 27492), (162, 27525), (176, 27570), (207, 27660), (215, 27684), (228, 27720), (242, 27777), (245, 27792), (246, 27801), (253, 27828), (254, 27831), (261, 27858), (275, 27921), (287, 27957), (309, 28041), (311, 28050), (325, 28119), (331, 28155), (333, 28161), (337, 28173), (371, 28263), (379, 28281), (383, 28290), (390, 28308), (402, 28341),

Gene: Mikota\_30 Start: 27638, Stop: 28750, Start Num: 65

Candidate Starts for Mikota\_30:

(Start: 65 @27638 has 255 MA's), (Start: 70 @27656 has 8 MA's), (91, 27707), (117, 27782), (149, 27875), (176, 27953), (207, 28043), (215, 28067), (228, 28103), (242, 28160), (245, 28175), (246, 28184), (253, 28211), (254, 28214), (261, 28241), (275, 28304), (283, 28334), (287, 28340), (309, 28424), (311, 28433), (325, 28502), (331, 28538), (333, 28544), (337, 28556), (371, 28646), (379, 28664), (383, 28673), (390, 28691), (402, 28724),

Gene: MiniBoss\_30 Start: 27644, Stop: 28756, Start Num: 65

Candidate Starts for MiniBoss\_30:

(Start: 65 @27644 has 255 MA's), (Start: 70 @27662 has 8 MA's), (91, 27713), (149, 27881), (176, 27959), (207, 28049), (215, 28073), (228, 28109), (242, 28166), (245, 28181), (246, 28190), (253, 28217), (254, 28220), (261, 28247), (275, 28310), (283, 28340), (287, 28346), (309, 28430), (311, 28439), (325, 28508), (331, 28544), (333, 28550), (337, 28562), (371, 28652), (379, 28670), (383, 28679), (390, 28697), (402, 28730),

Gene: Mischief19\_31 Start: 32194, Stop: 33276, Start Num: 85

Candidate Starts for Mischief19\_31:

(37, 32029), (51, 32095), (Start: 56 @32113 has 11 MA's), (Start: 85 @32194 has 1 MA's), (107, 32269), (130, 32335), (143, 32371), (148, 32389), (176, 32464), (180, 32470), (193, 32509), (198, 32524), (239, 32662), (257, 32737), (259, 32743), (268, 32776), (296, 32887), (318, 32995), (320, 33001), (337, 33064), (358, 33130),

Gene: MitKao\_30 Start: 27359, Stop: 28471, Start Num: 65

Candidate Starts for MitKao\_30:

(Start: 65 @27359 has 255 MA's), (Start: 70 @27377 has 8 MA's), (91, 27428), (149, 27596), (176, 27674), (207, 27764), (215, 27788), (228, 27824), (242, 27881), (245, 27896), (246, 27905), (253, 27932), (254, 27935), (261, 27962), (275, 28025), (283, 28055), (287, 28061), (309, 28145), (311, 28154), (325, 28223), (331, 28259), (333, 28265), (337, 28277), (371, 28367), (379, 28385), (383, 28394), (390, 28412), (402, 28445),

Gene: Mithril\_27 Start: 27910, Stop: 28986, Start Num: 82

Candidate Starts for Mithril\_27:

(Start: 82 @27910 has 38 MA's), (88, 27919), (144, 28087), (161, 28144), (183, 28207), (195, 28246), (207, 28282), (215, 28306), (228, 28342), (242, 28399), (245, 28414), (248, 28426), (253, 28450), (254, 28453), (265, 28495), (275, 28543), (280, 28564), (283, 28573), (287, 28579), (309, 28660), (312, 28678), (318, 28720), (321, 28729), (328, 28753), (337, 28792), (345, 28810), (351, 28828), (356, 28840), (357, 28843), (379, 28900), (383, 28909),

Gene: MmasiCarm\_30 Start: 27559, Stop: 28602, Start Num: 76

Candidate Starts for MmasiCarm\_30:

(Start: 47 @27454 has 1 MA's), (53, 27484), (Start: 76 @27559 has 49 MA's), (98, 27607), (122, 27673), (151, 27757), (161, 27781), (176, 27829), (185, 27850), (240, 28030), (242, 28036), (244, 28048), (261, 28117), (279, 28198), (306, 28285), (309, 28300), (315, 28330), (328, 28393), (346, 28453), (352, 28471), (354, 28477), (356, 28480), (365, 28501), (377, 28531), (379, 28537), (382, 28543), (386, 28552),

Gene: Morgushi\_30 Start: 27360, Stop: 28472, Start Num: 65

Candidate Starts for Morgushi\_30:

(Start: 65 @27360 has 255 MA's), (Start: 70 @27378 has 8 MA's), (91, 27429), (149, 27597), (176, 27675), (207, 27765), (215, 27789), (228, 27825), (242, 27882), (245, 27897), (246, 27906), (253, 27933), (254, 27936), (261, 27963), (275, 28026), (283, 28056), (287, 28062), (309, 28146), (311, 28155), (325, 28224), (331, 28260), (333, 28266), (337, 28278), (371, 28368), (379, 28386), (383, 28395), (390, 28413), (402, 28446),

Gene: MorillMayhem\_38 Start: 30734, Stop: 31879, Start Num: 43

Candidate Starts for MorillMayhem\_38:

(30, 30638), (Start: 42 @30731 has 3 MA's), (Start: 43 @30734 has 77 MA's), (64, 30761), (69, 30782), (72, 30791), (Start: 76 @30800 has 49 MA's), (86, 30818), (124, 30938), (134, 30962), (175, 31085), (180, 31094), (227, 31232), (257, 31361), (270, 31430), (288, 31484), (319, 31592), (331, 31643), (335, 31655), (378, 31772), (388, 31796), (396, 31829), (398, 31835), (411, 31868),

Gene: Mortcellus\_29 Start: 28211, Stop: 29254, Start Num: 76

Candidate Starts for Mortcellus\_29:

(Start: 47 @28106 has 1 MA's), (53, 28136), (Start: 76 @28211 has 49 MA's), (98, 28259), (122, 28325), (151, 28409), (161, 28433), (167, 28457), (176, 28481), (185, 28502), (195, 28535), (242, 28688), (244, 28700), (261, 28769), (279, 28850), (306, 28937), (309, 28952), (315, 28982), (328, 29045), (346, 29105), (352, 29123), (354, 29129), (356, 29132), (365, 29153), (377, 29183), (379, 29189), (382, 29195), (386, 29204),

Gene: Morty\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for Morty\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: Morty007\_30 Start: 28355, Stop: 29398, Start Num: 76

Candidate Starts for Morty007\_30:

(Start: 47 @28250 has 1 MA's), (53, 28280), (Start: 76 @28355 has 49 MA's), (98, 28403), (122, 28469), (151, 28553), (161, 28577), (176, 28625), (185, 28646), (240, 28826), (242, 28832), (244, 28844), (261, 28913), (279, 28994), (306, 29081), (309, 29096), (315, 29126), (328, 29189), (346, 29249), (352, 29267), (354, 29273), (356, 29276), (365, 29297), (377, 29327), (379, 29333), (382, 29339), (386, 29348),

Gene: Mosaic\_29 Start: 27365, Stop: 28477, Start Num: 65

Candidate Starts for Mosaic\_29:

(Start: 65 @27365 has 255 MA's), (Start: 70 @27383 has 8 MA's), (91, 27434), (149, 27602), (176, 27680), (207, 27770), (215, 27794), (228, 27830), (242, 27887), (245, 27902), (246, 27911), (253, 27938), (254, 27941), (261, 27968), (275, 28031), (283, 28061), (287, 28067), (309, 28151), (311, 28160), (325, 28229), (331, 28265), (333, 28271), (337, 28283), (371, 28373), (379, 28391), (383, 28400), (390, 28418), (402, 28451),

Gene: MossRose\_28 Start: 27008, Stop: 28057, Start Num: 79

Candidate Starts for MossRose\_28:

(Start: 79 @27008 has 55 MA's), (91, 27032), (109, 27089), (122, 27122), (128, 27143), (133, 27158), (144, 27176), (151, 27200), (168, 27251), (190, 27305), (206, 27359), (215, 27386), (222, 27410), (245, 27494), (248, 27506), (255, 27542), (265, 27575), (274, 27620), (275, 27623), (283, 27653), (306, 27725), (308, 27731), (309, 27740), (312, 27758), (345, 27890), (353, 27914), (356, 27920), (406, 28037), (409, 28046),

Gene: MrPhizzler\_29 Start: 27367, Stop: 28479, Start Num: 65

Candidate Starts for MrPhizzler\_29:

(Start: 65 @27367 has 255 MA's), (Start: 70 @27385 has 8 MA's), (91, 27436), (117, 27511), (149, 27604), (162, 27637), (176, 27682), (207, 27772), (215, 27796), (228, 27832), (242, 27889), (245, 27904), (246, 27913), (253, 27940), (254, 27943), (261, 27970), (275, 28033), (287, 28069), (309,



28153), (311, 28162), (325, 28231), (331, 28267), (333, 28273), (337, 28285), (371, 28375), (379, 28393), (383, 28402), (390, 28420), (402, 28453),

Gene: Mudslide\_27 Start: 28142, Stop: 29218, Start Num: 82

Candidate Starts for Mudslide\_27:

(Start: 82 @28142 has 38 MA's), (88, 28151), (144, 28319), (161, 28376), (183, 28439), (190, 28457), (195, 28478), (207, 28514), (215, 28538), (228, 28574), (242, 28631), (245, 28646), (248, 28658), (253, 28682), (254, 28685), (265, 28727), (275, 28775), (280, 28796), (283, 28805), (287, 28811), (309, 28892), (312, 28910), (318, 28952), (321, 28961), (328, 28985), (337, 29024), (345, 29042), (351, 29060), (356, 29072), (379, 29132), (383, 29141),

Gene: Mulan\_29 Start: 27377, Stop: 28489, Start Num: 65

Candidate Starts for Mulan\_29:

(Start: 65 @27377 has 255 MA's), (Start: 70 @27395 has 8 MA's), (91, 27446), (149, 27614), (176, 27692), (207, 27782), (215, 27806), (228, 27842), (242, 27899), (245, 27914), (246, 27923), (253, 27950), (254, 27953), (261, 27980), (275, 28043), (283, 28073), (287, 28079), (309, 28163), (311, 28172), (325, 28241), (331, 28277), (333, 28283), (337, 28295), (371, 28385), (379, 28403), (383, 28412), (390, 28430), (402, 28463),

Gene: Murdoc\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for Murdoc\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (149, 27889), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (283, 28348), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: Mutante\_29 Start: 27359, Stop: 28471, Start Num: 65

Candidate Starts for Mutante\_29:

(Start: 65 @27359 has 255 MA's), (Start: 70 @27377 has 8 MA's), (91, 27428), (149, 27596), (176, 27674), (207, 27764), (215, 27788), (228, 27824), (242, 27881), (245, 27896), (246, 27905), (253, 27932), (254, 27935), (261, 27962), (275, 28025), (283, 28055), (287, 28061), (309, 28145), (311, 28154), (325, 28223), (331, 28259), (333, 28265), (337, 28277), (371, 28367), (379, 28385), (383, 28394), (390, 28412), (402, 28445),

Gene: Mysterious\_30 Start: 28150, Stop: 29238, Start Num: 73

Candidate Starts for Mysterious\_30:

(Start: 73 @28150 has 9 MA's), (77, 28159), (140, 28330), (149, 28360), (151, 28366), (165, 28408), (190, 28471), (215, 28552), (242, 28645), (250, 28678), (254, 28699), (267, 28747), (279, 28807), (283, 28819), (287, 28825), (289, 28831), (295, 28846), (296, 28858), (318, 28966), (328, 28999), (336, 29035), (351, 29074), (356, 29086), (365, 29107), (379, 29146), (384, 29158), (388, 29164), (404, 29218),

Gene: NHagos\_26 Start: 25549, Stop: 26592, Start Num: 79

Candidate Starts for NHagos\_26:

(Start: 79 @25549 has 55 MA's), (90, 25570), (98, 25597), (143, 25714), (144, 25717), (151, 25741), (165, 25783), (190, 25846), (215, 25927), (242, 26020), (244, 26032), (245, 26035), (248, 26047), (253, 26071), (261, 26101), (275, 26164), (277, 26179), (283, 26194), (296, 26233), (306, 26266), (309, 26281), (315, 26311), (337, 26413), (356, 26461), (363, 26476), (375, 26509), (377, 26515), (406, 26572), (409, 26581),

Gene: Nacho\_0030 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for Nacho\_0030:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Namago\_39 Start: 30306, Stop: 31457, Start Num: 43

Candidate Starts for Namago\_39:

(5, 29730), (12, 29880), (30, 30210), (Start: 43 @30306 has 77 MA's), (64, 30339), (69, 30360), (Start: 76 @30378 has 49 MA's), (86, 30396), (124, 30516), (134, 30540), (180, 30672), (227, 30810), (257, 30939), (270, 31008), (288, 31062), (319, 31170), (331, 31221), (335, 31233), (378, 31350), (388, 31374), (396, 31407), (411, 31446),

Gene: Nanao\_26 Start: 26867, Stop: 27943, Start Num: 82

Candidate Starts for Nanao\_26:

(Start: 82 @26867 has 38 MA's), (88, 26876), (144, 27044), (161, 27101), (183, 27164), (195, 27203), (207, 27239), (215, 27263), (228, 27299), (242, 27356), (245, 27371), (248, 27383), (253, 27407), (254, 27410), (265, 27452), (275, 27500), (280, 27521), (283, 27530), (287, 27536), (309, 27617), (312, 27635), (318, 27677), (321, 27686), (328, 27710), (337, 27749), (345, 27767), (351, 27785), (356, 27797), (379, 27857), (383, 27866),

Gene: Nangang\_29 Start: 27852, Stop: 28937, Start Num: 73

Candidate Starts for Nangang\_29:

(Start: 73 @27852 has 9 MA's), (149, 28059), (151, 28065), (160, 28086), (161, 28089), (165, 28107), (176, 28137), (215, 28251), (242, 28344), (254, 28398), (267, 28446), (279, 28506), (283, 28518), (287, 28524), (289, 28530), (295, 28545), (297, 28563), (318, 28665), (325, 28683), (336, 28734), (351, 28773), (356, 28785), (363, 28800), (379, 28845), (383, 28854),

Gene: Nehemiah\_28 Start: 28150, Stop: 29238, Start Num: 73

Candidate Starts for Nehemiah\_28:

(Start: 73 @28150 has 9 MA's), (77, 28159), (140, 28330), (149, 28360), (151, 28366), (165, 28408), (190, 28471), (215, 28552), (242, 28645), (250, 28678), (254, 28699), (267, 28747), (279, 28807), (283, 28819), (287, 28825), (289, 28831), (295, 28846), (296, 28858), (318, 28966), (328, 28999), (336, 29035), (351, 29074), (356, 29086), (365, 29107), (379, 29146), (384, 29158), (388, 29164), (404, 29218),

Gene: Neos5\_30 Start: 28371, Stop: 29414, Start Num: 76

Candidate Starts for Neos5\_30:

(Start: 47 @28266 has 1 MA's), (53, 28296), (Start: 76 @28371 has 49 MA's), (98, 28419), (122, 28485), (151, 28569), (161, 28593), (167, 28617), (176, 28641), (185, 28662), (195, 28695), (242, 28848), (244, 28860), (261, 28929), (279, 29010), (306, 29097), (309, 29112), (315, 29142), (328, 29205), (346, 29265), (352, 29283), (354, 29289), (356, 29292), (365, 29313), (377, 29343), (379, 29349), (382, 29355), (386, 29364),

Gene: Newman\_30 Start: 27647, Stop: 28759, Start Num: 65

Candidate Starts for Newman\_30:

(Start: 65 @27647 has 255 MA's), (Start: 70 @27665 has 8 MA's), (91, 27716), (149, 27884), (176, 27962), (207, 28052), (215, 28076), (228, 28112), (242, 28169), (245, 28184), (246, 28193), (253, 28220), (254, 28223), (261, 28250), (275, 28313), (283, 28343), (287, 28349), (309, 28433), (311, 28442), (325, 28511), (331, 28547), (333, 28553), (337, 28565), (371, 28655), (379, 28673), (383, 28682), (390, 28700), (402, 28733),

Gene: Nicole21\_30 Start: 27649, Stop: 28761, Start Num: 65

Candidate Starts for Nicole21\_30:

(Start: 65 @27649 has 255 MA's), (Start: 70 @27667 has 8 MA's), (91, 27718), (149, 27886), (176, 27964), (207, 28054), (215, 28078), (228, 28114), (242, 28171), (245, 28186), (246, 28195), (253, 28222), (254, 28225), (261, 28252), (275, 28315), (283, 28345), (287, 28351), (309, 28435), (311, 28444), (325, 28513), (331, 28549), (333, 28555), (337, 28567), (371, 28657), (379, 28675), (383, 28684), (390, 28702), (402, 28735),

Gene: Nicole72\_34 Start: 29308, Stop: 30459, Start Num: 49

Candidate Starts for Nicole72\_34:

(18, 29044), (22, 29119), (30, 29212), (31, 29221), (Start: 49 @29308 has 12 MA's), (72, 29368), (Start: 78 @29380 has 11 MA's), (98, 29443), (104, 29461), (124, 29518), (143, 29566), (151, 29593), (157, 29620), (180, 29680), (197, 29734), (210, 29761), (220, 29797), (231, 29830), (241, 29863), (242, 29866), (248, 29893), (251, 29905), (256, 29932), (272, 30010), (311, 30124), (314, 30139), (315, 30145), (335, 30241), (362, 30316), (366, 30325), (374, 30349), (388, 30382), (394, 30409), (396, 30415), (406, 30439), (408, 30445), (409, 30448),

Gene: Nigel\_25 Start: 26778, Stop: 27854, Start Num: 82

Candidate Starts for Nigel\_25:

(Start: 82 @26778 has 38 MA's), (144, 26955), (151, 26979), (161, 27012), (183, 27075), (207, 27150), (215, 27174), (228, 27210), (242, 27267), (245, 27282), (248, 27294), (253, 27318), (254, 27321), (275, 27411), (280, 27432), (283, 27441), (287, 27447), (309, 27528), (312, 27546), (323, 27600), (328, 27621), (337, 27660), (356, 27708), (357, 27711), (375, 27756), (379, 27768), (383, 27777),

Gene: Nike\_39 Start: 31261, Stop: 32412, Start Num: 43

Candidate Starts for Nike\_39:

(30, 31165), (Start: 43 @31261 has 77 MA's), (64, 31294), (69, 31315), (Start: 76 @31333 has 49 MA's), (86, 31351), (124, 31471), (134, 31495), (180, 31627), (221, 31750), (227, 31765), (257, 31894), (270, 31963), (288, 32017), (319, 32125), (331, 32176), (335, 32188), (378, 32305), (388, 32329), (396, 32362), (398, 32368), (411, 32401),

Gene: NoodlelyBoi\_39 Start: 27978, Stop: 29177, Start Num: 43

Candidate Starts for NoodlelyBoi\_39:

(Start: 43 @27978 has 77 MA's), (51, 27990), (Start: 76 @28071 has 49 MA's), (96, 28131), (124, 28206), (134, 28230), (143, 28254), (150, 28278), (180, 28380), (197, 28434), (206, 28461), (209, 28467), (211, 28473), (220, 28509), (241, 28578), (256, 28647), (330, 28938), (337, 28971), (355, 29025), (362, 29040), (369, 29058), (385, 29100), (388, 29106), (407, 29166), (408, 29169),

Gene: Nozo\_30 Start: 28335, Stop: 29378, Start Num: 76

Candidate Starts for Nozo\_30:

(Start: 47 @28230 has 1 MA's), (53, 28260), (Start: 76 @28335 has 49 MA's), (98, 28383), (122, 28449), (151, 28533), (161, 28557), (167, 28581), (176, 28605), (185, 28626), (195, 28659), (242, 28812), (244, 28824), (261, 28893), (279, 28974), (306, 29061), (309, 29076), (315, 29106), (328, 29169), (346, 29229), (352, 29247), (354, 29253), (356, 29256), (365, 29277), (377, 29307), (379, 29313), (382, 29319), (386, 29328),

Gene: Numberten\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Numberten\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Nyala\_29 Start: 27351, Stop: 28463, Start Num: 65

Candidate Starts for Nyala\_29:

(Start: 65 @27351 has 255 MA's), (Start: 70 @27369 has 8 MA's), (91, 27420), (149, 27588), (176, 27666), (207, 27756), (215, 27780), (228, 27816), (242, 27873), (245, 27888), (246, 27897), (253, 27924), (254, 27927), (261, 27954), (275, 28017), (283, 28047), (287, 28053), (309, 28137), (311, 28146), (325, 28215), (331, 28251), (333, 28257), (337, 28269), (371, 28359), (379, 28377), (383, 28386), (390, 28404), (402, 28437),

Gene: NyleyClemson\_34 Start: 26298, Stop: 27431, Start Num: 56

Candidate Starts for NyleyClemson\_34:

(Start: 56 @26298 has 11 MA's), (74, 26364), (86, 26385), (98, 26433), (108, 26463), (115, 26472), (124, 26499), (156, 26592), (162, 26616), (180, 26658), (184, 26670), (189, 26682), (220, 26742), (243, 26820), (254, 26874), (260, 26901), (276, 26979), (283, 27003), (308, 27072), (333, 27186), (334, 27189), (362, 27267), (364, 27273), (367, 27279), (369, 27285), (378, 27309), (385, 27327), (410, 27402),

Gene: OSmaximus\_30 Start: 27686, Stop: 28798, Start Num: 65

Candidate Starts for OSmaximus\_30:

(Start: 65 @27686 has 255 MA's), (Start: 70 @27704 has 8 MA's), (91, 27755), (117, 27830), (149, 27923), (162, 27956), (176, 28001), (207, 28091), (215, 28115), (228, 28151), (242, 28208), (245, 28223), (246, 28232), (253, 28259), (254, 28262), (261, 28289), (275, 28352), (283, 28382), (285, 28385), (287, 28388), (309, 28472), (311, 28481), (325, 28550), (331, 28586), (333, 28592), (337, 28604), (371, 28694), (379, 28712), (383, 28721), (390, 28739), (402, 28772),

Gene: Obutu\_30 Start: 27559, Stop: 28602, Start Num: 76

Candidate Starts for Obutu\_30:

(Start: 47 @27454 has 1 MA's), (53, 27484), (Start: 76 @27559 has 49 MA's), (98, 27607), (122, 27673), (151, 27757), (161, 27781), (167, 27805), (176, 27829), (185, 27850), (195, 27883), (242, 28036), (244, 28048), (261, 28117), (279, 28198), (306, 28285), (309, 28300), (315, 28330), (328, 28393), (346, 28453), (352, 28471), (354, 28477), (356, 28480), (365, 28501), (377, 28531), (379, 28537), (382, 28543), (386, 28552),

Gene: Odyssey395\_40 Start: 27649, Stop: 28782, Start Num: 56

Candidate Starts for Odyssey395\_40:

(Start: 56 @27649 has 11 MA's), (74, 27715), (86, 27736), (98, 27784), (108, 27814), (115, 27823), (124, 27850), (156, 27943), (162, 27967), (180, 28009), (184, 28021), (189, 28033), (220, 28093), (243, 28171), (254, 28225), (260, 28252), (276, 28330), (283, 28354), (308, 28423), (333, 28537), (334, 28540), (337, 28549), (355, 28603), (362, 28618), (364, 28624), (367, 28630), (369, 28636), (378, 28660), (385, 28678), (410, 28753),

Gene: Olak\_29 Start: 27355, Stop: 28467, Start Num: 65

Candidate Starts for Olak\_29:

(Start: 65 @27355 has 255 MA's), (Start: 70 @27373 has 8 MA's), (91, 27424), (149, 27592), (176, 27670), (207, 27760), (215, 27784), (228, 27820), (242, 27877), (245, 27892), (246, 27901), (253, 27928), (254, 27931), (261, 27958), (275, 28021), (283, 28051), (287, 28057), (309, 28141), (311, 28150), (325, 28219), (331, 28255), (333, 28261), (337, 28273), (371, 28363), (379, 28381), (383, 28390), (390, 28408), (402, 28441),

Gene: Oline\_29 Start: 27220, Stop: 28332, Start Num: 65

Candidate Starts for Oline\_29:

(Start: 65 @27220 has 255 MA's), (Start: 70 @27238 has 8 MA's), (91, 27289), (117, 27364), (149, 27457), (162, 27490), (176, 27535), (207, 27625), (215, 27649), (228, 27685), (242, 27742), (245,

27757), (246, 27766), (253, 27793), (254, 27796), (261, 27823), (275, 27886), (287, 27922), (309, 28006), (311, 28015), (325, 28084), (331, 28120), (333, 28126), (337, 28138), (371, 28228), (379, 28246), (383, 28255), (390, 28273), (402, 28306),

Gene: Olive\_30 Start: 27641, Stop: 28753, Start Num: 65

Candidate Starts for Olive\_30:

(Start: 65 @27641 has 255 MA's), (Start: 70 @27659 has 8 MA's), (91, 27710), (149, 27878), (176, 27956), (207, 28046), (215, 28070), (242, 28163), (245, 28178), (246, 28187), (253, 28214), (254, 28217), (261, 28244), (275, 28307), (283, 28337), (287, 28343), (309, 28427), (311, 28436), (325, 28505), (331, 28541), (333, 28547), (337, 28559), (371, 28649), (379, 28667), (383, 28676), (390, 28694), (402, 28727),

Gene: OliverWalter\_30 Start: 27678, Stop: 28772, Start Num: 70

Candidate Starts for OliverWalter\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: Omniscient\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for Omniscient\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: OneinaGillian\_38 Start: 29630, Stop: 30778, Start Num: 43

Candidate Starts for OneinaGillian\_38:

(12, 29204), (23, 29444), (29, 29519), (30, 29534), (Start: 42 @29627 has 3 MA's), (Start: 43 @29630 has 77 MA's), (64, 29663), (124, 29840), (134, 29864), (148, 29906), (155, 29930), (161, 29954), (180, 29996), (201, 30059), (220, 30116), (227, 30134), (245, 30206), (331, 30545), (335, 30557), (378, 30674), (387, 30695), (394, 30725), (410, 30767),

Gene: Onika\_38 Start: 27626, Stop: 28828, Start Num: 43

Candidate Starts for Onika\_38:

(Start: 43 @27626 has 77 MA's), (59, 27662), (Start: 76 @27719 has 49 MA's), (97, 27782), (124, 27854), (134, 27878), (143, 27902), (150, 27926), (172, 28007), (180, 28028), (197, 28082), (206, 28109), (209, 28115), (211, 28121), (216, 28139), (220, 28157), (241, 28226), (243, 28232), (256, 28295), (268, 28340), (299, 28451), (330, 28586), (331, 28601), (337, 28619), (355, 28673), (362, 28688), (369, 28706), (388, 28754), (396, 28787), (407, 28814), (409, 28820),

Gene: Oosterbaan\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for Oosterbaan\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Opia\_31 Start: 28915, Stop: 29964, Start Num: 79

Candidate Starts for Opia\_31:

(15, 28438), (16, 28483), (20, 28558), (27, 28654), (36, 28744), (Start: 47 @28804 has 1 MA's), (53, 28834), (55, 28837), (Start: 79 @28915 has 55 MA's), (98, 28963), (109, 28996), (127, 29047), (128, 29050), (151, 29113), (161, 29137), (202, 29260), (212, 29287), (215, 29299), (228, 29335), (238, 29377), (243, 29395), (248, 29419), (253, 29443), (255, 29455), (265, 29488), (272, 29527), (283, 29566), (298, 29614), (311, 29662), (315, 29683), (316, 29695), (323, 29725), (324, 29728), (325, 29731), (337, 29785), (351, 29821), (356, 29833), (363, 29848), (365, 29854), (377, 29881), (379, 29887), (382, 29893), (386, 29902),

Gene: OrangeOswald\_30 Start: 27573, Stop: 28616, Start Num: 76

Candidate Starts for OrangeOswald\_30:

(Start: 47 @27468 has 1 MA's), (53, 27498), (Start: 76 @27573 has 49 MA's), (98, 27621), (122, 27687), (151, 27771), (161, 27795), (167, 27819), (176, 27843), (185, 27864), (195, 27897), (242, 28050), (244, 28062), (261, 28131), (279, 28212), (306, 28299), (309, 28314), (315, 28344), (328, 28407), (346, 28467), (352, 28485), (354, 28491), (356, 28494), (365, 28515), (377, 28545), (379, 28551), (382, 28557), (386, 28566),

Gene: Orfeu\_29 Start: 27359, Stop: 28471, Start Num: 65

Candidate Starts for Orfeu\_29:

(Start: 65 @27359 has 255 MA's), (Start: 70 @27377 has 8 MA's), (91, 27428), (149, 27596), (176, 27674), (207, 27764), (215, 27788), (228, 27824), (242, 27881), (245, 27896), (246, 27905), (253, 27932), (254, 27935), (261, 27962), (275, 28025), (283, 28055), (287, 28061), (309, 28145), (311, 28154), (325, 28223), (331, 28259), (333, 28265), (337, 28277), (371, 28367), (379, 28385), (383, 28394), (390, 28412), (402, 28445),

Gene: Orion\_30 Start: 27649, Stop: 28761, Start Num: 65

Candidate Starts for Orion\_30:

(Start: 65 @27649 has 255 MA's), (Start: 70 @27667 has 8 MA's), (91, 27718), (149, 27886), (176, 27964), (207, 28054), (215, 28078), (228, 28114), (242, 28171), (245, 28186), (246, 28195), (253, 28222), (254, 28225), (261, 28252), (275, 28315), (283, 28345), (287, 28351), (309, 28435), (311, 28444), (325, 28513), (331, 28549), (333, 28555), (337, 28567), (371, 28657), (379, 28675), (383, 28684), (390, 28702), (402, 28735),

Gene: Orwigg\_30 Start: 27347, Stop: 28459, Start Num: 65

Candidate Starts for Orwigg\_30:

(Start: 65 @27347 has 255 MA's), (Start: 70 @27365 has 8 MA's), (91, 27416), (149, 27584), (176, 27662), (207, 27752), (215, 27776), (228, 27812), (242, 27869), (245, 27884), (246, 27893), (253, 27920), (254, 27923), (261, 27950), (275, 28013), (283, 28043), (287, 28049), (309, 28133), (311, 28142), (325, 28211), (331, 28247), (333, 28253), (337, 28265), (371, 28355), (379, 28373), (383, 28382), (390, 28400), (402, 28433),

Gene: PG1\_30 Start: 27662, Stop: 28774, Start Num: 65

Candidate Starts for PG1\_30:

(Start: 65 @27662 has 255 MA's), (Start: 70 @27680 has 8 MA's), (91, 27731), (149, 27899), (176, 27977), (207, 28067), (215, 28091), (228, 28127), (242, 28184), (245, 28199), (246, 28208), (253, 28235), (254, 28238), (261, 28265), (275, 28328), (283, 28358), (287, 28364), (309, 28448), (311, 28457), (325, 28526), (331, 28562), (333, 28568), (337, 28580), (371, 28670), (379, 28688), (383, 28697), (390, 28715), (402, 28748),

Gene: PR\_23 Start: 26174, Stop: 27211, Start Num: 79

Candidate Starts for PR\_23:

(Start: 79 @26174 has 55 MA's), (90, 26195), (91, 26198), (98, 26222), (109, 26255), (128, 26309), (138, 26327), (142, 26330), (149, 26357), (161, 26387), (212, 26537), (228, 26585), (242, 26642), (243, 26645), (245, 26657), (248, 26669), (255, 26705), (261, 26723), (274, 26783), (275, 26786),

(279, 26804), (283, 26816), (285, 26819), (296, 26855), (297, 26861), (309, 26903), (316, 26945), (329, 26999), (346, 27056), (351, 27071), (358, 27089), (363, 27098), (365, 27104), (368, 27110), (377, 27131), (379, 27137), (386, 27152), (393, 27173), (394, 27176),

Gene: Pacifista\_29 Start: 27353, Stop: 28465, Start Num: 65

Candidate Starts for Pacifista\_29:

(Start: 65 @27353 has 255 MA's), (Start: 70 @27371 has 8 MA's), (91, 27422), (149, 27590), (176, 27668), (207, 27758), (215, 27782), (228, 27818), (242, 27875), (245, 27890), (246, 27899), (253, 27926), (254, 27929), (261, 27956), (275, 28019), (283, 28049), (287, 28055), (309, 28139), (311, 28148), (325, 28217), (331, 28253), (333, 28259), (337, 28271), (371, 28361), (379, 28379), (383, 28388), (390, 28406), (402, 28439),

Gene: Paschalis\_38 Start: 27633, Stop: 28835, Start Num: 43

Candidate Starts for Paschalis\_38:

(Start: 43 @27633 has 77 MA's), (59, 27669), (Start: 76 @27726 has 49 MA's), (124, 27861), (134, 27885), (143, 27909), (150, 27933), (172, 28014), (180, 28035), (197, 28089), (206, 28116), (209, 28122), (211, 28128), (216, 28146), (220, 28164), (241, 28233), (243, 28239), (256, 28302), (268, 28347), (283, 28419), (299, 28458), (330, 28593), (331, 28608), (337, 28626), (355, 28680), (362, 28695), (369, 28713), (388, 28761), (396, 28794), (407, 28821), (409, 28827),

Gene: PenguinLover67\_31 Start: 29851, Stop: 30948, Start Num: 78

Candidate Starts for PenguinLover67\_31:

(53, 29773), (Start: 78 @29851 has 11 MA's), (143, 30025), (144, 30028), (195, 30178), (215, 30238), (237, 30313), (242, 30331), (246, 30355), (253, 30382), (254, 30385), (261, 30412), (275, 30475), (279, 30493), (283, 30505), (309, 30592), (311, 30601), (316, 30634), (318, 30652), (337, 30724), (345, 30742), (370, 30811), (379, 30832), (402, 30901),

Gene: Pepe25\_37 Start: 29229, Stop: 30377, Start Num: 43

Candidate Starts for Pepe25\_37:

(30, 29133), (Start: 42 @29226 has 3 MA's), (Start: 43 @29229 has 77 MA's), (64, 29262), (72, 29292), (161, 29553), (177, 29589), (180, 29595), (196, 29646), (209, 29673), (216, 29697), (220, 29715), (224, 29727), (227, 29733), (268, 29904), (272, 29937), (290, 29994), (303, 30009), (329, 30126), (331, 30144), (333, 30150), (335, 30156), (355, 30216), (396, 30330), (398, 30336),

Gene: Phabia\_39 Start: 30637, Stop: 31788, Start Num: 43

Candidate Starts for Phabia\_39:

(12, 30211), (30, 30541), (Start: 43 @30637 has 77 MA's), (64, 30670), (69, 30691), (Start: 76 @30709 has 49 MA's), (86, 30727), (124, 30847), (134, 30871), (180, 31003), (227, 31141), (257, 31270), (270, 31339), (288, 31393), (319, 31501), (331, 31552), (335, 31564), (378, 31681), (388, 31705), (396, 31738), (398, 31744), (411, 31777),

Gene: Phaedrus\_28 Start: 27492, Stop: 28535, Start Num: 76

Candidate Starts for Phaedrus\_28:

(Start: 47 @27387 has 1 MA's), (53, 27417), (Start: 76 @27492 has 49 MA's), (98, 27540), (122, 27606), (151, 27690), (161, 27714), (167, 27738), (176, 27762), (185, 27783), (195, 27816), (242, 27969), (244, 27981), (261, 28050), (279, 28131), (306, 28218), (309, 28233), (315, 28263), (328, 28326), (346, 28386), (352, 28404), (354, 28410), (356, 28413), (365, 28434), (377, 28464), (379, 28470), (382, 28476), (386, 28485),

Gene: Phamished\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Phamished\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253,

28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Phantasmagoria\_31 Start: 28926, Stop: 29975, Start Num: 79

Candidate Starts for Phantasmagoria\_31:

(15, 28449), (16, 28494), (20, 28569), (27, 28665), (36, 28755), (Start: 47 @28815 has 1 MA's), (53, 28845), (55, 28848), (Start: 79 @28926 has 55 MA's), (98, 28974), (109, 29007), (127, 29058), (128, 29061), (151, 29124), (161, 29148), (202, 29271), (212, 29298), (215, 29310), (228, 29346), (238, 29388), (243, 29406), (248, 29430), (253, 29454), (255, 29466), (265, 29499), (272, 29538), (283, 29577), (298, 29625), (311, 29673), (315, 29694), (316, 29706), (323, 29736), (324, 29739), (325, 29742), (337, 29796), (351, 29832), (356, 29844), (363, 29859), (365, 29865), (377, 29892), (379, 29898), (382, 29904), (386, 29913),

Gene: Phareon\_30 Start: 27361, Stop: 28473, Start Num: 65

Candidate Starts for Phareon\_30:

(Start: 65 @27361 has 255 MA's), (Start: 70 @27379 has 8 MA's), (91, 27430), (149, 27598), (176, 27676), (207, 27766), (215, 27790), (228, 27826), (242, 27883), (245, 27898), (246, 27907), (253, 27934), (254, 27937), (261, 27964), (275, 28027), (283, 28057), (287, 28063), (309, 28147), (311, 28156), (325, 28225), (331, 28261), (333, 28267), (337, 28279), (371, 28369), (379, 28387), (383, 28396), (390, 28414), (402, 28447),

Gene: PhatCats2014\_30 Start: 27666, Stop: 28778, Start Num: 65

Candidate Starts for PhatCats2014\_30:

(Start: 65 @27666 has 255 MA's), (Start: 70 @27684 has 8 MA's), (91, 27735), (149, 27903), (176, 27981), (207, 28071), (215, 28095), (228, 28131), (242, 28188), (245, 28203), (246, 28212), (253, 28239), (254, 28242), (261, 28269), (275, 28332), (283, 28362), (287, 28368), (309, 28452), (311, 28461), (325, 28530), (331, 28566), (333, 28572), (337, 28584), (371, 28674), (379, 28692), (383, 28701), (390, 28719), (402, 28752),

Gene: PhatLouie\_30 Start: 27655, Stop: 28767, Start Num: 65

Candidate Starts for PhatLouie\_30:

(Start: 65 @27655 has 255 MA's), (Start: 70 @27673 has 8 MA's), (91, 27724), (117, 27799), (149, 27892), (162, 27925), (176, 27970), (207, 28060), (215, 28084), (228, 28120), (242, 28177), (245, 28192), (246, 28201), (253, 28228), (254, 28231), (261, 28258), (275, 28321), (287, 28357), (309, 28441), (311, 28450), (325, 28519), (331, 28555), (333, 28561), (337, 28573), (371, 28663), (379, 28681), (383, 28690), (390, 28708), (402, 28741),

Gene: Phayeta\_30 Start: 27440, Stop: 28483, Start Num: 76

Candidate Starts for Phayeta\_30:

(Start: 47 @27335 has 1 MA's), (53, 27365), (Start: 76 @27440 has 49 MA's), (98, 27488), (122, 27554), (151, 27638), (161, 27662), (167, 27686), (176, 27710), (185, 27731), (195, 27764), (242, 27917), (244, 27929), (261, 27998), (279, 28079), (306, 28166), (309, 28181), (315, 28211), (328, 28274), (346, 28334), (352, 28352), (354, 28358), (356, 28361), (365, 28382), (377, 28412), (379, 28418), (382, 28424), (386, 28433),

Gene: Phelemich\_29 Start: 28146, Stop: 29234, Start Num: 73

Candidate Starts for Phelemich\_29:

(38, 28002), (41, 28035), (52, 28068), (Start: 73 @28146 has 9 MA's), (77, 28155), (140, 28326), (149, 28356), (151, 28362), (165, 28404), (190, 28467), (215, 28548), (242, 28641), (250, 28674), (254, 28695), (267, 28743), (279, 28803), (283, 28815), (287, 28821), (289, 28827), (295, 28842), (297, 28860), (318, 28962), (328, 28995), (336, 29031), (351, 29070), (356, 29082), (365, 29103), (379, 29142), (384, 29154), (388, 29160), (404, 29214),



Gene: PhenghisKhan\_29 Start: 27261, Stop: 28373, Start Num: 65

Candidate Starts for PhenghisKhan\_29:

(Start: 65 @27261 has 255 MA's), (Start: 70 @27279 has 8 MA's), (91, 27330), (117, 27405), (149, 27498), (162, 27531), (176, 27576), (207, 27666), (215, 27690), (228, 27726), (242, 27783), (245, 27798), (246, 27807), (253, 27834), (254, 27837), (261, 27864), (275, 27927), (287, 27963), (309, 28047), (311, 28056), (325, 28125), (331, 28161), (333, 28167), (337, 28179), (371, 28269), (379, 28287), (383, 28296), (390, 28314), (402, 28347),

Gene: Pherdinand\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Pherdinand\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Phergie\_29 Start: 27252, Stop: 28364, Start Num: 65

Candidate Starts for Phergie\_29:

(Start: 65 @27252 has 255 MA's), (Start: 70 @27270 has 8 MA's), (91, 27321), (117, 27396), (149, 27489), (162, 27522), (176, 27567), (207, 27657), (215, 27681), (228, 27717), (242, 27774), (245, 27789), (246, 27798), (253, 27825), (254, 27828), (261, 27855), (275, 27918), (287, 27954), (309, 28038), (311, 28047), (325, 28116), (331, 28152), (333, 28158), (337, 28170), (371, 28260), (379, 28278), (383, 28287), (390, 28305), (402, 28338),

Gene: Philly\_29 Start: 27427, Stop: 28470, Start Num: 76

Candidate Starts for Philly\_29:

(Start: 47 @27322 has 1 MA's), (53, 27352), (Start: 76 @27427 has 49 MA's), (98, 27475), (122, 27541), (151, 27625), (161, 27649), (176, 27697), (185, 27718), (240, 27898), (242, 27904), (244, 27916), (261, 27985), (279, 28066), (306, 28153), (309, 28168), (315, 28198), (328, 28261), (346, 28321), (352, 28339), (354, 28345), (356, 28348), (365, 28369), (377, 28399), (379, 28405), (382, 28411), (386, 28420),

Gene: Phinky\_45 Start: 32449, Stop: 33597, Start Num: 43

Candidate Starts for Phinky\_45:

(1, 31603), (2, 31672), (4, 31765), (5, 31873), (23, 32263), (30, 32353), (Start: 42 @32446 has 3 MA's), (Start: 43 @32449 has 77 MA's), (64, 32482), (69, 32503), (Start: 76 @32521 has 49 MA's), (124, 32659), (155, 32749), (161, 32773), (177, 32809), (180, 32815), (188, 32836), (196, 32866), (220, 32935), (227, 32953), (243, 33013), (254, 33067), (278, 33181), (283, 33196), (331, 33364), (333, 33370), (355, 33436), (378, 33493), (394, 33544), (410, 33586),

Gene: Phipps\_30 Start: 27627, Stop: 28739, Start Num: 65

Candidate Starts for Phipps\_30:

(Start: 65 @27627 has 255 MA's), (Start: 70 @27645 has 8 MA's), (91, 27696), (149, 27864), (176, 27942), (207, 28032), (215, 28056), (228, 28092), (242, 28149), (245, 28164), (246, 28173), (253, 28200), (254, 28203), (261, 28230), (275, 28293), (283, 28323), (287, 28329), (309, 28413), (311, 28422), (325, 28491), (331, 28527), (333, 28533), (337, 28545), (371, 28635), (379, 28653), (383, 28662), (390, 28680), (402, 28713),

Gene: Phleuron\_29 Start: 27258, Stop: 28370, Start Num: 65

Candidate Starts for Phleuron\_29:

(Start: 65 @27258 has 255 MA's), (Start: 70 @27276 has 8 MA's), (91, 27327), (117, 27402), (149, 27495), (162, 27528), (176, 27573), (207, 27663), (215, 27687), (228, 27723), (242, 27780), (245,

27795), (246, 27804), (253, 27831), (254, 27834), (261, 27861), (275, 27924), (287, 27960), (309, 28044), (311, 28053), (325, 28122), (331, 28158), (333, 28164), (337, 28176), (371, 28266), (379, 28284), (383, 28293), (390, 28311), (402, 28344),

Gene: Phlyer\_30 Start: 28308, Stop: 29351, Start Num: 76

Candidate Starts for Phlyer\_30:

(Start: 47 @28203 has 1 MA's), (53, 28233), (Start: 76 @28308 has 49 MA's), (98, 28356), (122, 28422), (151, 28506), (161, 28530), (176, 28578), (185, 28599), (240, 28779), (242, 28785), (244, 28797), (261, 28866), (279, 28947), (306, 29034), (309, 29049), (315, 29079), (328, 29142), (346, 29202), (352, 29220), (354, 29226), (356, 29229), (365, 29250), (377, 29280), (379, 29286), (382, 29292), (386, 29301),

Gene: Phorgeous\_38 Start: 27499, Stop: 28701, Start Num: 43

Candidate Starts for Phorgeous\_38:

(Start: 43 @27499 has 77 MA's), (59, 27535), (Start: 76 @27592 has 49 MA's), (97, 27655), (124, 27727), (134, 27751), (143, 27775), (150, 27799), (172, 27880), (180, 27901), (197, 27955), (206, 27982), (209, 27988), (211, 27994), (216, 28012), (220, 28030), (241, 28099), (243, 28105), (256, 28168), (268, 28213), (283, 28285), (299, 28324), (308, 28351), (330, 28459), (331, 28474), (337, 28492), (355, 28546), (362, 28561), (369, 28579), (385, 28621), (388, 28627), (396, 28660), (407, 28687), (409, 28693),

Gene: Phrancesco\_39 Start: 27777, Stop: 28979, Start Num: 43

Candidate Starts for Phrancesco\_39:

(Start: 43 @27777 has 77 MA's), (59, 27813), (Start: 76 @27870 has 49 MA's), (124, 28005), (134, 28029), (143, 28053), (150, 28077), (172, 28158), (180, 28179), (197, 28233), (206, 28260), (209, 28266), (211, 28272), (216, 28290), (220, 28308), (241, 28377), (243, 28383), (256, 28446), (268, 28491), (283, 28563), (299, 28602), (330, 28737), (331, 28752), (337, 28770), (355, 28824), (362, 28839), (369, 28857), (388, 28905), (396, 28938), (407, 28965), (409, 28971),

Gene: PhrankReynolds\_29 Start: 27258, Stop: 28370, Start Num: 65

Candidate Starts for PhrankReynolds\_29:

(Start: 65 @27258 has 255 MA's), (Start: 70 @27276 has 8 MA's), (91, 27327), (117, 27402), (149, 27495), (162, 27528), (176, 27573), (207, 27663), (215, 27687), (228, 27723), (242, 27780), (245, 27795), (246, 27804), (253, 27831), (254, 27834), (261, 27861), (275, 27924), (287, 27960), (309, 28044), (311, 28053), (325, 28122), (331, 28158), (333, 28164), (337, 28176), (371, 28266), (379, 28284), (383, 28293), (390, 28311), (402, 28344),

Gene: PhrodoBaggins\_29 Start: 27645, Stop: 28757, Start Num: 65

Candidate Starts for PhrodoBaggins\_29:

(Start: 65 @27645 has 255 MA's), (Start: 70 @27663 has 8 MA's), (91, 27714), (149, 27882), (176, 27960), (207, 28050), (215, 28074), (228, 28110), (242, 28167), (245, 28182), (246, 28191), (253, 28218), (254, 28221), (261, 28248), (275, 28311), (283, 28341), (287, 28347), (309, 28431), (311, 28440), (325, 28509), (331, 28545), (333, 28551), (337, 28563), (371, 28653), (379, 28671), (383, 28680), (390, 28698), (402, 28731),

Gene: Phunky\_30 Start: 27658, Stop: 28770, Start Num: 65

Candidate Starts for Phunky\_30:

(Start: 65 @27658 has 255 MA's), (Start: 70 @27676 has 8 MA's), (91, 27727), (149, 27895), (176, 27973), (207, 28063), (215, 28087), (228, 28123), (242, 28180), (245, 28195), (246, 28204), (253, 28231), (254, 28234), (261, 28261), (275, 28324), (283, 28354), (287, 28360), (309, 28444), (311, 28453), (325, 28522), (331, 28558), (333, 28564), (337, 28576), (371, 28666), (379, 28684), (383, 28693), (390, 28711), (402, 28744),

Gene: PierreOrion\_39 Start: 27800, Stop: 29002, Start Num: 43

Candidate Starts for PierreOrion\_39:

(Start: 43 @27800 has 77 MA's), (59, 27836), (Start: 76 @27893 has 49 MA's), (124, 28028), (134, 28052), (143, 28076), (150, 28100), (172, 28181), (180, 28202), (197, 28256), (206, 28283), (209, 28289), (211, 28295), (216, 28313), (220, 28331), (241, 28400), (243, 28406), (256, 28469), (268, 28514), (299, 28625), (330, 28760), (331, 28775), (337, 28793), (355, 28847), (362, 28862), (369, 28880), (388, 28928), (396, 28961), (407, 28988), (409, 28994),

Gene: Piglet\_0029 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Piglet\_0029:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Pine5\_29 Start: 27152, Stop: 28177, Start Num: 85

Candidate Starts for Pine5\_29:

(28, 26891), (Start: 85 @27152 has 1 MA's), (100, 27206), (122, 27266), (128, 27287), (149, 27347), (162, 27374), (206, 27506), (207, 27509), (215, 27533), (243, 27632), (248, 27656), (250, 27662), (257, 27698), (305, 27863), (323, 27953), (333, 28001), (335, 28007), (356, 28064), (363, 28079),

Gene: PinheadLarry\_30 Start: 27371, Stop: 28483, Start Num: 65

Candidate Starts for PinheadLarry\_30:

(Start: 65 @27371 has 255 MA's), (Start: 70 @27389 has 8 MA's), (91, 27440), (117, 27515), (149, 27608), (162, 27641), (176, 27686), (207, 27776), (215, 27800), (228, 27836), (242, 27893), (245, 27908), (246, 27917), (253, 27944), (254, 27947), (261, 27974), (275, 28037), (283, 28067), (287, 28073), (309, 28157), (311, 28166), (325, 28235), (331, 28271), (333, 28277), (337, 28289), (371, 28379), (379, 28397), (383, 28406), (390, 28424), (402, 28457),

Gene: Pinkman\_29 Start: 27214, Stop: 28326, Start Num: 65

Candidate Starts for Pinkman\_29:

(Start: 65 @27214 has 255 MA's), (Start: 70 @27232 has 8 MA's), (91, 27283), (117, 27358), (149, 27451), (162, 27484), (176, 27529), (207, 27619), (215, 27643), (228, 27679), (242, 27736), (245, 27751), (246, 27760), (253, 27787), (254, 27790), (261, 27817), (275, 27880), (287, 27916), (309, 28000), (311, 28009), (325, 28078), (331, 28114), (333, 28120), (337, 28132), (371, 28222), (379, 28240), (383, 28249), (390, 28267), (402, 28300),

Gene: Pipefish\_31 Start: 28965, Stop: 30008, Start Num: 76

Candidate Starts for Pipefish\_31:

(Start: 47 @28860 has 1 MA's), (53, 28890), (Start: 76 @28965 has 49 MA's), (98, 29013), (122, 29079), (151, 29163), (161, 29187), (167, 29211), (176, 29235), (185, 29256), (240, 29436), (242, 29442), (244, 29454), (261, 29523), (279, 29604), (306, 29691), (309, 29706), (315, 29736), (328, 29799), (346, 29859), (354, 29883), (356, 29886), (365, 29907), (377, 29937), (379, 29943), (382, 29949), (386, 29958),

Gene: PiperSansNom\_39 Start: 27940, Stop: 29142, Start Num: 43

Candidate Starts for PiperSansNom\_39:

(Start: 43 @27940 has 77 MA's), (59, 27976), (Start: 76 @28033 has 49 MA's), (124, 28168), (134, 28192), (143, 28216), (150, 28240), (172, 28321), (180, 28342), (197, 28396), (206, 28423), (209, 28429), (211, 28435), (216, 28453), (220, 28471), (241, 28540), (243, 28546), (256, 28609), (268, 28654), (299, 28765), (330, 28900), (331, 28915), (337, 28933), (355, 28987), (362, 29002), (369, 29020), (388, 29068), (396, 29101), (407, 29128), (409, 29134),

Gene: Piperis\_39 Start: 27622, Stop: 28824, Start Num: 43

Candidate Starts for Piperis\_39:

(Start: 43 @27622 has 77 MA's), (59, 27658), (Start: 76 @27715 has 49 MA's), (124, 27850), (134, 27874), (143, 27898), (150, 27922), (172, 28003), (180, 28024), (197, 28078), (206, 28105), (209, 28111), (211, 28117), (216, 28135), (220, 28153), (241, 28222), (243, 28228), (256, 28291), (268, 28336), (283, 28408), (299, 28447), (330, 28582), (331, 28597), (337, 28615), (355, 28669), (362, 28684), (369, 28702), (385, 28744), (388, 28750), (396, 28783), (407, 28810), (409, 28816),

Gene: Pipsqueak\_30 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for Pipsqueak\_30:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Placalicious\_29 Start: 27349, Stop: 28461, Start Num: 65

Candidate Starts for Placalicious\_29:

(Start: 65 @27349 has 255 MA's), (Start: 70 @27367 has 8 MA's), (91, 27418), (117, 27493), (149, 27586), (162, 27619), (176, 27664), (207, 27754), (215, 27778), (228, 27814), (242, 27871), (245, 27886), (246, 27895), (253, 27922), (254, 27925), (261, 27952), (275, 28015), (283, 28045), (285, 28048), (287, 28051), (309, 28135), (311, 28144), (325, 28213), (331, 28249), (333, 28255), (337, 28267), (371, 28357), (379, 28375), (383, 28384), (390, 28402), (402, 28435),

Gene: Plmatters\_30 Start: 27654, Stop: 28766, Start Num: 65

Candidate Starts for Plmatters\_30:

(Start: 65 @27654 has 255 MA's), (Start: 70 @27672 has 8 MA's), (91, 27723), (149, 27891), (176, 27969), (207, 28059), (215, 28083), (228, 28119), (242, 28176), (245, 28191), (246, 28200), (253, 28227), (254, 28230), (261, 28257), (275, 28320), (283, 28350), (287, 28356), (309, 28440), (311, 28449), (325, 28518), (331, 28554), (333, 28560), (337, 28572), (371, 28662), (379, 28680), (383, 28689), (390, 28707), (402, 28740),

Gene: Podrick\_30 Start: 27646, Stop: 28758, Start Num: 65

Candidate Starts for Podrick\_30:

(Start: 65 @27646 has 255 MA's), (Start: 70 @27664 has 8 MA's), (91, 27715), (149, 27883), (176, 27961), (207, 28051), (215, 28075), (228, 28111), (242, 28168), (245, 28183), (246, 28192), (253, 28219), (254, 28222), (261, 28249), (275, 28312), (283, 28342), (287, 28348), (309, 28432), (311, 28441), (325, 28510), (331, 28546), (333, 28552), (337, 28564), (371, 28654), (379, 28672), (383, 28681), (390, 28699), (402, 28732),

Gene: Pointis\_38 Start: 27647, Stop: 28780, Start Num: 56

Candidate Starts for Pointis\_38:

(Start: 56 @27647 has 11 MA's), (74, 27713), (86, 27734), (98, 27782), (108, 27812), (115, 27821), (124, 27848), (156, 27941), (162, 27965), (180, 28007), (184, 28019), (189, 28031), (220, 28091), (243, 28169), (254, 28223), (260, 28250), (276, 28328), (283, 28352), (308, 28421), (333, 28535), (334, 28538), (337, 28547), (355, 28601), (362, 28616), (364, 28622), (367, 28628), (369, 28634), (378, 28658), (385, 28676), (410, 28751),

Gene: Pops\_30 Start: 27666, Stop: 28778, Start Num: 65

Candidate Starts for Pops\_30:

(Start: 65 @27666 has 255 MA's), (Start: 70 @27684 has 8 MA's), (91, 27735), (117, 27810), (149, 27903), (162, 27936), (176, 27981), (207, 28071), (215, 28095), (228, 28131), (242, 28188), (245,

28203), (246, 28212), (253, 28239), (254, 28242), (261, 28269), (275, 28332), (283, 28362), (287, 28368), (309, 28452), (311, 28461), (325, 28530), (331, 28566), (333, 28572), (337, 28584), (371, 28674), (379, 28692), (383, 28701), (390, 28719), (402, 28752),

Gene: Poster\_26 Start: 26868, Stop: 27944, Start Num: 82

Candidate Starts for Poster\_26:

(Start: 82 @26868 has 38 MA's), (88, 26877), (144, 27045), (161, 27102), (183, 27165), (195, 27204), (207, 27240), (215, 27264), (228, 27300), (242, 27357), (245, 27372), (248, 27384), (253, 27408), (254, 27411), (265, 27453), (275, 27501), (280, 27522), (283, 27531), (287, 27537), (309, 27618), (312, 27636), (318, 27678), (321, 27687), (328, 27711), (337, 27750), (345, 27768), (351, 27786), (356, 27798), (379, 27858), (383, 27867),

Gene: Potter\_29 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for Potter\_29:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (149, 27607), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: Prickles\_30 Start: 27646, Stop: 28758, Start Num: 65

Candidate Starts for Prickles\_30:

(Start: 65 @27646 has 255 MA's), (Start: 70 @27664 has 8 MA's), (91, 27715), (149, 27883), (176, 27961), (207, 28051), (215, 28075), (228, 28111), (242, 28168), (245, 28183), (246, 28192), (253, 28219), (254, 28222), (261, 28249), (275, 28312), (283, 28342), (287, 28348), (309, 28432), (311, 28441), (325, 28510), (331, 28546), (333, 28552), (337, 28564), (371, 28654), (379, 28672), (383, 28681), (390, 28699), (402, 28732),

Gene: Prince\_27 Start: 28051, Stop: 29127, Start Num: 82

Candidate Starts for Prince\_27:

(Start: 82 @28051 has 38 MA's), (88, 28060), (144, 28228), (161, 28285), (183, 28348), (190, 28366), (195, 28387), (207, 28423), (215, 28447), (228, 28483), (242, 28540), (245, 28555), (248, 28567), (253, 28591), (254, 28594), (265, 28636), (275, 28684), (280, 28705), (283, 28714), (287, 28720), (309, 28801), (312, 28819), (318, 28861), (321, 28870), (328, 28894), (337, 28933), (345, 28951), (351, 28969), (356, 28981), (379, 29041), (383, 29050),

Gene: ProfessorX\_30 Start: 27641, Stop: 28753, Start Num: 65

Candidate Starts for ProfessorX\_30:

(Start: 65 @27641 has 255 MA's), (Start: 70 @27659 has 8 MA's), (91, 27710), (149, 27878), (176, 27956), (207, 28046), (215, 28070), (228, 28106), (242, 28163), (245, 28178), (246, 28187), (253, 28214), (254, 28217), (261, 28244), (275, 28307), (283, 28337), (287, 28343), (309, 28427), (311, 28436), (325, 28505), (331, 28541), (333, 28547), (337, 28559), (371, 28649), (379, 28667), (383, 28676), (390, 28694), (402, 28727),

Gene: Puhltonio\_30 Start: 27661, Stop: 28773, Start Num: 65

Candidate Starts for Puhltonio\_30:

(Start: 65 @27661 has 255 MA's), (Start: 70 @27679 has 8 MA's), (91, 27730), (149, 27898), (176, 27976), (207, 28066), (215, 28090), (228, 28126), (242, 28183), (245, 28198), (246, 28207), (253, 28234), (254, 28237), (261, 28264), (275, 28327), (283, 28357), (287, 28363), (309, 28447), (311, 28456), (325, 28525), (331, 28561), (333, 28567), (337, 28579), (371, 28669), (379, 28687), (383, 28696), (390, 28714), (402, 28747),

Gene: Pulchra\_40 Start: 28016, Stop: 29218, Start Num: 43

Candidate Starts for Pulchra\_40:

(Start: 43 @28016 has 77 MA's), (59, 28052), (Start: 76 @28109 has 49 MA's), (124, 28244), (134, 28268), (143, 28292), (150, 28316), (172, 28397), (180, 28418), (197, 28472), (206, 28499), (209, 28505), (211, 28511), (216, 28529), (220, 28547), (241, 28616), (243, 28622), (256, 28685), (268, 28730), (299, 28841), (330, 28976), (331, 28991), (337, 29009), (355, 29063), (359, 29072), (362, 29078), (369, 29096), (388, 29144), (396, 29177), (407, 29204), (409, 29210),

Gene: Pureglobe5\_40 Start: 27830, Stop: 28963, Start Num: 56

Candidate Starts for Pureglobe5\_40:

(Start: 56 @27830 has 11 MA's), (74, 27896), (86, 27917), (98, 27965), (108, 27995), (115, 28004), (124, 28031), (156, 28124), (162, 28148), (180, 28190), (184, 28202), (189, 28214), (220, 28274), (243, 28352), (254, 28406), (260, 28433), (276, 28511), (283, 28535), (308, 28604), (333, 28718), (334, 28721), (337, 28730), (355, 28784), (362, 28799), (364, 28805), (367, 28811), (369, 28817), (378, 28841), (385, 28859), (410, 28934),

Gene: Quammi\_37 Start: 30337, Stop: 31488, Start Num: 43

Candidate Starts for Quammi\_37:

(12, 29911), (30, 30241), (Start: 43 @30337 has 77 MA's), (64, 30370), (69, 30391), (Start: 76 @30409 has 49 MA's), (86, 30427), (124, 30547), (134, 30571), (180, 30703), (227, 30841), (257, 30970), (270, 31039), (288, 31093), (319, 31201), (331, 31252), (335, 31264), (378, 31381), (388, 31405), (396, 31438), (398, 31444), (411, 31477),

Gene: QueenBeane\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for QueenBeane\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (149, 27889), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (283, 28348), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: QueenPie\_26 Start: 27992, Stop: 29068, Start Num: 82

Candidate Starts for QueenPie\_26:

(Start: 82 @27992 has 38 MA's), (88, 28001), (128, 28130), (144, 28169), (161, 28226), (183, 28289), (195, 28328), (207, 28364), (215, 28388), (228, 28424), (242, 28481), (245, 28496), (248, 28508), (253, 28532), (254, 28535), (265, 28577), (275, 28625), (280, 28646), (283, 28655), (287, 28661), (309, 28742), (312, 28760), (318, 28802), (321, 28811), (328, 28835), (337, 28874), (345, 28892), (351, 28910), (356, 28922), (357, 28925), (379, 28982), (383, 28991),

Gene: Quesadilla\_30 Start: 29746, Stop: 30834, Start Num: 84

Candidate Starts for Quesadilla\_30:

(Start: 84 @29746 has 1 MA's), (98, 29794), (99, 29797), (144, 29920), (195, 30070), (215, 30130), (228, 30166), (237, 30205), (245, 30238), (246, 30247), (248, 30250), (253, 30274), (254, 30277), (265, 30319), (275, 30367), (283, 30397), (287, 30403), (296, 30436), (309, 30484), (312, 30502), (318, 30544), (337, 30616), (354, 30661), (363, 30679), (377, 30718), (379, 30724), (395, 30775),

Gene: Quhwah\_42 Start: 28248, Stop: 29450, Start Num: 43

Candidate Starts for Quhwah\_42:

(Start: 43 @28248 has 77 MA's), (59, 28284), (Start: 76 @28341 has 49 MA's), (124, 28476), (134, 28500), (143, 28524), (150, 28548), (172, 28629), (174, 28635), (180, 28650), (197, 28704), (206, 28731), (211, 28743), (216, 28761), (241, 28848), (243, 28854), (256, 28917), (268, 28962), (299, 29073), (330, 29208), (331, 29223), (337, 29241), (355, 29295), (362, 29310), (369, 29328), (388, 29376), (396, 29409), (407, 29436), (409, 29442),

Gene: Quisquilliae\_30 Start: 27680, Stop: 28792, Start Num: 65

Candidate Starts for Quisquilliae\_30:

(Start: 65 @27680 has 255 MA's), (Start: 70 @27698 has 8 MA's), (91, 27749), (149, 27917), (176, 27995), (207, 28085), (215, 28109), (228, 28145), (242, 28202), (245, 28217), (246, 28226), (253, 28253), (254, 28256), (261, 28283), (275, 28346), (283, 28376), (287, 28382), (309, 28466), (311, 28475), (325, 28544), (331, 28580), (333, 28586), (337, 28598), (371, 28688), (379, 28706), (383, 28715), (390, 28733), (402, 28766),

Gene: Qyrzula\_29 Start: 29010, Stop: 30059, Start Num: 79

Candidate Starts for Qyrzula\_29:

(15, 28533), (16, 28578), (20, 28653), (27, 28749), (36, 28839), (Start: 47 @28899 has 1 MA's), (53, 28929), (55, 28932), (Start: 79 @29010 has 55 MA's), (98, 29058), (109, 29091), (127, 29142), (128, 29145), (151, 29208), (161, 29232), (202, 29355), (212, 29382), (215, 29394), (228, 29430), (238, 29472), (243, 29490), (248, 29514), (253, 29538), (255, 29550), (265, 29583), (272, 29622), (283, 29661), (298, 29709), (311, 29757), (315, 29778), (316, 29790), (324, 29823), (325, 29826), (337, 29880), (351, 29916), (356, 29928), (363, 29943), (365, 29949), (377, 29976), (379, 29982), (382, 29988), (386, 29997),

Gene: RagingRooster\_30 Start: 27574, Stop: 28617, Start Num: 76

Candidate Starts for RagingRooster\_30:

(Start: 47 @27469 has 1 MA's), (53, 27499), (Start: 76 @27574 has 49 MA's), (98, 27622), (122, 27688), (151, 27772), (161, 27796), (167, 27820), (176, 27844), (185, 27865), (195, 27898), (242, 28051), (244, 28063), (261, 28132), (279, 28213), (306, 28300), (309, 28315), (315, 28345), (328, 28408), (346, 28468), (352, 28486), (354, 28492), (356, 28495), (365, 28516), (377, 28546), (379, 28552), (382, 28558), (386, 28567),

Gene: RainyPolka\_23 Start: 22064, Stop: 23092, Start Num: 82

Candidate Starts for RainyPolka\_23:

(Start: 82 @22064 has 38 MA's), (102, 22121), (118, 22163), (119, 22166), (126, 22190), (130, 22202), (168, 22310), (176, 22331), (179, 22334), (193, 22376), (204, 22412), (211, 22430), (228, 22484), (231, 22496), (258, 22607), (259, 22610), (284, 22712), (286, 22715), (295, 22748), (304, 22787), (318, 22868), (331, 22919), (337, 22937), (342, 22952), (356, 22997), (365, 23018), (384, 23048), (397, 23081), (398, 23084),

Gene: Ramiel05\_38 Start: 27651, Stop: 28853, Start Num: 43

Candidate Starts for Ramiel05\_38:

(Start: 43 @27651 has 77 MA's), (59, 27687), (Start: 76 @27744 has 49 MA's), (124, 27879), (134, 27903), (143, 27927), (150, 27951), (172, 28032), (180, 28053), (197, 28107), (206, 28134), (209, 28140), (211, 28146), (216, 28164), (220, 28182), (241, 28251), (243, 28257), (256, 28320), (268, 28365), (283, 28437), (299, 28476), (330, 28611), (331, 28626), (337, 28644), (355, 28698), (362, 28713), (369, 28731), (388, 28779), (396, 28812), (407, 28839), (409, 28845),

Gene: Ranunculus\_32 Start: 26857, Stop: 27990, Start Num: 54

Candidate Starts for Ranunculus\_32:

(6, 26266), (14, 26464), (21, 26599), (33, 26755), (35, 26770), (Start: 54 @26857 has 1 MA's), (74, 26923), (86, 26944), (98, 26992), (108, 27022), (115, 27031), (124, 27058), (142, 27100), (149, 27127), (156, 27151), (162, 27175), (180, 27217), (184, 27229), (189, 27241), (220, 27301), (243, 27379), (254, 27433), (283, 27562), (334, 27748), (351, 27799), (355, 27811), (369, 27844), (378, 27868), (385, 27886), (405, 27949), (410, 27961),

Gene: Rasputia\_74 Start: 49482, Stop: 50675, Start Num: 43

Candidate Starts for Rasputia\_74:

(3, 48795), (Start: 42 @49479 has 3 MA's), (Start: 43 @49482 has 77 MA's), (63, 49524), (64, 49527), (81, 49575), (86, 49584), (113, 49674), (134, 49728), (143, 49752), (149, 49773), (150, 49776), (157, 49806), (180, 49866), (188, 49887), (197, 49920), (209, 49953), (211, 49959), (227, 50013), (241, 50064), (257, 50136), (283, 50250), (291, 50274), (302, 50307), (311, 50343), (335, 50460), (352, 50511), (355, 50520), (360, 50532), (362, 50535), (364, 50541), (380, 50583), (381, 50586), (387, 50598), (388, 50601), (396, 50634), (398, 50640),

Gene: RawrgerThat\_27 Start: 27894, Stop: 28970, Start Num: 82

Candidate Starts for RawrgerThat\_27:

(Start: 82 @27894 has 38 MA's), (88, 27903), (128, 28032), (144, 28071), (161, 28128), (183, 28191), (195, 28230), (207, 28266), (215, 28290), (228, 28326), (242, 28383), (245, 28398), (248, 28410), (253, 28434), (254, 28437), (265, 28479), (275, 28527), (280, 28548), (283, 28557), (287, 28563), (309, 28644), (312, 28662), (318, 28704), (321, 28713), (328, 28737), (337, 28776), (345, 28794), (351, 28812), (356, 28824), (379, 28884), (383, 28893),

Gene: RedMaple\_29 Start: 27656, Stop: 28768, Start Num: 65

Candidate Starts for RedMaple\_29:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: Reprobate\_29 Start: 28151, Stop: 29239, Start Num: 73

Candidate Starts for Reprobate\_29:

(38, 28007), (41, 28040), (52, 28073), (Start: 73 @28151 has 9 MA's), (77, 28160), (140, 28331), (149, 28361), (151, 28367), (165, 28409), (190, 28472), (215, 28553), (242, 28646), (250, 28679), (254, 28700), (267, 28748), (279, 28808), (283, 28820), (287, 28826), (289, 28832), (295, 28847), (297, 28865), (318, 28967), (328, 29000), (336, 29036), (351, 29075), (356, 29087), (365, 29108), (379, 29147), (384, 29159), (388, 29165), (404, 29219),

Gene: Rhinoforte\_31 Start: 29035, Stop: 30084, Start Num: 79

Candidate Starts for Rhinoforte\_31:

(15, 28558), (16, 28603), (20, 28678), (27, 28774), (36, 28864), (Start: 47 @28924 has 1 MA's), (53, 28954), (55, 28957), (Start: 79 @29035 has 55 MA's), (98, 29083), (109, 29116), (127, 29167), (128, 29170), (151, 29233), (161, 29257), (202, 29380), (212, 29407), (215, 29419), (228, 29455), (238, 29497), (243, 29515), (248, 29539), (253, 29563), (255, 29575), (265, 29608), (272, 29647), (283, 29686), (298, 29734), (311, 29782), (315, 29803), (316, 29815), (324, 29848), (325, 29851), (337, 29905), (351, 29941), (356, 29953), (363, 29968), (365, 29974), (377, 30001), (379, 30007), (382, 30013), (386, 30022),

Gene: Rich\_28 Start: 27637, Stop: 28725, Start Num: 73

Candidate Starts for Rich\_28:

(68, 27625), (Start: 73 @27637 has 9 MA's), (140, 27817), (149, 27847), (151, 27853), (165, 27895), (215, 28039), (242, 28132), (254, 28186), (267, 28234), (279, 28294), (283, 28306), (287, 28312), (289, 28318), (318, 28453), (328, 28486), (336, 28522), (351, 28561), (356, 28573), (379, 28633), (383, 28642), (384, 28645), (403, 28702),

Gene: Ricotta\_29 Start: 27379, Stop: 28491, Start Num: 65

Candidate Starts for Ricotta\_29:

(Start: 65 @27379 has 255 MA's), (Start: 70 @27397 has 8 MA's), (91, 27448), (149, 27616), (176, 27694), (207, 27784), (215, 27808), (228, 27844), (242, 27901), (245, 27916), (246, 27925), (253, 27952), (254, 27955), (261, 27982), (275, 28045), (283, 28075), (287, 28081), (309, 28165), (311,



28174), (325, 28243), (331, 28279), (333, 28285), (337, 28297), (371, 28387), (379, 28405), (383, 28414), (390, 28432), (402, 28465),

Gene: Riggan\_30 Start: 27638, Stop: 28750, Start Num: 65

Candidate Starts for Riggan\_30:

(Start: 65 @27638 has 255 MA's), (Start: 70 @27656 has 8 MA's), (91, 27707), (149, 27875), (176, 27953), (207, 28043), (215, 28067), (228, 28103), (242, 28160), (245, 28175), (246, 28184), (253, 28211), (254, 28214), (261, 28241), (275, 28304), (283, 28334), (287, 28340), (309, 28424), (311, 28433), (325, 28502), (331, 28538), (333, 28544), (337, 28556), (371, 28646), (379, 28664), (383, 28673), (390, 28691), (402, 28724),

Gene: Rimu\_31 Start: 27387, Stop: 28499, Start Num: 65

Candidate Starts for Rimu\_31:

(Start: 65 @27387 has 255 MA's), (Start: 70 @27405 has 8 MA's), (91, 27456), (117, 27531), (149, 27624), (162, 27657), (176, 27702), (207, 27792), (215, 27816), (228, 27852), (242, 27909), (245, 27924), (246, 27933), (253, 27960), (254, 27963), (261, 27990), (275, 28053), (287, 28089), (309, 28173), (311, 28182), (325, 28251), (331, 28287), (333, 28293), (337, 28305), (371, 28395), (379, 28413), (383, 28422), (390, 28440), (402, 28473),

Gene: Rinke\_32 Start: 30257, Stop: 31336, Start Num: 82

Candidate Starts for Rinke\_32:

(32, 30059), (44, 30140), (66, 30221), (Start: 82 @30257 has 38 MA's), (88, 30266), (91, 30284), (93, 30290), (98, 30308), (99, 30311), (126, 30389), (144, 30434), (151, 30458), (161, 30482), (180, 30536), (211, 30629), (215, 30644), (237, 30719), (238, 30722), (242, 30737), (246, 30761), (248, 30764), (253, 30788), (254, 30791), (268, 30842), (269, 30860), (275, 30881), (283, 30911), (287, 30917), (308, 30989), (309, 30998), (312, 31016), (316, 31040), (318, 31058), (328, 31091), (331, 31112), (336, 31127), (337, 31130), (356, 31178), (375, 31226), (379, 31238), (383, 31247), (409, 31313),

Gene: Rita1961\_30 Start: 27560, Stop: 28603, Start Num: 76

Candidate Starts for Rita1961\_30:

(Start: 47 @27455 has 1 MA's), (53, 27485), (Start: 76 @27560 has 49 MA's), (98, 27608), (122, 27674), (151, 27758), (161, 27782), (167, 27806), (176, 27830), (185, 27851), (195, 27884), (242, 28037), (244, 28049), (261, 28118), (279, 28199), (306, 28286), (309, 28301), (315, 28331), (328, 28394), (346, 28454), (352, 28472), (354, 28478), (356, 28481), (365, 28502), (377, 28532), (379, 28538), (382, 28544), (386, 28553),

Gene: Rizwana\_31 Start: 26465, Stop: 27577, Start Num: 56

Candidate Starts for Rizwana\_31:

(Start: 56 @26465 has 11 MA's), (115, 26639), (121, 26657), (124, 26666), (158, 26771), (162, 26783), (180, 26825), (188, 26846), (192, 26861), (218, 26897), (230, 26939), (251, 27026), (283, 27170), (323, 27305), (337, 27365), (364, 27440), (378, 27476), (385, 27494), (397, 27536), (410, 27566),

Gene: RobinRose\_40 Start: 30131, Stop: 31279, Start Num: 43

Candidate Starts for RobinRose\_40:

(12, 29705), (23, 29945), (29, 30020), (30, 30035), (Start: 42 @30128 has 3 MA's), (Start: 43 @30131 has 77 MA's), (64, 30164), (124, 30341), (134, 30365), (148, 30407), (155, 30431), (161, 30455), (180, 30497), (201, 30560), (220, 30617), (227, 30635), (245, 30707), (331, 31046), (335, 31058), (378, 31175), (387, 31196), (394, 31226), (410, 31268),

Gene: RobsFeet\_40 Start: 28276, Stop: 29433, Start Num: 49

Candidate Starts for RobsFeet\_40:

(Start: 49 @28276 has 12 MA's), (Start: 78 @28363 has 11 MA's), (134, 28525), (146, 28558), (150, 28573), (155, 28591), (163, 28624), (180, 28663), (197, 28717), (210, 28744), (216, 28762), (220, 28780), (227, 28798), (241, 28846), (248, 28876), (251, 28888), (315, 29128), (340, 29242), (362, 29299), (385, 29359), (393, 29389), (396, 29398), (407, 29425),

Gene: Robyn\_29 Start: 27220, Stop: 28332, Start Num: 65

Candidate Starts for Robyn\_29:

(Start: 65 @27220 has 255 MA's), (Start: 70 @27238 has 8 MA's), (91, 27289), (149, 27457), (176, 27535), (207, 27625), (215, 27649), (242, 27742), (245, 27757), (246, 27766), (253, 27793), (254, 27796), (261, 27823), (275, 27886), (283, 27916), (287, 27922), (309, 28006), (311, 28015), (325, 28084), (331, 28120), (333, 28126), (337, 28138), (371, 28228), (379, 28246), (383, 28255), (390, 28273), (402, 28306),

Gene: Roliet\_30 Start: 27648, Stop: 28760, Start Num: 65

Candidate Starts for Roliet\_30:

(Start: 65 @27648 has 255 MA's), (Start: 70 @27666 has 8 MA's), (91, 27717), (117, 27792), (149, 27885), (176, 27963), (207, 28053), (215, 28077), (228, 28113), (242, 28170), (245, 28185), (246, 28194), (253, 28221), (254, 28224), (261, 28251), (275, 28314), (283, 28344), (287, 28350), (309, 28434), (311, 28443), (325, 28512), (331, 28548), (333, 28554), (337, 28566), (371, 28656), (379, 28674), (383, 28683), (390, 28701), (402, 28734),

Gene: RomaT\_30 Start: 28350, Stop: 29393, Start Num: 76

Candidate Starts for RomaT\_30:

(Start: 47 @28245 has 1 MA's), (53, 28275), (Start: 76 @28350 has 49 MA's), (98, 28398), (122, 28464), (151, 28548), (161, 28572), (176, 28620), (185, 28641), (242, 28827), (244, 28839), (261, 28908), (279, 28989), (306, 29076), (309, 29091), (315, 29121), (328, 29184), (346, 29244), (352, 29262), (354, 29268), (356, 29271), (365, 29292), (377, 29322), (379, 29328), (382, 29334), (386, 29343),

Gene: RomansRevenge\_28 Start: 24847, Stop: 25974, Start Num: 56

Candidate Starts for RomansRevenge\_28:

(Start: 56 @24847 has 11 MA's), (86, 24934), (123, 25045), (149, 25117), (156, 25141), (162, 25165), (180, 25207), (193, 25246), (218, 25279), (241, 25351), (243, 25357), (245, 25369), (251, 25396), (262, 25453), (270, 25498), (276, 25519), (283, 25543), (323, 25693), (334, 25744), (337, 25753), (343, 25771), (347, 25786), (355, 25807), (364, 25828), (378, 25864), (385, 25882),

Gene: Romm\_40 Start: 30131, Stop: 31279, Start Num: 43

Candidate Starts for Romm\_40:

(12, 29705), (23, 29945), (29, 30020), (30, 30035), (Start: 42 @30128 has 3 MA's), (Start: 43 @30131 has 77 MA's), (64, 30164), (124, 30341), (134, 30365), (148, 30407), (155, 30431), (161, 30455), (180, 30497), (201, 30560), (220, 30617), (227, 30635), (245, 30707), (331, 31046), (335, 31058), (378, 31175), (394, 31226), (410, 31268),

Gene: Roscoe\_31 Start: 27886, Stop: 28998, Start Num: 65

Candidate Starts for Roscoe\_31:

(Start: 65 @27886 has 255 MA's), (Start: 70 @27904 has 8 MA's), (91, 27955), (149, 28123), (176, 28201), (207, 28291), (215, 28315), (228, 28351), (242, 28408), (245, 28423), (246, 28432), (253, 28459), (254, 28462), (261, 28489), (275, 28552), (283, 28582), (287, 28588), (309, 28672), (311, 28681), (325, 28750), (331, 28786), (333, 28792), (337, 28804), (371, 28894), (379, 28912), (383, 28921), (390, 28939), (402, 28972),

Gene: Rosebush\_31 Start: 29042, Stop: 30091, Start Num: 79

Candidate Starts for Rosebush\_31:

(15, 28565), (16, 28610), (20, 28685), (27, 28781), (36, 28871), (Start: 47 @28931 has 1 MA's), (53, 28961), (55, 28964), (Start: 79 @29042 has 55 MA's), (98, 29090), (109, 29123), (127, 29174), (128, 29177), (151, 29240), (161, 29264), (202, 29387), (212, 29414), (215, 29426), (228, 29462), (238, 29504), (243, 29522), (248, 29546), (253, 29570), (265, 29615), (272, 29654), (283, 29693), (298, 29741), (311, 29789), (315, 29810), (316, 29822), (324, 29855), (325, 29858), (337, 29912), (351, 29948), (356, 29960), (363, 29975), (365, 29981), (377, 30008), (379, 30014), (382, 30020), (386, 30029),

Gene: Rowlf\_35 Start: 30509, Stop: 31660, Start Num: 43

Candidate Starts for Rowlf\_35:

(5, 29933), (12, 30083), (30, 30413), (Start: 43 @30509 has 77 MA's), (64, 30542), (69, 30563), (Start: 76 @30581 has 49 MA's), (86, 30599), (124, 30719), (134, 30743), (180, 30875), (227, 31013), (257, 31142), (270, 31211), (288, 31265), (319, 31373), (331, 31424), (335, 31436), (378, 31553), (388, 31577), (396, 31610), (398, 31616), (411, 31649),

Gene: Roy17\_30 Start: 27352, Stop: 28464, Start Num: 65

Candidate Starts for Roy17\_30:

(Start: 65 @27352 has 255 MA's), (Start: 70 @27370 has 8 MA's), (91, 27421), (149, 27589), (176, 27667), (207, 27757), (215, 27781), (228, 27817), (242, 27874), (245, 27889), (246, 27898), (253, 27925), (254, 27928), (261, 27955), (275, 28018), (283, 28048), (287, 28054), (309, 28138), (311, 28147), (325, 28216), (331, 28252), (333, 28258), (337, 28270), (371, 28360), (379, 28378), (383, 28387), (390, 28405), (402, 28438),

Gene: RubyRalph\_41 Start: 30999, Stop: 32168, Start Num: 43

Candidate Starts for RubyRalph\_41:

(Start: 43 @30999 has 77 MA's), (64, 31044), (Start: 79 @31089 has 55 MA's), (116, 31197), (134, 31245), (164, 31347), (170, 31362), (177, 31380), (180, 31386), (196, 31437), (219, 31500), (241, 31578), (268, 31695), (313, 31842), (331, 31935), (333, 31941), (335, 31947), (343, 31971), (344, 31974), (349, 31992), (355, 32007), (362, 32022), (394, 32115),

Gene: Rudy\_37 Start: 30370, Stop: 31521, Start Num: 43

Candidate Starts for Rudy\_37:

(12, 29944), (30, 30274), (Start: 43 @30370 has 77 MA's), (64, 30403), (69, 30424), (Start: 76 @30442 has 49 MA's), (86, 30460), (124, 30580), (134, 30604), (180, 30736), (227, 30874), (257, 31003), (270, 31072), (288, 31126), (319, 31234), (331, 31285), (335, 31297), (378, 31414), (388, 31438), (396, 31471), (398, 31477), (411, 31510),

Gene: SDcharge11\_30 Start: 27626, Stop: 28738, Start Num: 65

Candidate Starts for SDcharge11\_30:

(Start: 65 @27626 has 255 MA's), (Start: 70 @27644 has 8 MA's), (91, 27695), (149, 27863), (176, 27941), (207, 28031), (215, 28055), (228, 28091), (242, 28148), (245, 28163), (246, 28172), (253, 28199), (254, 28202), (261, 28229), (275, 28292), (283, 28322), (287, 28328), (309, 28412), (311, 28421), (325, 28490), (331, 28526), (333, 28532), (337, 28544), (371, 28634), (379, 28652), (383, 28661), (390, 28679), (402, 28712),

Gene: Sabella\_31 Start: 28919, Stop: 29968, Start Num: 79

Candidate Starts for Sabella\_31:

(15, 28442), (16, 28487), (20, 28562), (27, 28658), (36, 28748), (Start: 47 @28808 has 1 MA's), (53, 28838), (55, 28841), (Start: 79 @28919 has 55 MA's), (98, 28967), (109, 29000), (127, 29051), (128, 29054), (151, 29117), (161, 29141), (202, 29264), (212, 29291), (215, 29303), (228, 29339), (238, 29381), (243, 29399), (248, 29423), (253, 29447), (255, 29459), (265, 29492), (272, 29531), (283, 29570), (298, 29618), (311, 29666), (315, 29687), (316, 29699), (324, 29732), (325, 29735), (337, 29789), (351, 29825), (356, 29837), (363, 29852), (365, 29858), (377, 29885), (379, 29891), (382,

29897), (386, 29906),

Gene: SadLad\_43 Start: 31942, Stop: 33111, Start Num: 43

Candidate Starts for SadLad\_43:

(3, 31252), (Start: 43 @31942 has 77 MA's), (64, 31987), (Start: 79 @32032 has 55 MA's), (116, 32140), (134, 32188), (164, 32290), (170, 32305), (177, 32323), (180, 32329), (196, 32380), (219, 32443), (241, 32521), (268, 32638), (313, 32785), (331, 32878), (333, 32884), (335, 32890), (343, 32914), (344, 32917), (349, 32935), (355, 32950), (362, 32965), (394, 33058),

Gene: Saguaro\_30 Start: 29871, Stop: 30962, Start Num: 78

Candidate Starts for Saguaro\_30:

(Start: 78 @29871 has 11 MA's), (88, 29880), (98, 29922), (144, 30048), (149, 30066), (151, 30072), (160, 30093), (165, 30114), (215, 30258), (228, 30294), (237, 30333), (246, 30375), (248, 30378), (253, 30402), (254, 30405), (255, 30414), (265, 30447), (275, 30495), (287, 30531), (309, 30612), (311, 30621), (312, 30630), (316, 30654), (318, 30672), (328, 30705), (337, 30744), (351, 30780), (356, 30792), (363, 30807), (379, 30852), (390, 30888), (414, 30951),

Gene: Salete\_22 Start: 21599, Stop: 22627, Start Num: 82

Candidate Starts for Salete\_22:

(26, 21332), (Start: 56 @21521 has 11 MA's), (Start: 82 @21599 has 38 MA's), (102, 21656), (112, 21683), (118, 21698), (176, 21866), (179, 21869), (193, 21911), (204, 21947), (228, 22019), (259, 22145), (274, 22211), (284, 22247), (286, 22250), (293, 22277), (295, 22283), (304, 22322), (331, 22454), (342, 22487), (356, 22532), (365, 22553), (384, 22583), (386, 22586), (388, 22592), (397, 22616), (398, 22619),

Gene: SallyK\_40 Start: 31320, Stop: 32471, Start Num: 43

Candidate Starts for SallyK\_40:

(5, 30744), (12, 30894), (30, 31224), (Start: 43 @31320 has 77 MA's), (64, 31353), (69, 31374), (Start: 76 @31392 has 49 MA's), (86, 31410), (124, 31530), (134, 31554), (180, 31686), (227, 31824), (257, 31953), (270, 32022), (288, 32076), (319, 32184), (331, 32235), (335, 32247), (378, 32364), (388, 32388), (396, 32421), (411, 32460),

Gene: Samaymay\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for Samaymay\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (149, 27889), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (283, 28348), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: SassyCat97\_29 Start: 27358, Stop: 28470, Start Num: 65

Candidate Starts for SassyCat97\_29:

(Start: 65 @27358 has 255 MA's), (Start: 70 @27376 has 8 MA's), (91, 27427), (149, 27595), (176, 27673), (207, 27763), (215, 27787), (228, 27823), (242, 27880), (245, 27895), (246, 27904), (253, 27931), (254, 27934), (261, 27961), (275, 28024), (283, 28054), (287, 28060), (309, 28144), (311, 28153), (325, 28222), (331, 28258), (333, 28264), (337, 28276), (371, 28366), (379, 28384), (383, 28393), (390, 28411), (402, 28444),

Gene: Savannah\_38 Start: 27678, Stop: 28880, Start Num: 43

Candidate Starts for Savannah\_38:

(Start: 43 @27678 has 77 MA's), (59, 27714), (Start: 76 @27771 has 49 MA's), (97, 27834), (124, 27906), (134, 27930), (143, 27954), (150, 27978), (172, 28059), (180, 28080), (197, 28134), (206, 28161), (209, 28167), (211, 28173), (216, 28191), (220, 28209), (241, 28278), (243, 28284), (256,

28347), (268, 28392), (299, 28503), (330, 28638), (331, 28653), (337, 28671), (355, 28725), (362, 28740), (369, 28758), (388, 28806), (396, 28839), (407, 28866), (409, 28872),

Gene: Schadenfreude\_29 Start: 27206, Stop: 28318, Start Num: 65

Candidate Starts for Schadenfreude\_29:

(Start: 65 @27206 has 255 MA's), (Start: 70 @27224 has 8 MA's), (91, 27275), (149, 27443), (176, 27521), (207, 27611), (215, 27635), (228, 27671), (242, 27728), (245, 27743), (246, 27752), (253, 27779), (254, 27782), (261, 27809), (275, 27872), (283, 27902), (287, 27908), (309, 27992), (311, 28001), (325, 28070), (331, 28106), (333, 28112), (337, 28124), (371, 28214), (379, 28232), (383, 28241), (390, 28259), (402, 28292),

Gene: Schueller\_30 Start: 27373, Stop: 28485, Start Num: 65

Candidate Starts for Schueller\_30:

(Start: 65 @27373 has 255 MA's), (Start: 70 @27391 has 8 MA's), (91, 27442), (117, 27517), (149, 27610), (162, 27643), (176, 27688), (207, 27778), (215, 27802), (228, 27838), (242, 27895), (245, 27910), (246, 27919), (253, 27946), (254, 27949), (261, 27976), (275, 28039), (283, 28069), (287, 28075), (309, 28159), (311, 28168), (325, 28237), (331, 28273), (333, 28279), (337, 28291), (371, 28381), (379, 28399), (383, 28408), (390, 28426), (402, 28459),

Gene: Scoot17C\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for Scoot17C\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Scrick\_30 Start: 27376, Stop: 28488, Start Num: 65

Candidate Starts for Scrick\_30:

(Start: 65 @27376 has 255 MA's), (Start: 70 @27394 has 8 MA's), (91, 27445), (149, 27613), (176, 27691), (207, 27781), (215, 27805), (228, 27841), (242, 27898), (245, 27913), (246, 27922), (253, 27949), (254, 27952), (261, 27979), (275, 28042), (283, 28072), (287, 28078), (309, 28162), (311, 28171), (325, 28240), (331, 28276), (333, 28282), (337, 28294), (371, 28384), (379, 28402), (383, 28411), (390, 28429), (402, 28462),

Gene: Scumberland\_40 Start: 27873, Stop: 29075, Start Num: 43

Candidate Starts for Scumberland\_40:

(Start: 43 @27873 has 77 MA's), (59, 27909), (Start: 76 @27966 has 49 MA's), (124, 28101), (134, 28125), (143, 28149), (150, 28173), (172, 28254), (180, 28275), (197, 28329), (206, 28356), (209, 28362), (211, 28368), (216, 28386), (220, 28404), (241, 28473), (243, 28479), (256, 28542), (268, 28587), (299, 28698), (330, 28833), (331, 28848), (337, 28866), (355, 28920), (362, 28935), (369, 28953), (388, 29001), (396, 29034), (407, 29061), (409, 29067),

Gene: Sejanus\_26 Start: 25884, Stop: 26930, Start Num: 76

Candidate Starts for Sejanus\_26:

(7, 25254), (10, 25314), (13, 25380), (15, 25413), (16, 25458), (25, 25611), (Start: 47 @25779 has 1 MA's), (53, 25809), (Start: 76 @25884 has 49 MA's), (Start: 79 @25890 has 55 MA's), (112, 25977), (122, 26004), (127, 26022), (128, 26025), (151, 26088), (176, 26160), (180, 26166), (185, 26181), (242, 26367), (244, 26379), (251, 26406), (274, 26508), (296, 26580), (297, 26586), (309, 26628), (311, 26637), (315, 26658), (325, 26706), (328, 26721), (332, 26745), (342, 26769), (352, 26799), (356, 26808), (363, 26823), (379, 26862), (386, 26877),

Gene: Selr12\_30 Start: 27380, Stop: 28492, Start Num: 65

Candidate Starts for Selr12\_30:

(Start: 65 @27380 has 255 MA's), (Start: 70 @27398 has 8 MA's), (91, 27449), (149, 27617), (176, 27695), (207, 27785), (215, 27809), (228, 27845), (242, 27902), (245, 27917), (246, 27926), (253, 27953), (254, 27956), (261, 27983), (275, 28046), (283, 28076), (287, 28082), (309, 28166), (311, 28175), (325, 28244), (331, 28280), (333, 28286), (337, 28298), (371, 28388), (379, 28406), (383, 28415), (390, 28433), (402, 28466),

Gene: Selwyn23\_40 Start: 27850, Stop: 29052, Start Num: 43

Candidate Starts for Selwyn23\_40:

(Start: 43 @27850 has 77 MA's), (59, 27886), (Start: 76 @27943 has 49 MA's), (124, 28078), (134, 28102), (143, 28126), (150, 28150), (172, 28231), (180, 28252), (197, 28306), (206, 28333), (209, 28339), (211, 28345), (216, 28363), (220, 28381), (241, 28450), (243, 28456), (256, 28519), (268, 28564), (283, 28636), (299, 28675), (330, 28810), (331, 28825), (337, 28843), (355, 28897), (362, 28912), (369, 28930), (385, 28972), (388, 28978), (396, 29011), (407, 29038), (409, 29044),

Gene: Serendipitous\_28 Start: 27700, Stop: 28785, Start Num: 73

Candidate Starts for Serendipitous\_28:

(Start: 73 @27700 has 9 MA's), (149, 27907), (151, 27913), (165, 27955), (176, 27985), (215, 28099), (242, 28192), (254, 28246), (267, 28294), (279, 28354), (283, 28366), (287, 28372), (289, 28378), (295, 28393), (296, 28405), (318, 28513), (351, 28621), (356, 28633), (379, 28693), (383, 28702),

Gene: Serendipity\_30 Start: 27676, Stop: 28788, Start Num: 65

Candidate Starts for Serendipity\_30:

(Start: 65 @27676 has 255 MA's), (Start: 70 @27694 has 8 MA's), (91, 27745), (149, 27913), (176, 27991), (207, 28081), (215, 28105), (228, 28141), (242, 28198), (245, 28213), (246, 28222), (253, 28249), (254, 28252), (261, 28279), (275, 28342), (283, 28372), (287, 28378), (309, 28462), (311, 28471), (325, 28540), (331, 28576), (333, 28582), (337, 28594), (371, 28684), (379, 28702), (383, 28711), (390, 28729), (402, 28762),

Gene: Serpentine\_0030 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Serpentine\_0030:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Shatter\_26 Start: 25044, Stop: 26081, Start Num: 78

Candidate Starts for Shatter\_26:

(Start: 76 @25041 has 49 MA's), (Start: 78 @25044 has 11 MA's), (122, 25158), (143, 25206), (151, 25233), (169, 25287), (212, 25407), (215, 25419), (228, 25455), (245, 25527), (248, 25539), (255, 25575), (257, 25581), (261, 25593), (275, 25656), (309, 25773), (331, 25887), (356, 25953), (363, 25968), (365, 25974), (375, 26001), (390, 26031), (409, 26070),

Gene: Sheila\_30 Start: 27646, Stop: 28758, Start Num: 65

Candidate Starts for Sheila\_30:

(Start: 65 @27646 has 255 MA's), (Start: 70 @27664 has 8 MA's), (91, 27715), (149, 27883), (176, 27961), (207, 28051), (215, 28075), (228, 28111), (242, 28168), (245, 28183), (246, 28192), (253, 28219), (254, 28222), (261, 28249), (275, 28312), (283, 28342), (287, 28348), (309, 28432), (311, 28441), (325, 28510), (331, 28546), (333, 28552), (337, 28564), (371, 28654), (379, 28672), (383, 28681), (390, 28699), (402, 28732),

Gene: Shenyu\_29 Start: 27852, Stop: 28937, Start Num: 73

Candidate Starts for Shenyu\_29:

(Start: 73 @27852 has 9 MA's), (149, 28059), (151, 28065), (160, 28086), (161, 28089), (165, 28107), (176, 28137), (215, 28251), (242, 28344), (254, 28398), (267, 28446), (279, 28506), (283, 28518), (287, 28524), (289, 28530), (295, 28545), (297, 28563), (318, 28665), (325, 28683), (336, 28734), (351, 28773), (356, 28785), (363, 28800), (379, 28845), (383, 28854),

Gene: ShiVal\_30 Start: 27650, Stop: 28762, Start Num: 65

Candidate Starts for ShiVal\_30:

(Start: 65 @27650 has 255 MA's), (Start: 70 @27668 has 8 MA's), (91, 27719), (149, 27887), (176, 27965), (207, 28055), (215, 28079), (228, 28115), (242, 28172), (245, 28187), (246, 28196), (253, 28223), (254, 28226), (261, 28253), (275, 28316), (283, 28346), (287, 28352), (309, 28436), (311, 28445), (325, 28514), (331, 28550), (333, 28556), (337, 28568), (371, 28658), (379, 28676), (383, 28685), (390, 28703), (402, 28736),

Gene: Shotgun\_38 Start: 27477, Stop: 28679, Start Num: 43

Candidate Starts for Shotgun\_38:

(Start: 43 @27477 has 77 MA's), (59, 27513), (Start: 76 @27570 has 49 MA's), (97, 27633), (124, 27705), (134, 27729), (143, 27753), (150, 27777), (172, 27858), (180, 27879), (197, 27933), (206, 27960), (209, 27966), (211, 27972), (216, 27990), (220, 28008), (241, 28077), (243, 28083), (256, 28146), (268, 28191), (299, 28302), (330, 28437), (331, 28452), (337, 28470), (355, 28524), (362, 28539), (369, 28557), (388, 28605), (396, 28638), (407, 28665), (409, 28671),

Gene: Sigman\_30 Start: 27642, Stop: 28754, Start Num: 65

Candidate Starts for Sigman\_30:

(Start: 65 @27642 has 255 MA's), (Start: 70 @27660 has 8 MA's), (91, 27711), (149, 27879), (176, 27957), (207, 28047), (215, 28071), (228, 28107), (242, 28164), (245, 28179), (246, 28188), (253, 28215), (254, 28218), (261, 28245), (275, 28308), (283, 28338), (287, 28344), (309, 28428), (311, 28437), (325, 28506), (331, 28542), (333, 28548), (337, 28560), (371, 28650), (379, 28668), (383, 28677), (390, 28695), (402, 28728),

Gene: SilentRX\_33 Start: 27115, Stop: 28230, Start Num: 56

Candidate Starts for SilentRX\_33:

(Start: 56 @27115 has 11 MA's), (86, 27202), (94, 27235), (96, 27244), (115, 27289), (121, 27307), (124, 27316), (125, 27319), (134, 27340), (149, 27385), (156, 27409), (157, 27418), (180, 27475), (230, 27589), (260, 27718), (267, 27745), (268, 27748), (283, 27820), (298, 27859), (319, 27946), (323, 27955), (347, 28048), (355, 28069), (364, 28090), (369, 28102), (378, 28126), (385, 28144), (396, 28186),

Gene: Sillytadpoles\_40 Start: 30210, Stop: 31361, Start Num: 43

Candidate Starts for Sillytadpoles\_40:

(5, 29634), (12, 29784), (30, 30114), (Start: 43 @30210 has 77 MA's), (64, 30243), (69, 30264), (Start: 76 @30282 has 49 MA's), (86, 30300), (124, 30420), (134, 30444), (180, 30576), (227, 30714), (257, 30843), (270, 30912), (288, 30966), (319, 31074), (331, 31125), (335, 31137), (378, 31254), (388, 31278), (396, 31311), (411, 31350),

Gene: SilverBell\_30 Start: 27672, Stop: 28784, Start Num: 65

Candidate Starts for SilverBell\_30:

(Start: 65 @27672 has 255 MA's), (Start: 70 @27690 has 8 MA's), (91, 27741), (149, 27909), (176, 27987), (207, 28077), (215, 28101), (228, 28137), (242, 28194), (245, 28209), (246, 28218), (253, 28245), (254, 28248), (261, 28275), (275, 28338), (283, 28368), (287, 28374), (309, 28458), (311, 28467), (325, 28536), (331, 28572), (333, 28578), (337, 28590), (371, 28680), (379, 28698), (383, 28707), (390, 28725), (402, 28758),

Gene: Simielle\_29 Start: 27345, Stop: 28457, Start Num: 65

Candidate Starts for Simielle\_29:

(Start: 65 @27345 has 255 MA's), (Start: 70 @27363 has 8 MA's), (91, 27414), (149, 27582), (176, 27660), (207, 27750), (215, 27774), (228, 27810), (242, 27867), (245, 27882), (246, 27891), (253, 27918), (254, 27921), (261, 27948), (275, 28011), (283, 28041), (287, 28047), (309, 28131), (311, 28140), (325, 28209), (331, 28245), (333, 28251), (337, 28263), (371, 28353), (379, 28371), (383, 28380), (390, 28398), (402, 28431),

Gene: SirJeffery\_29 Start: 27895, Stop: 28983, Start Num: 73

Candidate Starts for SirJeffery\_29:

(Start: 73 @27895 has 9 MA's), (140, 28075), (149, 28105), (151, 28111), (165, 28153), (176, 28183), (215, 28297), (242, 28390), (254, 28444), (267, 28492), (279, 28552), (283, 28564), (287, 28570), (289, 28576), (296, 28603), (318, 28711), (328, 28744), (356, 28831), (379, 28891), (383, 28900), (384, 28903),

Gene: Sisko\_26 Start: 25527, Stop: 26567, Start Num: 79

Candidate Starts for Sisko\_26:

(Start: 47 @25416 has 1 MA's), (Start: 79 @25527 has 55 MA's), (91, 25551), (154, 25725), (190, 25824), (195, 25845), (215, 25905), (220, 25923), (244, 26010), (245, 26013), (255, 26061), (261, 26079), (275, 26142), (283, 26172), (285, 26175), (294, 26196), (309, 26259), (356, 26439), (406, 26547), (409, 26556),

Gene: Skippy\_30 Start: 27640, Stop: 28752, Start Num: 65

Candidate Starts for Skippy\_30:

(Start: 65 @27640 has 255 MA's), (Start: 70 @27658 has 8 MA's), (91, 27709), (149, 27877), (176, 27955), (207, 28045), (215, 28069), (228, 28105), (242, 28162), (245, 28177), (246, 28186), (253, 28213), (254, 28216), (261, 28243), (275, 28306), (283, 28336), (287, 28342), (309, 28426), (311, 28435), (325, 28504), (331, 28540), (333, 28546), (337, 28558), (371, 28648), (379, 28666), (383, 28675), (390, 28693), (402, 28726),

Gene: Slatt\_30 Start: 27665, Stop: 28777, Start Num: 65

Candidate Starts for Slatt\_30:

(Start: 65 @27665 has 255 MA's), (Start: 70 @27683 has 8 MA's), (91, 27734), (149, 27902), (176, 27980), (207, 28070), (215, 28094), (228, 28130), (242, 28187), (245, 28202), (246, 28211), (253, 28238), (254, 28241), (261, 28268), (275, 28331), (283, 28361), (287, 28367), (309, 28451), (311, 28460), (325, 28529), (331, 28565), (333, 28571), (337, 28583), (371, 28673), (379, 28691), (383, 28700), (390, 28718), (402, 28751),

Gene: SlippinJimmy\_30 Start: 28338, Stop: 29381, Start Num: 76

Candidate Starts for SlippinJimmy\_30:

(Start: 47 @28233 has 1 MA's), (53, 28263), (Start: 76 @28338 has 49 MA's), (98, 28386), (122, 28452), (151, 28536), (161, 28560), (167, 28584), (176, 28608), (185, 28629), (195, 28662), (242, 28815), (244, 28827), (261, 28896), (279, 28977), (306, 29064), (309, 29079), (315, 29109), (328, 29172), (346, 29232), (352, 29250), (354, 29256), (356, 29259), (365, 29280), (377, 29310), (379, 29316), (382, 29322), (386, 29331),

Gene: Smarties\_47 Start: 29437, Stop: 30585, Start Num: 49

Candidate Starts for Smarties\_47:

(Start: 49 @29437 has 12 MA's), (Start: 78 @29512 has 11 MA's), (81, 29518), (89, 29542), (125, 29653), (157, 29752), (180, 29812), (197, 29866), (210, 29893), (220, 29929), (227, 29947), (241, 29995), (242, 29998), (248, 30025), (251, 30037), (256, 30064), (314, 30271), (315, 30277), (323, 30319), (331, 30361), (340, 30391), (362, 30448), (385, 30508), (392, 30535), (394, 30541), (396, 30547),



Gene: Soile\_30 Start: 27372, Stop: 28484, Start Num: 65

Candidate Starts for Soile\_30:

(Start: 65 @27372 has 255 MA's), (Start: 70 @27390 has 8 MA's), (91, 27441), (117, 27516), (149, 27609), (162, 27642), (176, 27687), (207, 27777), (215, 27801), (228, 27837), (242, 27894), (245, 27909), (246, 27918), (253, 27945), (254, 27948), (261, 27975), (275, 28038), (287, 28074), (309, 28158), (311, 28167), (325, 28236), (331, 28272), (333, 28278), (337, 28290), (371, 28380), (379, 28398), (383, 28407), (390, 28425), (402, 28458),

Gene: Solosis\_29 Start: 27367, Stop: 28479, Start Num: 65

Candidate Starts for Solosis\_29:

(Start: 65 @27367 has 255 MA's), (Start: 70 @27385 has 8 MA's), (91, 27436), (149, 27604), (176, 27682), (207, 27772), (215, 27796), (228, 27832), (242, 27889), (245, 27904), (246, 27913), (253, 27940), (254, 27943), (261, 27970), (275, 28033), (283, 28063), (287, 28069), (309, 28153), (311, 28162), (325, 28231), (331, 28267), (333, 28273), (337, 28285), (371, 28375), (379, 28393), (383, 28402), (390, 28420), (402, 28453),

Gene: Soos\_54 Start: 36665, Stop: 37813, Start Num: 78

Candidate Starts for Soos\_54:

(Start: 78 @36665 has 11 MA's), (106, 36746), (108, 36752), (112, 36761), (187, 36959), (205, 37016), (213, 37037), (220, 37067), (222, 37073), (234, 37112), (235, 37118), (243, 37145), (245, 37157), (248, 37169), (256, 37208), (272, 37277), (275, 37286), (280, 37307), (292, 37337), (301, 37376), (313, 37427), (356, 37598), (357, 37601), (365, 37619), (368, 37625), (373, 37646), (376, 37652), (379, 37661),

Gene: Sophia\_29 Start: 27367, Stop: 28479, Start Num: 65

Candidate Starts for Sophia\_29:

(Start: 65 @27367 has 255 MA's), (Start: 70 @27385 has 8 MA's), (91, 27436), (149, 27604), (176, 27682), (207, 27772), (215, 27796), (228, 27832), (242, 27889), (245, 27904), (246, 27913), (253, 27940), (254, 27943), (261, 27970), (275, 28033), (283, 28063), (287, 28069), (309, 28153), (311, 28162), (325, 28231), (331, 28267), (333, 28273), (337, 28285), (371, 28375), (379, 28393), (383, 28402), (390, 28420), (402, 28453),

Gene: Soto\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for Soto\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: Sour\_30 Start: 29270, Stop: 30310, Start Num: 76

Candidate Starts for Sour\_30:

(10, 28700), (53, 29195), (Start: 76 @29270 has 49 MA's), (Start: 78 @29273 has 11 MA's), (128, 29408), (154, 29471), (168, 29516), (190, 29570), (215, 29651), (242, 29744), (245, 29759), (253, 29795), (261, 29825), (274, 29885), (275, 29888), (309, 30005), (337, 30137), (356, 30185), (365, 30206), (375, 30233), (406, 30290),

Gene: Spartan300\_30 Start: 27646, Stop: 28758, Start Num: 65

Candidate Starts for Spartan300\_30:

(Start: 65 @27646 has 255 MA's), (Start: 70 @27664 has 8 MA's), (91, 27715), (149, 27883), (176, 27961), (207, 28051), (215, 28075), (228, 28111), (242, 28168), (245, 28183), (246, 28192), (253, 28219), (254, 28222), (261, 28249), (275, 28312), (283, 28342), (287, 28348), (309, 28432), (311,

28441), (325, 28510), (331, 28546), (333, 28552), (337, 28564), (371, 28654), (379, 28672), (383, 28681), (390, 28699), (402, 28732),

Gene: Squash\_41 Start: 31272, Stop: 32423, Start Num: 43

Candidate Starts for Squash\_41:

(30, 31176), (Start: 43 @31272 has 77 MA's), (64, 31305), (69, 31326), (Start: 76 @31344 has 49 MA's), (86, 31362), (124, 31482), (134, 31506), (180, 31638), (227, 31776), (257, 31905), (270, 31974), (288, 32028), (319, 32136), (331, 32187), (335, 32199), (378, 32316), (388, 32340), (396, 32373), (398, 32379), (411, 32412),

Gene: Squid\_30 Start: 27358, Stop: 28470, Start Num: 65

Candidate Starts for Squid\_30:

(Start: 65 @27358 has 255 MA's), (Start: 70 @27376 has 8 MA's), (91, 27427), (149, 27595), (176, 27673), (207, 27763), (215, 27787), (228, 27823), (242, 27880), (245, 27895), (246, 27904), (253, 27931), (254, 27934), (261, 27961), (275, 28024), (283, 28054), (287, 28060), (309, 28144), (311, 28153), (325, 28222), (331, 28258), (333, 28264), (337, 28276), (371, 28366), (379, 28384), (383, 28393), (390, 28411), (402, 28444),

Gene: Squiggle\_30 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for Squiggle\_30:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (149, 27607), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: StAugustine\_34 Start: 30786, Stop: 31880, Start Num: 78

Candidate Starts for StAugustine\_34:

(24, 30501), (27, 30528), (Start: 47 @30678 has 1 MA's), (53, 30708), (Start: 78 @30786 has 11 MA's), (101, 30843), (103, 30852), (126, 30915), (131, 30930), (171, 31047), (190, 31095), (199, 31125), (210, 31158), (214, 31170), (215, 31176), (226, 31212), (250, 31305), (253, 31323), (255, 31335), (261, 31353), (273, 31410), (283, 31446), (309, 31533), (346, 31686), (375, 31761), (377, 31767), (379, 31773), (393, 31809), (412, 31860),

Gene: Statler\_41 Start: 31123, Stop: 32274, Start Num: 43

Candidate Starts for Statler\_41:

(Start: 43 @31123 has 77 MA's), (64, 31156), (69, 31177), (Start: 76 @31195 has 49 MA's), (86, 31213), (124, 31333), (134, 31357), (180, 31489), (227, 31627), (257, 31756), (270, 31825), (288, 31879), (319, 31987), (331, 32038), (335, 32050), (378, 32167), (388, 32191), (396, 32224), (398, 32230), (411, 32263),

Gene: Sting\_57 Start: 37104, Stop: 38252, Start Num: 78

Candidate Starts for Sting\_57:

(Start: 78 @37104 has 11 MA's), (106, 37185), (108, 37191), (112, 37200), (187, 37398), (205, 37455), (213, 37476), (220, 37506), (222, 37512), (234, 37551), (235, 37557), (243, 37584), (245, 37596), (248, 37608), (256, 37647), (272, 37716), (275, 37725), (280, 37746), (292, 37776), (301, 37815), (313, 37866), (356, 38037), (357, 38040), (365, 38058), (368, 38064), (373, 38085), (376, 38091), (379, 38100),

Gene: Stinger\_25 Start: 26469, Stop: 27545, Start Num: 82

Candidate Starts for Stinger\_25:

(Start: 82 @26469 has 38 MA's), (128, 26607), (144, 26646), (151, 26670), (161, 26703), (179, 26754), (195, 26805), (207, 26841), (215, 26865), (242, 26958), (245, 26973), (248, 26985), (253,

27009), (254, 27012), (265, 27054), (275, 27102), (280, 27123), (283, 27132), (287, 27138), (309, 27219), (312, 27237), (316, 27261), (321, 27288), (328, 27312), (337, 27351), (345, 27369), (351, 27387), (356, 27399), (357, 27402), (379, 27459), (383, 27468),

Gene: StinkyVeggy\_31 Start: 28042, Stop: 29127, Start Num: 73

Candidate Starts for StinkyVeggy\_31:

(Start: 73 @28042 has 9 MA's), (149, 28249), (151, 28255), (160, 28276), (161, 28279), (165, 28297), (176, 28327), (215, 28441), (242, 28534), (254, 28588), (267, 28636), (279, 28696), (283, 28708), (287, 28714), (289, 28720), (295, 28735), (297, 28753), (318, 28855), (351, 28963), (356, 28975), (363, 28990), (379, 29035), (383, 29044),

Gene: StrawberryJamm\_41 Start: 30571, Stop: 31722, Start Num: 43

Candidate Starts for StrawberryJamm\_41:

(5, 29995), (12, 30145), (30, 30475), (Start: 43 @30571 has 77 MA's), (64, 30604), (69, 30625), (Start: 76 @30643 has 49 MA's), (86, 30661), (124, 30781), (134, 30805), (180, 30937), (227, 31075), (257, 31204), (270, 31273), (288, 31327), (319, 31435), (331, 31486), (335, 31498), (378, 31615), (388, 31639), (396, 31672), (398, 31678), (411, 31711),

Gene: Struggle\_29 Start: 27208, Stop: 28320, Start Num: 65

Candidate Starts for Struggle\_29:

(Start: 65 @27208 has 255 MA's), (Start: 70 @27226 has 8 MA's), (91, 27277), (117, 27352), (149, 27445), (162, 27478), (176, 27523), (207, 27613), (215, 27637), (228, 27673), (242, 27730), (245, 27745), (246, 27754), (253, 27781), (254, 27784), (261, 27811), (275, 27874), (283, 27904), (285, 27907), (287, 27910), (309, 27994), (311, 28003), (325, 28072), (331, 28108), (333, 28114), (337, 28126), (371, 28216), (379, 28234), (383, 28243), (390, 28261), (402, 28294),

Gene: Suffolk\_30 Start: 27654, Stop: 28766, Start Num: 65

Candidate Starts for Suffolk\_30:

(Start: 65 @27654 has 255 MA's), (Start: 70 @27672 has 8 MA's), (91, 27723), (149, 27891), (176, 27969), (207, 28059), (215, 28083), (228, 28119), (242, 28176), (245, 28191), (246, 28200), (253, 28227), (254, 28230), (261, 28257), (275, 28320), (283, 28350), (287, 28356), (309, 28440), (311, 28449), (325, 28518), (331, 28554), (333, 28560), (337, 28572), (371, 28662), (379, 28680), (383, 28689), (390, 28707), (402, 28740),

Gene: Suigeneris\_29 Start: 27898, Stop: 28986, Start Num: 73

Candidate Starts for Suigeneris\_29:

(Start: 73 @27898 has 9 MA's), (140, 28078), (149, 28108), (151, 28114), (165, 28156), (176, 28186), (215, 28300), (242, 28393), (254, 28447), (267, 28495), (279, 28555), (283, 28567), (287, 28573), (289, 28579), (296, 28606), (318, 28714), (328, 28747), (356, 28834), (379, 28894), (383, 28903), (384, 28906),

Gene: Sunfish\_47 Start: 32026, Stop: 33138, Start Num: 57

Candidate Starts for Sunfish\_47:

(34, 31921), (Start: 42 @31987 has 3 MA's), (57, 32026), (62, 32047), (98, 32158), (162, 32356), (164, 32365), (181, 32401), (225, 32485), (256, 32605), (262, 32635), (272, 32686), (282, 32719), (308, 32794), (355, 32965), (359, 32974), (367, 32992), (374, 33016), (378, 33025), (385, 33043), (413, 33133),

Gene: Sunny\_41 Start: 29432, Stop: 30676, Start Num: 43

Candidate Starts for Sunny\_41:

(29, 29324), (30, 29339), (Start: 40 @29429 has 1 MA's), (Start: 43 @29432 has 77 MA's), (63, 29483), (64, 29486), (72, 29516), (86, 29543), (87, 29546), (124, 29666), (134, 29690), (150, 29738), (178, 29837), (180, 29843), (209, 29930), (220, 29972), (227, 29990), (238, 30029), (241, 30041),

(270, 30182), (272, 30188), (299, 30296), (311, 30341), (323, 30404), (331, 30446), (333, 30452), (359, 30527), (362, 30533), (364, 30539), (385, 30593), (396, 30632), (407, 30659), (409, 30665),

Gene: Surely\_30 Start: 27660, Stop: 28772, Start Num: 65

Candidate Starts for Surely\_30:

(Start: 65 @27660 has 255 MA's), (Start: 70 @27678 has 8 MA's), (91, 27729), (149, 27897), (176, 27975), (207, 28065), (215, 28089), (228, 28125), (242, 28182), (245, 28197), (246, 28206), (253, 28233), (254, 28236), (261, 28263), (275, 28326), (283, 28356), (287, 28362), (309, 28446), (311, 28455), (325, 28524), (331, 28560), (333, 28566), (337, 28578), (371, 28668), (379, 28686), (383, 28695), (390, 28713), (402, 28746),

Gene: Swiphy\_31 Start: 27655, Stop: 28767, Start Num: 65

Candidate Starts for Swiphy\_31:

(Start: 65 @27655 has 255 MA's), (Start: 70 @27673 has 8 MA's), (91, 27724), (117, 27799), (149, 27892), (162, 27925), (176, 27970), (207, 28060), (215, 28084), (228, 28120), (242, 28177), (245, 28192), (246, 28201), (253, 28228), (254, 28231), (261, 28258), (275, 28321), (287, 28357), (309, 28441), (311, 28450), (325, 28519), (331, 28555), (333, 28561), (337, 28573), (371, 28663), (379, 28681), (383, 28690), (390, 28708), (402, 28741),

Gene: Swish\_30 Start: 27643, Stop: 28755, Start Num: 65

Candidate Starts for Swish\_30:

(Start: 65 @27643 has 255 MA's), (Start: 70 @27661 has 8 MA's), (91, 27712), (149, 27880), (176, 27958), (207, 28048), (215, 28072), (228, 28108), (242, 28165), (245, 28180), (246, 28189), (253, 28216), (254, 28219), (261, 28246), (275, 28309), (283, 28339), (287, 28345), (309, 28429), (311, 28438), (325, 28507), (331, 28543), (333, 28549), (337, 28561), (371, 28651), (379, 28669), (383, 28678), (390, 28696), (402, 28729),

Gene: SynergyX\_30 Start: 27574, Stop: 28617, Start Num: 76

Candidate Starts for SynergyX\_30:

(Start: 47 @27469 has 1 MA's), (53, 27499), (Start: 76 @27574 has 49 MA's), (98, 27622), (122, 27688), (151, 27772), (161, 27796), (167, 27820), (176, 27844), (185, 27865), (195, 27898), (242, 28051), (244, 28063), (261, 28132), (279, 28213), (306, 28300), (309, 28315), (315, 28345), (328, 28408), (346, 28468), (352, 28486), (354, 28492), (356, 28495), (365, 28516), (377, 28546), (379, 28552), (382, 28558), (386, 28567),

Gene: TA17A\_31 Start: 28909, Stop: 29958, Start Num: 79

Candidate Starts for TA17A\_31:

(15, 28432), (16, 28477), (20, 28552), (27, 28648), (36, 28738), (Start: 47 @28798 has 1 MA's), (53, 28828), (55, 28831), (Start: 79 @28909 has 55 MA's), (98, 28957), (109, 28990), (127, 29041), (128, 29044), (151, 29107), (161, 29131), (202, 29254), (212, 29281), (215, 29293), (228, 29329), (238, 29371), (243, 29389), (248, 29413), (253, 29437), (255, 29449), (265, 29482), (272, 29521), (283, 29560), (311, 29656), (315, 29677), (316, 29689), (324, 29722), (325, 29725), (337, 29779), (351, 29815), (356, 29827), (363, 29842), (365, 29848), (377, 29875), (379, 29881), (382, 29887), (386, 29896),

Gene: TP1604\_22 Start: 21599, Stop: 22627, Start Num: 82

Candidate Starts for TP1604\_22:

(26, 21332), (Start: 56 @21521 has 11 MA's), (Start: 82 @21599 has 38 MA's), (102, 21656), (112, 21683), (118, 21698), (176, 21866), (179, 21869), (193, 21911), (204, 21947), (228, 22019), (259, 22145), (274, 22211), (284, 22247), (286, 22250), (293, 22277), (295, 22283), (304, 22322), (331, 22454), (342, 22487), (356, 22532), (365, 22553), (384, 22583), (386, 22586), (388, 22592), (397, 22616), (398, 22619),

Gene: TPA2\_35 Start: 29436, Stop: 30311, Start Num: 139

Candidate Starts for TPA2\_35:

(Start: 79 @29277 has 55 MA's), (92, 29304), (95, 29316), (127, 29409), (128, 29412), (139, 29436), (151, 29475), (159, 29496), (185, 29568), (215, 29661), (244, 29763), (253, 29802), (261, 29832), (266, 29850), (274, 29886), (287, 29925), (296, 29958), (306, 29991), (309, 30006), (311, 30015), (331, 30120), (346, 30159), (356, 30186), (383, 30255),

Gene: TallGrassMM\_30 Start: 27300, Stop: 28394, Start Num: 70

Candidate Starts for TallGrassMM\_30:

(Start: 65 @27282 has 255 MA's), (Start: 70 @27300 has 8 MA's), (91, 27351), (149, 27519), (176, 27597), (207, 27687), (215, 27711), (228, 27747), (242, 27804), (245, 27819), (246, 27828), (253, 27855), (254, 27858), (261, 27885), (275, 27948), (283, 27978), (287, 27984), (309, 28068), (311, 28077), (325, 28146), (331, 28182), (333, 28188), (337, 28200), (371, 28290), (379, 28308), (383, 28317), (390, 28335), (402, 28368),

Gene: Tank\_33 Start: 26768, Stop: 27895, Start Num: 56

Candidate Starts for Tank\_33:

(Start: 56 @26768 has 11 MA's), (121, 26960), (124, 26969), (156, 27062), (158, 27074), (162, 27086), (180, 27128), (184, 27140), (189, 27152), (223, 27221), (230, 27242), (245, 27302), (251, 27329), (283, 27473), (308, 27554), (319, 27611), (323, 27620), (337, 27680), (369, 27767), (378, 27791), (385, 27809), (397, 27854), (410, 27884),

Gene: Taptic\_23 Start: 26126, Stop: 27163, Start Num: 79

Candidate Starts for Taptic\_23:

(Start: 79 @26126 has 55 MA's), (90, 26147), (91, 26150), (98, 26174), (109, 26207), (128, 26261), (138, 26279), (142, 26282), (149, 26309), (161, 26339), (212, 26489), (228, 26537), (242, 26594), (243, 26597), (245, 26609), (248, 26621), (255, 26657), (261, 26675), (274, 26735), (275, 26738), (279, 26756), (283, 26768), (285, 26771), (296, 26807), (297, 26813), (309, 26855), (315, 26885), (316, 26897), (329, 26951), (346, 27008), (351, 27023), (358, 27041), (363, 27050), (365, 27056), (368, 27062), (377, 27083), (379, 27089), (386, 27104), (393, 27125), (394, 27128),

Gene: Teamocil\_40 Start: 27417, Stop: 28568, Start Num: 49

Candidate Starts for Teamocil\_40:

(Start: 49 @27417 has 12 MA's), (Start: 78 @27492 has 11 MA's), (81, 27498), (125, 27633), (134, 27654), (143, 27678), (157, 27732), (163, 27753), (180, 27792), (197, 27846), (210, 27873), (220, 27909), (227, 27927), (232, 27945), (241, 27975), (242, 27978), (248, 28005), (251, 28017), (256, 28044), (273, 28125), (315, 28257), (323, 28299), (331, 28341), (335, 28353), (340, 28371), (359, 28422), (362, 28428), (366, 28437), (374, 28461), (385, 28488), (388, 28494), (394, 28521), (396, 28527), (406, 28551),

Gene: Teehee\_40 Start: 31443, Stop: 32594, Start Num: 43

Candidate Starts for Teehee\_40:

(12, 31017), (30, 31347), (Start: 43 @31443 has 77 MA's), (64, 31476), (69, 31497), (Start: 76 @31515 has 49 MA's), (86, 31533), (124, 31653), (134, 31677), (180, 31809), (227, 31947), (257, 32076), (270, 32145), (288, 32199), (319, 32307), (331, 32358), (335, 32370), (378, 32487), (388, 32511), (396, 32544), (398, 32550), (411, 32583),

Gene: Telesworld\_29 Start: 27354, Stop: 28466, Start Num: 65

Candidate Starts for Telesworld\_29:

(Start: 65 @27354 has 255 MA's), (Start: 70 @27372 has 8 MA's), (91, 27423), (149, 27591), (176, 27669), (207, 27759), (215, 27783), (228, 27819), (242, 27876), (245, 27891), (246, 27900), (253, 27927), (254, 27930), (261, 27957), (275, 28020), (283, 28050), (287, 28056), (309, 28140), (311, 28149), (325, 28218), (331, 28254), (333, 28260), (337, 28272), (371, 28362), (379, 28380), (383,

28389), (390, 28407), (402, 28440),

Gene: Tempo\_38 Start: 30007, Stop: 31155, Start Num: 43

Candidate Starts for Tempo\_38:

(12, 29581), (23, 29821), (29, 29896), (30, 29911), (Start: 42 @30004 has 3 MA's), (Start: 43 @30007 has 77 MA's), (64, 30040), (124, 30217), (134, 30241), (148, 30283), (155, 30307), (161, 30331), (180, 30373), (201, 30436), (220, 30493), (227, 30511), (245, 30583), (331, 30922), (335, 30934), (378, 31051), (394, 31102), (410, 31144),

Gene: Terij\_35 Start: 26372, Stop: 27604, Start Num: 43

Candidate Starts for Terij\_35:

(Start: 43 @26372 has 77 MA's), (53, 26408), (59, 26426), (Start: 78 @26486 has 11 MA's), (86, 26501), (141, 26657), (150, 26690), (155, 26708), (180, 26792), (184, 26804), (197, 26846), (208, 26879), (211, 26885), (232, 26957), (241, 26990), (267, 27101), (268, 27104), (302, 27236), (311, 27272), (314, 27287), (337, 27395), (355, 27449), (359, 27458), (362, 27464), (364, 27470), (369, 27482), (385, 27524), (388, 27530), (396, 27563), (406, 27587), (408, 27593),

Gene: Thonko\_28 Start: 26100, Stop: 27167, Start Num: 79

Candidate Starts for Thonko\_28:

(Start: 79 @26100 has 55 MA's), (114, 26193), (126, 26232), (144, 26277), (165, 26343), (212, 26475), (215, 26487), (242, 26580), (254, 26634), (255, 26643), (274, 26721), (287, 26760), (300, 26808), (309, 26841), (321, 26910), (329, 26937), (337, 26973), (345, 26991), (354, 27018), (371, 27066), (379, 27084), (383, 27093),

Gene: Thora\_30 Start: 27659, Stop: 28771, Start Num: 65

Candidate Starts for Thora\_30:

(Start: 65 @27659 has 255 MA's), (Start: 70 @27677 has 8 MA's), (91, 27728), (149, 27896), (176, 27974), (207, 28064), (215, 28088), (228, 28124), (242, 28181), (245, 28196), (246, 28205), (253, 28232), (254, 28235), (261, 28262), (275, 28325), (283, 28355), (287, 28361), (309, 28445), (311, 28454), (325, 28523), (331, 28559), (333, 28565), (337, 28577), (371, 28667), (379, 28685), (383, 28694), (390, 28712), (402, 28745),

Gene: ThreeOh3D2\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for ThreeOh3D2\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Thunderbird\_29 Start: 27363, Stop: 28475, Start Num: 65

Candidate Starts for Thunderbird\_29:

(Start: 65 @27363 has 255 MA's), (Start: 70 @27381 has 8 MA's), (91, 27432), (117, 27507), (149, 27600), (162, 27633), (176, 27678), (207, 27768), (215, 27792), (228, 27828), (242, 27885), (245, 27900), (246, 27909), (253, 27936), (254, 27939), (261, 27966), (275, 28029), (283, 28059), (285, 28062), (287, 28065), (309, 28149), (311, 28158), (325, 28227), (331, 28263), (333, 28269), (337, 28281), (371, 28371), (379, 28389), (383, 28398), (390, 28416), (402, 28449),

Gene: Timmi\_29 Start: 27368, Stop: 28480, Start Num: 65

Candidate Starts for Timmi\_29:

(Start: 65 @27368 has 255 MA's), (Start: 70 @27386 has 8 MA's), (91, 27437), (149, 27605), (176, 27683), (207, 27773), (215, 27797), (228, 27833), (242, 27890), (245, 27905), (246, 27914), (253, 27941), (254, 27944), (261, 27971), (275, 28034), (283, 28064), (287, 28070), (309, 28154), (311,

28163), (325, 28232), (331, 28268), (333, 28274), (337, 28286), (371, 28376), (379, 28394), (383, 28403), (390, 28421), (402, 28454),

Gene: Tinciduntolum\_32 Start: 29047, Stop: 30096, Start Num: 79

Candidate Starts for Tinciduntolum\_32:

(15, 28570), (16, 28615), (20, 28690), (27, 28786), (36, 28876), (Start: 47 @28936 has 1 MA's), (53, 28966), (55, 28969), (Start: 79 @29047 has 55 MA's), (98, 29095), (109, 29128), (127, 29179), (128, 29182), (151, 29245), (161, 29269), (202, 29392), (212, 29419), (215, 29431), (228, 29467), (238, 29509), (243, 29527), (248, 29551), (253, 29575), (255, 29587), (265, 29620), (272, 29659), (283, 29698), (298, 29746), (311, 29794), (315, 29815), (316, 29827), (324, 29860), (325, 29863), (337, 29917), (351, 29953), (356, 29965), (363, 29980), (365, 29986), (377, 30013), (379, 30019), (382, 30025), (386, 30034),

Gene: Tissue\_39 Start: 30948, Stop: 32099, Start Num: 43

Candidate Starts for Tissue\_39:

(5, 30372), (12, 30522), (30, 30852), (Start: 43 @30948 has 77 MA's), (64, 30981), (69, 31002), (Start: 76 @31020 has 49 MA's), (86, 31038), (124, 31158), (134, 31182), (180, 31314), (227, 31452), (257, 31581), (270, 31650), (288, 31704), (319, 31812), (331, 31863), (335, 31875), (378, 31992), (388, 32016), (396, 32049), (411, 32088),

Gene: TomBombadil\_30 Start: 27653, Stop: 28765, Start Num: 65

Candidate Starts for TomBombadil\_30:

(Start: 65 @27653 has 255 MA's), (Start: 70 @27671 has 8 MA's), (91, 27722), (149, 27890), (176, 27968), (207, 28058), (215, 28082), (228, 28118), (242, 28175), (245, 28190), (246, 28199), (253, 28226), (254, 28229), (261, 28256), (275, 28319), (283, 28349), (287, 28355), (309, 28439), (311, 28448), (325, 28517), (331, 28553), (333, 28559), (337, 28571), (371, 28661), (379, 28679), (383, 28688), (390, 28706), (402, 28739),

Gene: Tomlarah\_30 Start: 27644, Stop: 28756, Start Num: 65

Candidate Starts for Tomlarah\_30:

(Start: 65 @27644 has 255 MA's), (Start: 70 @27662 has 8 MA's), (91, 27713), (149, 27881), (176, 27959), (207, 28049), (215, 28073), (228, 28109), (242, 28166), (245, 28181), (246, 28190), (253, 28217), (254, 28220), (261, 28247), (275, 28310), (283, 28340), (287, 28346), (309, 28430), (311, 28439), (325, 28508), (331, 28544), (333, 28550), (337, 28562), (371, 28652), (379, 28670), (383, 28679), (390, 28697), (402, 28730),

Gene: Toni\_29 Start: 27360, Stop: 28472, Start Num: 65

Candidate Starts for Toni\_29:

(Start: 65 @27360 has 255 MA's), (Start: 70 @27378 has 8 MA's), (91, 27429), (149, 27597), (176, 27675), (207, 27765), (215, 27789), (228, 27825), (242, 27882), (245, 27897), (246, 27906), (253, 27933), (254, 27936), (261, 27963), (275, 28026), (283, 28056), (287, 28062), (309, 28146), (311, 28155), (325, 28224), (331, 28260), (333, 28266), (337, 28278), (371, 28368), (379, 28386), (383, 28395), (390, 28413), (402, 28446),

Gene: Tonitrus\_45 Start: 34902, Stop: 35993, Start Num: 79

Candidate Starts for Tonitrus\_45:

(Start: 79 @34902 has 55 MA's), (118, 35010), (122, 35022), (149, 35094), (151, 35100), (166, 35139), (181, 35175), (213, 35271), (216, 35283), (222, 35307), (223, 35310), (229, 35325), (236, 35358), (241, 35376), (247, 35403), (261, 35457), (274, 35517), (287, 35556), (292, 35571), (305, 35622), (316, 35682), (322, 35712), (330, 35739), (337, 35772), (338, 35775), (341, 35787), (344, 35793), (350, 35814), (356, 35832), (365, 35853), (373, 35880), (376, 35886), (389, 35919), (410, 35988),

Gene: Tooj\_30 Start: 27714, Stop: 28826, Start Num: 65

Candidate Starts for Tooj\_30:

(Start: 65 @27714 has 255 MA's), (Start: 70 @27732 has 8 MA's), (91, 27783), (149, 27951), (176, 28029), (207, 28119), (215, 28143), (228, 28179), (242, 28236), (245, 28251), (246, 28260), (253, 28287), (254, 28290), (261, 28317), (275, 28380), (283, 28410), (287, 28416), (309, 28500), (311, 28509), (325, 28578), (331, 28614), (333, 28620), (337, 28632), (371, 28722), (379, 28740), (383, 28749), (390, 28767), (402, 28800),

Gene: Tres\_31 Start: 28922, Stop: 29971, Start Num: 79

Candidate Starts for Tres\_31:

(15, 28445), (16, 28490), (20, 28565), (27, 28661), (36, 28751), (Start: 47 @28811 has 1 MA's), (53, 28841), (55, 28844), (Start: 79 @28922 has 55 MA's), (98, 28970), (109, 29003), (127, 29054), (128, 29057), (151, 29120), (161, 29144), (202, 29267), (212, 29294), (215, 29306), (228, 29342), (238, 29384), (243, 29402), (248, 29426), (253, 29450), (255, 29462), (265, 29495), (272, 29534), (283, 29573), (298, 29621), (311, 29669), (315, 29690), (316, 29702), (324, 29735), (325, 29738), (337, 29792), (351, 29828), (356, 29840), (363, 29855), (365, 29861), (377, 29888), (379, 29894), (382, 29900), (386, 29909),

Gene: True\_29 Start: 27357, Stop: 28469, Start Num: 65

Candidate Starts for True\_29:

(Start: 65 @27357 has 255 MA's), (Start: 70 @27375 has 8 MA's), (91, 27426), (149, 27594), (176, 27672), (207, 27762), (215, 27786), (228, 27822), (242, 27879), (245, 27894), (246, 27903), (253, 27930), (254, 27933), (261, 27960), (275, 28023), (283, 28053), (287, 28059), (309, 28143), (311, 28152), (325, 28221), (331, 28257), (333, 28263), (337, 28275), (371, 28365), (379, 28383), (383, 28392), (390, 28410), (402, 28443),

Gene: Trypo\_30 Start: 27652, Stop: 28764, Start Num: 65

Candidate Starts for Trypo\_30:

(Start: 65 @27652 has 255 MA's), (Start: 70 @27670 has 8 MA's), (91, 27721), (117, 27796), (149, 27889), (162, 27922), (176, 27967), (207, 28057), (215, 28081), (228, 28117), (242, 28174), (245, 28189), (246, 28198), (253, 28225), (254, 28228), (261, 28255), (275, 28318), (287, 28354), (309, 28438), (311, 28447), (325, 28516), (331, 28552), (333, 28558), (337, 28570), (371, 28660), (379, 28678), (383, 28687), (390, 28705), (402, 28738),

Gene: TurkishDelight\_30 Start: 28182, Stop: 29252, Start Num: 80

Candidate Starts for TurkishDelight\_30:

(67, 28146), (Start: 80 @28182 has 1 MA's), (105, 28254), (112, 28272), (122, 28299), (127, 28317), (223, 28596), (232, 28620), (254, 28710), (263, 28749), (265, 28755), (284, 28833), (292, 28860), (293, 28863), (306, 28914), (320, 28995), (336, 29055), (363, 29133), (365, 29139), (383, 29184), (405, 29244),

Gene: Tydolla\_30 Start: 28311, Stop: 29354, Start Num: 76

Candidate Starts for Tydolla\_30:

(Start: 47 @28206 has 1 MA's), (53, 28236), (Start: 76 @28311 has 49 MA's), (98, 28359), (122, 28425), (151, 28509), (161, 28533), (167, 28557), (176, 28581), (185, 28602), (195, 28635), (242, 28788), (244, 28800), (261, 28869), (279, 28950), (306, 29037), (309, 29052), (315, 29082), (328, 29145), (346, 29205), (352, 29223), (354, 29229), (356, 29232), (365, 29253), (377, 29283), (379, 29289), (382, 29295), (386, 29304),

Gene: TyrionL\_29 Start: 27216, Stop: 28328, Start Num: 65

Candidate Starts for TyrionL\_29:

(Start: 65 @27216 has 255 MA's), (Start: 70 @27234 has 8 MA's), (91, 27285), (117, 27360), (149, 27453), (162, 27486), (176, 27531), (207, 27621), (215, 27645), (228, 27681), (242, 27738), (245,



27753), (246, 27762), (253, 27789), (254, 27792), (261, 27819), (275, 27882), (287, 27918), (309, 28002), (311, 28011), (325, 28080), (331, 28116), (333, 28122), (337, 28134), (371, 28224), (379, 28242), (383, 28251), (390, 28269), (402, 28302),

Gene: Tyrumbra\_37 Start: 28055, Stop: 29212, Start Num: 49

Candidate Starts for Tyrumbra\_37:

(Start: 49 @28055 has 12 MA's), (86, 28157), (134, 28304), (143, 28328), (146, 28337), (155, 28370), (180, 28442), (197, 28496), (210, 28523), (220, 28559), (224, 28571), (241, 28625), (251, 28667), (267, 28736), (315, 28907), (331, 28991), (337, 29009), (340, 29021), (362, 29078), (385, 29138), (394, 29171), (396, 29177), (407, 29204),

Gene: UAch1\_30 Start: 27666, Stop: 28778, Start Num: 65

Candidate Starts for UAch1\_30:

(Start: 65 @27666 has 255 MA's), (Start: 70 @27684 has 8 MA's), (91, 27735), (149, 27903), (176, 27981), (207, 28071), (215, 28095), (228, 28131), (242, 28188), (245, 28203), (246, 28212), (253, 28239), (254, 28242), (261, 28269), (275, 28332), (283, 28362), (287, 28368), (309, 28452), (311, 28461), (325, 28530), (331, 28566), (333, 28572), (337, 28584), (371, 28674), (379, 28692), (383, 28701), (390, 28719), (402, 28752),

Gene: UncleHowie\_30 Start: 27356, Stop: 28468, Start Num: 65

Candidate Starts for UncleHowie\_30:

(Start: 65 @27356 has 255 MA's), (Start: 70 @27374 has 8 MA's), (91, 27425), (149, 27593), (176, 27671), (207, 27761), (215, 27785), (228, 27821), (242, 27878), (245, 27893), (246, 27902), (253, 27929), (254, 27932), (261, 27959), (275, 28022), (283, 28052), (287, 28058), (309, 28142), (311, 28151), (325, 28220), (331, 28256), (333, 28262), (337, 28274), (371, 28364), (379, 28382), (383, 28391), (390, 28409), (402, 28442),

Gene: Usavi\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Usavi\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Vaishali24\_29 Start: 27318, Stop: 28430, Start Num: 65

Candidate Starts for Vaishali24\_29:

(Start: 65 @27318 has 255 MA's), (Start: 70 @27336 has 8 MA's), (91, 27387), (149, 27555), (176, 27633), (207, 27723), (215, 27747), (242, 27840), (245, 27855), (246, 27864), (253, 27891), (254, 27894), (261, 27921), (275, 27984), (283, 28014), (287, 28020), (309, 28104), (311, 28113), (325, 28182), (331, 28218), (333, 28224), (337, 28236), (371, 28326), (379, 28344), (383, 28353), (390, 28371), (402, 28404),

Gene: Valjean\_30 Start: 27649, Stop: 28761, Start Num: 65

Candidate Starts for Valjean\_30:

(Start: 65 @27649 has 255 MA's), (Start: 70 @27667 has 8 MA's), (91, 27718), (149, 27886), (176, 27964), (207, 28054), (215, 28078), (228, 28114), (242, 28171), (245, 28186), (246, 28195), (253, 28222), (254, 28225), (261, 28252), (275, 28315), (283, 28345), (287, 28351), (309, 28435), (311, 28444), (325, 28513), (331, 28549), (333, 28555), (337, 28567), (371, 28657), (379, 28675), (383, 28684), (390, 28702), (402, 28735),

Gene: Vaticameos\_30 Start: 27347, Stop: 28459, Start Num: 65

Candidate Starts for Vaticameos\_30:

(Start: 65 @27347 has 255 MA's), (Start: 70 @27365 has 8 MA's), (91, 27416), (149, 27584), (176, 27662), (207, 27752), (215, 27776), (228, 27812), (242, 27869), (245, 27884), (246, 27893), (253, 27920), (254, 27923), (261, 27950), (275, 28013), (283, 28043), (287, 28049), (309, 28133), (311, 28142), (325, 28211), (331, 28247), (333, 28253), (337, 28265), (371, 28355), (379, 28373), (383, 28382), (390, 28400), (402, 28433),

Gene: Veritas\_29 Start: 27219, Stop: 28331, Start Num: 65

Candidate Starts for Veritas\_29:

(Start: 65 @27219 has 255 MA's), (Start: 70 @27237 has 8 MA's), (91, 27288), (117, 27363), (149, 27456), (162, 27489), (176, 27534), (207, 27624), (215, 27648), (228, 27684), (242, 27741), (245, 27756), (246, 27765), (253, 27792), (254, 27795), (261, 27822), (275, 27885), (287, 27921), (309, 28005), (311, 28014), (325, 28083), (331, 28119), (333, 28125), (337, 28137), (371, 28227), (379, 28245), (383, 28254), (390, 28272), (402, 28305),

Gene: Vic9\_32 Start: 29366, Stop: 30415, Start Num: 79

Candidate Starts for Vic9\_32:

(Start: 79 @29366 has 55 MA's), (98, 29414), (109, 29447), (127, 29498), (128, 29501), (151, 29564), (161, 29588), (202, 29711), (212, 29738), (215, 29750), (228, 29786), (237, 29825), (238, 29828), (243, 29846), (248, 29870), (253, 29894), (255, 29906), (265, 29939), (272, 29978), (283, 30017), (311, 30113), (315, 30134), (316, 30146), (324, 30179), (325, 30182), (337, 30236), (351, 30272), (356, 30284), (363, 30299), (365, 30305), (377, 30332), (379, 30338), (382, 30344), (386, 30353),

Gene: Viceroy\_37 Start: 30340, Stop: 31491, Start Num: 43

Candidate Starts for Viceroy\_37:

(12, 29914), (30, 30244), (Start: 43 @30340 has 77 MA's), (64, 30373), (69, 30394), (Start: 76 @30412 has 49 MA's), (86, 30430), (124, 30550), (134, 30574), (180, 30706), (227, 30844), (257, 30973), (270, 31042), (288, 31096), (319, 31204), (331, 31255), (335, 31267), (378, 31384), (388, 31408), (396, 31441), (398, 31447), (411, 31480),

Gene: Vincenzo\_28 Start: 28607, Stop: 29689, Start Num: 82

Candidate Starts for Vincenzo\_28:

(Start: 82 @28607 has 38 MA's), (128, 28745), (161, 28847), (195, 28949), (207, 28985), (215, 29009), (216, 29012), (217, 29015), (226, 29042), (228, 29045), (237, 29084), (246, 29126), (257, 29171), (265, 29198), (275, 29246), (279, 29264), (287, 29282), (296, 29315), (308, 29354), (309, 29363), (316, 29405), (318, 29423), (328, 29456), (331, 29477), (337, 29495), (356, 29543), (375, 29591), (379, 29603),

Gene: VioletZ\_27 Start: 27968, Stop: 29044, Start Num: 82

Candidate Starts for VioletZ\_27:

(Start: 82 @27968 has 38 MA's), (88, 27977), (144, 28145), (161, 28202), (183, 28265), (190, 28283), (195, 28304), (207, 28340), (215, 28364), (228, 28400), (242, 28457), (245, 28472), (248, 28484), (253, 28508), (254, 28511), (265, 28553), (275, 28601), (280, 28622), (283, 28631), (287, 28637), (309, 28718), (312, 28736), (318, 28778), (321, 28787), (328, 28811), (337, 28850), (345, 28868), (351, 28886), (356, 28898), (379, 28958), (383, 28967),

Gene: Virapocalypse\_30 Start: 27643, Stop: 28755, Start Num: 65

Candidate Starts for Virapocalypse\_30:

(Start: 65 @27643 has 255 MA's), (Start: 70 @27661 has 8 MA's), (91, 27712), (149, 27880), (176, 27958), (207, 28048), (215, 28072), (228, 28108), (242, 28165), (245, 28180), (246, 28189), (253, 28216), (254, 28219), (261, 28246), (275, 28309), (283, 28339), (287, 28345), (309, 28429), (311, 28438), (325, 28507), (331, 28543), (333, 28549), (337, 28561), (371, 28651), (379, 28669), (383, 28678), (390, 28696), (402, 28729),

Gene: Virgeve\_29 Start: 27418, Stop: 28530, Start Num: 65

Candidate Starts for Virgeve\_29:

(Start: 65 @27418 has 255 MA's), (Start: 70 @27436 has 8 MA's), (91, 27487), (117, 27562), (149, 27655), (162, 27688), (176, 27733), (207, 27823), (215, 27847), (228, 27883), (242, 27940), (245, 27955), (246, 27964), (253, 27991), (254, 27994), (261, 28021), (275, 28084), (283, 28114), (285, 28117), (287, 28120), (309, 28204), (311, 28213), (325, 28282), (331, 28318), (333, 28324), (337, 28336), (371, 28426), (379, 28444), (383, 28453), (390, 28471), (402, 28504),

Gene: Vista\_30 Start: 27657, Stop: 28769, Start Num: 65

Candidate Starts for Vista\_30:

(Start: 65 @27657 has 255 MA's), (Start: 70 @27675 has 8 MA's), (91, 27726), (149, 27894), (176, 27972), (207, 28062), (215, 28086), (228, 28122), (242, 28179), (245, 28194), (246, 28203), (253, 28230), (254, 28233), (261, 28260), (275, 28323), (283, 28353), (287, 28359), (309, 28443), (311, 28452), (325, 28521), (331, 28557), (333, 28563), (337, 28575), (371, 28665), (379, 28683), (383, 28692), (390, 28710), (402, 28743),

Gene: Vivaldi\_30 Start: 27683, Stop: 28795, Start Num: 65

Candidate Starts for Vivaldi\_30:

(Start: 65 @27683 has 255 MA's), (Start: 70 @27701 has 8 MA's), (91, 27752), (149, 27920), (176, 27998), (207, 28088), (215, 28112), (228, 28148), (242, 28205), (245, 28220), (246, 28229), (253, 28256), (254, 28259), (261, 28286), (275, 28349), (283, 28379), (287, 28385), (309, 28469), (311, 28478), (325, 28547), (331, 28583), (333, 28589), (337, 28601), (371, 28691), (379, 28709), (383, 28718), (390, 28736), (402, 28769),

Gene: Vortex\_30 Start: 27363, Stop: 28475, Start Num: 65

Candidate Starts for Vortex\_30:

(Start: 65 @27363 has 255 MA's), (Start: 70 @27381 has 8 MA's), (91, 27432), (149, 27600), (176, 27678), (207, 27768), (215, 27792), (228, 27828), (242, 27885), (245, 27900), (246, 27909), (253, 27936), (254, 27939), (261, 27966), (275, 28029), (283, 28059), (287, 28065), (309, 28149), (311, 28158), (325, 28227), (331, 28263), (333, 28269), (337, 28281), (371, 28371), (379, 28389), (383, 28398), (390, 28416), (402, 28449),

Gene: Waleliano\_27 Start: 27895, Stop: 28971, Start Num: 82

Candidate Starts for Waleliano\_27:

(Start: 82 @27895 has 38 MA's), (88, 27904), (144, 28072), (161, 28129), (183, 28192), (195, 28231), (207, 28267), (215, 28291), (228, 28327), (242, 28384), (245, 28399), (248, 28411), (253, 28435), (254, 28438), (265, 28480), (275, 28528), (280, 28549), (283, 28558), (287, 28564), (309, 28645), (312, 28663), (318, 28705), (321, 28714), (328, 28738), (337, 28777), (345, 28795), (351, 28813), (356, 28825), (357, 28828), (379, 28885), (383, 28894),

Gene: Wallhey\_29 Start: 27220, Stop: 28332, Start Num: 65

Candidate Starts for Wallhey\_29:

(Start: 65 @27220 has 255 MA's), (Start: 70 @27238 has 8 MA's), (91, 27289), (117, 27364), (149, 27457), (162, 27490), (176, 27535), (207, 27625), (215, 27649), (228, 27685), (242, 27742), (245, 27757), (246, 27766), (253, 27793), (254, 27796), (261, 27823), (275, 27886), (287, 27922), (309, 28006), (311, 28015), (325, 28084), (331, 28120), (333, 28126), (337, 28138), (371, 28228), (379, 28246), (383, 28255), (390, 28273), (402, 28306),

Gene: Waterdiva\_30 Start: 27649, Stop: 28761, Start Num: 65

Candidate Starts for Waterdiva\_30:

(Start: 65 @27649 has 255 MA's), (Start: 70 @27667 has 8 MA's), (91, 27718), (149, 27886), (176, 27964), (207, 28054), (215, 28078), (228, 28114), (242, 28171), (245, 28186), (246, 28195), (253, 28222), (254, 28225), (261, 28252), (275, 28315), (283, 28345), (287, 28351), (309, 28435), (311,

28444), (325, 28513), (331, 28549), (333, 28555), (337, 28567), (371, 28657), (379, 28675), (383, 28684), (390, 28702), (402, 28735),

Gene: Wayne3\_40 Start: 31206, Stop: 32357, Start Num: 43

Candidate Starts for Wayne3\_40:

(12, 30780), (30, 31110), (Start: 43 @31206 has 77 MA's), (64, 31239), (69, 31260), (Start: 76 @31278 has 49 MA's), (86, 31296), (124, 31416), (134, 31440), (180, 31572), (227, 31710), (257, 31839), (270, 31908), (288, 31962), (319, 32070), (331, 32121), (335, 32133), (378, 32250), (388, 32274), (396, 32307), (398, 32313), (411, 32346),

Gene: Weher20\_30 Start: 27648, Stop: 28760, Start Num: 65

Candidate Starts for Weher20\_30:

(Start: 65 @27648 has 255 MA's), (Start: 70 @27666 has 8 MA's), (91, 27717), (117, 27792), (149, 27885), (162, 27918), (176, 27963), (207, 28053), (215, 28077), (228, 28113), (242, 28170), (245, 28185), (246, 28194), (253, 28221), (254, 28224), (261, 28251), (275, 28314), (283, 28344), (285, 28347), (287, 28350), (309, 28434), (311, 28443), (325, 28512), (331, 28548), (333, 28554), (337, 28566), (371, 28656), (379, 28674), (383, 28683), (390, 28701), (402, 28734),

Gene: West99\_31 Start: 29042, Stop: 30091, Start Num: 79

Candidate Starts for West99\_31:

(15, 28565), (16, 28610), (20, 28685), (27, 28781), (36, 28871), (Start: 47 @28931 has 1 MA's), (53, 28961), (55, 28964), (Start: 79 @29042 has 55 MA's), (98, 29090), (109, 29123), (127, 29174), (128, 29177), (151, 29240), (161, 29264), (202, 29387), (212, 29414), (215, 29426), (228, 29462), (238, 29504), (243, 29522), (248, 29546), (253, 29570), (255, 29582), (265, 29615), (272, 29654), (283, 29693), (298, 29741), (311, 29789), (315, 29810), (316, 29822), (324, 29855), (325, 29858), (337, 29912), (351, 29948), (356, 29960), (363, 29975), (365, 29981), (377, 30008), (379, 30014), (382, 30020), (386, 30029),

Gene: Wheelie\_38 Start: 30527, Stop: 31678, Start Num: 43

Candidate Starts for Wheelie\_38:

(5, 29951), (12, 30101), (30, 30431), (Start: 43 @30527 has 77 MA's), (64, 30560), (69, 30581), (Start: 76 @30599 has 49 MA's), (86, 30617), (124, 30737), (134, 30761), (180, 30893), (227, 31031), (257, 31160), (270, 31229), (288, 31283), (319, 31391), (331, 31442), (335, 31454), (378, 31571), (388, 31595), (396, 31628), (411, 31667),

Gene: Wilca\_38 Start: 29203, Stop: 30351, Start Num: 43

Candidate Starts for Wilca\_38:

(30, 29107), (Start: 42 @29200 has 3 MA's), (Start: 43 @29203 has 77 MA's), (64, 29236), (72, 29266), (161, 29527), (177, 29563), (180, 29569), (196, 29620), (207, 29644), (209, 29647), (216, 29671), (220, 29689), (224, 29701), (227, 29707), (268, 29878), (272, 29911), (290, 29968), (303, 29983), (329, 30100), (331, 30118), (333, 30124), (335, 30130), (355, 30190), (396, 30304), (398, 30310),

Gene: Wilde\_33 Start: 26610, Stop: 27737, Start Num: 56

Candidate Starts for Wilde\_33:

(Start: 56 @26610 has 11 MA's), (121, 26802), (124, 26811), (156, 26904), (158, 26916), (162, 26928), (180, 26970), (184, 26982), (189, 26994), (223, 27063), (230, 27084), (245, 27144), (251, 27171), (283, 27315), (308, 27396), (319, 27453), (323, 27462), (337, 27522), (369, 27609), (378, 27633), (385, 27651), (397, 27696), (410, 27726),

Gene: Windsor\_29 Start: 27347, Stop: 28459, Start Num: 65

Candidate Starts for Windsor\_29:

(Start: 65 @27347 has 255 MA's), (Start: 70 @27365 has 8 MA's), (91, 27416), (117, 27491), (149, 27584), (162, 27617), (176, 27662), (207, 27752), (215, 27776), (228, 27812), (242, 27869), (245, 27884), (246, 27893), (253, 27920), (254, 27923), (261, 27950), (275, 28013), (283, 28043), (285, 28046), (287, 28049), (309, 28133), (311, 28142), (325, 28211), (331, 28247), (333, 28253), (337, 28265), (371, 28355), (379, 28373), (383, 28382), (390, 28400), (402, 28433),

Gene: Wooper\_28 Start: 27020, Stop: 28069, Start Num: 79

Candidate Starts for Wooper\_28:

(Start: 79 @27020 has 55 MA's), (91, 27044), (122, 27134), (128, 27155), (149, 27206), (168, 27263), (215, 27398), (242, 27491), (245, 27506), (248, 27518), (253, 27542), (255, 27554), (265, 27587), (274, 27632), (287, 27671), (308, 27743), (309, 27752), (312, 27770), (315, 27782), (345, 27902), (353, 27926), (356, 27932), (390, 28010), (406, 28049), (409, 28058),

Gene: Xavier\_29 Start: 27370, Stop: 28482, Start Num: 65

Candidate Starts for Xavier\_29:

(Start: 65 @27370 has 255 MA's), (Start: 70 @27388 has 8 MA's), (91, 27439), (149, 27607), (176, 27685), (207, 27775), (215, 27799), (228, 27835), (242, 27892), (245, 27907), (246, 27916), (253, 27943), (254, 27946), (261, 27973), (275, 28036), (283, 28066), (287, 28072), (309, 28156), (311, 28165), (325, 28234), (331, 28270), (333, 28276), (337, 28288), (371, 28378), (379, 28396), (383, 28405), (390, 28423), (402, 28456),

Gene: Xincheng\_26 Start: 27353, Stop: 28429, Start Num: 82

Candidate Starts for Xincheng\_26:

(Start: 82 @27353 has 38 MA's), (88, 27362), (128, 27491), (144, 27530), (161, 27587), (183, 27650), (195, 27689), (207, 27725), (215, 27749), (228, 27785), (242, 27842), (245, 27857), (248, 27869), (253, 27893), (254, 27896), (265, 27938), (275, 27986), (283, 28016), (287, 28022), (309, 28103), (312, 28121), (318, 28163), (321, 28172), (328, 28196), (337, 28235), (351, 28271), (356, 28283), (379, 28343), (383, 28352),

Gene: Xkcd426\_28 Start: 28908, Stop: 29960, Start Num: 82

Candidate Starts for Xkcd426\_28:

(Start: 82 @28908 has 38 MA's), (102, 28965), (126, 29034), (168, 29154), (180, 29181), (193, 29220), (203, 29250), (204, 29256), (223, 29319), (251, 29418), (252, 29427), (264, 29475), (265, 29478), (274, 29520), (284, 29556), (286, 29559), (301, 29622), (309, 29652), (318, 29712), (326, 29739), (384, 29910), (388, 29919), (391, 29928), (398, 29946),

Gene: YDN12\_24 Start: 21568, Stop: 22596, Start Num: 82

Candidate Starts for YDN12\_24:

(Start: 82 @21568 has 38 MA's), (102, 21625), (112, 21652), (118, 21667), (126, 21694), (130, 21706), (168, 21814), (176, 21835), (179, 21838), (193, 21880), (203, 21910), (204, 21916), (223, 21979), (228, 21988), (259, 22114), (274, 22180), (284, 22216), (286, 22219), (293, 22246), (295, 22252), (304, 22291), (331, 22423), (342, 22456), (356, 22501), (365, 22522), (384, 22552), (386, 22555), (388, 22561), (397, 22585), (398, 22588),

Gene: Yago84\_26 Start: 25601, Stop: 26641, Start Num: 79

Candidate Starts for Yago84\_26:

(Start: 47 @25490 has 1 MA's), (Start: 79 @25601 has 55 MA's), (91, 25625), (154, 25799), (190, 25898), (195, 25919), (215, 25979), (220, 25997), (244, 26084), (245, 26087), (255, 26135), (261, 26153), (275, 26216), (283, 26246), (285, 26249), (294, 26270), (309, 26333), (356, 26513), (406, 26621), (409, 26630),

Gene: Yahalom\_30 Start: 27586, Stop: 28629, Start Num: 76

Candidate Starts for Yahalom\_30:

(Start: 47 @27481 has 1 MA's), (53, 27511), (Start: 76 @27586 has 49 MA's), (98, 27634), (122, 27700), (151, 27784), (161, 27808), (167, 27832), (176, 27856), (185, 27877), (195, 27910), (242, 28063), (244, 28075), (261, 28144), (279, 28225), (306, 28312), (309, 28327), (315, 28357), (328, 28420), (346, 28480), (352, 28498), (354, 28504), (356, 28507), (365, 28528), (377, 28558), (379, 28564), (382, 28570), (386, 28579),

Gene: Yeti\_39 Start: 27652, Stop: 28854, Start Num: 43

Candidate Starts for Yeti\_39:

(Start: 43 @27652 has 77 MA's), (59, 27688), (Start: 76 @27745 has 49 MA's), (124, 27880), (134, 27904), (143, 27928), (150, 27952), (172, 28033), (180, 28054), (197, 28108), (206, 28135), (209, 28141), (211, 28147), (216, 28165), (220, 28183), (241, 28252), (243, 28258), (256, 28321), (268, 28366), (283, 28438), (299, 28477), (330, 28612), (331, 28627), (337, 28645), (355, 28699), (362, 28714), (369, 28732), (385, 28774), (388, 28780), (396, 28813), (407, 28840), (409, 28846),

Gene: Yinz\_30 Start: 27609, Stop: 28652, Start Num: 76

Candidate Starts for Yinz\_30:

(Start: 47 @27504 has 1 MA's), (53, 27534), (Start: 76 @27609 has 49 MA's), (98, 27657), (122, 27723), (151, 27807), (161, 27831), (167, 27855), (176, 27879), (185, 27900), (195, 27933), (242, 28086), (244, 28098), (261, 28167), (279, 28248), (306, 28335), (309, 28350), (315, 28380), (328, 28443), (346, 28503), (352, 28521), (354, 28527), (356, 28530), (365, 28551), (377, 28581), (379, 28587), (382, 28593), (386, 28602),

Gene: Yoshand\_30 Start: 27674, Stop: 28768, Start Num: 70

Candidate Starts for Yoshand\_30:

(Start: 65 @27656 has 255 MA's), (Start: 70 @27674 has 8 MA's), (91, 27725), (149, 27893), (176, 27971), (207, 28061), (215, 28085), (228, 28121), (242, 28178), (245, 28193), (246, 28202), (253, 28229), (254, 28232), (261, 28259), (275, 28322), (283, 28352), (287, 28358), (309, 28442), (311, 28451), (325, 28520), (331, 28556), (333, 28562), (337, 28574), (371, 28664), (379, 28682), (383, 28691), (390, 28709), (402, 28742),

Gene: YouGoGlencoco\_30 Start: 27651, Stop: 28763, Start Num: 65

Candidate Starts for YouGoGlencoco\_30:

(Start: 65 @27651 has 255 MA's), (Start: 70 @27669 has 8 MA's), (91, 27720), (149, 27888), (176, 27966), (207, 28056), (215, 28080), (228, 28116), (242, 28173), (245, 28188), (246, 28197), (253, 28224), (254, 28227), (261, 28254), (275, 28317), (283, 28347), (287, 28353), (309, 28437), (311, 28446), (325, 28515), (331, 28551), (333, 28557), (337, 28569), (371, 28659), (379, 28677), (383, 28686), (390, 28704), (402, 28737),

Gene: Zagie\_38 Start: 30775, Stop: 31926, Start Num: 43

Candidate Starts for Zagie\_38:

(5, 30199), (12, 30349), (30, 30679), (Start: 43 @30775 has 77 MA's), (64, 30808), (69, 30829), (Start: 76 @30847 has 49 MA's), (86, 30865), (124, 30985), (134, 31009), (180, 31141), (227, 31279), (270, 31477), (288, 31531), (319, 31639), (331, 31690), (335, 31702), (378, 31819), (388, 31843), (396, 31876), (398, 31882), (411, 31915),

Gene: Zaider\_31 Start: 27899, Stop: 28993, Start Num: 70

Candidate Starts for Zaider\_31:

(Start: 65 @27881 has 255 MA's), (Start: 70 @27899 has 8 MA's), (91, 27950), (149, 28118), (176, 28196), (207, 28286), (215, 28310), (228, 28346), (242, 28403), (245, 28418), (246, 28427), (253, 28454), (254, 28457), (261, 28484), (275, 28547), (283, 28577), (287, 28583), (309, 28667), (311, 28676), (325, 28745), (331, 28781), (333, 28787), (337, 28799), (371, 28889), (379, 28907), (383, 28916), (390, 28934), (402, 28967),

Gene: Zelda\_30 Start: 27647, Stop: 28759, Start Num: 65

Candidate Starts for Zelda\_30:

(Start: 65 @27647 has 255 MA's), (Start: 70 @27665 has 8 MA's), (91, 27716), (149, 27884), (176, 27962), (207, 28052), (215, 28076), (228, 28112), (242, 28169), (245, 28184), (246, 28193), (253, 28220), (254, 28223), (261, 28250), (275, 28313), (283, 28343), (287, 28349), (309, 28433), (311, 28442), (325, 28511), (331, 28547), (333, 28553), (337, 28565), (371, 28655), (379, 28673), (383, 28682), (390, 28700), (402, 28733),

Gene: Zemanar\_28 Start: 27895, Stop: 28971, Start Num: 82

Candidate Starts for Zemanar\_28:

(Start: 82 @27895 has 38 MA's), (88, 27904), (128, 28033), (144, 28072), (161, 28129), (183, 28192), (195, 28231), (207, 28267), (215, 28291), (228, 28327), (242, 28384), (245, 28399), (248, 28411), (253, 28435), (254, 28438), (265, 28480), (275, 28528), (280, 28549), (283, 28558), (287, 28564), (309, 28645), (312, 28663), (318, 28705), (321, 28714), (328, 28738), (337, 28777), (345, 28795), (351, 28813), (356, 28825), (357, 28828), (379, 28885), (383, 28894),

Gene: Zenteno07\_33 Start: 27644, Stop: 28708, Start Num: 83

Candidate Starts for Zenteno07\_33:

(Start: 83 @27644 has 2 MA's), (98, 27695), (127, 27779), (136, 27803), (191, 27956), (207, 28010), (215, 28034), (224, 28064), (237, 28109), (242, 28127), (248, 28154), (253, 28178), (283, 28301), (287, 28307), (309, 28388), (311, 28397), (312, 28406), (337, 28520), (345, 28538), (351, 28556), (375, 28616), (379, 28628), (400, 28679), (402, 28682),

Gene: Zhafia\_42 Start: 31005, Stop: 32156, Start Num: 43

Candidate Starts for Zhafia\_42:

(5, 30429), (12, 30579), (30, 30909), (Start: 43 @31005 has 77 MA's), (64, 31038), (69, 31059), (Start: 76 @31077 has 49 MA's), (86, 31095), (124, 31215), (134, 31239), (180, 31371), (227, 31509), (257, 31638), (270, 31707), (288, 31761), (319, 31869), (331, 31920), (335, 31932), (378, 32049), (388, 32073), (396, 32106), (411, 32145),

Gene: Zonia\_30 Start: 27670, Stop: 28782, Start Num: 65

Candidate Starts for Zonia\_30:

(Start: 65 @27670 has 255 MA's), (Start: 70 @27688 has 8 MA's), (91, 27739), (149, 27907), (176, 27985), (207, 28075), (215, 28099), (228, 28135), (242, 28192), (245, 28207), (246, 28216), (253, 28243), (254, 28246), (261, 28273), (275, 28336), (287, 28372), (309, 28456), (311, 28465), (325, 28534), (331, 28570), (333, 28576), (337, 28588), (371, 28678), (379, 28696), (383, 28705), (390, 28723), (402, 28756),