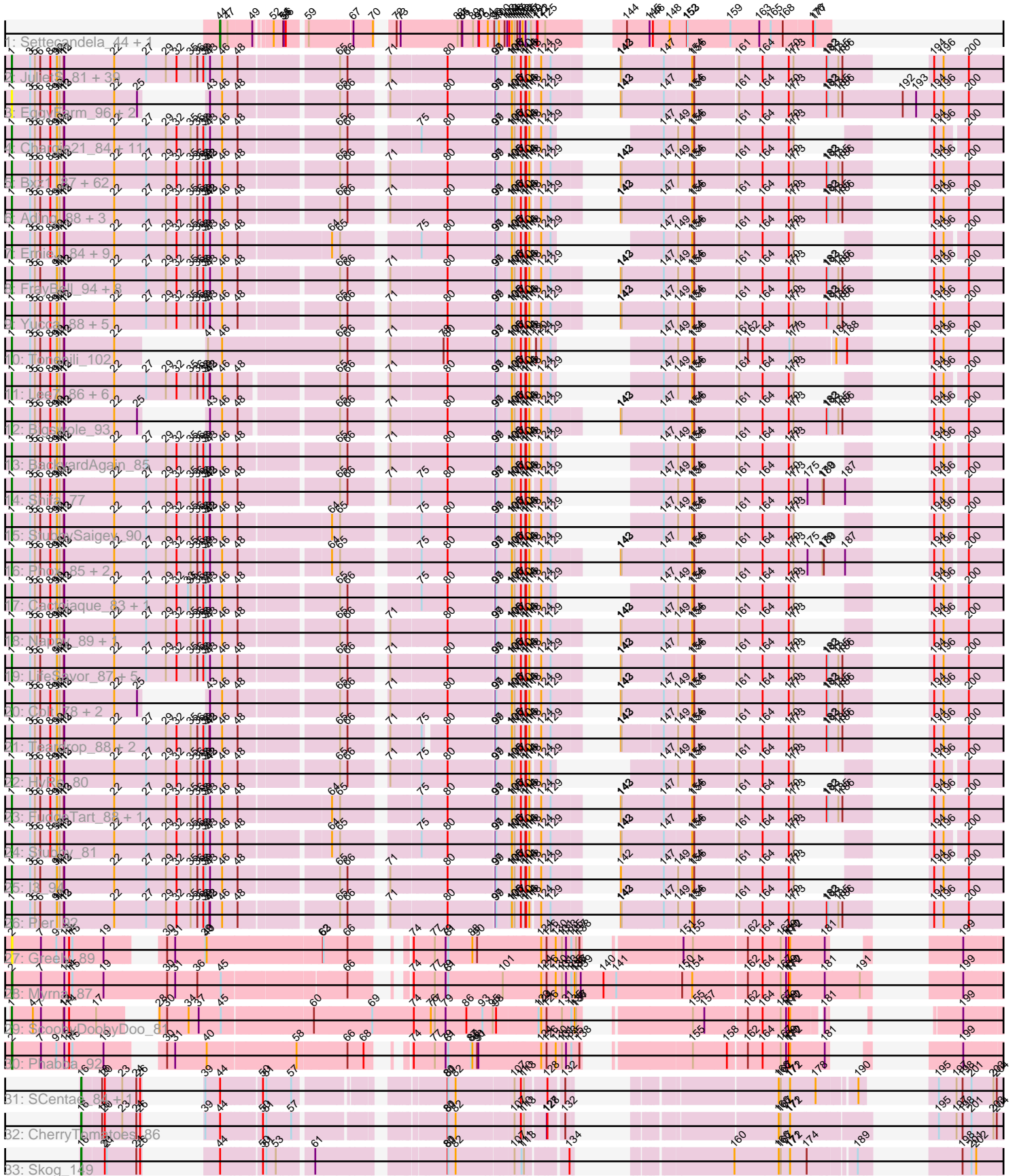


Pham 171214



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 171214 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171214 has 194 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Settecandela\_44, Phrappuccino\_44
- Track 2 : JulietS\_81, Spec\_83, Bangla1971\_89, Rahel\_87, Ronan\_81, Tyke\_90, DTDevon\_89, Cali\_83, Jemmno\_88, EmToTheThree\_91, Blackdragon\_82, QBert\_82, LinStu\_88, BeanWater\_80, Derek\_88, Iota\_82, JayJay\_90, Mangeria\_88, Phusco\_88, Jedediah\_91, EmmaElysia\_87, Tortoise16\_86, LRRHood\_82, Grungle\_75, Koguma\_84, Drazdys\_88, Sprinklers\_83, Littleton\_88, Breeniome\_88, Halldule\_81, SmallFry\_88, Gabriel\_90, Astraea\_86, ET08\_77, CharlieB\_83, Chomp\_85, Shaqnato\_80, Sebata\_89, Sauce\_88, Salacia\_92
- Track 3 : EggyFarm\_96, Grasshills\_95, BigCity\_96
- Track 4 : Chargie21\_84, Fludd\_88, Flabslab\_83, Basquiat\_84, Janiyra\_90, Quasimodo\_88, ChaylaJr\_83, Trinitium\_84, Turret\_83, ChickenPhender\_84, Kboogie\_91, EasyJones\_91
- Track 5 : Bxz1\_87, Babyland\_88, Shrimp\_88, Khaleesi\_87, PurduePete\_88, YoungMoneyMata\_88, Nidhogg\_89, Amataga\_88, MikeLiesIn\_89, Essence\_85, CindyLou\_89, Napoleon13\_84, Naija\_87, ParkTD\_89, Ghost\_87, TinyTim\_88, Naval22\_93, Kamryn\_88, ValleyTerrace\_88, Audrick\_90, SilverDipper\_89, Pleione\_91, JPickles\_86, Momo\_87, Willis\_89, NedWong\_89, InigoMontoya\_89, DrPhinkDaddy\_87, Ngannou\_84, Asterius\_85, Bipolarisk\_87, Jessibeth14\_87, Pio\_92, Pivoine\_87, Norm\_89, Izajani\_88, Caravan\_83, Delylah\_91, Erdmann\_89, Latch\_88, Capablanca\_90, McWolfish\_86, Gamgam\_88, NoodleTree\_96, Megamind\_87, Maby2021\_88, Wally\_87, YemiJoy2021\_89, Shelob\_90, Bread\_88, Patter\_88, Delilah\_88, LordLeafolot\_93, Rizal\_86, Burrough\_88, ZygoTaiga\_87, NuevoMundo\_94, Roots515\_87, Atlantean\_87, Zalkecks\_89, Daffodil\_93, Phlegm\_90, McGee\_89
- Track 6 : Ading\_88, Loanshark\_88, Guwapp\_87, Issimir\_87
- Track 7 : ErnieJ\_84, ScottMcG\_85, Melpomini\_82, Catera\_87, Spud\_88, Rabinovish\_85, JustHall\_84, Dietrick\_80, Morizzled23\_88, MoMoMixon\_89
- Track 8 : FrayBell\_94, BananaFence\_87, RoMag\_83, BadAgartude\_85, IkeLoa\_82, StephanieG\_87, Bonray\_88, Darko\_88, Mikro\_86
- Track 9 : Yucca\_88, DirtMonster\_81, Concombre\_95, ArcherS7\_87, FoxtrotP1\_88, InterFolia\_97
- Track 10 : Tonenili\_102
- Track 11 : Lee7\_86, Ewok\_89, Gizmo\_92, SrishMeg2525\_87, Lukilu\_79, Zeenon\_90, Ava3\_89
- Track 12 : Bigswole\_93
- Track 13 : BackyardAgain\_85
- Track 14 : Shifa\_77

- Track 15 : StubbySaigey\_90
- Track 16 : Phox\_85, Pinkcreek\_79, Alice\_81
- Track 17 : Cactojaque\_83, Blackbrain\_83
- Track 18 : Nappy\_89, Yassified\_84
- Track 19 : LifeSavor\_87, Jaygup\_88, ShiaLabeouf\_88, Adlitam\_88, Matsumoto\_86, Shnickers\_88
- Track 20 : Colt\_78, Blubba\_78, Cane17\_76
- Track 21 : Teardrop\_88, Specks\_94, LolaVinca\_90
- Track 22 : HyRo\_80
- Track 23 : FudgeTart\_88, Dandelion\_95
- Track 24 : Stubby\_81
- Track 25 : I3\_94
- Track 26 : Pier\_92
- Track 27 : Greely\_89
- Track 28 : Myrna\_87
- Track 29 : ScoobyDoobyDoo\_81
- Track 30 : Phabba\_92
- Track 31 : SCentae\_84, Pupper\_86
- Track 32 : CherryTomatoes\_86
- Track 33 : Skog\_149

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

The start number called the most often in the published annotations is 1, it was called in 168 of the 176 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading\_88, Adlitam\_88, Alice\_81, Amataga\_88, ArcherS7\_87, Asterius\_85, Astraea\_86, Atlantean\_87, Audrick\_90, Ava3\_89, Babyland\_88, BackyardAgain\_85, BadAgartude\_85, BananaFence\_87, Bangla1971\_89, Basquiat\_84, BeanWater\_80, BigCity\_96, Bigswole\_93, Bipolarisk\_87, Blackbrain\_83, Blackdragon\_82, Blubba\_78, Bonray\_88, Bread\_88, Breeniome\_88, Burrough\_88, Bxz1\_87, Cactojaque\_83, Cali\_83, Cane17\_76, Capablanca\_90, Caravan\_83, Catera\_87, Chargie21\_84, CharlieB\_83, ChaylaJr\_83, ChickenPhender\_84, Chomp\_85, CindyLou\_89, Colt\_78, Concombre\_95, DTDevon\_89, Daffodil\_93, Dandelion\_95, Darko\_88, Delilah\_88, Delylah\_91, Derek\_88, Dietrick\_80, DirtMonster\_81, DrPhinkDaddy\_87, Drazdys\_88, ET08\_77, EasyJones\_91, EggyFarm\_96, EmToTheThree\_91, EmmaElysia\_87, Erdmann\_89, ErnieJ\_84, Essence\_85, Ewok\_89, Flabslab\_83, Fludd\_88, FoxtrotP1\_88, FrayBell\_94, FudgeTart\_88, Gabriel\_90, Gangam\_88, Ghost\_87, Gizmo\_92, Grasshills\_95, Grungle\_75, Guwapp\_87, Halldule\_81, HyRo\_80, I3\_94, IkeLoa\_82, InigoMontoya\_89, InterFolia\_97, Iota\_82, Issimir\_87, Izajani\_88, JPickles\_86, Janiyra\_90, JayJay\_90, Jaygup\_88, Jedediah\_91, Jemmno\_88, Jessibeth14\_87, JulietS\_81, JustHall\_84, Kamryn\_88, Kboogie\_91, Khaleesi\_87, Koguma\_84, LRRHood\_82, Latch\_88, Lee7\_86, LifeSavor\_87, LinStu\_88, Littleton\_88, Loanshark\_88, LolaVinca\_90, LordLeafolot\_93, Lukilu\_79, Maby2021\_88, Mangeria\_88, Matsumoto\_86, McGee\_89, McWolfish\_86, Megamind\_87, Melpomini\_82, MikeLiesIn\_89, Mikro\_86, MoMoMixon\_89, Momo\_87, Morizzled23\_88, Naija\_87, Napoleon13\_84, Nappy\_89, Naval22\_93, NedWong\_89, Ngannou\_84, Nidhogg\_89, NoodleTree\_96, Norm\_89, NuevoMundo\_94, ParkTD\_89, Patter\_88, Phlegm\_90, Phox\_85, Phusco\_88, Pier\_92, Pinkcreek\_79, Pio\_92,

Pivoine\_87, Pleione\_91, PurduePete\_88, QBert\_82, Quasimodo\_88, Rabinovish\_85, Rahel\_87, Rizal\_86, RoMag\_83, Ronan\_81, Roots515\_87, Salacia\_92, Sauce\_88, ScoobyDoobyDoo\_81, ScottMcG\_85, Sebata\_89, Shaqnato\_80, Shelob\_90, ShiaLabeouf\_88, Shifa\_77, Shnickers\_88, Shrimp\_88, SilverDipper\_89, SmallFry\_88, Spec\_83, Specks\_94, Sprinklers\_83, Spud\_88, SrishMeg2525\_87, StephanieG\_87, StubbySaigey\_90, Stubby\_81, Teardrop\_88, TinyTim\_88, Tonenili\_102, Tortoise16\_86, Trinitium\_84, Turret\_83, Tyke\_90, ValleyTerrace\_88, Wally\_87, Willis\_89, Yassified\_84, YemiJoy2021\_89, YoungMoneyMata\_88, Yucca\_88, Zalkecks\_89, Zeenon\_90, ZygoTaiga\_87,

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

- 

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

- CherryTomatoes\_86, Greely\_89, Myrna\_87, Phabba\_92, Phrappuccino\_44, Pupper\_86, SCentae\_84, Settecandela\_44, Skog\_149,

### Summary by start number:

Start 1:

- Found in 185 of 194 ( 95.4% ) of genes in pham
- Manual Annotations of this start: 168 of 176
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading\_88 (C1), Adlitam\_88 (C1), Alice\_81 (C1), Amataga\_88 (C1), ArcherS7\_87 (C1), Asterius\_85 (C1), Astraea\_86 (C1), Atlantean\_87 (C1), Audrick\_90 (C1), Ava3\_89 (C1), Babyland\_88 (C1), BackyardAgain\_85 (C1), BadAgartude\_85 (C1), BananaFence\_87 (C1), Bangla1971\_89 (C1), Basquiat\_84 (C1), BeanWater\_80 (C1), BigCity\_96 (C1), Bigswole\_93 (C1), Bipolarisk\_87 (C1), Blackbrain\_83 (C1), Blackdragon\_82 (C1), Blubba\_78 (C1), Bonray\_88 (C1), Bread\_88 (C1), Breeniome\_88 (C1), Burrough\_88 (C1), Bxz1\_87 (C1), Cactojaque\_83 (C1), Cali\_83 (C1), Cane17\_76 (C1), Capablanca\_90 (C1), Caravan\_83 (C1), Catera\_87 (C1), Chargie21\_84 (C1), CharlieB\_83 (C1), ChaylaJr\_83 (C1), ChickenPhender\_84 (C1), Chomp\_85 (C1), CindyLou\_89 (C1), Colt\_78 (C1), Concombre\_95 (C1), DTDevon\_89 (C1), Daffodil\_93 (C1), Dandelion\_95 (C1), Darko\_88 (C1), Delilah\_88 (C1), Delylah\_91 (C1), Derek\_88 (C1), Dietrick\_80 (C1), DirtMonster\_81 (C1), DrPhinkDaddy\_87 (C1), Drazdys\_88 (C1), ET08\_77 (C1), EasyJones\_91 (C1), EggyFarm\_96 (C1), EmToTheThree\_91 (C1), EmmaElysia\_87 (C1), Erdmann\_89 (C1), ErnieJ\_84 (C1), Essence\_85 (C1), Ewok\_89 (C1), Flabslab\_83 (C1), Fludd\_88 (C1), FoxtrotP1\_88 (C1), FrayBell\_94 (C1), FudgeTart\_88 (C1), Gabriel\_90 (C1), Gamgam\_88 (C1), Ghost\_87 (C1), Gizmo\_92 (C1), Grasshills\_95 (C1), Grungle\_75 (C1), Guwapp\_87 (C1), Halldule\_81 (C1), HyRo\_80 (C1), I3\_94 (C1), IkeLoa\_82 (C1), InigoMontoya\_89 (C1), InterFolia\_97 (C1), Iota\_82 (C1), Issimir\_87 (C1), Izajani\_88 (C1), JPickles\_86 (C1), Janiyra\_90 (C1), JayJay\_90 (C1), Jaygup\_88 (C1), Jedediah\_91 (C1), Jemmno\_88 (C1), Jessibeth14\_87 (C1), JulietS\_81 (C1), JustHall\_84 (C1), Kamryn\_88 (C1), Kboogie\_91 (C1), Khaleesi\_87 (C1), Koguma\_84 (C1), LRRHood\_82 (C1), Latch\_88 (C1), Lee7\_86 (C1), LifeSavor\_87 (C1), LinStu\_88 (C1), Littleton\_88 (C1), Loanshark\_88 (C1), LolaVinca\_90 (C1), LordLeafolot\_93 (C1), Lukilu\_79 (C1), Maby2021\_88 (C1), Mangeria\_88 (C1), Matsumoto\_86 (C1), McGee\_89 (C1), McWolfish\_86 (C1), Megamind\_87 (C1), Melpomini\_82 (C1), MikeLiesIn\_89 (C1), Mikro\_86 (C1), MoMoMixon\_89 (C1), Momo\_87 (C1), Morizzled23\_88 (C1), Naija\_87 (C1), Napoleon13\_84 (C1), Nappy\_89 (C1), Naval22\_93 (C1), NedWong\_89 (C1), Ngannou\_84 (C1), Nidhogg\_89 (C1),

NoodleTree\_96 (C1), Norm\_89 (C1), NuevoMundo\_94 (C1), ParkTD\_89 (C1), Patter\_88 (C1), Phlegm\_90 (C1), Phox\_85 (C1), Phusco\_88 (C1), Pier\_92 (C1), Pinkcreek\_79 (C1), Pio\_92 (C1), Pivoine\_87 (C1), Pleione\_91 (C1), PurduePete\_88 (C1), QBert\_82 (C1), Quasimodo\_88 (C1), Rabinovish\_85 (C1), Rahel\_87 (C1), Rizal\_86 (C1), RoMag\_83 (C1), Ronan\_81 (C1), Roots515\_87 (C1), Salacia\_92 (C1), Sauce\_88 (C1), ScoobyDoobyDoo\_81 (C2), ScottMcG\_85 (C1), Sebata\_89 (C1), Shaqnato\_80 (C1), Shelob\_90 (C1), ShiaLabeouf\_88 (C1), Shifa\_77 (C1), Shnickers\_88 (C1), Shrimp\_88 (C1), SilverDipper\_89 (C1), SmallFry\_88 (C1), Spec\_83 (C1), Specks\_94 (C1), Sprinklers\_83 (C1), Spud\_88 (C1), SrishMeg2525\_87 (C1), StephanieG\_87 (C1), StubbySaigey\_90 (C1), Stubby\_81 (C1), Teardrop\_88 (C1), TinyTim\_88 (C1), Tonenili\_102 (C1), Tortoise16\_86 (C1), Trinitium\_84 (C1), Turret\_83 (C1), Tyke\_90 (C1), ValleyTerrace\_88 (C1), Wally\_87 (C1), Willis\_89 (C1), Yassified\_84 (C1), YemiJoy2021\_89 (C1), YoungMoneyMata\_88 (C1), Yucca\_88 (C1), Zalkecks\_89 (C1), Zeenon\_90 (C1), ZygoTaiga\_87 (C1),

#### Start 2:

- Found in 3 of 194 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 2 of 176
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_89 (C2), Myrna\_87 (C2), Phabba\_92 (C2),

#### Start 16:

- Found in 4 of 194 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 4 of 176
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_86 (DO), Pupper\_86 (DO), SCentae\_84 (DO), Skog\_149 (DO),

#### Start 44:

- Found in 6 of 194 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 2 of 176
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Phrappuccino\_44 (AA), Settecandela\_44 (AA),

### Summary by clusters:

There are 4 clusters represented in this pham: AA, DO, C1, C2,

Info for manual annotations of cluster AA:

- Start number 44 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 167 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 1 was manually annotated 1 time for cluster C2.
- Start number 2 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster DO:

- Start number 16 was manually annotated 4 times for cluster DO.

**Gene Information:**

Gene: Ading\_88 Start: 31088, Stop: 34798, Start Num: 1

Candidate Starts for Ading\_88:

(Start: 1 @31088 has 168 MA's), (3, 31169), (5, 31190), (6, 31214), (8, 31259), (9, 31286), (10, 31289), (11, 31301), (12, 31319), (13, 31322), (22, 31541), (27, 31679), (29, 31766), (32, 31814), (35, 31877), (36, 31907), (38, 31934), (39, 31943), (42, 31961), (43, 31964), (46, 32018), (48, 32084), (65, 32477), (66, 32510), (71, 32630), (80, 32861), (97, 33065), (99, 33068), (105, 33125), (106, 33128), (107, 33140), (110, 33164), (114, 33182), (116, 33185), (118, 33197), (124, 33230), (129, 33272), (142, 33398), (143, 33401), (147, 33566), (154, 33683), (156, 33692), (161, 33866), (164, 33971), (170, 34082), (173, 34103), (182, 34226), (183, 34232), (185, 34274), (186, 34292), (194, 34436), (196, 34478), (200, 34583),

Gene: Adlitam\_88 Start: 31105, Stop: 34815, Start Num: 1

Candidate Starts for Adlitam\_88:

(Start: 1 @31105 has 168 MA's), (3, 31186), (5, 31207), (6, 31231), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (22, 31558), (27, 31696), (29, 31783), (32, 31831), (35, 31894), (36, 31924), (38, 31951), (39, 31960), (43, 31981), (46, 32035), (48, 32101), (65, 32494), (66, 32527), (71, 32647), (80, 32878), (97, 33082), (99, 33085), (105, 33142), (106, 33145), (107, 33157), (110, 33181), (114, 33199), (116, 33202), (118, 33214), (124, 33247), (129, 33289), (142, 33415), (143, 33418), (147, 33583), (154, 33700), (156, 33709), (161, 33883), (164, 33988), (170, 34099), (173, 34120), (182, 34243), (183, 34249), (185, 34291), (186, 34309), (194, 34453), (196, 34495), (200, 34600),

Gene: Alice\_81 Start: 29790, Stop: 33500, Start Num: 1

Candidate Starts for Alice\_81:

(Start: 1 @29790 has 168 MA's), (3, 29871), (5, 29892), (6, 29916), (8, 29961), (9, 29988), (10, 29991), (11, 30003), (12, 30021), (13, 30024), (22, 30243), (27, 30381), (29, 30468), (32, 30516), (35, 30579), (36, 30609), (38, 30636), (39, 30645), (43, 30666), (46, 30720), (48, 30786), (64, 31134), (65, 31170), (75, 31446), (80, 31557), (97, 31761), (99, 31764), (105, 31821), (106, 31824), (107, 31836), (110, 31860), (114, 31878), (116, 31881), (118, 31893), (124, 31926), (129, 31968), (142, 32094), (143, 32097), (147, 32262), (154, 32379), (156, 32388), (161, 32562), (164, 32667), (170, 32778), (173, 32799), (175, 32862), (179, 32928), (180, 32934), (187, 33027), (194, 33159), (196, 33201), (200, 33285),

Gene: Amataga\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Amataga\_88:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: ArcherS7\_87 Start: 31472, Stop: 35182, Start Num: 1

Candidate Starts for ArcherS7\_87:

(Start: 1 @31472 has 168 MA's), (3, 31553), (5, 31574), (6, 31598), (8, 31643), (9, 31670), (10, 31673), (11, 31685), (12, 31703), (13, 31706), (22, 31925), (27, 32063), (29, 32150), (32, 32198), (35, 32261), (36, 32291), (38, 32318), (39, 32327), (43, 32348), (46, 32402), (48, 32468), (65, 32861), (66,

32894), (71, 33014), (80, 33245), (97, 33449), (99, 33452), (105, 33509), (106, 33512), (107, 33524), (110, 33548), (114, 33566), (116, 33569), (118, 33581), (124, 33614), (129, 33656), (142, 33782), (143, 33785), (147, 33950), (149, 34004), (154, 34067), (156, 34076), (161, 34250), (164, 34355), (170, 34466), (173, 34487), (182, 34610), (183, 34616), (185, 34658), (186, 34676), (194, 34820), (196, 34862), (200, 34967),

Gene: Asterius\_85 Start: 31454, Stop: 35167, Start Num: 1

Candidate Starts for Asterius\_85:

(Start: 1 @31454 has 168 MA's), (3, 31535), (5, 31556), (6, 31580), (8, 31625), (9, 31652), (10, 31655), (11, 31667), (12, 31685), (13, 31688), (22, 31907), (27, 32045), (29, 32132), (32, 32180), (35, 32243), (36, 32273), (38, 32300), (39, 32309), (42, 32327), (43, 32330), (46, 32384), (48, 32450), (65, 32843), (66, 32876), (71, 32996), (80, 33230), (97, 33434), (99, 33437), (105, 33494), (106, 33497), (107, 33509), (110, 33533), (114, 33551), (116, 33554), (118, 33566), (124, 33599), (129, 33641), (142, 33767), (143, 33770), (147, 33935), (149, 33989), (154, 34052), (156, 34061), (161, 34235), (164, 34340), (170, 34451), (173, 34472), (182, 34595), (183, 34601), (185, 34643), (186, 34661), (194, 34805), (196, 34847), (200, 34952),

Gene: Astraea\_86 Start: 31333, Stop: 35043, Start Num: 1

Candidate Starts for Astraea\_86:

(Start: 1 @31333 has 168 MA's), (3, 31414), (5, 31435), (6, 31459), (8, 31504), (9, 31531), (10, 31534), (11, 31546), (12, 31564), (13, 31567), (22, 31786), (27, 31924), (29, 32011), (32, 32059), (35, 32122), (36, 32152), (38, 32179), (39, 32188), (43, 32209), (46, 32263), (48, 32329), (65, 32722), (66, 32755), (71, 32875), (80, 33106), (97, 33310), (99, 33313), (105, 33370), (106, 33373), (107, 33385), (110, 33409), (114, 33427), (116, 33430), (118, 33442), (124, 33475), (129, 33517), (142, 33643), (143, 33646), (147, 33811), (154, 33928), (156, 33937), (161, 34111), (164, 34216), (170, 34327), (173, 34348), (182, 34471), (183, 34477), (185, 34519), (186, 34537), (194, 34681), (196, 34723), (200, 34828),

Gene: Atlantean\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Atlantean\_87:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Audrick\_90 Start: 31130, Stop: 34843, Start Num: 1

Candidate Starts for Audrick\_90:

(Start: 1 @31130 has 168 MA's), (3, 31211), (5, 31232), (6, 31256), (8, 31301), (9, 31328), (10, 31331), (11, 31343), (12, 31361), (13, 31364), (22, 31583), (27, 31721), (29, 31808), (32, 31856), (35, 31919), (36, 31949), (38, 31976), (39, 31985), (42, 32003), (43, 32006), (46, 32060), (48, 32126), (65, 32519), (66, 32552), (71, 32672), (80, 32906), (97, 33110), (99, 33113), (105, 33170), (106, 33173), (107, 33185), (110, 33209), (114, 33227), (116, 33230), (118, 33242), (124, 33275), (129, 33317), (142, 33443), (143, 33446), (147, 33611), (149, 33665), (154, 33728), (156, 33737), (161, 33911), (164, 34016), (170, 34127), (173, 34148), (182, 34271), (183, 34277), (185, 34319), (186, 34337), (194, 34481), (196, 34523), (200, 34628),

Gene: Ava3\_89 Start: 32205, Stop: 35540, Start Num: 1

Candidate Starts for Ava3\_89:

(Start: 1 @32205 has 168 MA's), (3, 32286), (5, 32307), (6, 32331), (8, 32376), (9, 32403), (10, 32406), (11, 32418), (12, 32436), (13, 32439), (22, 32658), (27, 32796), (29, 32883), (32, 32931), (35, 32994), (36, 33024), (38, 33051), (39, 33060), (42, 33078), (43, 33081), (46, 33135), (48, 33201), (65, 33594), (66, 33627), (71, 33747), (80, 33978), (97, 34182), (99, 34185), (105, 34242), (106, 34245), (107, 34257), (110, 34281), (114, 34299), (116, 34302), (118, 34314), (124, 34347), (129, 34389), (147, 34530), (149, 34584), (154, 34644), (156, 34653), (161, 34827), (164, 34932), (170, 35043), (173, 35064), (194, 35199), (196, 35241), (200, 35325),

Gene: Babyland\_88 Start: 30590, Stop: 34303, Start Num: 1

Candidate Starts for Babyland\_88:

(Start: 1 @30590 has 168 MA's), (3, 30671), (5, 30692), (6, 30716), (8, 30761), (9, 30788), (10, 30791), (11, 30803), (12, 30821), (13, 30824), (22, 31043), (27, 31181), (29, 31268), (32, 31316), (35, 31379), (36, 31409), (38, 31436), (39, 31445), (42, 31463), (43, 31466), (46, 31520), (48, 31586), (65, 31979), (66, 32012), (71, 32132), (80, 32366), (97, 32570), (99, 32573), (105, 32630), (106, 32633), (107, 32645), (110, 32669), (114, 32687), (116, 32690), (118, 32702), (124, 32735), (129, 32777), (142, 32903), (143, 32906), (147, 33071), (149, 33125), (154, 33188), (156, 33197), (161, 33371), (164, 33476), (170, 33587), (173, 33608), (182, 33731), (183, 33737), (185, 33779), (186, 33797), (194, 33941), (196, 33983), (200, 34088),

Gene: BackyardAgain\_85 Start: 31040, Stop: 34378, Start Num: 1

Candidate Starts for BackyardAgain\_85:

(Start: 1 @31040 has 168 MA's), (3, 31121), (5, 31142), (6, 31166), (8, 31211), (9, 31238), (10, 31241), (11, 31253), (12, 31271), (13, 31274), (22, 31493), (27, 31631), (29, 31718), (32, 31766), (35, 31829), (36, 31859), (38, 31886), (39, 31895), (43, 31916), (46, 31970), (48, 32036), (65, 32429), (66, 32462), (71, 32582), (80, 32813), (97, 33017), (99, 33020), (105, 33077), (106, 33080), (107, 33092), (110, 33116), (114, 33134), (116, 33137), (118, 33149), (124, 33182), (129, 33224), (147, 33365), (149, 33419), (154, 33482), (156, 33491), (161, 33665), (164, 33770), (170, 33881), (173, 33902), (194, 34037), (196, 34079), (200, 34163),

Gene: BadAgartude\_85 Start: 32206, Stop: 35919, Start Num: 1

Candidate Starts for BadAgartude\_85:

(Start: 1 @32206 has 168 MA's), (3, 32287), (5, 32308), (6, 32332), (9, 32404), (10, 32407), (11, 32419), (12, 32437), (13, 32440), (22, 32659), (27, 32797), (29, 32884), (32, 32932), (35, 32995), (36, 33025), (38, 33052), (39, 33061), (43, 33082), (46, 33136), (48, 33202), (65, 33595), (66, 33628), (71, 33748), (80, 33982), (97, 34186), (99, 34189), (105, 34246), (106, 34249), (107, 34261), (110, 34285), (114, 34303), (116, 34306), (118, 34318), (124, 34351), (129, 34393), (142, 34519), (143, 34522), (147, 34687), (149, 34741), (154, 34804), (156, 34813), (161, 34987), (164, 35092), (170, 35203), (173, 35224), (182, 35347), (183, 35353), (185, 35395), (186, 35413), (194, 35557), (196, 35599), (200, 35704),

Gene: BananaFence\_87 Start: 31688, Stop: 35401, Start Num: 1

Candidate Starts for BananaFence\_87:

(Start: 1 @31688 has 168 MA's), (3, 31769), (5, 31790), (6, 31814), (9, 31886), (10, 31889), (11, 31901), (12, 31919), (13, 31922), (22, 32141), (27, 32279), (29, 32366), (32, 32414), (35, 32477), (36, 32507), (38, 32534), (39, 32543), (43, 32564), (46, 32618), (48, 32684), (65, 33077), (66, 33110), (71, 33230), (80, 33464), (97, 33668), (99, 33671), (105, 33728), (106, 33731), (107, 33743), (110, 33767), (114, 33785), (116, 33788), (118, 33800), (124, 33833), (129, 33875), (142, 34001), (143, 34004), (147, 34169), (149, 34223), (154, 34286), (156, 34295), (161, 34469), (164, 34574), (170, 34685), (173, 34706), (182, 34829), (183, 34835), (185, 34877), (186, 34895), (194, 35039), (196, 35081), (200, 35186),

Gene: Bangla1971\_89 Start: 31602, Stop: 35312, Start Num: 1

Candidate Starts for Bangla1971\_89:



(Start: 1 @31602 has 168 MA's), (3, 31683), (5, 31704), (6, 31728), (8, 31773), (9, 31800), (10, 31803), (11, 31815), (12, 31833), (13, 31836), (22, 32055), (27, 32193), (29, 32280), (32, 32328), (35, 32391), (36, 32421), (38, 32448), (39, 32457), (43, 32478), (46, 32532), (48, 32598), (65, 32991), (66, 33024), (71, 33144), (80, 33375), (97, 33579), (99, 33582), (105, 33639), (106, 33642), (107, 33654), (110, 33678), (114, 33696), (116, 33699), (118, 33711), (124, 33744), (129, 33786), (142, 33912), (143, 33915), (147, 34080), (154, 34197), (156, 34206), (161, 34380), (164, 34485), (170, 34596), (173, 34617), (182, 34740), (183, 34746), (185, 34788), (186, 34806), (194, 34950), (196, 34992), (200, 35097),

Gene: Basquiat\_84 Start: 30538, Stop: 33879, Start Num: 1

Candidate Starts for Basquiat\_84:

(Start: 1 @30538 has 168 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (22, 30991), (27, 31129), (29, 31216), (32, 31264), (35, 31327), (36, 31357), (38, 31384), (39, 31393), (43, 31414), (46, 31468), (48, 31534), (65, 31927), (66, 31960), (75, 32206), (80, 32317), (97, 32521), (99, 32524), (105, 32581), (106, 32584), (107, 32596), (110, 32620), (114, 32638), (116, 32641), (118, 32653), (124, 32686), (129, 32728), (147, 32869), (149, 32923), (154, 32983), (156, 32992), (161, 33166), (164, 33271), (170, 33382), (173, 33403), (194, 33538), (196, 33580), (200, 33664),

Gene: BeanWater\_80 Start: 30742, Stop: 34452, Start Num: 1

Candidate Starts for BeanWater\_80:

(Start: 1 @30742 has 168 MA's), (3, 30823), (5, 30844), (6, 30868), (8, 30913), (9, 30940), (10, 30943), (11, 30955), (12, 30973), (13, 30976), (22, 31195), (27, 31333), (29, 31420), (32, 31468), (35, 31531), (36, 31561), (38, 31588), (39, 31597), (43, 31618), (46, 31672), (48, 31738), (65, 32131), (66, 32164), (71, 32284), (80, 32515), (97, 32719), (99, 32722), (105, 32779), (106, 32782), (107, 32794), (110, 32818), (114, 32836), (116, 32839), (118, 32851), (124, 32884), (129, 32926), (142, 33052), (143, 33055), (147, 33220), (154, 33337), (156, 33346), (161, 33520), (164, 33625), (170, 33736), (173, 33757), (182, 33880), (183, 33886), (185, 33928), (186, 33946), (194, 34090), (196, 34132), (200, 34237),

Gene: BigCity\_96 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for BigCity\_96:

(Start: 1 @34232 has 168 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (97, 35921), (99, 35924), (105, 35981), (106, 35984), (107, 35996), (110, 36020), (114, 36038), (116, 36041), (118, 36053), (124, 36086), (129, 36128), (142, 36254), (143, 36257), (147, 36422), (154, 36539), (156, 36548), (161, 36722), (164, 36827), (170, 36938), (173, 36959), (182, 37082), (183, 37088), (185, 37130), (186, 37148), (192, 37409), (193, 37469), (194, 37550), (196, 37592), (200, 37697),

Gene: Bigswole\_93 Start: 34874, Stop: 38281, Start Num: 1

Candidate Starts for Bigswole\_93:

(Start: 1 @34874 has 168 MA's), (3, 34955), (5, 34976), (6, 35000), (8, 35045), (9, 35072), (10, 35075), (11, 35087), (12, 35105), (13, 35108), (22, 35327), (25, 35429), (43, 35462), (46, 35516), (48, 35582), (65, 35960), (66, 35993), (71, 36113), (80, 36344), (97, 36548), (99, 36551), (105, 36608), (106, 36611), (107, 36623), (110, 36647), (114, 36665), (116, 36668), (118, 36680), (124, 36713), (129, 36755), (142, 36881), (143, 36884), (147, 37049), (154, 37166), (156, 37175), (161, 37349), (164, 37454), (170, 37565), (173, 37586), (182, 37709), (183, 37715), (185, 37757), (186, 37775), (194, 37919), (196, 37961), (200, 38066),

Gene: Bipolarisk\_87 Start: 31857, Stop: 35570, Start Num: 1

Candidate Starts for Bipolarisk\_87:

(Start: 1 @31857 has 168 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (22, 32310), (27, 32448), (29, 32535), (32, 32583), (35, 32646), (36, 32676), (38, 32703), (39, 32712), (42, 32730), (43, 32733), (46, 32787), (48, 32853), (65, 33246), (66, 33279), (71, 33399), (80, 33633), (97, 33837), (99, 33840), (105, 33897), (106, 33900), (107, 33912), (110, 33936), (114, 33954), (116, 33957), (118, 33969), (124, 34002), (129, 34044), (142, 34170), (143, 34173), (147, 34338), (149, 34392), (154, 34455), (156, 34464), (161, 34638), (164, 34743), (170, 34854), (173, 34875), (182, 34998), (183, 35004), (185, 35046), (186, 35064), (194, 35208), (196, 35250), (200, 35355),

Gene: Blackbrain\_83 Start: 30355, Stop: 33696, Start Num: 1

Candidate Starts for Blackbrain\_83:

(Start: 1 @30355 has 168 MA's), (3, 30436), (5, 30457), (6, 30481), (8, 30526), (9, 30553), (10, 30556), (11, 30568), (12, 30586), (13, 30589), (22, 30808), (27, 30946), (29, 31033), (32, 31081), (33, 31132), (35, 31144), (36, 31174), (38, 31201), (39, 31210), (43, 31231), (46, 31285), (48, 31351), (65, 31744), (66, 31777), (75, 32023), (80, 32134), (97, 32338), (99, 32341), (105, 32398), (106, 32401), (107, 32413), (110, 32437), (114, 32455), (116, 32458), (118, 32470), (124, 32503), (129, 32545), (147, 32686), (149, 32740), (154, 32800), (156, 32809), (161, 32983), (164, 33088), (170, 33199), (173, 33220), (194, 33355), (196, 33397), (200, 33481),

Gene: Blackdragon\_82 Start: 30678, Stop: 34388, Start Num: 1

Candidate Starts for Blackdragon\_82:

(Start: 1 @30678 has 168 MA's), (3, 30759), (5, 30780), (6, 30804), (8, 30849), (9, 30876), (10, 30879), (11, 30891), (12, 30909), (13, 30912), (22, 31131), (27, 31269), (29, 31356), (32, 31404), (35, 31467), (36, 31497), (38, 31524), (39, 31533), (43, 31554), (46, 31608), (48, 31674), (65, 32067), (66, 32100), (71, 32220), (80, 32451), (97, 32655), (99, 32658), (105, 32715), (106, 32718), (107, 32730), (110, 32754), (114, 32772), (116, 32775), (118, 32787), (124, 32820), (129, 32862), (142, 32988), (143, 32991), (147, 33156), (154, 33273), (156, 33282), (161, 33456), (164, 33561), (170, 33672), (173, 33693), (182, 33816), (183, 33822), (185, 33864), (186, 33882), (194, 34026), (196, 34068), (200, 34173),

Gene: Blubba\_78 Start: 28963, Stop: 32385, Start Num: 1

Candidate Starts for Blubba\_78:

(Start: 1 @28963 has 168 MA's), (3, 29044), (5, 29065), (6, 29089), (8, 29134), (9, 29161), (10, 29164), (11, 29176), (12, 29194), (13, 29197), (22, 29416), (25, 29518), (43, 29551), (46, 29605), (48, 29671), (65, 30064), (66, 30097), (71, 30217), (80, 30448), (97, 30652), (99, 30655), (105, 30712), (106, 30715), (107, 30727), (110, 30751), (114, 30769), (116, 30772), (118, 30784), (124, 30817), (129, 30859), (142, 30985), (143, 30988), (147, 31153), (149, 31207), (154, 31270), (156, 31279), (161, 31453), (164, 31558), (170, 31669), (173, 31690), (182, 31813), (183, 31819), (185, 31861), (186, 31879), (194, 32023), (196, 32065), (200, 32170),

Gene: Bonray\_88 Start: 32250, Stop: 35963, Start Num: 1

Candidate Starts for Bonray\_88:

(Start: 1 @32250 has 168 MA's), (3, 32331), (5, 32352), (6, 32376), (9, 32448), (10, 32451), (11, 32463), (12, 32481), (13, 32484), (22, 32703), (27, 32841), (29, 32928), (32, 32976), (35, 33039), (36, 33069), (38, 33096), (39, 33105), (43, 33126), (46, 33180), (48, 33246), (65, 33639), (66, 33672), (71, 33792), (80, 34026), (97, 34230), (99, 34233), (105, 34290), (106, 34293), (107, 34305), (110, 34329), (114, 34347), (116, 34350), (118, 34362), (124, 34395), (129, 34437), (142, 34563), (143, 34566), (147, 34731), (149, 34785), (154, 34848), (156, 34857), (161, 35031), (164, 35136), (170, 35247), (173, 35268), (182, 35391), (183, 35397), (185, 35439), (186, 35457), (194, 35601), (196, 35643), (200, 35748),

Gene: Bread\_88 Start: 31749, Stop: 35462, Start Num: 1

Candidate Starts for Bread\_88:

(Start: 1 @31749 has 168 MA's), (3, 31830), (5, 31851), (6, 31875), (8, 31920), (9, 31947), (10, 31950), (11, 31962), (12, 31980), (13, 31983), (22, 32202), (27, 32340), (29, 32427), (32, 32475), (35, 32538), (36, 32568), (38, 32595), (39, 32604), (42, 32622), (43, 32625), (46, 32679), (48, 32745), (65, 33138), (66, 33171), (71, 33291), (80, 33525), (97, 33729), (99, 33732), (105, 33789), (106, 33792), (107, 33804), (110, 33828), (114, 33846), (116, 33849), (118, 33861), (124, 33894), (129, 33936), (142, 34062), (143, 34065), (147, 34230), (149, 34284), (154, 34347), (156, 34356), (161, 34530), (164, 34635), (170, 34746), (173, 34767), (182, 34890), (183, 34896), (185, 34938), (186, 34956), (194, 35100), (196, 35142), (200, 35247),

Gene: Breeniome\_88 Start: 30975, Stop: 34685, Start Num: 1

Candidate Starts for Breeniome\_88:

(Start: 1 @30975 has 168 MA's), (3, 31056), (5, 31077), (6, 31101), (8, 31146), (9, 31173), (10, 31176), (11, 31188), (12, 31206), (13, 31209), (22, 31428), (27, 31566), (29, 31653), (32, 31701), (35, 31764), (36, 31794), (38, 31821), (39, 31830), (43, 31851), (46, 31905), (48, 31971), (65, 32364), (66, 32397), (71, 32517), (80, 32748), (97, 32952), (99, 32955), (105, 33012), (106, 33015), (107, 33027), (110, 33051), (114, 33069), (116, 33072), (118, 33084), (124, 33117), (129, 33159), (142, 33285), (143, 33288), (147, 33453), (154, 33570), (156, 33579), (161, 33753), (164, 33858), (170, 33969), (173, 33990), (182, 34113), (183, 34119), (185, 34161), (186, 34179), (194, 34323), (196, 34365), (200, 34470),

Gene: Burrough\_88 Start: 32406, Stop: 36119, Start Num: 1

Candidate Starts for Burrough\_88:

(Start: 1 @32406 has 168 MA's), (3, 32487), (5, 32508), (6, 32532), (8, 32577), (9, 32604), (10, 32607), (11, 32619), (12, 32637), (13, 32640), (22, 32859), (27, 32997), (29, 33084), (32, 33132), (35, 33195), (36, 33225), (38, 33252), (39, 33261), (42, 33279), (43, 33282), (46, 33336), (48, 33402), (65, 33795), (66, 33828), (71, 33948), (80, 34182), (97, 34386), (99, 34389), (105, 34446), (106, 34449), (107, 34461), (110, 34485), (114, 34503), (116, 34506), (118, 34518), (124, 34551), (129, 34593), (142, 34719), (143, 34722), (147, 34887), (149, 34941), (154, 35004), (156, 35013), (161, 35187), (164, 35292), (170, 35403), (173, 35424), (182, 35547), (183, 35553), (185, 35595), (186, 35613), (194, 35757), (196, 35799), (200, 35904),

Gene: Bxz1\_87 Start: 33457, Stop: 37170, Start Num: 1

Candidate Starts for Bxz1\_87:

(Start: 1 @33457 has 168 MA's), (3, 33538), (5, 33559), (6, 33583), (8, 33628), (9, 33655), (10, 33658), (11, 33670), (12, 33688), (13, 33691), (22, 33910), (27, 34048), (29, 34135), (32, 34183), (35, 34246), (36, 34276), (38, 34303), (39, 34312), (42, 34330), (43, 34333), (46, 34387), (48, 34453), (65, 34846), (66, 34879), (71, 34999), (80, 35233), (97, 35437), (99, 35440), (105, 35497), (106, 35500), (107, 35512), (110, 35536), (114, 35554), (116, 35557), (118, 35569), (124, 35602), (129, 35644), (142, 35770), (143, 35773), (147, 35938), (149, 35992), (154, 36055), (156, 36064), (161, 36238), (164, 36343), (170, 36454), (173, 36475), (182, 36598), (183, 36604), (185, 36646), (186, 36664), (194, 36808), (196, 36850), (200, 36955),

Gene: Cactojaque\_83 Start: 30462, Stop: 33803, Start Num: 1

Candidate Starts for Cactojaque\_83:

(Start: 1 @30462 has 168 MA's), (3, 30543), (5, 30564), (6, 30588), (8, 30633), (9, 30660), (10, 30663), (11, 30675), (12, 30693), (13, 30696), (22, 30915), (27, 31053), (29, 31140), (32, 31188), (33, 31239), (35, 31251), (36, 31281), (38, 31308), (39, 31317), (43, 31338), (46, 31392), (48, 31458), (65, 31851), (66, 31884), (75, 32130), (80, 32241), (97, 32445), (99, 32448), (105, 32505), (106, 32508), (107, 32520), (110, 32544), (114, 32562), (116, 32565), (118, 32577), (124, 32610), (129, 32652), (147, 32793), (149, 32847), (154, 32907), (156, 32916), (161, 33090), (164, 33195), (170, 33306), (173, 33327), (194, 33462), (196, 33504), (200, 33588),

Gene: Cali\_83 Start: 31979, Stop: 35692, Start Num: 1

Candidate Starts for Cali\_83:

(Start: 1 @31979 has 168 MA's), (3, 32060), (5, 32081), (6, 32105), (8, 32150), (9, 32177), (10, 32180), (11, 32192), (12, 32210), (13, 32213), (22, 32432), (27, 32570), (29, 32657), (32, 32705), (35, 32768), (36, 32798), (38, 32825), (39, 32834), (43, 32855), (46, 32909), (48, 32975), (65, 33368), (66, 33401), (71, 33521), (80, 33755), (97, 33959), (99, 33962), (105, 34019), (106, 34022), (107, 34034), (110, 34058), (114, 34076), (116, 34079), (118, 34091), (124, 34124), (129, 34166), (142, 34292), (143, 34295), (147, 34460), (154, 34577), (156, 34586), (161, 34760), (164, 34865), (170, 34976), (173, 34997), (182, 35120), (183, 35126), (185, 35168), (186, 35186), (194, 35330), (196, 35372), (200, 35477),

Gene: Cane17\_76 Start: 28573, Stop: 31995, Start Num: 1

Candidate Starts for Cane17\_76:

(Start: 1 @28573 has 168 MA's), (3, 28654), (5, 28675), (6, 28699), (8, 28744), (9, 28771), (10, 28774), (11, 28786), (12, 28804), (13, 28807), (22, 29026), (25, 29128), (43, 29161), (46, 29215), (48, 29281), (65, 29674), (66, 29707), (71, 29827), (80, 30058), (97, 30262), (99, 30265), (105, 30322), (106, 30325), (107, 30337), (110, 30361), (114, 30379), (116, 30382), (118, 30394), (124, 30427), (129, 30469), (142, 30595), (143, 30598), (147, 30763), (149, 30817), (154, 30880), (156, 30889), (161, 31063), (164, 31168), (170, 31279), (173, 31300), (182, 31423), (183, 31429), (185, 31471), (186, 31489), (194, 31633), (196, 31675), (200, 31780),

Gene: Capablanca\_90 Start: 32276, Stop: 35989, Start Num: 1

Candidate Starts for Capablanca\_90:

(Start: 1 @32276 has 168 MA's), (3, 32357), (5, 32378), (6, 32402), (8, 32447), (9, 32474), (10, 32477), (11, 32489), (12, 32507), (13, 32510), (22, 32729), (27, 32867), (29, 32954), (32, 33002), (35, 33065), (36, 33095), (38, 33122), (39, 33131), (42, 33149), (43, 33152), (46, 33206), (48, 33272), (65, 33665), (66, 33698), (71, 33818), (80, 34052), (97, 34256), (99, 34259), (105, 34316), (106, 34319), (107, 34331), (110, 34355), (114, 34373), (116, 34376), (118, 34388), (124, 34421), (129, 34463), (142, 34589), (143, 34592), (147, 34757), (149, 34811), (154, 34874), (156, 34883), (161, 35057), (164, 35162), (170, 35273), (173, 35294), (182, 35417), (183, 35423), (185, 35465), (186, 35483), (194, 35627), (196, 35669), (200, 35774),

Gene: Caravan\_83 Start: 31801, Stop: 35514, Start Num: 1

Candidate Starts for Caravan\_83:

(Start: 1 @31801 has 168 MA's), (3, 31882), (5, 31903), (6, 31927), (8, 31972), (9, 31999), (10, 32002), (11, 32014), (12, 32032), (13, 32035), (22, 32254), (27, 32392), (29, 32479), (32, 32527), (35, 32590), (36, 32620), (38, 32647), (39, 32656), (42, 32674), (43, 32677), (46, 32731), (48, 32797), (65, 33190), (66, 33223), (71, 33343), (80, 33577), (97, 33781), (99, 33784), (105, 33841), (106, 33844), (107, 33856), (110, 33880), (114, 33898), (116, 33901), (118, 33913), (124, 33946), (129, 33988), (142, 34114), (143, 34117), (147, 34282), (149, 34336), (154, 34399), (156, 34408), (161, 34582), (164, 34687), (170, 34798), (173, 34819), (182, 34942), (183, 34948), (185, 34990), (186, 35008), (194, 35152), (196, 35194), (200, 35299),

Gene: Catera\_87 Start: 30602, Stop: 33964, Start Num: 1

Candidate Starts for Catera\_87:

(Start: 1 @30602 has 168 MA's), (3, 30683), (5, 30704), (6, 30728), (8, 30773), (9, 30800), (10, 30803), (11, 30815), (12, 30833), (13, 30836), (22, 31055), (27, 31193), (29, 31280), (32, 31328), (35, 31391), (36, 31421), (38, 31448), (39, 31457), (43, 31478), (46, 31532), (48, 31598), (64, 31976), (65, 32012), (75, 32288), (80, 32399), (97, 32603), (99, 32606), (105, 32663), (106, 32666), (107, 32678), (110, 32702), (114, 32720), (116, 32723), (118, 32735), (124, 32768), (129, 32810), (147, 32951), (149, 33005), (154, 33068), (156, 33077), (161, 33251), (164, 33356), (170, 33467), (173, 33488), (194, 33623), (196, 33665), (200, 33749),

Gene: Charge21\_84 Start: 30538, Stop: 33879, Start Num: 1

Candidate Starts for Chargie21\_84:

(Start: 1 @30538 has 168 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (22, 30991), (27, 31129), (29, 31216), (32, 31264), (35, 31327), (36, 31357), (38, 31384), (39, 31393), (43, 31414), (46, 31468), (48, 31534), (65, 31927), (66, 31960), (75, 32206), (80, 32317), (97, 32521), (99, 32524), (105, 32581), (106, 32584), (107, 32596), (110, 32620), (114, 32638), (116, 32641), (118, 32653), (124, 32686), (129, 32728), (147, 32869), (149, 32923), (154, 32983), (156, 32992), (161, 33166), (164, 33271), (170, 33382), (173, 33403), (194, 33538), (196, 33580), (200, 33664),

Gene: CharlieB\_83 Start: 29977, Stop: 33690, Start Num: 1

Candidate Starts for CharlieB\_83:

(Start: 1 @29977 has 168 MA's), (3, 30058), (5, 30079), (6, 30103), (8, 30148), (9, 30175), (10, 30178), (11, 30190), (12, 30208), (13, 30211), (22, 30430), (27, 30568), (29, 30655), (32, 30703), (35, 30766), (36, 30796), (38, 30823), (39, 30832), (43, 30853), (46, 30907), (48, 30973), (65, 31366), (66, 31399), (71, 31519), (80, 31753), (97, 31957), (99, 31960), (105, 32017), (106, 32020), (107, 32032), (110, 32056), (114, 32074), (116, 32077), (118, 32089), (124, 32122), (129, 32164), (142, 32290), (143, 32293), (147, 32458), (154, 32575), (156, 32584), (161, 32758), (164, 32863), (170, 32974), (173, 32995), (182, 33118), (183, 33124), (185, 33166), (186, 33184), (194, 33328), (196, 33370), (200, 33475),

Gene: ChaylaJr\_83 Start: 30253, Stop: 33594, Start Num: 1

Candidate Starts for ChaylaJr\_83:

(Start: 1 @30253 has 168 MA's), (3, 30334), (5, 30355), (6, 30379), (8, 30424), (9, 30451), (10, 30454), (11, 30466), (12, 30484), (13, 30487), (22, 30706), (27, 30844), (29, 30931), (32, 30979), (35, 31042), (36, 31072), (38, 31099), (39, 31108), (43, 31129), (46, 31183), (48, 31249), (65, 31642), (66, 31675), (75, 31921), (80, 32032), (97, 32236), (99, 32239), (105, 32296), (106, 32299), (107, 32311), (110, 32335), (114, 32353), (116, 32356), (118, 32368), (124, 32401), (129, 32443), (147, 32584), (149, 32638), (154, 32698), (156, 32707), (161, 32881), (164, 32986), (170, 33097), (173, 33118), (194, 33253), (196, 33295), (200, 33379),

Gene: CherryTomatoes\_86 Start: 33329, Stop: 36184, Start Num: 16

Candidate Starts for CherryTomatoes\_86:

(Start: 16 @33329 has 4 MA's), (18, 33410), (20, 33422), (23, 33500), (24, 33563), (26, 33572), (39, 33584), (Start: 44 @33647 has 2 MA's), (50, 33806), (51, 33812), (57, 33917), (80, 34412), (81, 34415), (82, 34448), (107, 34685), (110, 34709), (113, 34721), (127, 34802), (128, 34805), (132, 34856), (166, 35447), (167, 35453), (171, 35492), (172, 35495), (195, 35858), (197, 35927), (198, 35948), (201, 35987), (203, 36083), (204, 36098),

Gene: ChickenPhender\_84 Start: 30586, Stop: 33927, Start Num: 1

Candidate Starts for ChickenPhender\_84:

(Start: 1 @30586 has 168 MA's), (3, 30667), (5, 30688), (6, 30712), (8, 30757), (9, 30784), (10, 30787), (11, 30799), (12, 30817), (13, 30820), (22, 31039), (27, 31177), (29, 31264), (32, 31312), (35, 31375), (36, 31405), (38, 31432), (39, 31441), (43, 31462), (46, 31516), (48, 31582), (65, 31975), (66, 32008), (75, 32254), (80, 32365), (97, 32569), (99, 32572), (105, 32629), (106, 32632), (107, 32644), (110, 32668), (114, 32686), (116, 32689), (118, 32701), (124, 32734), (129, 32776), (147, 32917), (149, 32971), (154, 33031), (156, 33040), (161, 33214), (164, 33319), (170, 33430), (173, 33451), (194, 33586), (196, 33628), (200, 33712),

Gene: Chomp\_85 Start: 31638, Stop: 35348, Start Num: 1

Candidate Starts for Chomp\_85:

(Start: 1 @31638 has 168 MA's), (3, 31719), (5, 31740), (6, 31764), (8, 31809), (9, 31836), (10, 31839), (11, 31851), (12, 31869), (13, 31872), (22, 32091), (27, 32229), (29, 32316), (32, 32364), (35, 32427), (36, 32457), (38, 32484), (39, 32493), (43, 32514), (46, 32568), (48, 32634), (65, 33027), (66,

33060), (71, 33180), (80, 33411), (97, 33615), (99, 33618), (105, 33675), (106, 33678), (107, 33690), (110, 33714), (114, 33732), (116, 33735), (118, 33747), (124, 33780), (129, 33822), (142, 33948), (143, 33951), (147, 34116), (154, 34233), (156, 34242), (161, 34416), (164, 34521), (170, 34632), (173, 34653), (182, 34776), (183, 34782), (185, 34824), (186, 34842), (194, 34986), (196, 35028), (200, 35133),

Gene: CindyLou\_89 Start: 31676, Stop: 35389, Start Num: 1

Candidate Starts for CindyLou\_89:

(Start: 1 @31676 has 168 MA's), (3, 31757), (5, 31778), (6, 31802), (8, 31847), (9, 31874), (10, 31877), (11, 31889), (12, 31907), (13, 31910), (22, 32129), (27, 32267), (29, 32354), (32, 32402), (35, 32465), (36, 32495), (38, 32522), (39, 32531), (42, 32549), (43, 32552), (46, 32606), (48, 32672), (65, 33065), (66, 33098), (71, 33218), (80, 33452), (97, 33656), (99, 33659), (105, 33716), (106, 33719), (107, 33731), (110, 33755), (114, 33773), (116, 33776), (118, 33788), (124, 33821), (129, 33863), (142, 33989), (143, 33992), (147, 34157), (149, 34211), (154, 34274), (156, 34283), (161, 34457), (164, 34562), (170, 34673), (173, 34694), (182, 34817), (183, 34823), (185, 34865), (186, 34883), (194, 35027), (196, 35069), (200, 35174),

Gene: Colt\_78 Start: 29635, Stop: 33057, Start Num: 1

Candidate Starts for Colt\_78:

(Start: 1 @29635 has 168 MA's), (3, 29716), (5, 29737), (6, 29761), (8, 29806), (9, 29833), (10, 29836), (11, 29848), (12, 29866), (13, 29869), (22, 30088), (25, 30190), (43, 30223), (46, 30277), (48, 30343), (65, 30736), (66, 30769), (71, 30889), (80, 31120), (97, 31324), (99, 31327), (105, 31384), (106, 31387), (107, 31399), (110, 31423), (114, 31441), (116, 31444), (118, 31456), (124, 31489), (129, 31531), (142, 31657), (143, 31660), (147, 31825), (149, 31879), (154, 31942), (156, 31951), (161, 32125), (164, 32230), (170, 32341), (173, 32362), (182, 32485), (183, 32491), (185, 32533), (186, 32551), (194, 32695), (196, 32737), (200, 32842),

Gene: Concombres\_95 Start: 34395, Stop: 38105, Start Num: 1

Candidate Starts for Concombres\_95:

(Start: 1 @34395 has 168 MA's), (3, 34476), (5, 34497), (6, 34521), (8, 34566), (9, 34593), (10, 34596), (11, 34608), (12, 34626), (13, 34629), (22, 34848), (27, 34986), (29, 35073), (32, 35121), (35, 35184), (36, 35214), (38, 35241), (39, 35250), (43, 35271), (46, 35325), (48, 35391), (65, 35784), (66, 35817), (71, 35937), (80, 36168), (97, 36372), (99, 36375), (105, 36432), (106, 36435), (107, 36447), (110, 36471), (114, 36489), (116, 36492), (118, 36504), (124, 36537), (129, 36579), (142, 36705), (143, 36708), (147, 36873), (149, 36927), (154, 36990), (156, 36999), (161, 37173), (164, 37278), (170, 37389), (173, 37410), (182, 37533), (183, 37539), (185, 37581), (186, 37599), (194, 37743), (196, 37785), (200, 37890),

Gene: DTDevon\_89 Start: 32315, Stop: 36025, Start Num: 1

Candidate Starts for DTDevon\_89:

(Start: 1 @32315 has 168 MA's), (3, 32396), (5, 32417), (6, 32441), (8, 32486), (9, 32513), (10, 32516), (11, 32528), (12, 32546), (13, 32549), (22, 32768), (27, 32906), (29, 32993), (32, 33041), (35, 33104), (36, 33134), (38, 33161), (39, 33170), (43, 33191), (46, 33245), (48, 33311), (65, 33704), (66, 33737), (71, 33857), (80, 34088), (97, 34292), (99, 34295), (105, 34352), (106, 34355), (107, 34367), (110, 34391), (114, 34409), (116, 34412), (118, 34424), (124, 34457), (129, 34499), (142, 34625), (143, 34628), (147, 34793), (154, 34910), (156, 34919), (161, 35093), (164, 35198), (170, 35309), (173, 35330), (182, 35453), (183, 35459), (185, 35501), (186, 35519), (194, 35663), (196, 35705), (200, 35810),

Gene: Daffodil\_93 Start: 32145, Stop: 35858, Start Num: 1

Candidate Starts for Daffodil\_93:

(Start: 1 @32145 has 168 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (22, 32598), (27, 32736), (29, 32823), (32, 32871), (35,

32934), (36, 32964), (38, 32991), (39, 33000), (42, 33018), (43, 33021), (46, 33075), (48, 33141), (65, 33534), (66, 33567), (71, 33687), (80, 33921), (97, 34125), (99, 34128), (105, 34185), (106, 34188), (107, 34200), (110, 34224), (114, 34242), (116, 34245), (118, 34257), (124, 34290), (129, 34332), (142, 34458), (143, 34461), (147, 34626), (149, 34680), (154, 34743), (156, 34752), (161, 34926), (164, 35031), (170, 35142), (173, 35163), (182, 35286), (183, 35292), (185, 35334), (186, 35352), (194, 35496), (196, 35538), (200, 35643),

Gene: Dandelion\_95 Start: 34817, Stop: 38551, Start Num: 1

Candidate Starts for Dandelion\_95:

(Start: 1 @34817 has 168 MA's), (3, 34898), (5, 34919), (6, 34943), (8, 34988), (9, 35015), (10, 35018), (11, 35030), (12, 35048), (13, 35051), (22, 35270), (27, 35408), (29, 35495), (32, 35543), (35, 35606), (36, 35636), (38, 35663), (39, 35672), (43, 35693), (46, 35747), (48, 35813), (64, 36191), (65, 36227), (75, 36503), (80, 36614), (97, 36818), (99, 36821), (105, 36878), (106, 36881), (107, 36893), (110, 36917), (114, 36935), (116, 36938), (118, 36950), (124, 36983), (129, 37025), (142, 37151), (143, 37154), (147, 37319), (154, 37436), (156, 37445), (161, 37619), (164, 37724), (170, 37835), (173, 37856), (182, 37979), (183, 37985), (185, 38027), (186, 38045), (194, 38189), (196, 38231), (200, 38336),

Gene: Darko\_88 Start: 32076, Stop: 35789, Start Num: 1

Candidate Starts for Darko\_88:

(Start: 1 @32076 has 168 MA's), (3, 32157), (5, 32178), (6, 32202), (9, 32274), (10, 32277), (11, 32289), (12, 32307), (13, 32310), (22, 32529), (27, 32667), (29, 32754), (32, 32802), (35, 32865), (36, 32895), (38, 32922), (39, 32931), (43, 32952), (46, 33006), (48, 33072), (65, 33465), (66, 33498), (71, 33618), (80, 33852), (97, 34056), (99, 34059), (105, 34116), (106, 34119), (107, 34131), (110, 34155), (114, 34173), (116, 34176), (118, 34188), (124, 34221), (129, 34263), (142, 34389), (143, 34392), (147, 34557), (149, 34611), (154, 34674), (156, 34683), (161, 34857), (164, 34962), (170, 35073), (173, 35094), (182, 35217), (183, 35223), (185, 35265), (186, 35283), (194, 35427), (196, 35469), (200, 35574),

Gene: Delilah\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Delilah\_88:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (97, 34126), (99, 34129), (105, 34186), (106, 34189), (107, 34201), (110, 34225), (114, 34243), (116, 34246), (118, 34258), (124, 34291), (129, 34333), (142, 34459), (143, 34462), (147, 34627), (149, 34681), (154, 34744), (156, 34753), (161, 34927), (164, 35032), (170, 35143), (173, 35164), (182, 35287), (183, 35293), (185, 35335), (186, 35353), (194, 35497), (196, 35539), (200, 35644),

Gene: Delylah\_91 Start: 31939, Stop: 35652, Start Num: 1

Candidate Starts for Delylah\_91:

(Start: 1 @31939 has 168 MA's), (3, 32020), (5, 32041), (6, 32065), (8, 32110), (9, 32137), (10, 32140), (11, 32152), (12, 32170), (13, 32173), (22, 32392), (27, 32530), (29, 32617), (32, 32665), (35, 32728), (36, 32758), (38, 32785), (39, 32794), (42, 32812), (43, 32815), (46, 32869), (48, 32935), (65, 33328), (66, 33361), (71, 33481), (80, 33715), (97, 33919), (99, 33922), (105, 33979), (106, 33982), (107, 33994), (110, 34018), (114, 34036), (116, 34039), (118, 34051), (124, 34084), (129, 34126), (142, 34252), (143, 34255), (147, 34420), (149, 34474), (154, 34537), (156, 34546), (161, 34720), (164, 34825), (170, 34936), (173, 34957), (182, 35080), (183, 35086), (185, 35128), (186, 35146), (194, 35290), (196, 35332), (200, 35437),

Gene: Derek\_88 Start: 31440, Stop: 35150, Start Num: 1

Candidate Starts for Derek\_88:

(Start: 1 @31440 has 168 MA's), (3, 31521), (5, 31542), (6, 31566), (8, 31611), (9, 31638), (10, 31641), (11, 31653), (12, 31671), (13, 31674), (22, 31893), (27, 32031), (29, 32118), (32, 32166), (35, 32229), (36, 32259), (38, 32286), (39, 32295), (43, 32316), (46, 32370), (48, 32436), (65, 32829), (66, 32862), (71, 32982), (80, 33213), (97, 33417), (99, 33420), (105, 33477), (106, 33480), (107, 33492), (110, 33516), (114, 33534), (116, 33537), (118, 33549), (124, 33582), (129, 33624), (142, 33750), (143, 33753), (147, 33918), (154, 34035), (156, 34044), (161, 34218), (164, 34323), (170, 34434), (173, 34455), (182, 34578), (183, 34584), (185, 34626), (186, 34644), (194, 34788), (196, 34830), (200, 34935),

Gene: Dietrick\_80 Start: 30264, Stop: 33626, Start Num: 1

Candidate Starts for Dietrick\_80:

(Start: 1 @30264 has 168 MA's), (3, 30345), (5, 30366), (6, 30390), (8, 30435), (9, 30462), (10, 30465), (11, 30477), (12, 30495), (13, 30498), (22, 30717), (27, 30855), (29, 30942), (32, 30990), (35, 31053), (36, 31083), (38, 31110), (39, 31119), (43, 31140), (46, 31194), (48, 31260), (64, 31638), (65, 31674), (75, 31950), (80, 32061), (97, 32265), (99, 32268), (105, 32325), (106, 32328), (107, 32340), (110, 32364), (114, 32382), (116, 32385), (118, 32397), (124, 32430), (129, 32472), (147, 32613), (149, 32667), (154, 32730), (156, 32739), (161, 32913), (164, 33018), (170, 33129), (173, 33150), (194, 33285), (196, 33327), (200, 33411),

Gene: DirtMonster\_81 Start: 30741, Stop: 34451, Start Num: 1

Candidate Starts for DirtMonster\_81:

(Start: 1 @30741 has 168 MA's), (3, 30822), (5, 30843), (6, 30867), (8, 30912), (9, 30939), (10, 30942), (11, 30954), (12, 30972), (13, 30975), (22, 31194), (27, 31332), (29, 31419), (32, 31467), (35, 31530), (36, 31560), (38, 31587), (39, 31596), (43, 31617), (46, 31671), (48, 31737), (65, 32130), (66, 32163), (71, 32283), (80, 32514), (97, 32718), (99, 32721), (105, 32778), (106, 32781), (107, 32793), (110, 32817), (114, 32835), (116, 32838), (118, 32850), (124, 32883), (129, 32925), (142, 33051), (143, 33054), (147, 33219), (149, 33273), (154, 33336), (156, 33345), (161, 33519), (164, 33624), (170, 33735), (173, 33756), (182, 33879), (183, 33885), (185, 33927), (186, 33945), (194, 34089), (196, 34131), (200, 34236),

Gene: DrPhinkDaddy\_87 Start: 32201, Stop: 35914, Start Num: 1

Candidate Starts for DrPhinkDaddy\_87:

(Start: 1 @32201 has 168 MA's), (3, 32282), (5, 32303), (6, 32327), (8, 32372), (9, 32399), (10, 32402), (11, 32414), (12, 32432), (13, 32435), (22, 32654), (27, 32792), (29, 32879), (32, 32927), (35, 32990), (36, 33020), (38, 33047), (39, 33056), (42, 33074), (43, 33077), (46, 33131), (48, 33197), (65, 33590), (66, 33623), (71, 33743), (80, 33977), (97, 34181), (99, 34184), (105, 34241), (106, 34244), (107, 34256), (110, 34280), (114, 34298), (116, 34301), (118, 34313), (124, 34346), (129, 34388), (142, 34514), (143, 34517), (147, 34682), (149, 34736), (154, 34799), (156, 34808), (161, 34982), (164, 35087), (170, 35198), (173, 35219), (182, 35342), (183, 35348), (185, 35390), (186, 35408), (194, 35552), (196, 35594), (200, 35699),

Gene: Drazdys\_88 Start: 31946, Stop: 35656, Start Num: 1

Candidate Starts for Drazdys\_88:

(Start: 1 @31946 has 168 MA's), (3, 32027), (5, 32048), (6, 32072), (8, 32117), (9, 32144), (10, 32147), (11, 32159), (12, 32177), (13, 32180), (22, 32399), (27, 32537), (29, 32624), (32, 32672), (35, 32735), (36, 32765), (38, 32792), (39, 32801), (43, 32822), (46, 32876), (48, 32942), (65, 33335), (66, 33368), (71, 33488), (80, 33719), (97, 33923), (99, 33926), (105, 33983), (106, 33986), (107, 33998), (110, 34022), (114, 34040), (116, 34043), (118, 34055), (124, 34088), (129, 34130), (142, 34256), (143, 34259), (147, 34424), (154, 34541), (156, 34550), (161, 34724), (164, 34829), (170, 34940), (173, 34961), (182, 35084), (183, 35090), (185, 35132), (186, 35150), (194, 35294), (196, 35336), (200, 35441),

Gene: ET08\_77 Start: 29845, Stop: 33558, Start Num: 1



Candidate Starts for ET08\_77:

(Start: 1 @29845 has 168 MA's), (3, 29926), (5, 29947), (6, 29971), (8, 30016), (9, 30043), (10, 30046), (11, 30058), (12, 30076), (13, 30079), (22, 30298), (27, 30436), (29, 30523), (32, 30571), (35, 30634), (36, 30664), (38, 30691), (39, 30700), (43, 30721), (46, 30775), (48, 30841), (65, 31234), (66, 31267), (71, 31387), (80, 31621), (97, 31825), (99, 31828), (105, 31885), (106, 31888), (107, 31900), (110, 31924), (114, 31942), (116, 31945), (118, 31957), (124, 31990), (129, 32032), (142, 32158), (143, 32161), (147, 32326), (154, 32443), (156, 32452), (161, 32626), (164, 32731), (170, 32842), (173, 32863), (182, 32986), (183, 32992), (185, 33034), (186, 33052), (194, 33196), (196, 33238), (200, 33343),

Gene: EasyJones\_91 Start: 31645, Stop: 34986, Start Num: 1

Candidate Starts for EasyJones\_91:

(Start: 1 @31645 has 168 MA's), (3, 31726), (5, 31747), (6, 31771), (8, 31816), (9, 31843), (10, 31846), (11, 31858), (12, 31876), (13, 31879), (22, 32098), (27, 32236), (29, 32323), (32, 32371), (35, 32434), (36, 32464), (38, 32491), (39, 32500), (43, 32521), (46, 32575), (48, 32641), (65, 33034), (66, 33067), (75, 33313), (80, 33424), (97, 33628), (99, 33631), (105, 33688), (106, 33691), (107, 33703), (110, 33727), (114, 33745), (116, 33748), (118, 33760), (124, 33793), (129, 33835), (147, 33976), (149, 34030), (154, 34090), (156, 34099), (161, 34273), (164, 34378), (170, 34489), (173, 34510), (194, 34645), (196, 34687), (200, 34771),

Gene: EggyFarm\_96 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for EggyFarm\_96:

(Start: 1 @34232 has 168 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (97, 35921), (99, 35924), (105, 35981), (106, 35984), (107, 35996), (110, 36020), (114, 36038), (116, 36041), (118, 36053), (124, 36086), (129, 36128), (142, 36254), (143, 36257), (147, 36422), (154, 36539), (156, 36548), (161, 36722), (164, 36827), (170, 36938), (173, 36959), (182, 37082), (183, 37088), (185, 37130), (186, 37148), (192, 37409), (193, 37469), (194, 37550), (196, 37592), (200, 37697),

Gene: EmToTheThree\_91 Start: 33618, Stop: 37310, Start Num: 1

Candidate Starts for EmToTheThree\_91:

(Start: 1 @33618 has 168 MA's), (3, 33699), (5, 33720), (6, 33744), (8, 33789), (9, 33816), (10, 33819), (11, 33831), (12, 33849), (13, 33852), (22, 34071), (27, 34209), (29, 34296), (32, 34344), (35, 34407), (36, 34437), (38, 34464), (39, 34473), (43, 34494), (46, 34548), (48, 34614), (65, 35007), (66, 35040), (71, 35160), (80, 35394), (97, 35598), (99, 35601), (105, 35658), (106, 35661), (107, 35673), (110, 35697), (114, 35715), (116, 35718), (118, 35730), (124, 35763), (129, 35805), (142, 35931), (143, 35934), (147, 36099), (154, 36216), (156, 36225), (161, 36399), (164, 36504), (170, 36615), (173, 36636), (182, 36759), (183, 36765), (185, 36807), (186, 36825), (194, 36969), (196, 37011), (200, 37095),

Gene: EmmaElysia\_87 Start: 30721, Stop: 34431, Start Num: 1

Candidate Starts for EmmaElysia\_87:

(Start: 1 @30721 has 168 MA's), (3, 30802), (5, 30823), (6, 30847), (8, 30892), (9, 30919), (10, 30922), (11, 30934), (12, 30952), (13, 30955), (22, 31174), (27, 31312), (29, 31399), (32, 31447), (35, 31510), (36, 31540), (38, 31567), (39, 31576), (43, 31597), (46, 31651), (48, 31717), (65, 32110), (66, 32143), (71, 32263), (80, 32494), (97, 32698), (99, 32701), (105, 32758), (106, 32761), (107, 32773), (110, 32797), (114, 32815), (116, 32818), (118, 32830), (124, 32863), (129, 32905), (142, 33031), (143, 33034), (147, 33199), (154, 33316), (156, 33325), (161, 33499), (164, 33604), (170, 33715), (173, 33736), (182, 33859), (183, 33865), (185, 33907), (186, 33925), (194, 34069), (196, 34111), (200, 34216),

Gene: Erdmann\_89 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Erdmann\_89:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (97, 34126), (99, 34129), (105, 34186), (106, 34189), (107, 34201), (110, 34225), (114, 34243), (116, 34246), (118, 34258), (124, 34291), (129, 34333), (142, 34459), (143, 34462), (147, 34627), (149, 34681), (154, 34744), (156, 34753), (161, 34927), (164, 35032), (170, 35143), (173, 35164), (182, 35287), (183, 35293), (185, 35335), (186, 35353), (194, 35497), (196, 35539), (200, 35644),

Gene: ErnieJ\_84 Start: 30542, Stop: 33904, Start Num: 1

Candidate Starts for ErnieJ\_84:

(Start: 1 @30542 has 168 MA's), (3, 30623), (5, 30644), (6, 30668), (8, 30713), (9, 30740), (10, 30743), (11, 30755), (12, 30773), (13, 30776), (22, 30995), (27, 31133), (29, 31220), (32, 31268), (35, 31331), (36, 31361), (38, 31388), (39, 31397), (43, 31418), (46, 31472), (48, 31538), (64, 31916), (65, 31952), (75, 32228), (80, 32339), (97, 32543), (99, 32546), (105, 32603), (106, 32606), (107, 32618), (110, 32642), (114, 32660), (116, 32663), (118, 32675), (124, 32708), (129, 32750), (147, 32891), (149, 32945), (154, 33008), (156, 33017), (161, 33191), (164, 33296), (170, 33407), (173, 33428), (194, 33563), (196, 33605), (200, 33689),

Gene: Essence\_85 Start: 30901, Stop: 34614, Start Num: 1

Candidate Starts for Essence\_85:

(Start: 1 @30901 has 168 MA's), (3, 30982), (5, 31003), (6, 31027), (8, 31072), (9, 31099), (10, 31102), (11, 31114), (12, 31132), (13, 31135), (22, 31354), (27, 31492), (29, 31579), (32, 31627), (35, 31690), (36, 31720), (38, 31747), (39, 31756), (42, 31774), (43, 31777), (46, 31831), (48, 31897), (65, 32290), (66, 32323), (71, 32443), (80, 32677), (97, 32881), (99, 32884), (105, 32941), (106, 32944), (107, 32956), (110, 32980), (114, 32998), (116, 33001), (118, 33013), (124, 33046), (129, 33088), (142, 33214), (143, 33217), (147, 33382), (149, 33436), (154, 33499), (156, 33508), (161, 33682), (164, 33787), (170, 33898), (173, 33919), (182, 34042), (183, 34048), (185, 34090), (186, 34108), (194, 34252), (196, 34294), (200, 34399),

Gene: Ewok\_89 Start: 32148, Stop: 35486, Start Num: 1

Candidate Starts for Ewok\_89:

(Start: 1 @32148 has 168 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (22, 32601), (27, 32739), (29, 32826), (32, 32874), (35, 32937), (36, 32967), (38, 32994), (39, 33003), (42, 33021), (43, 33024), (46, 33078), (48, 33144), (65, 33537), (66, 33570), (71, 33690), (80, 33921), (97, 34125), (99, 34128), (105, 34185), (106, 34188), (107, 34200), (110, 34224), (114, 34242), (116, 34245), (118, 34257), (124, 34290), (129, 34332), (147, 34473), (149, 34527), (154, 34590), (156, 34599), (161, 34773), (164, 34878), (170, 34989), (173, 35010), (194, 35145), (196, 35187), (200, 35271),

Gene: Flabslab\_83 Start: 30323, Stop: 33664, Start Num: 1

Candidate Starts for Flabslab\_83:

(Start: 1 @30323 has 168 MA's), (3, 30404), (5, 30425), (6, 30449), (8, 30494), (9, 30521), (10, 30524), (11, 30536), (12, 30554), (13, 30557), (22, 30776), (27, 30914), (29, 31001), (32, 31049), (35, 31112), (36, 31142), (38, 31169), (39, 31178), (43, 31199), (46, 31253), (48, 31319), (65, 31712), (66, 31745), (75, 31991), (80, 32102), (97, 32306), (99, 32309), (105, 32366), (106, 32369), (107, 32381), (110, 32405), (114, 32423), (116, 32426), (118, 32438), (124, 32471), (129, 32513), (147, 32654), (149, 32708), (154, 32768), (156, 32777), (161, 32951), (164, 33056), (170, 33167), (173, 33188), (194, 33323), (196, 33365), (200, 33449),

Gene: Fludd\_88 Start: 30985, Stop: 34326, Start Num: 1

Candidate Starts for Fludd\_88:

(Start: 1 @30985 has 168 MA's), (3, 31066), (5, 31087), (6, 31111), (8, 31156), (9, 31183), (10, 31186), (11, 31198), (12, 31216), (13, 31219), (22, 31438), (27, 31576), (29, 31663), (32, 31711), (35, 31774), (36, 31804), (38, 31831), (39, 31840), (43, 31861), (46, 31915), (48, 31981), (65, 32374), (66, 32407), (75, 32653), (80, 32764), (97, 32968), (99, 32971), (105, 33028), (106, 33031), (107, 33043), (110, 33067), (114, 33085), (116, 33088), (118, 33100), (124, 33133), (129, 33175), (147, 33316), (149, 33370), (154, 33430), (156, 33439), (161, 33613), (164, 33718), (170, 33829), (173, 33850), (194, 33985), (196, 34027), (200, 34111),

Gene: FoxtrotP1\_88 Start: 32548, Stop: 36258, Start Num: 1

Candidate Starts for FoxtrotP1\_88:

(Start: 1 @32548 has 168 MA's), (3, 32629), (5, 32650), (6, 32674), (8, 32719), (9, 32746), (10, 32749), (11, 32761), (12, 32779), (13, 32782), (22, 33001), (27, 33139), (29, 33226), (32, 33274), (35, 33337), (36, 33367), (38, 33394), (39, 33403), (43, 33424), (46, 33478), (48, 33544), (65, 33937), (66, 33970), (71, 34090), (80, 34321), (97, 34525), (99, 34528), (105, 34585), (106, 34588), (107, 34600), (110, 34624), (114, 34642), (116, 34645), (118, 34657), (124, 34690), (129, 34732), (142, 34858), (143, 34861), (147, 35026), (149, 35080), (154, 35143), (156, 35152), (161, 35326), (164, 35431), (170, 35542), (173, 35563), (182, 35686), (183, 35692), (185, 35734), (186, 35752), (194, 35896), (196, 35938), (200, 36043),

Gene: FrayBell\_94 Start: 33591, Stop: 37304, Start Num: 1

Candidate Starts for FrayBell\_94:

(Start: 1 @33591 has 168 MA's), (3, 33672), (5, 33693), (6, 33717), (9, 33789), (10, 33792), (11, 33804), (12, 33822), (13, 33825), (22, 34044), (27, 34182), (29, 34269), (32, 34317), (35, 34380), (36, 34410), (38, 34437), (39, 34446), (43, 34467), (46, 34521), (48, 34587), (65, 34980), (66, 35013), (71, 35133), (80, 35367), (97, 35571), (99, 35574), (105, 35631), (106, 35634), (107, 35646), (110, 35670), (114, 35688), (116, 35691), (118, 35703), (124, 35736), (129, 35778), (142, 35904), (143, 35907), (147, 36072), (149, 36126), (154, 36189), (156, 36198), (161, 36372), (164, 36477), (170, 36588), (173, 36609), (182, 36732), (183, 36738), (185, 36780), (186, 36798), (194, 36942), (196, 36984), (200, 37089),

Gene: FudgeTart\_88 Start: 31314, Stop: 35048, Start Num: 1

Candidate Starts for FudgeTart\_88:

(Start: 1 @31314 has 168 MA's), (3, 31395), (5, 31416), (6, 31440), (8, 31485), (9, 31512), (10, 31515), (11, 31527), (12, 31545), (13, 31548), (22, 31767), (27, 31905), (29, 31992), (32, 32040), (35, 32103), (36, 32133), (38, 32160), (39, 32169), (43, 32190), (46, 32244), (48, 32310), (64, 32688), (65, 32724), (75, 33000), (80, 33111), (97, 33315), (99, 33318), (105, 33375), (106, 33378), (107, 33390), (110, 33414), (114, 33432), (116, 33435), (118, 33447), (124, 33480), (129, 33522), (142, 33648), (143, 33651), (147, 33816), (154, 33933), (156, 33942), (161, 34116), (164, 34221), (170, 34332), (173, 34353), (182, 34476), (183, 34482), (185, 34524), (186, 34542), (194, 34686), (196, 34728), (200, 34833),

Gene: Gabriel\_90 Start: 31384, Stop: 35094, Start Num: 1

Candidate Starts for Gabriel\_90:

(Start: 1 @31384 has 168 MA's), (3, 31465), (5, 31486), (6, 31510), (8, 31555), (9, 31582), (10, 31585), (11, 31597), (12, 31615), (13, 31618), (22, 31837), (27, 31975), (29, 32062), (32, 32110), (35, 32173), (36, 32203), (38, 32230), (39, 32239), (43, 32260), (46, 32314), (48, 32380), (65, 32773), (66, 32806), (71, 32926), (80, 33157), (97, 33361), (99, 33364), (105, 33421), (106, 33424), (107, 33436), (110, 33460), (114, 33478), (116, 33481), (118, 33493), (124, 33526), (129, 33568), (142, 33694), (143, 33697), (147, 33862), (154, 33979), (156, 33988), (161, 34162), (164, 34267), (170, 34378), (173, 34399), (182, 34522), (183, 34528), (185, 34570), (186, 34588), (194, 34732), (196, 34774), (200, 34879),

Gene: Gamgam\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Gamgam\_88:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Ghost\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Ghost\_87:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Gizmo\_92 Start: 31829, Stop: 35167, Start Num: 1

Candidate Starts for Gizmo\_92:

(Start: 1 @31829 has 168 MA's), (3, 31910), (5, 31931), (6, 31955), (8, 32000), (9, 32027), (10, 32030), (11, 32042), (12, 32060), (13, 32063), (22, 32282), (27, 32420), (29, 32507), (32, 32555), (35, 32618), (36, 32648), (38, 32675), (39, 32684), (42, 32702), (43, 32705), (46, 32759), (48, 32825), (65, 33218), (66, 33251), (71, 33371), (80, 33602), (97, 33806), (99, 33809), (105, 33866), (106, 33869), (107, 33881), (110, 33905), (114, 33923), (116, 33926), (118, 33938), (124, 33971), (129, 34013), (147, 34154), (149, 34208), (154, 34271), (156, 34280), (161, 34454), (164, 34559), (170, 34670), (173, 34691), (194, 34826), (196, 34868), (200, 34952),

Gene: Grasshills\_95 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for Grasshills\_95:

(Start: 1 @34232 has 168 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (97, 35921), (99, 35924), (105, 35981), (106, 35984), (107, 35996), (110, 36020), (114, 36038), (116, 36041), (118, 36053), (124, 36086), (129, 36128), (142, 36254), (143, 36257), (147, 36422), (154, 36539), (156, 36548), (161, 36722), (164, 36827), (170, 36938), (173, 36959), (182, 37082), (183, 37088), (185, 37130), (186, 37148), (192, 37409), (193, 37469), (194, 37550), (196, 37592), (200, 37697),

Gene: Greely\_89 Start: 33330, Stop: 36788, Start Num: 2

Candidate Starts for Greely\_89:

(Start: 2 @33330 has 2 MA's), (7, 33459), (9, 33528), (13, 33564), (14, 33585), (15, 33600), (19, 33735), (30, 33882), (31, 33918), (39, 34053), (40, 34059), (62, 34560), (63, 34563), (66, 34659), (74, 34791), (77, 34881), (79, 34929), (81, 34941), (88, 35049), (90, 35070), (124, 35340), (126, 35364), (130, 35403), (131, 35430), (133, 35448), (135, 35472), (137, 35493), (138, 35508), (151, 35805), (155, 35844), (162, 36060), (164, 36126), (167, 36204), (169, 36228), (170, 36240), (172, 36246), (181, 36390), (199, 36582),

Gene: Grungle\_75 Start: 28529, Stop: 32242, Start Num: 1

Candidate Starts for Grungle\_75:

(Start: 1 @28529 has 168 MA's), (3, 28610), (5, 28631), (6, 28655), (8, 28700), (9, 28727), (10, 28730), (11, 28742), (12, 28760), (13, 28763), (22, 28982), (27, 29120), (29, 29207), (32, 29255), (35, 29318), (36, 29348), (38, 29375), (39, 29384), (43, 29405), (46, 29459), (48, 29525), (65, 29918), (66, 29951), (71, 30071), (80, 30305), (97, 30509), (99, 30512), (105, 30569), (106, 30572), (107, 30584), (110, 30608), (114, 30626), (116, 30629), (118, 30641), (124, 30674), (129, 30716), (142, 30842), (143, 30845), (147, 31010), (154, 31127), (156, 31136), (161, 31310), (164, 31415), (170, 31526), (173, 31547), (182, 31670), (183, 31676), (185, 31718), (186, 31736), (194, 31880), (196, 31922), (200, 32027),

Gene: Guwapp\_87 Start: 31246, Stop: 34959, Start Num: 1

Candidate Starts for Guwapp\_87:

(Start: 1 @31246 has 168 MA's), (3, 31327), (5, 31348), (6, 31372), (8, 31417), (9, 31444), (10, 31447), (11, 31459), (12, 31477), (13, 31480), (22, 31699), (27, 31837), (29, 31924), (32, 31972), (35, 32035), (36, 32065), (38, 32092), (39, 32101), (42, 32119), (43, 32122), (46, 32176), (48, 32242), (65, 32635), (66, 32668), (71, 32788), (80, 33022), (97, 33226), (99, 33229), (105, 33286), (106, 33289), (107, 33301), (110, 33325), (114, 33343), (116, 33346), (118, 33358), (124, 33391), (129, 33433), (142, 33559), (143, 33562), (147, 33727), (154, 33844), (156, 33853), (161, 34027), (164, 34132), (170, 34243), (173, 34264), (182, 34387), (183, 34393), (185, 34435), (186, 34453), (194, 34597), (196, 34639), (200, 34744),

Gene: Halldule\_81 Start: 29559, Stop: 33272, Start Num: 1

Candidate Starts for Halldule\_81:

(Start: 1 @29559 has 168 MA's), (3, 29640), (5, 29661), (6, 29685), (8, 29730), (9, 29757), (10, 29760), (11, 29772), (12, 29790), (13, 29793), (22, 30012), (27, 30150), (29, 30237), (32, 30285), (35, 30348), (36, 30378), (38, 30405), (39, 30414), (43, 30435), (46, 30489), (48, 30555), (65, 30948), (66, 30981), (71, 31101), (80, 31335), (97, 31539), (99, 31542), (105, 31599), (106, 31602), (107, 31614), (110, 31638), (114, 31656), (116, 31659), (118, 31671), (124, 31704), (129, 31746), (142, 31872), (143, 31875), (147, 32040), (154, 32157), (156, 32166), (161, 32340), (164, 32445), (170, 32556), (173, 32577), (182, 32700), (183, 32706), (185, 32748), (186, 32766), (194, 32910), (196, 32952), (200, 33057),

Gene: HyRo\_80 Start: 30714, Stop: 34055, Start Num: 1

Candidate Starts for HyRo\_80:

(Start: 1 @30714 has 168 MA's), (3, 30795), (5, 30816), (6, 30840), (8, 30885), (9, 30912), (10, 30915), (11, 30927), (12, 30945), (13, 30948), (22, 31167), (27, 31305), (29, 31392), (32, 31440), (35, 31503), (36, 31533), (38, 31560), (39, 31569), (42, 31587), (43, 31590), (46, 31644), (48, 31710), (65, 32103), (66, 32136), (71, 32256), (75, 32379), (80, 32490), (97, 32694), (99, 32697), (105, 32754), (106, 32757), (107, 32769), (110, 32793), (114, 32811), (116, 32814), (118, 32826), (124, 32859), (129, 32901), (147, 33042), (149, 33096), (154, 33159), (156, 33168), (161, 33342), (164, 33447), (170, 33558), (173, 33579), (194, 33714), (196, 33756), (200, 33840),

Gene: I3\_94 Start: 32313, Stop: 35822, Start Num: 1

Candidate Starts for I3\_94:

(Start: 1 @32313 has 168 MA's), (3, 32394), (5, 32415), (6, 32439), (9, 32511), (10, 32514), (11, 32526), (12, 32544), (13, 32547), (22, 32766), (27, 32904), (29, 32991), (32, 33039), (35, 33102), (36, 33132), (38, 33159), (39, 33168), (43, 33189), (46, 33243), (48, 33309), (65, 33702), (66, 33735), (71, 33855), (80, 34086), (97, 34290), (99, 34293), (105, 34350), (106, 34353), (107, 34365), (110, 34389), (114, 34407), (116, 34410), (118, 34422), (124, 34455), (129, 34497), (142, 34623), (147, 34791), (149, 34845), (154, 34905), (156, 34914), (161, 35088), (164, 35193), (170, 35304), (173, 35325), (194, 35460), (196, 35502), (200, 35607),

Gene: IkeLoa\_82 Start: 30507, Stop: 34220, Start Num: 1

Candidate Starts for IkeLoa\_82:

(Start: 1 @30507 has 168 MA's), (3, 30588), (5, 30609), (6, 30633), (9, 30705), (10, 30708), (11, 30720), (12, 30738), (13, 30741), (22, 30960), (27, 31098), (29, 31185), (32, 31233), (35, 31296), (36, 31326), (38, 31353), (39, 31362), (43, 31383), (46, 31437), (48, 31503), (65, 31896), (66, 31929), (71, 32049), (80, 32283), (97, 32487), (99, 32490), (105, 32547), (106, 32550), (107, 32562), (110, 32586), (114, 32604), (116, 32607), (118, 32619), (124, 32652), (129, 32694), (142, 32820), (143, 32823), (147, 32988), (149, 33042), (154, 33105), (156, 33114), (161, 33288), (164, 33393), (170, 33504), (173, 33525), (182, 33648), (183, 33654), (185, 33696), (186, 33714), (194, 33858), (196, 33900), (200, 34005),

Gene: InigoMontoya\_89 Start: 31112, Stop: 34825, Start Num: 1

Candidate Starts for InigoMontoya\_89:

(Start: 1 @31112 has 168 MA's), (3, 31193), (5, 31214), (6, 31238), (8, 31283), (9, 31310), (10, 31313), (11, 31325), (12, 31343), (13, 31346), (22, 31565), (27, 31703), (29, 31790), (32, 31838), (35, 31901), (36, 31931), (38, 31958), (39, 31967), (42, 31985), (43, 31988), (46, 32042), (48, 32108), (65, 32501), (66, 32534), (71, 32654), (80, 32888), (97, 33092), (99, 33095), (105, 33152), (106, 33155), (107, 33167), (110, 33191), (114, 33209), (116, 33212), (118, 33224), (124, 33257), (129, 33299), (142, 33425), (143, 33428), (147, 33593), (149, 33647), (154, 33710), (156, 33719), (161, 33893), (164, 33998), (170, 34109), (173, 34130), (182, 34253), (183, 34259), (185, 34301), (186, 34319), (194, 34463), (196, 34505), (200, 34610),

Gene: InterFolia\_97 Start: 34554, Stop: 38246, Start Num: 1

Candidate Starts for InterFolia\_97:

(Start: 1 @34554 has 168 MA's), (3, 34635), (5, 34656), (6, 34680), (8, 34725), (9, 34752), (10, 34755), (11, 34767), (12, 34785), (13, 34788), (22, 35007), (27, 35145), (29, 35232), (32, 35280), (35, 35343), (36, 35373), (38, 35400), (39, 35409), (43, 35430), (46, 35484), (48, 35550), (65, 35943), (66, 35976), (71, 36096), (80, 36327), (97, 36531), (99, 36534), (105, 36591), (106, 36594), (107, 36606), (110, 36630), (114, 36648), (116, 36651), (118, 36663), (124, 36696), (129, 36738), (142, 36864), (143, 36867), (147, 37014), (149, 37068), (154, 37131), (156, 37140), (161, 37314), (164, 37419), (170, 37530), (173, 37551), (182, 37674), (183, 37680), (185, 37722), (186, 37740), (194, 37884), (196, 37926), (200, 38031),

Gene: Iota\_82 Start: 30888, Stop: 34601, Start Num: 1

Candidate Starts for Iota\_82:

(Start: 1 @30888 has 168 MA's), (3, 30969), (5, 30990), (6, 31014), (8, 31059), (9, 31086), (10, 31089), (11, 31101), (12, 31119), (13, 31122), (22, 31341), (27, 31479), (29, 31566), (32, 31614), (35, 31677), (36, 31707), (38, 31734), (39, 31743), (43, 31764), (46, 31818), (48, 31884), (65, 32277), (66, 32310), (71, 32430), (80, 32664), (97, 32868), (99, 32871), (105, 32928), (106, 32931), (107, 32943), (110, 32967), (114, 32985), (116, 32988), (118, 33000), (124, 33033), (129, 33075), (142, 33201), (143, 33204), (147, 33369), (154, 33486), (156, 33495), (161, 33669), (164, 33774), (170, 33885), (173, 33906), (182, 34029), (183, 34035), (185, 34077), (186, 34095), (194, 34239), (196, 34281), (200, 34386),

Gene: Issimir\_87 Start: 32089, Stop: 35802, Start Num: 1

Candidate Starts for Issimir\_87:

(Start: 1 @32089 has 168 MA's), (3, 32170), (5, 32191), (6, 32215), (8, 32260), (9, 32287), (10, 32290), (11, 32302), (12, 32320), (13, 32323), (22, 32542), (27, 32680), (29, 32767), (32, 32815), (35, 32878), (36, 32908), (38, 32935), (39, 32944), (42, 32962), (43, 32965), (46, 33019), (48, 33085), (65, 33478), (66, 33511), (71, 33631), (80, 33865), (97, 34069), (99, 34072), (105, 34129), (106, 34132), (107, 34144), (110, 34168), (114, 34186), (116, 34189), (118, 34201), (124, 34234), (129, 34276), (142, 34402), (143, 34405), (147, 34570), (154, 34687), (156, 34696), (161, 34870), (164, 34975), (170, 35086), (173, 35107), (182, 35230), (183, 35236), (185, 35278), (186, 35296), (194, 35440), (196, 35482), (200, 35587),

Gene: Izajani\_88 Start: 32162, Stop: 35875, Start Num: 1

Candidate Starts for Izajani\_88:

(Start: 1 @32162 has 168 MA's), (3, 32243), (5, 32264), (6, 32288), (8, 32333), (9, 32360), (10, 32363), (11, 32375), (12, 32393), (13, 32396), (22, 32615), (27, 32753), (29, 32840), (32, 32888), (35, 32951), (36, 32981), (38, 33008), (39, 33017), (42, 33035), (43, 33038), (46, 33092), (48, 33158), (65, 33551), (66, 33584), (71, 33704), (80, 33938), (97, 34142), (99, 34145), (105, 34202), (106, 34205), (107, 34217), (110, 34241), (114, 34259), (116, 34262), (118, 34274), (124, 34307), (129, 34349), (142, 34475), (143, 34478), (147, 34643), (149, 34697), (154, 34760), (156, 34769), (161, 34943), (164, 35048), (170, 35159), (173, 35180), (182, 35303), (183, 35309), (185, 35351), (186, 35369), (194, 35513), (196, 35555), (200, 35660),

Gene: JPickles\_86 Start: 29578, Stop: 33291, Start Num: 1

Candidate Starts for JPickles\_86:

(Start: 1 @29578 has 168 MA's), (3, 29659), (5, 29680), (6, 29704), (8, 29749), (9, 29776), (10, 29779), (11, 29791), (12, 29809), (13, 29812), (22, 30031), (27, 30169), (29, 30256), (32, 30304), (35, 30367), (36, 30397), (38, 30424), (39, 30433), (42, 30451), (43, 30454), (46, 30508), (48, 30574), (65, 30967), (66, 31000), (71, 31120), (80, 31354), (97, 31558), (99, 31561), (105, 31618), (106, 31621), (107, 31633), (110, 31657), (114, 31675), (116, 31678), (118, 31690), (124, 31723), (129, 31765), (142, 31891), (143, 31894), (147, 32059), (149, 32113), (154, 32176), (156, 32185), (161, 32359), (164, 32464), (170, 32575), (173, 32596), (182, 32719), (183, 32725), (185, 32767), (186, 32785), (194, 32929), (196, 32971), (200, 33076),

Gene: Janiyra\_90 Start: 31815, Stop: 35156, Start Num: 1

Candidate Starts for Janiyra\_90:

(Start: 1 @31815 has 168 MA's), (3, 31896), (5, 31917), (6, 31941), (8, 31986), (9, 32013), (10, 32016), (11, 32028), (12, 32046), (13, 32049), (22, 32268), (27, 32406), (29, 32493), (32, 32541), (35, 32604), (36, 32634), (38, 32661), (39, 32670), (43, 32691), (46, 32745), (48, 32811), (65, 33204), (66, 33237), (75, 33483), (80, 33594), (97, 33798), (99, 33801), (105, 33858), (106, 33861), (107, 33873), (110, 33897), (114, 33915), (116, 33918), (118, 33930), (124, 33963), (129, 34005), (147, 34146), (149, 34200), (154, 34260), (156, 34269), (161, 34443), (164, 34548), (170, 34659), (173, 34680), (194, 34815), (196, 34857), (200, 34941),

Gene: JayJay\_90 Start: 32642, Stop: 36355, Start Num: 1

Candidate Starts for JayJay\_90:

(Start: 1 @32642 has 168 MA's), (3, 32723), (5, 32744), (6, 32768), (8, 32813), (9, 32840), (10, 32843), (11, 32855), (12, 32873), (13, 32876), (22, 33095), (27, 33233), (29, 33320), (32, 33368), (35, 33431), (36, 33461), (38, 33488), (39, 33497), (43, 33518), (46, 33572), (48, 33638), (65, 34031), (66, 34064), (71, 34184), (80, 34418), (97, 34622), (99, 34625), (105, 34682), (106, 34685), (107, 34697), (110, 34721), (114, 34739), (116, 34742), (118, 34754), (124, 34787), (129, 34829), (142, 34955), (143, 34958), (147, 35123), (154, 35240), (156, 35249), (161, 35423), (164, 35528), (170, 35639), (173, 35660), (182, 35783), (183, 35789), (185, 35831), (186, 35849), (194, 35993), (196, 36035), (200, 36140),

Gene: Jaygup\_88 Start: 31106, Stop: 34816, Start Num: 1

Candidate Starts for Jaygup\_88:

(Start: 1 @31106 has 168 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (22, 31559), (27, 31697), (29, 31784), (32, 31832), (35, 31895), (36, 31925), (38, 31952), (39, 31961), (43, 31982), (46, 32036), (48, 32102), (65, 32495), (66, 32528), (71, 32648), (80, 32879), (97, 33083), (99, 33086), (105, 33143), (106, 33146), (107, 33158), (110, 33182), (114, 33200), (116, 33203), (118, 33215), (124, 33248), (129, 33290), (142, 33416), (143, 33419), (147, 33584), (154, 33701), (156, 33710), (161, 33884), (164, 33989), (170, 34100), (173, 34121), (182, 34244), (183, 34250), (185, 34292), (186, 34310), (194, 34454), (196, 34496), (200, 34601),

Gene: Jedediah\_91 Start: 31606, Stop: 35316, Start Num: 1

Candidate Starts for Jedediah\_91:

(Start: 1 @31606 has 168 MA's), (3, 31687), (5, 31708), (6, 31732), (8, 31777), (9, 31804), (10, 31807), (11, 31819), (12, 31837), (13, 31840), (22, 32059), (27, 32197), (29, 32284), (32, 32332), (35, 32395), (36, 32425), (38, 32452), (39, 32461), (43, 32482), (46, 32536), (48, 32602), (65, 32995), (66, 33028), (71, 33148), (80, 33379), (97, 33583), (99, 33586), (105, 33643), (106, 33646), (107, 33658), (110, 33682), (114, 33700), (116, 33703), (118, 33715), (124, 33748), (129, 33790), (142, 33916), (143, 33919), (147, 34084), (154, 34201), (156, 34210), (161, 34384), (164, 34489), (170, 34600), (173, 34621), (182, 34744), (183, 34750), (185, 34792), (186, 34810), (194, 34954), (196, 34996), (200, 35101),

Gene: Jemmno\_88 Start: 31056, Stop: 34766, Start Num: 1

Candidate Starts for Jemmno\_88:

(Start: 1 @31056 has 168 MA's), (3, 31137), (5, 31158), (6, 31182), (8, 31227), (9, 31254), (10, 31257), (11, 31269), (12, 31287), (13, 31290), (22, 31509), (27, 31647), (29, 31734), (32, 31782), (35, 31845), (36, 31875), (38, 31902), (39, 31911), (43, 31932), (46, 31986), (48, 32052), (65, 32445), (66, 32478), (71, 32598), (80, 32829), (97, 33033), (99, 33036), (105, 33093), (106, 33096), (107, 33108), (110, 33132), (114, 33150), (116, 33153), (118, 33165), (124, 33198), (129, 33240), (142, 33366), (143, 33369), (147, 33534), (154, 33651), (156, 33660), (161, 33834), (164, 33939), (170, 34050), (173, 34071), (182, 34194), (183, 34200), (185, 34242), (186, 34260), (194, 34404), (196, 34446), (200, 34551),

Gene: Jessibeth14\_87 Start: 31931, Stop: 35644, Start Num: 1

Candidate Starts for Jessibeth14\_87:

(Start: 1 @31931 has 168 MA's), (3, 32012), (5, 32033), (6, 32057), (8, 32102), (9, 32129), (10, 32132), (11, 32144), (12, 32162), (13, 32165), (22, 32384), (27, 32522), (29, 32609), (32, 32657), (35, 32720), (36, 32750), (38, 32777), (39, 32786), (42, 32804), (43, 32807), (46, 32861), (48, 32927), (65, 33320), (66, 33353), (71, 33473), (80, 33707), (97, 33911), (99, 33914), (105, 33971), (106, 33974), (107, 33986), (110, 34010), (114, 34028), (116, 34031), (118, 34043), (124, 34076), (129, 34118), (142, 34244), (143, 34247), (147, 34412), (149, 34466), (154, 34529), (156, 34538), (161, 34712), (164, 34817), (170, 34928), (173, 34949), (182, 35072), (183, 35078), (185, 35120), (186, 35138), (194, 35282), (196, 35324), (200, 35429),

Gene: JulietS\_81 Start: 29410, Stop: 33123, Start Num: 1

Candidate Starts for JulietS\_81:

(Start: 1 @29410 has 168 MA's), (3, 29491), (5, 29512), (6, 29536), (8, 29581), (9, 29608), (10, 29611), (11, 29623), (12, 29641), (13, 29644), (22, 29863), (27, 30001), (29, 30088), (32, 30136), (35, 30199), (36, 30229), (38, 30256), (39, 30265), (43, 30286), (46, 30340), (48, 30406), (65, 30799), (66, 30832), (71, 30952), (80, 31186), (97, 31390), (99, 31393), (105, 31450), (106, 31453), (107, 31465), (110, 31489), (114, 31507), (116, 31510), (118, 31522), (124, 31555), (129, 31597), (142, 31723), (143, 31726), (147, 31891), (154, 32008), (156, 32017), (161, 32191), (164, 32296), (170, 32407), (173, 32428), (182, 32551), (183, 32557), (185, 32599), (186, 32617), (194, 32761), (196, 32803), (200, 32908),

Gene: JustHall\_84 Start: 31428, Stop: 34790, Start Num: 1

Candidate Starts for JustHall\_84:

(Start: 1 @31428 has 168 MA's), (3, 31509), (5, 31530), (6, 31554), (8, 31599), (9, 31626), (10, 31629), (11, 31641), (12, 31659), (13, 31662), (22, 31881), (27, 32019), (29, 32106), (32, 32154), (35, 32217), (36, 32247), (38, 32274), (39, 32283), (43, 32304), (46, 32358), (48, 32424), (64, 32802), (65, 32838), (75, 33114), (80, 33225), (97, 33429), (99, 33432), (105, 33489), (106, 33492), (107, 33504), (110, 33528), (114, 33546), (116, 33549), (118, 33561), (124, 33594), (129, 33636), (147, 33777), (149, 33831), (154, 33894), (156, 33903), (161, 34077), (164, 34182), (170, 34293), (173, 34314), (194, 34449), (196, 34491), (200, 34575),



Gene: Kamryn\_88 Start: 32670, Stop: 36383, Start Num: 1

Candidate Starts for Kamryn\_88:

(Start: 1 @32670 has 168 MA's), (3, 32751), (5, 32772), (6, 32796), (8, 32841), (9, 32868), (10, 32871), (11, 32883), (12, 32901), (13, 32904), (22, 33123), (27, 33261), (29, 33348), (32, 33396), (35, 33459), (36, 33489), (38, 33516), (39, 33525), (42, 33543), (43, 33546), (46, 33600), (48, 33666), (65, 34059), (66, 34092), (71, 34212), (80, 34446), (97, 34650), (99, 34653), (105, 34710), (106, 34713), (107, 34725), (110, 34749), (114, 34767), (116, 34770), (118, 34782), (124, 34815), (129, 34857), (142, 34983), (143, 34986), (147, 35151), (149, 35205), (154, 35268), (156, 35277), (161, 35451), (164, 35556), (170, 35667), (173, 35688), (182, 35811), (183, 35817), (185, 35859), (186, 35877), (194, 36021), (196, 36063), (200, 36168),

Gene: Kboogie\_91 Start: 31097, Stop: 34438, Start Num: 1

Candidate Starts for Kboogie\_91:

(Start: 1 @31097 has 168 MA's), (3, 31178), (5, 31199), (6, 31223), (8, 31268), (9, 31295), (10, 31298), (11, 31310), (12, 31328), (13, 31331), (22, 31550), (27, 31688), (29, 31775), (32, 31823), (35, 31886), (36, 31916), (38, 31943), (39, 31952), (43, 31973), (46, 32027), (48, 32093), (65, 32486), (66, 32519), (75, 32765), (80, 32876), (97, 33080), (99, 33083), (105, 33140), (106, 33143), (107, 33155), (110, 33179), (114, 33197), (116, 33200), (118, 33212), (124, 33245), (129, 33287), (147, 33428), (149, 33482), (154, 33542), (156, 33551), (161, 33725), (164, 33830), (170, 33941), (173, 33962), (194, 34097), (196, 34139), (200, 34223),

Gene: Khaleesi\_87 Start: 31893, Stop: 35606, Start Num: 1

Candidate Starts for Khaleesi\_87:

(Start: 1 @31893 has 168 MA's), (3, 31974), (5, 31995), (6, 32019), (8, 32064), (9, 32091), (10, 32094), (11, 32106), (12, 32124), (13, 32127), (22, 32346), (27, 32484), (29, 32571), (32, 32619), (35, 32682), (36, 32712), (38, 32739), (39, 32748), (42, 32766), (43, 32769), (46, 32823), (48, 32889), (65, 33282), (66, 33315), (71, 33435), (80, 33669), (97, 33873), (99, 33876), (105, 33933), (106, 33936), (107, 33948), (110, 33972), (114, 33990), (116, 33993), (118, 34005), (124, 34038), (129, 34080), (142, 34206), (143, 34209), (147, 34374), (149, 34428), (154, 34491), (156, 34500), (161, 34674), (164, 34779), (170, 34890), (173, 34911), (182, 35034), (183, 35040), (185, 35082), (186, 35100), (194, 35244), (196, 35286), (200, 35391),

Gene: Koguma\_84 Start: 29630, Stop: 33343, Start Num: 1

Candidate Starts for Koguma\_84:

(Start: 1 @29630 has 168 MA's), (3, 29711), (5, 29732), (6, 29756), (8, 29801), (9, 29828), (10, 29831), (11, 29843), (12, 29861), (13, 29864), (22, 30083), (27, 30221), (29, 30308), (32, 30356), (35, 30419), (36, 30449), (38, 30476), (39, 30485), (43, 30506), (46, 30560), (48, 30626), (65, 31019), (66, 31052), (71, 31172), (80, 31406), (97, 31610), (99, 31613), (105, 31670), (106, 31673), (107, 31685), (110, 31709), (114, 31727), (116, 31730), (118, 31742), (124, 31775), (129, 31817), (142, 31943), (143, 31946), (147, 32111), (154, 32228), (156, 32237), (161, 32411), (164, 32516), (170, 32627), (173, 32648), (182, 32771), (183, 32777), (185, 32819), (186, 32837), (194, 32981), (196, 33023), (200, 33128),

Gene: LRRHood\_82 Start: 31449, Stop: 35162, Start Num: 1

Candidate Starts for LRRHood\_82:

(Start: 1 @31449 has 168 MA's), (3, 31530), (5, 31551), (6, 31575), (8, 31620), (9, 31647), (10, 31650), (11, 31662), (12, 31680), (13, 31683), (22, 31902), (27, 32040), (29, 32127), (32, 32175), (35, 32238), (36, 32268), (38, 32295), (39, 32304), (43, 32325), (46, 32379), (48, 32445), (65, 32838), (66, 32871), (71, 32991), (80, 33225), (97, 33429), (99, 33432), (105, 33489), (106, 33492), (107, 33504), (110, 33528), (114, 33546), (116, 33549), (118, 33561), (124, 33594), (129, 33636), (142, 33762), (143, 33765), (147, 33930), (154, 34047), (156, 34056), (161, 34230), (164, 34335), (170, 34446), (173, 34467), (182, 34590), (183, 34596), (185, 34638), (186, 34656), (194, 34800), (196, 34842),

(200, 34947),

Gene: Latch\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Latch\_88:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Lee7\_86 Start: 32146, Stop: 35469, Start Num: 1

Candidate Starts for Lee7\_86:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33520), (66, 33553), (71, 33673), (80, 33904), (97, 34108), (99, 34111), (105, 34168), (106, 34171), (107, 34183), (110, 34207), (114, 34225), (116, 34228), (118, 34240), (124, 34273), (129, 34315), (147, 34456), (149, 34510), (154, 34573), (156, 34582), (161, 34756), (164, 34861), (170, 34972), (173, 34993), (194, 35128), (196, 35170), (200, 35254),

Gene: LifeSavor\_87 Start: 30871, Stop: 34581, Start Num: 1

Candidate Starts for LifeSavor\_87:

(Start: 1 @30871 has 168 MA's), (3, 30952), (5, 30973), (6, 30997), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (22, 31324), (27, 31462), (29, 31549), (32, 31597), (35, 31660), (36, 31690), (38, 31717), (39, 31726), (43, 31747), (46, 31801), (48, 31867), (65, 32260), (66, 32293), (71, 32413), (80, 32644), (97, 32848), (99, 32851), (105, 32908), (106, 32911), (107, 32923), (110, 32947), (114, 32965), (116, 32968), (118, 32980), (124, 33013), (129, 33055), (142, 33181), (143, 33184), (147, 33349), (154, 33466), (156, 33475), (161, 33649), (164, 33754), (170, 33865), (173, 33886), (182, 34009), (183, 34015), (185, 34057), (186, 34075), (194, 34219), (196, 34261), (200, 34366),

Gene: LinStu\_88 Start: 32513, Stop: 36226, Start Num: 1

Candidate Starts for LinStu\_88:

(Start: 1 @32513 has 168 MA's), (3, 32594), (5, 32615), (6, 32639), (8, 32684), (9, 32711), (10, 32714), (11, 32726), (12, 32744), (13, 32747), (22, 32966), (27, 33104), (29, 33191), (32, 33239), (35, 33302), (36, 33332), (38, 33359), (39, 33368), (43, 33389), (46, 33443), (48, 33509), (65, 33902), (66, 33935), (71, 34055), (80, 34289), (97, 34493), (99, 34496), (105, 34553), (106, 34556), (107, 34568), (110, 34592), (114, 34610), (116, 34613), (118, 34625), (124, 34658), (129, 34700), (142, 34826), (143, 34829), (147, 34994), (154, 35111), (156, 35120), (161, 35294), (164, 35399), (170, 35510), (173, 35531), (182, 35654), (183, 35660), (185, 35702), (186, 35720), (194, 35864), (196, 35906), (200, 36011),

Gene: Littleton\_88 Start: 31109, Stop: 34819, Start Num: 1

Candidate Starts for Littleton\_88:

(Start: 1 @31109 has 168 MA's), (3, 31190), (5, 31211), (6, 31235), (8, 31280), (9, 31307), (10, 31310), (11, 31322), (12, 31340), (13, 31343), (22, 31562), (27, 31700), (29, 31787), (32, 31835), (35, 31898), (36, 31928), (38, 31955), (39, 31964), (43, 31985), (46, 32039), (48, 32105), (65, 32498), (66, 32531), (71, 32651), (80, 32882), (97, 33086), (99, 33089), (105, 33146), (106, 33149), (107, 33161), (110, 33185), (114, 33203), (116, 33206), (118, 33218), (124, 33251), (129, 33293), (142, 33419), (143, 33422), (147, 33587), (154, 33704), (156, 33713), (161, 33887), (164, 33992), (170, 34103), (173, 34124), (182, 34247), (183, 34253), (185, 34295), (186, 34313), (194, 34457), (196, 34499),

(200, 34604),

Gene: Loanshark\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Loanshark\_88:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (97, 34126), (99, 34129), (105, 34186), (106, 34189), (107, 34201), (110, 34225), (114, 34243), (116, 34246), (118, 34258), (124, 34291), (129, 34333), (142, 34459), (143, 34462), (147, 34627), (154, 34744), (156, 34753), (161, 34927), (164, 35032), (170, 35143), (173, 35164), (182, 35287), (183, 35293), (185, 35335), (186, 35353), (194, 35497), (196, 35539), (200, 35644),

Gene: LolaVinca\_90 Start: 33306, Stop: 36965, Start Num: 1

Candidate Starts for LolaVinca\_90:

(Start: 1 @33306 has 168 MA's), (3, 33387), (5, 33408), (6, 33432), (8, 33477), (9, 33504), (10, 33507), (11, 33519), (12, 33537), (13, 33540), (22, 33759), (27, 33897), (29, 33984), (32, 34032), (35, 34095), (36, 34125), (38, 34152), (39, 34161), (42, 34179), (43, 34182), (46, 34236), (48, 34302), (65, 34695), (66, 34728), (71, 34848), (75, 34962), (80, 35046), (97, 35250), (99, 35253), (105, 35310), (106, 35313), (107, 35325), (110, 35349), (114, 35367), (116, 35370), (118, 35382), (124, 35415), (129, 35457), (142, 35583), (143, 35586), (147, 35733), (149, 35787), (154, 35850), (156, 35859), (161, 36033), (164, 36138), (170, 36249), (173, 36270), (182, 36393), (183, 36399), (185, 36441), (186, 36459), (194, 36603), (196, 36645), (200, 36750),

Gene: LordLeafolot\_93 Start: 34239, Stop: 37952, Start Num: 1

Candidate Starts for LordLeafolot\_93:

(Start: 1 @34239 has 168 MA's), (3, 34320), (5, 34341), (6, 34365), (8, 34410), (9, 34437), (10, 34440), (11, 34452), (12, 34470), (13, 34473), (22, 34692), (27, 34830), (29, 34917), (32, 34965), (35, 35028), (36, 35058), (38, 35085), (39, 35094), (42, 35112), (43, 35115), (46, 35169), (48, 35235), (65, 35628), (66, 35661), (71, 35781), (80, 36015), (97, 36219), (99, 36222), (105, 36279), (106, 36282), (107, 36294), (110, 36318), (114, 36336), (116, 36339), (118, 36351), (124, 36384), (129, 36426), (142, 36552), (143, 36555), (147, 36720), (149, 36774), (154, 36837), (156, 36846), (161, 37020), (164, 37125), (170, 37236), (173, 37257), (182, 37380), (183, 37386), (185, 37428), (186, 37446), (194, 37590), (196, 37632), (200, 37737),

Gene: Lukilu\_79 Start: 31361, Stop: 34699, Start Num: 1

Candidate Starts for Lukilu\_79:

(Start: 1 @31361 has 168 MA's), (3, 31442), (5, 31463), (6, 31487), (8, 31532), (9, 31559), (10, 31562), (11, 31574), (12, 31592), (13, 31595), (22, 31814), (27, 31952), (29, 32039), (32, 32087), (35, 32150), (36, 32180), (38, 32207), (39, 32216), (42, 32234), (43, 32237), (46, 32291), (48, 32357), (65, 32750), (66, 32783), (71, 32903), (80, 33134), (97, 33338), (99, 33341), (105, 33398), (106, 33401), (107, 33413), (110, 33437), (114, 33455), (116, 33458), (118, 33470), (124, 33503), (129, 33545), (147, 33686), (149, 33740), (154, 33803), (156, 33812), (161, 33986), (164, 34091), (170, 34202), (173, 34223), (194, 34358), (196, 34400), (200, 34484),

Gene: Maby2021\_88 Start: 31827, Stop: 35540, Start Num: 1

Candidate Starts for Maby2021\_88:

(Start: 1 @31827 has 168 MA's), (3, 31908), (5, 31929), (6, 31953), (8, 31998), (9, 32025), (10, 32028), (11, 32040), (12, 32058), (13, 32061), (22, 32280), (27, 32418), (29, 32505), (32, 32553), (35, 32616), (36, 32646), (38, 32673), (39, 32682), (42, 32700), (43, 32703), (46, 32757), (48, 32823), (65, 33216), (66, 33249), (71, 33369), (80, 33603), (97, 33807), (99, 33810), (105, 33867), (106, 33870), (107, 33882), (110, 33906), (114, 33924), (116, 33927), (118, 33939), (124, 33972), (129, 34014), (142, 34140), (143, 34143), (147, 34308), (149, 34362), (154, 34425), (156, 34434), (161, 34608),

(164, 34713), (170, 34824), (173, 34845), (182, 34968), (183, 34974), (185, 35016), (186, 35034),  
(194, 35178), (196, 35220), (200, 35325),

Gene: Mangeria\_88 Start: 32105, Stop: 35821, Start Num: 1

Candidate Starts for Mangeria\_88:

(Start: 1 @32105 has 168 MA's), (3, 32186), (5, 32207), (6, 32231), (8, 32276), (9, 32303), (10, 32306), (11, 32318), (12, 32336), (13, 32339), (22, 32558), (27, 32696), (29, 32783), (32, 32831), (35, 32894), (36, 32924), (38, 32951), (39, 32960), (43, 32981), (46, 33035), (48, 33101), (65, 33494), (66, 33527), (71, 33647), (80, 33878), (97, 34082), (99, 34085), (105, 34142), (106, 34145), (107, 34157), (110, 34181), (114, 34199), (116, 34202), (118, 34214), (124, 34247), (129, 34289), (142, 34415), (143, 34418), (147, 34583), (154, 34700), (156, 34709), (161, 34883), (164, 34988), (170, 35099), (173, 35120), (182, 35243), (183, 35249), (185, 35291), (186, 35309), (194, 35453), (196, 35495), (200, 35606),

Gene: Matsumoto\_86 Start: 31070, Stop: 34780, Start Num: 1

Candidate Starts for Matsumoto\_86:

(Start: 1 @31070 has 168 MA's), (3, 31151), (5, 31172), (6, 31196), (9, 31268), (10, 31271), (11, 31283), (12, 31301), (13, 31304), (22, 31523), (27, 31661), (29, 31748), (32, 31796), (35, 31859), (36, 31889), (38, 31916), (39, 31925), (43, 31946), (46, 32000), (48, 32066), (65, 32459), (66, 32492), (71, 32612), (80, 32843), (97, 33047), (99, 33050), (105, 33107), (106, 33110), (107, 33122), (110, 33146), (114, 33164), (116, 33167), (118, 33179), (124, 33212), (129, 33254), (142, 33380), (143, 33383), (147, 33548), (154, 33665), (156, 33674), (161, 33848), (164, 33953), (170, 34064), (173, 34085), (182, 34208), (183, 34214), (185, 34256), (186, 34274), (194, 34418), (196, 34460), (200, 34565),

Gene: McGee\_89 Start: 30335, Stop: 34048, Start Num: 1

Candidate Starts for McGee\_89:

(Start: 1 @30335 has 168 MA's), (3, 30416), (5, 30437), (6, 30461), (8, 30506), (9, 30533), (10, 30536), (11, 30548), (12, 30566), (13, 30569), (22, 30788), (27, 30926), (29, 31013), (32, 31061), (35, 31124), (36, 31154), (38, 31181), (39, 31190), (42, 31208), (43, 31211), (46, 31265), (48, 31331), (65, 31724), (66, 31757), (71, 31877), (80, 32111), (97, 32315), (99, 32318), (105, 32375), (106, 32378), (107, 32390), (110, 32414), (114, 32432), (116, 32435), (118, 32447), (124, 32480), (129, 32522), (142, 32648), (143, 32651), (147, 32816), (149, 32870), (154, 32933), (156, 32942), (161, 33116), (164, 33221), (170, 33332), (173, 33353), (182, 33476), (183, 33482), (185, 33524), (186, 33542), (194, 33686), (196, 33728), (200, 33833),

Gene: McWolfish\_86 Start: 31574, Stop: 35287, Start Num: 1

Candidate Starts for McWolfish\_86:

(Start: 1 @31574 has 168 MA's), (3, 31655), (5, 31676), (6, 31700), (8, 31745), (9, 31772), (10, 31775), (11, 31787), (12, 31805), (13, 31808), (22, 32027), (27, 32165), (29, 32252), (32, 32300), (35, 32363), (36, 32393), (38, 32420), (39, 32429), (42, 32447), (43, 32450), (46, 32504), (48, 32570), (65, 32963), (66, 32996), (71, 33116), (80, 33350), (97, 33554), (99, 33557), (105, 33614), (106, 33617), (107, 33629), (110, 33653), (114, 33671), (116, 33674), (118, 33686), (124, 33719), (129, 33761), (142, 33887), (143, 33890), (147, 34055), (149, 34109), (154, 34172), (156, 34181), (161, 34355), (164, 34460), (170, 34571), (173, 34592), (182, 34715), (183, 34721), (185, 34763), (186, 34781), (194, 34925), (196, 34967), (200, 35072),

Gene: Megamind\_87 Start: 31812, Stop: 35525, Start Num: 1

Candidate Starts for Megamind\_87:

(Start: 1 @31812 has 168 MA's), (3, 31893), (5, 31914), (6, 31938), (8, 31983), (9, 32010), (10, 32013), (11, 32025), (12, 32043), (13, 32046), (22, 32265), (27, 32403), (29, 32490), (32, 32538), (35, 32601), (36, 32631), (38, 32658), (39, 32667), (42, 32685), (43, 32688), (46, 32742), (48, 32808), (65, 33201), (66, 33234), (71, 33354), (80, 33588), (97, 33792), (99, 33795), (105, 33852), (106, 33855), (107, 33867), (110, 33891), (114, 33909), (116, 33912), (118, 33924), (124, 33957), (129, 33999),

(142, 34125), (143, 34128), (147, 34293), (149, 34347), (154, 34410), (156, 34419), (161, 34593), (164, 34698), (170, 34809), (173, 34830), (182, 34953), (183, 34959), (185, 35001), (186, 35019), (194, 35163), (196, 35205), (200, 35310),

Gene: Melpomini\_82 Start: 29705, Stop: 33067, Start Num: 1

Candidate Starts for Melpomini\_82:

(Start: 1 @29705 has 168 MA's), (3, 29786), (5, 29807), (6, 29831), (8, 29876), (9, 29903), (10, 29906), (11, 29918), (12, 29936), (13, 29939), (22, 30158), (27, 30296), (29, 30383), (32, 30431), (35, 30494), (36, 30524), (38, 30551), (39, 30560), (43, 30581), (46, 30635), (48, 30701), (64, 31079), (65, 31115), (75, 31391), (80, 31502), (97, 31706), (99, 31709), (105, 31766), (106, 31769), (107, 31781), (110, 31805), (114, 31823), (116, 31826), (118, 31838), (124, 31871), (129, 31913), (147, 32054), (149, 32108), (154, 32171), (156, 32180), (161, 32354), (164, 32459), (170, 32570), (173, 32591), (194, 32726), (196, 32768), (200, 32852),

Gene: MikeLiesIn\_89 Start: 32159, Stop: 35872, Start Num: 1

Candidate Starts for MikeLiesIn\_89:

(Start: 1 @32159 has 168 MA's), (3, 32240), (5, 32261), (6, 32285), (8, 32330), (9, 32357), (10, 32360), (11, 32372), (12, 32390), (13, 32393), (22, 32612), (27, 32750), (29, 32837), (32, 32885), (35, 32948), (36, 32978), (38, 33005), (39, 33014), (42, 33032), (43, 33035), (46, 33089), (48, 33155), (65, 33548), (66, 33581), (71, 33701), (80, 33935), (97, 34139), (99, 34142), (105, 34199), (106, 34202), (107, 34214), (110, 34238), (114, 34256), (116, 34259), (118, 34271), (124, 34304), (129, 34346), (142, 34472), (143, 34475), (147, 34640), (149, 34694), (154, 34757), (156, 34766), (161, 34940), (164, 35045), (170, 35156), (173, 35177), (182, 35300), (183, 35306), (185, 35348), (186, 35366), (194, 35510), (196, 35552), (200, 35657),

Gene: Mikro\_86 Start: 33066, Stop: 36779, Start Num: 1

Candidate Starts for Mikro\_86:

(Start: 1 @33066 has 168 MA's), (3, 33147), (5, 33168), (6, 33192), (9, 33264), (10, 33267), (11, 33279), (12, 33297), (13, 33300), (22, 33519), (27, 33657), (29, 33744), (32, 33792), (35, 33855), (36, 33885), (38, 33912), (39, 33921), (43, 33942), (46, 33996), (48, 34062), (65, 34455), (66, 34488), (71, 34608), (80, 34842), (97, 35046), (99, 35049), (105, 35106), (106, 35109), (107, 35121), (110, 35145), (114, 35163), (116, 35166), (118, 35178), (124, 35211), (129, 35253), (142, 35379), (143, 35382), (147, 35547), (149, 35601), (154, 35664), (156, 35673), (161, 35847), (164, 35952), (170, 36063), (173, 36084), (182, 36207), (183, 36213), (185, 36255), (186, 36273), (194, 36417), (196, 36459), (200, 36564),

Gene: MoMoMixon\_89 Start: 32259, Stop: 35618, Start Num: 1

Candidate Starts for MoMoMixon\_89:

(Start: 1 @32259 has 168 MA's), (3, 32340), (5, 32361), (6, 32385), (8, 32430), (9, 32457), (10, 32460), (11, 32472), (12, 32490), (13, 32493), (22, 32712), (27, 32850), (29, 32937), (32, 32985), (35, 33048), (36, 33078), (38, 33105), (39, 33114), (43, 33135), (46, 33189), (48, 33255), (64, 33633), (65, 33669), (75, 33945), (80, 34056), (97, 34260), (99, 34263), (105, 34320), (106, 34323), (107, 34335), (110, 34359), (114, 34377), (116, 34380), (118, 34392), (124, 34425), (129, 34467), (147, 34608), (149, 34662), (154, 34722), (156, 34731), (161, 34905), (164, 35010), (170, 35121), (173, 35142), (194, 35277), (196, 35319), (200, 35403),

Gene: Momo\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Momo\_87:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338),

(142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Morizzled23\_88 Start: 31225, Stop: 34587, Start Num: 1

Candidate Starts for Morizzled23\_88:

(Start: 1 @31225 has 168 MA's), (3, 31306), (5, 31327), (6, 31351), (8, 31396), (9, 31423), (10, 31426), (11, 31438), (12, 31456), (13, 31459), (22, 31678), (27, 31816), (29, 31903), (32, 31951), (35, 32014), (36, 32044), (38, 32071), (39, 32080), (43, 32101), (46, 32155), (48, 32221), (64, 32599), (65, 32635), (75, 32911), (80, 33022), (97, 33226), (99, 33229), (105, 33286), (106, 33289), (107, 33301), (110, 33325), (114, 33343), (116, 33346), (118, 33358), (124, 33391), (129, 33433), (147, 33574), (149, 33628), (154, 33691), (156, 33700), (161, 33874), (164, 33979), (170, 34090), (173, 34111), (194, 34246), (196, 34288), (200, 34372),

Gene: Myrna\_87 Start: 33661, Stop: 37551, Start Num: 2

Candidate Starts for Myrna\_87:

(Start: 2 @33661 has 2 MA's), (7, 33790), (13, 33895), (14, 33916), (15, 33931), (19, 34063), (30, 34345), (31, 34381), (36, 34480), (45, 34585), (66, 35089), (74, 35221), (77, 35311), (79, 35359), (81, 35371), (101, 35614), (124, 35785), (126, 35809), (130, 35848), (131, 35875), (133, 35893), (135, 35917), (136, 35932), (137, 35938), (139, 35959), (140, 36061), (141, 36118), (150, 36403), (154, 36448), (162, 36667), (164, 36733), (167, 36811), (169, 36835), (170, 36847), (172, 36853), (181, 36997), (191, 37153), (199, 37342),

Gene: Naija\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Naija\_87:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Napoleon13\_84 Start: 29954, Stop: 33667, Start Num: 1

Candidate Starts for Napoleon13\_84:

(Start: 1 @29954 has 168 MA's), (3, 30035), (5, 30056), (6, 30080), (8, 30125), (9, 30152), (10, 30155), (11, 30167), (12, 30185), (13, 30188), (22, 30407), (27, 30545), (29, 30632), (32, 30680), (35, 30743), (36, 30773), (38, 30800), (39, 30809), (42, 30827), (43, 30830), (46, 30884), (48, 30950), (65, 31343), (66, 31376), (71, 31496), (80, 31730), (97, 31934), (99, 31937), (105, 31994), (106, 31997), (107, 32009), (110, 32033), (114, 32051), (116, 32054), (118, 32066), (124, 32099), (129, 32141), (142, 32267), (143, 32270), (147, 32435), (149, 32489), (154, 32552), (156, 32561), (161, 32735), (164, 32840), (170, 32951), (173, 32972), (182, 33095), (183, 33101), (185, 33143), (186, 33161), (194, 33305), (196, 33347), (200, 33452),

Gene: Nappy\_89 Start: 32448, Stop: 35960, Start Num: 1

Candidate Starts for Nappy\_89:

(Start: 1 @32448 has 168 MA's), (3, 32529), (5, 32550), (6, 32574), (8, 32619), (9, 32646), (10, 32649), (11, 32661), (12, 32679), (13, 32682), (22, 32901), (27, 33039), (29, 33126), (32, 33174), (35, 33237), (36, 33267), (38, 33294), (39, 33303), (43, 33324), (46, 33378), (48, 33444), (65, 33837), (66, 33870), (71, 33990), (80, 34221), (97, 34425), (99, 34428), (105, 34485), (106, 34488), (107, 34500), (110, 34524), (114, 34542), (116, 34545), (118, 34557), (124, 34590), (129, 34632), (142, 34758), (143, 34761), (147, 34926), (149, 34980), (154, 35043), (156, 35052), (161, 35226), (164, 35331),

(170, 35442), (173, 35463), (194, 35598), (196, 35640), (200, 35745),

Gene: Naval22\_93 Start: 33750, Stop: 37463, Start Num: 1

Candidate Starts for Naval22\_93:

(Start: 1 @33750 has 168 MA's), (3, 33831), (5, 33852), (6, 33876), (8, 33921), (9, 33948), (10, 33951), (11, 33963), (12, 33981), (13, 33984), (22, 34203), (27, 34341), (29, 34428), (32, 34476), (35, 34539), (36, 34569), (38, 34596), (39, 34605), (42, 34623), (43, 34626), (46, 34680), (48, 34746), (65, 35139), (66, 35172), (71, 35292), (80, 35526), (97, 35730), (99, 35733), (105, 35790), (106, 35793), (107, 35805), (110, 35829), (114, 35847), (116, 35850), (118, 35862), (124, 35895), (129, 35937), (142, 36063), (143, 36066), (147, 36231), (149, 36285), (154, 36348), (156, 36357), (161, 36531), (164, 36636), (170, 36747), (173, 36768), (182, 36891), (183, 36897), (185, 36939), (186, 36957), (194, 37101), (196, 37143), (200, 37248),

Gene: NedWong\_89 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for NedWong\_89:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (97, 34126), (99, 34129), (105, 34186), (106, 34189), (107, 34201), (110, 34225), (114, 34243), (116, 34246), (118, 34258), (124, 34291), (129, 34333), (142, 34459), (143, 34462), (147, 34627), (149, 34681), (154, 34744), (156, 34753), (161, 34927), (164, 35032), (170, 35143), (173, 35164), (182, 35287), (183, 35293), (185, 35335), (186, 35353), (194, 35497), (196, 35539), (200, 35644),

Gene: Ngannou\_84 Start: 30133, Stop: 33846, Start Num: 1

Candidate Starts for Ngannou\_84:

(Start: 1 @30133 has 168 MA's), (3, 30214), (5, 30235), (6, 30259), (8, 30304), (9, 30331), (10, 30334), (11, 30346), (12, 30364), (13, 30367), (22, 30586), (27, 30724), (29, 30811), (32, 30859), (35, 30922), (36, 30952), (38, 30979), (39, 30988), (42, 31006), (43, 31009), (46, 31063), (48, 31129), (65, 31522), (66, 31555), (71, 31675), (80, 31909), (97, 32113), (99, 32116), (105, 32173), (106, 32176), (107, 32188), (110, 32212), (114, 32230), (116, 32233), (118, 32245), (124, 32278), (129, 32320), (142, 32446), (143, 32449), (147, 32614), (149, 32668), (154, 32731), (156, 32740), (161, 32914), (164, 33019), (170, 33130), (173, 33151), (182, 33274), (183, 33280), (185, 33322), (186, 33340), (194, 33484), (196, 33526), (200, 33631),

Gene: Nidhogg\_89 Start: 32000, Stop: 35713, Start Num: 1

Candidate Starts for Nidhogg\_89:

(Start: 1 @32000 has 168 MA's), (3, 32081), (5, 32102), (6, 32126), (8, 32171), (9, 32198), (10, 32201), (11, 32213), (12, 32231), (13, 32234), (22, 32453), (27, 32591), (29, 32678), (32, 32726), (35, 32789), (36, 32819), (38, 32846), (39, 32855), (42, 32873), (43, 32876), (46, 32930), (48, 32996), (65, 33389), (66, 33422), (71, 33542), (80, 33776), (97, 33980), (99, 33983), (105, 34040), (106, 34043), (107, 34055), (110, 34079), (114, 34097), (116, 34100), (118, 34112), (124, 34145), (129, 34187), (142, 34313), (143, 34316), (147, 34481), (149, 34535), (154, 34598), (156, 34607), (161, 34781), (164, 34886), (170, 34997), (173, 35018), (182, 35141), (183, 35147), (185, 35189), (186, 35207), (194, 35351), (196, 35393), (200, 35498),

Gene: NoodleTree\_96 Start: 33177, Stop: 36890, Start Num: 1

Candidate Starts for NoodleTree\_96:

(Start: 1 @33177 has 168 MA's), (3, 33258), (5, 33279), (6, 33303), (8, 33348), (9, 33375), (10, 33378), (11, 33390), (12, 33408), (13, 33411), (22, 33630), (27, 33768), (29, 33855), (32, 33903), (35, 33966), (36, 33996), (38, 34023), (39, 34032), (42, 34050), (43, 34053), (46, 34107), (48, 34173), (65, 34566), (66, 34599), (71, 34719), (80, 34953), (97, 35157), (99, 35160), (105, 35217), (106, 35220), (107, 35232), (110, 35256), (114, 35274), (116, 35277), (118, 35289), (124, 35322), (129, 35364),

(142, 35490), (143, 35493), (147, 35658), (149, 35712), (154, 35775), (156, 35784), (161, 35958), (164, 36063), (170, 36174), (173, 36195), (182, 36318), (183, 36324), (185, 36366), (186, 36384), (194, 36528), (196, 36570), (200, 36675),

Gene: Norm\_89 Start: 32148, Stop: 35861, Start Num: 1

Candidate Starts for Norm\_89:

(Start: 1 @32148 has 168 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (22, 32601), (27, 32739), (29, 32826), (32, 32874), (35, 32937), (36, 32967), (38, 32994), (39, 33003), (42, 33021), (43, 33024), (46, 33078), (48, 33144), (65, 33537), (66, 33570), (71, 33690), (80, 33924), (97, 34128), (99, 34131), (105, 34188), (106, 34191), (107, 34203), (110, 34227), (114, 34245), (116, 34248), (118, 34260), (124, 34293), (129, 34335), (142, 34461), (143, 34464), (147, 34629), (149, 34683), (154, 34746), (156, 34755), (161, 34929), (164, 35034), (170, 35145), (173, 35166), (182, 35289), (183, 35295), (185, 35337), (186, 35355), (194, 35499), (196, 35541), (200, 35646),

Gene: NuevoMundo\_94 Start: 34107, Stop: 37820, Start Num: 1

Candidate Starts for NuevoMundo\_94:

(Start: 1 @34107 has 168 MA's), (3, 34188), (5, 34209), (6, 34233), (8, 34278), (9, 34305), (10, 34308), (11, 34320), (12, 34338), (13, 34341), (22, 34560), (27, 34698), (29, 34785), (32, 34833), (35, 34896), (36, 34926), (38, 34953), (39, 34962), (42, 34980), (43, 34983), (46, 35037), (48, 35103), (65, 35496), (66, 35529), (71, 35649), (80, 35883), (97, 36087), (99, 36090), (105, 36147), (106, 36150), (107, 36162), (110, 36186), (114, 36204), (116, 36207), (118, 36219), (124, 36252), (129, 36294), (142, 36420), (143, 36423), (147, 36588), (149, 36642), (154, 36705), (156, 36714), (161, 36888), (164, 36993), (170, 37104), (173, 37125), (182, 37248), (183, 37254), (185, 37296), (186, 37314), (194, 37458), (196, 37500), (200, 37605),

Gene: ParkTD\_89 Start: 32142, Stop: 35855, Start Num: 1

Candidate Starts for ParkTD\_89:

(Start: 1 @32142 has 168 MA's), (3, 32223), (5, 32244), (6, 32268), (8, 32313), (9, 32340), (10, 32343), (11, 32355), (12, 32373), (13, 32376), (22, 32595), (27, 32733), (29, 32820), (32, 32868), (35, 32931), (36, 32961), (38, 32988), (39, 32997), (42, 33015), (43, 33018), (46, 33072), (48, 33138), (65, 33531), (66, 33564), (71, 33684), (80, 33918), (97, 34122), (99, 34125), (105, 34182), (106, 34185), (107, 34197), (110, 34221), (114, 34239), (116, 34242), (118, 34254), (124, 34287), (129, 34329), (142, 34455), (143, 34458), (147, 34623), (149, 34677), (154, 34740), (156, 34749), (161, 34923), (164, 35028), (170, 35139), (173, 35160), (182, 35283), (183, 35289), (185, 35331), (186, 35349), (194, 35493), (196, 35535), (200, 35640),

Gene: Patter\_88 Start: 31168, Stop: 34881, Start Num: 1

Candidate Starts for Patter\_88:

(Start: 1 @31168 has 168 MA's), (3, 31249), (5, 31270), (6, 31294), (8, 31339), (9, 31366), (10, 31369), (11, 31381), (12, 31399), (13, 31402), (22, 31621), (27, 31759), (29, 31846), (32, 31894), (35, 31957), (36, 31987), (38, 32014), (39, 32023), (42, 32041), (43, 32044), (46, 32098), (48, 32164), (65, 32557), (66, 32590), (71, 32710), (80, 32944), (97, 33148), (99, 33151), (105, 33208), (106, 33211), (107, 33223), (110, 33247), (114, 33265), (116, 33268), (118, 33280), (124, 33313), (129, 33355), (142, 33481), (143, 33484), (147, 33649), (149, 33703), (154, 33766), (156, 33775), (161, 33949), (164, 34054), (170, 34165), (173, 34186), (182, 34309), (183, 34315), (185, 34357), (186, 34375), (194, 34519), (196, 34561), (200, 34666),

Gene: Phabba\_92 Start: 33179, Stop: 36631, Start Num: 2

Candidate Starts for Phabba\_92:

(Start: 2 @33179 has 2 MA's), (7, 33308), (9, 33377), (13, 33413), (14, 33434), (15, 33449), (19, 33584), (30, 33731), (31, 33767), (40, 33908), (58, 34295), (66, 34499), (68, 34571), (74, 34631), (77, 34721), (79, 34769), (81, 34781), (87, 34883), (88, 34889), (90, 34910), (91, 34916), (124, 35183),



(126, 35207), (130, 35246), (131, 35273), (133, 35291), (135, 35315), (138, 35351), (155, 35687), (158, 35825), (162, 35903), (164, 35969), (167, 36047), (169, 36071), (170, 36083), (172, 36089), (181, 36233), (199, 36425),

Gene: Phlegm\_90 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Phlegm\_90:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Phox\_85 Start: 32036, Stop: 35746, Start Num: 1

Candidate Starts for Phox\_85:

(Start: 1 @32036 has 168 MA's), (3, 32117), (5, 32138), (6, 32162), (8, 32207), (9, 32234), (10, 32237), (11, 32249), (12, 32267), (13, 32270), (22, 32489), (27, 32627), (29, 32714), (32, 32762), (35, 32825), (36, 32855), (38, 32882), (39, 32891), (43, 32912), (46, 32966), (48, 33032), (64, 33380), (65, 33416), (75, 33692), (80, 33803), (97, 34007), (99, 34010), (105, 34067), (106, 34070), (107, 34082), (110, 34106), (114, 34124), (116, 34127), (118, 34139), (124, 34172), (129, 34214), (142, 34340), (143, 34343), (147, 34508), (154, 34625), (156, 34634), (161, 34808), (164, 34913), (170, 35024), (173, 35045), (175, 35108), (179, 35174), (180, 35180), (187, 35273), (194, 35405), (196, 35447), (200, 35531),

Gene: Phrappuccino\_44 Start: 23839, Stop: 26178, Start Num: 44

Candidate Starts for Phrappuccino\_44:

(Start: 44 @23839 has 2 MA's), (47, 23869), (49, 23968), (52, 24025), (54, 24067), (55, 24070), (56, 24079), (59, 24151), (67, 24334), (70, 24418), (72, 24454), (73, 24472), (83, 24724), (84, 24742), (85, 24745), (89, 24793), (91, 24814), (92, 24817), (94, 24856), (96, 24877), (99, 24886), (100, 24898), (102, 24919), (103, 24931), (104, 24940), (106, 24952), (107, 24964), (108, 24973), (109, 24985), (112, 24997), (115, 25006), (117, 25018), (119, 25027), (121, 25054), (122, 25057), (125, 25090), (144, 25309), (145, 25408), (146, 25423), (148, 25492), (152, 25561), (153, 25564), (159, 25747), (163, 25876), (165, 25927), (168, 25978), (176, 26098), (177, 26107),

Gene: Phusco\_88 Start: 31919, Stop: 35629, Start Num: 1

Candidate Starts for Phusco\_88:

(Start: 1 @31919 has 168 MA's), (3, 32000), (5, 32021), (6, 32045), (8, 32090), (9, 32117), (10, 32120), (11, 32132), (12, 32150), (13, 32153), (22, 32372), (27, 32510), (29, 32597), (32, 32645), (35, 32708), (36, 32738), (38, 32765), (39, 32774), (43, 32795), (46, 32849), (48, 32915), (65, 33308), (66, 33341), (71, 33461), (80, 33692), (97, 33896), (99, 33899), (105, 33956), (106, 33959), (107, 33971), (110, 33995), (114, 34013), (116, 34016), (118, 34028), (124, 34061), (129, 34103), (142, 34229), (143, 34232), (147, 34397), (154, 34514), (156, 34523), (161, 34697), (164, 34802), (170, 34913), (173, 34934), (182, 35057), (183, 35063), (185, 35105), (186, 35123), (194, 35267), (196, 35309), (200, 35414),

Gene: Pier\_92 Start: 32339, Stop: 36052, Start Num: 1

Candidate Starts for Pier\_92:

(Start: 1 @32339 has 168 MA's), (3, 32420), (5, 32441), (6, 32465), (9, 32537), (10, 32540), (11, 32552), (12, 32570), (13, 32573), (22, 32792), (27, 32930), (29, 33017), (32, 33065), (35, 33128), (36, 33158), (38, 33185), (39, 33194), (42, 33212), (43, 33215), (46, 33269), (48, 33335), (65, 33728), (66, 33761), (71, 33881), (80, 34115), (97, 34319), (99, 34322), (105, 34379), (106, 34382), (107, 34394),

(110, 34418), (114, 34436), (116, 34439), (118, 34451), (124, 34484), (129, 34526), (142, 34652), (143, 34655), (147, 34820), (149, 34874), (154, 34937), (156, 34946), (161, 35120), (164, 35225), (170, 35336), (173, 35357), (182, 35480), (183, 35486), (185, 35528), (186, 35546), (194, 35690), (196, 35732), (200, 35837),

Gene: Pinkcreek\_79 Start: 29119, Stop: 32829, Start Num: 1

Candidate Starts for Pinkcreek\_79:

(Start: 1 @29119 has 168 MA's), (3, 29200), (5, 29221), (6, 29245), (8, 29290), (9, 29317), (10, 29320), (11, 29332), (12, 29350), (13, 29353), (22, 29572), (27, 29710), (29, 29797), (32, 29845), (35, 29908), (36, 29938), (38, 29965), (39, 29974), (43, 29995), (46, 30049), (48, 30115), (64, 30463), (65, 30499), (75, 30775), (80, 30886), (97, 31090), (99, 31093), (105, 31150), (106, 31153), (107, 31165), (110, 31189), (114, 31207), (116, 31210), (118, 31222), (124, 31255), (129, 31297), (142, 31423), (143, 31426), (147, 31591), (154, 31708), (156, 31717), (161, 31891), (164, 31996), (170, 32107), (173, 32128), (175, 32191), (179, 32257), (180, 32263), (187, 32356), (194, 32488), (196, 32530), (200, 32614),

Gene: Pio\_92 Start: 33075, Stop: 36788, Start Num: 1

Candidate Starts for Pio\_92:

(Start: 1 @33075 has 168 MA's), (3, 33156), (5, 33177), (6, 33201), (8, 33246), (9, 33273), (10, 33276), (11, 33288), (12, 33306), (13, 33309), (22, 33528), (27, 33666), (29, 33753), (32, 33801), (35, 33864), (36, 33894), (38, 33921), (39, 33930), (42, 33948), (43, 33951), (46, 34005), (48, 34071), (65, 34464), (66, 34497), (71, 34617), (80, 34851), (97, 35055), (99, 35058), (105, 35115), (106, 35118), (107, 35130), (110, 35154), (114, 35172), (116, 35175), (118, 35187), (124, 35220), (129, 35262), (142, 35388), (143, 35391), (147, 35556), (149, 35610), (154, 35673), (156, 35682), (161, 35856), (164, 35961), (170, 36072), (173, 36093), (182, 36216), (183, 36222), (185, 36264), (186, 36282), (194, 36426), (196, 36468), (200, 36573),

Gene: Pivoine\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Pivoine\_87:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Pleione\_91 Start: 32145, Stop: 35858, Start Num: 1

Candidate Starts for Pleione\_91:

(Start: 1 @32145 has 168 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (22, 32598), (27, 32736), (29, 32823), (32, 32871), (35, 32934), (36, 32964), (38, 32991), (39, 33000), (42, 33018), (43, 33021), (46, 33075), (48, 33141), (65, 33534), (66, 33567), (71, 33687), (80, 33921), (97, 34125), (99, 34128), (105, 34185), (106, 34188), (107, 34200), (110, 34224), (114, 34242), (116, 34245), (118, 34257), (124, 34290), (129, 34332), (142, 34458), (143, 34461), (147, 34626), (149, 34680), (154, 34743), (156, 34752), (161, 34926), (164, 35031), (170, 35142), (173, 35163), (182, 35286), (183, 35292), (185, 35334), (186, 35352), (194, 35496), (196, 35538), (200, 35643),

Gene: Pupper\_86 Start: 33513, Stop: 36311, Start Num: 16

Candidate Starts for Pupper\_86:

(Start: 16 @33513 has 4 MA's), (18, 33594), (20, 33606), (23, 33684), (24, 33747), (26, 33756), (39, 33768), (Start: 44 @33831 has 2 MA's), (50, 33990), (51, 33996), (57, 34101), (80, 34590), (81,

34593), (82, 34626), (107, 34863), (110, 34887), (113, 34899), (128, 34983), (132, 35034), (166, 35625), (167, 35631), (171, 35670), (172, 35673), (178, 35769), (190, 35913), (195, 35985), (197, 36054), (198, 36075), (201, 36114), (203, 36210), (204, 36225),

Gene: PurduePete\_88 Start: 32190, Stop: 35903, Start Num: 1

Candidate Starts for PurduePete\_88:

(Start: 1 @32190 has 168 MA's), (3, 32271), (5, 32292), (6, 32316), (8, 32361), (9, 32388), (10, 32391), (11, 32403), (12, 32421), (13, 32424), (22, 32643), (27, 32781), (29, 32868), (32, 32916), (35, 32979), (36, 33009), (38, 33036), (39, 33045), (42, 33063), (43, 33066), (46, 33120), (48, 33186), (65, 33579), (66, 33612), (71, 33732), (80, 33966), (97, 34170), (99, 34173), (105, 34230), (106, 34233), (107, 34245), (110, 34269), (114, 34287), (116, 34290), (118, 34302), (124, 34335), (129, 34377), (142, 34503), (143, 34506), (147, 34671), (149, 34725), (154, 34788), (156, 34797), (161, 34971), (164, 35076), (170, 35187), (173, 35208), (182, 35331), (183, 35337), (185, 35379), (186, 35397), (194, 35541), (196, 35583), (200, 35688),

Gene: QBert\_82 Start: 31642, Stop: 35355, Start Num: 1

Candidate Starts for QBert\_82:

(Start: 1 @31642 has 168 MA's), (3, 31723), (5, 31744), (6, 31768), (8, 31813), (9, 31840), (10, 31843), (11, 31855), (12, 31873), (13, 31876), (22, 32095), (27, 32233), (29, 32320), (32, 32368), (35, 32431), (36, 32461), (38, 32488), (39, 32497), (43, 32518), (46, 32572), (48, 32638), (65, 33031), (66, 33064), (71, 33184), (80, 33418), (97, 33622), (99, 33625), (105, 33682), (106, 33685), (107, 33697), (110, 33721), (114, 33739), (116, 33742), (118, 33754), (124, 33787), (129, 33829), (142, 33955), (143, 33958), (147, 34123), (154, 34240), (156, 34249), (161, 34423), (164, 34528), (170, 34639), (173, 34660), (182, 34783), (183, 34789), (185, 34831), (186, 34849), (194, 34993), (196, 35035), (200, 35140),

Gene: Quasimodo\_88 Start: 32074, Stop: 35415, Start Num: 1

Candidate Starts for Quasimodo\_88:

(Start: 1 @32074 has 168 MA's), (3, 32155), (5, 32176), (6, 32200), (8, 32245), (9, 32272), (10, 32275), (11, 32287), (12, 32305), (13, 32308), (22, 32527), (27, 32665), (29, 32752), (32, 32800), (35, 32863), (36, 32893), (38, 32920), (39, 32929), (43, 32950), (46, 33004), (48, 33070), (65, 33463), (66, 33496), (75, 33742), (80, 33853), (97, 34057), (99, 34060), (105, 34117), (106, 34120), (107, 34132), (110, 34156), (114, 34174), (116, 34177), (118, 34189), (124, 34222), (129, 34264), (147, 34405), (149, 34459), (154, 34519), (156, 34528), (161, 34702), (164, 34807), (170, 34918), (173, 34939), (194, 35074), (196, 35116), (200, 35200),

Gene: Rabinovish\_85 Start: 32386, Stop: 35718, Start Num: 1

Candidate Starts for Rabinovish\_85:

(Start: 1 @32386 has 168 MA's), (3, 32467), (5, 32488), (6, 32512), (8, 32557), (9, 32584), (10, 32587), (11, 32599), (12, 32617), (13, 32620), (22, 32839), (27, 32977), (29, 33064), (32, 33112), (35, 33175), (36, 33205), (38, 33232), (39, 33241), (43, 33262), (46, 33316), (48, 33382), (64, 33730), (65, 33766), (75, 34042), (80, 34153), (97, 34357), (99, 34360), (105, 34417), (106, 34420), (107, 34432), (110, 34456), (114, 34474), (116, 34477), (118, 34489), (124, 34522), (129, 34564), (147, 34705), (149, 34759), (154, 34822), (156, 34831), (161, 35005), (164, 35110), (170, 35221), (173, 35242), (194, 35377), (196, 35419), (200, 35503),

Gene: Rahel\_87 Start: 30707, Stop: 34417, Start Num: 1

Candidate Starts for Rahel\_87:

(Start: 1 @30707 has 168 MA's), (3, 30788), (5, 30809), (6, 30833), (8, 30878), (9, 30905), (10, 30908), (11, 30920), (12, 30938), (13, 30941), (22, 31160), (27, 31298), (29, 31385), (32, 31433), (35, 31496), (36, 31526), (38, 31553), (39, 31562), (43, 31583), (46, 31637), (48, 31703), (65, 32096), (66, 32129), (71, 32249), (80, 32480), (97, 32684), (99, 32687), (105, 32744), (106, 32747), (107, 32759), (110, 32783), (114, 32801), (116, 32804), (118, 32816), (124, 32849), (129, 32891), (142, 33017),

(143, 33020), (147, 33185), (154, 33302), (156, 33311), (161, 33485), (164, 33590), (170, 33701), (173, 33722), (182, 33845), (183, 33851), (185, 33893), (186, 33911), (194, 34055), (196, 34097), (200, 34202),

Gene: Rizal\_86 Start: 31063, Stop: 34776, Start Num: 1

Candidate Starts for Rizal\_86:

(Start: 1 @31063 has 168 MA's), (3, 31144), (5, 31165), (6, 31189), (8, 31234), (9, 31261), (10, 31264), (11, 31276), (12, 31294), (13, 31297), (22, 31516), (27, 31654), (29, 31741), (32, 31789), (35, 31852), (36, 31882), (38, 31909), (39, 31918), (42, 31936), (43, 31939), (46, 31993), (48, 32059), (65, 32452), (66, 32485), (71, 32605), (80, 32839), (97, 33043), (99, 33046), (105, 33103), (106, 33106), (107, 33118), (110, 33142), (114, 33160), (116, 33163), (118, 33175), (124, 33208), (129, 33250), (142, 33376), (143, 33379), (147, 33544), (149, 33598), (154, 33661), (156, 33670), (161, 33844), (164, 33949), (170, 34060), (173, 34081), (182, 34204), (183, 34210), (185, 34252), (186, 34270), (194, 34414), (196, 34456), (200, 34561),

Gene: RoMag\_83 Start: 31501, Stop: 35214, Start Num: 1

Candidate Starts for RoMag\_83:

(Start: 1 @31501 has 168 MA's), (3, 31582), (5, 31603), (6, 31627), (9, 31699), (10, 31702), (11, 31714), (12, 31732), (13, 31735), (22, 31954), (27, 32092), (29, 32179), (32, 32227), (35, 32290), (36, 32320), (38, 32347), (39, 32356), (43, 32377), (46, 32431), (48, 32497), (65, 32890), (66, 32923), (71, 33043), (80, 33277), (97, 33481), (99, 33484), (105, 33541), (106, 33544), (107, 33556), (110, 33580), (114, 33598), (116, 33601), (118, 33613), (124, 33646), (129, 33688), (142, 33814), (143, 33817), (147, 33982), (149, 34036), (154, 34099), (156, 34108), (161, 34282), (164, 34387), (170, 34498), (173, 34519), (182, 34642), (183, 34648), (185, 34690), (186, 34708), (194, 34852), (196, 34894), (200, 34999),

Gene: Ronan\_81 Start: 28948, Stop: 32661, Start Num: 1

Candidate Starts for Ronan\_81:

(Start: 1 @28948 has 168 MA's), (3, 29029), (5, 29050), (6, 29074), (8, 29119), (9, 29146), (10, 29149), (11, 29161), (12, 29179), (13, 29182), (22, 29401), (27, 29539), (29, 29626), (32, 29674), (35, 29737), (36, 29767), (38, 29794), (39, 29803), (43, 29824), (46, 29878), (48, 29944), (65, 30337), (66, 30370), (71, 30490), (80, 30724), (97, 30928), (99, 30931), (105, 30988), (106, 30991), (107, 31003), (110, 31027), (114, 31045), (116, 31048), (118, 31060), (124, 31093), (129, 31135), (142, 31261), (143, 31264), (147, 31429), (154, 31546), (156, 31555), (161, 31729), (164, 31834), (170, 31945), (173, 31966), (182, 32089), (183, 32095), (185, 32137), (186, 32155), (194, 32299), (196, 32341), (200, 32446),

Gene: Roots515\_87 Start: 31568, Stop: 35281, Start Num: 1

Candidate Starts for Roots515\_87:

(Start: 1 @31568 has 168 MA's), (3, 31649), (5, 31670), (6, 31694), (8, 31739), (9, 31766), (10, 31769), (11, 31781), (12, 31799), (13, 31802), (22, 32021), (27, 32159), (29, 32246), (32, 32294), (35, 32357), (36, 32387), (38, 32414), (39, 32423), (42, 32441), (43, 32444), (46, 32498), (48, 32564), (65, 32957), (66, 32990), (71, 33110), (80, 33344), (97, 33548), (99, 33551), (105, 33608), (106, 33611), (107, 33623), (110, 33647), (114, 33665), (116, 33668), (118, 33680), (124, 33713), (129, 33755), (142, 33881), (143, 33884), (147, 34049), (149, 34103), (154, 34166), (156, 34175), (161, 34349), (164, 34454), (170, 34565), (173, 34586), (182, 34709), (183, 34715), (185, 34757), (186, 34775), (194, 34919), (196, 34961), (200, 35066),

Gene: SCentae\_84 Start: 33187, Stop: 35985, Start Num: 16

Candidate Starts for SCentae\_84:

(Start: 16 @33187 has 4 MA's), (18, 33268), (20, 33280), (23, 33358), (24, 33421), (26, 33430), (39, 33442), (Start: 44 @33505 has 2 MA's), (50, 33664), (51, 33670), (57, 33775), (80, 34264), (81, 34267), (82, 34300), (107, 34537), (110, 34561), (113, 34573), (128, 34657), (132, 34708), (166,

35299), (167, 35305), (171, 35344), (172, 35347), (178, 35443), (190, 35587), (195, 35659), (197, 35728), (198, 35749), (201, 35788), (203, 35884), (204, 35899),

Gene: Salacia\_92 Start: 32263, Stop: 35973, Start Num: 1

Candidate Starts for Salacia\_92:

(Start: 1 @32263 has 168 MA's), (3, 32344), (5, 32365), (6, 32389), (8, 32434), (9, 32461), (10, 32464), (11, 32476), (12, 32494), (13, 32497), (22, 32716), (27, 32854), (29, 32941), (32, 32989), (35, 33052), (36, 33082), (38, 33109), (39, 33118), (43, 33139), (46, 33193), (48, 33259), (65, 33652), (66, 33685), (71, 33805), (80, 34036), (97, 34240), (99, 34243), (105, 34300), (106, 34303), (107, 34315), (110, 34339), (114, 34357), (116, 34360), (118, 34372), (124, 34405), (129, 34447), (142, 34573), (143, 34576), (147, 34741), (154, 34858), (156, 34867), (161, 35041), (164, 35146), (170, 35257), (173, 35278), (182, 35401), (183, 35407), (185, 35449), (186, 35467), (194, 35611), (196, 35653), (200, 35758),

Gene: Sauce\_88 Start: 30996, Stop: 34709, Start Num: 1

Candidate Starts for Sauce\_88:

(Start: 1 @30996 has 168 MA's), (3, 31077), (5, 31098), (6, 31122), (8, 31167), (9, 31194), (10, 31197), (11, 31209), (12, 31227), (13, 31230), (22, 31449), (27, 31587), (29, 31674), (32, 31722), (35, 31785), (36, 31815), (38, 31842), (39, 31851), (43, 31872), (46, 31926), (48, 31992), (65, 32385), (66, 32418), (71, 32538), (80, 32772), (97, 32976), (99, 32979), (105, 33036), (106, 33039), (107, 33051), (110, 33075), (114, 33093), (116, 33096), (118, 33108), (124, 33141), (129, 33183), (142, 33309), (143, 33312), (147, 33477), (154, 33594), (156, 33603), (161, 33777), (164, 33882), (170, 33993), (173, 34014), (182, 34137), (183, 34143), (185, 34185), (186, 34203), (194, 34347), (196, 34389), (200, 34494),

Gene: ScoobyDoobyDoo\_81 Start: 30092, Stop: 33598, Start Num: 1

Candidate Starts for ScoobyDoobyDoo\_81:

(Start: 1 @30092 has 168 MA's), (4, 30185), (7, 30221), (12, 30323), (13, 30326), (14, 30347), (17, 30461), (28, 30587), (30, 30620), (34, 30716), (37, 30761), (45, 30860), (60, 31235), (69, 31484), (74, 31667), (76, 31739), (77, 31757), (79, 31805), (86, 31898), (93, 31970), (95, 32015), (98, 32030), (123, 32210), (124, 32222), (126, 32246), (131, 32312), (135, 32354), (136, 32369), (137, 32375), (155, 32738), (157, 32789), (162, 32954), (164, 33020), (167, 33098), (169, 33122), (170, 33134), (172, 33140), (181, 33254), (199, 33389),

Gene: ScottMcG\_85 Start: 31500, Stop: 34862, Start Num: 1

Candidate Starts for ScottMcG\_85:

(Start: 1 @31500 has 168 MA's), (3, 31581), (5, 31602), (6, 31626), (8, 31671), (9, 31698), (10, 31701), (11, 31713), (12, 31731), (13, 31734), (22, 31953), (27, 32091), (29, 32178), (32, 32226), (35, 32289), (36, 32319), (38, 32346), (39, 32355), (43, 32376), (46, 32430), (48, 32496), (64, 32874), (65, 32910), (75, 33186), (80, 33297), (97, 33501), (99, 33504), (105, 33561), (106, 33564), (107, 33576), (110, 33600), (114, 33618), (116, 33621), (118, 33633), (124, 33666), (129, 33708), (147, 33849), (149, 33903), (154, 33966), (156, 33975), (161, 34149), (164, 34254), (170, 34365), (173, 34386), (194, 34521), (196, 34563), (200, 34647),

Gene: Sebata\_89 Start: 32632, Stop: 36345, Start Num: 1

Candidate Starts for Sebata\_89:

(Start: 1 @32632 has 168 MA's), (3, 32713), (5, 32734), (6, 32758), (8, 32803), (9, 32830), (10, 32833), (11, 32845), (12, 32863), (13, 32866), (22, 33085), (27, 33223), (29, 33310), (32, 33358), (35, 33421), (36, 33451), (38, 33478), (39, 33487), (43, 33508), (46, 33562), (48, 33628), (65, 34021), (66, 34054), (71, 34174), (80, 34408), (97, 34612), (99, 34615), (105, 34672), (106, 34675), (107, 34687), (110, 34711), (114, 34729), (116, 34732), (118, 34744), (124, 34777), (129, 34819), (142, 34945), (143, 34948), (147, 35113), (154, 35230), (156, 35239), (161, 35413), (164, 35518), (170, 35629), (173, 35650), (182, 35773), (183, 35779), (185, 35821), (186, 35839), (194, 35983), (196, 36025),

(200, 36130),

Gene: Settecandela\_44 Start: 23839, Stop: 26178, Start Num: 44

Candidate Starts for Settecandela\_44:

(Start: 44 @23839 has 2 MA's), (47, 23869), (49, 23968), (52, 24025), (54, 24067), (55, 24070), (56, 24079), (59, 24151), (67, 24334), (70, 24418), (72, 24454), (73, 24472), (83, 24724), (84, 24742), (85, 24745), (89, 24793), (91, 24814), (92, 24817), (94, 24856), (96, 24877), (99, 24886), (100, 24898), (102, 24919), (103, 24931), (104, 24940), (106, 24952), (107, 24964), (108, 24973), (109, 24985), (112, 24997), (115, 25006), (117, 25018), (119, 25027), (121, 25054), (122, 25057), (125, 25090), (144, 25309), (145, 25408), (146, 25423), (148, 25492), (152, 25561), (153, 25564), (159, 25747), (163, 25876), (165, 25927), (168, 25978), (176, 26098), (177, 26107),

Gene: Shaqnato\_80 Start: 29871, Stop: 33584, Start Num: 1

Candidate Starts for Shaqnato\_80:

(Start: 1 @29871 has 168 MA's), (3, 29952), (5, 29973), (6, 29997), (8, 30042), (9, 30069), (10, 30072), (11, 30084), (12, 30102), (13, 30105), (22, 30324), (27, 30462), (29, 30549), (32, 30597), (35, 30660), (36, 30690), (38, 30717), (39, 30726), (43, 30747), (46, 30801), (48, 30867), (65, 31260), (66, 31293), (71, 31413), (80, 31647), (97, 31851), (99, 31854), (105, 31911), (106, 31914), (107, 31926), (110, 31950), (114, 31968), (116, 31971), (118, 31983), (124, 32016), (129, 32058), (142, 32184), (143, 32187), (147, 32352), (154, 32469), (156, 32478), (161, 32652), (164, 32757), (170, 32868), (173, 32889), (182, 33012), (183, 33018), (185, 33060), (186, 33078), (194, 33222), (196, 33264), (200, 33369),

Gene: Shelob\_90 Start: 33138, Stop: 36851, Start Num: 1

Candidate Starts for Shelob\_90:

(Start: 1 @33138 has 168 MA's), (3, 33219), (5, 33240), (6, 33264), (8, 33309), (9, 33336), (10, 33339), (11, 33351), (12, 33369), (13, 33372), (22, 33591), (27, 33729), (29, 33816), (32, 33864), (35, 33927), (36, 33957), (38, 33984), (39, 33993), (42, 34011), (43, 34014), (46, 34068), (48, 34134), (65, 34527), (66, 34560), (71, 34680), (80, 34914), (97, 35118), (99, 35121), (105, 35178), (106, 35181), (107, 35193), (110, 35217), (114, 35235), (116, 35238), (118, 35250), (124, 35283), (129, 35325), (142, 35451), (143, 35454), (147, 35619), (149, 35673), (154, 35736), (156, 35745), (161, 35919), (164, 36024), (170, 36135), (173, 36156), (182, 36279), (183, 36285), (185, 36327), (186, 36345), (194, 36489), (196, 36531), (200, 36636),

Gene: ShiaLabeouf\_88 Start: 31546, Stop: 35256, Start Num: 1

Candidate Starts for ShiaLabeouf\_88:

(Start: 1 @31546 has 168 MA's), (3, 31627), (5, 31648), (6, 31672), (9, 31744), (10, 31747), (11, 31759), (12, 31777), (13, 31780), (22, 31999), (27, 32137), (29, 32224), (32, 32272), (35, 32335), (36, 32365), (38, 32392), (39, 32401), (43, 32422), (46, 32476), (48, 32542), (65, 32935), (66, 32968), (71, 33088), (80, 33319), (97, 33523), (99, 33526), (105, 33583), (106, 33586), (107, 33598), (110, 33622), (114, 33640), (116, 33643), (118, 33655), (124, 33688), (129, 33730), (142, 33856), (143, 33859), (147, 34024), (154, 34141), (156, 34150), (161, 34324), (164, 34429), (170, 34540), (173, 34561), (182, 34684), (183, 34690), (185, 34732), (186, 34750), (194, 34894), (196, 34936), (200, 35041),

Gene: Shifa\_77 Start: 29738, Stop: 33316, Start Num: 1

Candidate Starts for Shifa\_77:

(Start: 1 @29738 has 168 MA's), (3, 29819), (5, 29840), (6, 29864), (8, 29909), (9, 29936), (10, 29939), (11, 29951), (12, 29969), (13, 29972), (22, 30191), (27, 30329), (29, 30416), (32, 30464), (35, 30527), (36, 30557), (38, 30584), (39, 30593), (42, 30611), (43, 30614), (46, 30668), (48, 30734), (65, 31142), (66, 31175), (71, 31295), (75, 31418), (80, 31529), (97, 31733), (99, 31736), (105, 31793), (106, 31796), (107, 31808), (110, 31832), (114, 31850), (116, 31853), (118, 31865), (124, 31898), (129, 31940), (147, 32081), (149, 32135), (154, 32195), (156, 32204), (161, 32378), (164, 32483), (170, 32594), (173, 32615), (175, 32678), (179, 32744), (180, 32750), (187, 32843), (194, 32975),

(196, 33017), (200, 33101),

Gene: Shnickers\_88 Start: 31106, Stop: 34816, Start Num: 1

Candidate Starts for Shnickers\_88:

(Start: 1 @31106 has 168 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (22, 31559), (27, 31697), (29, 31784), (32, 31832), (35, 31895), (36, 31925), (38, 31952), (39, 31961), (43, 31982), (46, 32036), (48, 32102), (65, 32495), (66, 32528), (71, 32648), (80, 32879), (97, 33083), (99, 33086), (105, 33143), (106, 33146), (107, 33158), (110, 33182), (114, 33200), (116, 33203), (118, 33215), (124, 33248), (129, 33290), (142, 33416), (143, 33419), (147, 33584), (154, 33701), (156, 33710), (161, 33884), (164, 33989), (170, 34100), (173, 34121), (182, 34244), (183, 34250), (185, 34292), (186, 34310), (194, 34454), (196, 34496), (200, 34601),

Gene: Shrimp\_88 Start: 32150, Stop: 35863, Start Num: 1

Candidate Starts for Shrimp\_88:

(Start: 1 @32150 has 168 MA's), (3, 32231), (5, 32252), (6, 32276), (8, 32321), (9, 32348), (10, 32351), (11, 32363), (12, 32381), (13, 32384), (22, 32603), (27, 32741), (29, 32828), (32, 32876), (35, 32939), (36, 32969), (38, 32996), (39, 33005), (42, 33023), (43, 33026), (46, 33080), (48, 33146), (65, 33539), (66, 33572), (71, 33692), (80, 33926), (97, 34130), (99, 34133), (105, 34190), (106, 34193), (107, 34205), (110, 34229), (114, 34247), (116, 34250), (118, 34262), (124, 34295), (129, 34337), (142, 34463), (143, 34466), (147, 34631), (149, 34685), (154, 34748), (156, 34757), (161, 34931), (164, 35036), (170, 35147), (173, 35168), (182, 35291), (183, 35297), (185, 35339), (186, 35357), (194, 35501), (196, 35543), (200, 35648),

Gene: SilverDipper\_89 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for SilverDipper\_89:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Skog\_149 Start: 63157, Stop: 66045, Start Num: 16

Candidate Starts for Skog\_149:

(Start: 16 @63157 has 4 MA's), (20, 63250), (21, 63259), (24, 63391), (26, 63400), (Start: 44 @63478 has 2 MA's), (50, 63637), (51, 63643), (53, 63685), (61, 63820), (80, 64282), (81, 64285), (82, 64318), (107, 64552), (111, 64579), (113, 64588), (134, 64735), (160, 65134), (166, 65329), (167, 65335), (171, 65374), (172, 65377), (174, 65440), (189, 65617), (198, 65809), (201, 65848), (202, 65869),

Gene: SmallFry\_88 Start: 31105, Stop: 34815, Start Num: 1

Candidate Starts for SmallFry\_88:

(Start: 1 @31105 has 168 MA's), (3, 31186), (5, 31207), (6, 31231), (8, 31276), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (22, 31558), (27, 31696), (29, 31783), (32, 31831), (35, 31894), (36, 31924), (38, 31951), (39, 31960), (43, 31981), (46, 32035), (48, 32101), (65, 32494), (66, 32527), (71, 32647), (80, 32878), (97, 33082), (99, 33085), (105, 33142), (106, 33145), (107, 33157), (110, 33181), (114, 33199), (116, 33202), (118, 33214), (124, 33247), (129, 33289), (142, 33415), (143, 33418), (147, 33583), (154, 33700), (156, 33709), (161, 33883), (164, 33988), (170, 34099), (173, 34120), (182, 34243), (183, 34249), (185, 34291), (186, 34309), (194, 34453), (196, 34495), (200, 34600),

Gene: Spec\_83 Start: 30871, Stop: 34581, Start Num: 1

Candidate Starts for Spec\_83:

(Start: 1 @30871 has 168 MA's), (3, 30952), (5, 30973), (6, 30997), (8, 31042), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (22, 31324), (27, 31462), (29, 31549), (32, 31597), (35, 31660), (36, 31690), (38, 31717), (39, 31726), (43, 31747), (46, 31801), (48, 31867), (65, 32260), (66, 32293), (71, 32413), (80, 32644), (97, 32848), (99, 32851), (105, 32908), (106, 32911), (107, 32923), (110, 32947), (114, 32965), (116, 32968), (118, 32980), (124, 33013), (129, 33055), (142, 33181), (143, 33184), (147, 33349), (154, 33466), (156, 33475), (161, 33649), (164, 33754), (170, 33865), (173, 33886), (182, 34009), (183, 34015), (185, 34057), (186, 34075), (194, 34219), (196, 34261), (200, 34366),

Gene: Specks\_94 Start: 33940, Stop: 37599, Start Num: 1

Candidate Starts for Specks\_94:

(Start: 1 @33940 has 168 MA's), (3, 34021), (5, 34042), (6, 34066), (8, 34111), (9, 34138), (10, 34141), (11, 34153), (12, 34171), (13, 34174), (22, 34393), (27, 34531), (29, 34618), (32, 34666), (35, 34729), (36, 34759), (38, 34786), (39, 34795), (42, 34813), (43, 34816), (46, 34870), (48, 34936), (65, 35329), (66, 35362), (71, 35482), (75, 35596), (80, 35680), (97, 35884), (99, 35887), (105, 35944), (106, 35947), (107, 35959), (110, 35983), (114, 36001), (116, 36004), (118, 36016), (124, 36049), (129, 36091), (142, 36217), (143, 36220), (147, 36367), (149, 36421), (154, 36484), (156, 36493), (161, 36667), (164, 36772), (170, 36883), (173, 36904), (182, 37027), (183, 37033), (185, 37075), (186, 37093), (194, 37237), (196, 37279), (200, 37384),

Gene: Sprinklers\_83 Start: 30368, Stop: 34081, Start Num: 1

Candidate Starts for Sprinklers\_83:

(Start: 1 @30368 has 168 MA's), (3, 30449), (5, 30470), (6, 30494), (8, 30539), (9, 30566), (10, 30569), (11, 30581), (12, 30599), (13, 30602), (22, 30821), (27, 30959), (29, 31046), (32, 31094), (35, 31157), (36, 31187), (38, 31214), (39, 31223), (43, 31244), (46, 31298), (48, 31364), (65, 31757), (66, 31790), (71, 31910), (80, 32144), (97, 32348), (99, 32351), (105, 32408), (106, 32411), (107, 32423), (110, 32447), (114, 32465), (116, 32468), (118, 32480), (124, 32513), (129, 32555), (142, 32681), (143, 32684), (147, 32849), (154, 32966), (156, 32975), (161, 33149), (164, 33254), (170, 33365), (173, 33386), (182, 33509), (183, 33515), (185, 33557), (186, 33575), (194, 33719), (196, 33761), (200, 33866),

Gene: Spud\_88 Start: 32461, Stop: 35823, Start Num: 1

Candidate Starts for Spud\_88:

(Start: 1 @32461 has 168 MA's), (3, 32542), (5, 32563), (6, 32587), (8, 32632), (9, 32659), (10, 32662), (11, 32674), (12, 32692), (13, 32695), (22, 32914), (27, 33052), (29, 33139), (32, 33187), (35, 33250), (36, 33280), (38, 33307), (39, 33316), (43, 33337), (46, 33391), (48, 33457), (64, 33835), (65, 33871), (75, 34147), (80, 34258), (97, 34462), (99, 34465), (105, 34522), (106, 34525), (107, 34537), (110, 34561), (114, 34579), (116, 34582), (118, 34594), (124, 34627), (129, 34669), (147, 34810), (149, 34864), (154, 34927), (156, 34936), (161, 35110), (164, 35215), (170, 35326), (173, 35347), (194, 35482), (196, 35524), (200, 35608),

Gene: SrishMeg2525\_87 Start: 31857, Stop: 35195, Start Num: 1

Candidate Starts for SrishMeg2525\_87:

(Start: 1 @31857 has 168 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (22, 32310), (27, 32448), (29, 32535), (32, 32583), (35, 32646), (36, 32676), (38, 32703), (39, 32712), (42, 32730), (43, 32733), (46, 32787), (48, 32853), (65, 33246), (66, 33279), (71, 33399), (80, 33630), (97, 33834), (99, 33837), (105, 33894), (106, 33897), (107, 33909), (110, 33933), (114, 33951), (116, 33954), (118, 33966), (124, 33999), (129, 34041), (147, 34182), (149, 34236), (154, 34299), (156, 34308), (161, 34482), (164, 34587), (170, 34698), (173, 34719), (194, 34854), (196, 34896), (200, 34980),

Gene: StephanieG\_87 Start: 32958, Stop: 36671, Start Num: 1



Candidate Starts for StephanieG\_87:

(Start: 1 @32958 has 168 MA's), (3, 33039), (5, 33060), (6, 33084), (9, 33156), (10, 33159), (11, 33171), (12, 33189), (13, 33192), (22, 33411), (27, 33549), (29, 33636), (32, 33684), (35, 33747), (36, 33777), (38, 33804), (39, 33813), (43, 33834), (46, 33888), (48, 33954), (65, 34347), (66, 34380), (71, 34500), (80, 34734), (97, 34938), (99, 34941), (105, 34998), (106, 35001), (107, 35013), (110, 35037), (114, 35055), (116, 35058), (118, 35070), (124, 35103), (129, 35145), (142, 35271), (143, 35274), (147, 35439), (149, 35493), (154, 35556), (156, 35565), (161, 35739), (164, 35844), (170, 35955), (173, 35976), (182, 36099), (183, 36105), (185, 36147), (186, 36165), (194, 36309), (196, 36351), (200, 36456),

Gene: Stubby\_81 Start: 30428, Stop: 33913, Start Num: 1

Candidate Starts for Stubby\_81:

(Start: 1 @30428 has 168 MA's), (3, 30509), (5, 30530), (6, 30554), (8, 30599), (9, 30626), (10, 30629), (11, 30641), (12, 30659), (13, 30662), (22, 30881), (27, 31019), (29, 31106), (32, 31154), (35, 31217), (36, 31247), (38, 31274), (39, 31283), (43, 31304), (46, 31358), (48, 31424), (64, 31772), (65, 31808), (75, 32084), (80, 32195), (97, 32399), (99, 32402), (105, 32459), (106, 32462), (107, 32474), (110, 32498), (114, 32516), (116, 32519), (118, 32531), (124, 32564), (129, 32606), (142, 32732), (143, 32735), (147, 32900), (154, 33017), (156, 33026), (161, 33200), (164, 33305), (170, 33416), (173, 33437), (194, 33572), (196, 33614), (200, 33698),

Gene: StubbySaigey\_90 Start: 30786, Stop: 34148, Start Num: 1

Candidate Starts for StubbySaigey\_90:

(Start: 1 @30786 has 168 MA's), (3, 30867), (5, 30888), (6, 30912), (8, 30957), (9, 30984), (10, 30987), (11, 30999), (12, 31017), (13, 31020), (22, 31239), (27, 31377), (29, 31464), (32, 31512), (35, 31575), (36, 31605), (38, 31632), (39, 31641), (42, 31659), (43, 31662), (46, 31716), (48, 31782), (64, 32160), (65, 32196), (75, 32472), (80, 32583), (97, 32787), (99, 32790), (105, 32847), (106, 32850), (107, 32862), (110, 32886), (114, 32904), (116, 32907), (118, 32919), (124, 32952), (129, 32994), (147, 33135), (149, 33189), (154, 33252), (156, 33261), (161, 33435), (164, 33540), (170, 33651), (173, 33672), (194, 33807), (196, 33849), (200, 33933),

Gene: Teardrop\_88 Start: 31264, Stop: 34923, Start Num: 1

Candidate Starts for Teardrop\_88:

(Start: 1 @31264 has 168 MA's), (3, 31345), (5, 31366), (6, 31390), (8, 31435), (9, 31462), (10, 31465), (11, 31477), (12, 31495), (13, 31498), (22, 31717), (27, 31855), (29, 31942), (32, 31990), (35, 32053), (36, 32083), (38, 32110), (39, 32119), (42, 32137), (43, 32140), (46, 32194), (48, 32260), (65, 32653), (66, 32686), (71, 32806), (75, 32920), (80, 33004), (97, 33208), (99, 33211), (105, 33268), (106, 33271), (107, 33283), (110, 33307), (114, 33325), (116, 33328), (118, 33340), (124, 33373), (129, 33415), (142, 33541), (143, 33544), (147, 33691), (149, 33745), (154, 33808), (156, 33817), (161, 33991), (164, 34096), (170, 34207), (173, 34228), (182, 34351), (183, 34357), (185, 34399), (186, 34417), (194, 34561), (196, 34603), (200, 34708),

Gene: TinyTim\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for TinyTim\_88:

(Start: 1 @32146 has 168 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (97, 34126), (99, 34129), (105, 34186), (106, 34189), (107, 34201), (110, 34225), (114, 34243), (116, 34246), (118, 34258), (124, 34291), (129, 34333), (142, 34459), (143, 34462), (147, 34627), (149, 34681), (154, 34744), (156, 34753), (161, 34927), (164, 35032), (170, 35143), (173, 35164), (182, 35287), (183, 35293), (185, 35335), (186, 35353), (194, 35497), (196, 35539), (200, 35644),

Gene: Tonenili\_102 Start: 36564, Stop: 39851, Start Num: 1

Candidate Starts for Tonenili\_102:

(Start: 1 @36564 has 168 MA's), (3, 36645), (5, 36666), (6, 36690), (8, 36735), (9, 36762), (10, 36765), (11, 36777), (12, 36795), (13, 36798), (22, 37014), (41, 37140), (46, 37203), (65, 37701), (66, 37734), (71, 37854), (78, 38067), (80, 38085), (97, 38289), (99, 38292), (105, 38349), (106, 38352), (107, 38364), (110, 38388), (114, 38406), (116, 38409), (118, 38421), (120, 38433), (124, 38454), (129, 38496), (147, 38637), (149, 38691), (154, 38751), (156, 38760), (161, 38934), (162, 38973), (164, 39039), (171, 39153), (173, 39171), (184, 39324), (188, 39363), (194, 39489), (196, 39531), (200, 39636),

Gene: Tortoise16\_86 Start: 32007, Stop: 35717, Start Num: 1

Candidate Starts for Tortoise16\_86:

(Start: 1 @32007 has 168 MA's), (3, 32088), (5, 32109), (6, 32133), (8, 32178), (9, 32205), (10, 32208), (11, 32220), (12, 32238), (13, 32241), (22, 32460), (27, 32598), (29, 32685), (32, 32733), (35, 32796), (36, 32826), (38, 32853), (39, 32862), (43, 32883), (46, 32937), (48, 33003), (65, 33396), (66, 33429), (71, 33549), (80, 33780), (97, 33984), (99, 33987), (105, 34044), (106, 34047), (107, 34059), (110, 34083), (114, 34101), (116, 34104), (118, 34116), (124, 34149), (129, 34191), (142, 34317), (143, 34320), (147, 34485), (154, 34602), (156, 34611), (161, 34785), (164, 34890), (170, 35001), (173, 35022), (182, 35145), (183, 35151), (185, 35193), (186, 35211), (194, 35355), (196, 35397), (200, 35502),

Gene: Trinitium\_84 Start: 30571, Stop: 33912, Start Num: 1

Candidate Starts for Trinitium\_84:

(Start: 1 @30571 has 168 MA's), (3, 30652), (5, 30673), (6, 30697), (8, 30742), (9, 30769), (10, 30772), (11, 30784), (12, 30802), (13, 30805), (22, 31024), (27, 31162), (29, 31249), (32, 31297), (35, 31360), (36, 31390), (38, 31417), (39, 31426), (43, 31447), (46, 31501), (48, 31567), (65, 31960), (66, 31993), (75, 32239), (80, 32350), (97, 32554), (99, 32557), (105, 32614), (106, 32617), (107, 32629), (110, 32653), (114, 32671), (116, 32674), (118, 32686), (124, 32719), (129, 32761), (147, 32902), (149, 32956), (154, 33016), (156, 33025), (161, 33199), (164, 33304), (170, 33415), (173, 33436), (194, 33571), (196, 33613), (200, 33697),

Gene: Turret\_83 Start: 30237, Stop: 33578, Start Num: 1

Candidate Starts for Turret\_83:

(Start: 1 @30237 has 168 MA's), (3, 30318), (5, 30339), (6, 30363), (8, 30408), (9, 30435), (10, 30438), (11, 30450), (12, 30468), (13, 30471), (22, 30690), (27, 30828), (29, 30915), (32, 30963), (35, 31026), (36, 31056), (38, 31083), (39, 31092), (43, 31113), (46, 31167), (48, 31233), (65, 31626), (66, 31659), (75, 31905), (80, 32016), (97, 32220), (99, 32223), (105, 32280), (106, 32283), (107, 32295), (110, 32319), (114, 32337), (116, 32340), (118, 32352), (124, 32385), (129, 32427), (147, 32568), (149, 32622), (154, 32682), (156, 32691), (161, 32865), (164, 32970), (170, 33081), (173, 33102), (194, 33237), (196, 33279), (200, 33363),

Gene: Tyke\_90 Start: 32911, Stop: 36621, Start Num: 1

Candidate Starts for Tyke\_90:

(Start: 1 @32911 has 168 MA's), (3, 32992), (5, 33013), (6, 33037), (8, 33082), (9, 33109), (10, 33112), (11, 33124), (12, 33142), (13, 33145), (22, 33364), (27, 33502), (29, 33589), (32, 33637), (35, 33700), (36, 33730), (38, 33757), (39, 33766), (43, 33787), (46, 33841), (48, 33907), (65, 34300), (66, 34333), (71, 34453), (80, 34684), (97, 34888), (99, 34891), (105, 34948), (106, 34951), (107, 34963), (110, 34987), (114, 35005), (116, 35008), (118, 35020), (124, 35053), (129, 35095), (142, 35221), (143, 35224), (147, 35389), (154, 35506), (156, 35515), (161, 35689), (164, 35794), (170, 35905), (173, 35926), (182, 36049), (183, 36055), (185, 36097), (186, 36115), (194, 36259), (196, 36301), (200, 36406),

Gene: ValleyTerrace\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for ValleyTerrace\_88:

(Start: 1 @31151 has 168 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (97, 33131), (99, 33134), (105, 33191), (106, 33194), (107, 33206), (110, 33230), (114, 33248), (116, 33251), (118, 33263), (124, 33296), (129, 33338), (142, 33464), (143, 33467), (147, 33632), (149, 33686), (154, 33749), (156, 33758), (161, 33932), (164, 34037), (170, 34148), (173, 34169), (182, 34292), (183, 34298), (185, 34340), (186, 34358), (194, 34502), (196, 34544), (200, 34649),

Gene: Wally\_87 Start: 30701, Stop: 34414, Start Num: 1

Candidate Starts for Wally\_87:

(Start: 1 @30701 has 168 MA's), (3, 30782), (5, 30803), (6, 30827), (8, 30872), (9, 30899), (10, 30902), (11, 30914), (12, 30932), (13, 30935), (22, 31154), (27, 31292), (29, 31379), (32, 31427), (35, 31490), (36, 31520), (38, 31547), (39, 31556), (42, 31574), (43, 31577), (46, 31631), (48, 31697), (65, 32090), (66, 32123), (71, 32243), (80, 32477), (97, 32681), (99, 32684), (105, 32741), (106, 32744), (107, 32756), (110, 32780), (114, 32798), (116, 32801), (118, 32813), (124, 32846), (129, 32888), (142, 33014), (143, 33017), (147, 33182), (149, 33236), (154, 33299), (156, 33308), (161, 33482), (164, 33587), (170, 33698), (173, 33719), (182, 33842), (183, 33848), (185, 33890), (186, 33908), (194, 34052), (196, 34094), (200, 34199),

Gene: Willis\_89 Start: 32041, Stop: 35754, Start Num: 1

Candidate Starts for Willis\_89:

(Start: 1 @32041 has 168 MA's), (3, 32122), (5, 32143), (6, 32167), (8, 32212), (9, 32239), (10, 32242), (11, 32254), (12, 32272), (13, 32275), (22, 32494), (27, 32632), (29, 32719), (32, 32767), (35, 32830), (36, 32860), (38, 32887), (39, 32896), (42, 32914), (43, 32917), (46, 32971), (48, 33037), (65, 33430), (66, 33463), (71, 33583), (80, 33817), (97, 34021), (99, 34024), (105, 34081), (106, 34084), (107, 34096), (110, 34120), (114, 34138), (116, 34141), (118, 34153), (124, 34186), (129, 34228), (142, 34354), (143, 34357), (147, 34522), (149, 34576), (154, 34639), (156, 34648), (161, 34822), (164, 34927), (170, 35038), (173, 35059), (182, 35182), (183, 35188), (185, 35230), (186, 35248), (194, 35392), (196, 35434), (200, 35539),

Gene: Yassified\_84 Start: 30651, Stop: 34145, Start Num: 1

Candidate Starts for Yassified\_84:

(Start: 1 @30651 has 168 MA's), (3, 30732), (5, 30753), (6, 30777), (8, 30822), (9, 30849), (10, 30852), (11, 30864), (12, 30882), (13, 30885), (22, 31104), (27, 31242), (29, 31329), (32, 31377), (35, 31440), (36, 31470), (38, 31497), (39, 31506), (43, 31527), (46, 31581), (48, 31647), (65, 32040), (66, 32073), (71, 32193), (80, 32427), (97, 32631), (99, 32634), (105, 32691), (106, 32694), (107, 32706), (110, 32730), (114, 32748), (116, 32751), (118, 32763), (124, 32796), (129, 32838), (142, 32964), (143, 32967), (147, 33132), (149, 33186), (154, 33249), (156, 33258), (161, 33432), (164, 33537), (170, 33648), (173, 33669), (194, 33804), (196, 33846), (200, 33930),

Gene: YemiJoy2021\_89 Start: 32143, Stop: 35856, Start Num: 1

Candidate Starts for YemiJoy2021\_89:

(Start: 1 @32143 has 168 MA's), (3, 32224), (5, 32245), (6, 32269), (8, 32314), (9, 32341), (10, 32344), (11, 32356), (12, 32374), (13, 32377), (22, 32596), (27, 32734), (29, 32821), (32, 32869), (35, 32932), (36, 32962), (38, 32989), (39, 32998), (42, 33016), (43, 33019), (46, 33073), (48, 33139), (65, 33532), (66, 33565), (71, 33685), (80, 33919), (97, 34123), (99, 34126), (105, 34183), (106, 34186), (107, 34198), (110, 34222), (114, 34240), (116, 34243), (118, 34255), (124, 34288), (129, 34330), (142, 34456), (143, 34459), (147, 34624), (149, 34678), (154, 34741), (156, 34750), (161, 34924), (164, 35029), (170, 35140), (173, 35161), (182, 35284), (183, 35290), (185, 35332), (186, 35350), (194, 35494), (196, 35536), (200, 35641),

Gene: YoungMoneyMata\_88 Start: 30902, Stop: 34615, Start Num: 1

Candidate Starts for YoungMoneyMata\_88:

(Start: 1 @30902 has 168 MA's), (3, 30983), (5, 31004), (6, 31028), (8, 31073), (9, 31100), (10, 31103), (11, 31115), (12, 31133), (13, 31136), (22, 31355), (27, 31493), (29, 31580), (32, 31628), (35, 31691), (36, 31721), (38, 31748), (39, 31757), (42, 31775), (43, 31778), (46, 31832), (48, 31898), (65, 32291), (66, 32324), (71, 32444), (80, 32678), (97, 32882), (99, 32885), (105, 32942), (106, 32945), (107, 32957), (110, 32981), (114, 32999), (116, 33002), (118, 33014), (124, 33047), (129, 33089), (142, 33215), (143, 33218), (147, 33383), (149, 33437), (154, 33500), (156, 33509), (161, 33683), (164, 33788), (170, 33899), (173, 33920), (182, 34043), (183, 34049), (185, 34091), (186, 34109), (194, 34253), (196, 34295), (200, 34400),

Gene: Yucca\_88 Start: 32068, Stop: 35778, Start Num: 1

Candidate Starts for Yucca\_88:

(Start: 1 @32068 has 168 MA's), (3, 32149), (5, 32170), (6, 32194), (8, 32239), (9, 32266), (10, 32269), (11, 32281), (12, 32299), (13, 32302), (22, 32521), (27, 32659), (29, 32746), (32, 32794), (35, 32857), (36, 32887), (38, 32914), (39, 32923), (43, 32944), (46, 32998), (48, 33064), (65, 33457), (66, 33490), (71, 33610), (80, 33841), (97, 34045), (99, 34048), (105, 34105), (106, 34108), (107, 34120), (110, 34144), (114, 34162), (116, 34165), (118, 34177), (124, 34210), (129, 34252), (142, 34378), (143, 34381), (147, 34546), (149, 34600), (154, 34663), (156, 34672), (161, 34846), (164, 34951), (170, 35062), (173, 35083), (182, 35206), (183, 35212), (185, 35254), (186, 35272), (194, 35416), (196, 35458), (200, 35563),

Gene: Zalkecks\_89 Start: 31831, Stop: 35544, Start Num: 1

Candidate Starts for Zalkecks\_89:

(Start: 1 @31831 has 168 MA's), (3, 31912), (5, 31933), (6, 31957), (8, 32002), (9, 32029), (10, 32032), (11, 32044), (12, 32062), (13, 32065), (22, 32284), (27, 32422), (29, 32509), (32, 32557), (35, 32620), (36, 32650), (38, 32677), (39, 32686), (42, 32704), (43, 32707), (46, 32761), (48, 32827), (65, 33220), (66, 33253), (71, 33373), (80, 33607), (97, 33811), (99, 33814), (105, 33871), (106, 33874), (107, 33886), (110, 33910), (114, 33928), (116, 33931), (118, 33943), (124, 33976), (129, 34018), (142, 34144), (143, 34147), (147, 34312), (149, 34366), (154, 34429), (156, 34438), (161, 34612), (164, 34717), (170, 34828), (173, 34849), (182, 34972), (183, 34978), (185, 35020), (186, 35038), (194, 35182), (196, 35224), (200, 35329),

Gene: Zeenon\_90 Start: 32133, Stop: 35471, Start Num: 1

Candidate Starts for Zeenon\_90:

(Start: 1 @32133 has 168 MA's), (3, 32214), (5, 32235), (6, 32259), (8, 32304), (9, 32331), (10, 32334), (11, 32346), (12, 32364), (13, 32367), (22, 32586), (27, 32724), (29, 32811), (32, 32859), (35, 32922), (36, 32952), (38, 32979), (39, 32988), (42, 33006), (43, 33009), (46, 33063), (48, 33129), (65, 33522), (66, 33555), (71, 33675), (80, 33906), (97, 34110), (99, 34113), (105, 34170), (106, 34173), (107, 34185), (110, 34209), (114, 34227), (116, 34230), (118, 34242), (124, 34275), (129, 34317), (147, 34458), (149, 34512), (154, 34575), (156, 34584), (161, 34758), (164, 34863), (170, 34974), (173, 34995), (194, 35130), (196, 35172), (200, 35256),

Gene: ZygoTaiga\_87 Start: 32147, Stop: 35860, Start Num: 1

Candidate Starts for ZygoTaiga\_87:

(Start: 1 @32147 has 168 MA's), (3, 32228), (5, 32249), (6, 32273), (8, 32318), (9, 32345), (10, 32348), (11, 32360), (12, 32378), (13, 32381), (22, 32600), (27, 32738), (29, 32825), (32, 32873), (35, 32936), (36, 32966), (38, 32993), (39, 33002), (42, 33020), (43, 33023), (46, 33077), (48, 33143), (65, 33536), (66, 33569), (71, 33689), (80, 33923), (97, 34127), (99, 34130), (105, 34187), (106, 34190), (107, 34202), (110, 34226), (114, 34244), (116, 34247), (118, 34259), (124, 34292), (129, 34334), (142, 34460), (143, 34463), (147, 34628), (149, 34682), (154, 34745), (156, 34754), (161, 34928), (164, 35033), (170, 35144), (173, 35165), (182, 35288), (183, 35294), (185, 35336), (186, 35354), (194, 35498), (196, 35540), (200, 35645),