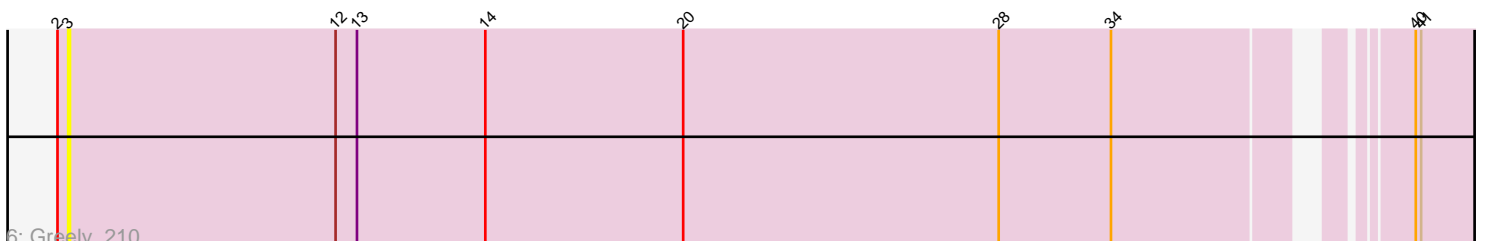
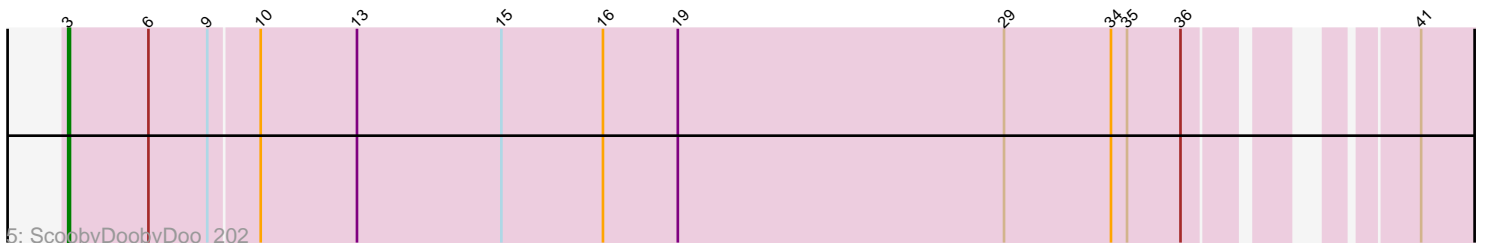
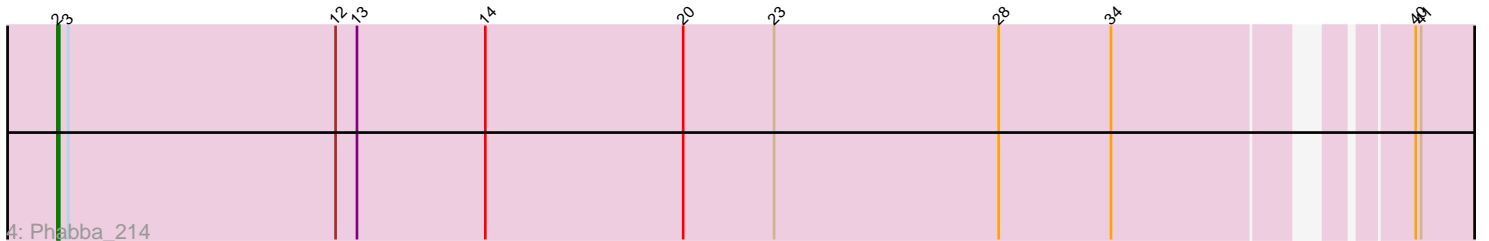
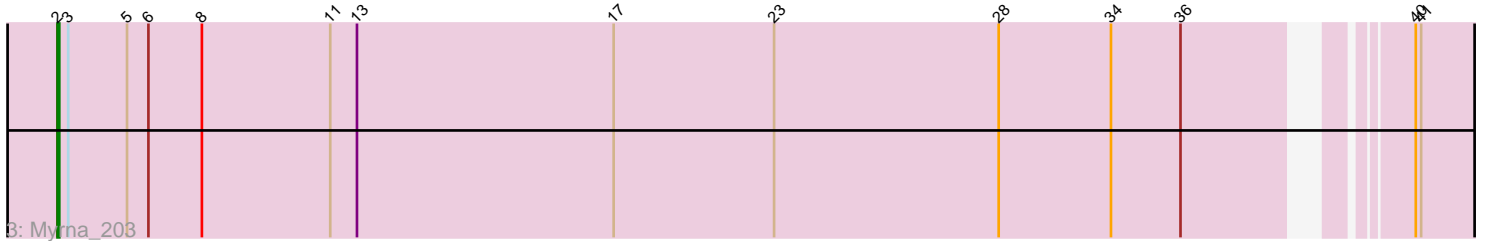
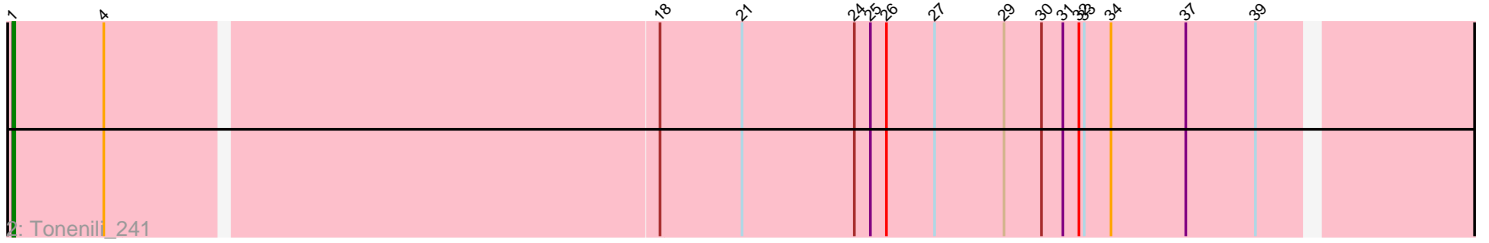
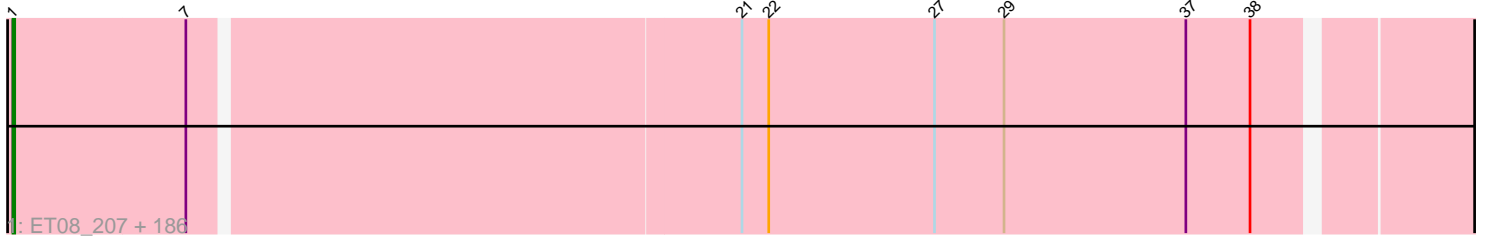


Pham 192340



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 192340 Report

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

Pham number 192340 has 192 members, 19 are drafts.

Phages represented in each track:

- Track 1 : ET08_207, Drazdys_217, Naija_220, SrishMeg2525_216, Loanshark_216, Nidhogg_220, Khaleesi_218, Essence_216, JustHall_213, Ghost_219, Caravan_210, I3_229, Rizal_211, Willis_220, CindyLou_220, Naval22_224, YemiJoy2021_220, Bipolarisk_217, SilverDipper_223, Gabriel_222, Spud_213, ValleyTerrace_220, Colt_210, BananaFence_216, CharlieB_213, LRRHood_212, Jessibeth14_219, Grasshills_227, Catera_211, Stubby_203, ChaylaJr_217, ErnieJ_212, Sebata_220, ArcherS7_219, ShiaLabeouf_216, Delylah_221, BadAgartude_213, DTDevon_221, Ewok_218, Dietrick_208, Ava3_218, NedWong_218, Shelob_220, Gamgam_220, BeanWater_211, Domi_213, Blackdragon_214, Patter_220, Roots515_221, Kboogie_223, EasyJones_222, Capablanca_224, QBert_211, Cali_212, LolaVinca_217, MoMoMixon_217, Megamind_216, Breeniome_218, Erdmann_220, Bigswole_224, Yassified_216, Issimir_212, Tainan_220, Momo_220, Melpomini_214, Spec_214, Bread_214, Delilah_217, Pinkcreek_203, Halldule_212, ZygoTaiga_216, Lukilu_210, Latch_219, Ngannou_216, Grungle_203, McGee_218, Amataga_220, Maby2021_219, Rabinovish_212, Mangeria_220, ChickenPhender_215, BackyardAgain_215, Shnickers_217, Shifa_196, Ading_220, Burrough_221, EggyFarm_228, StephanieG_215, Astraea_213, JayJay_217, LordLeafolot_221, Quasimodo_221, Sprinklers_217, Alice_206, TinyTim_217, SmallFry_219, Phusco_217, Fludd_219, Jaygup_215, Jedediah_219, Bonray_221, Shaqnato_210, Asterius_215, Atlantean_219, Specks_223, Basquiat_216, Pier_220, Shrimp_221, Rahel_220, Cactojaque_214, Zeenon_221, Trinitium_215, Phlegm_223, Napoleon13_216, YoungMoneyMata_218, Sauce_215, Pleione_223, DrPhinkDaddy_216, Derek_216, ScottMcG_213, Chargie21_216, FrayBell_222, Blackbrain_216, Nappy_220, NoodleTree_225, Chomp_219, Blubba_208, Pivoine_220, Bangla1971_219, ParkTD_218, Ronan_215, Phox_220, Flabslab_214, JulietS_212, MikeLiesIn_221, Tortoise16_217, Morizzled23_216, JPickles_215, Jemmno_218, DirtMonster_212, Janiyra_222, Turret_212, Cane17_210, EmmaElysia_223, Dandelion_227, LifeSavor_218, PurduePete_219, RoMag_214, Bxz1_209, Izajani_217, Wally_217, Mikro_215, Babyland_222, Lee7_219, Adlitam_218, Gizmo_225, Guwapp_214, Tyke_217, Zalkecks_218, Koguma_218, Pio_227, NuevoMundo_222, IkeLoa_211, Iota_214, Yucca_219, Salacia_219, StubbySaigey_224, Kamryn_218, Norm_219, InigoMontoya_222, Littleton_222, Darko_218, Matsumoto_218, JigglyPuff_226, Concombre_224, LinStu_218, Daffodil_224, Audrick_221, InterFolia_222, Demodog_225, HyRo_207, McWolfish_216, FoxtrotP1_217, FudgeTart_214, Teardrop_216, EmToTheThree_219, BigCity_228
- Track 2 : Tonenili_241

- Track 3 : Myrna_203
- Track 4 : Phabba_214
- Track 5 : ScoobyDoobyDoo_202
- Track 6 : Greely_210

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 170 of the 173 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_220, Adlitam_218, Alice_206, Amataga_220, ArcherS7_219, Asterius_215, Astraea_213, Atlantean_219, Audrick_221, Ava3_218, Babyland_222, BackyardAgain_215, BadAgartude_213, BananaFence_216, Bangla1971_219, Basquiat_216, BeanWater_211, BigCity_228, Bigswole_224, Bipolarisk_217, Blackbrain_216, Blackdragon_214, Blubba_208, Bonray_221, Bread_214, Breeniome_218, Burrough_221, Bxz1_209, Cactojaque_214, Cali_212, Cane17_210, Capablanca_224, Caravan_210, Catera_211, Chargie21_216, CharlieB_213, ChaylaJr_217, ChickenPhender_215, Chomp_219, CindyLou_220, Colt_210, Concombre_224, DTDevon_221, Daffodil_224, Dandelion_227, Darko_218, Delilah_217, Delylah_221, Demodog_225, Derek_216, Dietrick_208, DirtMonster_212, Domi_213, DrPhinkDaddy_216, Drazdys_217, ET08_207, EasyJones_222, EggyFarm_228, EmToTheThree_219, EmmaElysia_223, Erdmann_220, ErnieJ_212, Essence_216, Ewok_218, Flabslab_214, Fludd_219, FoxtrotP1_217, FrayBell_222, FudgeTart_214, Gabriel_222, Gamgam_220, Ghost_219, Gizmo_225, Grasshills_227, Grungle_203, Guwapp_214, Haldule_212, HyRo_207, I3_229, IkeLoa_211, InigoMontoya_222, InterFolia_222, Iota_214, Issimir_212, Izajani_217, JPickles_215, Janiyra_222, JayJay_217, Jaygup_215, Jedediah_219, Jemmno_218, Jessibeth14_219, JigglyPuff_226, JulietS_212, JustHall_213, Kamryn_218, Kboogie_223, Khaleesi_218, Koguma_218, LRRHood_212, Latch_219, Lee7_219, LifeSavor_218, LinStu_218, Littleton_222, Loanshark_216, LolaVinca_217, LordLeafolot_221, Lukilu_210, Maby2021_219, Mangeria_220, Matsumoto_218, McGee_218, McWolfish_216, Megamind_216, Melpomini_214, MikeLiesIn_221, Mikro_215, MoMoMixon_217, Momo_220, Morizzled23_216, Naija_220, Napoleon13_216, Nappy_220, Naval22_224, NedWong_218, Ngannou_216, Nidhogg_220, NoodleTree_225, Norm_219, NuevoMundo_222, ParkTD_218, Patter_220, Phlegm_223, Phox_220, Phusco_217, Pier_220, Pinkcreek_203, Pio_227, Pivoine_220, Pleione_223, PurduePete_219, QBert_211, Quasimodo_221, Rabinovish_212, Rahel_220, Rizal_211, RoMag_214, Ronan_215, Roots515_221, Salacia_219, Sauce_215, ScottMcG_213, Sebata_220, Shaqato_210, Shelob_220, ShiaLabeouf_216, Shifa_196, Shnickers_217, Shrimp_221, SilverDipper_223, SmallFry_219, Spec_214, Specks_223, Sprinklers_217, Spud_213, SrishMeg2525_216, StephanieG_215, StubbySaigey_224, Stubby_203, Tainan_220, Teardrop_216, TinyTim_217, Tonenili_241, Tortoise16_217, Trinitium_215, Turret_212, Tyke_217, ValleyTerrace_220, Wally_217, Willis_220, Yassified_216, YemiJoy2021_220, YoungMoneyMata_218, Yucca_219, Zalkecks_218, Zeenon_221, ZygoTaiga_216,

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

-

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

- Greely_210, Myrna_203, Phabba_214, ScoobyDoobyDoo_202,

Summary by start number:

Start 1:

- Found in 188 of 192 (97.9%) of genes in pham
- Manual Annotations of this start: 170 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading_220 (C1), Adlitam_218 (C1), Alice_206 (C1), Amataga_220 (C1), ArcherS7_219 (C1), Asterius_215 (C1), Astraea_213 (C1), Atlantean_219 (C1), Audrick_221 (C1), Ava3_218 (C1), Babyland_222 (C1), BackyardAgain_215 (C1), BadAgartude_213 (C1), BananaFence_216 (C1), Bangla1971_219 (C1), Basquiat_216 (C1), BeanWater_211 (C1), BigCity_228 (C1), Bigswole_224 (C1), Bipolarisk_217 (C1), Blackbrain_216 (C1), Blackdragon_214 (C1), Blubba_208 (C1), Bonray_221 (C1), Bread_214 (C1), Breeniome_218 (C1), Burrough_221 (C1), Bxz1_209 (C1), Cactojaque_214 (C1), Cali_212 (C1), Cane17_210 (C1), Capablanca_224 (C1), Caravan_210 (C1), Catera_211 (C1), Chargie21_216 (C1), CharlieB_213 (C1), ChaylaJr_217 (C1), ChickenPhender_215 (C1), Chomp_219 (C1), CindyLou_220 (C1), Colt_210 (C1), Concombre_224 (C1), DTDevon_221 (C1), Daffodil_224 (C1), Dandelion_227 (C1), Darko_218 (C1), Delilah_217 (C1), Delylah_221 (C1), Demodog_225 (C1), Derek_216 (C1), Dietrick_208 (C1), DirtMonster_212 (C1), Domi_213 (C1), DrPhinkDaddy_216 (C1), Drazdys_217 (C1), ET08_207 (C1), EasyJones_222 (C1), EggyFarm_228 (C1), EmToTheThree_219 (C1), EmmaElysia_223 (C1), Erdmann_220 (C1), ErnieJ_212 (C1), Essence_216 (C1), Ewok_218 (C1), Flabslab_214 (C1), Fludd_219 (C1), FoxtrotP1_217 (C1), FrayBell_222 (C1), FudgeTart_214 (C1), Gabriel_222 (C1), Gangam_220 (C1), Ghost_219 (C1), Gizmo_225 (C1), Grasshills_227 (C1), Grungle_203 (C1), Guwapp_214 (C1), Halldule_212 (C1), HyRo_207 (C1), I3_229 (C1), IkeLoa_211 (C1), InigoMontoya_222 (C1), InterFolia_222 (C1), Iota_214 (C1), Issimir_212 (C1), Izajani_217 (C1), JPickles_215 (C1), Janiyra_222 (C1), JayJay_217 (C1), Jaygup_215 (C1), Jedediah_219 (C1), Jemmno_218 (C1), Jessibeth14_219 (C1), JigglyPuff_226 (C1), JulietS_212 (C1), JustHall_213 (C1), Kamryn_218 (C1), Kboogie_223 (C1), Khaleesi_218 (C1), Koguma_218 (C1), LRRHood_212 (C1), Latch_219 (C1), Lee7_219 (C1), LifeSavor_218 (C1), LinStu_218 (C1), Littleton_222 (C1), Loanshark_216 (C1), LolaVinca_217 (C1), LordLeafolot_221 (C1), Lukilu_210 (C1), Maby2021_219 (C1), Mangeria_220 (C1), Matsumoto_218 (C1), McGee_218 (C1), McWolfish_216 (C1), Megamind_216 (C1), Melpomini_214 (C1), MikeLiesIn_221 (C1), Mikro_215 (C1), MoMoMixon_217 (C1), Momo_220 (C1), Morizzled23_216 (C1), Naija_220 (C1), Napoleon13_216 (C1), Nappy_220 (C1), Naval22_224 (C1), NedWong_218 (C1), Ngannou_216 (C1), Nidhogg_220 (C1), NoodleTree_225 (C1), Norm_219 (C1), NuevoMundo_222 (C1), ParkTD_218 (C1), Patter_220 (C1), Phlegm_223 (C1), Phox_220 (C1), Phusco_217 (C1), Pier_220 (C1), Pinkcreek_203 (C1), Pio_227 (C1), Pivoine_220 (C1), Pleione_223 (C1), PurduePete_219 (C1), QBert_211 (C1), Quasimodo_221 (C1), Rabinovish_212 (C1), Rahel_220 (C1), Rizal_211 (C1), RoMag_214 (C1), Ronan_215 (C1), Roots515_221 (C1), Salacia_219 (C1), Sauce_215 (C1), ScottMcG_213 (C1), Sebata_220 (C1), Shaqnato_210 (C1), Shelob_220 (C1), ShiaLabeouf_216 (C1), Shifa_196 (C1), Shnickers_217 (C1), Shrimp_221 (C1), SilverDipper_223 (C1), SmallFry_219 (C1), Spec_214 (C1), Specks_223 (C1), Sprinklers_217 (C1), Spud_213 (C1), SrishMeg2525_216 (C1), StephanieG_215 (C1), StubbySaigey_224 (C1),

Stubby_203 (C1), Tainan_220 (C1), Teardrop_216 (C1), TinyTim_217 (C1), Tonenili_241 (C1), Tortoise16_217 (C1), Trinitium_215 (C1), Turret_212 (C1), Tyke_217 (C1), ValleyTerrace_220 (C1), Wally_217 (C1), Willis_220 (C1), Yassified_216 (C1), YemiJoy2021_220 (C1), YoungMoneyMata_218 (C1), Yucca_219 (C1), Zalkecks_218 (C1), Zeenon_221 (C1), ZygoTaiga_216 (C1),

Start 2:

- Found in 3 of 192 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Myrna_203 (C2), Phabba_214 (C2),

Start 3:

- Found in 4 of 192 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Greely_210 (C2), ScoobyDoobyDoo_202 (C2),

Summary by clusters:

There are 2 clusters represented in this pham: C2, C1,

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 170 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 2 was manually annotated 2 times for cluster C2.
- Start number 3 was manually annotated 1 time for cluster C2.

Gene Information:

Gene: Ading_220 Start: 123510, Stop: 124319, Start Num: 1

Candidate Starts for Ading_220:

(Start: 1 @123510 has 170 MA's), (7, 123606), (21, 123906), (22, 123921), (27, 124014), (29, 124053), (37, 124155), (38, 124191),

Gene: Adlitam_218 Start: 122114, Stop: 122923, Start Num: 1

Candidate Starts for Adlitam_218:

(Start: 1 @122114 has 170 MA's), (7, 122210), (21, 122510), (22, 122525), (27, 122618), (29, 122657), (37, 122759), (38, 122795),

Gene: Alice_206 Start: 121089, Stop: 121886, Start Num: 1

Candidate Starts for Alice_206:

(Start: 1 @121089 has 170 MA's), (7, 121185), (21, 121485), (22, 121500), (27, 121593), (29, 121632), (37, 121734), (38, 121770),

Gene: Amataga_220 Start: 121926, Stop: 122735, Start Num: 1

Candidate Starts for Amataga_220:

(Start: 1 @121926 has 170 MA's), (7, 122022), (21, 122322), (22, 122337), (27, 122430), (29, 122469), (37, 122571), (38, 122607),

Gene: ArcherS7_219 Start: 122968, Stop: 123777, Start Num: 1

Candidate Starts for ArcherS7_219:

(Start: 1 @122968 has 170 MA's), (7, 123064), (21, 123364), (22, 123379), (27, 123472), (29, 123511), (37, 123613), (38, 123649),

Gene: Asterius_215 Start: 122335, Stop: 123144, Start Num: 1

Candidate Starts for Asterius_215:

(Start: 1 @122335 has 170 MA's), (7, 122431), (21, 122731), (22, 122746), (27, 122839), (29, 122878), (37, 122980), (38, 123016),

Gene: Astraea_213 Start: 121530, Stop: 122339, Start Num: 1

Candidate Starts for Astraea_213:

(Start: 1 @121530 has 170 MA's), (7, 121626), (21, 121926), (22, 121941), (27, 122034), (29, 122073), (37, 122175), (38, 122211),

Gene: Atlantean_219 Start: 121926, Stop: 122735, Start Num: 1

Candidate Starts for Atlantean_219:

(Start: 1 @121926 has 170 MA's), (7, 122022), (21, 122322), (22, 122337), (27, 122430), (29, 122469), (37, 122571), (38, 122607),

Gene: Audrick_221 Start: 121816, Stop: 122625, Start Num: 1

Candidate Starts for Audrick_221:

(Start: 1 @121816 has 170 MA's), (7, 121912), (21, 122212), (22, 122227), (27, 122320), (29, 122359), (37, 122461), (38, 122497),

Gene: Ava3_218 Start: 122360, Stop: 123157, Start Num: 1

Candidate Starts for Ava3_218:

(Start: 1 @122360 has 170 MA's), (7, 122456), (21, 122756), (22, 122771), (27, 122864), (29, 122903), (37, 123005), (38, 123041),

Gene: Babyland_222 Start: 122703, Stop: 123512, Start Num: 1

Candidate Starts for Babyland_222:

(Start: 1 @122703 has 170 MA's), (7, 122799), (21, 123099), (22, 123114), (27, 123207), (29, 123246), (37, 123348), (38, 123384),

Gene: BackyardAgain_215 Start: 119891, Stop: 120688, Start Num: 1

Candidate Starts for BackyardAgain_215:

(Start: 1 @119891 has 170 MA's), (7, 119987), (21, 120287), (22, 120302), (27, 120395), (29, 120434), (37, 120536), (38, 120572),

Gene: BadAgartude_213 Start: 122028, Stop: 122825, Start Num: 1

Candidate Starts for BadAgartude_213:

(Start: 1 @122028 has 170 MA's), (7, 122124), (21, 122424), (22, 122439), (27, 122532), (29, 122571), (37, 122673), (38, 122709),

Gene: BananaFence_216 Start: 122159, Stop: 122968, Start Num: 1

Candidate Starts for BananaFence_216:

(Start: 1 @122159 has 170 MA's), (7, 122255), (21, 122555), (22, 122570), (27, 122663), (29, 122702), (37, 122804), (38, 122840),

Gene: Bangla1971_219 Start: 121932, Stop: 122741, Start Num: 1

Candidate Starts for Bangla1971_219:

(Start: 1 @121932 has 170 MA's), (7, 122028), (21, 122328), (22, 122343), (27, 122436), (29, 122475), (37, 122577), (38, 122613),

Gene: Basquiat_216 Start: 120445, Stop: 121254, Start Num: 1

Candidate Starts for Basquiat_216:

(Start: 1 @120445 has 170 MA's), (7, 120541), (21, 120841), (22, 120856), (27, 120949), (29, 120988), (37, 121090), (38, 121126),

Gene: BeanWater_211 Start: 120971, Stop: 121768, Start Num: 1

Candidate Starts for BeanWater_211:

(Start: 1 @120971 has 170 MA's), (7, 121067), (21, 121367), (22, 121382), (27, 121475), (29, 121514), (37, 121616), (38, 121652),

Gene: BigCity_228 Start: 124542, Stop: 125339, Start Num: 1

Candidate Starts for BigCity_228:

(Start: 1 @124542 has 170 MA's), (7, 124638), (21, 124938), (22, 124953), (27, 125046), (29, 125085), (37, 125187), (38, 125223),

Gene: Bigswole_224 Start: 124396, Stop: 125193, Start Num: 1

Candidate Starts for Bigswole_224:

(Start: 1 @124396 has 170 MA's), (7, 124492), (21, 124792), (22, 124807), (27, 124900), (29, 124939), (37, 125041), (38, 125077),

Gene: Bipolarisk_217 Start: 122629, Stop: 123426, Start Num: 1

Candidate Starts for Bipolarisk_217:

(Start: 1 @122629 has 170 MA's), (7, 122725), (21, 123025), (22, 123040), (27, 123133), (29, 123172), (37, 123274), (38, 123310),

Gene: Blackbrain_216 Start: 121530, Stop: 122327, Start Num: 1

Candidate Starts for Blackbrain_216:

(Start: 1 @121530 has 170 MA's), (7, 121626), (21, 121926), (22, 121941), (27, 122034), (29, 122073), (37, 122175), (38, 122211),

Gene: Blackdragon_214 Start: 122262, Stop: 123059, Start Num: 1

Candidate Starts for Blackdragon_214:

(Start: 1 @122262 has 170 MA's), (7, 122358), (21, 122658), (22, 122673), (27, 122766), (29, 122805), (37, 122907), (38, 122943),

Gene: Blubba_208 Start: 125611, Stop: 126408, Start Num: 1

Candidate Starts for Blubba_208:

(Start: 1 @125611 has 170 MA's), (7, 125707), (21, 126007), (22, 126022), (27, 126115), (29, 126154), (37, 126256), (38, 126292),

Gene: Bonray_221 Start: 124031, Stop: 124828, Start Num: 1

Candidate Starts for Bonray_221:

(Start: 1 @124031 has 170 MA's), (7, 124127), (21, 124427), (22, 124442), (27, 124535), (29, 124574), (37, 124676), (38, 124712),

Gene: Bread_214 Start: 122029, Stop: 122838, Start Num: 1

Candidate Starts for Bread_214:

(Start: 1 @122029 has 170 MA's), (7, 122125), (21, 122425), (22, 122440), (27, 122533), (29, 122572), (37, 122674), (38, 122710),

Gene: Breeniome_218 Start: 121483, Stop: 122292, Start Num: 1
Candidate Starts for Breeniome_218:
(Start: 1 @121483 has 170 MA's), (7, 121579), (21, 121879), (22, 121894), (27, 121987), (29, 122026), (37, 122128), (38, 122164),

Gene: Burrough_221 Start: 123799, Stop: 124608, Start Num: 1
Candidate Starts for Burrough_221:
(Start: 1 @123799 has 170 MA's), (7, 123895), (21, 124195), (22, 124210), (27, 124303), (29, 124342), (37, 124444), (38, 124480),

Gene: Bxz1_209 Start: 124005, Stop: 124814, Start Num: 1
Candidate Starts for Bxz1_209:
(Start: 1 @124005 has 170 MA's), (7, 124101), (21, 124401), (22, 124416), (27, 124509), (29, 124548), (37, 124650), (38, 124686),

Gene: Cactojaque_214 Start: 120465, Stop: 121274, Start Num: 1
Candidate Starts for Cactojaque_214:
(Start: 1 @120465 has 170 MA's), (7, 120561), (21, 120861), (22, 120876), (27, 120969), (29, 121008), (37, 121110), (38, 121146),

Gene: Cali_212 Start: 122412, Stop: 123209, Start Num: 1
Candidate Starts for Cali_212:
(Start: 1 @122412 has 170 MA's), (7, 122508), (21, 122808), (22, 122823), (27, 122916), (29, 122955), (37, 123057), (38, 123093),

Gene: Cane17_210 Start: 126020, Stop: 126817, Start Num: 1
Candidate Starts for Cane17_210:
(Start: 1 @126020 has 170 MA's), (7, 126116), (21, 126416), (22, 126431), (27, 126524), (29, 126563), (37, 126665), (38, 126701),

Gene: Capablanca_224 Start: 124626, Stop: 125423, Start Num: 1
Candidate Starts for Capablanca_224:
(Start: 1 @124626 has 170 MA's), (7, 124722), (21, 125022), (22, 125037), (27, 125130), (29, 125169), (37, 125271), (38, 125307),

Gene: Caravan_210 Start: 122746, Stop: 123543, Start Num: 1
Candidate Starts for Caravan_210:
(Start: 1 @122746 has 170 MA's), (7, 122842), (21, 123142), (22, 123157), (27, 123250), (29, 123289), (37, 123391), (38, 123427),

Gene: Catera_211 Start: 121139, Stop: 121948, Start Num: 1
Candidate Starts for Catera_211:
(Start: 1 @121139 has 170 MA's), (7, 121235), (21, 121535), (22, 121550), (27, 121643), (29, 121682), (37, 121784), (38, 121820),

Gene: Chargie21_216 Start: 120445, Stop: 121254, Start Num: 1
Candidate Starts for Chargie21_216:
(Start: 1 @120445 has 170 MA's), (7, 120541), (21, 120841), (22, 120856), (27, 120949), (29, 120988), (37, 121090), (38, 121126),

Gene: CharlieB_213 Start: 122166, Stop: 122963, Start Num: 1
Candidate Starts for CharlieB_213:

(Start: 1 @122166 has 170 MA's), (7, 122262), (21, 122562), (22, 122577), (27, 122670), (29, 122709), (37, 122811), (38, 122847),

Gene: ChaylaJr_217 Start: 121145, Stop: 121942, Start Num: 1

Candidate Starts for ChaylaJr_217:

(Start: 1 @121145 has 170 MA's), (7, 121241), (21, 121541), (22, 121556), (27, 121649), (29, 121688), (37, 121790), (38, 121826),

Gene: ChickenPhender_215 Start: 120592, Stop: 121401, Start Num: 1

Candidate Starts for ChickenPhender_215:

(Start: 1 @120592 has 170 MA's), (7, 120688), (21, 120988), (22, 121003), (27, 121096), (29, 121135), (37, 121237), (38, 121273),

Gene: Chomp_219 Start: 123215, Stop: 124024, Start Num: 1

Candidate Starts for Chomp_219:

(Start: 1 @123215 has 170 MA's), (7, 123311), (21, 123611), (22, 123626), (27, 123719), (29, 123758), (37, 123860), (38, 123896),

Gene: CindyLou_220 Start: 123475, Stop: 124284, Start Num: 1

Candidate Starts for CindyLou_220:

(Start: 1 @123475 has 170 MA's), (7, 123571), (21, 123871), (22, 123886), (27, 123979), (29, 124018), (37, 124120), (38, 124156),

Gene: Colt_210 Start: 125251, Stop: 126048, Start Num: 1

Candidate Starts for Colt_210:

(Start: 1 @125251 has 170 MA's), (7, 125347), (21, 125647), (22, 125662), (27, 125755), (29, 125794), (37, 125896), (38, 125932),

Gene: Concombres_224 Start: 124085, Stop: 124882, Start Num: 1

Candidate Starts for Concombres_224:

(Start: 1 @124085 has 170 MA's), (7, 124181), (21, 124481), (22, 124496), (27, 124589), (29, 124628), (37, 124730), (38, 124766),

Gene: DTDevon_221 Start: 123964, Stop: 124773, Start Num: 1

Candidate Starts for DTDevon_221:

(Start: 1 @123964 has 170 MA's), (7, 124060), (21, 124360), (22, 124375), (27, 124468), (29, 124507), (37, 124609), (38, 124645),

Gene: Daffodil_224 Start: 122929, Stop: 123726, Start Num: 1

Candidate Starts for Daffodil_224:

(Start: 1 @122929 has 170 MA's), (7, 123025), (21, 123325), (22, 123340), (27, 123433), (29, 123472), (37, 123574), (38, 123610),

Gene: Dandelion_227 Start: 125569, Stop: 126366, Start Num: 1

Candidate Starts for Dandelion_227:

(Start: 1 @125569 has 170 MA's), (7, 125665), (21, 125965), (22, 125980), (27, 126073), (29, 126112), (37, 126214), (38, 126250),

Gene: Darko_218 Start: 122163, Stop: 122972, Start Num: 1

Candidate Starts for Darko_218:

(Start: 1 @122163 has 170 MA's), (7, 122259), (21, 122559), (22, 122574), (27, 122667), (29, 122706), (37, 122808), (38, 122844),

Gene: Delilah_217 Start: 123047, Stop: 123856, Start Num: 1

Candidate Starts for Delilah_217:

(Start: 1 @123047 has 170 MA's), (7, 123143), (21, 123443), (22, 123458), (27, 123551), (29, 123590), (37, 123692), (38, 123728),

Gene: Delylah_221 Start: 123336, Stop: 124133, Start Num: 1

Candidate Starts for Delylah_221:

(Start: 1 @123336 has 170 MA's), (7, 123432), (21, 123732), (22, 123747), (27, 123840), (29, 123879), (37, 123981), (38, 124017),

Gene: Demodog_225 Start: 124095, Stop: 124892, Start Num: 1

Candidate Starts for Demodog_225:

(Start: 1 @124095 has 170 MA's), (7, 124191), (21, 124491), (22, 124506), (27, 124599), (29, 124638), (37, 124740), (38, 124776),

Gene: Derek_216 Start: 122492, Stop: 123301, Start Num: 1

Candidate Starts for Derek_216:

(Start: 1 @122492 has 170 MA's), (7, 122588), (21, 122888), (22, 122903), (27, 122996), (29, 123035), (37, 123137), (38, 123173),

Gene: Dietrick_208 Start: 121168, Stop: 121977, Start Num: 1

Candidate Starts for Dietrick_208:

(Start: 1 @121168 has 170 MA's), (7, 121264), (21, 121564), (22, 121579), (27, 121672), (29, 121711), (37, 121813), (38, 121849),

Gene: DirtMonster_212 Start: 122408, Stop: 123205, Start Num: 1

Candidate Starts for DirtMonster_212:

(Start: 1 @122408 has 170 MA's), (7, 122504), (21, 122804), (22, 122819), (27, 122912), (29, 122951), (37, 123053), (38, 123089),

Gene: Domi_213 Start: 122519, Stop: 123316, Start Num: 1

Candidate Starts for Domi_213:

(Start: 1 @122519 has 170 MA's), (7, 122615), (21, 122915), (22, 122930), (27, 123023), (29, 123062), (37, 123164), (38, 123200),

Gene: DrPhinkDaddy_216 Start: 123707, Stop: 124504, Start Num: 1

Candidate Starts for DrPhinkDaddy_216:

(Start: 1 @123707 has 170 MA's), (7, 123803), (21, 124103), (22, 124118), (27, 124211), (29, 124250), (37, 124352), (38, 124388),

Gene: Drazdys_217 Start: 122609, Stop: 123418, Start Num: 1

Candidate Starts for Drazdys_217:

(Start: 1 @122609 has 170 MA's), (7, 122705), (21, 123005), (22, 123020), (27, 123113), (29, 123152), (37, 123254), (38, 123290),

Gene: ET08_207 Start: 122200, Stop: 122997, Start Num: 1

Candidate Starts for ET08_207:

(Start: 1 @122200 has 170 MA's), (7, 122296), (21, 122596), (22, 122611), (27, 122704), (29, 122743), (37, 122845), (38, 122881),

Gene: EasyJones_222 Start: 121688, Stop: 122497, Start Num: 1

Candidate Starts for EasyJones_222:

(Start: 1 @121688 has 170 MA's), (7, 121784), (21, 122084), (22, 122099), (27, 122192), (29, 122231), (37, 122333), (38, 122369),

Gene: EggyFarm_228 Start: 124543, Stop: 125340, Start Num: 1

Candidate Starts for EggyFarm_228:

(Start: 1 @124543 has 170 MA's), (7, 124639), (21, 124939), (22, 124954), (27, 125047), (29, 125086), (37, 125188), (38, 125224),

Gene: EmToTheThree_219 Start: 123080, Stop: 123877, Start Num: 1

Candidate Starts for EmToTheThree_219:

(Start: 1 @123080 has 170 MA's), (7, 123176), (21, 123476), (22, 123491), (27, 123584), (29, 123623), (37, 123725), (38, 123761),

Gene: EmmaElysia_223 Start: 123371, Stop: 124180, Start Num: 1

Candidate Starts for EmmaElysia_223:

(Start: 1 @123371 has 170 MA's), (7, 123467), (21, 123767), (22, 123782), (27, 123875), (29, 123914), (37, 124016), (38, 124052),

Gene: Erdmann_220 Start: 123039, Stop: 123848, Start Num: 1

Candidate Starts for Erdmann_220:

(Start: 1 @123039 has 170 MA's), (7, 123135), (21, 123435), (22, 123450), (27, 123543), (29, 123582), (37, 123684), (38, 123720),

Gene: ErnieJ_212 Start: 119867, Stop: 120676, Start Num: 1

Candidate Starts for ErnieJ_212:

(Start: 1 @119867 has 170 MA's), (7, 119963), (21, 120263), (22, 120278), (27, 120371), (29, 120410), (37, 120512), (38, 120548),

Gene: Essence_216 Start: 121821, Stop: 122630, Start Num: 1

Candidate Starts for Essence_216:

(Start: 1 @121821 has 170 MA's), (7, 121917), (21, 122217), (22, 122232), (27, 122325), (29, 122364), (37, 122466), (38, 122502),

Gene: Ewok_218 Start: 122957, Stop: 123754, Start Num: 1

Candidate Starts for Ewok_218:

(Start: 1 @122957 has 170 MA's), (7, 123053), (21, 123353), (22, 123368), (27, 123461), (29, 123500), (37, 123602), (38, 123638),

Gene: Flabslab_214 Start: 120009, Stop: 120806, Start Num: 1

Candidate Starts for Flabslab_214:

(Start: 1 @120009 has 170 MA's), (7, 120105), (21, 120405), (22, 120420), (27, 120513), (29, 120552), (37, 120654), (38, 120690),

Gene: Fludd_219 Start: 121400, Stop: 122209, Start Num: 1

Candidate Starts for Fludd_219:

(Start: 1 @121400 has 170 MA's), (7, 121496), (21, 121796), (22, 121811), (27, 121904), (29, 121943), (37, 122045), (38, 122081),

Gene: FoxtrotP1_217 Start: 123637, Stop: 124434, Start Num: 1

Candidate Starts for FoxtrotP1_217:

(Start: 1 @123637 has 170 MA's), (7, 123733), (21, 124033), (22, 124048), (27, 124141), (29, 124180), (37, 124282), (38, 124318),

Gene: FrayBell_222 Start: 121490, Stop: 122287, Start Num: 1

Candidate Starts for FrayBell_222:

(Start: 1 @121490 has 170 MA's), (7, 121586), (21, 121886), (22, 121901), (27, 121994), (29, 122033), (37, 122135), (38, 122171),

Gene: FudgeTart_214 Start: 122104, Stop: 122901, Start Num: 1

Candidate Starts for FudgeTart_214:

(Start: 1 @122104 has 170 MA's), (7, 122200), (21, 122500), (22, 122515), (27, 122608), (29, 122647), (37, 122749), (38, 122785),

Gene: Gabriel_222 Start: 121559, Stop: 122368, Start Num: 1

Candidate Starts for Gabriel_222:

(Start: 1 @121559 has 170 MA's), (7, 121655), (21, 121955), (22, 121970), (27, 122063), (29, 122102), (37, 122204), (38, 122240),

Gene: Gamgam_220 Start: 121916, Stop: 122725, Start Num: 1

Candidate Starts for Gamgam_220:

(Start: 1 @121916 has 170 MA's), (7, 122012), (21, 122312), (22, 122327), (27, 122420), (29, 122459), (37, 122561), (38, 122597),

Gene: Ghost_219 Start: 121837, Stop: 122646, Start Num: 1

Candidate Starts for Ghost_219:

(Start: 1 @121837 has 170 MA's), (7, 121933), (21, 122233), (22, 122248), (27, 122341), (29, 122380), (37, 122482), (38, 122518),

Gene: Gizmo_225 Start: 124955, Stop: 125764, Start Num: 1

Candidate Starts for Gizmo_225:

(Start: 1 @124955 has 170 MA's), (7, 125051), (21, 125351), (22, 125366), (27, 125459), (29, 125498), (37, 125600), (38, 125636),

Gene: Grasshills_227 Start: 124542, Stop: 125339, Start Num: 1

Candidate Starts for Grasshills_227:

(Start: 1 @124542 has 170 MA's), (7, 124638), (21, 124938), (22, 124953), (27, 125046), (29, 125085), (37, 125187), (38, 125223),

Gene: Greely_210 Start: 119184, Stop: 119945, Start Num: 3

Candidate Starts for Greely_210:

(Start: 2 @119178 has 2 MA's), (Start: 3 @119184 has 1 MA's), (12, 119334), (13, 119346), (14, 119418), (20, 119529), (28, 119706), (34, 119769), (40, 119907), (41, 119910),

Gene: Grungle_203 Start: 119874, Stop: 120671, Start Num: 1

Candidate Starts for Grungle_203:

(Start: 1 @119874 has 170 MA's), (7, 119970), (21, 120270), (22, 120285), (27, 120378), (29, 120417), (37, 120519), (38, 120555),

Gene: Guwapp_214 Start: 120671, Stop: 121480, Start Num: 1

Candidate Starts for Guwapp_214:

(Start: 1 @120671 has 170 MA's), (7, 120767), (21, 121067), (22, 121082), (27, 121175), (29, 121214), (37, 121316), (38, 121352),

Gene: Halldule_212 Start: 121056, Stop: 121853, Start Num: 1

Candidate Starts for Halldule_212:

(Start: 1 @121056 has 170 MA's), (7, 121152), (21, 121452), (22, 121467), (27, 121560), (29, 121599), (37, 121701), (38, 121737),

Gene: HyRo_207 Start: 121187, Stop: 121984, Start Num: 1

Candidate Starts for HyRo_207:

(Start: 1 @121187 has 170 MA's), (7, 121283), (21, 121583), (22, 121598), (27, 121691), (29, 121730), (37, 121832), (38, 121868),

Gene: I3_229 Start: 123632, Stop: 124429, Start Num: 1

Candidate Starts for I3_229:

(Start: 1 @123632 has 170 MA's), (7, 123728), (21, 124028), (22, 124043), (27, 124136), (29, 124175), (37, 124277), (38, 124313),

Gene: IkeLoa_211 Start: 121581, Stop: 122378, Start Num: 1

Candidate Starts for IkeLoa_211:

(Start: 1 @121581 has 170 MA's), (7, 121677), (21, 121977), (22, 121992), (27, 122085), (29, 122124), (37, 122226), (38, 122262),

Gene: InigoMontoya_222 Start: 122590, Stop: 123399, Start Num: 1

Candidate Starts for InigoMontoya_222:

(Start: 1 @122590 has 170 MA's), (7, 122686), (21, 122986), (22, 123001), (27, 123094), (29, 123133), (37, 123235), (38, 123271),

Gene: InterFolia_222 Start: 123295, Stop: 124092, Start Num: 1

Candidate Starts for InterFolia_222:

(Start: 1 @123295 has 170 MA's), (7, 123391), (21, 123691), (22, 123706), (27, 123799), (29, 123838), (37, 123940), (38, 123976),

Gene: Iota_214 Start: 122275, Stop: 123072, Start Num: 1

Candidate Starts for Iota_214:

(Start: 1 @122275 has 170 MA's), (7, 122371), (21, 122671), (22, 122686), (27, 122779), (29, 122818), (37, 122920), (38, 122956),

Gene: Issimir_212 Start: 122228, Stop: 123037, Start Num: 1

Candidate Starts for Issimir_212:

(Start: 1 @122228 has 170 MA's), (7, 122324), (21, 122624), (22, 122639), (27, 122732), (29, 122771), (37, 122873), (38, 122909),

Gene: Izajani_217 Start: 123097, Stop: 123894, Start Num: 1

Candidate Starts for Izajani_217:

(Start: 1 @123097 has 170 MA's), (7, 123193), (21, 123493), (22, 123508), (27, 123601), (29, 123640), (37, 123742), (38, 123778),

Gene: JPickles_215 Start: 120575, Stop: 121384, Start Num: 1

Candidate Starts for JPickles_215:

(Start: 1 @120575 has 170 MA's), (7, 120671), (21, 120971), (22, 120986), (27, 121079), (29, 121118), (37, 121220), (38, 121256),

Gene: Janiyra_222 Start: 122815, Stop: 123624, Start Num: 1

Candidate Starts for Janiyra_222:

(Start: 1 @122815 has 170 MA's), (7, 122911), (21, 123211), (22, 123226), (27, 123319), (29, 123358), (37, 123460), (38, 123496),

Gene: JayJay_217 Start: 122519, Stop: 123316, Start Num: 1

Candidate Starts for JayJay_217:

(Start: 1 @122519 has 170 MA's), (7, 122615), (21, 122915), (22, 122930), (27, 123023), (29, 123062), (37, 123164), (38, 123200),

Gene: Jaygup_215 Start: 121636, Stop: 122445, Start Num: 1

Candidate Starts for Jaygup_215:

(Start: 1 @121636 has 170 MA's), (7, 121732), (21, 122032), (22, 122047), (27, 122140), (29, 122179), (37, 122281), (38, 122317),

Gene: Jedediah_219 Start: 122689, Stop: 123498, Start Num: 1

Candidate Starts for Jedediah_219:

(Start: 1 @122689 has 170 MA's), (7, 122785), (21, 123085), (22, 123100), (27, 123193), (29, 123232), (37, 123334), (38, 123370),

Gene: Jemmno_218 Start: 121518, Stop: 122327, Start Num: 1

Candidate Starts for Jemmno_218:

(Start: 1 @121518 has 170 MA's), (7, 121614), (21, 121914), (22, 121929), (27, 122022), (29, 122061), (37, 122163), (38, 122199),

Gene: Jessibeth14_219 Start: 123706, Stop: 124503, Start Num: 1

Candidate Starts for Jessibeth14_219:

(Start: 1 @123706 has 170 MA's), (7, 123802), (21, 124102), (22, 124117), (27, 124210), (29, 124249), (37, 124351), (38, 124387),

Gene: JigglyPuff_226 Start: 124093, Stop: 124890, Start Num: 1

Candidate Starts for JigglyPuff_226:

(Start: 1 @124093 has 170 MA's), (7, 124189), (21, 124489), (22, 124504), (27, 124597), (29, 124636), (37, 124738), (38, 124774),

Gene: JulietS_212 Start: 119816, Stop: 120613, Start Num: 1

Candidate Starts for JulietS_212:

(Start: 1 @119816 has 170 MA's), (7, 119912), (21, 120212), (22, 120227), (27, 120320), (29, 120359), (37, 120461), (38, 120497),

Gene: JustHall_213 Start: 121722, Stop: 122519, Start Num: 1

Candidate Starts for JustHall_213:

(Start: 1 @121722 has 170 MA's), (7, 121818), (21, 122118), (22, 122133), (27, 122226), (29, 122265), (37, 122367), (38, 122403),

Gene: Kamryn_218 Start: 123352, Stop: 124149, Start Num: 1

Candidate Starts for Kamryn_218:

(Start: 1 @123352 has 170 MA's), (7, 123448), (21, 123748), (22, 123763), (27, 123856), (29, 123895), (37, 123997), (38, 124033),

Gene: Kboogie_223 Start: 122380, Stop: 123189, Start Num: 1

Candidate Starts for Kboogie_223:

(Start: 1 @122380 has 170 MA's), (7, 122476), (21, 122776), (22, 122791), (27, 122884), (29, 122923), (37, 123025), (38, 123061),

Gene: Khaleesi_218 Start: 123173, Stop: 123970, Start Num: 1

Candidate Starts for Khaleesi_218:

(Start: 1 @123173 has 170 MA's), (7, 123269), (21, 123569), (22, 123584), (27, 123677), (29, 123716), (37, 123818), (38, 123854),

Gene: Koguma_218 Start: 122033, Stop: 122830, Start Num: 1

Candidate Starts for Koguma_218:

(Start: 1 @122033 has 170 MA's), (7, 122129), (21, 122429), (22, 122444), (27, 122537), (29, 122576), (37, 122678), (38, 122714),

Gene: LRRHood_212 Start: 121385, Stop: 122182, Start Num: 1

Candidate Starts for LRRHood_212:

(Start: 1 @121385 has 170 MA's), (7, 121481), (21, 121781), (22, 121796), (27, 121889), (29, 121928), (37, 122030), (38, 122066),

Gene: Latch_219 Start: 121926, Stop: 122735, Start Num: 1

Candidate Starts for Latch_219:

(Start: 1 @121926 has 170 MA's), (7, 122022), (21, 122322), (22, 122337), (27, 122430), (29, 122469), (37, 122571), (38, 122607),

Gene: Lee7_219 Start: 124553, Stop: 125350, Start Num: 1

Candidate Starts for Lee7_219:

(Start: 1 @124553 has 170 MA's), (7, 124649), (21, 124949), (22, 124964), (27, 125057), (29, 125096), (37, 125198), (38, 125234),

Gene: LifeSavor_218 Start: 122451, Stop: 123260, Start Num: 1

Candidate Starts for LifeSavor_218:

(Start: 1 @122451 has 170 MA's), (7, 122547), (21, 122847), (22, 122862), (27, 122955), (29, 122994), (37, 123096), (38, 123132),

Gene: LinStu_218 Start: 121672, Stop: 122469, Start Num: 1

Candidate Starts for LinStu_218:

(Start: 1 @121672 has 170 MA's), (7, 121768), (21, 122068), (22, 122083), (27, 122176), (29, 122215), (37, 122317), (38, 122353),

Gene: Littleton_222 Start: 123163, Stop: 123972, Start Num: 1

Candidate Starts for Littleton_222:

(Start: 1 @123163 has 170 MA's), (7, 123259), (21, 123559), (22, 123574), (27, 123667), (29, 123706), (37, 123808), (38, 123844),

Gene: Loanshark_216 Start: 122488, Stop: 123285, Start Num: 1

Candidate Starts for Loanshark_216:

(Start: 1 @122488 has 170 MA's), (7, 122584), (21, 122884), (22, 122899), (27, 122992), (29, 123031), (37, 123133), (38, 123169),

Gene: LolaVinca_217 Start: 122725, Stop: 123522, Start Num: 1

Candidate Starts for LolaVinca_217:

(Start: 1 @122725 has 170 MA's), (7, 122821), (21, 123121), (22, 123136), (27, 123229), (29, 123268), (37, 123370), (38, 123406),

Gene: LordLeafolot_221 Start: 122338, Stop: 123135, Start Num: 1

Candidate Starts for LordLeafolot_221:

(Start: 1 @122338 has 170 MA's), (7, 122434), (21, 122734), (22, 122749), (27, 122842), (29, 122881), (37, 122983), (38, 123019),

Gene: Lukilu_210 Start: 123388, Stop: 124185, Start Num: 1

Candidate Starts for Lukilu_210:

(Start: 1 @123388 has 170 MA's), (7, 123484), (21, 123784), (22, 123799), (27, 123892), (29, 123931), (37, 124033), (38, 124069),

Gene: Maby2021_219 Start: 123617, Stop: 124426, Start Num: 1

Candidate Starts for Maby2021_219:

(Start: 1 @123617 has 170 MA's), (7, 123713), (21, 124013), (22, 124028), (27, 124121), (29, 124160), (37, 124262), (38, 124298),

Gene: Mangeria_220 Start: 123719, Stop: 124528, Start Num: 1

Candidate Starts for Mangeria_220:

(Start: 1 @123719 has 170 MA's), (7, 123815), (21, 124115), (22, 124130), (27, 124223), (29, 124262), (37, 124364), (38, 124400),

Gene: Matsumoto_218 Start: 122368, Stop: 123177, Start Num: 1

Candidate Starts for Matsumoto_218:

(Start: 1 @122368 has 170 MA's), (7, 122464), (21, 122764), (22, 122779), (27, 122872), (29, 122911), (37, 123013), (38, 123049),

Gene: McGee_218 Start: 121562, Stop: 122371, Start Num: 1

Candidate Starts for McGee_218:

(Start: 1 @121562 has 170 MA's), (7, 121658), (21, 121958), (22, 121973), (27, 122066), (29, 122105), (37, 122207), (38, 122243),

Gene: McWolfish_216 Start: 122384, Stop: 123181, Start Num: 1

Candidate Starts for McWolfish_216:

(Start: 1 @122384 has 170 MA's), (7, 122480), (21, 122780), (22, 122795), (27, 122888), (29, 122927), (37, 123029), (38, 123065),

Gene: Megamind_216 Start: 122675, Stop: 123472, Start Num: 1

Candidate Starts for Megamind_216:

(Start: 1 @122675 has 170 MA's), (7, 122771), (21, 123071), (22, 123086), (27, 123179), (29, 123218), (37, 123320), (38, 123356),

Gene: Melpomini_214 Start: 121460, Stop: 122269, Start Num: 1

Candidate Starts for Melpomini_214:

(Start: 1 @121460 has 170 MA's), (7, 121556), (21, 121856), (22, 121871), (27, 121964), (29, 122003), (37, 122105), (38, 122141),

Gene: MikeLiesIn_221 Start: 123811, Stop: 124608, Start Num: 1

Candidate Starts for MikeLiesIn_221:

(Start: 1 @123811 has 170 MA's), (7, 123907), (21, 124207), (22, 124222), (27, 124315), (29, 124354), (37, 124456), (38, 124492),

Gene: Mikro_215 Start: 124360, Stop: 125157, Start Num: 1

Candidate Starts for Mikro_215:

(Start: 1 @124360 has 170 MA's), (7, 124456), (21, 124756), (22, 124771), (27, 124864), (29, 124903), (37, 125005), (38, 125041),

Gene: MoMoMixon_217 Start: 122850, Stop: 123647, Start Num: 1

Candidate Starts for MoMoMixon_217:

(Start: 1 @122850 has 170 MA's), (7, 122946), (21, 123246), (22, 123261), (27, 123354), (29, 123393), (37, 123495), (38, 123531),

Gene: Momo_220 Start: 121926, Stop: 122735, Start Num: 1

Candidate Starts for Momo_220:

(Start: 1 @121926 has 170 MA's), (7, 122022), (21, 122322), (22, 122337), (27, 122430), (29, 122469), (37, 122571), (38, 122607),

Gene: Morizzled23_216 Start: 121293, Stop: 122102, Start Num: 1

Candidate Starts for Morizzled23_216:

(Start: 1 @121293 has 170 MA's), (7, 121389), (21, 121689), (22, 121704), (27, 121797), (29, 121836), (37, 121938), (38, 121974),

Gene: Myrna_203 Start: 118551, Stop: 119318, Start Num: 2

Candidate Starts for Myrna_203:

(Start: 2 @118551 has 2 MA's), (Start: 3 @118557 has 1 MA's), (5, 118590), (6, 118602), (8, 118632), (11, 118704), (13, 118719), (17, 118863), (23, 118953), (28, 119079), (34, 119142), (36, 119181), (40, 119280), (41, 119283),

Gene: Naija_220 Start: 122629, Stop: 123438, Start Num: 1

Candidate Starts for Naija_220:

(Start: 1 @122629 has 170 MA's), (7, 122725), (21, 123025), (22, 123040), (27, 123133), (29, 123172), (37, 123274), (38, 123310),

Gene: Napoleon13_216 Start: 121657, Stop: 122466, Start Num: 1

Candidate Starts for Napoleon13_216:

(Start: 1 @121657 has 170 MA's), (7, 121753), (21, 122053), (22, 122068), (27, 122161), (29, 122200), (37, 122302), (38, 122338),

Gene: Nappy_220 Start: 123330, Stop: 124127, Start Num: 1

Candidate Starts for Nappy_220:

(Start: 1 @123330 has 170 MA's), (7, 123426), (21, 123726), (22, 123741), (27, 123834), (29, 123873), (37, 123975), (38, 124011),

Gene: Naval22_224 Start: 124406, Stop: 125215, Start Num: 1

Candidate Starts for Naval22_224:

(Start: 1 @124406 has 170 MA's), (7, 124502), (21, 124802), (22, 124817), (27, 124910), (29, 124949), (37, 125051), (38, 125087),

Gene: NedWong_218 Start: 123062, Stop: 123859, Start Num: 1

Candidate Starts for NedWong_218:

(Start: 1 @123062 has 170 MA's), (7, 123158), (21, 123458), (22, 123473), (27, 123566), (29, 123605), (37, 123707), (38, 123743),

Gene: Ngannou_216 Start: 120908, Stop: 121717, Start Num: 1

Candidate Starts for Ngannou_216:

(Start: 1 @120908 has 170 MA's), (7, 121004), (21, 121304), (22, 121319), (27, 121412), (29, 121451), (37, 121553), (38, 121589),

Gene: Nidhogg_220 Start: 123455, Stop: 124264, Start Num: 1

Candidate Starts for Nidhogg_220:

(Start: 1 @123455 has 170 MA's), (7, 123551), (21, 123851), (22, 123866), (27, 123959), (29, 123998), (37, 124100), (38, 124136),

Gene: NoodleTree_225 Start: 123362, Stop: 124159, Start Num: 1

Candidate Starts for NoodleTree_225:

(Start: 1 @123362 has 170 MA's), (7, 123458), (21, 123758), (22, 123773), (27, 123866), (29, 123905), (37, 124007), (38, 124043),

Gene: Norm_219 Start: 123364, Stop: 124164, Start Num: 1

Candidate Starts for Norm_219:

(Start: 1 @123364 has 170 MA's), (7, 123460), (21, 123760), (22, 123775), (27, 123868), (29, 123907), (37, 124009), (38, 124045),

Gene: NuevoMundo_222 Start: 123923, Stop: 124720, Start Num: 1

Candidate Starts for NuevoMundo_222:

(Start: 1 @123923 has 170 MA's), (7, 124019), (21, 124319), (22, 124334), (27, 124427), (29, 124466), (37, 124568), (38, 124604),

Gene: ParkTD_218 Start: 122926, Stop: 123735, Start Num: 1

Candidate Starts for ParkTD_218:

(Start: 1 @122926 has 170 MA's), (7, 123022), (21, 123322), (22, 123337), (27, 123430), (29, 123469), (37, 123571), (38, 123607),

Gene: Patter_220 Start: 121940, Stop: 122749, Start Num: 1

Candidate Starts for Patter_220:

(Start: 1 @121940 has 170 MA's), (7, 122036), (21, 122336), (22, 122351), (27, 122444), (29, 122483), (37, 122585), (38, 122621),

Gene: Phabba_214 Start: 118526, Stop: 119296, Start Num: 2

Candidate Starts for Phabba_214:

(Start: 2 @118526 has 2 MA's), (Start: 3 @118532 has 1 MA's), (12, 118682), (13, 118694), (14, 118766), (20, 118877), (23, 118928), (28, 119054), (34, 119117), (40, 119258), (41, 119261),

Gene: Phlegm_223 Start: 122629, Stop: 123438, Start Num: 1

Candidate Starts for Phlegm_223:

(Start: 1 @122629 has 170 MA's), (7, 122725), (21, 123025), (22, 123040), (27, 123133), (29, 123172), (37, 123274), (38, 123310),

Gene: Phox_220 Start: 122591, Stop: 123388, Start Num: 1

Candidate Starts for Phox_220:

(Start: 1 @122591 has 170 MA's), (7, 122687), (21, 122987), (22, 123002), (27, 123095), (29, 123134), (37, 123236), (38, 123272),

Gene: Phusco_217 Start: 121461, Stop: 122270, Start Num: 1

Candidate Starts for Phusco_217:

(Start: 1 @121461 has 170 MA's), (7, 121557), (21, 121857), (22, 121872), (27, 121965), (29, 122004), (37, 122106), (38, 122142),

Gene: Pier_220 Start: 123468, Stop: 124265, Start Num: 1

Candidate Starts for Pier_220:

(Start: 1 @123468 has 170 MA's), (7, 123564), (21, 123864), (22, 123879), (27, 123972), (29, 124011), (37, 124113), (38, 124149),

Gene: Pinkcreek_203 Start: 120844, Stop: 121641, Start Num: 1

Candidate Starts for Pinkcreek_203:

(Start: 1 @120844 has 170 MA's), (7, 120940), (21, 121240), (22, 121255), (27, 121348), (29, 121387), (37, 121489), (38, 121525),

Gene: Pio_227 Start: 124660, Stop: 125469, Start Num: 1

Candidate Starts for Pio_227:

(Start: 1 @124660 has 170 MA's), (7, 124756), (21, 125056), (22, 125071), (27, 125164), (29, 125203), (37, 125305), (38, 125341),

Gene: Pivoine_220 Start: 122629, Stop: 123438, Start Num: 1

Candidate Starts for Pivoine_220:

(Start: 1 @122629 has 170 MA's), (7, 122725), (21, 123025), (22, 123040), (27, 123133), (29, 123172), (37, 123274), (38, 123310),

Gene: Pleione_223 Start: 123404, Stop: 124201, Start Num: 1

Candidate Starts for Pleione_223:

(Start: 1 @123404 has 170 MA's), (7, 123500), (21, 123800), (22, 123815), (27, 123908), (29, 123947), (37, 124049), (38, 124085),

Gene: PurduePete_219 Start: 123632, Stop: 124429, Start Num: 1

Candidate Starts for PurduePete_219:

(Start: 1 @123632 has 170 MA's), (7, 123728), (21, 124028), (22, 124043), (27, 124136), (29, 124175), (37, 124277), (38, 124313),

Gene: QBert_211 Start: 120992, Stop: 121789, Start Num: 1

Candidate Starts for QBert_211:

(Start: 1 @120992 has 170 MA's), (7, 121088), (21, 121388), (22, 121403), (27, 121496), (29, 121535), (37, 121637), (38, 121673),

Gene: Quasimodo_221 Start: 122262, Stop: 123071, Start Num: 1

Candidate Starts for Quasimodo_221:

(Start: 1 @122262 has 170 MA's), (7, 122358), (21, 122658), (22, 122673), (27, 122766), (29, 122805), (37, 122907), (38, 122943),

Gene: Rabinovish_212 Start: 122537, Stop: 123334, Start Num: 1

Candidate Starts for Rabinovish_212:

(Start: 1 @122537 has 170 MA's), (7, 122633), (21, 122933), (22, 122948), (27, 123041), (29, 123080), (37, 123182), (38, 123218),

Gene: Rahel_220 Start: 122364, Stop: 123173, Start Num: 1

Candidate Starts for Rahel_220:

(Start: 1 @122364 has 170 MA's), (7, 122460), (21, 122760), (22, 122775), (27, 122868), (29, 122907), (37, 123009), (38, 123045),

Gene: Rizal_211 Start: 120882, Stop: 121691, Start Num: 1

Candidate Starts for Rizal_211:

(Start: 1 @120882 has 170 MA's), (7, 120978), (21, 121278), (22, 121293), (27, 121386), (29, 121425), (37, 121527), (38, 121563),

Gene: RoMag_214 Start: 122675, Stop: 123472, Start Num: 1

Candidate Starts for RoMag_214:

(Start: 1 @122675 has 170 MA's), (7, 122771), (21, 123071), (22, 123086), (27, 123179), (29, 123218), (37, 123320), (38, 123356),

Gene: Ronan_215 Start: 121067, Stop: 121864, Start Num: 1

Candidate Starts for Ronan_215:

(Start: 1 @121067 has 170 MA's), (7, 121163), (21, 121463), (22, 121478), (27, 121571), (29, 121610), (37, 121712), (38, 121748),

Gene: Roots515_221 Start: 124183, Stop: 124980, Start Num: 1

Candidate Starts for Roots515_221:

(Start: 1 @124183 has 170 MA's), (7, 124279), (21, 124579), (22, 124594), (27, 124687), (29, 124726), (37, 124828), (38, 124864),

Gene: Salacia_219 Start: 122767, Stop: 123576, Start Num: 1

Candidate Starts for Salacia_219:

(Start: 1 @122767 has 170 MA's), (7, 122863), (21, 123163), (22, 123178), (27, 123271), (29, 123310), (37, 123412), (38, 123448),

Gene: Sauce_215 Start: 121590, Stop: 122387, Start Num: 1

Candidate Starts for Sauce_215:

(Start: 1 @121590 has 170 MA's), (7, 121686), (21, 121986), (22, 122001), (27, 122094), (29, 122133), (37, 122235), (38, 122271),

Gene: ScoobyDoobyDoo_202 Start: 116738, Stop: 117490, Start Num: 3

Candidate Starts for ScoobyDoobyDoo_202:

(Start: 3 @116738 has 1 MA's), (6, 116783), (9, 116816), (10, 116843), (13, 116897), (15, 116978), (16, 117035), (19, 117077), (29, 117260), (34, 117320), (35, 117329), (36, 117359), (41, 117455),

Gene: ScottMcG_213 Start: 121660, Stop: 122469, Start Num: 1

Candidate Starts for ScottMcG_213:

(Start: 1 @121660 has 170 MA's), (7, 121756), (21, 122056), (22, 122071), (27, 122164), (29, 122203), (37, 122305), (38, 122341),

Gene: Sebata_220 Start: 123097, Stop: 123894, Start Num: 1

Candidate Starts for Sebata_220:

(Start: 1 @123097 has 170 MA's), (7, 123193), (21, 123493), (22, 123508), (27, 123601), (29, 123640), (37, 123742), (38, 123778),

Gene: Shaqnato_210 Start: 121798, Stop: 122595, Start Num: 1

Candidate Starts for Shaqnato_210:

(Start: 1 @121798 has 170 MA's), (7, 121894), (21, 122194), (22, 122209), (27, 122302), (29, 122341), (37, 122443), (38, 122479),

Gene: Shelob_220 Start: 124538, Stop: 125335, Start Num: 1

Candidate Starts for Shelob_220:

(Start: 1 @124538 has 170 MA's), (7, 124634), (21, 124934), (22, 124949), (27, 125042), (29, 125081), (37, 125183), (38, 125219),

Gene: ShiaLabeouf_216 Start: 121572, Stop: 122381, Start Num: 1

Candidate Starts for ShiaLabeouf_216:

(Start: 1 @121572 has 170 MA's), (7, 121668), (21, 121968), (22, 121983), (27, 122076), (29, 122115), (37, 122217), (38, 122253),

Gene: Shifa_196 Start: 121156, Stop: 121953, Start Num: 1

Candidate Starts for Shifa_196:

(Start: 1 @121156 has 170 MA's), (7, 121252), (21, 121552), (22, 121567), (27, 121660), (29, 121699), (37, 121801), (38, 121837),

Gene: Shnickers_217 Start: 121636, Stop: 122445, Start Num: 1

Candidate Starts for Shnickers_217:

(Start: 1 @121636 has 170 MA's), (7, 121732), (21, 122032), (22, 122047), (27, 122140), (29, 122179), (37, 122281), (38, 122317),

Gene: Shrimp_221 Start: 123693, Stop: 124502, Start Num: 1

Candidate Starts for Shrimp_221:

(Start: 1 @123693 has 170 MA's), (7, 123789), (21, 124089), (22, 124104), (27, 124197), (29, 124236), (37, 124338), (38, 124374),

Gene: SilverDipper_223 Start: 123185, Stop: 123994, Start Num: 1

Candidate Starts for SilverDipper_223:

(Start: 1 @123185 has 170 MA's), (7, 123281), (21, 123581), (22, 123596), (27, 123689), (29, 123728), (37, 123830), (38, 123866),

Gene: SmallFry_219 Start: 121730, Stop: 122539, Start Num: 1

Candidate Starts for SmallFry_219:

(Start: 1 @121730 has 170 MA's), (7, 121826), (21, 122126), (22, 122141), (27, 122234), (29, 122273), (37, 122375), (38, 122411),

Gene: Spec_214 Start: 121921, Stop: 122718, Start Num: 1

Candidate Starts for Spec_214:

(Start: 1 @121921 has 170 MA's), (7, 122017), (21, 122317), (22, 122332), (27, 122425), (29, 122464), (37, 122566), (38, 122602),

Gene: Specks_223 Start: 123046, Stop: 123843, Start Num: 1

Candidate Starts for Specks_223:

(Start: 1 @123046 has 170 MA's), (7, 123142), (21, 123442), (22, 123457), (27, 123550), (29, 123589), (37, 123691), (38, 123727),

Gene: Sprinklers_217 Start: 122288, Stop: 123085, Start Num: 1

Candidate Starts for Sprinklers_217:

(Start: 1 @122288 has 170 MA's), (7, 122384), (21, 122684), (22, 122699), (27, 122792), (29, 122831), (37, 122933), (38, 122969),

Gene: Spud_213 Start: 122000, Stop: 122809, Start Num: 1

Candidate Starts for Spud_213:

(Start: 1 @122000 has 170 MA's), (7, 122096), (21, 122396), (22, 122411), (27, 122504), (29, 122543), (37, 122645), (38, 122681),

Gene: SrishMeg2525_216 Start: 123164, Stop: 123961, Start Num: 1

Candidate Starts for SrishMeg2525_216:

(Start: 1 @123164 has 170 MA's), (7, 123260), (21, 123560), (22, 123575), (27, 123668), (29, 123707), (37, 123809), (38, 123845),

Gene: StephanieG_215 Start: 123198, Stop: 123995, Start Num: 1

Candidate Starts for StephanieG_215:

(Start: 1 @123198 has 170 MA's), (7, 123294), (21, 123594), (22, 123609), (27, 123702), (29, 123741), (37, 123843), (38, 123879),

Gene: Stubby_203 Start: 121047, Stop: 121844, Start Num: 1

Candidate Starts for Stubby_203:

(Start: 1 @121047 has 170 MA's), (7, 121143), (21, 121443), (22, 121458), (27, 121551), (29, 121590), (37, 121692), (38, 121728),

Gene: StubbySaigey_224 Start: 122719, Stop: 123528, Start Num: 1

Candidate Starts for StubbySaigey_224:

(Start: 1 @122719 has 170 MA's), (7, 122815), (21, 123115), (22, 123130), (27, 123223), (29, 123262), (37, 123364), (38, 123400),

Gene: Tainan_220 Start: 122065, Stop: 122862, Start Num: 1

Candidate Starts for Tainan_220:

(Start: 1 @122065 has 170 MA's), (7, 122161), (21, 122461), (22, 122476), (27, 122569), (29, 122608), (37, 122710), (38, 122746),

Gene: Teardrop_216 Start: 121232, Stop: 122041, Start Num: 1

Candidate Starts for Teardrop_216:

(Start: 1 @121232 has 170 MA's), (7, 121328), (21, 121628), (22, 121643), (27, 121736), (29, 121775), (37, 121877), (38, 121913),

Gene: TinyTim_217 Start: 122013, Stop: 122822, Start Num: 1

Candidate Starts for TinyTim_217:

(Start: 1 @122013 has 170 MA's), (7, 122109), (21, 122409), (22, 122424), (27, 122517), (29, 122556), (37, 122658), (38, 122694),

Gene: Tonenili_241 Start: 127843, Stop: 128643, Start Num: 1

Candidate Starts for Tonenili_241:

(Start: 1 @127843 has 170 MA's), (4, 127894), (18, 128194), (21, 128239), (24, 128302), (25, 128311), (26, 128320), (27, 128347), (29, 128386), (30, 128407), (31, 128419), (32, 128428), (33, 128431), (34, 128446), (37, 128488), (39, 128527),

Gene: Tortoise16_217 Start: 122475, Stop: 123284, Start Num: 1

Candidate Starts for Tortoise16_217:

(Start: 1 @122475 has 170 MA's), (7, 122571), (21, 122871), (22, 122886), (27, 122979), (29, 123018), (37, 123120), (38, 123156),

Gene: Trinitium_215 Start: 120767, Stop: 121576, Start Num: 1

Candidate Starts for Trinitium_215:

(Start: 1 @120767 has 170 MA's), (7, 120863), (21, 121163), (22, 121178), (27, 121271), (29, 121310), (37, 121412), (38, 121448),

Gene: Turret_212 Start: 120349, Stop: 121158, Start Num: 1

Candidate Starts for Turret_212:

(Start: 1 @120349 has 170 MA's), (7, 120445), (21, 120745), (22, 120760), (27, 120853), (29, 120892), (37, 120994), (38, 121030),

Gene: Tyke_217 Start: 123842, Stop: 124651, Start Num: 1

Candidate Starts for Tyke_217:

(Start: 1 @123842 has 170 MA's), (7, 123938), (21, 124238), (22, 124253), (27, 124346), (29, 124385), (37, 124487), (38, 124523),

Gene: ValleyTerrace_220 Start: 121926, Stop: 122735, Start Num: 1

Candidate Starts for ValleyTerrace_220:

(Start: 1 @121926 has 170 MA's), (7, 122022), (21, 122322), (22, 122337), (27, 122430), (29, 122469), (37, 122571), (38, 122607),

Gene: Wally_217 Start: 121910, Stop: 122719, Start Num: 1

Candidate Starts for Wally_217:

(Start: 1 @121910 has 170 MA's), (7, 122006), (21, 122306), (22, 122321), (27, 122414), (29, 122453), (37, 122555), (38, 122591),

Gene: Willis_220 Start: 122824, Stop: 123621, Start Num: 1

Candidate Starts for Willis_220:

(Start: 1 @122824 has 170 MA's), (7, 122920), (21, 123220), (22, 123235), (27, 123328), (29, 123367), (37, 123469), (38, 123505),

Gene: Yassified_216 Start: 122274, Stop: 123071, Start Num: 1

Candidate Starts for Yassified_216:

(Start: 1 @122274 has 170 MA's), (7, 122370), (21, 122670), (22, 122685), (27, 122778), (29, 122817), (37, 122919), (38, 122955),

Gene: YemiJoy2021_220 Start: 123580, Stop: 124389, Start Num: 1

Candidate Starts for YemiJoy2021_220:

(Start: 1 @123580 has 170 MA's), (7, 123676), (21, 123976), (22, 123991), (27, 124084), (29, 124123), (37, 124225), (38, 124261),

Gene: YoungMoneyMata_218 Start: 122394, Stop: 123203, Start Num: 1

Candidate Starts for YoungMoneyMata_218:

(Start: 1 @122394 has 170 MA's), (7, 122490), (21, 122790), (22, 122805), (27, 122898), (29, 122937), (37, 123039), (38, 123075),

Gene: Yucca_219 Start: 123572, Stop: 124381, Start Num: 1

Candidate Starts for Yucca_219:

(Start: 1 @123572 has 170 MA's), (7, 123668), (21, 123968), (22, 123983), (27, 124076), (29, 124115), (37, 124217), (38, 124253),

Gene: Zalkecks_218 Start: 122653, Stop: 123450, Start Num: 1

Candidate Starts for Zalkecks_218:

(Start: 1 @122653 has 170 MA's), (7, 122749), (21, 123049), (22, 123064), (27, 123157), (29, 123196), (37, 123298), (38, 123334),

Gene: Zeenon_221 Start: 123224, Stop: 124021, Start Num: 1

Candidate Starts for Zeenon_221:

(Start: 1 @123224 has 170 MA's), (7, 123320), (21, 123620), (22, 123635), (27, 123728), (29, 123767), (37, 123869), (38, 123905),

Gene: ZygoTaiga_216 Start: 123844, Stop: 124641, Start Num: 1

Candidate Starts for ZygoTaiga_216:

(Start: 1 @123844 has 170 MA's), (7, 123940), (21, 124240), (22, 124255), (27, 124348), (29, 124387), (37, 124489), (38, 124525),