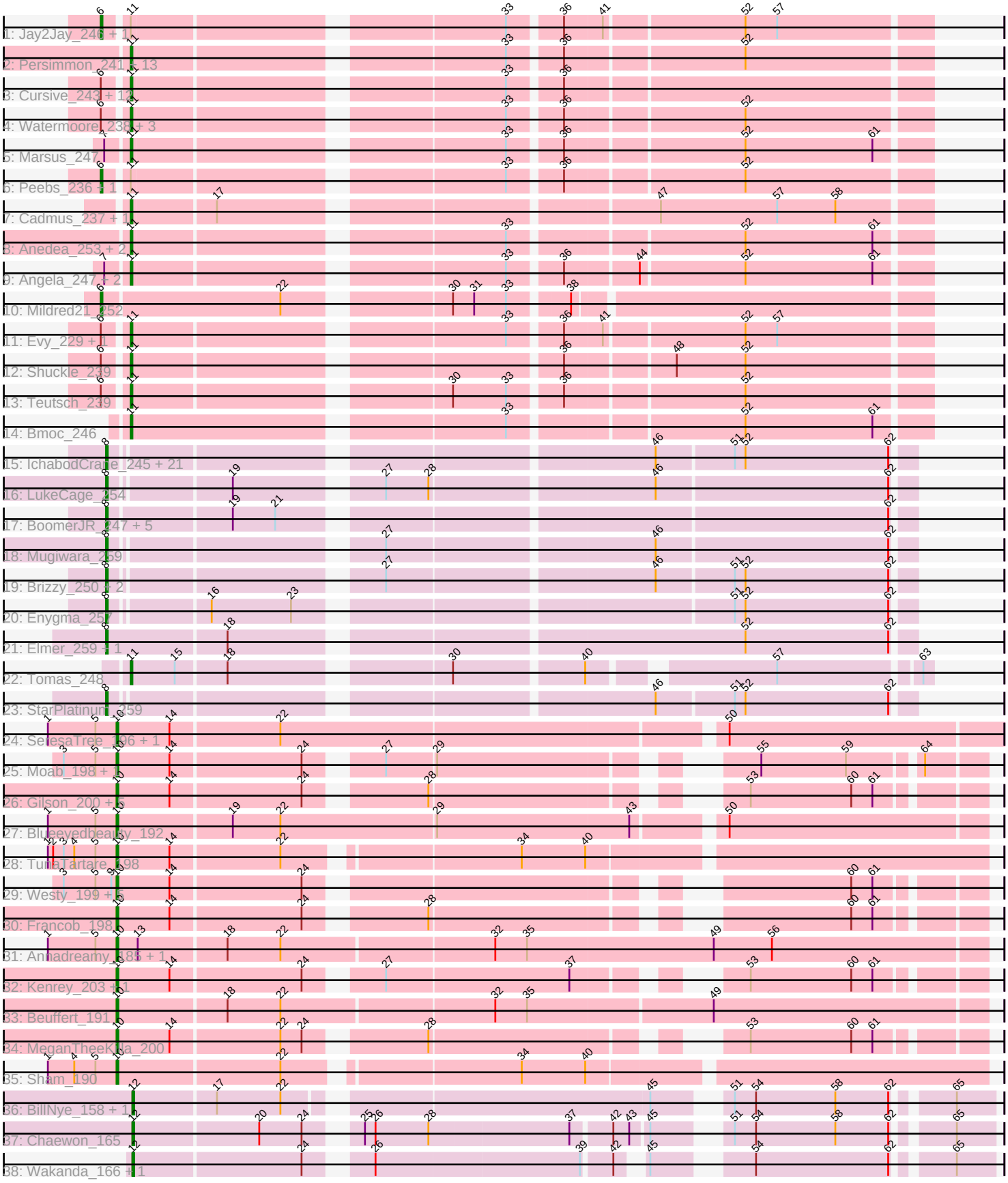
Pham 347405


1: Jay2Jay_246 + 1
2: Persimmon_241 + 13
3: Cursive_243 + 12
4: Watermoore_238 + 3
5: Marsus_247
6: Peebs_236 + 1
7: Cadmus_237 + 1
8: Anedea_253 + 2
9: Angela_247 + 2
10: Mildred21_252
11: Evy_229 + 1
12: Shuckle_239
13: Teutsch_239
14: Bmoc_246
15: IchabodCrane_245 + 21
16: LukeCage_254
17: BoomerJR_247 + 5
18: Mugiwara_259
19: Brizzy_250 + 2
20: Enygma_257
21: Elmer_259 + 1
22: Tomas_248
23: StarPlatinum_259
24: SeresaTree_196 + 1
25: Moab_198 + 1
26: Gilson_200 + 6
27: Blueeyedbeauty_192
28: TunaTartare_198
29: Westy_199 + 6
30: Francob_198
31: Annadreamy_188 + 1
32: Kenrey_203 + 1
33: Beuffert_191
34: MeganTheekida_200
35: Sham_190
36: BillNye_158 + 1
37: Chaewon_165
38: Wakanda_166 + 1

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 347405 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347405 has 119 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Jay2Jay_246, Warpy_243
• Track 2 : Persimmon_241, NootNoot_235, Eliot67_240, Braelyn_234, Paradiddles_230, PynkPanther_238, WhereRU_239, Liandry_238, Navo_232, Davielle_239, Bartholomune_239, PinkiePie_239, Squillium_241, FreddyDRoo_239
• Track 3 : Cursive_243, HangryHippo_238, Lululemon_237, EGole_246, Tribute_236, Leo04_241, Samisti12_242, PacManQ_237, Cross_239, Coogler_237, BlueOtter_238, ArianaSWT_243, Scheme_243
• Track 4 : Watermoore_238, Pepperwood_240, WashU_234, Larnav_240
• Track 5 : Marsus_247
• Track 6 : Peebs_236, Sushi23_241
• Track 7 : Cadmus_237, Daubenski_232
• Track 8 : Anedea_253, LilSaint_243, Riptide_242
• Track 9 : Angela_247, MulchMansion_247, LilMartin_243
• Track 10 : Mildred21_252
• Track 11 : Evy_229, Targaryen_239
• Track 12 : Shuckle_239
• Track 13 : Teutsch_239
• Track 14 : Bmoc_246
• Track 15 : IchabodCrane_245, Tuesday_258, Starbow_248, Battuta_249, Rikishi_252, Gibbi_259, Spilled_258, MindFlayer_244, SaltySpitoon_251, Bordeaux_249, Quaran19_251, AcciDwight_259, JimJam_258, Wipeout_241, Spelly_256, Amabiko_255, TomSawyer_255, Birchlyn_250, Jollison_248, PumpkinSpice_254, KentuckyRacer_257, Daisy123_253
• Track 16 : LukeCage_254
• Track 17 : BoomerJR_247, Sollertia_248, Stanimal_247, Yaboi_252, AngryGiraffe_247, Genie2_247
• Track 18 : Mugiwara_259
• Track 19 : Brizzy_250, Karimac_251, CeilingFan_255
• Track 20 : Enygma_257
• Track 21 : Elmer_259, Wofford_250
• Track 22 : Tomas_248
• Track 23 : StarPlatinum_259
• Track 24 : SeresaTree_196, Faust_192
• Track 25 : Moab_198, Patelgo_200
• Track 26 : Gilson_200, Forrest_203, Jada_201, Emma1919_201, DeluluLabubu_202, Maupel_201
• Track 27 : Blueeyedbeauty_192

• Track 28 : TunaTartare_198
• Track 29 : Westy_199, Stigma_195, Karp_192, Comrade_194, SparkleGoddess_197, Belfort_197
• Track 30 : Francob_198
• Track 31 : Annadreamy_185, Limpid_192
• Track 32 : Kenrey_203, Phredrick_202
• Track 33 : Beuffert_191
• Track 34 : MeganTheeKilla_200
• Track 35 : Sham_190
• Track 36 : BillNye_158, Circinus_159
• Track 37 : Chaewon_165
• Track 38 : Wakanda_166, Muntaha_168

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

The start number called the most often in the published annotations is 11, it was called in 45 of the 113 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anedea_253, Angela_247, ArianaSWT_243, Bartholomune_239, BlueOtter_238, Bmoc_246, Braelyn_234, Cadmus_237, Coogler_237, Cross_239, Cursive_243, Daubenski_232, Davielle_239, EGole_246, Eliot67_240, Evy_229, FreddyDRoo_239, HangryHippo_238, Larnav_240, Leo04_241, Liandry_238, LilMartin_243, LilSaint_243, Lululemon_237, Marsus_247, MulchMansion_247, Navo_232, NootNoot_235, PacManQ_237, Paradiddles_230, Pepperwood_240, Persimmon_241, PinkiePie_239, PynkPanther_238, Riptide_242, Samisti12_242, Scheme_243, Shuckle_239, Squillium_241, Targaryen_239, Teutsch_239, Tomas_248, Tribute_236, WashU_234, Watermoore_238, WhereRU_239,

Genes that have the "Most Annotated" start but do not call it:
• Jay2Jay_246, Peebs_236, Sushi23_241, Warpy_243,

Genes that do not have the "Most Annotated" start:
• AcciDwight_259, Amabiko_255, AngryGiraffe_247, Annadreamy_185, Battuta_249, Belfort_197, Beuffert_191, BillNye_158, Birchlyn_250, Blueeyedbeauty_192, BoomerJR_247, Bordeaux_249, Brizzy_250, CeilingFan_255, Chaewon_165, Circinus_159, Comrade_194, Daisy123_253, DeluluLabubu_202, Elmer_259, Emma1919_201, Enygma_257, Faust_192, Forrest_203, Francob_198, Genie2_247, Gibbi_259, Gilson_200, IchabodCrane_245, Jada_201, JimJam_258, Jollison_248, Karimac_251, Karp_192, Kenrey_203, KentuckyRacer_257, Limpid_192, LukeCage_254, Maupel_201, MeganTheeKilla_200, Mildred21_252, MindFlayer_244, Moab_198, Mugiwara_259, Muntaha_168, Patelgo_200, Phredrick_202, PumpkinSpice_254, Quaran19_251, Rikishi_252, SaltySpitoon_251, SeresaTree_196, Sham_190, Sollertia_248, SparkleGoddess_197, Spelly_256, Spilled_258, Stanimal_247, StarPlatinum_259, Starbow_248, Stigma_195, TomSawyer_255, Tuesday_258, TunaTartare_198, Wakanda_166, Westy_199, Wipeout_241, Wofford_250, Yaboi_252,

Summary by start number:

Start 6:
• Found in 26 of 119 (21.8%) of genes in pham
• Manual Annotations of this start: 5 of 113
• Called 19.2% of time when present
• Phage (with cluster) where this start called: Jay2Jay_246 (BE1), Mildred21_252 (BE1), Peebs_236 (BE1), Sushi23_241 (BE1), Warpy_243 (BE1),

Start 8:
• Found in 37 of 119 (31.1%) of genes in pham
• Manual Annotations of this start: 34 of 113
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AcciDwight_259 (BE2), Amabiko_255 (BE2), AngryGiraffe_247 (BE2), Battuta_249 (BE2), Birchlyn_250 (BE2), BoomerJR_247 (BE2), Bordeaux_249 (BE2), Brizzy_250 (BE2), CeilingFan_255 (BE2), Daisy123_253 (BE2), Elmer_259 (BE2), Enygma_257 (BE2), Genie2_247 (BE2), Gibbi_259 (BE2), IchabodCrane_245 (BE2), JimJam_258 (BE2), Jollison_248 (BE2), Karimac_251 (BE2), KentuckyRacer_257 (BE2), LukeCage_254 (BE2), MindFlayer_244 (BE2), Mugiwara_259 (BE2), PumpkinSpice_254 (BE2), Quaran19_251 (BE2), Rikishi_252 (BE2), SaltySpitoon_251 (BE2), Sollertia_248 (BE2), Spelly_256 (BE2), Spilled_258 (BE2), Stanimal_247 (BE2), StarPlatinum_259 (BE2), Starbow_248 (BE2), TomSawyer_255 (BE2), Tuesday_258 (BE2), Wipeout_241 (BE2), Wofford_250 (BE2), Yaboi_252 (BE2),

Start 10:
• Found in 26 of 119 (21.8%) of genes in pham
• Manual Annotations of this start: 24 of 113
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Annadreamy_185 (BK1), Belfort_197 (BK1), Beuffert_191 (BK1), Blueeyedbeauty_192 (BK1), Comrade_194 (BK1), DeluluLabubu_202 (BK1), Emma1919_201 (BK1), Faust_192 (BK1), Forrest_203 (BK1), Francob_198 (BK1), Gilson_200 (BK1), Jada_201 (BK1), Karp_192 (BK1), Kenrey_203 (BK1), Limpid_192 (BK1), Maupel_201 (BK1), MeganTheeKilla_200 (BK1), Moab_198 (BK1), Patelgo_200 (BK1), Phredrick_202 (BK1), SeresaTree_196 (BK1), Sham_190 (BK1), SparkleGoddess_197 (BK1), Stigma_195 (BK1), TunaTartare_198 (BK1), Westy_199 (BK1),

Start 11:
• Found in 50 of 119 (42.0%) of genes in pham
• Manual Annotations of this start: 45 of 113
• Called 92.0% of time when present
• Phage (with cluster) where this start called: Anedea_253 (BE1), Angela_247 (BE1), ArianaSWT_243 (BE1), Bartholomune_239 (BE1), BlueOtter_238 (BE1), Bmoc_246 (BE1), Braelyn_234 (BE1), Cadmus_237 (BE1), Coogler_237 (BE1), Cross_239 (BE1), Cursive_243 (BE1), Daubenski_232 (BE1), Davielle_239 (BE1), EGole_246 (BE1), Eliot67_240 (BE1), Evy_229 (BE1), FreddyDRoo_239 (BE1), HangryHippo_238 (BE1), Larnav_240 (BE1), Leo04_241 (BE1), Liandry_238 (BE1), LilMartin_243 (BE1), LilSaint_243 (BE1), Lululemon_237 (BE1), Marsus_247 (BE1), MulchMansion_247 (BE1), Navo_232 (BE1), NootNoot_235 (BE1), PacManQ_237 (BE1), Paradiddles_230 (BE1), Pepperwood_240 (BE1), Persimmon_241 (BE1), PinkiePie_239 (BE1), PynkPanther_238 (BE1), Riptide_242 (BE1), Samisti12_242 (BE1), Scheme_243 (BE1), Shuckle_239 (BE1), Squillium_241 (BE1), Targaryen_239 (BE1), Teutsch_239 (BE1), Tomas_248 (BE2), Tribute_236 (BE1), WashU_234 (BE1), Watermoore_238 (BE1), WhereRU_239 (BE1),

Start 12:
• Found in 5 of 119 (4.2%) of genes in pham
• Manual Annotations of this start: 5 of 113
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BillNye_158 (BK2), Chaewon_165 (BK2), Circinus_159 (BK2), Muntaha_168 (BK2), Wakanda_166 (BK2),

Summary by clusters:

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:
•Start number 6 was manually annotated 5 times for cluster BE1.
•Start number 11 was manually annotated 44 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 8 was manually annotated 34 times for cluster BE2.
•Start number 11 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:
•Start number 10 was manually annotated 24 times for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 12 was manually annotated 5 times for cluster BK2.

Gene Information:

Gene: AcciDwight_259 Start: 115487, Stop: 115906, Start Num: 8
Candidate Starts for AcciDwight_259:
(Start: 8 @115487 has 34 MA's), (46, 115766), (51, 115808), (52, 115814), (62, 115895),

Gene: Amabiko_255 Start: 115305, Stop: 115724, Start Num: 8
Candidate Starts for Amabiko_255:
(Start: 8 @115305 has 34 MA's), (46, 115584), (51, 115626), (52, 115632), (62, 115713),

Gene: Anedea_253 Start: 119101, Stop: 119517, Start Num: 11
Candidate Starts for Anedea_253:
(Start: 11 @119101 has 45 MA's), (33, 119293), (52, 119416), (61, 119488),

Gene: Angela_247 Start: 118448, Stop: 118864, Start Num: 11
Candidate Starts for Angela_247:
(7, 118436), (Start: 11 @118448 has 45 MA's), (33, 118640), (36, 118667), (44, 118706), (52, 118763), (61, 118835),

Gene: AngryGiraffe_247 Start: 114603, Stop: 115025, Start Num: 8
Candidate Starts for AngryGiraffe_247:
(Start: 8 @114603 has 34 MA's), (19, 114669), (21, 114693), (62, 115014),

Gene: Annadreamy_185 Start: 95029, Stop: 95511, Start Num: 10
Candidate Starts for Annadreamy_185:

(1, 94990), (5, 95017), (Start: 10 @95029 has 24 MA's), (13, 95041), (18, 95089), (22, 95119), (32, 95236), (35, 95254), (49, 95359), (56, 95392),

Gene: ArianaSWT_243 Start: 119027, Stop: 119443, Start Num: 11
Candidate Starts for ArianaSWT_243:
(Start: 6 @119015 has 5 MA's), (Start: 11 @119027 has 45 MA's), (33, 119219), (36, 119246),

Gene: Bartholomune_239 Start: 117105, Stop: 117521, Start Num: 11
Candidate Starts for Bartholomune_239:
(Start: 11 @117105 has 45 MA's), (33, 117297), (36, 117324), (52, 117420),

Gene: Battuta_249 Start: 114620, Stop: 115039, Start Num: 8
Candidate Starts for Battuta_249:
(Start: 8 @114620 has 34 MA's), (46, 114899), (51, 114941), (52, 114947), (62, 115028),

Gene: Belfort_197 Start: 100892, Stop: 101314, Start Num: 10
Candidate Starts for Belfort_197:
(3, 100862), (5, 100880), (9, 100889), (Start: 10 @100892 has 24 MA's), (14, 100922), (24, 100994), (60, 101249), (61, 101261),

Gene: Beuffert_191 Start: 99502, Stop: 99981, Start Num: 10
Candidate Starts for Beuffert_191:
(Start: 10 @99502 has 24 MA's), (18, 99562), (22, 99592), (32, 99709), (35, 99727), (49, 99829),

Gene: BillNye_158 Start: 90364, Stop: 90798, Start Num: 12
Candidate Starts for BillNye_158:
(Start: 12 @90364 has 5 MA's), (17, 90409), (22, 90445), (45, 90634), (51, 90664), (54, 90676), (58, 90721), (62, 90751), (65, 90778),

Gene: Birchlyn_250 Start: 112553, Stop: 112972, Start Num: 8
Candidate Starts for Birchlyn_250:
(Start: 8 @112553 has 34 MA's), (46, 112832), (51, 112874), (52, 112880), (62, 112961),

Gene: BlueOtter_238 Start: 117280, Stop: 117696, Start Num: 11
Candidate Starts for BlueOtter_238:
(Start: 6 @117268 has 5 MA's), (Start: 11 @117280 has 45 MA's), (33, 117472), (36, 117499),

Gene: Blueeyedbeauty_192 Start: 98484, Stop: 98957, Start Num: 10
Candidate Starts for Blueeyedbeauty_192:
(1, 98445), (5, 98472), (Start: 10 @98484 has 24 MA's), (19, 98547), (22, 98574), (29, 98661), (43, 98769), (50, 98814),

Gene: Bmoc_246 Start: 117875, Stop: 118294, Start Num: 11
Candidate Starts for Bmoc_246:
(Start: 11 @117875 has 45 MA's), (33, 118070), (52, 118193), (61, 118265),

Gene: BoomerJR_247 Start: 115036, Stop: 115458, Start Num: 8
Candidate Starts for BoomerJR_247:
(Start: 8 @115036 has 34 MA's), (19, 115102), (21, 115126), (62, 115447),

Gene: Bordeaux_249 Start: 115203, Stop: 115622, Start Num: 8
Candidate Starts for Bordeaux_249:
(Start: 8 @115203 has 34 MA's), (46, 115482), (51, 115524), (52, 115530), (62, 115611),

Gene: Braelyn_234 Start: 116439, Stop: 116855, Start Num: 11
Candidate Starts for Braelyn_234:
(Start: 11 @116439 has 45 MA's), (33, 116631), (36, 116658), (52, 116754),

Gene: Brizzy_250 Start: 115731, Stop: 116150, Start Num: 8
Candidate Starts for Brizzy_250:
(Start: 8 @115731 has 34 MA's), (27, 115866), (46, 116010), (51, 116052), (52, 116058), (62, 116139),

Gene: Cadmus_237 Start: 118341, Stop: 118760, Start Num: 11
Candidate Starts for Cadmus_237:
(Start: 11 @118341 has 45 MA's), (17, 118386), (47, 118611), (57, 118677), (58, 118710),

Gene: CeilingFan_255 Start: 115998, Stop: 116417, Start Num: 8
Candidate Starts for CeilingFan_255:
(Start: 8 @115998 has 34 MA's), (27, 116133), (46, 116277), (51, 116319), (52, 116325), (62, 116406),

Gene: Chaewon_165 Start: 90448, Stop: 90879, Start Num: 12
Candidate Starts for Chaewon_165:
(Start: 12 @90448 has 5 MA's), (20, 90517), (24, 90541), (25, 90562), (26, 90568), (28, 90598), (37, 90676), (42, 90697), (43, 90706), (45, 90715), (51, 90745), (54, 90757), (58, 90802), (62, 90832), (65, 90859),

Gene: Circinus_159 Start: 90330, Stop: 90764, Start Num: 12
Candidate Starts for Circinus_159:
(Start: 12 @90330 has 5 MA's), (17, 90375), (22, 90411), (45, 90600), (51, 90630), (54, 90642), (58, 90687), (62, 90717), (65, 90744),

Gene: Comrade_194 Start: 101093, Stop: 101515, Start Num: 10
Candidate Starts for Comrade_194:
(3, 101063), (5, 101081), (9, 101090), (Start: 10 @101093 has 24 MA's), (14, 101123), (24, 101195), (60, 101450), (61, 101462),

Gene: Coogler_237 Start: 117705, Stop: 118121, Start Num: 11
Candidate Starts for Coogler_237:
(Start: 6 @117693 has 5 MA's), (Start: 11 @117705 has 45 MA's), (33, 117897), (36, 117924),

Gene: Cross_239 Start: 117925, Stop: 118341, Start Num: 11
Candidate Starts for Cross_239:
(Start: 6 @117913 has 5 MA's), (Start: 11 @117925 has 45 MA's), (33, 118117), (36, 118144),

Gene: Cursive_243 Start: 118032, Stop: 118448, Start Num: 11
Candidate Starts for Cursive_243:
(Start: 6 @118020 has 5 MA's), (Start: 11 @118032 has 45 MA's), (33, 118224), (36, 118251),

Gene: Daisy123_253 Start: 115860, Stop: 116279, Start Num: 8
Candidate Starts for Daisy123_253:
(Start: 8 @115860 has 34 MA's), (46, 116139), (51, 116181), (52, 116187), (62, 116268),

Gene: Daubenski_232 Start: 118242, Stop: 118661, Start Num: 11
Candidate Starts for Daubenski_232:
(Start: 11 @118242 has 45 MA's), (17, 118287), (47, 118512), (57, 118578), (58, 118611),

Gene: Davielle_239 Start: 117189, Stop: 117605, Start Num: 11
Candidate Starts for Davielle_239:
(Start: 11 @117189 has 45 MA's), (33, 117381), (36, 117408), (52, 117504),

Gene: DeluluLabubu_202 Start: 101223, Stop: 101645, Start Num: 10
Candidate Starts for DeluluLabubu_202:
(Start: 10 @101223 has 24 MA's), (14, 101253), (24, 101325), (28, 101382), (53, 101523), (60, 101580), (61, 101592),

Gene: EGole_246 Start: 120506, Stop: 120922, Start Num: 11
Candidate Starts for EGole_246:
(Start: 6 @120494 has 5 MA's), (Start: 11 @120506 has 45 MA's), (33, 120698), (36, 120725),

Gene: Eliot67_240 Start: 116789, Stop: 117205, Start Num: 11
Candidate Starts for Eliot67_240:
(Start: 11 @116789 has 45 MA's), (33, 116981), (36, 117008), (52, 117104),

Gene: Elmer_259 Start: 118760, Stop: 119188, Start Num: 8
Candidate Starts for Elmer_259:
(Start: 8 @118760 has 34 MA's), (18, 118826), (52, 119096), (62, 119177),

Gene: Emma1919_201 Start: 99749, Stop: 100171, Start Num: 10
Candidate Starts for Emma1919_201:
(Start: 10 @99749 has 24 MA's), (14, 99779), (24, 99851), (28, 99908), (53, 100049), (60, 100106), (61, 100118),

Gene: Enygma_257 Start: 117798, Stop: 118217, Start Num: 8
Candidate Starts for Enygma_257:
(Start: 8 @117798 has 34 MA's), (16, 117849), (23, 117894), (51, 118119), (52, 118125), (62, 118206),

Gene: Evy_229 Start: 117959, Stop: 118375, Start Num: 11
Candidate Starts for Evy_229:
(Start: 6 @117947 has 5 MA's), (Start: 11 @117959 has 45 MA's), (33, 118151), (36, 118178), (41, 118199), (52, 118274), (57, 118292),

Gene: Faust_192 Start: 100466, Stop: 100948, Start Num: 10
Candidate Starts for Faust_192:
(1, 100427), (5, 100454), (Start: 10 @100466 has 24 MA's), (14, 100496), (22, 100556), (50, 100796),

Gene: Forrest_203 Start: 101650, Stop: 102072, Start Num: 10
Candidate Starts for Forrest_203:
(Start: 10 @101650 has 24 MA's), (14, 101680), (24, 101752), (28, 101809), (53, 101950), (60, 102007), (61, 102019),

Gene: Francob_198 Start: 99824, Stop: 100246, Start Num: 10
Candidate Starts for Francob_198:
(Start: 10 @99824 has 24 MA's), (14, 99854), (24, 99926), (28, 99983), (60, 100181), (61, 100193),

Gene: FreddyDRoo_239 Start: 116789, Stop: 117205, Start Num: 11
Candidate Starts for FreddyDRoo_239:
(Start: 11 @116789 has 45 MA's), (33, 116981), (36, 117008), (52, 117104),

Gene: Genie2_247 Start: 115161, Stop: 115583, Start Num: 8

Candidate Starts for Genie2_247:
(Start: 8 @115161 has 34 MA's), (19, 115227), (21, 115251), (62, 115572),

Gene: Gibbi_259 Start: 115491, Stop: 115910, Start Num: 8
Candidate Starts for Gibbi_259:
(Start: 8 @115491 has 34 MA's), (46, 115770), (51, 115812), (52, 115818), (62, 115899),

Gene: Gilson_200 Start: 99711, Stop: 100133, Start Num: 10
Candidate Starts for Gilson_200:
(Start: 10 @99711 has 24 MA's), (14, 99741), (24, 99813), (28, 99870), (53, 100011), (60, 100068), (61, 100080),

Gene: HangryHippo_238 Start: 117280, Stop: 117696, Start Num: 11
Candidate Starts for HangryHippo_238:
(Start: 6 @117268 has 5 MA's), (Start: 11 @117280 has 45 MA's), (33, 117472), (36, 117499),

Gene: IchabodCrane_245 Start: 115006, Stop: 115425, Start Num: 8
Candidate Starts for IchabodCrane_245:
(Start: 8 @115006 has 34 MA's), (46, 115285), (51, 115327), (52, 115333), (62, 115414),

Gene: Jada_201 Start: 100522, Stop: 100944, Start Num: 10
Candidate Starts for Jada_201:
(Start: 10 @100522 has 24 MA's), (14, 100552), (24, 100624), (28, 100681), (53, 100822), (60, 100879), (61, 100891),

Gene: Jay2Jay_246 Start: 118311, Stop: 118739, Start Num: 6
Candidate Starts for Jay2Jay_246:
(Start: 6 @118311 has 5 MA's), (Start: 11 @118323 has 45 MA's), (33, 118515), (36, 118542), (41, 118563), (52, 118638), (57, 118656),

Gene: JimJam_258 Start: 116927, Stop: 117346, Start Num: 8
Candidate Starts for JimJam_258:
(Start: 8 @116927 has 34 MA's), (46, 117206), (51, 117248), (52, 117254), (62, 117335),

Gene: Jollison_248 Start: 115137, Stop: 115556, Start Num: 8
Candidate Starts for Jollison_248:
(Start: 8 @115137 has 34 MA's), (46, 115416), (51, 115458), (52, 115464), (62, 115545),

Gene: Karimac_251 Start: 115322, Stop: 115741, Start Num: 8
Candidate Starts for Karimac_251:
(Start: 8 @115322 has 34 MA's), (27, 115457), (46, 115601), (51, 115643), (52, 115649), (62, 115730),

Gene: Karp_192 Start: 100743, Stop: 101165, Start Num: 10
Candidate Starts for Karp_192:
(3, 100713), (5, 100731), (9, 100740), (Start: 10 @100743 has 24 MA's), (14, 100773), (24, 100845), (60, 101100), (61, 101112),

Gene: Kenrey_203 Start: 100767, Stop: 101189, Start Num: 10
Candidate Starts for Kenrey_203:
(Start: 10 @100767 has 24 MA's), (14, 100797), (24, 100869), (27, 100902), (37, 101004), (53, 101067), (60, 101124), (61, 101136),

Gene: KentuckyRacer_257 Start: 116842, Stop: 117261, Start Num: 8

Candidate Starts for KentuckyRacer_257:
(Start: 8 @116842 has 34 MA's), (46, 117121), (51, 117163), (52, 117169), (62, 117250),

Gene: Larnav_240 Start: 118198, Stop: 118614, Start Num: 11
Candidate Starts for Larnav_240:
(Start: 6 @118186 has 5 MA's), (Start: 11 @118198 has 45 MA's), (33, 118390), (36, 118417), (52, 118513),

Gene: Leo04_241 Start: 118311, Stop: 118727, Start Num: 11
Candidate Starts for Leo04_241:
(Start: 6 @118299 has 5 MA's), (Start: 11 @118311 has 45 MA's), (33, 118503), (36, 118530),

Gene: Liandry_238 Start: 117496, Stop: 117912, Start Num: 11
Candidate Starts for Liandry_238:
(Start: 11 @117496 has 45 MA's), (33, 117688), (36, 117715), (52, 117811),

Gene: LilMartin_243 Start: 117388, Stop: 117804, Start Num: 11
Candidate Starts for LilMartin_243:
(7, 117376), (Start: 11 @117388 has 45 MA's), (33, 117580), (36, 117607), (44, 117646), (52, 117703), (61, 117775),

Gene: LilSaint_243 Start: 117903, Stop: 118319, Start Num: 11
Candidate Starts for LilSaint_243:
(Start: 11 @117903 has 45 MA's), (33, 118095), (52, 118218), (61, 118290),

Gene: Limpid_192 Start: 100342, Stop: 100824, Start Num: 10
Candidate Starts for Limpid_192:
(1, 100303), (5, 100330), (Start: 10 @100342 has 24 MA's), (13, 100354), (18, 100402), (22, 100432), (32, 100549), (35, 100567), (49, 100672), (56, 100705),

Gene: LukeCage_254 Start: 117167, Stop: 117586, Start Num: 8
Candidate Starts for LukeCage_254:
(Start: 8 @117167 has 34 MA's), (19, 117230), (27, 117302), (28, 117326), (46, 117446), (62, 117575),

Gene: Lululemon_237 Start: 117085, Stop: 117501, Start Num: 11
Candidate Starts for Lululemon_237:
(Start: 6 @117073 has 5 MA's), (Start: 11 @117085 has 45 MA's), (33, 117277), (36, 117304),

Gene: Marsus_247 Start: 119739, Stop: 120155, Start Num: 11
Candidate Starts for Marsus_247:
(7, 119727), (Start: 11 @119739 has 45 MA's), (33, 119931), (36, 119958), (52, 120054), (61, 120126),

Gene: Maupel_201 Start: 99711, Stop: 100133, Start Num: 10
Candidate Starts for Maupel_201:
(Start: 10 @99711 has 24 MA's), (14, 99741), (24, 99813), (28, 99870), (53, 100011), (60, 100068), (61, 100080),

Gene: MeganTheeKilla_200 Start: 99773, Stop: 100195, Start Num: 10
Candidate Starts for MeganTheeKilla_200:
(Start: 10 @99773 has 24 MA's), (14, 99803), (22, 99863), (24, 99875), (28, 99932), (53, 100073), (60, 100130), (61, 100142),

Gene: Mildred21_252 Start: 116987, Stop: 117418, Start Num: 6

Candidate Starts for Mildred21_252:
(Start: 6 @116987 has 5 MA's), (22, 117086), (30, 117167), (31, 117179), (33, 117197), (38, 117227),

Gene: MindFlayer_244 Start: 114522, Stop: 114941, Start Num: 8
Candidate Starts for MindFlayer_244:
(Start: 8 @114522 has 34 MA's), (46, 114801), (51, 114843), (52, 114849), (62, 114930),

Gene: Moab_198 Start: 102355, Stop: 102777, Start Num: 10
Candidate Starts for Moab_198:
(3, 102325), (5, 102343), (Start: 10 @102355 has 24 MA's), (14, 102385), (24, 102457), (27, 102490), (29, 102517), (55, 102661), (59, 102709), (64, 102745),

Gene: Mugiwara_259 Start: 117873, Stop: 118292, Start Num: 8
Candidate Starts for Mugiwara_259:
(Start: 8 @117873 has 34 MA's), (27, 118008), (46, 118152), (62, 118281),

Gene: MulchMansion_247 Start: 119022, Stop: 119438, Start Num: 11
Candidate Starts for MulchMansion_247:
(7, 119010), (Start: 11 @119022 has 45 MA's), (33, 119214), (36, 119241), (44, 119280), (52, 119337), (61, 119409),

Gene: Muntaha_168 Start: 89624, Stop: 90046, Start Num: 12
Candidate Starts for Muntaha_168:
(Start: 12 @89624 has 5 MA's), (24, 89717), (26, 89744), (39, 89858), (42, 89873), (45, 89882), (54, 89924), (62, 89999), (65, 90026),

Gene: Navo_232 Start: 115643, Stop: 116059, Start Num: 11
Candidate Starts for Navo_232:
(Start: 11 @115643 has 45 MA's), (33, 115835), (36, 115862), (52, 115958),

Gene: NootNoot_235 Start: 116338, Stop: 116754, Start Num: 11
Candidate Starts for NootNoot_235:
(Start: 11 @116338 has 45 MA's), (33, 116530), (36, 116557), (52, 116653),

Gene: PacManQ_237 Start: 117085, Stop: 117501, Start Num: 11
Candidate Starts for PacManQ_237:
(Start: 6 @117073 has 5 MA's), (Start: 11 @117085 has 45 MA's), (33, 117277), (36, 117304),

Gene: Paradiddles_230 Start: 118713, Stop: 119129, Start Num: 11
Candidate Starts for Paradiddles_230:
(Start: 11 @118713 has 45 MA's), (33, 118905), (36, 118932), (52, 119028),

Gene: Patelgo_200 Start: 102996, Stop: 103418, Start Num: 10
Candidate Starts for Patelgo_200:
(3, 102966), (5, 102984), (Start: 10 @102996 has 24 MA's), (14, 103026), (24, 103098), (27, 103131), (29, 103158), (55, 103302), (59, 103350), (64, 103386),

Gene: Peebs_236 Start: 118157, Stop: 118585, Start Num: 6
Candidate Starts for Peebs_236:
(Start: 6 @118157 has 5 MA's), (Start: 11 @118169 has 45 MA's), (33, 118361), (36, 118388), (52, 118484),

Gene: Pepperwood_240 Start: 117977, Stop: 118393, Start Num: 11

Candidate Starts for Pepperwood_240:
(Start: 6 @117965 has 5 MA's), (Start: 11 @117977 has 45 MA's), (33, 118169), (36, 118196), (52, 118292),

Gene: Persimmon_241 Start: 116840, Stop: 117256, Start Num: 11
Candidate Starts for Persimmon_241:
(Start: 11 @116840 has 45 MA's), (33, 117032), (36, 117059), (52, 117155),

Gene: Phredrick_202 Start: 99549, Stop: 99971, Start Num: 10
Candidate Starts for Phredrick_202:
(Start: 10 @99549 has 24 MA's), (14, 99579), (24, 99651), (27, 99684), (37, 99786), (53, 99849), (60, 99906), (61, 99918),

Gene: PinkiePie_239 Start: 117496, Stop: 117912, Start Num: 11
Candidate Starts for PinkiePie_239:
(Start: 11 @117496 has 45 MA's), (33, 117688), (36, 117715), (52, 117811),

Gene: PumpkinSpice_254 Start: 115743, Stop: 116162, Start Num: 8
Candidate Starts for PumpkinSpice_254:
(Start: 8 @115743 has 34 MA's), (46, 116022), (51, 116064), (52, 116070), (62, 116151),

Gene: PynkPanther_238 Start: 117691, Stop: 118107, Start Num: 11
Candidate Starts for PynkPanther_238:
(Start: 11 @117691 has 45 MA's), (33, 117883), (36, 117910), (52, 118006),

Gene: Quaran19_251 Start: 115184, Stop: 115603, Start Num: 8
Candidate Starts for Quaran19_251:
(Start: 8 @115184 has 34 MA's), (46, 115463), (51, 115505), (52, 115511), (62, 115592),

Gene: Rikishi_252 Start: 115465, Stop: 115884, Start Num: 8
Candidate Starts for Rikishi_252:
(Start: 8 @115465 has 34 MA's), (46, 115744), (51, 115786), (52, 115792), (62, 115873),

Gene: Riptide_242 Start: 116848, Stop: 117264, Start Num: 11
Candidate Starts for Riptide_242:
(Start: 11 @116848 has 45 MA's), (33, 117040), (52, 117163), (61, 117235),

Gene: SaltySpitoon_251 Start: 114726, Stop: 115145, Start Num: 8
Candidate Starts for SaltySpitoon_251:
(Start: 8 @114726 has 34 MA's), (46, 115005), (51, 115047), (52, 115053), (62, 115134),

Gene: Samisti12_242 Start: 119234, Stop: 119650, Start Num: 11
Candidate Starts for Samisti12_242:
(Start: 6 @119222 has 5 MA's), (Start: 11 @119234 has 45 MA's), (33, 119426), (36, 119453),

Gene: Scheme_243 Start: 119216, Stop: 119632, Start Num: 11
Candidate Starts for Scheme_243:
(Start: 6 @119204 has 5 MA's), (Start: 11 @119216 has 45 MA's), (33, 119408), (36, 119435),

Gene: SeresaTree_196 Start: 100451, Stop: 100933, Start Num: 10
Candidate Starts for SeresaTree_196:
(1, 100412), (5, 100439), (Start: 10 @100451 has 24 MA's), (14, 100481), (22, 100541), (50, 100781),

Gene: Sham_190 Start: 101714, Stop: 102175, Start Num: 10
Candidate Starts for Sham_190:
(1, 101675), (4, 101690), (5, 101702), (Start: 10 @101714 has 24 MA's), (22, 101804), (34, 101924), (40, 101960),

Gene: Shuckle_239 Start: 118671, Stop: 119087, Start Num: 11
Candidate Starts for Shuckle_239:
(Start: 6 @118659 has 5 MA's), (Start: 11 @118671 has 45 MA's), (36, 118890), (48, 118947), (52, 118986),

Gene: Sollertia_248 Start: 115150, Stop: 115572, Start Num: 8
Candidate Starts for Sollertia_248:
(Start: 8 @115150 has 34 MA's), (19, 115216), (21, 115240), (62, 115561),

Gene: SparkleGoddess_197 Start: 101301, Stop: 101723, Start Num: 10
Candidate Starts for SparkleGoddess_197:
(3, 101271), (5, 101289), (9, 101298), (Start: 10 @101301 has 24 MA's), (14, 101331), (24, 101403), (60, 101658), (61, 101670),

Gene: Spelly_256 Start: 114655, Stop: 115074, Start Num: 8
Candidate Starts for Spelly_256:
(Start: 8 @114655 has 34 MA's), (46, 114934), (51, 114976), (52, 114982), (62, 115063),

Gene: Spilled_258 Start: 115859, Stop: 116278, Start Num: 8
Candidate Starts for Spilled_258:
(Start: 8 @115859 has 34 MA's), (46, 116138), (51, 116180), (52, 116186), (62, 116267),

Gene: Squillium_241 Start: 117498, Stop: 117914, Start Num: 11
Candidate Starts for Squillium_241:
(Start: 11 @117498 has 45 MA's), (33, 117690), (36, 117717), (52, 117813),

Gene: Stanimal_247 Start: 115522, Stop: 115944, Start Num: 8
Candidate Starts for Stanimal_247:
(Start: 8 @115522 has 34 MA's), (19, 115588), (21, 115612), (62, 115933),

Gene: StarPlatinum_259 Start: 117943, Stop: 118362, Start Num: 8
Candidate Starts for StarPlatinum_259:
(Start: 8 @117943 has 34 MA's), (46, 118222), (51, 118264), (52, 118270), (62, 118351),

Gene: Starbow_248 Start: 114699, Stop: 115118, Start Num: 8
Candidate Starts for Starbow_248:
(Start: 8 @114699 has 34 MA's), (46, 114978), (51, 115020), (52, 115026), (62, 115107),

Gene: Stigma_195 Start: 101539, Stop: 101961, Start Num: 10
Candidate Starts for Stigma_195:
(3, 101509), (5, 101527), (9, 101536), (Start: 10 @101539 has 24 MA's), (14, 101569), (24, 101641), (60, 101896), (61, 101908),

Gene: Sushi23_241 Start: 119023, Stop: 119451, Start Num: 6
Candidate Starts for Sushi23_241:
(Start: 6 @119023 has 5 MA's), (Start: 11 @119035 has 45 MA's), (33, 119227), (36, 119254), (52, 119350),

Gene: Targaryen_239 Start: 119067, Stop: 119483, Start Num: 11
Candidate Starts for Targaryen_239:
(Start: 6 @119055 has 5 MA's), (Start: 11 @119067 has 45 MA's), (33, 119259), (36, 119286), (41, 119307), (52, 119382), (57, 119400),

Gene: Teutsch_239 Start: 118400, Stop: 118816, Start Num: 11
Candidate Starts for Teutsch_239:
(Start: 6 @118388 has 5 MA's), (Start: 11 @118400 has 45 MA's), (30, 118562), (33, 118592), (36, 118619), (52, 118715),

Gene: TomSawyer_255 Start: 117170, Stop: 117589, Start Num: 8
Candidate Starts for TomSawyer_255:
(Start: 8 @117170 has 34 MA's), (46, 117449), (51, 117491), (52, 117497), (62, 117578),

Gene: Tomas_248 Start: 118214, Stop: 118615, Start Num: 11
Candidate Starts for Tomas_248:
(Start: 11 @118214 has 45 MA's), (15, 118238), (18, 118265), (30, 118376), (40, 118445), (57, 118535), (63, 118610),

Gene: Tribute_236 Start: 118565, Stop: 118981, Start Num: 11
Candidate Starts for Tribute_236:
(Start: 6 @118553 has 5 MA's), (Start: 11 @118565 has 45 MA's), (33, 118757), (36, 118784),

Gene: Tuesday_258 Start: 115710, Stop: 116129, Start Num: 8
Candidate Starts for Tuesday_258:
(Start: 8 @115710 has 34 MA's), (46, 115989), (51, 116031), (52, 116037), (62, 116118),

Gene: TunaTartare_198 Start: 103829, Stop: 104290, Start Num: 10
Candidate Starts for TunaTartare_198:
(1, 103790), (2, 103793), (3, 103799), (4, 103805), (5, 103817), (Start: 10 @103829 has 24 MA's), (14, 103859), (22, 103919), (34, 104039), (40, 104075),

Gene: Wakanda_166 Start: 89304, Stop: 89726, Start Num: 12
Candidate Starts for Wakanda_166:
(Start: 12 @89304 has 5 MA's), (24, 89397), (26, 89424), (39, 89538), (42, 89553), (45, 89562), (54, 89604), (62, 89679), (65, 89706),

Gene: Warpy_243 Start: 117756, Stop: 118184, Start Num: 6
Candidate Starts for Warpy_243:
(Start: 6 @117756 has 5 MA's), (Start: 11 @117768 has 45 MA's), (33, 117960), (36, 117987), (41, 118008), (52, 118083), (57, 118101),

Gene: WashU_234 Start: 118187, Stop: 118603, Start Num: 11
Candidate Starts for WashU_234:
(Start: 6 @118175 has 5 MA's), (Start: 11 @118187 has 45 MA's), (33, 118379), (36, 118406), (52, 118502),

Gene: Watermoore_238 Start: 118789, Stop: 119205, Start Num: 11
Candidate Starts for Watermoore_238:
(Start: 6 @118777 has 5 MA's), (Start: 11 @118789 has 45 MA's), (33, 118981), (36, 119008), (52, 119104),

Gene: Westy_199 Start: 101797, Stop: 102219, Start Num: 10

Candidate Starts for Westy_199:
(3, 101767), (5, 101785), (9, 101794), (Start: 10 @101797 has 24 MA's), (14, 101827), (24, 101899), (60, 102154), (61, 102166),

Gene: WhereRU_239 Start: 117174, Stop: 117590, Start Num: 11
Candidate Starts for WhereRU_239:
(Start: 11 @117174 has 45 MA's), (33, 117366), (36, 117393), (52, 117489),

Gene: Wipeout_241 Start: 116122, Stop: 116541, Start Num: 8
Candidate Starts for Wipeout_241:
(Start: 8 @116122 has 34 MA's), (46, 116401), (51, 116443), (52, 116449), (62, 116530),

Gene: Wofford_250 Start: 118202, Stop: 118630, Start Num: 8
Candidate Starts for Wofford_250:
(Start: 8 @118202 has 34 MA's), (18, 118268), (52, 118538), (62, 118619),

Gene: Yaboi_252 Start: 115085, Stop: 115507, Start Num: 8
Candidate Starts for Yaboi_252:
(Start: 8 @115085 has 34 MA's), (19, 115151), (21, 115175), (62, 115496),