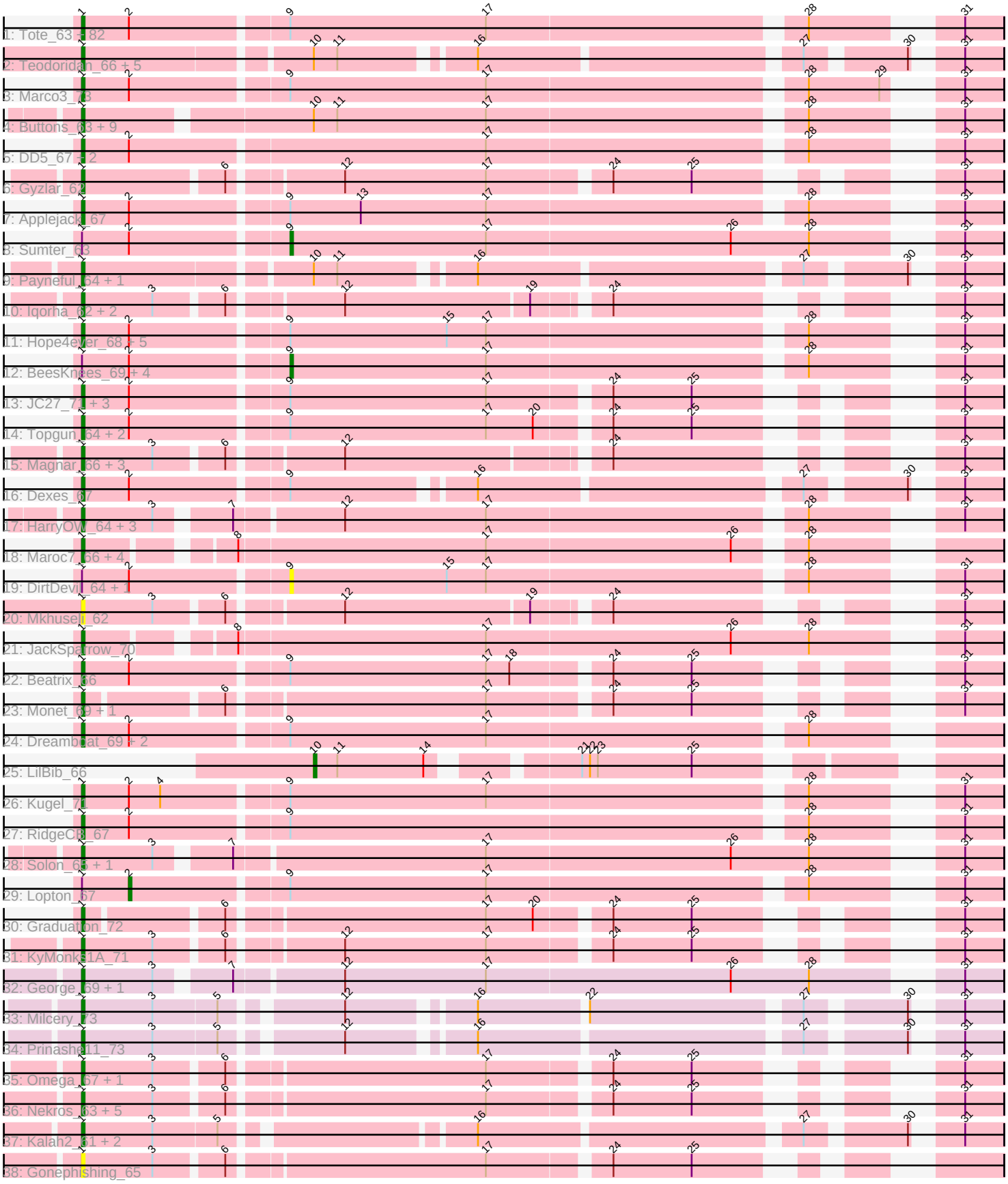
Pham 345424


1: Tote_63 + 82
2: Teodoridan_66 + 5
3: Marco3_73
4: Buttons_63 + 9
5: DD5_67 + 2
6: Gyzlar_62
7: Applejack_67
8: Sumter_63
9: Payneful_64 + 1
10: Iqorha_62 + 2
11: Hope4ever_68 + 5
12: BeesKnees_69 + 4
13: JC27_72 + 3
14: Topgun_64 + 2
15: Magnar_66 + 3
16: Dexes_67
17: HarryOW_64 + 3
18: Maroc7_66 + 4
19: DirtDevil_64 + 1
20: Mkhusel_62
21: JackSparrow_70
22: Beatrix_66
23: Monet_69 + 1
24: Dreamboat_69 + 2
25: LilBib_66
26: Kugel_71
27: RidgeCB_67
28: Solon_65 + 1
29: Lopton_67
30: Graduation_72
31: KyMonk91A_71
32: George_69 + 1
33: Milcery_73
34: Prinashell_73
35: Omega_67 + 1
36: Nekros_63 + 5
37: Kalah2_61 + 2
38: Gonephishing_65

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 345424 Report

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

Pham number 345424 has 177 members, 15 are drafts.

Phages represented in each track:
• Track 1 : Tote_63, Zephyr_68, DrFeelGood_65, Ohno789_68, Rohr_68, Ashballer_70, JuliaChild_68, Chanagan_60, Burton_68, Arcanine_69, Arlo_65, Fenn_73, Rufus_69, Ichabod_71, Gwendoluna_71, PSullivan_65, BPBiebs31_70, Swole_68, MilleFeuille_69, Killigrew_65, Museum_69, Petp2012_70, Dynamix_68, Sibs6_69, Pelly_69, Kanely_68, Slagathor_69, Blue_67, NEHalo_64, ProMouse_71, GMonster_65, Rajelicia_67, Marcell_63, Raid_66, Altman_69, Anglerfish_67, Ringer_70, StrongArm_65, HermioneGrange_69, SpikeBT_65, PinkPlastic_66, Pita2_68, Turj99_65, Bethlehem_68, Moose_68, Bexan_64, QTRlifeCrisis_68, TwoPeat_68, Mryolo_65, BigMau_69, MaryBeth_64, Bob3_68, Euphoria_66, BluSpix_65, Jerm2_68, TheloniousMonk_71, Sorpresa_65, Homines_58, Briton15_71, Pippin_66, MetalQZJ_63, Naira_72, Corvo_67, DreamCatcher_69, Forsytheast_68, Ruotula_73, Ciao_64, BaconJack_72, SwissCheese_70, PowerRanger_66, PascalRango_64, Magnito_68, Seabiscuit_68, IgnatiusPatJac_67, McGuire_67, Froghopper_64, ConceptII_71, Bruns_69, Rubeus_66, PattyP_69, HanShotFirst_68, Violet_64, MPlant7149_67
• Track 2 : Teodoridan_66, Levia_64, Ajay_66, PhineBark_66, BarrowTuph_68, Blackflame_62
• Track 3 : Marco3_73
• Track 4 : Buttons_63, Licorice_67, Bxb1_60, Fajezeel_67, Acme_68, Nhonho_66, Watermelon_66, Barriga_69, Greg_67, Wheeler_69
• Track 5 : DD5_67, Pari_71, Lockley_66
• Track 6 : Gyzlar_62
• Track 7 : Applejack_67
• Track 8 : Sumter_63
• Track 9 : Payneful_64, Marchy_60
• Track 10 : Iqorha_62, Norz_66, Inyanga_62
• Track 11 : Hope4ever_68, Hermia_64, Noxious_65, Aldrich_63, GroundGoblin_63, KikiBouba_65
• Track 12 : BeesKnees_69, U2_63, Sandaddy_64, CartmannCramer_66, Molly_68
• Track 13 : JC27_71, Atkinbua_70, Marge_63, Oogway_65
• Track 14 : Topgun_64, LunarLander_66, Wilkins_65
• Track 15 : Magnar_66, Fushigi_62, Thor_66, SarFire_66
• Track 16 : Dexes_67
• Track 17 : HarryOW_64, Treddle_67, GrecoEtereo_66, Jorgensen_72
• Track 18 : Maroc7_66, Phlippers_62, Fascinus_62, Bigfoot_60, CactusRose_68
• Track 19 : DirtDevil_64, CatBus_62
• Track 20 : Mkhuseli_62

• Track 21 : JackSparrow_70
• Track 22 : Beatrix_66
• Track 23 : Monet_69, Edtherson_65
• Track 24 : Dreamboat_69, PherrisBueller_68, Jasper_68
• Track 25 : LilBib_66
• Track 26 : Kugel_71
• Track 27 : RidgeCB_67
• Track 28 : Solon_65, Crispicous1_64
• Track 29 : Lopton_67
• Track 30 : Graduation_72
• Track 31 : KyMonks1A_71
• Track 32 : George_69, Twigg_73
• Track 33 : Milcery_73
• Track 34 : Prinashe11_73
• Track 35 : Omega_67, LittleE_64
• Track 36 : Nekros_63, Shaboozey_58, KashFlow_60, Hannaconda_63, Nibley_57, BronnyJames_59
• Track 37 : Kalah2_61, Klein_66, Wanda_71
• Track 38 : Gonephishing_65

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 156 of the 162 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acme_68, Ajay_66, Aldrich_63, Altman_69, Anglerfish_67, Applejack_67, Arcanine_69, Arlo_65, Ashballer_70, Atkinbua_70, BPBiebs31_70, BaconJack_72, Barriga_69, BarrowTuph_68, Beatrix_66, Bethlehem_68, Bexan_64, BigMau_69, Bigfoot_60, Blackflame_62, BluSpix_65, Blue_67, Bob3_68, Briton15_71, BronnyJames_59, Bruns_69, Burton_68, Buttons_63, Bxb1_60, CactusRose_68, Chanagan_60, Ciao_64, ConceptII_71, Corvo_67, Crispicous1_64, DD5_67, Dexes_67, DrFeelGood_65, DreamCatcher_69, Dreamboat_69, Dynamix_68, Edtherson_65, Euphoria_66, Fajezeel_67, Fascinus_62, Fenn_73, Forsytheast_68, Froghopper_64, Fushigi_62, GMonster_65, George_69, Gonephishing_65, Graduation_72, GrecoEtereo_66, Greg_67, GroundGoblin_63, Gwendoluna_71, Gyzlar_62, HanShotFirst_68, Hannaconda_63, HarryOW_64, Hermia_64, HermioneGrange_69, Homines_58, Hope4ever_68, Ichabod_71, IgnatiusPatJac_67, Inyanga_62, Iqorha_62, JC27_71, JackSparrow_70, Jasper_68, Jerm2_68, Jorgensen_72, JuliaChild_68, Kalah2_61, Kanely_68, KashFlow_60, KikiBouba_65, Killigrew_65, Klein_66, Kugel_71, KyMonks1A_71, Levia_64, Licorice_67, LittleE_64, Lockley_66, LunarLander_66, MPlant7149_67, Magnar_66, Magnito_68, Marcell_63, Marchy_60, Marco3_73, Marge_63, Maroc7_66, MaryBeth_64, McGuire_67, MetalQZJ_63, Milcery_73, MilleFeuille_69, Mkhuseli_62, Monet_69, Moose_68, Mryolo_65, Museum_69, NEHalo_64, Naira_72, Nekros_63, Nhonho_66, Nibley_57, Norz_66, Noxious_65, Ohno789_68, Omega_67, Oogway_65, PSullivan_65, Pari_71, PascalRango_64, PattyP_69, Payneful_64, Pelly_69, Petp2012_70, PherrisBueller_68, PhineBark_66, Phlippers_62, PinkPlastic_66, Pippin_66, Pita2_68, PowerRanger_66, Prinashe11_73, ProMouse_71, QTRlifeCrisis_68, Raid_66, Rajelicia_67, RidgeCB_67, Ringer_70, Rohr_68, Rubeus_66, Rufus_69,

Ruotula_73, SarFire_66, Seabiscuit_68, Shaboozey_58, Sibs6_69, Slagathor_69, Solon_65, Sorpresa_65, SpikeBT_65, StrongArm_65, SwissCheese_70, Swole_68, Teodoridan_66, TheloniousMonk_71, Thor_66, Topgun_64, Tote_63, Treddle_67, Turj99_65, Twigg_73, TwoPeat_68, Violet_64, Wanda_71, Watermelon_66, Wheeler_69, Wilkins_65, Zephyr_68,

Genes that have the "Most Annotated" start but do not call it:
• BeesKnees_69, CartmannCramer_66, CatBus_62, DirtDevil_64, Lopton_67, Molly_68, Sandaddy_64, Sumter_63, U2_63,

Genes that do not have the "Most Annotated" start:
• LilBib_66,

Summary by start number:

Start 1:
• Found in 176 of 177 (99.4%) of genes in pham
• Manual Annotations of this start: 156 of 162
• Called 94.9% of time when present
• Phage (with cluster) where this start called: Acme_68 (A1), Ajay_66 (A1), Aldrich_63 (A1), Altman_69 (A1), Anglerfish_67 (A1), Applejack_67 (A1), Arcanine_69 (A1), Arlo_65 (A1), Ashballer_70 (A1), Atkinbua_70 (A1), BPBiebs31_70 (A1), BaconJack_72 (A1), Barriga_69 (A1), BarrowTuph_68 (A1), Beatrix_66 (A1), Bethlehem_68 (A1), Bexan_64 (A1), BigMau_69 (A1), Bigfoot_60 (A1), Blackflame_62 (A1), BluSpix_65 (A1), Blue_67 (A1), Bob3_68 (A1), Briton15_71 (A1), BronnyJames_59 (J), Bruns_69 (A1), Burton_68 (A1), Buttons_63 (A1), Bxb1_60 (A1), CactusRose_68 (A1), Chanagan_60 (A1), Ciao_64 (A1), ConceptII_71 (A1), Corvo_67 (A1), Crispicous1_64 (A1), DD5_67 (A1), Dexes_67 (A1), DrFeelGood_65 (A1), DreamCatcher_69 (A1), Dreamboat_69 (A1), Dynamix_68 (A1), Edtherson_65 (A1), Euphoria_66 (A1), Fajezeel_67 (A1), Fascinus_62 (A1), Fenn_73 (A1), Forsytheast_68 (A1), Froghopper_64 (A1), Fushigi_62 (A1), GMonster_65 (A1), George_69 (A5), Gonephishing_65 (J), Graduation_72 (A1), GrecoEtereo_66 (A1), Greg_67 (A1), GroundGoblin_63 (A1), Gwendoluna_71 (A1), Gyzlar_62 (A1), HanShotFirst_68 (A1), Hannaconda_63 (J), HarryOW_64 (A1), Hermia_64 (A1), HermioneGrange_69 (A1), Homines_58 (A1), Hope4ever_68 (A1), Ichabod_71 (A1), IgnatiusPatJac_67 (A1), Inyanga_62 (A1), Iqorha_62 (A1), JC27_71 (A1), JackSparrow_70 (A1), Jasper_68 (A1), Jerm2_68 (A1), Jorgensen_72 (A1), JuliaChild_68 (A1), Kalah2_61 (J), Kanely_68 (A1), KashFlow_60 (J), KikiBouba_65 (A1), Killigrew_65 (A1), Klein_66 (J), Kugel_71 (A1), KyMonks1A_71 (A1), Levia_64 (A1), Licorice_67 (A1), LittleE_64 (J), Lockley_66 (A1), LunarLander_66 (A1), MPlant7149_67 (A1), Magnar_66 (A1), Magnito_68 (A1), Marcell_63 (A1), Marchy_60 (A1), Marco3_73 (A1), Marge_63 (A1), Maroc7_66 (A1), MaryBeth_64 (A1), McGuire_67 (A1), MetalQZJ_63 (A1), Milcery_73 (A5), MilleFeuille_69 (A1), Mkhuseli_62 (A1), Monet_69 (A1), Moose_68 (A1), Mryolo_65 (A1), Museum_69 (A1), NEHalo_64 (A1), Naira_72 (A1), Nekros_63 (J), Nhonho_66 (A1), Nibley_57 (J), Norz_66 (A1), Noxious_65 (A1), Ohno789_68 (A1), Omega_67 (J), Oogway_65 (A1), PSullivan_65 (A1), Pari_71 (A1), PascalRango_64 (A1), PattyP_69 (A1), Payneful_64 (A1), Pelly_69 (A1), Petp2012_70 (A1), PherrisBueller_68 (A1), PhineBark_66 (A1), Phlippers_62 (A1), PinkPlastic_66 (A1), Pippin_66 (A1), Pita2_68 (A1), PowerRanger_66 (A1), Prinashe11_73 (A5), ProMouse_71 (A1), QTRlifeCrisis_68 (A1), Raid_66 (A1), Rajelicia_67 (A1), RidgeCB_67 (A1), Ringer_70 (A1), Rohr_68 (A1), Rubeus_66 (A1), Rufus_69 (A1), Ruotula_73 (A1), SarFire_66 (A1), Seabiscuit_68 (A1), Shaboozey_58 (J), Sibs6_69 (A1), Slagathor_69 (A1), Solon_65

(A1), Sorpresa_65 (A1), SpikeBT_65 (A1), StrongArm_65 (A1), SwissCheese_70 (A1), Swole_68 (A1), Teodoridan_66 (A1), TheloniousMonk_71 (A1), Thor_66 (A1), Topgun_64 (A1), Tote_63 (A1), Treddle_67 (A1), Turj99_65 (A1), Twigg_73 (A5), TwoPeat_68 (A1), Violet_64 (A1), Wanda_71 (J), Watermelon_66 (A1), Wheeler_69 (A1), Wilkins_65 (A1), Zephyr_68 (A1),

Start 2:
• Found in 117 of 177 (66.1%) of genes in pham
• Manual Annotations of this start: 1 of 162
• Called 0.9% of time when present
• Phage (with cluster) where this start called: Lopton_67 (A1),

Start 9:
• Found in 114 of 177 (64.4%) of genes in pham
• Manual Annotations of this start: 4 of 162
• Called 7.0% of time when present
• Phage (with cluster) where this start called: BeesKnees_69 (A1), CartmannCramer_66 (A1), CatBus_62 (A1), DirtDevil_64 (A1), Molly_68 (A1), Sandaddy_64 (A1), Sumter_63 (A1), U2_63 (A1),

Start 10:
• Found in 19 of 177 (10.7%) of genes in pham
• Manual Annotations of this start: 1 of 162
• Called 5.3% of time when present
• Phage (with cluster) where this start called: LilBib_66 (A1),

Summary by clusters:

There are 3 clusters represented in this pham: A1, J, A5,

Info for manual annotations of cluster A1:
•Start number 1 was manually annotated 145 times for cluster A1.
•Start number 2 was manually annotated 1 time for cluster A1.
•Start number 9 was manually annotated 4 times for cluster A1.
•Start number 10 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A5:
•Start number 1 was manually annotated 4 times for cluster A5.

Info for manual annotations of cluster J:
•Start number 1 was manually annotated 7 times for cluster J.

Gene Information:

Gene: Acme_68 Start: 43138, Stop: 42821, Start Num: 1
Candidate Starts for Acme_68:
(Start: 1 @43138 has 156 MA's), (Start: 10 @43057 has 1 MA's), (11, 43048), (17, 42991), (28, 42877), (31, 42835),

Gene: Ajay_66 Start: 43019, Stop: 42711, Start Num: 1
Candidate Starts for Ajay_66:

(Start: 1 @43019 has 156 MA's), (Start: 10 @42938 has 1 MA's), (11, 42929), (16, 42884), (27, 42770), (30, 42737), (31, 42725),

Gene: Aldrich_63 Start: 42318, Stop: 41998, Start Num: 1
Candidate Starts for Aldrich_63:
(Start: 1 @42318 has 156 MA's), (Start: 2 @42300 has 1 MA's), (Start: 9 @42243 has 4 MA's), (15, 42183), (17, 42168), (28, 42054), (31, 42012),

Gene: Altman_69 Start: 43120, Stop: 42800, Start Num: 1
Candidate Starts for Altman_69:
(Start: 1 @43120 has 156 MA's), (Start: 2 @43102 has 1 MA's), (Start: 9 @43045 has 4 MA's), (17, 42970), (28, 42856), (31, 42814),

Gene: Anglerfish_67 Start: 43292, Stop: 42972, Start Num: 1
Candidate Starts for Anglerfish_67:
(Start: 1 @43292 has 156 MA's), (Start: 2 @43274 has 1 MA's), (Start: 9 @43217 has 4 MA's), (17, 43142), (28, 43028), (31, 42986),

Gene: Applejack_67 Start: 41690, Stop: 41370, Start Num: 1
Candidate Starts for Applejack_67:
(Start: 1 @41690 has 156 MA's), (Start: 2 @41672 has 1 MA's), (Start: 9 @41615 has 4 MA's), (13, 41588), (17, 41540), (28, 41426), (31, 41384),

Gene: Arcanine_69 Start: 44016, Stop: 43696, Start Num: 1
Candidate Starts for Arcanine_69:
(Start: 1 @44016 has 156 MA's), (Start: 2 @43998 has 1 MA's), (Start: 9 @43941 has 4 MA's), (17, 43866), (28, 43752), (31, 43710),

Gene: Arlo_65 Start: 42607, Stop: 42287, Start Num: 1
Candidate Starts for Arlo_65:
(Start: 1 @42607 has 156 MA's), (Start: 2 @42589 has 1 MA's), (Start: 9 @42532 has 4 MA's), (17, 42457), (28, 42343), (31, 42301),

Gene: Ashballer_70 Start: 43766, Stop: 43446, Start Num: 1
Candidate Starts for Ashballer_70:
(Start: 1 @43766 has 156 MA's), (Start: 2 @43748 has 1 MA's), (Start: 9 @43691 has 4 MA's), (17, 43616), (28, 43502), (31, 43460),

Gene: Atkinbua_70 Start: 42967, Stop: 42671, Start Num: 1
Candidate Starts for Atkinbua_70:
(Start: 1 @42967 has 156 MA's), (Start: 2 @42949 has 1 MA's), (Start: 9 @42892 has 4 MA's), (17, 42817), (24, 42778), (25, 42748), (31, 42685),

Gene: BPBiebs31_70 Start: 43713, Stop: 43393, Start Num: 1
Candidate Starts for BPBiebs31_70:
(Start: 1 @43713 has 156 MA's), (Start: 2 @43695 has 1 MA's), (Start: 9 @43638 has 4 MA's), (17, 43563), (28, 43449), (31, 43407),

Gene: BaconJack_72 Start: 45978, Stop: 45658, Start Num: 1
Candidate Starts for BaconJack_72:
(Start: 1 @45978 has 156 MA's), (Start: 2 @45960 has 1 MA's), (Start: 9 @45903 has 4 MA's), (17, 45828), (28, 45714), (31, 45672),

Gene: Barriga_69 Start: 41766, Stop: 41449, Start Num: 1
Candidate Starts for Barriga_69:
(Start: 1 @41766 has 156 MA's), (Start: 10 @41685 has 1 MA's), (11, 41676), (17, 41619), (28, 41505), (31, 41463),

Gene: BarrowTuph_68 Start: 42789, Stop: 42481, Start Num: 1
Candidate Starts for BarrowTuph_68:
(Start: 1 @42789 has 156 MA's), (Start: 10 @42708 has 1 MA's), (11, 42699), (16, 42654), (27, 42540), (30, 42507), (31, 42495),

Gene: Beatrix_66 Start: 43832, Stop: 43533, Start Num: 1
Candidate Starts for Beatrix_66:
(Start: 1 @43832 has 156 MA's), (Start: 2 @43814 has 1 MA's), (Start: 9 @43757 has 4 MA's), (17, 43682), (18, 43673), (24, 43640), (25, 43610), (31, 43547),

Gene: BeesKnees_69 Start: 42245, Stop: 42000, Start Num: 9
Candidate Starts for BeesKnees_69:
(Start: 1 @42320 has 156 MA's), (Start: 2 @42302 has 1 MA's), (Start: 9 @42245 has 4 MA's), (17, 42170), (28, 42056), (31, 42014),

Gene: Bethlehem_68 Start: 44631, Stop: 44311, Start Num: 1
Candidate Starts for Bethlehem_68:
(Start: 1 @44631 has 156 MA's), (Start: 2 @44613 has 1 MA's), (Start: 9 @44556 has 4 MA's), (17, 44481), (28, 44367), (31, 44325),

Gene: Bexan_64 Start: 43632, Stop: 43312, Start Num: 1
Candidate Starts for Bexan_64:
(Start: 1 @43632 has 156 MA's), (Start: 2 @43614 has 1 MA's), (Start: 9 @43557 has 4 MA's), (17, 43482), (28, 43368), (31, 43326),

Gene: BigMau_69 Start: 43521, Stop: 43201, Start Num: 1
Candidate Starts for BigMau_69:
(Start: 1 @43521 has 156 MA's), (Start: 2 @43503 has 1 MA's), (Start: 9 @43446 has 4 MA's), (17, 43371), (28, 43257), (31, 43215),

Gene: Bigfoot_60 Start: 42143, Stop: 41832, Start Num: 1
Candidate Starts for Bigfoot_60:
(Start: 1 @42143 has 156 MA's), (8, 42095), (17, 42002), (26, 41909), (28, 41888),

Gene: Blackflame_62 Start: 42284, Stop: 41976, Start Num: 1
Candidate Starts for Blackflame_62:
(Start: 1 @42284 has 156 MA's), (Start: 10 @42203 has 1 MA's), (11, 42194), (16, 42149), (27, 42035), (30, 42002), (31, 41990),

Gene: BluSpix_65 Start: 38736, Stop: 38416, Start Num: 1
Candidate Starts for BluSpix_65:
(Start: 1 @38736 has 156 MA's), (Start: 2 @38718 has 1 MA's), (Start: 9 @38661 has 4 MA's), (17, 38586), (28, 38472), (31, 38430),

Gene: Blue_67 Start: 43852, Stop: 43532, Start Num: 1
Candidate Starts for Blue_67:
(Start: 1 @43852 has 156 MA's), (Start: 2 @43834 has 1 MA's), (Start: 9 @43777 has 4 MA's), (17, 43702), (28, 43588), (31, 43546),

Gene: Bob3_68 Start: 42791, Stop: 42471, Start Num: 1
Candidate Starts for Bob3_68:
(Start: 1 @42791 has 156 MA's), (Start: 2 @42773 has 1 MA's), (Start: 9 @42716 has 4 MA's), (17, 42641), (28, 42527), (31, 42485),

Gene: Briton15_71 Start: 44595, Stop: 44275, Start Num: 1
Candidate Starts for Briton15_71:
(Start: 1 @44595 has 156 MA's), (Start: 2 @44577 has 1 MA's), (Start: 9 @44520 has 4 MA's), (17, 44445), (28, 44331), (31, 44289),

Gene: BronnyJames_59 Start: 42710, Stop: 42417, Start Num: 1
Candidate Starts for BronnyJames_59:
(Start: 1 @42710 has 156 MA's), (3, 42683), (6, 42659), (17, 42566), (24, 42524), (25, 42494), (31, 42431),

Gene: Bruns_69 Start: 42732, Stop: 42412, Start Num: 1
Candidate Starts for Bruns_69:
(Start: 1 @42732 has 156 MA's), (Start: 2 @42714 has 1 MA's), (Start: 9 @42657 has 4 MA's), (17, 42582), (28, 42468), (31, 42426),

Gene: Burton_68 Start: 44554, Stop: 44234, Start Num: 1
Candidate Starts for Burton_68:
(Start: 1 @44554 has 156 MA's), (Start: 2 @44536 has 1 MA's), (Start: 9 @44479 has 4 MA's), (17, 44404), (28, 44290), (31, 44248),

Gene: Buttons_63 Start: 40268, Stop: 39951, Start Num: 1
Candidate Starts for Buttons_63:
(Start: 1 @40268 has 156 MA's), (Start: 10 @40187 has 1 MA's), (11, 40178), (17, 40121), (28, 40007), (31, 39965),

Gene: Bxb1_60 Start: 41381, Stop: 41064, Start Num: 1
Candidate Starts for Bxb1_60:
(Start: 1 @41381 has 156 MA's), (Start: 10 @41300 has 1 MA's), (11, 41291), (17, 41234), (28, 41120), (31, 41078),

Gene: CactusRose_68 Start: 43163, Stop: 42852, Start Num: 1
Candidate Starts for CactusRose_68:
(Start: 1 @43163 has 156 MA's), (8, 43115), (17, 43022), (26, 42929), (28, 42908),

Gene: CartmannCramer_66 Start: 44753, Stop: 44508, Start Num: 9
Candidate Starts for CartmannCramer_66:
(Start: 1 @44828 has 156 MA's), (Start: 2 @44810 has 1 MA's), (Start: 9 @44753 has 4 MA's), (17, 44678), (28, 44564), (31, 44522),

Gene: CatBus_62 Start: 42435, Stop: 42190, Start Num: 9
Candidate Starts for CatBus_62:
(Start: 1 @42510 has 156 MA's), (Start: 2 @42492 has 1 MA's), (Start: 9 @42435 has 4 MA's), (15, 42375), (17, 42360), (28, 42246), (31, 42204),

Gene: Chanagan_60 Start: 40365, Stop: 40045, Start Num: 1
Candidate Starts for Chanagan_60:

(Start: 1 @40365 has 156 MA's), (Start: 2 @40347 has 1 MA's), (Start: 9 @40290 has 4 MA's), (17, 40215), (28, 40101), (31, 40059),

Gene: Ciao_64 Start: 41729, Stop: 41409, Start Num: 1
Candidate Starts for Ciao_64:
(Start: 1 @41729 has 156 MA's), (Start: 2 @41711 has 1 MA's), (Start: 9 @41654 has 4 MA's), (17, 41579), (28, 41465), (31, 41423),

Gene: ConceptII_71 Start: 44348, Stop: 44028, Start Num: 1
Candidate Starts for ConceptII_71:
(Start: 1 @44348 has 156 MA's), (Start: 2 @44330 has 1 MA's), (Start: 9 @44273 has 4 MA's), (17, 44198), (28, 44084), (31, 44042),

Gene: Corvo_67 Start: 43660, Stop: 43340, Start Num: 1
Candidate Starts for Corvo_67:
(Start: 1 @43660 has 156 MA's), (Start: 2 @43642 has 1 MA's), (Start: 9 @43585 has 4 MA's), (17, 43510), (28, 43396), (31, 43354),

Gene: Crispicous1_64 Start: 42074, Stop: 41751, Start Num: 1
Candidate Starts for Crispicous1_64:
(Start: 1 @42074 has 156 MA's), (3, 42047), (7, 42023), (17, 41930), (26, 41837), (28, 41807), (31, 41765),

Gene: DD5_67 Start: 43895, Stop: 43575, Start Num: 1
Candidate Starts for DD5_67:
(Start: 1 @43895 has 156 MA's), (Start: 2 @43877 has 1 MA's), (17, 43745), (28, 43631), (31, 43589),

Gene: Dexes_67 Start: 43607, Stop: 43296, Start Num: 1
Candidate Starts for Dexes_67:
(Start: 1 @43607 has 156 MA's), (Start: 2 @43589 has 1 MA's), (Start: 9 @43532 has 4 MA's), (16, 43469), (27, 43355), (30, 43322), (31, 43310),

Gene: DirtDevil_64 Start: 42243, Stop: 41998, Start Num: 9
Candidate Starts for DirtDevil_64:
(Start: 1 @42318 has 156 MA's), (Start: 2 @42300 has 1 MA's), (Start: 9 @42243 has 4 MA's), (15, 42183), (17, 42168), (28, 42054), (31, 42012),

Gene: DrFeelGood_65 Start: 42150, Stop: 41830, Start Num: 1
Candidate Starts for DrFeelGood_65:
(Start: 1 @42150 has 156 MA's), (Start: 2 @42132 has 1 MA's), (Start: 9 @42075 has 4 MA's), (17, 42000), (28, 41886), (31, 41844),

Gene: DreamCatcher_69 Start: 43300, Stop: 42980, Start Num: 1
Candidate Starts for DreamCatcher_69:
(Start: 1 @43300 has 156 MA's), (Start: 2 @43282 has 1 MA's), (Start: 9 @43225 has 4 MA's), (17, 43150), (28, 43036), (31, 42994),

Gene: Dreamboat_69 Start: 42390, Stop: 42070, Start Num: 1
Candidate Starts for Dreamboat_69:
(Start: 1 @42390 has 156 MA's), (Start: 2 @42372 has 1 MA's), (Start: 9 @42315 has 4 MA's), (17, 42240), (28, 42126),

Gene: Dynamix_68 Start: 42224, Stop: 41904, Start Num: 1

Candidate Starts for Dynamix_68:
(Start: 1 @42224 has 156 MA's), (Start: 2 @42206 has 1 MA's), (Start: 9 @42149 has 4 MA's), (17, 42074), (28, 41960), (31, 41918),

Gene: Edtherson_65 Start: 43180, Stop: 42890, Start Num: 1
Candidate Starts for Edtherson_65:
(Start: 1 @43180 has 156 MA's), (6, 43132), (17, 43039), (24, 42997), (25, 42967), (31, 42904),

Gene: Euphoria_66 Start: 42676, Stop: 42356, Start Num: 1
Candidate Starts for Euphoria_66:
(Start: 1 @42676 has 156 MA's), (Start: 2 @42658 has 1 MA's), (Start: 9 @42601 has 4 MA's), (17, 42526), (28, 42412), (31, 42370),

Gene: Fajezeel_67 Start: 42428, Stop: 42111, Start Num: 1
Candidate Starts for Fajezeel_67:
(Start: 1 @42428 has 156 MA's), (Start: 10 @42347 has 1 MA's), (11, 42338), (17, 42281), (28, 42167), (31, 42125),

Gene: Fascinus_62 Start: 42657, Stop: 42346, Start Num: 1
Candidate Starts for Fascinus_62:
(Start: 1 @42657 has 156 MA's), (8, 42609), (17, 42516), (26, 42423), (28, 42402),

Gene: Fenn_73 Start: 45085, Stop: 44747, Start Num: 1
Candidate Starts for Fenn_73:
(Start: 1 @45085 has 156 MA's), (Start: 2 @45067 has 1 MA's), (Start: 9 @45010 has 4 MA's), (17, 44935), (28, 44821), (31, 44761),

Gene: Forsytheast_68 Start: 42729, Stop: 42409, Start Num: 1
Candidate Starts for Forsytheast_68:
(Start: 1 @42729 has 156 MA's), (Start: 2 @42711 has 1 MA's), (Start: 9 @42654 has 4 MA's), (17, 42579), (28, 42465), (31, 42423),

Gene: Froghopper_64 Start: 41788, Stop: 41468, Start Num: 1
Candidate Starts for Froghopper_64:
(Start: 1 @41788 has 156 MA's), (Start: 2 @41770 has 1 MA's), (Start: 9 @41713 has 4 MA's), (17, 41638), (28, 41524), (31, 41482),

Gene: Fushigi_62 Start: 40721, Stop: 40431, Start Num: 1
Candidate Starts for Fushigi_62:
(Start: 1 @40721 has 156 MA's), (3, 40694), (6, 40670), (12, 40631), (24, 40538), (31, 40445),

Gene: GMonster_65 Start: 42571, Stop: 42251, Start Num: 1
Candidate Starts for GMonster_65:
(Start: 1 @42571 has 156 MA's), (Start: 2 @42553 has 1 MA's), (Start: 9 @42496 has 4 MA's), (17, 42421), (28, 42307), (31, 42265),

Gene: George_69 Start: 45062, Stop: 44739, Start Num: 1
Candidate Starts for George_69:
(Start: 1 @45062 has 156 MA's), (3, 45035), (7, 45011), (12, 44972), (17, 44918), (26, 44825), (28, 44795), (31, 44753),

Gene: Gonephishing_65 Start: 45747, Stop: 45454, Start Num: 1
Candidate Starts for Gonephishing_65:

(Start: 1 @45747 has 156 MA's), (3, 45720), (6, 45696), (17, 45603), (24, 45561), (25, 45531),

Gene: Graduation_72 Start: 44468, Stop: 44178, Start Num: 1
Candidate Starts for Graduation_72:
(Start: 1 @44468 has 156 MA's), (6, 44420), (17, 44327), (20, 44309), (24, 44285), (25, 44255), (31, 44192),

Gene: GrecoEtereo_66 Start: 41999, Stop: 41685, Start Num: 1
Candidate Starts for GrecoEtereo_66:
(Start: 1 @41999 has 156 MA's), (3, 41972), (7, 41948), (12, 41909), (17, 41855), (28, 41741), (31, 41699),

Gene: Greg_67 Start: 42428, Stop: 42111, Start Num: 1
Candidate Starts for Greg_67:
(Start: 1 @42428 has 156 MA's), (Start: 10 @42347 has 1 MA's), (11, 42338), (17, 42281), (28, 42167), (31, 42125),

Gene: GroundGoblin_63 Start: 42460, Stop: 42140, Start Num: 1
Candidate Starts for GroundGoblin_63:
(Start: 1 @42460 has 156 MA's), (Start: 2 @42442 has 1 MA's), (Start: 9 @42385 has 4 MA's), (15, 42325), (17, 42310), (28, 42196), (31, 42154),

Gene: Gwendoluna_71 Start: 44946, Stop: 44626, Start Num: 1
Candidate Starts for Gwendoluna_71:
(Start: 1 @44946 has 156 MA's), (Start: 2 @44928 has 1 MA's), (Start: 9 @44871 has 4 MA's), (17, 44796), (28, 44682), (31, 44640),

Gene: Gyzlar_62 Start: 40674, Stop: 40381, Start Num: 1
Candidate Starts for Gyzlar_62:
(Start: 1 @40674 has 156 MA's), (6, 40623), (12, 40584), (17, 40530), (24, 40488), (25, 40458), (31, 40395),

Gene: HanShotFirst_68 Start: 44544, Stop: 44224, Start Num: 1
Candidate Starts for HanShotFirst_68:
(Start: 1 @44544 has 156 MA's), (Start: 2 @44526 has 1 MA's), (Start: 9 @44469 has 4 MA's), (17, 44394), (28, 44280), (31, 44238),

Gene: Hannaconda_63 Start: 43994, Stop: 43701, Start Num: 1
Candidate Starts for Hannaconda_63:
(Start: 1 @43994 has 156 MA's), (3, 43967), (6, 43943), (17, 43850), (24, 43808), (25, 43778), (31, 43715),

Gene: HarryOW_64 Start: 42506, Stop: 42192, Start Num: 1
Candidate Starts for HarryOW_64:
(Start: 1 @42506 has 156 MA's), (3, 42479), (7, 42455), (12, 42416), (17, 42362), (28, 42248), (31, 42206),

Gene: Hermia_64 Start: 42510, Stop: 42190, Start Num: 1
Candidate Starts for Hermia_64:
(Start: 1 @42510 has 156 MA's), (Start: 2 @42492 has 1 MA's), (Start: 9 @42435 has 4 MA's), (15, 42375), (17, 42360), (28, 42246), (31, 42204),

Gene: HermioneGrange_69 Start: 44015, Stop: 43695, Start Num: 1

Candidate Starts for HermioneGrange_69:
(Start: 1 @44015 has 156 MA's), (Start: 2 @43997 has 1 MA's), (Start: 9 @43940 has 4 MA's), (17, 43865), (28, 43751), (31, 43709),

Gene: Homines_58 Start: 38840, Stop: 38520, Start Num: 1
Candidate Starts for Homines_58:
(Start: 1 @38840 has 156 MA's), (Start: 2 @38822 has 1 MA's), (Start: 9 @38765 has 4 MA's), (17, 38690), (28, 38576), (31, 38534),

Gene: Hope4ever_68 Start: 42999, Stop: 42679, Start Num: 1
Candidate Starts for Hope4ever_68:
(Start: 1 @42999 has 156 MA's), (Start: 2 @42981 has 1 MA's), (Start: 9 @42924 has 4 MA's), (15, 42864), (17, 42849), (28, 42735), (31, 42693),

Gene: Ichabod_71 Start: 44109, Stop: 43789, Start Num: 1
Candidate Starts for Ichabod_71:
(Start: 1 @44109 has 156 MA's), (Start: 2 @44091 has 1 MA's), (Start: 9 @44034 has 4 MA's), (17, 43959), (28, 43845), (31, 43803),

Gene: IgnatiusPatJac_67 Start: 42681, Stop: 42361, Start Num: 1
Candidate Starts for IgnatiusPatJac_67:
(Start: 1 @42681 has 156 MA's), (Start: 2 @42663 has 1 MA's), (Start: 9 @42606 has 4 MA's), (17, 42531), (28, 42417), (31, 42375),

Gene: Inyanga_62 Start: 42774, Stop: 42484, Start Num: 1
Candidate Starts for Inyanga_62:
(Start: 1 @42774 has 156 MA's), (3, 42747), (6, 42723), (12, 42684), (19, 42615), (24, 42591), (31, 42498),

Gene: Iqorha_62 Start: 42773, Stop: 42483, Start Num: 1
Candidate Starts for Iqorha_62:
(Start: 1 @42773 has 156 MA's), (3, 42746), (6, 42722), (12, 42683), (19, 42614), (24, 42590), (31, 42497),

Gene: JC27_71 Start: 43722, Stop: 43423, Start Num: 1
Candidate Starts for JC27_71:
(Start: 1 @43722 has 156 MA's), (Start: 2 @43704 has 1 MA's), (Start: 9 @43647 has 4 MA's), (17, 43572), (24, 43530), (25, 43500), (31, 43437),

Gene: JackSparrow_70 Start: 43226, Stop: 42906, Start Num: 1
Candidate Starts for JackSparrow_70:
(Start: 1 @43226 has 156 MA's), (8, 43178), (17, 43085), (26, 42992), (28, 42962), (31, 42920),

Gene: Jasper_68 Start: 42276, Stop: 41956, Start Num: 1
Candidate Starts for Jasper_68:
(Start: 1 @42276 has 156 MA's), (Start: 2 @42258 has 1 MA's), (Start: 9 @42201 has 4 MA's), (17, 42126), (28, 42012),

Gene: Jerm2_68 Start: 44085, Stop: 43765, Start Num: 1
Candidate Starts for Jerm2_68:
(Start: 1 @44085 has 156 MA's), (Start: 2 @44067 has 1 MA's), (Start: 9 @44010 has 4 MA's), (17, 43935), (28, 43821), (31, 43779),

Gene: Jorgensen_72 Start: 43648, Stop: 43334, Start Num: 1
Candidate Starts for Jorgensen_72:
(Start: 1 @43648 has 156 MA's), (3, 43621), (7, 43597), (12, 43558), (17, 43504), (28, 43390), (31, 43348),

Gene: JuliaChild_68 Start: 43330, Stop: 43010, Start Num: 1
Candidate Starts for JuliaChild_68:
(Start: 1 @43330 has 156 MA's), (Start: 2 @43312 has 1 MA's), (Start: 9 @43255 has 4 MA's), (17, 43180), (28, 43066), (31, 43024),

Gene: Kalah2_61 Start: 48360, Stop: 48052, Start Num: 1
Candidate Starts for Kalah2_61:
(Start: 1 @48360 has 156 MA's), (3, 48333), (5, 48309), (16, 48225), (27, 48111), (30, 48078), (31, 48066),

Gene: Kanely_68 Start: 42897, Stop: 42577, Start Num: 1
Candidate Starts for Kanely_68:
(Start: 1 @42897 has 156 MA's), (Start: 2 @42879 has 1 MA's), (Start: 9 @42822 has 4 MA's), (17, 42747), (28, 42633), (31, 42591),

Gene: KashFlow_60 Start: 43615, Stop: 43322, Start Num: 1
Candidate Starts for KashFlow_60:
(Start: 1 @43615 has 156 MA's), (3, 43588), (6, 43564), (17, 43471), (24, 43429), (25, 43399), (31, 43336),

Gene: KikiBouba_65 Start: 42319, Stop: 41999, Start Num: 1
Candidate Starts for KikiBouba_65:
(Start: 1 @42319 has 156 MA's), (Start: 2 @42301 has 1 MA's), (Start: 9 @42244 has 4 MA's), (15, 42184), (17, 42169), (28, 42055), (31, 42013),

Gene: Killigrew_65 Start: 42942, Stop: 42622, Start Num: 1
Candidate Starts for Killigrew_65:
(Start: 1 @42942 has 156 MA's), (Start: 2 @42924 has 1 MA's), (Start: 9 @42867 has 4 MA's), (17, 42792), (28, 42678), (31, 42636),

Gene: Klein_66 Start: 48383, Stop: 48075, Start Num: 1
Candidate Starts for Klein_66:
(Start: 1 @48383 has 156 MA's), (3, 48356), (5, 48332), (16, 48248), (27, 48134), (30, 48101), (31, 48089),

Gene: Kugel_71 Start: 44755, Stop: 44435, Start Num: 1
Candidate Starts for Kugel_71:
(Start: 1 @44755 has 156 MA's), (Start: 2 @44737 has 1 MA's), (4, 44725), (Start: 9 @44680 has 4 MA's), (17, 44605), (28, 44491), (31, 44449),

Gene: KyMonks1A_71 Start: 43076, Stop: 42783, Start Num: 1
Candidate Starts for KyMonks1A_71:
(Start: 1 @43076 has 156 MA's), (3, 43049), (6, 43025), (12, 42986), (17, 42932), (24, 42890), (25, 42860), (31, 42797),

Gene: Levia_64 Start: 42075, Stop: 41767, Start Num: 1
Candidate Starts for Levia_64:

(Start: 1 @42075 has 156 MA's), (Start: 10 @41994 has 1 MA's), (11, 41985), (16, 41940), (27, 41826), (30, 41793), (31, 41781),

Gene: Licorice_67 Start: 44201, Stop: 43884, Start Num: 1
Candidate Starts for Licorice_67:
(Start: 1 @44201 has 156 MA's), (Start: 10 @44120 has 1 MA's), (11, 44111), (17, 44054), (28, 43940), (31, 43898),

Gene: LilBib_66 Start: 44086, Stop: 43868, Start Num: 10
Candidate Starts for LilBib_66:
(Start: 10 @44086 has 1 MA's), (11, 44077), (14, 44044), (21, 43999), (22, 43996), (23, 43993), (25, 43957),

Gene: LittleE_64 Start: 47017, Stop: 46724, Start Num: 1
Candidate Starts for LittleE_64:
(Start: 1 @47017 has 156 MA's), (3, 46990), (6, 46966), (17, 46873), (24, 46831), (25, 46801), (31, 46738),

Gene: Lockley_66 Start: 43057, Stop: 42737, Start Num: 1
Candidate Starts for Lockley_66:
(Start: 1 @43057 has 156 MA's), (Start: 2 @43039 has 1 MA's), (17, 42907), (28, 42793), (31, 42751),

Gene: Lopton_67 Start: 44739, Stop: 44437, Start Num: 2
Candidate Starts for Lopton_67:
(Start: 1 @44757 has 156 MA's), (Start: 2 @44739 has 1 MA's), (Start: 9 @44682 has 4 MA's), (17, 44607), (28, 44493), (31, 44451),

Gene: LunarLander_66 Start: 43362, Stop: 43063, Start Num: 1
Candidate Starts for LunarLander_66:
(Start: 1 @43362 has 156 MA's), (Start: 2 @43344 has 1 MA's), (Start: 9 @43287 has 4 MA's), (17, 43212), (20, 43194), (24, 43170), (25, 43140), (31, 43077),

Gene: MPlant7149_67 Start: 41903, Stop: 41583, Start Num: 1
Candidate Starts for MPlant7149_67:
(Start: 1 @41903 has 156 MA's), (Start: 2 @41885 has 1 MA's), (Start: 9 @41828 has 4 MA's), (17, 41753), (28, 41639), (31, 41597),

Gene: Magnar_66 Start: 42946, Stop: 42656, Start Num: 1
Candidate Starts for Magnar_66:
(Start: 1 @42946 has 156 MA's), (3, 42919), (6, 42895), (12, 42856), (24, 42763), (31, 42670),

Gene: Magnito_68 Start: 43172, Stop: 42852, Start Num: 1
Candidate Starts for Magnito_68:
(Start: 1 @43172 has 156 MA's), (Start: 2 @43154 has 1 MA's), (Start: 9 @43097 has 4 MA's), (17, 43022), (28, 42908), (31, 42866),

Gene: Marcell_63 Start: 41686, Stop: 41363, Start Num: 1
Candidate Starts for Marcell_63:
(Start: 1 @41686 has 156 MA's), (Start: 2 @41668 has 1 MA's), (Start: 9 @41608 has 4 MA's), (17, 41533), (28, 41419), (31, 41377),

Gene: Marchy_60 Start: 39409, Stop: 39101, Start Num: 1
Candidate Starts for Marchy_60:

(Start: 1 @39409 has 156 MA's), (Start: 10 @39328 has 1 MA's), (11, 39319), (16, 39274), (27, 39160), (30, 39127), (31, 39115),

Gene: Marco3_73 Start: 45481, Stop: 45161, Start Num: 1
Candidate Starts for Marco3_73:
(Start: 1 @45481 has 156 MA's), (Start: 2 @45463 has 1 MA's), (Start: 9 @45406 has 4 MA's), (17, 45331), (28, 45217), (29, 45190), (31, 45175),

Gene: Marge_63 Start: 42192, Stop: 41893, Start Num: 1
Candidate Starts for Marge_63:
(Start: 1 @42192 has 156 MA's), (Start: 2 @42174 has 1 MA's), (Start: 9 @42117 has 4 MA's), (17, 42042), (24, 42000), (25, 41970), (31, 41907),

Gene: Maroc7_66 Start: 43647, Stop: 43336, Start Num: 1
Candidate Starts for Maroc7_66:
(Start: 1 @43647 has 156 MA's), (8, 43599), (17, 43506), (26, 43413), (28, 43392),

Gene: MaryBeth_64 Start: 43037, Stop: 42717, Start Num: 1
Candidate Starts for MaryBeth_64:
(Start: 1 @43037 has 156 MA's), (Start: 2 @43019 has 1 MA's), (Start: 9 @42962 has 4 MA's), (17, 42887), (28, 42773), (31, 42731),

Gene: McGuire_67 Start: 42007, Stop: 41687, Start Num: 1
Candidate Starts for McGuire_67:
(Start: 1 @42007 has 156 MA's), (Start: 2 @41989 has 1 MA's), (Start: 9 @41932 has 4 MA's), (17, 41857), (28, 41743), (31, 41701),

Gene: MetalQZJ_63 Start: 43037, Stop: 42717, Start Num: 1
Candidate Starts for MetalQZJ_63:
(Start: 1 @43037 has 156 MA's), (Start: 2 @43019 has 1 MA's), (Start: 9 @42962 has 4 MA's), (17, 42887), (28, 42773), (31, 42731),

Gene: Milcery_73 Start: 44855, Stop: 44550, Start Num: 1
Candidate Starts for Milcery_73:
(Start: 1 @44855 has 156 MA's), (3, 44828), (5, 44804), (12, 44765), (16, 44723), (22, 44684), (27, 44609), (30, 44576), (31, 44564),

Gene: MilleFeuille_69 Start: 42769, Stop: 42449, Start Num: 1
Candidate Starts for MilleFeuille_69:
(Start: 1 @42769 has 156 MA's), (Start: 2 @42751 has 1 MA's), (Start: 9 @42694 has 4 MA's), (17, 42619), (28, 42505), (31, 42463),

Gene: Mkhuseli_62 Start: 41045, Stop: 40755, Start Num: 1
Candidate Starts for Mkhuseli_62:
(Start: 1 @41045 has 156 MA's), (3, 41018), (6, 40994), (12, 40955), (19, 40886), (24, 40862), (31, 40769),

Gene: Molly_68 Start: 43205, Stop: 42960, Start Num: 9
Candidate Starts for Molly_68:
(Start: 1 @43280 has 156 MA's), (Start: 2 @43262 has 1 MA's), (Start: 9 @43205 has 4 MA's), (17, 43130), (28, 43016), (31, 42974),

Gene: Monet_69 Start: 44571, Stop: 44281, Start Num: 1

Candidate Starts for Monet_69:
(Start: 1 @44571 has 156 MA's), (6, 44523), (17, 44430), (24, 44388), (25, 44358), (31, 44295),

Gene: Moose_68 Start: 42729, Stop: 42409, Start Num: 1
Candidate Starts for Moose_68:
(Start: 1 @42729 has 156 MA's), (Start: 2 @42711 has 1 MA's), (Start: 9 @42654 has 4 MA's), (17, 42579), (28, 42465), (31, 42423),

Gene: Mryolo_65 Start: 42553, Stop: 42233, Start Num: 1
Candidate Starts for Mryolo_65:
(Start: 1 @42553 has 156 MA's), (Start: 2 @42535 has 1 MA's), (Start: 9 @42478 has 4 MA's), (17, 42403), (28, 42289), (31, 42247),

Gene: Museum_69 Start: 44499, Stop: 44179, Start Num: 1
Candidate Starts for Museum_69:
(Start: 1 @44499 has 156 MA's), (Start: 2 @44481 has 1 MA's), (Start: 9 @44424 has 4 MA's), (17, 44349), (28, 44235), (31, 44193),

Gene: NEHalo_64 Start: 43153, Stop: 42833, Start Num: 1
Candidate Starts for NEHalo_64:
(Start: 1 @43153 has 156 MA's), (Start: 2 @43135 has 1 MA's), (Start: 9 @43078 has 4 MA's), (17, 43003), (28, 42889), (31, 42847),

Gene: Naira_72 Start: 45141, Stop: 44803, Start Num: 1
Candidate Starts for Naira_72:
(Start: 1 @45141 has 156 MA's), (Start: 2 @45123 has 1 MA's), (Start: 9 @45066 has 4 MA's), (17, 44991), (28, 44877), (31, 44817),

Gene: Nekros_63 Start: 47042, Stop: 46749, Start Num: 1
Candidate Starts for Nekros_63:
(Start: 1 @47042 has 156 MA's), (3, 47015), (6, 46991), (17, 46898), (24, 46856), (25, 46826), (31, 46763),

Gene: Nhonho_66 Start: 43641, Stop: 43324, Start Num: 1
Candidate Starts for Nhonho_66:
(Start: 1 @43641 has 156 MA's), (Start: 10 @43560 has 1 MA's), (11, 43551), (17, 43494), (28, 43380), (31, 43338),

Gene: Nibley_57 Start: 42492, Stop: 42199, Start Num: 1
Candidate Starts for Nibley_57:
(Start: 1 @42492 has 156 MA's), (3, 42465), (6, 42441), (17, 42348), (24, 42306), (25, 42276), (31, 42213),

Gene: Norz_66 Start: 44999, Stop: 44709, Start Num: 1
Candidate Starts for Norz_66:
(Start: 1 @44999 has 156 MA's), (3, 44972), (6, 44948), (12, 44909), (19, 44840), (24, 44816), (31, 44723),

Gene: Noxious_65 Start: 42510, Stop: 42190, Start Num: 1
Candidate Starts for Noxious_65:
(Start: 1 @42510 has 156 MA's), (Start: 2 @42492 has 1 MA's), (Start: 9 @42435 has 4 MA's), (15, 42375), (17, 42360), (28, 42246), (31, 42204),

Gene: Ohno789_68 Start: 43617, Stop: 43297, Start Num: 1
Candidate Starts for Ohno789_68:
(Start: 1 @43617 has 156 MA's), (Start: 2 @43599 has 1 MA's), (Start: 9 @43542 has 4 MA's), (17, 43467), (28, 43353), (31, 43311),

Gene: Omega_67 Start: 48752, Stop: 48459, Start Num: 1
Candidate Starts for Omega_67:
(Start: 1 @48752 has 156 MA's), (3, 48725), (6, 48701), (17, 48608), (24, 48566), (25, 48536), (31, 48473),

Gene: Oogway_65 Start: 43651, Stop: 43352, Start Num: 1
Candidate Starts for Oogway_65:
(Start: 1 @43651 has 156 MA's), (Start: 2 @43633 has 1 MA's), (Start: 9 @43576 has 4 MA's), (17, 43501), (24, 43459), (25, 43429), (31, 43366),

Gene: PSullivan_65 Start: 41397, Stop: 41077, Start Num: 1
Candidate Starts for PSullivan_65:
(Start: 1 @41397 has 156 MA's), (Start: 2 @41379 has 1 MA's), (Start: 9 @41322 has 4 MA's), (17, 41247), (28, 41133), (31, 41091),

Gene: Pari_71 Start: 42684, Stop: 42373, Start Num: 1
Candidate Starts for Pari_71:
(Start: 1 @42684 has 156 MA's), (Start: 2 @42666 has 1 MA's), (17, 42543), (28, 42429), (31, 42387),

Gene: PascalRango_64 Start: 42470, Stop: 42150, Start Num: 1
Candidate Starts for PascalRango_64:
(Start: 1 @42470 has 156 MA's), (Start: 2 @42452 has 1 MA's), (Start: 9 @42395 has 4 MA's), (17, 42320), (28, 42206), (31, 42164),

Gene: PattyP_69 Start: 44205, Stop: 43885, Start Num: 1
Candidate Starts for PattyP_69:
(Start: 1 @44205 has 156 MA's), (Start: 2 @44187 has 1 MA's), (Start: 9 @44130 has 4 MA's), (17, 44055), (28, 43941), (31, 43899),

Gene: Payneful_64 Start: 42126, Stop: 41818, Start Num: 1
Candidate Starts for Payneful_64:
(Start: 1 @42126 has 156 MA's), (Start: 10 @42045 has 1 MA's), (11, 42036), (16, 41991), (27, 41877), (30, 41844), (31, 41832),

Gene: Pelly_69 Start: 45142, Stop: 44822, Start Num: 1
Candidate Starts for Pelly_69:
(Start: 1 @45142 has 156 MA's), (Start: 2 @45124 has 1 MA's), (Start: 9 @45067 has 4 MA's), (17, 44992), (28, 44878), (31, 44836),

Gene: Petp2012_70 Start: 44986, Stop: 44666, Start Num: 1
Candidate Starts for Petp2012_70:
(Start: 1 @44986 has 156 MA's), (Start: 2 @44968 has 1 MA's), (Start: 9 @44911 has 4 MA's), (17, 44836), (28, 44722), (31, 44680),

Gene: PherrisBueller_68 Start: 41927, Stop: 41607, Start Num: 1
Candidate Starts for PherrisBueller_68:
(Start: 1 @41927 has 156 MA's), (Start: 2 @41909 has 1 MA's), (Start: 9 @41852 has 4 MA's), (17, 41777), (28, 41663),

Gene: PhineBark_66 Start: 43093, Stop: 42785, Start Num: 1
Candidate Starts for PhineBark_66:
(Start: 1 @43093 has 156 MA's), (Start: 10 @43012 has 1 MA's), (11, 43003), (16, 42958), (27, 42844), (30, 42811), (31, 42799),

Gene: Phlippers_62 Start: 42940, Stop: 42629, Start Num: 1
Candidate Starts for Phlippers_62:
(Start: 1 @42940 has 156 MA's), (8, 42892), (17, 42799), (26, 42706), (28, 42685),

Gene: PinkPlastic_66 Start: 42743, Stop: 42423, Start Num: 1
Candidate Starts for PinkPlastic_66:
(Start: 1 @42743 has 156 MA's), (Start: 2 @42725 has 1 MA's), (Start: 9 @42668 has 4 MA's), (17, 42593), (28, 42479), (31, 42437),

Gene: Pippin_66 Start: 42122, Stop: 41802, Start Num: 1
Candidate Starts for Pippin_66:
(Start: 1 @42122 has 156 MA's), (Start: 2 @42104 has 1 MA's), (Start: 9 @42047 has 4 MA's), (17, 41972), (28, 41858), (31, 41816),

Gene: Pita2_68 Start: 42894, Stop: 42574, Start Num: 1
Candidate Starts for Pita2_68:
(Start: 1 @42894 has 156 MA's), (Start: 2 @42876 has 1 MA's), (Start: 9 @42819 has 4 MA's), (17, 42744), (28, 42630), (31, 42588),

Gene: PowerRanger_66 Start: 44169, Stop: 43849, Start Num: 1
Candidate Starts for PowerRanger_66:
(Start: 1 @44169 has 156 MA's), (Start: 2 @44151 has 1 MA's), (Start: 9 @44094 has 4 MA's), (17, 44019), (28, 43905), (31, 43863),

Gene: Prinashe11_73 Start: 44787, Stop: 44482, Start Num: 1
Candidate Starts for Prinashe11_73:
(Start: 1 @44787 has 156 MA's), (3, 44760), (5, 44736), (12, 44697), (16, 44655), (27, 44541), (30, 44508), (31, 44496),

Gene: ProMouse_71 Start: 43412, Stop: 43092, Start Num: 1
Candidate Starts for ProMouse_71:
(Start: 1 @43412 has 156 MA's), (Start: 2 @43394 has 1 MA's), (Start: 9 @43337 has 4 MA's), (17, 43262), (28, 43148), (31, 43106),

Gene: QTRlifeCrisis_68 Start: 43423, Stop: 43103, Start Num: 1
Candidate Starts for QTRlifeCrisis_68:
(Start: 1 @43423 has 156 MA's), (Start: 2 @43405 has 1 MA's), (Start: 9 @43348 has 4 MA's), (17, 43273), (28, 43159), (31, 43117),

Gene: Raid_66 Start: 43249, Stop: 42929, Start Num: 1
Candidate Starts for Raid_66:
(Start: 1 @43249 has 156 MA's), (Start: 2 @43231 has 1 MA's), (Start: 9 @43174 has 4 MA's), (17, 43099), (28, 42985), (31, 42943),

Gene: Rajelicia_67 Start: 44526, Stop: 44206, Start Num: 1
Candidate Starts for Rajelicia_67:

(Start: 1 @44526 has 156 MA's), (Start: 2 @44508 has 1 MA's), (Start: 9 @44451 has 4 MA's), (17, 44376), (28, 44262), (31, 44220),

Gene: RidgeCB_67 Start: 42843, Stop: 42523, Start Num: 1
Candidate Starts for RidgeCB_67:
(Start: 1 @42843 has 156 MA's), (Start: 2 @42825 has 1 MA's), (Start: 9 @42768 has 4 MA's), (28, 42579), (31, 42537),

Gene: Ringer_70 Start: 44949, Stop: 44629, Start Num: 1
Candidate Starts for Ringer_70:
(Start: 1 @44949 has 156 MA's), (Start: 2 @44931 has 1 MA's), (Start: 9 @44874 has 4 MA's), (17, 44799), (28, 44685), (31, 44643),

Gene: Rohr_68 Start: 44161, Stop: 43841, Start Num: 1
Candidate Starts for Rohr_68:
(Start: 1 @44161 has 156 MA's), (Start: 2 @44143 has 1 MA's), (Start: 9 @44086 has 4 MA's), (17, 44011), (28, 43897), (31, 43855),

Gene: Rubeus_66 Start: 40663, Stop: 40343, Start Num: 1
Candidate Starts for Rubeus_66:
(Start: 1 @40663 has 156 MA's), (Start: 2 @40645 has 1 MA's), (Start: 9 @40588 has 4 MA's), (17, 40513), (28, 40399), (31, 40357),

Gene: Rufus_69 Start: 43347, Stop: 43027, Start Num: 1
Candidate Starts for Rufus_69:
(Start: 1 @43347 has 156 MA's), (Start: 2 @43329 has 1 MA's), (Start: 9 @43272 has 4 MA's), (17, 43197), (28, 43083), (31, 43041),

Gene: Ruotula_73 Start: 45450, Stop: 45130, Start Num: 1
Candidate Starts for Ruotula_73:
(Start: 1 @45450 has 156 MA's), (Start: 2 @45432 has 1 MA's), (Start: 9 @45375 has 4 MA's), (17, 45300), (28, 45186), (31, 45144),

Gene: Sandaddy_64 Start: 42569, Stop: 42324, Start Num: 9
Candidate Starts for Sandaddy_64:
(Start: 1 @42644 has 156 MA's), (Start: 2 @42626 has 1 MA's), (Start: 9 @42569 has 4 MA's), (17, 42494), (28, 42380), (31, 42338),

Gene: SarFire_66 Start: 42860, Stop: 42570, Start Num: 1
Candidate Starts for SarFire_66:
(Start: 1 @42860 has 156 MA's), (3, 42833), (6, 42809), (12, 42770), (24, 42677), (31, 42584),

Gene: Seabiscuit_68 Start: 42270, Stop: 41950, Start Num: 1
Candidate Starts for Seabiscuit_68:
(Start: 1 @42270 has 156 MA's), (Start: 2 @42252 has 1 MA's), (Start: 9 @42195 has 4 MA's), (17, 42120), (28, 42006), (31, 41964),

Gene: Shaboozey_58 Start: 42731, Stop: 42438, Start Num: 1
Candidate Starts for Shaboozey_58:
(Start: 1 @42731 has 156 MA's), (3, 42704), (6, 42680), (17, 42587), (24, 42545), (25, 42515), (31, 42452),

Gene: Sibs6_69 Start: 41546, Stop: 41226, Start Num: 1

Candidate Starts for Sibs6_69:
(Start: 1 @41546 has 156 MA's), (Start: 2 @41528 has 1 MA's), (Start: 9 @41471 has 4 MA's), (17, 41396), (28, 41282), (31, 41240),

Gene: Slagathor_69 Start: 44912, Stop: 44592, Start Num: 1
Candidate Starts for Slagathor_69:
(Start: 1 @44912 has 156 MA's), (Start: 2 @44894 has 1 MA's), (Start: 9 @44837 has 4 MA's), (17, 44762), (28, 44648), (31, 44606),

Gene: Solon_65 Start: 42390, Stop: 42067, Start Num: 1
Candidate Starts for Solon_65:
(Start: 1 @42390 has 156 MA's), (3, 42363), (7, 42339), (17, 42246), (26, 42153), (28, 42123), (31, 42081),

Gene: Sorpresa_65 Start: 42646, Stop: 42326, Start Num: 1
Candidate Starts for Sorpresa_65:
(Start: 1 @42646 has 156 MA's), (Start: 2 @42628 has 1 MA's), (Start: 9 @42571 has 4 MA's), (17, 42496), (28, 42382), (31, 42340),

Gene: SpikeBT_65 Start: 43010, Stop: 42690, Start Num: 1
Candidate Starts for SpikeBT_65:
(Start: 1 @43010 has 156 MA's), (Start: 2 @42992 has 1 MA's), (Start: 9 @42935 has 4 MA's), (17, 42860), (28, 42746), (31, 42704),

Gene: StrongArm_65 Start: 43760, Stop: 43440, Start Num: 1
Candidate Starts for StrongArm_65:
(Start: 1 @43760 has 156 MA's), (Start: 2 @43742 has 1 MA's), (Start: 9 @43685 has 4 MA's), (17, 43610), (28, 43496), (31, 43454),

Gene: Sumter_63 Start: 42935, Stop: 42681, Start Num: 9
Candidate Starts for Sumter_63:
(Start: 1 @43010 has 156 MA's), (Start: 2 @42992 has 1 MA's), (Start: 9 @42935 has 4 MA's), (17, 42860), (26, 42767), (28, 42737), (31, 42695),

Gene: SwissCheese_70 Start: 43229, Stop: 42909, Start Num: 1
Candidate Starts for SwissCheese_70:
(Start: 1 @43229 has 156 MA's), (Start: 2 @43211 has 1 MA's), (Start: 9 @43154 has 4 MA's), (17, 43079), (28, 42965), (31, 42923),

Gene: Swole_68 Start: 42804, Stop: 42484, Start Num: 1
Candidate Starts for Swole_68:
(Start: 1 @42804 has 156 MA's), (Start: 2 @42786 has 1 MA's), (Start: 9 @42729 has 4 MA's), (17, 42654), (28, 42540), (31, 42498),

Gene: Teodoridan_66 Start: 42115, Stop: 41807, Start Num: 1
Candidate Starts for Teodoridan_66:
(Start: 1 @42115 has 156 MA's), (Start: 10 @42034 has 1 MA's), (11, 42025), (16, 41980), (27, 41866), (30, 41833), (31, 41821),

Gene: TheloniousMonk_71 Start: 45498, Stop: 45178, Start Num: 1
Candidate Starts for TheloniousMonk_71:
(Start: 1 @45498 has 156 MA's), (Start: 2 @45480 has 1 MA's), (Start: 9 @45423 has 4 MA's), (17, 45348), (28, 45234), (31, 45192),

Gene: Thor_66 Start: 42218, Stop: 41928, Start Num: 1
Candidate Starts for Thor_66:
(Start: 1 @42218 has 156 MA's), (3, 42191), (6, 42167), (12, 42128), (24, 42035), (31, 41942),

Gene: Topgun_64 Start: 41853, Stop: 41554, Start Num: 1
Candidate Starts for Topgun_64:
(Start: 1 @41853 has 156 MA's), (Start: 2 @41835 has 1 MA's), (Start: 9 @41778 has 4 MA's), (17, 41703), (20, 41685), (24, 41661), (25, 41631), (31, 41568),

Gene: Tote_63 Start: 40071, Stop: 39751, Start Num: 1
Candidate Starts for Tote_63:
(Start: 1 @40071 has 156 MA's), (Start: 2 @40053 has 1 MA's), (Start: 9 @39996 has 4 MA's), (17, 39921), (28, 39807), (31, 39765),

Gene: Treddle_67 Start: 44107, Stop: 43793, Start Num: 1
Candidate Starts for Treddle_67:
(Start: 1 @44107 has 156 MA's), (3, 44080), (7, 44056), (12, 44017), (17, 43963), (28, 43849), (31, 43807),

Gene: Turj99_65 Start: 43783, Stop: 43463, Start Num: 1
Candidate Starts for Turj99_65:
(Start: 1 @43783 has 156 MA's), (Start: 2 @43765 has 1 MA's), (Start: 9 @43708 has 4 MA's), (17, 43633), (28, 43519), (31, 43477),

Gene: Twigg_73 Start: 44828, Stop: 44505, Start Num: 1
Candidate Starts for Twigg_73:
(Start: 1 @44828 has 156 MA's), (3, 44801), (7, 44777), (12, 44738), (17, 44684), (26, 44591), (28, 44561), (31, 44519),

Gene: TwoPeat_68 Start: 43635, Stop: 43315, Start Num: 1
Candidate Starts for TwoPeat_68:
(Start: 1 @43635 has 156 MA's), (Start: 2 @43617 has 1 MA's), (Start: 9 @43560 has 4 MA's), (17, 43485), (28, 43371), (31, 43329),

Gene: U2_63 Start: 43530, Stop: 43285, Start Num: 9
Candidate Starts for U2_63:
(Start: 1 @43605 has 156 MA's), (Start: 2 @43587 has 1 MA's), (Start: 9 @43530 has 4 MA's), (17, 43455), (28, 43341), (31, 43299),

Gene: Violet_64 Start: 44471, Stop: 44151, Start Num: 1
Candidate Starts for Violet_64:
(Start: 1 @44471 has 156 MA's), (Start: 2 @44453 has 1 MA's), (Start: 9 @44396 has 4 MA's), (17, 44321), (28, 44207), (31, 44165),

Gene: Wanda_71 Start: 48692, Stop: 48384, Start Num: 1
Candidate Starts for Wanda_71:
(Start: 1 @48692 has 156 MA's), (3, 48665), (5, 48641), (16, 48557), (27, 48443), (30, 48410), (31, 48398),

Gene: Watermelon_66 Start: 42204, Stop: 41887, Start Num: 1
Candidate Starts for Watermelon_66:

(Start: 1 @42204 has 156 MA's), (Start: 10 @42123 has 1 MA's), (11, 42114), (17, 42057), (28, 41943), (31, 41901),

Gene: Wheeler_69 Start: 43471, Stop: 43154, Start Num: 1
Candidate Starts for Wheeler_69:
(Start: 1 @43471 has 156 MA's), (Start: 10 @43390 has 1 MA's), (11, 43381), (17, 43324), (28, 43210), (31, 43168),

Gene: Wilkins_65 Start: 41783, Stop: 41484, Start Num: 1
Candidate Starts for Wilkins_65:
(Start: 1 @41783 has 156 MA's), (Start: 2 @41765 has 1 MA's), (Start: 9 @41708 has 4 MA's), (17, 41633), (20, 41615), (24, 41591), (25, 41561), (31, 41498),

Gene: Zephyr_68 Start: 42545, Stop: 42225, Start Num: 1
Candidate Starts for Zephyr_68:
(Start: 1 @42545 has 156 MA's), (Start: 2 @42527 has 1 MA's), (Start: 9 @42470 has 4 MA's), (17, 42395), (28, 42281), (31, 42239),