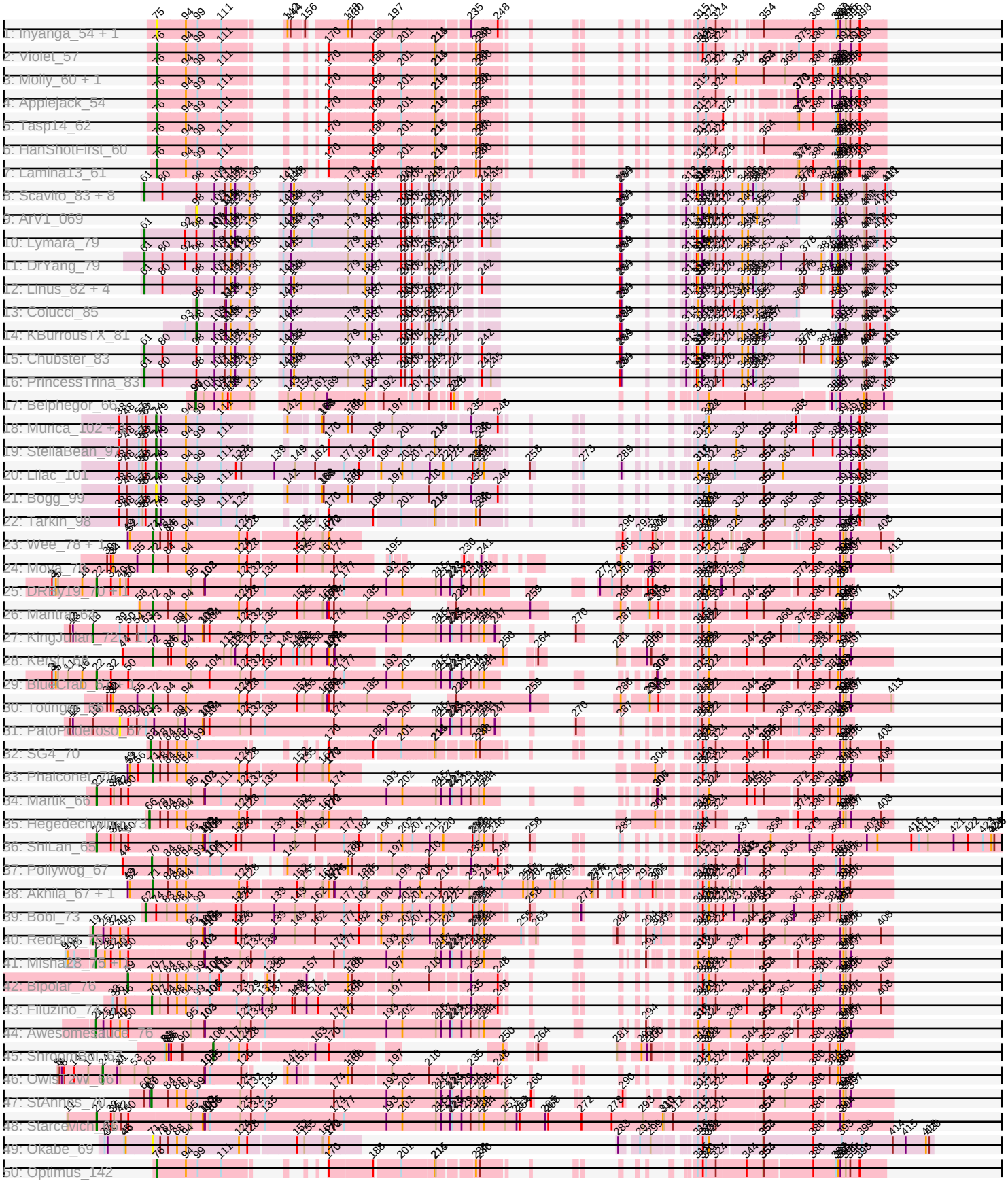
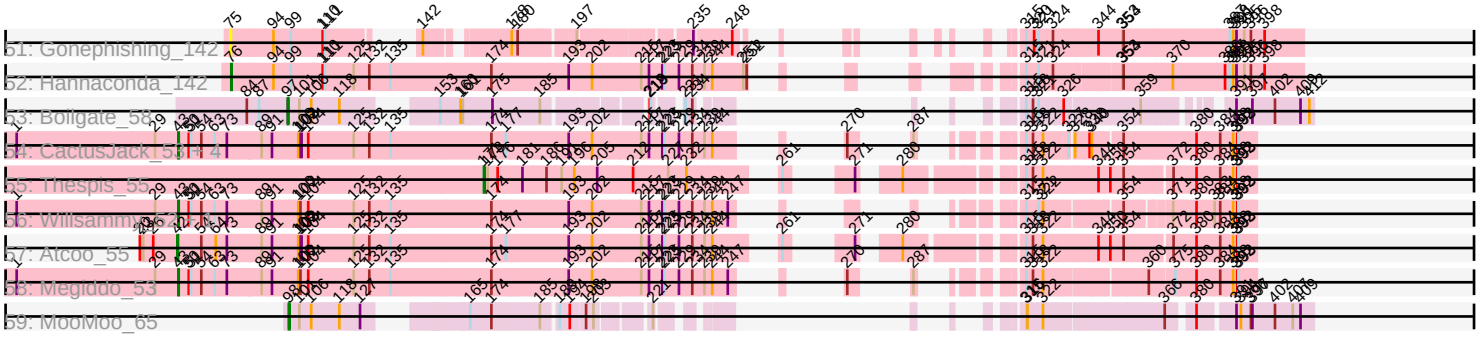
Pham 345630



Pham 345630


51: Gonephishing_142
52: Hannaconda_142
53: Boligate_58
54: CactusJack_53
55: Thespis_55
56: Willsammy_62
57: Atcoo_55
58: Megiddo_53
59: MooMoo_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 345630 Report

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

Pham number 345630 has 86 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Inyanga_54, Iqorha_54
• Track 2 : Violet_57
• Track 3 : Molly_60, Briton15_63
• Track 4 : Applejack_54
• Track 5 : Tasp14_62
• Track 6 : HanShotFirst_60
• Track 7 : Lamina13_61
• Track 8 : Scavito_83, Kabreeze_82, HumptyDumpty_82, JaNo_81, Chocolat_82, Tophat_83, Chipper1996_830, Mordred_82, EdgarPoe_81
• Track 9 : ArV1_069
• Track 10 : Lymara_79
• Track 11 : DrYang_79
• Track 12 : Linus_82, RosiePosie_82, Conboy_80, MoyaNatalis_81, JayCookie_82
• Track 13 : Colucci_85
• Track 14 : KBurrousTX_81
• Track 15 : Chubster_83
• Track 16 : PrincessTrina_83
• Track 17 : Belphegor_66
• Track 18 : Murica_102, MISSy_100
• Track 19 : StellaBean_97
• Track 20 : Lilac_101
• Track 21 : Bogg_99
• Track 22 : Tarkin_98
• Track 23 : Wee_78, Taj_79
• Track 24 : Mova_70
• Track 25 : DRBy19_70, Philus_70
• Track 26 : Mantra_64
• Track 27 : KingJulian_72, Corium_67
• Track 28 : Kersh_68
• Track 29 : BlueCrab_67, FreddyB_67
• Track 30 : Totinger_66
• Track 31 : PatoPoderoso_67
• Track 32 : SG4_70
• Track 33 : Phalconet_70
• Track 34 : Martik_66
• Track 35 : Hegedechwinu_73
• Track 36 : ShiLan_65

• Track 37 : Pollywog_67
• Track 38 : Akhila_67, MilanaBonita_66
• Track 39 : Bobi_73
• Track 40 : RedBird_75, Dorothy_75
• Track 41 : Misha28_75, TootsiePop_75
• Track 42 : Bipolar_76
• Track 43 : Filuzino_74
• Track 44 : Awesomesauce_76
• Track 45 : ShroomBoi_67
• Track 46 : OwlsT2W_66
• Track 47 : StAnnes_70
• Track 48 : Starcevich_66
• Track 49 : Okabe_69
• Track 50 : Optimus_142
• Track 51 : Gonephishing_142
• Track 52 : Hannaconda_142
• Track 53 : Boilgate_58
• Track 54 : CactusJack_53, Glaske_53, Gavriela_53, StressBall_53, Phalm_53
• Track 55 : Thespis_55
• Track 56 : Willsammy_52, KilKor_53
• Track 57 : Atcoo_55
• Track 58 : Megiddo_53
• Track 59 : MooMoo_65

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

The start number called the most often in the published annotations is 61, it was called in 17 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Chipper1996_830, Chocolat_82, Chubster_83, Conboy_80, DrYang_79, EdgarPoe_81, HumptyDumpty_82, JaNo_81, JayCookie_82, Kabreeze_82, Linus_82, Lymara_79, Mordred_82, MoyaNatalis_81, PrincessTrina_83, RosiePosie_82, Scavito_83, Tophat_83,

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

Genes that do not have the "Most Annotated" start:
• Akhila_67, Applejack_54, ArV1_069, Atcoo_55, Awesomesauce_76, Belphegor_66, Bipolar_76, BlueCrab_67, Bobi_73, Bogg_99, Boilgate_58, Briton15_63, CactusJack_53, Colucci_85, Corium_67, DRBy19_70, Dorothy_75, Filuzino_74, FreddyB_67, Gavriela_53, Glaske_53, Gonephishing_142, HanShotFirst_60, Hannaconda_142, Hegedechwinu_73, Inyanga_54, Iqorha_54, KBurrousTX_81, Kersh_68, KilKor_53, KingJulian_72, Lamina13_61, Lilac_101, MISSy_100, Mantra_64, Martik_66, Megiddo_53, MilanaBonita_66, Misha28_75, Molly_60, MooMoo_65, Mova_70, Murica_102, Okabe_69, Optimus_142, OwlsT2W_66, PatoPoderoso_67, Phalconet_70, Phalm_53, Philus_70, Pollywog_67, RedBird_75, SG4_70, ShiLan_65, ShroomBoi_67, StAnnes_70, Starcevich_66, StellaBean_97, StressBall_53, Taj_79, Tarkin_98, Tasp14_62, Thespis_55, TootsiePop_75,

Totinger_66, Violet_57, Wee_78, Willsammy_52,

Summary by start number:

Start 18:
• Found in 3 of 86 (3.5%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Corium_67 (F1), KingJulian_72 (F1),

Start 19:
• Found in 2 of 86 (2.3%) of genes in pham
• Manual Annotations of this start: 2 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dorothy_75 (F1), RedBird_75 (F1),

Start 21:
• Found in 3 of 86 (3.5%) of genes in pham
• Manual Annotations of this start: 3 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Awesomesauce_76 (F1), Misha28_75 (F1), TootsiePop_75 (F1),

Start 22:
• Found in 7 of 86 (8.1%) of genes in pham
• Manual Annotations of this start: 7 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlueCrab_67 (F1), DRBy19_70 (F1), FreddyB_67 (F1), Martik_66 (F1), Philus_70 (F1), ShiLan_65 (F1), Starcevich_66 (F1),

Start 24:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: OwlsT2W_66 (F1),

Start 39:
• Found in 3 of 86 (3.5%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: PatoPoderoso_67 (F1),

Start 42:
• Found in 4 of 86 (4.7%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Atcoo_55 (P1),

Start 43:
• Found in 8 of 86 (9.3%) of genes in pham
• Manual Annotations of this start: 8 of 77
• Called 100.0% of time when present

• Phage (with cluster) where this start called: CactusJack_53 (P1), Gavriela_53 (P1), Glaske_53 (P1), KilKor_53 (P1), Megiddo_53 (P1), Phalm_53 (P1), StressBall_53 (P1), Willsammy_52 (P1),

Start 49:
• Found in 6 of 86 (7.0%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Bipolar_76 (F1),

Start 61:
• Found in 18 of 86 (20.9%) of genes in pham
• Manual Annotations of this start: 17 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chipper1996_830 (AR), Chocolat_82 (AR), Chubster_83 (AR), Conboy_80 (AR), DrYang_79 (AR), EdgarPoe_81 (AR), HumptyDumpty_82 (AR), JaNo_81 (AR), JayCookie_82 (AR), Kabreeze_82 (AR), Linus_82 (AR), Lymara_79 (AR), Mordred_82 (AR), MoyaNatalis_81 (AR), PrincessTrina_83 (AR), RosiePosie_82 (AR), Scavito_83 (AR), Tophat_83 (AR),

Start 62:
• Found in 7 of 86 (8.1%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Bobi_73 (F1),

Start 66:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hegedechwinu_73 (F1),

Start 68:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SG4_70 (F1),

Start 69:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: StAnnes_70 (F1),

Start 70:
• Found in 3 of 86 (3.5%) of genes in pham
• Manual Annotations of this start: 2 of 77
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Filuzino_74 (F1), Pollywog_67 (F1),

Start 71:
• Found in 6 of 86 (7.0%) of genes in pham
• Manual Annotations of this start: 5 of 77

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akhila_67 (F1), MilanaBonita_66 (F1), Okabe_69 (F8), Phalconet_70 (F1), Taj_79 (F1), Wee_78 (F1),

Start 72:
• Found in 4 of 86 (4.7%) of genes in pham
• Manual Annotations of this start: 4 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kersh_68 (F1), Mantra_64 (F1), Mova_70 (F1), Totinger_66 (F1),

Start 74:
• Found in 7 of 86 (8.1%) of genes in pham
• Manual Annotations of this start: 5 of 77
• Called 85.7% of time when present
• Phage (with cluster) where this start called: Bogg_99 (E), Lilac_101 (E), MISSy_100 (E), Murica_102 (E), StellaBean_97 (E), Tarkin_98 (E),

Start 75:
• Found in 3 of 86 (3.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gonephishing_142 (J), Inyanga_54 (A1), Iqorha_54 (A1),

Start 76:
• Found in 9 of 86 (10.5%) of genes in pham
• Manual Annotations of this start: 9 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Applejack_54 (A1), Briton15_63 (A1), HanShotFirst_60 (A1), Hannaconda_142 (J), Lamina13_61 (A1), Molly_60 (A1), Optimus_142 (J), Tasp14_62 (A1), Violet_57 (A1),

Start 97:
• Found in 2 of 86 (2.3%) of genes in pham
• Manual Annotations of this start: 2 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Belphegor_66 (DE2), Boilgate_58 (K8),

Start 98:
• Found in 22 of 86 (25.6%) of genes in pham
• Manual Annotations of this start: 3 of 77
• Called 18.2% of time when present
• Phage (with cluster) where this start called: ArV1_069 (AR), Colucci_85 (AR), KBurrousTX_81 (AR), MooMoo_65 (singleton),

Start 108:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ShroomBoi_67 (F1),

Start 171:

• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Thespis_55 (P1),

Summary by clusters:

There are 10 clusters represented in this pham: F1, singleton, P1, E, F8, DE2, J, A1, AR, K8,

Info for manual annotations of cluster A1:
•Start number 76 was manually annotated 7 times for cluster A1.

Info for manual annotations of cluster AR:
•Start number 61 was manually annotated 17 times for cluster AR.
•Start number 98 was manually annotated 2 times for cluster AR.

Info for manual annotations of cluster DE2:
•Start number 97 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster E:
•Start number 74 was manually annotated 5 times for cluster E.

Info for manual annotations of cluster F1:
•Start number 18 was manually annotated 1 time for cluster F1.
•Start number 19 was manually annotated 2 times for cluster F1.
•Start number 21 was manually annotated 3 times for cluster F1.
•Start number 22 was manually annotated 7 times for cluster F1.
•Start number 24 was manually annotated 1 time for cluster F1.
•Start number 49 was manually annotated 1 time for cluster F1.
•Start number 62 was manually annotated 1 time for cluster F1.
•Start number 66 was manually annotated 1 time for cluster F1.
•Start number 68 was manually annotated 1 time for cluster F1.
•Start number 69 was manually annotated 1 time for cluster F1.
•Start number 70 was manually annotated 2 times for cluster F1.
•Start number 71 was manually annotated 5 times for cluster F1.
•Start number 72 was manually annotated 4 times for cluster F1.
•Start number 108 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster J:
•Start number 76 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster K8:
•Start number 97 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster P1:
•Start number 42 was manually annotated 1 time for cluster P1.
•Start number 43 was manually annotated 8 times for cluster P1.
•Start number 171 was manually annotated 1 time for cluster P1.

Gene Information:

Gene: Akhila_67 Start: 42333, Stop: 45014, Start Num: 71
Candidate Starts for Akhila_67:
(Start: 49 @42243 has 1 MA's), (52, 42252), (Start: 71 @42333 has 5 MA's), (84, 42393), (88, 42429), (94, 42462), (124, 42663), (128, 42696), (152, 42873), (155, 42897), (167, 42960), (170, 42984), (172, 42987), (174, 43005), (175, 43008), (183, 43107), (185, 43128), (199, 43260), (208, 43341), (216, 43422), (233, 43536), (243, 43593), (249, 43665), (256, 43749), (257, 43767), (262, 43788), (267, 43857), (268, 43875), (269, 43908), (274, 44022), (275, 44028), (276, 44046), (279, 44067), (290, 44109), (291, 44151), (302, 44196), (305, 44208), (315, 44313), (320, 44334), (321, 44343), (322, 44355), (324, 44379), (329, 44421), (354, 44520), (380, 44706), (391, 44808), (394, 44820), (396, 44847),

Gene: Applejack_54 Start: 38217, Stop: 36658, Start Num: 76
Candidate Starts for Applejack_54:
(Start: 76 @38217 has 9 MA's), (94, 38109), (99, 38064), (111, 37980), (170, 37839), (188, 37689), (201, 37611), (214, 37506), (215, 37503), (238, 37401), (240, 37392), (315, 37185), (324, 37119), (370, 36978), (373, 36975), (380, 36921), (385, 36867), (391, 36834), (397, 36792), (398, 36759),

Gene: ArV1_069 Start: 53043, Stop: 54641, Start Num: 98
Candidate Starts for ArV1_069:
(Start: 98 @53043 has 3 MA's), (109, 53115), (114, 53151), (115, 53157), (118, 53175), (121, 53193), (130, 53250), (141, 53286), (145, 53316), (148, 53328), (159, 53391), (179, 53520), (184, 53589), (187, 53616), (200, 53697), (204, 53712), (206, 53727), (209, 53769), (210, 53778), (213, 53796), (219, 53814), (222, 53829), (242, 53913), (284, 53979), (289, 53985), (313, 54039), (316, 54066), (319, 54081), (322, 54105), (324, 54129), (326, 54150), (340, 54213), (352, 54267), (353, 54291), (369, 54405), (387, 54429), (391, 54447), (395, 54468), (401, 54537), (402, 54546), (405, 54588), (410, 54621),

Gene: Atcoo_55 Start: 37344, Stop: 39803, Start Num: 42
Candidate Starts for Atcoo_55:
(20, 37242), (23, 37251), (26, 37278), (Start: 42 @37344 has 1 MA's), (54, 37404), (64, 37443), (73, 37473), (89, 37563), (91, 37590), (100, 37653), (102, 37659), (103, 37662), (104, 37680), (125, 37800), (132, 37842), (135, 37899), (174, 38169), (177, 38208), (193, 38373), (202, 38436), (215, 38568), (217, 38589), (223, 38625), (225, 38631), (229, 38670), (234, 38706), (239, 38739), (244, 38760), (261, 38865), (271, 38940), (280, 39012), (315, 39258), (318, 39276), (322, 39300), (344, 39435), (350, 39465), (354, 39501), (372, 39603), (380, 39660), (384, 39720), (388, 39753), (392, 39762), (393, 39765),

Gene: Awesomesauce_76 Start: 46078, Stop: 48528, Start Num: 21
Candidate Starts for Awesomesauce_76:
(Start: 21 @46078 has 3 MA's), (25, 46108), (32, 46138), (40, 46174), (50, 46207), (95, 46438), (102, 46489), (103, 46492), (125, 46630), (132, 46672), (135, 46729), (174, 46999), (177, 47038), (193, 47203), (202, 47266), (215, 47398), (217, 47419), (223, 47455), (225, 47461), (229, 47500), (234, 47536), (239, 47569), (244, 47590), (294, 47725), (315, 47827), (316, 47830), (322, 47869), (328, 47950), (353, 48061), (354, 48064), (372, 48166), (380, 48223), (391, 48325), (394, 48337), (395, 48346), (397, 48367),

Gene: Belphegor_66 Start: 51910, Stop: 53616, Start Num: 97
Candidate Starts for Belphegor_66:
(96, 51907), (Start: 97 @51910 has 2 MA's), (101, 51937), (109, 51979), (112, 52006), (116, 52027), (118, 52036), (131, 52114), (143, 52165), (154, 52216), (161, 52267), (169, 52312), (184, 52456), (192, 52504), (207, 52600), (210, 52645), (224, 52702), (226, 52714), (315, 52918), (322, 52960),

(342, 53080), (353, 53146), (385, 53383), (387, 53398), (391, 53416), (400, 53503), (402, 53515), (409, 53584),

Gene: Bipolar_76 Start: 46390, Stop: 48396, Start Num: 49
Candidate Starts for Bipolar_76:
(Start: 49 @46390 has 1 MA's), (Start: 70 @46483 has 2 MA's), (77, 46513), (84, 46543), (88, 46579), (94, 46612), (99, 46657), (104, 46699), (105, 46702), (110, 46735), (111, 46741), (126, 46822), (136, 46864), (138, 46879), (157, 46972), (178, 47062), (180, 47074), (197, 47206), (210, 47326), (235, 47449), (248, 47536), (315, 47671), (320, 47692), (321, 47701), (322, 47713), (324, 47737), (353, 47905), (354, 47908), (380, 48088), (381, 48118), (391, 48190), (394, 48202), (395, 48211), (396, 48229), (408, 48346),

Gene: BlueCrab_67 Start: 43881, Stop: 46157, Start Num: 22
Candidate Starts for BlueCrab_67:
(2, 43704), (3, 43710), (4, 43719), (5, 43728), (11, 43767), (16, 43824), (Start: 22 @43881 has 7 MA's), (32, 43938), (50, 44007), (95, 44238), (104, 44310), (125, 44430), (132, 44472), (135, 44529), (174, 44799), (177, 44838), (193, 45003), (202, 45066), (215, 45198), (217, 45219), (223, 45255), (225, 45261), (229, 45300), (234, 45336), (239, 45369), (244, 45390), (306, 45555), (307, 45558), (315, 45642), (322, 45684), (372, 45957), (380, 46014), (384, 46074), (388, 46107), (392, 46116), (393, 46119),

Gene: Bobi_73 Start: 44682, Stop: 46739, Start Num: 62
Candidate Starts for Bobi_73:
(Start: 62 @44682 has 1 MA's), (Start: 74 @44721 has 5 MA's), (83, 44751), (88, 44787), (94, 44820), (99, 44865), (122, 45009), (126, 45030), (139, 45162), (149, 45243), (162, 45324), (177, 45438), (182, 45495), (190, 45567), (202, 45651), (207, 45690), (211, 45759), (220, 45810), (225, 45843), (236, 45924), (237, 45930), (239, 45948), (244, 45969), (258, 46053), (271, 46095), (315, 46218), (320, 46239), (321, 46248), (322, 46260), (324, 46284), (326, 46305), (331, 46338), (347, 46383), (348, 46395), (353, 46434), (354, 46437), (367, 46539), (380, 46596), (384, 46656), (389, 46689), (392, 46698), (393, 46701),

Gene: Bogg_99 Start: 57890, Stop: 59740, Start Num: 74
Candidate Starts for Bogg_99:
(38, 57743), (48, 57773), (57, 57821), (59, 57836), (Start: 62 @57848 has 1 MA's), (Start: 74 @57890 has 5 MA's), (79, 57908), (94, 58004), (99, 58049), (111, 58133), (142, 58256), (166, 58343), (168, 58349), (178, 58436), (180, 58448), (197, 58580), (210, 58700), (235, 58823), (248, 58910), (315, 59045), (321, 59075), (322, 59087), (353, 59270), (354, 59273), (391, 59561), (397, 59603), (398, 59636), (401, 59651),

Gene: Boilgate_58 Start: 41641, Stop: 43257, Start Num: 97
Candidate Starts for Boilgate_58:
(84, 41533), (87, 41566), (Start: 97 @41641 has 2 MA's), (101, 41668), (106, 41698), (118, 41767), (153, 41941), (160, 41992), (161, 41998), (175, 42073), (185, 42193), (218, 42400), (219, 42403), (231, 42451), (234, 42469), (315, 42622), (318, 42640), (321, 42655), (326, 42712), (359, 42904), (391, 43054), (397, 43096), (402, 43153), (409, 43222), (412, 43246),

Gene: Briton15_63 Start: 42021, Stop: 40291, Start Num: 76
Candidate Starts for Briton15_63:
(Start: 76 @42021 has 9 MA's), (94, 41913), (99, 41868), (111, 41784), (170, 41643), (188, 41493), (201, 41415), (214, 41310), (215, 41307), (238, 41205), (240, 41196), (321, 40959), (324, 40923), (334, 40860), (353, 40758), (354, 40755), (365, 40677), (380, 40569), (386, 40497), (387, 40485), (388, 40476), (391, 40467), (395, 40446), (396, 40428),

Gene: CactusJack_53 Start: 36390, Stop: 38582, Start Num: 43
Candidate Starts for CactusJack_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (103, 36705), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (177, 37251), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (327, 38145), (328, 38151), (338, 38181), (340, 38187), (354, 38253), (380, 38439), (384, 38499), (388, 38532), (392, 38541), (393, 38544),

Gene: Chipper1996_830 Start: 54205, Stop: 56127, Start Num: 61
Candidate Starts for Chipper1996_830:
(Start: 61 @54205 has 17 MA's), (80, 54277), (Start: 98 @54409 has 3 MA's), (109, 54481), (114, 54517), (118, 54541), (121, 54559), (130, 54616), (141, 54652), (145, 54682), (148, 54694), (179, 54886), (184, 54955), (187, 54982), (200, 55063), (204, 55078), (206, 55093), (210, 55144), (213, 55162), (222, 55195), (242, 55279), (245, 55306), (284, 55345), (289, 55351), (313, 55405), (314, 55426), (315, 55429), (316, 55432), (319, 55447), (324, 55495), (326, 55516), (340, 55579), (346, 55603), (349, 55621), (351, 55630), (353, 55657), (377, 55792), (378, 55810), (382, 55879), (386, 55903), (387, 55915), (388, 55924), (391, 55933), (401, 56023), (402, 56032), (410, 56107), (411, 56113),

Gene: Chocolat_82 Start: 53912, Stop: 55834, Start Num: 61
Candidate Starts for Chocolat_82:
(Start: 61 @53912 has 17 MA's), (80, 53984), (Start: 98 @54116 has 3 MA's), (109, 54188), (114, 54224), (118, 54248), (121, 54266), (130, 54323), (141, 54359), (145, 54389), (148, 54401), (179, 54593), (184, 54662), (187, 54689), (200, 54770), (204, 54785), (206, 54800), (210, 54851), (213, 54869), (222, 54902), (242, 54986), (245, 55013), (284, 55052), (289, 55058), (313, 55112), (314, 55133), (315, 55136), (316, 55139), (319, 55154), (324, 55202), (326, 55223), (340, 55286), (346, 55310), (349, 55328), (351, 55337), (353, 55364), (377, 55499), (378, 55517), (382, 55586), (386, 55610), (387, 55622), (388, 55631), (391, 55640), (401, 55730), (402, 55739), (410, 55814), (411, 55820),

Gene: Chubster_83 Start: 54594, Stop: 56483, Start Num: 61
Candidate Starts for Chubster_83:
(Start: 61 @54594 has 17 MA's), (80, 54666), (Start: 98 @54798 has 3 MA's), (109, 54837), (114, 54873), (118, 54897), (121, 54915), (130, 54972), (141, 55008), (145, 55038), (148, 55050), (179, 55242), (187, 55338), (200, 55419), (204, 55434), (206, 55449), (210, 55500), (213, 55518), (222, 55551), (242, 55635), (284, 55701), (289, 55707), (313, 55761), (314, 55782), (315, 55785), (316, 55788), (319, 55803), (324, 55851), (326, 55872), (340, 55935), (346, 55959), (349, 55977), (351, 55986), (353, 56013), (377, 56148), (378, 56166), (382, 56235), (386, 56259), (387, 56271), (388, 56280), (391, 56289), (400, 56376), (401, 56379), (402, 56388), (410, 56463), (411, 56469),

Gene: Colucci_85 Start: 54914, Stop: 56491, Start Num: 98
Candidate Starts for Colucci_85:
(Start: 98 @54914 has 3 MA's), (114, 55001), (115, 55007), (118, 55025), (130, 55100), (141, 55136), (145, 55166), (184, 55439), (187, 55466), (200, 55547), (204, 55562), (206, 55577), (209, 55619), (210, 55628), (213, 55646), (222, 55679), (284, 55829), (289, 55835), (313, 55889), (316, 55916), (319, 55931), (324, 55979), (326, 56000), (332, 56036), (340, 56063), (352, 56117), (353, 56141), (369, 56255), (386, 56267), (391, 56297), (401, 56387), (402, 56396), (410, 56471),

Gene: Conboy_80 Start: 53694, Stop: 55583, Start Num: 61
Candidate Starts for Conboy_80:

(Start: 61 @53694 has 17 MA's), (80, 53766), (Start: 98 @53898 has 3 MA's), (109, 53937), (114, 53973), (118, 53997), (121, 54015), (130, 54072), (141, 54108), (145, 54138), (148, 54150), (179, 54342), (184, 54411), (187, 54438), (200, 54519), (204, 54534), (206, 54549), (210, 54600), (213, 54618), (222, 54651), (242, 54735), (284, 54801), (289, 54807), (313, 54861), (314, 54882), (315, 54885), (316, 54888), (319, 54903), (324, 54951), (326, 54972), (340, 55035), (346, 55059), (349, 55077), (351, 55086), (353, 55113), (377, 55248), (378, 55266), (382, 55335), (386, 55359), (387, 55371), (388, 55380), (391, 55389), (401, 55479), (402, 55488), (410, 55563), (411, 55569),

Gene: Corium_67 Start: 44493, Stop: 46790, Start Num: 18
Candidate Starts for Corium_67:
(12, 44409), (13, 44421), (Start: 18 @44493 has 1 MA's), (39, 44592), (50, 44622), (54, 44652), (63, 44688), (73, 44721), (89, 44811), (91, 44838), (100, 44901), (102, 44907), (104, 44928), (125, 45048), (132, 45090), (135, 45147), (174, 45417), (193, 45621), (202, 45684), (215, 45816), (217, 45837), (223, 45873), (225, 45879), (229, 45918), (234, 45954), (239, 45987), (244, 46008), (247, 46050), (270, 46092), (287, 46128), (315, 46251), (318, 46269), (322, 46293), (360, 46530), (375, 46593), (380, 46647), (384, 46707), (388, 46740), (392, 46749), (393, 46752),

Gene: DRBy19_70 Start: 44260, Stop: 46806, Start Num: 22
Candidate Starts for DRBy19_70:
(2, 44083), (3, 44089), (4, 44098), (5, 44107), (16, 44203), (Start: 22 @44260 has 7 MA's), (32, 44317), (40, 44353), (47, 44377), (50, 44386), (95, 44617), (102, 44668), (103, 44671), (125, 44809), (132, 44851), (135, 44908), (174, 45178), (177, 45217), (193, 45382), (202, 45445), (215, 45577), (217, 45598), (223, 45634), (225, 45640), (229, 45679), (234, 45715), (239, 45748), (244, 45769), (277, 45961), (279, 46009), (288, 46045), (296, 46135), (302, 46153), (315, 46276), (318, 46294), (321, 46306), (322, 46318), (325, 46363), (330, 46411), (372, 46606), (380, 46663), (384, 46723), (388, 46756), (392, 46765), (393, 46768),

Gene: Dorothy_75 Start: 45729, Stop: 48410, Start Num: 19
Candidate Starts for Dorothy_75:
(Start: 19 @45729 has 2 MA's), (25, 45768), (32, 45798), (40, 45834), (50, 45867), (95, 46098), (100, 46143), (102, 46149), (103, 46152), (104, 46170), (105, 46173), (122, 46272), (126, 46293), (139, 46425), (149, 46506), (162, 46587), (177, 46701), (182, 46758), (190, 46830), (202, 46914), (207, 46953), (211, 47022), (220, 47073), (236, 47187), (237, 47193), (239, 47211), (244, 47232), (255, 47379), (263, 47415), (282, 47484), (294, 47532), (303, 47565), (309, 47592), (315, 47685), (320, 47706), (321, 47715), (324, 47751), (344, 47853), (353, 47916), (354, 47919), (365, 47997), (380, 48105), (391, 48207), (394, 48219), (395, 48228), (396, 48246), (408, 48363),

Gene: DrYang_79 Start: 54332, Stop: 56248, Start Num: 61
Candidate Starts for DrYang_79:
(Start: 61 @54332 has 17 MA's), (80, 54404), (92, 54491), (Start: 98 @54536 has 3 MA's), (109, 54602), (114, 54638), (118, 54662), (120, 54668), (126, 54704), (130, 54737), (141, 54773), (145, 54803), (179, 55007), (184, 55076), (187, 55103), (200, 55184), (204, 55199), (206, 55214), (209, 55256), (210, 55265), (219, 55301), (222, 55316), (284, 55466), (289, 55472), (313, 55526), (314, 55547), (315, 55550), (316, 55553), (319, 55568), (323, 55595), (324, 55616), (326, 55637), (340, 55700), (346, 55724), (353, 55778), (361, 55847), (378, 55931), (382, 56000), (385, 56021), (387, 56036), (388, 56045), (391, 56054), (395, 56075), (397, 56096), (401, 56144), (402, 56153), (410, 56228),

Gene: EdgarPoe_81 Start: 54069, Stop: 55991, Start Num: 61
Candidate Starts for EdgarPoe_81:
(Start: 61 @54069 has 17 MA's), (80, 54141), (Start: 98 @54273 has 3 MA's), (109, 54345), (114, 54381), (118, 54405), (121, 54423), (130, 54480), (141, 54516), (145, 54546), (148, 54558), (179, 54750), (184, 54819), (187, 54846), (200, 54927), (204, 54942), (206, 54957), (210, 55008), (213,

55026), (222, 55059), (242, 55143), (245, 55170), (284, 55209), (289, 55215), (313, 55269), (314, 55290), (315, 55293), (316, 55296), (319, 55311), (324, 55359), (326, 55380), (340, 55443), (346, 55467), (349, 55485), (351, 55494), (353, 55521), (377, 55656), (378, 55674), (382, 55743), (386, 55767), (387, 55779), (388, 55788), (391, 55797), (401, 55887), (402, 55896), (410, 55971), (411, 55977),

Gene: Filuzino_74 Start: 46234, Stop: 48309, Start Num: 70
Candidate Starts for Filuzino_74:
(33, 46084), (36, 46099), (46, 46135), (Start: 70 @46234 has 2 MA's), (77, 46264), (84, 46294), (88, 46330), (94, 46363), (99, 46408), (104, 46450), (105, 46453), (123, 46555), (129, 46603), (133, 46657), (137, 46696), (146, 46771), (150, 46783), (157, 46828), (164, 46873), (178, 46978), (180, 46990), (197, 47122), (235, 47365), (248, 47452), (315, 47587), (320, 47608), (321, 47617), (324, 47653), (344, 47755), (353, 47818), (354, 47821), (362, 47884), (380, 48001), (391, 48103), (394, 48115), (396, 48142), (408, 48259),

Gene: FreddyB_67 Start: 41676, Stop: 43952, Start Num: 22
Candidate Starts for FreddyB_67:
(2, 41499), (3, 41505), (4, 41514), (5, 41523), (11, 41562), (16, 41619), (Start: 22 @41676 has 7 MA's), (32, 41733), (50, 41802), (95, 42033), (104, 42105), (125, 42225), (132, 42267), (135, 42324), (174, 42594), (177, 42633), (193, 42798), (202, 42861), (215, 42993), (217, 43014), (223, 43050), (225, 43056), (229, 43095), (234, 43131), (239, 43164), (244, 43185), (306, 43350), (307, 43353), (315, 43437), (322, 43479), (372, 43752), (380, 43809), (384, 43869), (388, 43902), (392, 43911), (393, 43914),

Gene: Gavriela_53 Start: 36390, Stop: 38582, Start Num: 43
Candidate Starts for Gavriela_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (103, 36705), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (177, 37251), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (327, 38145), (328, 38151), (338, 38181), (340, 38187), (354, 38253), (380, 38439), (384, 38499), (388, 38532), (392, 38541), (393, 38544),

Gene: Glaske_53 Start: 36390, Stop: 38582, Start Num: 43
Candidate Starts for Glaske_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (103, 36705), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (177, 37251), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (327, 38145), (328, 38151), (338, 38181), (340, 38187), (354, 38253), (380, 38439), (384, 38499), (388, 38532), (392, 38541), (393, 38544),

Gene: Gonephishing_142 Start: 76140, Stop: 77969, Start Num: 75
Candidate Starts for Gonephishing_142:
(75, 76140), (94, 76248), (99, 76293), (110, 76371), (111, 76377), (142, 76500), (178, 76662), (180, 76674), (197, 76806), (235, 77049), (248, 77136), (315, 77271), (320, 77292), (321, 77301), (324, 77337), (344, 77439), (353, 77502), (354, 77505), (387, 77775), (388, 77784), (391, 77793), (395, 77814), (396, 77832), (398, 77868),

Gene: HanShotFirst_60 Start: 41970, Stop: 40321, Start Num: 76
Candidate Starts for HanShotFirst_60:

(Start: 76 @41970 has 9 MA's), (94, 41862), (99, 41817), (111, 41733), (170, 41592), (188, 41442), (201, 41364), (214, 41259), (215, 41256), (238, 41154), (240, 41145), (315, 40938), (321, 40908), (324, 40872), (354, 40785), (387, 40515), (388, 40506), (391, 40497), (395, 40476), (396, 40458), (398, 40422),

Gene: Hannaconda_142 Start: 76662, Stop: 78896, Start Num: 76
Candidate Starts for Hannaconda_142:
(Start: 76 @76662 has 9 MA's), (94, 76770), (99, 76815), (110, 76893), (111, 76899), (125, 76977), (132, 77019), (135, 77076), (174, 77346), (193, 77550), (202, 77613), (215, 77745), (217, 77766), (223, 77802), (225, 77808), (229, 77847), (234, 77883), (239, 77916), (244, 77937), (251, 78021), (252, 78030), (315, 78231), (321, 78261), (324, 78297), (353, 78438), (354, 78441), (370, 78558), (386, 78690), (387, 78702), (388, 78711), (391, 78720), (395, 78741), (396, 78759), (398, 78795),

Gene: Hegedechwinu_73 Start: 43329, Stop: 44918, Start Num: 66
Candidate Starts for Hegedechwinu_73:
(Start: 66 @43329 has 1 MA's), (78, 43368), (84, 43398), (88, 43434), (94, 43467), (124, 43668), (128, 43701), (152, 43878), (155, 43902), (167, 43965), (170, 43989), (172, 43992), (304, 44226), (315, 44328), (320, 44349), (321, 44358), (324, 44394), (374, 44553), (380, 44610), (391, 44712), (394, 44724), (395, 44733), (397, 44754), (408, 44868),

Gene: HumptyDumpty_82 Start: 53872, Stop: 55794, Start Num: 61
Candidate Starts for HumptyDumpty_82:
(Start: 61 @53872 has 17 MA's), (80, 53944), (Start: 98 @54076 has 3 MA's), (109, 54148), (114, 54184), (118, 54208), (121, 54226), (130, 54283), (141, 54319), (145, 54349), (148, 54361), (179, 54553), (184, 54622), (187, 54649), (200, 54730), (204, 54745), (206, 54760), (210, 54811), (213, 54829), (222, 54862), (242, 54946), (245, 54973), (284, 55012), (289, 55018), (313, 55072), (314, 55093), (315, 55096), (316, 55099), (319, 55114), (324, 55162), (326, 55183), (340, 55246), (346, 55270), (349, 55288), (351, 55297), (353, 55324), (377, 55459), (378, 55477), (382, 55546), (386, 55570), (387, 55582), (388, 55591), (391, 55600), (401, 55690), (402, 55699), (410, 55774), (411, 55780),

Gene: Inyanga_54 Start: 39801, Stop: 38044, Start Num: 75
Candidate Starts for Inyanga_54:
(75, 39801), (94, 39693), (99, 39648), (111, 39564), (142, 39441), (144, 39429), (156, 39384), (178, 39267), (180, 39255), (197, 39123), (235, 38880), (248, 38793), (315, 38658), (321, 38628), (324, 38592), (354, 38505), (380, 38322), (387, 38238), (388, 38229), (391, 38220), (395, 38199), (396, 38181), (398, 38145),

Gene: Iqorha_54 Start: 39800, Stop: 38043, Start Num: 75
Candidate Starts for Iqorha_54:
(75, 39800), (94, 39692), (99, 39647), (111, 39563), (142, 39440), (144, 39428), (156, 39383), (178, 39266), (180, 39254), (197, 39122), (235, 38879), (248, 38792), (315, 38657), (321, 38627), (324, 38591), (354, 38504), (380, 38321), (387, 38237), (388, 38228), (391, 38219), (395, 38198), (396, 38180), (398, 38144),

Gene: JaNo_81 Start: 53843, Stop: 55765, Start Num: 61
Candidate Starts for JaNo_81:
(Start: 61 @53843 has 17 MA's), (80, 53915), (Start: 98 @54047 has 3 MA's), (109, 54119), (114, 54155), (118, 54179), (121, 54197), (130, 54254), (141, 54290), (145, 54320), (148, 54332), (179, 54524), (184, 54593), (187, 54620), (200, 54701), (204, 54716), (206, 54731), (210, 54782), (213, 54800), (222, 54833), (242, 54917), (245, 54944), (284, 54983), (289, 54989), (313, 55043), (314, 55064), (315, 55067), (316, 55070), (319, 55085), (324, 55133), (326, 55154), (340, 55217), (346, 55241), (349, 55259), (351, 55268), (353, 55295), (377, 55430), (378, 55448), (382, 55517), (386,

55541), (387, 55553), (388, 55562), (391, 55571), (401, 55661), (402, 55670), (410, 55745), (411, 55751),

Gene: JayCookie_82 Start: 54405, Stop: 56327, Start Num: 61
Candidate Starts for JayCookie_82:
(Start: 61 @54405 has 17 MA's), (80, 54477), (Start: 98 @54609 has 3 MA's), (109, 54681), (114, 54717), (118, 54741), (121, 54759), (130, 54816), (141, 54852), (145, 54882), (148, 54894), (179, 55086), (184, 55155), (187, 55182), (200, 55263), (204, 55278), (206, 55293), (210, 55344), (213, 55362), (222, 55395), (242, 55479), (284, 55545), (289, 55551), (313, 55605), (314, 55626), (315, 55629), (316, 55632), (319, 55647), (324, 55695), (326, 55716), (340, 55779), (346, 55803), (349, 55821), (351, 55830), (353, 55857), (377, 55992), (378, 56010), (382, 56079), (386, 56103), (387, 56115), (388, 56124), (391, 56133), (401, 56223), (402, 56232), (410, 56307), (411, 56313),

Gene: KBurrousTX_81 Start: 56110, Stop: 57699, Start Num: 98
Candidate Starts for KBurrousTX_81:
(93, 56071), (Start: 98 @56110 has 3 MA's), (109, 56176), (114, 56212), (115, 56218), (118, 56236), (130, 56311), (141, 56347), (145, 56377), (179, 56581), (184, 56650), (187, 56677), (200, 56758), (204, 56773), (206, 56788), (209, 56830), (210, 56839), (213, 56857), (219, 56875), (222, 56890), (284, 57040), (289, 57046), (313, 57100), (315, 57124), (319, 57142), (323, 57169), (324, 57190), (326, 57211), (335, 57256), (340, 57274), (352, 57331), (353, 57355), (355, 57361), (357, 57382), (387, 57493), (391, 57511), (395, 57532), (401, 57601), (402, 57610), (404, 57625), (410, 57685), (411, 57691),

Gene: Kabreeze_82 Start: 53929, Stop: 55851, Start Num: 61
Candidate Starts for Kabreeze_82:
(Start: 61 @53929 has 17 MA's), (80, 54001), (Start: 98 @54133 has 3 MA's), (109, 54205), (114, 54241), (118, 54265), (121, 54283), (130, 54340), (141, 54376), (145, 54406), (148, 54418), (179, 54610), (184, 54679), (187, 54706), (200, 54787), (204, 54802), (206, 54817), (210, 54868), (213, 54886), (222, 54919), (242, 55003), (245, 55030), (284, 55069), (289, 55075), (313, 55129), (314, 55150), (315, 55153), (316, 55156), (319, 55171), (324, 55219), (326, 55240), (340, 55303), (346, 55327), (349, 55345), (351, 55354), (353, 55381), (377, 55516), (378, 55534), (382, 55603), (386, 55627), (387, 55639), (388, 55648), (391, 55657), (401, 55747), (402, 55756), (410, 55831), (411, 55837),

Gene: Kersh_68 Start: 45094, Stop: 47070, Start Num: 72
Candidate Starts for Kersh_68:
(44, 44980), (Start: 72 @45094 has 4 MA's), (84, 45151), (86, 45163), (94, 45220), (113, 45361), (119, 45391), (121, 45406), (128, 45454), (134, 45505), (140, 45568), (147, 45616), (152, 45631), (153, 45640), (155, 45655), (158, 45679), (169, 45736), (170, 45742), (172, 45745), (174, 45763), (175, 45766), (250, 46036), (264, 46084), (281, 46120), (295, 46210), (300, 46228), (315, 46351), (318, 46369), (321, 46381), (322, 46393), (344, 46519), (353, 46582), (354, 46585), (380, 46765), (381, 46795), (391, 46867), (394, 46879), (397, 46909),

Gene: KilKor_53 Start: 36390, Stop: 38570, Start Num: 43
Candidate Starts for KilKor_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (247, 37845), (315, 38052), (321, 38082), (322, 38094), (354, 38268), (371, 38370), (380, 38427), (383, 38472), (384, 38487), (388, 38520), (392, 38529), (393, 38532),

Gene: KingJulian_72 Start: 44493, Stop: 46790, Start Num: 18

Candidate Starts for KingJulian_72:
(12, 44409), (13, 44421), (Start: 18 @44493 has 1 MA's), (39, 44592), (50, 44622), (54, 44652), (63, 44688), (73, 44721), (89, 44811), (91, 44838), (100, 44901), (102, 44907), (104, 44928), (125, 45048), (132, 45090), (135, 45147), (174, 45417), (193, 45621), (202, 45684), (215, 45816), (217, 45837), (223, 45873), (225, 45879), (229, 45918), (234, 45954), (239, 45987), (244, 46008), (247, 46050), (270, 46092), (287, 46128), (315, 46251), (318, 46269), (322, 46293), (360, 46530), (375, 46593), (380, 46647), (384, 46707), (388, 46740), (392, 46749), (393, 46752),

Gene: Lamina13_61 Start: 41357, Stop: 39765, Start Num: 76
Candidate Starts for Lamina13_61:
(Start: 76 @41357 has 9 MA's), (94, 41249), (99, 41204), (111, 41120), (170, 40979), (188, 40829), (201, 40751), (214, 40646), (215, 40643), (238, 40541), (240, 40532), (315, 40325), (321, 40295), (326, 40238), (371, 40100), (376, 40097), (380, 40043), (387, 39959), (388, 39950), (391, 39941), (395, 39920), (396, 39902), (398, 39866),

Gene: Lilac_101 Start: 58401, Stop: 60605, Start Num: 74
Candidate Starts for Lilac_101:
(38, 58254), (48, 58284), (57, 58332), (59, 58347), (Start: 62 @58359 has 1 MA's), (Start: 74 @58401 has 5 MA's), (79, 58419), (94, 58515), (99, 58560), (111, 58644), (122, 58704), (126, 58725), (139, 58857), (149, 58938), (162, 59019), (177, 59133), (182, 59190), (190, 59262), (202, 59346), (207, 59385), (211, 59454), (220, 59505), (225, 59538), (236, 59619), (237, 59625), (239, 59643), (244, 59664), (258, 59748), (273, 59793), (289, 59805), (315, 59910), (316, 59913), (322, 59952), (333, 60039), (353, 60141), (354, 60144), (364, 60207), (391, 60426), (397, 60468), (398, 60501), (401, 60516),

Gene: Linus_82 Start: 54377, Stop: 56299, Start Num: 61
Candidate Starts for Linus_82:
(Start: 61 @54377 has 17 MA's), (80, 54449), (Start: 98 @54581 has 3 MA's), (109, 54653), (114, 54689), (118, 54713), (121, 54731), (130, 54788), (141, 54824), (145, 54854), (148, 54866), (179, 55058), (184, 55127), (187, 55154), (200, 55235), (204, 55250), (206, 55265), (210, 55316), (213, 55334), (222, 55367), (242, 55451), (284, 55517), (289, 55523), (313, 55577), (314, 55598), (315, 55601), (316, 55604), (319, 55619), (324, 55667), (326, 55688), (340, 55751), (346, 55775), (349, 55793), (351, 55802), (353, 55829), (377, 55964), (378, 55982), (382, 56051), (386, 56075), (387, 56087), (388, 56096), (391, 56105), (401, 56195), (402, 56204), (410, 56279), (411, 56285),

Gene: Lymara_79 Start: 53015, Stop: 54817, Start Num: 61
Candidate Starts for Lymara_79:
(Start: 61 @53015 has 17 MA's), (92, 53174), (Start: 98 @53219 has 3 MA's), (107, 53285), (109, 53291), (114, 53327), (118, 53351), (121, 53369), (130, 53426), (141, 53462), (145, 53492), (148, 53504), (159, 53567), (179, 53696), (184, 53765), (187, 53792), (200, 53873), (204, 53888), (206, 53903), (210, 53954), (213, 53972), (222, 54005), (242, 54089), (245, 54116), (284, 54155), (289, 54161), (313, 54215), (314, 54236), (316, 54242), (319, 54257), (322, 54281), (324, 54305), (326, 54326), (340, 54389), (346, 54413), (353, 54467), (387, 54605), (391, 54623), (401, 54713), (402, 54722), (405, 54764), (410, 54797),

Gene: MISSy_100 Start: 58583, Stop: 60391, Start Num: 74
Candidate Starts for MISSy_100:
(38, 58436), (48, 58466), (57, 58514), (59, 58529), (Start: 62 @58541 has 1 MA's), (Start: 74 @58583 has 5 MA's), (79, 58601), (94, 58697), (99, 58742), (111, 58826), (142, 58949), (166, 59036), (168, 59042), (178, 59129), (180, 59141), (197, 59273), (235, 59516), (248, 59603), (321, 59768), (322, 59780), (368, 60053), (391, 60212), (397, 60254), (398, 60287), (401, 60302),

Gene: Mantra_64 Start: 42536, Stop: 44860, Start Num: 72

Candidate Starts for Mantra_64:
(58, 42488), (Start: 72 @42536 has 4 MA's), (84, 42593), (94, 42662), (124, 42863), (128, 42896), (152, 43073), (155, 43097), (167, 43160), (169, 43178), (170, 43184), (174, 43205), (185, 43328), (228, 43532), (259, 43826), (286, 43922), (297, 44003), (298, 44009), (308, 44042), (315, 44141), (320, 44162), (321, 44171), (324, 44207), (344, 44309), (353, 44372), (354, 44375), (380, 44555), (390, 44654), (391, 44657), (394, 44669), (395, 44678), (397, 44699), (413, 44852),

Gene: Martik_66 Start: 42749, Stop: 45055, Start Num: 22
Candidate Starts for Martik_66:
(Start: 22 @42749 has 7 MA's), (32, 42806), (35, 42818), (Start: 42 @42845 has 1 MA's), (50, 42875), (95, 43106), (102, 43157), (103, 43160), (111, 43220), (125, 43298), (132, 43340), (135, 43397), (174, 43667), (193, 43871), (202, 43934), (215, 44066), (217, 44087), (223, 44123), (225, 44129), (229, 44168), (234, 44204), (239, 44237), (244, 44258), (306, 44423), (307, 44426), (315, 44510), (322, 44552), (344, 44687), (350, 44717), (354, 44753), (372, 44855), (380, 44912), (384, 44972), (388, 45005), (392, 45014), (393, 45017),

Gene: Megiddo_53 Start: 36390, Stop: 38585, Start Num: 43
Candidate Starts for Megiddo_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (247, 37845), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (360, 38325), (375, 38388), (380, 38442), (384, 38502), (388, 38535), (392, 38544), (393, 38547),

Gene: MilanaBonita_66 Start: 42333, Stop: 45014, Start Num: 71
Candidate Starts for MilanaBonita_66:
(Start: 49 @42243 has 1 MA's), (52, 42252), (Start: 71 @42333 has 5 MA's), (84, 42393), (88, 42429), (94, 42462), (124, 42663), (128, 42696), (152, 42873), (155, 42897), (167, 42960), (170, 42984), (172, 42987), (174, 43005), (175, 43008), (183, 43107), (185, 43128), (199, 43260), (208, 43341), (216, 43422), (233, 43536), (243, 43593), (249, 43665), (256, 43749), (257, 43767), (262, 43788), (267, 43857), (268, 43875), (269, 43908), (274, 44022), (275, 44028), (276, 44046), (279, 44067), (290, 44109), (291, 44151), (302, 44196), (305, 44208), (315, 44313), (320, 44334), (321, 44343), (322, 44355), (324, 44379), (329, 44421), (354, 44520), (380, 44706), (391, 44808), (394, 44820), (396, 44847),

Gene: Misha28_75 Start: 46524, Stop: 48974, Start Num: 21
Candidate Starts for Misha28_75:
(9, 46422), (10, 46431), (15, 46458), (Start: 21 @46524 has 3 MA's), (28, 46560), (32, 46584), (40, 46620), (50, 46653), (95, 46884), (102, 46935), (103, 46938), (125, 47076), (132, 47118), (135, 47175), (174, 47445), (177, 47484), (193, 47649), (202, 47712), (215, 47844), (217, 47865), (223, 47901), (225, 47907), (229, 47946), (234, 47982), (239, 48015), (244, 48036), (294, 48171), (315, 48273), (316, 48276), (322, 48315), (328, 48396), (353, 48507), (354, 48510), (372, 48612), (380, 48669), (391, 48771), (394, 48783), (395, 48792), (397, 48813),

Gene: Molly_60 Start: 40691, Stop: 38961, Start Num: 76
Candidate Starts for Molly_60:
(Start: 76 @40691 has 9 MA's), (94, 40583), (99, 40538), (111, 40454), (170, 40313), (188, 40163), (201, 40085), (214, 39980), (215, 39977), (238, 39875), (240, 39866), (321, 39629), (324, 39593), (334, 39530), (353, 39428), (354, 39425), (365, 39347), (380, 39239), (386, 39167), (387, 39155), (388, 39146), (391, 39137), (395, 39116), (396, 39098),

Gene: MooMoo_65 Start: 41964, Stop: 43592, Start Num: 98

Candidate Starts for MooMoo_65:
(Start: 98 @41964 has 3 MA's), (101, 41991), (106, 42021), (118, 42090), (127, 42144), (165, 42321), (174, 42378), (185, 42501), (189, 42534), (194, 42555), (198, 42588), (203, 42603), (221, 42708), (315, 42912), (316, 42915), (322, 42954), (366, 43245), (380, 43302), (391, 43389), (394, 43401), (396, 43428), (397, 43431), (402, 43488), (407, 43536), (409, 43557),

Gene: Mordred_82 Start: 53968, Stop: 55890, Start Num: 61
Candidate Starts for Mordred_82:
(Start: 61 @53968 has 17 MA's), (80, 54040), (Start: 98 @54172 has 3 MA's), (109, 54244), (114, 54280), (118, 54304), (121, 54322), (130, 54379), (141, 54415), (145, 54445), (148, 54457), (179, 54649), (184, 54718), (187, 54745), (200, 54826), (204, 54841), (206, 54856), (210, 54907), (213, 54925), (222, 54958), (242, 55042), (245, 55069), (284, 55108), (289, 55114), (313, 55168), (314, 55189), (315, 55192), (316, 55195), (319, 55210), (324, 55258), (326, 55279), (340, 55342), (346, 55366), (349, 55384), (351, 55393), (353, 55420), (377, 55555), (378, 55573), (382, 55642), (386, 55666), (387, 55678), (388, 55687), (391, 55696), (401, 55786), (402, 55795), (410, 55870), (411, 55876),

Gene: Mova_70 Start: 42582, Stop: 44489, Start Num: 72
Candidate Starts for Mova_70:
(30, 42405), (32, 42420), (34, 42429), (55, 42525), (Start: 72 @42582 has 4 MA's), (84, 42639), (94, 42708), (124, 42909), (128, 42942), (152, 43119), (155, 43143), (167, 43206), (174, 43251), (195, 43410), (230, 43464), (241, 43491), (286, 43611), (301, 43668), (315, 43776), (321, 43806), (324, 43842), (339, 43920), (341, 43926), (380, 44184), (390, 44283), (391, 44286), (394, 44298), (395, 44307), (397, 44328), (413, 44481),

Gene: MoyaNatalis_81 Start: 53851, Stop: 55773, Start Num: 61
Candidate Starts for MoyaNatalis_81:
(Start: 61 @53851 has 17 MA's), (80, 53923), (Start: 98 @54055 has 3 MA's), (109, 54127), (114, 54163), (118, 54187), (121, 54205), (130, 54262), (141, 54298), (145, 54328), (148, 54340), (179, 54532), (184, 54601), (187, 54628), (200, 54709), (204, 54724), (206, 54739), (210, 54790), (213, 54808), (222, 54841), (242, 54925), (284, 54991), (289, 54997), (313, 55051), (314, 55072), (315, 55075), (316, 55078), (319, 55093), (324, 55141), (326, 55162), (340, 55225), (346, 55249), (349, 55267), (351, 55276), (353, 55303), (377, 55438), (378, 55456), (382, 55525), (386, 55549), (387, 55561), (388, 55570), (391, 55579), (401, 55669), (402, 55678), (410, 55753), (411, 55759),

Gene: Murica_102 Start: 59799, Stop: 61607, Start Num: 74
Candidate Starts for Murica_102:
(38, 59652), (48, 59682), (57, 59730), (59, 59745), (Start: 62 @59757 has 1 MA's), (Start: 74 @59799 has 5 MA's), (79, 59817), (94, 59913), (99, 59958), (111, 60042), (142, 60165), (166, 60252), (168, 60258), (178, 60345), (180, 60357), (197, 60489), (235, 60732), (248, 60819), (321, 60984), (322, 60996), (368, 61269), (391, 61428), (397, 61470), (398, 61503), (401, 61518),

Gene: Okabe_69 Start: 41882, Stop: 43765, Start Num: 71
Candidate Starts for Okabe_69:
(27, 41699), (31, 41711), (45, 41777), (46, 41783), (Start: 71 @41882 has 5 MA's), (78, 41912), (84, 41942), (88, 41978), (94, 42011), (124, 42212), (128, 42245), (152, 42422), (155, 42446), (167, 42509), (170, 42533), (172, 42536), (283, 42659), (291, 42719), (299, 42761), (315, 42884), (320, 42905), (321, 42914), (322, 42926), (353, 43109), (354, 43112), (380, 43298), (393, 43406), (399, 43484), (414, 43604), (415, 43655), (418, 43736), (420, 43748),

Gene: Optimus_142 Start: 77338, Stop: 79065, Start Num: 76
Candidate Starts for Optimus_142:

(Start: 76 @77338 has 9 MA's), (94, 77446), (99, 77491), (111, 77575), (170, 77716), (188, 77866), (201, 77944), (214, 78049), (215, 78052), (238, 78154), (240, 78163), (315, 78370), (320, 78391), (321, 78400), (324, 78436), (344, 78538), (353, 78601), (354, 78604), (380, 78787), (387, 78871), (388, 78880), (391, 78889), (395, 78910), (396, 78928), (398, 78964),

Gene: OwlsT2W_66 Start: 42373, Stop: 44289, Start Num: 24
Candidate Starts for OwlsT2W_66:
(5, 42196), (6, 42202), (7, 42211), (8, 42220), (14, 42259), (17, 42316), (Start: 24 @42373 has 1 MA's), (37, 42430), (41, 42442), (53, 42499), (65, 42553), (102, 42766), (103, 42769), (105, 42790), (126, 42910), (142, 42952), (151, 42988), (178, 43132), (180, 43144), (197, 43276), (210, 43396), (235, 43519), (248, 43606), (315, 43741), (321, 43771), (324, 43807), (344, 43909), (356, 43990), (380, 44146), (384, 44206), (388, 44239), (392, 44248), (393, 44251),

Gene: PatoPoderoso_67 Start: 44592, Stop: 46790, Start Num: 39
Candidate Starts for PatoPoderoso_67:
(12, 44409), (13, 44421), (Start: 18 @44493 has 1 MA's), (39, 44592), (50, 44622), (54, 44652), (63, 44688), (73, 44721), (89, 44811), (91, 44838), (100, 44901), (102, 44907), (104, 44928), (125, 45048), (132, 45090), (135, 45147), (174, 45417), (193, 45621), (202, 45684), (215, 45816), (217, 45837), (223, 45873), (225, 45879), (229, 45918), (234, 45954), (239, 45987), (244, 46008), (247, 46050), (270, 46092), (287, 46128), (315, 46251), (318, 46269), (322, 46293), (360, 46530), (375, 46593), (380, 46647), (384, 46707), (388, 46740), (392, 46749), (393, 46752),

Gene: Phalconet_70 Start: 43833, Stop: 45551, Start Num: 71
Candidate Starts for Phalconet_70:
(Start: 49 @43743 has 1 MA's), (52, 43752), (56, 43779), (Start: 71 @43833 has 5 MA's), (78, 43863), (84, 43893), (88, 43929), (94, 43962), (124, 44163), (128, 44196), (152, 44373), (155, 44397), (167, 44460), (170, 44484), (172, 44487), (304, 44721), (315, 44823), (320, 44844), (321, 44853), (324, 44889), (344, 44991), (380, 45243), (391, 45345), (394, 45357), (397, 45387), (408, 45501),

Gene: Phalm_53 Start: 36390, Stop: 38582, Start Num: 43
Candidate Starts for Phalm_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (103, 36705), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (177, 37251), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (327, 38145), (328, 38151), (338, 38181), (340, 38187), (354, 38253), (380, 38439), (384, 38499), (388, 38532), (392, 38541), (393, 38544),

Gene: Philus_70 Start: 44236, Stop: 46782, Start Num: 22
Candidate Starts for Philus_70:
(2, 44059), (3, 44065), (4, 44074), (5, 44083), (16, 44179), (Start: 22 @44236 has 7 MA's), (32, 44293), (40, 44329), (47, 44353), (50, 44362), (95, 44593), (102, 44644), (103, 44647), (125, 44785), (132, 44827), (135, 44884), (174, 45154), (177, 45193), (193, 45358), (202, 45421), (215, 45553), (217, 45574), (223, 45610), (225, 45616), (229, 45655), (234, 45691), (239, 45724), (244, 45745), (277, 45937), (279, 45985), (288, 46021), (296, 46111), (302, 46129), (315, 46252), (318, 46270), (321, 46282), (322, 46294), (325, 46339), (330, 46387), (372, 46582), (380, 46639), (384, 46699), (388, 46732), (392, 46741), (393, 46744),

Gene: Pollywog_67 Start: 43356, Stop: 45239, Start Num: 70
Candidate Starts for Pollywog_67:
(44, 43242), (Start: 70 @43356 has 2 MA's), (84, 43413), (88, 43449), (94, 43482), (99, 43527), (104, 43569), (105, 43572), (111, 43611), (142, 43734), (178, 43899), (180, 43911), (197, 44043), (210,

44163), (235, 44286), (248, 44373), (315, 44508), (321, 44538), (324, 44574), (336, 44652), (343, 44679), (345, 44685), (353, 44745), (354, 44748), (365, 44826), (380, 44934), (387, 45018), (391, 45036), (394, 45048), (396, 45075),

Gene: PrincessTrina_83 Start: 54273, Stop: 56075, Start Num: 61
Candidate Starts for PrincessTrina_83:
(Start: 61 @54273 has 17 MA's), (80, 54345), (Start: 98 @54477 has 3 MA's), (109, 54549), (114, 54585), (118, 54609), (121, 54627), (130, 54684), (141, 54720), (145, 54750), (148, 54762), (179, 54954), (184, 55023), (187, 55050), (200, 55131), (204, 55146), (206, 55161), (210, 55212), (213, 55230), (222, 55263), (242, 55347), (245, 55374), (284, 55413), (289, 55419), (313, 55473), (314, 55494), (315, 55497), (316, 55500), (319, 55515), (324, 55563), (326, 55584), (340, 55647), (346, 55671), (349, 55689), (351, 55698), (353, 55725), (387, 55863), (391, 55881), (401, 55971), (402, 55980), (410, 56055), (411, 56061),

Gene: RedBird_75 Start: 45596, Stop: 48277, Start Num: 19
Candidate Starts for RedBird_75:
(Start: 19 @45596 has 2 MA's), (25, 45635), (32, 45665), (40, 45701), (50, 45734), (95, 45965), (100, 46010), (102, 46016), (103, 46019), (104, 46037), (105, 46040), (122, 46139), (126, 46160), (139, 46292), (149, 46373), (162, 46454), (177, 46568), (182, 46625), (190, 46697), (202, 46781), (207, 46820), (211, 46889), (220, 46940), (236, 47054), (237, 47060), (239, 47078), (244, 47099), (255, 47246), (263, 47282), (282, 47351), (294, 47399), (303, 47432), (309, 47459), (315, 47552), (320, 47573), (321, 47582), (324, 47618), (344, 47720), (353, 47783), (354, 47786), (365, 47864), (380, 47972), (391, 48074), (394, 48086), (395, 48095), (396, 48113), (408, 48230),

Gene: RosiePosie_82 Start: 54057, Stop: 55946, Start Num: 61
Candidate Starts for RosiePosie_82:
(Start: 61 @54057 has 17 MA's), (80, 54129), (Start: 98 @54261 has 3 MA's), (109, 54300), (114, 54336), (118, 54360), (121, 54378), (130, 54435), (141, 54471), (145, 54501), (148, 54513), (179, 54705), (184, 54774), (187, 54801), (200, 54882), (204, 54897), (206, 54912), (210, 54963), (213, 54981), (222, 55014), (242, 55098), (284, 55164), (289, 55170), (313, 55224), (314, 55245), (315, 55248), (316, 55251), (319, 55266), (324, 55314), (326, 55335), (340, 55398), (346, 55422), (349, 55440), (351, 55449), (353, 55476), (377, 55611), (378, 55629), (382, 55698), (386, 55722), (387, 55734), (388, 55743), (391, 55752), (401, 55842), (402, 55851), (410, 55926), (411, 55932),

Gene: SG4_70 Start: 43702, Stop: 45480, Start Num: 68
Candidate Starts for SG4_70:
(Start: 68 @43702 has 1 MA's), (78, 43741), (84, 43771), (88, 43807), (94, 43840), (99, 43885), (170, 44110), (188, 44260), (201, 44338), (214, 44443), (215, 44446), (238, 44548), (240, 44557), (315, 44764), (320, 44785), (321, 44794), (324, 44830), (344, 44932), (353, 44995), (354, 44998), (356, 45013), (380, 45172), (391, 45274), (394, 45286), (395, 45295), (396, 45313), (408, 45430),

Gene: Scavito_83 Start: 54017, Stop: 55939, Start Num: 61
Candidate Starts for Scavito_83:
(Start: 61 @54017 has 17 MA's), (80, 54089), (Start: 98 @54221 has 3 MA's), (109, 54293), (114, 54329), (118, 54353), (121, 54371), (130, 54428), (141, 54464), (145, 54494), (148, 54506), (179, 54698), (184, 54767), (187, 54794), (200, 54875), (204, 54890), (206, 54905), (210, 54956), (213, 54974), (222, 55007), (242, 55091), (245, 55118), (284, 55157), (289, 55163), (313, 55217), (314, 55238), (315, 55241), (316, 55244), (319, 55259), (324, 55307), (326, 55328), (340, 55391), (346, 55415), (349, 55433), (351, 55442), (353, 55469), (377, 55604), (378, 55622), (382, 55691), (386, 55715), (387, 55727), (388, 55736), (391, 55745), (401, 55835), (402, 55844), (410, 55919), (411, 55925),

Gene: ShiLan_65 Start: 42785, Stop: 45667, Start Num: 22

Candidate Starts for ShiLan_65:
(Start: 22 @42785 has 7 MA's), (32, 42842), (35, 42854), (Start: 42 @42881 has 1 MA's), (50, 42911), (95, 43142), (100, 43187), (102, 43193), (103, 43196), (104, 43214), (105, 43217), (122, 43316), (126, 43337), (139, 43469), (149, 43550), (162, 43631), (177, 43745), (182, 43802), (190, 43874), (202, 43958), (207, 43997), (211, 44066), (220, 44117), (236, 44231), (237, 44237), (239, 44255), (244, 44276), (246, 44312), (258, 44360), (285, 44411), (314, 44513), (317, 44525), (337, 44657), (358, 44777), (379, 44900), (386, 44987), (403, 45122), (406, 45164), (416, 45299), (417, 45329), (419, 45365), (421, 45467), (422, 45524), (423, 45584), (424, 45617), (425, 45626), (426, 45629),

Gene: ShroomBoi_67 Start: 43105, Stop: 44667, Start Num: 108
Candidate Starts for ShroomBoi_67:
(81, 42928), (82, 42934), (85, 42943), (86, 42952), (90, 42991), (Start: 108 @43105 has 1 MA's), (117, 43162), (124, 43198), (128, 43231), (163, 43453), (170, 43495), (250, 43789), (264, 43837), (281, 43873), (292, 43942), (295, 43963), (300, 43981), (315, 44104), (320, 44125), (321, 44134), (322, 44146), (344, 44272), (353, 44335), (363, 44404), (380, 44524), (384, 44584), (388, 44617), (392, 44626), (393, 44629),

Gene: StAnnes_70 Start: 44611, Stop: 46869, Start Num: 69
Candidate Starts for StAnnes_70:
(60, 44581), (67, 44605), (Start: 69 @44611 has 1 MA's), (84, 44665), (88, 44701), (94, 44734), (99, 44779), (125, 44941), (132, 44983), (135, 45040), (174, 45310), (193, 45514), (202, 45577), (215, 45709), (217, 45730), (223, 45766), (225, 45772), (229, 45811), (234, 45847), (239, 45880), (244, 45901), (251, 45985), (260, 45997), (290, 46042), (315, 46162), (321, 46192), (324, 46228), (353, 46387), (354, 46390), (365, 46468), (380, 46576), (391, 46663), (394, 46675), (395, 46684), (397, 46705),

Gene: Starcevich_66 Start: 42297, Stop: 45341, Start Num: 22
Candidate Starts for Starcevich_66:
(11, 42183), (Start: 22 @42297 has 7 MA's), (32, 42354), (35, 42366), (Start: 42 @42393 has 1 MA's), (50, 42423), (95, 42654), (100, 42699), (102, 42705), (103, 42708), (104, 42726), (105, 42729), (125, 42846), (132, 42888), (135, 42945), (174, 43215), (177, 43254), (193, 43419), (202, 43482), (215, 43614), (217, 43635), (223, 43671), (225, 43677), (229, 43716), (234, 43752), (239, 43785), (244, 43806), (251, 43890), (253, 43935), (254, 43947), (265, 44049), (266, 44061), (272, 44193), (278, 44313), (293, 44436), (310, 44517), (311, 44523), (312, 44556), (315, 44655), (321, 44685), (324, 44721), (353, 44862), (354, 44865), (380, 45051), (391, 45138), (394, 45150),

Gene: StellaBean_97 Start: 58301, Stop: 60040, Start Num: 74
Candidate Starts for StellaBean_97:
(38, 58154), (48, 58184), (57, 58232), (59, 58247), (Start: 62 @58259 has 1 MA's), (Start: 74 @58301 has 5 MA's), (79, 58319), (94, 58415), (99, 58460), (111, 58544), (170, 58685), (188, 58835), (201, 58913), (214, 59018), (215, 59021), (238, 59123), (240, 59132), (315, 59339), (321, 59369), (334, 59468), (353, 59570), (354, 59573), (365, 59651), (380, 59759), (386, 59831), (391, 59861), (397, 59903), (398, 59936), (401, 59951),

Gene: StressBall_53 Start: 36390, Stop: 38582, Start Num: 43
Candidate Starts for StressBall_53:
(1, 35955), (29, 36327), (Start: 43 @36390 has 8 MA's), (50, 36417), (51, 36423), (54, 36447), (63, 36483), (73, 36516), (89, 36606), (91, 36633), (100, 36696), (102, 36702), (103, 36705), (104, 36723), (125, 36843), (132, 36885), (135, 36942), (174, 37212), (177, 37251), (193, 37416), (202, 37479), (215, 37611), (217, 37632), (223, 37668), (225, 37674), (229, 37713), (234, 37749), (239, 37782), (244, 37803), (270, 37887), (287, 37923), (315, 38046), (318, 38064), (322, 38088), (327, 38145), (328, 38151), (338, 38181), (340, 38187), (354, 38253), (380, 38439), (384, 38499), (388, 38532), (392, 38541), (393, 38544),

Gene: Taj_79 Start: 46662, Stop: 48335, Start Num: 71
Candidate Starts for Taj_79:
(Start: 49 @46572 has 1 MA's), (52, 46581), (Start: 71 @46662 has 5 MA's), (78, 46692), (84, 46722), (86, 46734), (94, 46791), (124, 46992), (128, 47025), (152, 47202), (155, 47226), (167, 47289), (170, 47313), (172, 47316), (290, 47457), (291, 47499), (302, 47544), (305, 47556), (315, 47661), (320, 47682), (321, 47691), (322, 47703), (329, 47769), (353, 47865), (354, 47868), (369, 47970), (380, 48027), (391, 48129), (394, 48141), (395, 48150), (397, 48171), (408, 48285),

Gene: Tarkin_98 Start: 58765, Stop: 60504, Start Num: 74
Candidate Starts for Tarkin_98:
(38, 58618), (48, 58648), (57, 58696), (59, 58711), (Start: 62 @58723 has 1 MA's), (Start: 74 @58765 has 5 MA's), (79, 58783), (94, 58879), (99, 58924), (111, 59008), (123, 59071), (170, 59149), (188, 59299), (201, 59377), (214, 59482), (215, 59485), (238, 59587), (240, 59596), (315, 59803), (320, 59824), (321, 59833), (322, 59845), (334, 59932), (353, 60034), (354, 60037), (365, 60115), (380, 60223), (391, 60325), (397, 60367), (398, 60400), (401, 60415),

Gene: Tasp14_62 Start: 41981, Stop: 40389, Start Num: 76
Candidate Starts for Tasp14_62:
(Start: 76 @41981 has 9 MA's), (94, 41873), (99, 41828), (111, 41744), (170, 41603), (188, 41453), (201, 41375), (214, 41270), (215, 41267), (238, 41165), (240, 41156), (315, 40949), (321, 40919), (326, 40862), (371, 40724), (376, 40721), (380, 40667), (387, 40583), (388, 40574), (391, 40565), (395, 40544), (396, 40526), (398, 40490),

Gene: Thespis_55 Start: 36748, Stop: 38346, Start Num: 171
Candidate Starts for Thespis_55:
(Start: 171 @36748 has 1 MA's), (173, 36757), (176, 36784), (181, 36850), (186, 36910), (191, 36949), (196, 36979), (205, 37036), (212, 37123), (227, 37201), (232, 37246), (261, 37408), (271, 37483), (280, 37555), (315, 37801), (318, 37819), (322, 37843), (344, 37978), (350, 38008), (354, 38044), (372, 38146), (380, 38203), (384, 38263), (388, 38296), (392, 38305), (393, 38308),

Gene: TootsiePop_75 Start: 46524, Stop: 48974, Start Num: 21
Candidate Starts for TootsiePop_75:
(9, 46422), (10, 46431), (15, 46458), (Start: 21 @46524 has 3 MA's), (28, 46560), (32, 46584), (40, 46620), (50, 46653), (95, 46884), (102, 46935), (103, 46938), (125, 47076), (132, 47118), (135, 47175), (174, 47445), (177, 47484), (193, 47649), (202, 47712), (215, 47844), (217, 47865), (223, 47901), (225, 47907), (229, 47946), (234, 47982), (239, 48015), (244, 48036), (294, 48171), (315, 48273), (316, 48276), (322, 48315), (328, 48396), (353, 48507), (354, 48510), (372, 48612), (380, 48669), (391, 48771), (394, 48783), (395, 48792), (397, 48813),

Gene: Tophat_83 Start: 54206, Stop: 56128, Start Num: 61
Candidate Starts for Tophat_83:
(Start: 61 @54206 has 17 MA's), (80, 54278), (Start: 98 @54410 has 3 MA's), (109, 54482), (114, 54518), (118, 54542), (121, 54560), (130, 54617), (141, 54653), (145, 54683), (148, 54695), (179, 54887), (184, 54956), (187, 54983), (200, 55064), (204, 55079), (206, 55094), (210, 55145), (213, 55163), (222, 55196), (242, 55280), (245, 55307), (284, 55346), (289, 55352), (313, 55406), (314, 55427), (315, 55430), (316, 55433), (319, 55448), (324, 55496), (326, 55517), (340, 55580), (346, 55604), (349, 55622), (351, 55631), (353, 55658), (377, 55793), (378, 55811), (382, 55880), (386, 55904), (387, 55916), (388, 55925), (391, 55934), (401, 56024), (402, 56033), (410, 56108), (411, 56114),

Gene: Totinger_66 Start: 41872, Stop: 44196, Start Num: 72
Candidate Starts for Totinger_66:

(30, 41695), (32, 41710), (34, 41719), (55, 41815), (Start: 72 @41872 has 4 MA's), (84, 41929), (94, 41998), (124, 42199), (128, 42232), (152, 42409), (155, 42433), (167, 42496), (169, 42514), (170, 42520), (174, 42541), (185, 42664), (228, 42868), (259, 43162), (286, 43258), (297, 43339), (298, 43345), (308, 43378), (315, 43477), (318, 43495), (322, 43519), (344, 43645), (353, 43708), (354, 43711), (380, 43891), (390, 43990), (391, 43993), (394, 44005), (395, 44014), (397, 44035), (413, 44188),

Gene: Violet_57 Start: 42062, Stop: 40485, Start Num: 76
Candidate Starts for Violet_57:
(Start: 76 @42062 has 9 MA's), (94, 41954), (99, 41909), (111, 41825), (170, 41684), (188, 41534), (201, 41456), (214, 41351), (215, 41348), (238, 41246), (240, 41237), (315, 41030), (320, 41009), (321, 41000), (324, 40964), (375, 40805), (380, 40748), (391, 40661), (397, 40619), (398, 40586),

Gene: Wee_78 Start: 46738, Stop: 48411, Start Num: 71
Candidate Starts for Wee_78:
(Start: 49 @46648 has 1 MA's), (52, 46657), (Start: 71 @46738 has 5 MA's), (78, 46768), (84, 46798), (86, 46810), (94, 46867), (124, 47068), (128, 47101), (152, 47278), (155, 47302), (167, 47365), (170, 47389), (172, 47392), (290, 47533), (291, 47575), (302, 47620), (305, 47632), (315, 47737), (320, 47758), (321, 47767), (322, 47779), (329, 47845), (353, 47941), (354, 47944), (369, 48046), (380, 48103), (391, 48205), (394, 48217), (395, 48226), (397, 48247), (408, 48361),

Gene: Willsammy_52 Start: 35873, Stop: 38053, Start Num: 43
Candidate Starts for Willsammy_52:
(1, 35438), (29, 35810), (Start: 43 @35873 has 8 MA's), (50, 35900), (51, 35906), (54, 35930), (63, 35966), (73, 35999), (89, 36089), (91, 36116), (100, 36179), (102, 36185), (104, 36206), (125, 36326), (132, 36368), (135, 36425), (174, 36695), (193, 36899), (202, 36962), (215, 37094), (217, 37115), (223, 37151), (225, 37157), (229, 37196), (234, 37232), (239, 37265), (244, 37286), (247, 37328), (315, 37535), (321, 37565), (322, 37577), (354, 37751), (371, 37853), (380, 37910), (383, 37955), (384, 37970), (388, 38003), (392, 38012), (393, 38015),