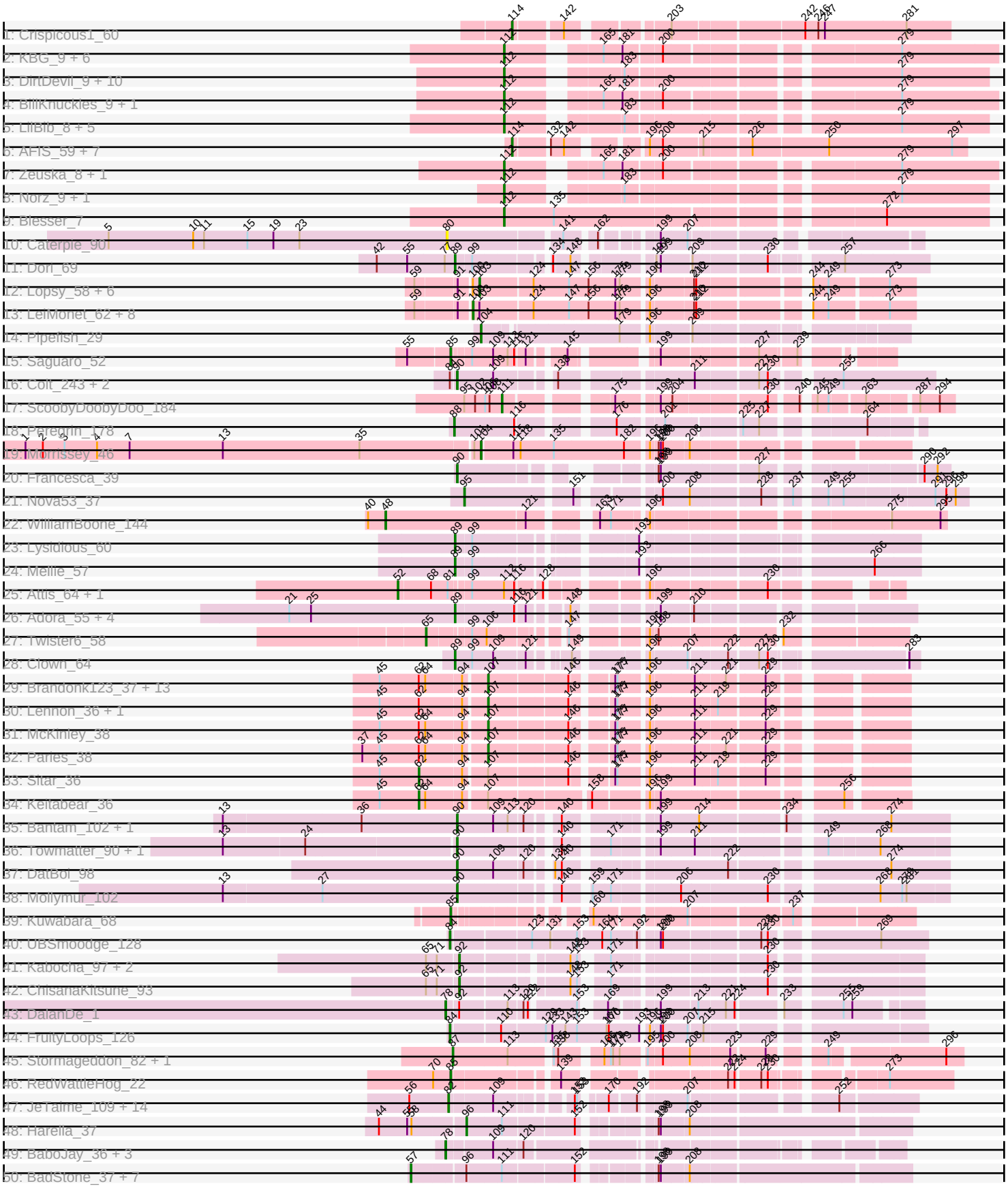
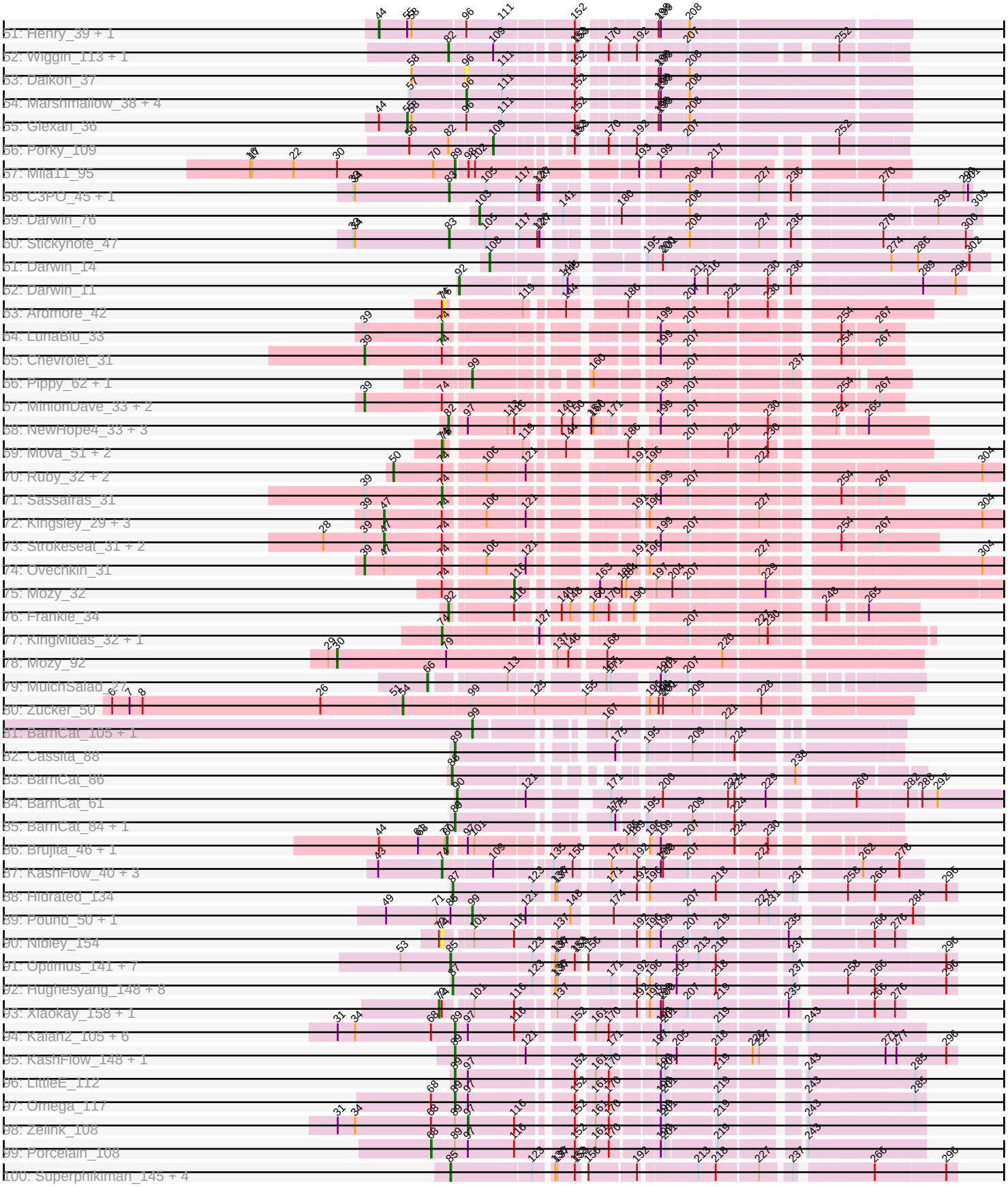
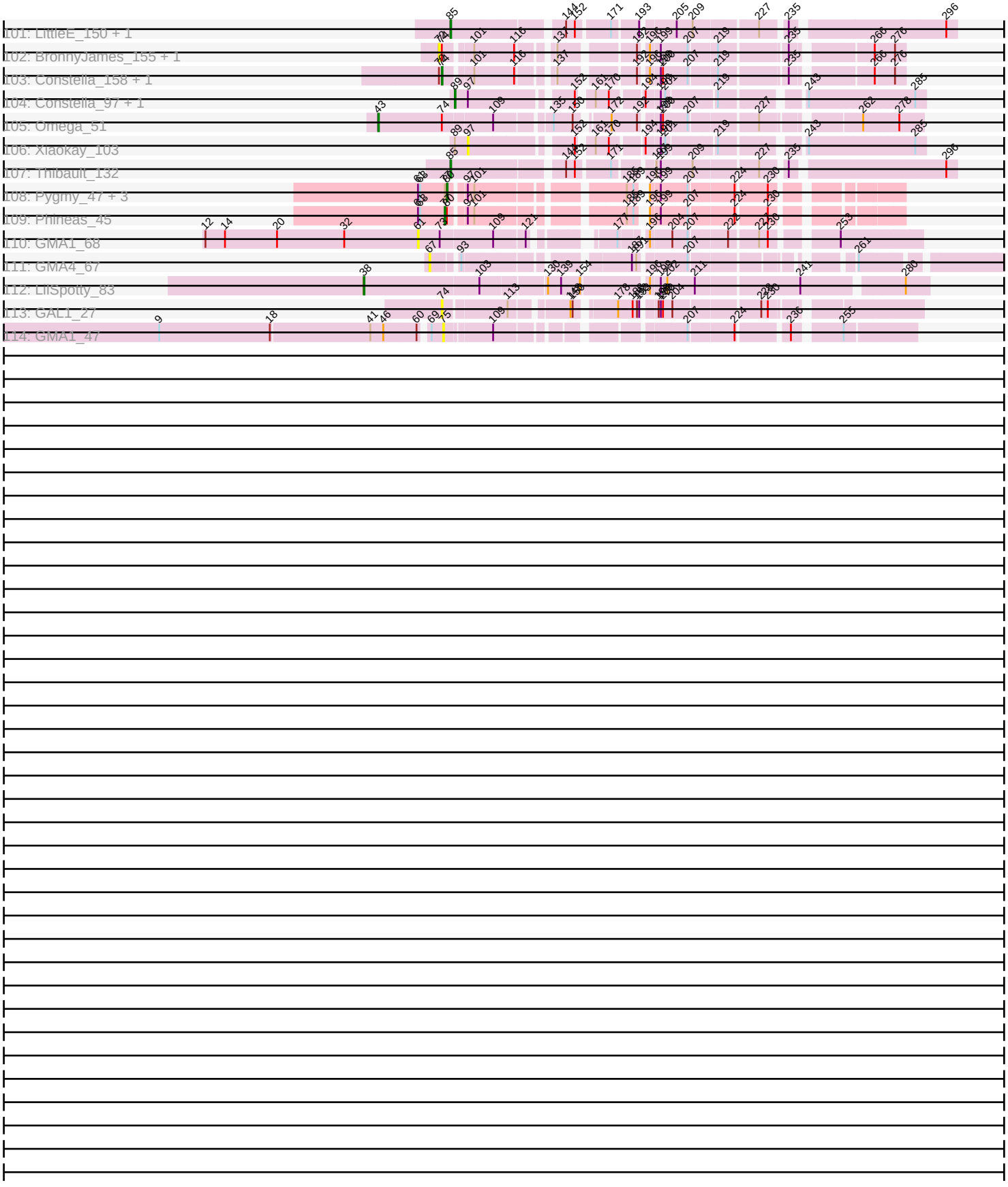
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1: Crispicous1_60
2: KBG_9 + 6
3: DirtDevil_9 + 10
4: BillKnuckles_9 + 1
5: LilBib_8 + 5
6: AFIS_59 + 7
7: Zeuska_8 + 1
8: Norz_9 + 1
9: Blesser_7
10: Caterpie_90
11: Dori_69
12: Lopsy_58 + 6
13: LeiMonet_62 + 8
14: Pipefish_29
15: Saguaro_52
16: Colt_243 + 2
17: ScoobyDoobyDoo_184
18: Peregrin_178
19: Morrissey_46
20: Francesca_39
21: Nova53_37
22: WilliamBoone_144
23: Lysidious_60
24: Mellie_57
25: Attis_64 + 1
26: Adora_55 + 4
27: Twister6_58
28: Clown_64
29: Brandonk123_37 + 13
30: Lennon_36 + 1
31: McKinley_38
32: Parles_38
33: Sitar_36
34: Keitabear_36
35: Bantam_102 + 1
36: Towmatter_90 + 1
37: DatBoi_98
38: Mollymur_102
39: Kuwabara_68
40: UBSmoodge_128
41: Kabocha_97 + 2
42: ChisanaKitsune_93
43: DalanDe_1
44: FruityLoops_126
45: Stormageddon_82 + 1
46: RedWattleHog_22
47: JeTaime_109 + 14
48: Harella_37
49: BaboJay_36 + 3
50: BadStone_37 + 7

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51: Henry_39 + 1
52: Wiggin_113 + 1
53: Daikon_37
54: Marshmallow_38 + 4
55: Glexan_36
56: Porky_109
57: Mila11_95
58: C3PO_45 + 1
59: Darwin_76
60: Stickynote_47
61: Darwin_14
62: Darwin_11
63: Ardmore_42
64: LunaBlu_33
65: Chevrolet_31
66: Pippy_62 + 1
67: MinionDave_33 + 2
68: NewHope4_33 + 3
69: Mova_51 + 2
70: Ruby_32 + 2
71: Sassafras_31
72: Kingsley_29 + 3
73: Strokeseat_31 + 2
74: Ovechkin_31
75: Mozy_32
76: Frankie_34
77: KingMidas_32 + 1
78: Mozy_92
79: MulchSalad_27
80: Zucker_50
81: BarnCat_105 + 1
82: Cassita_88
83: BarnCat_86
84: BarnCat_61
85: BarnCat_84 + 1
86: Brujita_46 + 1
87: KashFlow_40 + 3
88: Hidrated_134
89: Pound_50 + 1
90: Nibley_154
91: Optimus_141 + 7
92: Hughesyang_148 + 8
93: Xiaokay_158 + 1
94: Kalan2_105 + 6
95: KashFlow_148 + 1
96: LittleE_112
97: Omega_117
98: Zelink_108
99: Porcelain_108
100: Superphikiman_145 + 4

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101: LittleE_150 + 1
102: BronnyJames_155 + 1
103: Constella_158 + 1
104: Constella_97 + 1
105: Omega_51
106: Xiaokay_103
107: Thibault_132
108: Pygmy_47 + 3
109: Phineas_45
110: GMA1_68
111: GMA4_67
112: LilSpotty_83
113: GAL1_27
114: GMA1_47

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 347194 Report

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

Pham number 347194 has 273 members, 24 are drafts.

Phages represented in each track:
• Track 1 : Crispicous1_60
• Track 2 : KBG_9, Solon_8, Gwendoluna_9, Graduation_10, Nerujay_9, Squee_8, Whitspit_9
• Track 3 : DirtDevil_9, Noxious_10, CatBus_9, SpikeBT_9, GroundGoblin_9, Hermia_10, Treddle_9, Aldrich_9, KikiBouba_10, Buttons_9, Edtherson_9
• Track 4 : BillKnuckles_9, DD5_9
• Track 5 : LilBib_8, Papez_9, Kenmech_10, CartmannCramer_8, TheloniousMonk_9, PowerRanger_8
• Track 6 : AFIS_59, NEHalo_60, SpikeBT_61, Moose_64, SwissCheese_66, GageAP_64, Forsytheast_64, Bruns_64
• Track 7 : Zeuska_8, QTRlifeCrisis_8
• Track 8 : Norz_9, Monet_9
• Track 9 : Blesser_7
• Track 10 : Caterpie_90
• Track 11 : Dori_69
• Track 12 : Lopsy_58, Buckeye_60, Podrick_58, KingTut_52, Adriana_61, Mesmerelda_59, Matalotodo_59
• Track 13 : LeiMonet_62, Placalicious_60, Coletti_62, FugateOSU_60, Jesabah_61, Happabalu_60, Orfeu_58, Toni_59, LostAndPhound_60
• Track 14 : Pipefish_29
• Track 15 : Saguaro_52
• Track 16 : Colt_243, Blubba_240, Cane17_242
• Track 17 : ScoobyDoobyDoo_184
• Track 18 : Peregrin_178
• Track 19 : Morrissey_46
• Track 20 : Francesca_39
• Track 21 : Nova53_37
• Track 22 : WilliamBoone_144
• Track 23 : Lysidious_60
• Track 24 : Mellie_57
• Track 25 : Attis_64, SoilAssassin_64
• Track 26 : Adora_55, Shlim410_56, Hortense_58, Howe_58, Twinkle_57
• Track 27 : Twister6_58
• Track 28 : Clown_64
• Track 29 : Brandonk123_37, McCrothy_36, Love_39, BobBob_33, Fosterous_34, Nordenberg_30, Sedona_36, Charming_36, Galadriel_36, Angelicage_34, Vivi2_38, Rofo_36, Tangent_36, Bibwit_35

• Track 30 : Lennon_36, Affeca_34
• Track 31 : McKinley_38
• Track 32 : Paries_38
• Track 33 : Sitar_36
• Track 34 : Keitabear_36
• Track 35 : Bantam_102, SpeedDemon_1040
• Track 36 : Towmatter_90, Daredevil_91
• Track 37 : DatBoi_98
• Track 38 : Mollymur_102
• Track 39 : Kuwabara_68
• Track 40 : UBSmoodge_128
• Track 41 : Kabocha_97, Chidiebere_96, Schomber_94
• Track 42 : ChisanaKitsune_93
• Track 43 : DalanDe_1
• Track 44 : FruityLoops_126
• Track 45 : Stormageddon_82, RedWattleHog_85
• Track 46 : RedWattleHog_22
• Track 47 : JeTaime_109, Goku_110, Nimrod_111, Kimchi_115, Teaspoon_111, 244_112, BaboJay_110, Stank_113, Icee_112, BigBubba_112, Filch_113, Goldilocks_114, TBrady12_114, Xandras_110, Holt_116
• Track 48 : Harella_37
• Track 49 : BaboJay_36, Eureka_37, Goku_37, Bogg_37
• Track 50 : BadStone_37, Myrale_38, ABCat_37, Tuco_39, DrDrey_39, BilboSwaggins_38, ShamWow_38, Dusk_37
• Track 51 : Henry_39, Gator_36
• Track 52 : Wiggin_113, Marshmallow_109
• Track 53 : Daikon_37
• Track 54 : Marshmallow_38, Teaspoon_39, Balomoji_37, Pumpkin_40, Toto_38
• Track 55 : Glexan_36
• Track 56 : Porky_109
• Track 57 : Mila11_95
• Track 58 : C3PO_45, Cruella_45
• Track 59 : Darwin_76
• Track 60 : Stickynote_47
• Track 61 : Darwin_14
• Track 62 : Darwin_11
• Track 63 : Ardmore_42
• Track 64 : LunaBlu_33
• Track 65 : Chevrolet_31
• Track 66 : Pippy_62, Maravista_65
• Track 67 : MinionDave_33, Galactic_32, Ramsey_33
• Track 68 : NewHope4_33, Coco12_30, Starcevich_34, JalFarm20_33
• Track 69 : Mova_51, Bobi_53, Mutaforma13_54
• Track 70 : Ruby_32, Girr_32, MisterCuddles_32
• Track 71 : Sassafras_31
• Track 72 : Kingsley_29, StAnnes_29, Soul22_35, Hamulus_31
• Track 73 : Strokeseat_31, Mandlovu_31, Hlubikazi_31
• Track 74 : Ovechkin_31
• Track 75 : Mozy_32
• Track 76 : Frankie_34
• Track 77 : KingMidas_32, Leozinho_32
• Track 78 : Mozy_92
• Track 79 : MulchSalad_27

• Track 80 : Zucker_50
• Track 81 : BarnCat_105, LeeroyJenkins_114
• Track 82 : Cassita_88
• Track 83 : BarnCat_86
• Track 84 : BarnCat_61
• Track 85 : BarnCat_84, LeeroyJenkins_94
• Track 86 : Brujita_46, Island3_46
• Track 87 : KashFlow_40, BronnyJames_39, Hannaconda_43, Shaboozey_39
• Track 88 : Hidrated_134
• Track 89 : Pound_50, Bombitas_45
• Track 90 : Nibley_154
• Track 91 : Optimus_141, Bagrid_151, Duke13_146, HokkenD_142, BAKA_150, EricMillard_142, Gonephishing_141, Klein_147
• Track 92 : Hughesyang_148, Dove_135, Zelink_143, Kalah2_140, Wanda_148, Minerva_148, ThreeRngTarjay_144, Bobby_139, Phoebus_149
• Track 93 : Xiaokay_158, Minerva_162
• Track 94 : Kalah2_105, Phoebus_113, Dallas_113, EricMillard_105, Hughesyang_111, ThreeRngTarjay_109, DmpstrDiver_113
• Track 95 : KashFlow_148, Nekros_146
• Track 96 : LittleE_112
• Track 97 : Omega_117
• Track 98 : Zelink_108
• Track 99 : Porcelain_108
• Track 100 : Superphikiman_145, Ariel_147, Courthouse_143, Beem_151, Hannaconda_141
• Track 101 : LittleE_150, Omega_154
• Track 102 : BronnyJames_155, Shaboozey_158
• Track 103 : Constella_158, Hidrated_152
• Track 104 : Constella_97, Thibault_95
• Track 105 : Omega_51
• Track 106 : Xiaokay_103
• Track 107 : Thibault_132
• Track 108 : Pygmy_47, Bogie_47, Shipwreck_47, HUHilltop_45
• Track 109 : Phineas_45
• Track 110 : GMA1_68
• Track 111 : GMA4_67
• Track 112 : LilSpotty_83
• Track 113 : GAL1_27
• Track 114 : GMA1_47

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

The start number called the most often in the published annotations is 112, it was called in 27 of the 249 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aldrich_9, BillKnuckles_9, Blesser_7, Buttons_9, CartmannCramer_8, CatBus_9, DD5_9, DirtDevil_9, Edtherson_9, Graduation_10, GroundGoblin_9, Gwendoluna_9, Hermia_10, KBG_9, Kenmech_10, KikiBouba_10, LilBib_8, Monet_9, Nerujay_9, Norz_9, Noxious_10, Papez_9, PowerRanger_8, QTRlifeCrisis_8, Solon_8,

SpikeBT_9, Squee_8, TheloniousMonk_9, Treddle_9, Whitspit_9, Zeuska_8,

Genes that have the "Most Annotated" start but do not call it:
• Attis_64, SoilAssassin_64,

Genes that do not have the "Most Annotated" start:
• 244_112, ABCat_37, AFIS_59, Adora_55, Adriana_61, Affeca_34, Angelicage_34, Ardmore_42, Ariel_147, BAKA_150, BaboJay_110, BaboJay_36, BadStone_37, Bagrid_151, Balomoji_37, Bantam_102, BarnCat_105, BarnCat_61, BarnCat_84, BarnCat_86, Beem_151, Bibwit_35, BigBubba_112, BilboSwaggins_38, Blubba_240, BobBob_33, Bobby_139, Bobi_53, Bogg_37, Bogie_47, Bombitas_45, Brandonk123_37, BronnyJames_155, BronnyJames_39, Brujita_46, Bruns_64, Buckeye_60, C3PO_45, Cane17_242, Cassita_88, Caterpie_90, Charming_36, Chevrolet_31, Chidiebere_96, ChisanaKitsune_93, Clown_64, Coco12_30, Coletti_62, Colt_243, Constella_158, Constella_97, Courthouse_143, Crispicous1_60, Cruella_45, Daikon_37, DalanDe_1, Dallas_113, Daredevil_91, Darwin_11, Darwin_14, Darwin_76, DatBoi_98, DmpstrDiver_113, Dori_69, Dove_135, DrDrey_39, Duke13_146, Dusk_37, EricMillard_105, EricMillard_142, Eureka_37, Filch_113, Forsytheast_64, Fosterous_34, Francesca_39, Frankie_34, FruityLoops_126, FugateOSU_60, GAL1_27, GMA1_47, GMA1_68, GMA4_67, GageAP_64, Galactic_32, Galadriel_36, Gator_36, Girr_32, Glexan_36, Goku_110, Goku_37, Goldilocks_114, Gonephishing_141, HUHilltop_45, Hamulus_31, Hannaconda_141, Hannaconda_43, Happabalu_60, Harella_37, Henry_39, Hidrated_134, Hidrated_152, Hlubikazi_31, HokkenD_142, Holt_116, Hortense_58, Howe_58, Hughesyang_111, Hughesyang_148, Icee_112, Island3_46, JalFarm20_33, JeTaime_109, Jesabah_61, Kabocha_97, Kalah2_105, Kalah2_140, KashFlow_148, KashFlow_40, Keitabear_36, Kimchi_115, KingMidas_32, KingTut_52, Kingsley_29, Klein_147, Kuwabara_68, LeeroyJenkins_114, LeeroyJenkins_94, LeiMonet_62, Lennon_36, Leozinho_32, LilSpotty_83, LittleE_112, LittleE_150, Lopsy_58, LostAndPhound_60, Love_39, LunaBlu_33, Lysidious_60, Mandlovu_31, Maravista_65, Marshmallow_109, Marshmallow_38, Matalotodo_59, McCrothy_36, McKinley_38, Mellie_57, Mesmerelda_59, Mila11_95, Minerva_148, Minerva_162, MinionDave_33, MisterCuddles_32, Mollymur_102, Moose_64, Morrissey_46, Mova_51, Mozy_32, Mozy_92, MulchSalad_27, Mutaforma13_54, Myrale_38, NEHalo_60, Nekros_146, NewHope4_33, Nibley_154, Nimrod_111, Nordenberg_30, Nova53_37, Omega_117, Omega_154, Omega_51, Optimus_141, Orfeu_58, Ovechkin_31, Paries_38, Peregrin_178, Phineas_45, Phoebus_113, Phoebus_149, Pipefish_29, Pippy_62, Placalicious_60, Podrick_58, Porcelain_108, Porky_109, Pound_50, Pumpkin_40, Pygmy_47, Ramsey_33, RedWattleHog_22, RedWattleHog_85, Rofo_36, Ruby_32, Saguaro_52, Sassafras_31, Schomber_94, ScoobyDoobyDoo_184, Sedona_36, Shaboozey_158, Shaboozey_39, ShamWow_38, Shipwreck_47, Shlim410_56, Sitar_36, Soul22_35, SpeedDemon_1040, SpikeBT_61, StAnnes_29, Stank_113, Starcevich_34, Stickynote_47, Stormageddon_82, Strokeseat_31, Superphikiman_145, SwissCheese_66, TBrady12_114, Tangent_36, Teaspoon_111, Teaspoon_39, Thibault_132, Thibault_95, ThreeRngTarjay_109, ThreeRngTarjay_144, Toni_59, Toto_38, Towmatter_90, Tuco_39, Twinkle_57, Twister6_58, UBSmoodge_128, Vivi2_38, Wanda_148, Wiggin_113, WilliamBoone_144, Xandras_110, Xiaokay_103, Xiaokay_158, Zelink_108, Zelink_143, Zucker_50,

Summary by start number:

Start 30:

• Found in 2 of 273 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Mozy_92 (F1),

Start 38:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LilSpotty_83 (singleton),

Start 39:
• Found in 14 of 273 (5.1%) of genes in pham
• Manual Annotations of this start: 5 of 249
• Called 35.7% of time when present
• Phage (with cluster) where this start called: Chevrolet_31 (F1), Galactic_32 (F1), MinionDave_33 (F1), Ovechkin_31 (F1), Ramsey_33 (F1),

Start 43:
• Found in 5 of 273 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Omega_51 (J),

Start 44:
• Found in 6 of 273 (2.2%) of genes in pham
• Manual Annotations of this start: 2 of 249
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Gator_36 (E), Henry_39 (E),

Start 47:
• Found in 8 of 273 (2.9%) of genes in pham
• Manual Annotations of this start: 7 of 249
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Hamulus_31 (F1), Hlubikazi_31 (F1), Kingsley_29 (F1), Mandlovu_31 (F1), Soul22_35 (F2), StAnnes_29 (F1), Strokeseat_31 (F1),

Start 48:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: WilliamBoone_144 (CQ1),

Start 50:
• Found in 3 of 273 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Girr_32 (F1), MisterCuddles_32 (F1), Ruby_32 (F1),

Start 52:
• Found in 2 of 273 (0.7%) of genes in pham

• Manual Annotations of this start: 2 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Attis_64 (CZ2), SoilAssassin_64 (CZ2),

Start 54:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Zucker_50 (FN),

Start 55:
• Found in 6 of 273 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Glexan_36 (E),

Start 57:
• Found in 13 of 273 (4.8%) of genes in pham
• Manual Annotations of this start: 8 of 249
• Called 61.5% of time when present
• Phage (with cluster) where this start called: ABCat_37 (E), BadStone_37 (E), BilboSwaggins_38 (E), DrDrey_39 (E), Dusk_37 (E), Myrale_38 (E), ShamWow_38 (E), Tuco_39 (E),

Start 61:
• Found in 8 of 273 (2.9%) of genes in pham
• No Manual Annotations of this start.
• Called 12.5% of time when present
• Phage (with cluster) where this start called: GMA1_68 (singleton),

Start 62:
• Found in 20 of 273 (7.3%) of genes in pham
• Manual Annotations of this start: 2 of 249
• Called 10.0% of time when present
• Phage (with cluster) where this start called: Keitabear_36 (DE1), Sitar_36 (DE1),

Start 65:
• Found in 5 of 273 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Twister6_58 (DC1),

Start 66:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MulchSalad_27 (F7),

Start 67:
• Found in 1 of 273 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA4_67 (singleton),

Start 68:
• Found in 12 of 273 (4.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Porcelain_108 (J),

Start 72:
• Found in 7 of 273 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 57.1% of time when present
• Phage (with cluster) where this start called: BronnyJames_155 (J), Minerva_162 (J), Shaboozey_158 (J), Xiaokay_158 (J),

Start 74:
• Found in 37 of 273 (13.6%) of genes in pham
• Manual Annotations of this start: 11 of 249
• Called 40.5% of time when present
• Phage (with cluster) where this start called: Bobi_53 (F1), BronnyJames_39 (J), Constella_158 (J), GAL1_27 (singleton), Hannaconda_43 (J), Hidrated_152 (J), KashFlow_40 (J), KingMidas_32 (F1), Leozinho_32 (F1), LunaBlu_33 (F1), Mova_51 (F1), Mutaforma13_54 (F1), Nibley_154 (J), Sassafras_31 (F1), Shaboozey_39 (J),

Start 75:
• Found in 1 of 273 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA1_47 (singleton),

Start 76:
• Found in 4 of 273 (1.5%) of genes in pham
• No Manual Annotations of this start.
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Ardmore_42 (F1),

Start 77:
• Found in 8 of 273 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Phineas_45 (P1),

Start 78:
• Found in 5 of 273 (1.8%) of genes in pham
• Manual Annotations of this start: 4 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BaboJay_36 (E), Bogg_37 (E), DalanDe_1 (DQ), Eureka_37 (E), Goku_37 (E),

Start 80:
• Found in 8 of 273 (2.9%) of genes in pham
• Manual Annotations of this start: 6 of 249
• Called 87.5% of time when present

• Phage (with cluster) where this start called: Bogie_47 (P1), Brujita_46 (I1), Caterpie_90 (AD), HUHilltop_45 (P1), Island3_46 (I1), Pygmy_47 (P1), Shipwreck_47 (P1),

Start 82:
• Found in 23 of 273 (8.4%) of genes in pham
• Manual Annotations of this start: 22 of 249
• Called 95.7% of time when present
• Phage (with cluster) where this start called: 244_112 (E), BaboJay_110 (E), BigBubba_112 (E), Coco12_30 (F1), Filch_113 (E), Frankie_34 (F1), Goku_110 (E), Goldilocks_114 (E), Holt_116 (E), Icee_112 (E), JalFarm20_33 (F1), JeTaime_109 (E), Kimchi_115 (E), Marshmallow_109 (E), NewHope4_33 (F1), Nimrod_111 (E), Stank_113 (E), Starcevich_34 (F1), TBrady12_114 (E), Teaspoon_111 (E), Wiggin_113 (E), Xandras_110 (E),

Start 83:
• Found in 3 of 273 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: C3PO_45 (EN), Cruella_45 (EN), Stickynote_47 (EN),

Start 84:
• Found in 5 of 273 (1.8%) of genes in pham
• Manual Annotations of this start: 2 of 249
• Called 40.0% of time when present
• Phage (with cluster) where this start called: FruityLoops_126 (DQ), UBSmoodge_128 (DQ),

Start 85:
• Found in 21 of 273 (7.7%) of genes in pham
• Manual Annotations of this start: 17 of 249
• Called 90.5% of time when present
• Phage (with cluster) where this start called: Ariel_147 (J), BAKA_150 (J), Bagrid_151 (J), Beem_151 (J), Courthouse_143 (J), Duke13_146 (J), EricMillard_142 (J), Gonephishing_141 (J), Hannaconda_141 (J), HokkenD_142 (J), Klein_147 (J), Kuwabara_68 (DN4), LittleE_150 (J), Omega_154 (J), Optimus_141 (J), RedWattleHog_22 (DX), Saguaro_52 (B7), Superphikiman_145 (J), Thibault_132 (J),

Start 86:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BarnCat_86 (GB),

Start 87:
• Found in 12 of 273 (4.4%) of genes in pham
• Manual Annotations of this start: 12 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobby_139 (J), Dove_135 (J), Hidrated_134 (J), Hughesyang_148 (J), Kalah2_140 (J), Minerva_148 (J), Phoebus_149 (J), RedWattleHog_85 (DX), Stormageddon_82 (DX), ThreeRngTarjay_144 (J), Wanda_148 (J), Zelink_143 (J),

Start 88:
• Found in 1 of 273 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Peregrin_178 (CB),

Start 89:
• Found in 29 of 273 (10.6%) of genes in pham
• Manual Annotations of this start: 25 of 249
• Called 89.7% of time when present
• Phage (with cluster) where this start called: Adora_55 (CZ4), BarnCat_84 (GB), Cassita_88 (GB), Clown_64 (DC2), Constella_97 (J), Dallas_113 (J), DmpstrDiver_113 (J), Dori_69 (AD), EricMillard_105 (J), Hortense_58 (CZ4), Howe_58 (CZ4), Hughesyang_111 (J), Kalah2_105 (J), KashFlow_148 (J), LeeroyJenkins_94 (GB), LittleE_112 (J), Lysidious_60 (CV), Mellie_57 (CV), Mila11_95 (EG), Nekros_146 (J), Omega_117 (J), Phoebus_113 (J), Shlim410_56 (CZ4), Thibault_95 (J), ThreeRngTarjay_109 (J), Twinkle_57 (CZ4),

Start 90:
• Found in 11 of 273 (4.0%) of genes in pham
• Manual Annotations of this start: 11 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bantam_102 (DL), BarnCat_61 (GB), Blubba_240 (C1), Cane17_242 (C1), Colt_243 (C1), Daredevil_91 (DL), DatBoi_98 (DL), Francesca_39 (CG), Mollymur_102 (DL), SpeedDemon_1040 (DL), Towmatter_90 (DL),

Start 92:
• Found in 6 of 273 (2.2%) of genes in pham
• Manual Annotations of this start: 5 of 249
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Chidiebere_96 (DQ), ChisanaKitsune_93 (DQ), Darwin_11 (EN), Kabocha_97 (DQ), Schomber_94 (DQ),

Start 95:
• Found in 2 of 273 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Nova53_37 (CG),

Start 96:
• Found in 18 of 273 (6.6%) of genes in pham
• Manual Annotations of this start: 6 of 249
• Called 38.9% of time when present
• Phage (with cluster) where this start called: Balomoji_37 (E), Daikon_37 (E), Harella_37 (E), Marshmallow_38 (E), Pumpkin_40 (E), Teaspoon_39 (E), Toto_38 (E),

Start 97:
• Found in 25 of 273 (9.2%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 8.0% of time when present

• Phage (with cluster) where this start called: Xiaokay_103 (J), Zelink_108 (J),

Start 99:
• Found in 15 of 273 (5.5%) of genes in pham
• Manual Annotations of this start: 6 of 249
• Called 40.0% of time when present
• Phage (with cluster) where this start called: BarnCat_105 (GB), Bombitas_45 (J), LeeroyJenkins_114 (GB), Maravista_65 (F1), Pippy_62 (F1), Pound_50 (J),

Start 100:
• Found in 16 of 273 (5.9%) of genes in pham
• Manual Annotations of this start: 8 of 249
• Called 56.2% of time when present
• Phage (with cluster) where this start called: Coletti_62 (B1), FugateOSU_60 (B1), Happabalu_60 (B1), Jesabah_61 (B1), LeiMonet_62 (B1), LostAndPhound_60 (B1), Orfeu_58 (B1), Placalicious_60 (B1), Toni_59 (B1),

Start 103:
• Found in 18 of 273 (6.6%) of genes in pham
• Manual Annotations of this start: 8 of 249
• Called 44.4% of time when present
• Phage (with cluster) where this start called: Adriana_61 (B1), Buckeye_60 (B1), Darwin_76 (EN), KingTut_52 (B1), Lopsy_58 (B1), Matalotodo_59 (B1), Mesmerelda_59 (B1), Podrick_58 (B1),

Start 104:
• Found in 2 of 273 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Morrissey_46 (CD), Pipefish_29 (B3),

Start 107:
• Found in 20 of 273 (7.3%) of genes in pham
• Manual Annotations of this start: 17 of 249
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Affeca_34 (DE1), Angelicage_34 (DE1), Bibwit_35 (DE1), BobBob_33 (DE1), Brandonk123_37 (DE1), Charming_36 (DE1), Fosterous_34 (DE1), Galadriel_36 (DE1), Lennon_36 (DE1), Love_39 (DE1), McCrothy_36 (DE1), McKinley_38 (DE1), Nordenberg_30 (DE1), Paries_38 (DE1), Rofo_36 (DE1), Sedona_36 (DE1), Tangent_36 (DE1), Vivi2_38 (DE1),

Start 108:
• Found in 2 of 273 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Darwin_14 (EN),

Start 109:
• Found in 37 of 273 (13.6%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 2.7% of time when present
• Phage (with cluster) where this start called: Porky_109 (E),

Start 111:
• Found in 19 of 273 (7.0%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 5.3% of time when present
• Phage (with cluster) where this start called: ScoobyDoobyDoo_184 (C2),

Start 112:
• Found in 33 of 273 (12.1%) of genes in pham
• Manual Annotations of this start: 27 of 249
• Called 93.9% of time when present
• Phage (with cluster) where this start called: Aldrich_9 (A1), BillKnuckles_9 (A1), Blesser_7 (A1), Buttons_9 (A1), CartmannCramer_8 (A1), CatBus_9 (A1), DD5_9 (A1), DirtDevil_9 (A1), Edtherson_9 (A1), Graduation_10 (A1), GroundGoblin_9 (A1), Gwendoluna_9 (A1), Hermia_10 (A1), KBG_9 (A1), Kenmech_10 (A1), KikiBouba_10 (A1), LilBib_8 (A1), Monet_9 (A1), Nerujay_9 (A1), Norz_9 (A1), Noxious_10 (A1), Papez_9 (A1), PowerRanger_8 (A1), QTRlifeCrisis_8 (A1), Solon_8 (A1), SpikeBT_9 (A1), Squee_8 (A1), TheloniousMonk_9 (A1), Treddle_9 (A1), Whitspit_9 (A1), Zeuska_8 (A1),

Start 114:
• Found in 9 of 273 (3.3%) of genes in pham
• Manual Annotations of this start: 9 of 249
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AFIS_59 (A1), Bruns_64 (A1), Crispicous1_60 (A1), Forsytheast_64 (A1), GageAP_64 (A1), Moose_64 (A1), NEHalo_60 (A1), SpikeBT_61 (A1), SwissCheese_66 (A1),

Start 116:
• Found in 31 of 273 (11.4%) of genes in pham
• Manual Annotations of this start: 1 of 249
• Called 3.2% of time when present
• Phage (with cluster) where this start called: Mozy_32 (F1),

Summary by clusters:

There are 33 clusters represented in this pham: DL, CZ2, singleton, CZ4, EN, DX, FN, DQ, I1, CV, A1, DN4, C2, CQ1, P1, E, AD, CB, EG, J, CG, CD, GB, DC2, C1, DC1, F1, F2, F7, DE1, B7, B1, B3,

Info for manual annotations of cluster A1:
•Start number 112 was manually annotated 27 times for cluster A1.
•Start number 114 was manually annotated 9 times for cluster A1.

Info for manual annotations of cluster AD:
•Start number 89 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster B1:
•Start number 100 was manually annotated 8 times for cluster B1.
•Start number 103 was manually annotated 7 times for cluster B1.

Info for manual annotations of cluster B3:
•Start number 104 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B7:
•Start number 85 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster C1:
•Start number 90 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster C2:
•Start number 111 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CB:
•Start number 88 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster CD:
•Start number 104 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CG:
•Start number 90 was manually annotated 1 time for cluster CG.
•Start number 95 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster CQ1:
•Start number 48 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CV:
•Start number 89 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CZ2:
•Start number 52 was manually annotated 2 times for cluster CZ2.

Info for manual annotations of cluster CZ4:
•Start number 89 was manually annotated 5 times for cluster CZ4.

Info for manual annotations of cluster DC1:
•Start number 65 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 89 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 62 was manually annotated 2 times for cluster DE1.
•Start number 107 was manually annotated 17 times for cluster DE1.

Info for manual annotations of cluster DL:
•Start number 90 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DN4:
•Start number 85 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DQ:
•Start number 78 was manually annotated 1 time for cluster DQ.
•Start number 84 was manually annotated 2 times for cluster DQ.
•Start number 92 was manually annotated 4 times for cluster DQ.

Info for manual annotations of cluster DX:

•Start number 85 was manually annotated 1 time for cluster DX.
•Start number 87 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster E:
•Start number 44 was manually annotated 2 times for cluster E.
•Start number 55 was manually annotated 1 time for cluster E.
•Start number 57 was manually annotated 8 times for cluster E.
•Start number 78 was manually annotated 3 times for cluster E.
•Start number 82 was manually annotated 17 times for cluster E.
•Start number 96 was manually annotated 6 times for cluster E.
•Start number 109 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster EG:
•Start number 89 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster EN:
•Start number 83 was manually annotated 3 times for cluster EN.
•Start number 92 was manually annotated 1 time for cluster EN.
•Start number 103 was manually annotated 1 time for cluster EN.
•Start number 108 was manually annotated 1 time for cluster EN.

Info for manual annotations of cluster F1:
•Start number 30 was manually annotated 1 time for cluster F1.
•Start number 39 was manually annotated 5 times for cluster F1.
•Start number 47 was manually annotated 6 times for cluster F1.
•Start number 50 was manually annotated 3 times for cluster F1.
•Start number 74 was manually annotated 7 times for cluster F1.
•Start number 82 was manually annotated 5 times for cluster F1.
•Start number 99 was manually annotated 2 times for cluster F1.
•Start number 116 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 47 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F7:
•Start number 66 was manually annotated 1 time for cluster F7.

Info for manual annotations of cluster FN:
•Start number 54 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster GB:
•Start number 86 was manually annotated 1 time for cluster GB.
•Start number 89 was manually annotated 3 times for cluster GB.
•Start number 90 was manually annotated 1 time for cluster GB.
•Start number 99 was manually annotated 2 times for cluster GB.

Info for manual annotations of cluster I1:
•Start number 80 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:
•Start number 43 was manually annotated 1 time for cluster J.
•Start number 68 was manually annotated 1 time for cluster J.
•Start number 72 was manually annotated 1 time for cluster J.

•Start number 74 was manually annotated 4 times for cluster J.
•Start number 85 was manually annotated 14 times for cluster J.
•Start number 87 was manually annotated 10 times for cluster J.
•Start number 89 was manually annotated 12 times for cluster J.
•Start number 97 was manually annotated 1 time for cluster J.
•Start number 99 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster P1:
•Start number 77 was manually annotated 1 time for cluster P1.
•Start number 80 was manually annotated 4 times for cluster P1.

Gene Information:

Gene: 244_112 Start: 62827, Stop: 63327, Start Num: 82
Candidate Starts for 244_112:
(56, 62773), (Start: 82 @62827 has 22 MA's), (Start: 109 @62881 has 1 MA's), (152, 62962), (153, 62965), (170, 62989), (192, 63022), (207, 63079), (252, 63241),

Gene: ABCat_37 Start: 34121, Stop: 33534, Start Num: 57
Candidate Starts for ABCat_37:
(Start: 57 @34121 has 8 MA's), (Start: 96 @34055 has 6 MA's), (Start: 111 @34013 has 1 MA's), (152, 33926), (198, 33848), (199, 33845), (208, 33809),

Gene: AFIS_59 Start: 40536, Stop: 39979, Start Num: 114
Candidate Starts for AFIS_59:
(Start: 114 @40536 has 9 MA's), (132, 40494), (142, 40476), (196, 40392), (200, 40374), (215, 40323), (226, 40269), (250, 40167), (297, 39999),

Gene: Adora_55 Start: 40141, Stop: 40647, Start Num: 89
Candidate Starts for Adora_55:
(21, 39916), (25, 39946), (Start: 89 @40141 has 25 MA's), (Start: 116 @40216 has 1 MA's), (121, 40228), (148, 40270), (199, 40357), (210, 40396),

Gene: Adriana_61 Start: 53245, Stop: 52730, Start Num: 103
Candidate Starts for Adriana_61:
(59, 53323), (91, 53269), (Start: 100 @53254 has 8 MA's), (Start: 103 @53245 has 8 MA's), (124, 53179), (147, 53134), (156, 53110), (175, 53074), (179, 53068), (196, 53035), (210, 52981), (212, 52978), (244, 52861), (249, 52840), (273, 52765),

Gene: Affeca_34 Start: 32900, Stop: 32427, Start Num: 107
Candidate Starts for Affeca_34:
(45, 33038), (Start: 62 @32984 has 2 MA's), (94, 32927), (Start: 107 @32900 has 17 MA's), (146, 32801), (175, 32759), (177, 32756), (196, 32720), (211, 32663), (219, 32639), (229, 32582),

Gene: Aldrich_9 Start: 4591, Stop: 5169, Start Num: 112
Candidate Starts for Aldrich_9:
(Start: 112 @4591 has 27 MA's), (183, 4717), (279, 5050),

Gene: Angelicage_34 Start: 33318, Stop: 32845, Start Num: 107
Candidate Starts for Angelicage_34:

(45, 33456), (Start: 62 @33402 has 2 MA's), (64, 33393), (94, 33345), (Start: 107 @33318 has 17 MA's), (146, 33219), (175, 33177), (177, 33174), (196, 33138), (211, 33081), (221, 33048), (229, 33000),

Gene: Ardmore_42 Start: 34484, Stop: 35032, Start Num: 76
Candidate Starts for Ardmore_42:
(Start: 74 @34481 has 11 MA's), (76, 34484), (119, 34574), (144, 34616), (186, 34676), (207, 34742), (222, 34784), (230, 34832),

Gene: Ariel_147 Start: 75437, Stop: 76039, Start Num: 85
Candidate Starts for Ariel_147:
(Start: 85 @75437 has 17 MA's), (123, 75542), (136, 75563), (137, 75566), (152, 75590), (153, 75593), (156, 75599), (192, 75659), (213, 75728), (218, 75746), (227, 75797), (237, 75833), (266, 75929), (296, 76025),

Gene: Attis_64 Start: 43105, Stop: 43650, Start Num: 52
Candidate Starts for Attis_64:
(Start: 52 @43105 has 2 MA's), (Start: 68 @43147 has 1 MA's), (81, 43168), (Start: 99 @43192 has 6 MA's), (Start: 112 @43231 has 27 MA's), (Start: 116 @43243 has 1 MA's), (128, 43273), (196, 43378), (230, 43516),

Gene: BAKA_150 Start: 78761, Stop: 79363, Start Num: 85
Candidate Starts for BAKA_150:
(53, 78692), (Start: 85 @78761 has 17 MA's), (123, 78866), (136, 78887), (137, 78890), (152, 78914), (153, 78917), (156, 78923), (205, 79025), (213, 79052), (218, 79070), (237, 79157), (296, 79349),

Gene: BaboJay_36 Start: 33175, Stop: 32675, Start Num: 78
Candidate Starts for BaboJay_36:
(Start: 78 @33175 has 4 MA's), (Start: 109 @33118 has 1 MA's), (120, 33082),

Gene: BaboJay_110 Start: 64000, Stop: 64500, Start Num: 82
Candidate Starts for BaboJay_110:
(56, 63946), (Start: 82 @64000 has 22 MA's), (Start: 109 @64054 has 1 MA's), (152, 64135), (153, 64138), (170, 64162), (192, 64195), (207, 64252), (252, 64414),

Gene: BadStone_37 Start: 34121, Stop: 33534, Start Num: 57
Candidate Starts for BadStone_37:
(Start: 57 @34121 has 8 MA's), (Start: 96 @34055 has 6 MA's), (Start: 111 @34013 has 1 MA's), (152, 33926), (198, 33848), (199, 33845), (208, 33809),

Gene: Bagrid_151 Start: 79456, Stop: 80058, Start Num: 85
Candidate Starts for Bagrid_151:
(53, 79387), (Start: 85 @79456 has 17 MA's), (123, 79561), (136, 79582), (137, 79585), (152, 79609), (153, 79612), (156, 79618), (205, 79720), (213, 79747), (218, 79765), (237, 79852), (296, 80044),

Gene: Balomoji_37 Start: 33789, Stop: 33268, Start Num: 96
Candidate Starts for Balomoji_37:
(Start: 57 @33855 has 8 MA's), (Start: 96 @33789 has 6 MA's), (Start: 111 @33747 has 1 MA's), (152, 33660), (198, 33582), (199, 33579), (208, 33543),

Gene: Bantam_102 Start: 67594, Stop: 68172, Start Num: 90
Candidate Starts for Bantam_102:

(13, 67276), (36, 67462), (Start: 90 @67594 has 11 MA's), (Start: 109 @67642 has 1 MA's), (113, 67660), (120, 67678), (140, 67711), (199, 67813), (214, 67864), (234, 67966), (274, 68092),

Gene: BarnCat_105 Start: 54966, Stop: 54505, Start Num: 99
Candidate Starts for BarnCat_105:
(Start: 99 @54966 has 6 MA's), (167, 54837), (221, 54714),

Gene: BarnCat_86 Start: 49536, Stop: 49024, Start Num: 86
Candidate Starts for BarnCat_86:
(Start: 86 @49536 has 1 MA's), (238, 49179),

Gene: BarnCat_61 Start: 35513, Stop: 34857, Start Num: 90
Candidate Starts for BarnCat_61:
(Start: 90 @35513 has 11 MA's), (121, 35426), (171, 35345), (200, 35288), (222, 35210), (224, 35201), (229, 35165), (260, 35069), (282, 35006), (288, 34991), (292, 34970),

Gene: BarnCat_84 Start: 47542, Stop: 47033, Start Num: 89
Candidate Starts for BarnCat_84:
(Start: 89 @47542 has 25 MA's), (171, 47371), (175, 47365), (195, 47335), (209, 47281), (224, 47233),

Gene: Beem_151 Start: 80198, Stop: 80800, Start Num: 85
Candidate Starts for Beem_151:
(Start: 85 @80198 has 17 MA's), (123, 80303), (136, 80324), (137, 80327), (152, 80351), (153, 80354), (156, 80360), (192, 80420), (213, 80489), (218, 80507), (227, 80558), (237, 80594), (266, 80690), (296, 80786),

Gene: Bibwit_35 Start: 32719, Stop: 32246, Start Num: 107
Candidate Starts for Bibwit_35:
(45, 32857), (Start: 62 @32803 has 2 MA's), (64, 32794), (94, 32746), (Start: 107 @32719 has 17 MA's), (146, 32620), (175, 32578), (177, 32575), (196, 32539), (211, 32482), (221, 32449), (229, 32401),

Gene: BigBubba_112 Start: 62473, Stop: 62973, Start Num: 82
Candidate Starts for BigBubba_112:
(56, 62419), (Start: 82 @62473 has 22 MA's), (Start: 109 @62527 has 1 MA's), (152, 62608), (153, 62611), (170, 62635), (192, 62668), (207, 62725), (252, 62887),

Gene: BilboSwaggins_38 Start: 34129, Stop: 33542, Start Num: 57
Candidate Starts for BilboSwaggins_38:
(Start: 57 @34129 has 8 MA's), (Start: 96 @34063 has 6 MA's), (Start: 111 @34021 has 1 MA's), (152, 33934), (198, 33856), (199, 33853), (208, 33817),

Gene: BillKnuckles_9 Start: 4709, Stop: 5290, Start Num: 112
Candidate Starts for BillKnuckles_9:
(Start: 112 @4709 has 27 MA's), (165, 4811), (181, 4832), (200, 4880), (279, 5159),

Gene: Blesser_7 Start: 4048, Stop: 4662, Start Num: 112
Candidate Starts for Blesser_7:
(Start: 112 @4048 has 27 MA's), (135, 4117), (272, 4522),

Gene: Blubba_240 Start: 148292, Stop: 148846, Start Num: 90
Candidate Starts for Blubba_240:

(Start: 84 @148286 has 2 MA's), (Start: 90 @148292 has 11 MA's), (Start: 109 @148340 has 1 MA's), (138, 148403), (211, 148559), (227, 148631), (230, 148643), (255, 148721),

Gene: BobBob_33 Start: 31999, Stop: 31526, Start Num: 107
Candidate Starts for BobBob_33:
(45, 32137), (Start: 62 @32083 has 2 MA's), (64, 32074), (94, 32026), (Start: 107 @31999 has 17 MA's), (146, 31900), (175, 31858), (177, 31855), (196, 31819), (211, 31762), (221, 31729), (229, 31681),

Gene: Bobby_139 Start: 80254, Stop: 80853, Start Num: 87
Candidate Starts for Bobby_139:
(Start: 87 @80254 has 12 MA's), (123, 80356), (136, 80377), (137, 80380), (171, 80443), (192, 80473), (196, 80482), (205, 80515), (218, 80560), (237, 80647), (258, 80707), (266, 80743), (296, 80839),

Gene: Bobi_53 Start: 37484, Stop: 38035, Start Num: 74
Candidate Starts for Bobi_53:
(Start: 74 @37484 has 11 MA's), (76, 37487), (119, 37577), (144, 37619), (186, 37679), (207, 37745), (222, 37787), (230, 37835),

Gene: Bogg_37 Start: 32525, Stop: 32025, Start Num: 78
Candidate Starts for Bogg_37:
(Start: 78 @32525 has 4 MA's), (Start: 109 @32468 has 1 MA's), (120, 32432),

Gene: Bogie_47 Start: 33238, Stop: 33729, Start Num: 80
Candidate Starts for Bogie_47:
(61, 33199), (63, 33202), (Start: 77 @33235 has 1 MA's), (Start: 80 @33238 has 6 MA's), (Start: 97 @33256 has 1 MA's), (101, 33265), (185, 33430), (189, 33439), (196, 33445), (199, 33457), (207, 33493), (224, 33544), (230, 33583),

Gene: Bombitas_45 Start: 41655, Stop: 42164, Start Num: 99
Candidate Starts for Bombitas_45:
(49, 41544), (71, 41613), (Start: 85 @41631 has 17 MA's), (Start: 99 @41655 has 6 MA's), (121, 41721), (148, 41775), (174, 41820), (207, 41907), (227, 41985), (231, 41997), (284, 42150),

Gene: Brandonk123_37 Start: 33065, Stop: 32592, Start Num: 107
Candidate Starts for Brandonk123_37:
(45, 33203), (Start: 62 @33149 has 2 MA's), (64, 33140), (94, 33092), (Start: 107 @33065 has 17 MA's), (146, 32966), (175, 32924), (177, 32921), (196, 32885), (211, 32828), (221, 32795), (229, 32747),

Gene: BronnyJames_39 Start: 35483, Stop: 36025, Start Num: 74
Candidate Starts for BronnyJames_39:
(Start: 43 @35396 has 1 MA's), (Start: 74 @35483 has 11 MA's), (Start: 109 @35546 has 1 MA's), (135, 35612), (150, 35636), (172, 35669), (192, 35702), (199, 35723), (200, 35726), (207, 35759), (227, 35837), (262, 35948), (278, 35996),

Gene: BronnyJames_155 Start: 83033, Stop: 83545, Start Num: 72
Candidate Starts for BronnyJames_155:
(Start: 72 @83033 has 1 MA's), (Start: 74 @83036 has 11 MA's), (101, 83069), (Start: 116 @83120 has 1 MA's), (137, 83156), (192, 83246), (196, 83255), (199, 83267), (207, 83303), (219, 83333), (235, 83414), (266, 83507), (276, 83531),

Gene: Brujita_46 Start: 33137, Stop: 33628, Start Num: 80

Candidate Starts for Brujita_46:
(Start: 44 @33044 has 2 MA's), (61, 33098), (63, 33101), (Start: 77 @33134 has 1 MA's), (Start: 80 @33137 has 6 MA's), (Start: 97 @33155 has 1 MA's), (101, 33164), (185, 33329), (189, 33338), (196, 33344), (199, 33356), (207, 33392), (224, 33443), (230, 33482),

Gene: Bruns_64 Start: 41012, Stop: 40455, Start Num: 114
Candidate Starts for Bruns_64:
(Start: 114 @41012 has 9 MA's), (132, 40970), (142, 40952), (196, 40868), (200, 40850), (215, 40799), (226, 40745), (250, 40643), (297, 40475),

Gene: Buckeye_60 Start: 52975, Stop: 52460, Start Num: 103
Candidate Starts for Buckeye_60:
(59, 53053), (91, 52999), (Start: 100 @52984 has 8 MA's), (Start: 103 @52975 has 8 MA's), (124, 52909), (147, 52864), (156, 52840), (175, 52804), (179, 52798), (196, 52765), (210, 52711), (212, 52708), (244, 52591), (249, 52570), (273, 52495),

Gene: Buttons_9 Start: 4220, Stop: 4798, Start Num: 112
Candidate Starts for Buttons_9:
(Start: 112 @4220 has 27 MA's), (183, 4346), (279, 4679),

Gene: C3PO_45 Start: 42754, Stop: 42164, Start Num: 83
Candidate Starts for C3PO_45:
(33, 42886), (34, 42883), (Start: 83 @42754 has 3 MA's), (105, 42706), (117, 42667), (126, 42643), (127, 42640), (208, 42496), (227, 42418), (236, 42385), (270, 42277), (299, 42175), (301, 42169),

Gene: Cane17_242 Start: 148701, Stop: 149255, Start Num: 90
Candidate Starts for Cane17_242:
(Start: 84 @148695 has 2 MA's), (Start: 90 @148701 has 11 MA's), (Start: 109 @148749 has 1 MA's), (138, 148812), (211, 148968), (227, 149040), (230, 149052), (255, 149130),

Gene: CartmannCramer_8 Start: 4548, Stop: 5126, Start Num: 112
Candidate Starts for CartmannCramer_8:
(Start: 112 @4548 has 27 MA's), (183, 4674), (279, 5007),

Gene: Cassita_88 Start: 48685, Stop: 48176, Start Num: 89
Candidate Starts for Cassita_88:
(Start: 89 @48685 has 25 MA's), (175, 48508), (195, 48478), (209, 48424), (224, 48376),

Gene: CatBus_9 Start: 4783, Stop: 5361, Start Num: 112
Candidate Starts for CatBus_9:
(Start: 112 @4783 has 27 MA's), (183, 4909), (279, 5242),

Gene: Caterpie_90 Start: 57727, Stop: 58263, Start Num: 80
Candidate Starts for Caterpie_90:
(5, 57259), (10, 57376), (11, 57391), (15, 57451), (19, 57487), (23, 57523), (Start: 80 @57727 has 6 MA's), (141, 57865), (162, 57901), (199, 57958), (207, 57994),

Gene: Charming_36 Start: 32566, Stop: 32093, Start Num: 107
Candidate Starts for Charming_36:
(45, 32704), (Start: 62 @32650 has 2 MA's), (64, 32641), (94, 32593), (Start: 107 @32566 has 17 MA's), (146, 32467), (175, 32425), (177, 32422), (196, 32386), (211, 32329), (221, 32296), (229, 32248),

Gene: Chevrolet_31 Start: 27455, Stop: 28054, Start Num: 39
Candidate Starts for Chevrolet_31:
(Start: 39 @27455 has 5 MA's), (Start: 74 @27557 has 11 MA's), (199, 27779), (207, 27815), (254, 27980), (267, 28025),

Gene: Chidiebere_96 Start: 69963, Stop: 70481, Start Num: 92
Candidate Starts for Chidiebere_96:
(Start: 65 @69921 has 1 MA's), (71, 69936), (Start: 92 @69963 has 5 MA's), (148, 70086), (153, 70095), (171, 70119), (230, 70299),

Gene: ChisanaKitsune_93 Start: 68907, Stop: 69425, Start Num: 92
Candidate Starts for ChisanaKitsune_93:
(Start: 65 @68865 has 1 MA's), (71, 68880), (Start: 92 @68907 has 5 MA's), (148, 69030), (153, 69039), (171, 69063), (230, 69243),

Gene: Clown_64 Start: 45007, Stop: 45525, Start Num: 89
Candidate Starts for Clown_64:
(Start: 89 @45007 has 25 MA's), (Start: 99 @45031 has 6 MA's), (Start: 109 @45058 has 1 MA's), (121, 45097), (149, 45136), (196, 45214), (207, 45262), (222, 45304), (227, 45340), (230, 45352), (283, 45511),

Gene: Coco12_30 Start: 26826, Stop: 26320, Start Num: 82
Candidate Starts for Coco12_30:
(Start: 82 @26826 has 22 MA's), (Start: 97 @26811 has 1 MA's), (113, 26760), (Start: 116 @26751 has 1 MA's), (140, 26709), (150, 26694), (157, 26682), (160, 26679), (171, 26658), (199, 26619), (207, 26583), (230, 26493), (251, 26427), (265, 26397),

Gene: Coletti_62 Start: 53249, Stop: 52725, Start Num: 100
Candidate Starts for Coletti_62:
(59, 53318), (91, 53264), (Start: 100 @53249 has 8 MA's), (Start: 103 @53240 has 8 MA's), (124, 53174), (147, 53129), (156, 53105), (175, 53069), (179, 53063), (196, 53030), (210, 52976), (212, 52973), (244, 52856), (249, 52835), (273, 52760),

Gene: Colt_243 Start: 147893, Stop: 148447, Start Num: 90
Candidate Starts for Colt_243:
(Start: 84 @147887 has 2 MA's), (Start: 90 @147893 has 11 MA's), (Start: 109 @147941 has 1 MA's), (138, 148004), (211, 148160), (227, 148232), (230, 148244), (255, 148322),

Gene: Constella_158 Start: 86054, Stop: 86563, Start Num: 74
Candidate Starts for Constella_158:
(Start: 72 @86051 has 1 MA's), (Start: 74 @86054 has 11 MA's), (101, 86087), (Start: 116 @86138 has 1 MA's), (137, 86174), (192, 86264), (196, 86273), (199, 86285), (200, 86288), (207, 86321), (219, 86351), (235, 86432), (266, 86525), (276, 86549),

Gene: Constella_97 Start: 58172, Stop: 58714, Start Num: 89
Candidate Starts for Constella_97:
(Start: 89 @58172 has 25 MA's), (Start: 97 @58190 has 1 MA's), (152, 58310), (161, 58325), (170, 58343), (194, 58382), (199, 58400), (201, 58406), (219, 58466), (243, 58559), (285, 58700),

Gene: Courthouse_143 Start: 75295, Stop: 75897, Start Num: 85
Candidate Starts for Courthouse_143:
(Start: 85 @75295 has 17 MA's), (123, 75400), (136, 75421), (137, 75424), (152, 75448), (153, 75451), (156, 75457), (192, 75517), (213, 75586), (218, 75604), (227, 75655), (237, 75691), (266, 75787),

(296, 75883),

Gene: Crispicous1_60 Start: 40522, Stop: 39992, Start Num: 114
Candidate Starts for Crispicous1_60:
(Start: 114 @40522 has 9 MA's), (142, 40462), (203, 40348), (242, 40186), (246, 40168), (247, 40159), (281, 40051),

Gene: Cruella_45 Start: 42754, Stop: 42164, Start Num: 83
Candidate Starts for Cruella_45:
(33, 42886), (34, 42883), (Start: 83 @42754 has 3 MA's), (105, 42706), (117, 42667), (126, 42643), (127, 42640), (208, 42496), (227, 42418), (236, 42385), (270, 42277), (299, 42175), (301, 42169),

Gene: DD5_9 Start: 4751, Stop: 5332, Start Num: 112
Candidate Starts for DD5_9:
(Start: 112 @4751 has 27 MA's), (165, 4853), (181, 4874), (200, 4922), (279, 5201),

Gene: Daikon_37 Start: 33801, Stop: 33280, Start Num: 96
Candidate Starts for Daikon_37:
(58, 33867), (Start: 96 @33801 has 6 MA's), (Start: 111 @33759 has 1 MA's), (152, 33672), (198, 33594), (199, 33591), (208, 33555),

Gene: DalanDe_1 Start: 1, Stop: 522, Start Num: 78
Candidate Starts for DalanDe_1:
(Start: 78 @1 has 4 MA's), (Start: 92 @16 has 5 MA's), (113, 76), (120, 94), (122, 100), (153, 154), (169, 175), (199, 226), (213, 271), (221, 301), (224, 313), (233, 364), (255, 430), (259, 442),

Gene: Dallas_113 Start: 64402, Stop: 64944, Start Num: 89
Candidate Starts for Dallas_113:
(31, 64240), (34, 64264), (Start: 68 @64369 has 1 MA's), (Start: 89 @64402 has 25 MA's), (Start: 97 @64420 has 1 MA's), (Start: 116 @64477 has 1 MA's), (152, 64540), (161, 64555), (170, 64573), (199, 64630), (201, 64636), (219, 64696), (243, 64789),

Gene: Daredevil_91 Start: 63069, Stop: 63638, Start Num: 90
Candidate Starts for Daredevil_91:
(13, 62760), (24, 62871), (Start: 90 @63069 has 11 MA's), (140, 63186), (171, 63237), (199, 63291), (211, 63336), (249, 63480), (268, 63546),

Gene: Darwin_76 Start: 54919, Stop: 54362, Start Num: 103
Candidate Starts for Darwin_76:
(Start: 103 @54919 has 8 MA's), (141, 54829), (180, 54778), (208, 54700), (293, 54418), (303, 54370),

Gene: Darwin_14 Start: 7286, Stop: 7858, Start Num: 108
Candidate Starts for Darwin_14:
(Start: 108 @7286 has 1 MA's), (195, 7448), (200, 7466), (201, 7469), (274, 7727), (286, 7763), (302, 7832),

Gene: Darwin_11 Start: 6015, Stop: 6593, Start Num: 92
Candidate Starts for Darwin_11:
(Start: 92 @6015 has 5 MA's), (141, 6126), (145, 6132), (211, 6267), (216, 6282), (230, 6351), (236, 6372), (289, 6534), (298, 6579),

Gene: DatBoi_98 Start: 66730, Stop: 67308, Start Num: 90
Candidate Starts for DatBoi_98:

(Start: 90 @66730 has 11 MA's), (Start: 109 @66778 has 1 MA's), (120, 66814), (136, 66838), (140, 66847), (222, 67036), (274, 67228),

Gene: DirtDevil_9 Start: 4591, Stop: 5169, Start Num: 112
Candidate Starts for DirtDevil_9:
(Start: 112 @4591 has 27 MA's), (183, 4717), (279, 5050),

Gene: DmpstrDiver_113 Start: 63822, Stop: 64364, Start Num: 89
Candidate Starts for DmpstrDiver_113:
(31, 63660), (34, 63684), (Start: 68 @63789 has 1 MA's), (Start: 89 @63822 has 25 MA's), (Start: 97 @63840 has 1 MA's), (Start: 116 @63897 has 1 MA's), (152, 63960), (161, 63975), (170, 63993), (199, 64050), (201, 64056), (219, 64116), (243, 64209),

Gene: Dori_69 Start: 53193, Stop: 53732, Start Num: 89
Candidate Starts for Dori_69:
(42, 53091), (Start: 55 @53133 has 1 MA's), (Start: 77 @53184 has 1 MA's), (Start: 89 @53193 has 25 MA's), (Start: 99 @53214 has 6 MA's), (134, 53301), (148, 53322), (197, 53409), (199, 53415), (209, 53454), (230, 53541), (257, 53619),

Gene: Dove_135 Start: 75231, Stop: 75830, Start Num: 87
Candidate Starts for Dove_135:
(Start: 87 @75231 has 12 MA's), (123, 75333), (136, 75354), (137, 75357), (171, 75420), (192, 75450), (196, 75459), (205, 75492), (218, 75537), (237, 75624), (258, 75684), (266, 75720), (296, 75816),

Gene: DrDrey_39 Start: 34621, Stop: 34034, Start Num: 57
Candidate Starts for DrDrey_39:
(Start: 57 @34621 has 8 MA's), (Start: 96 @34555 has 6 MA's), (Start: 111 @34513 has 1 MA's), (152, 34426), (198, 34348), (199, 34345), (208, 34309),

Gene: Duke13_146 Start: 77046, Stop: 77648, Start Num: 85
Candidate Starts for Duke13_146:
(53, 76977), (Start: 85 @77046 has 17 MA's), (123, 77151), (136, 77172), (137, 77175), (152, 77199), (153, 77202), (156, 77208), (205, 77310), (213, 77337), (218, 77355), (237, 77442), (296, 77634),

Gene: Dusk_37 Start: 33781, Stop: 33194, Start Num: 57
Candidate Starts for Dusk_37:
(Start: 57 @33781 has 8 MA's), (Start: 96 @33715 has 6 MA's), (Start: 111 @33673 has 1 MA's), (152, 33586), (198, 33508), (199, 33505), (208, 33469),

Gene: Edtherson_9 Start: 4530, Stop: 5108, Start Num: 112
Candidate Starts for Edtherson_9:
(Start: 112 @4530 has 27 MA's), (183, 4656), (279, 4989),

Gene: EricMillard_105 Start: 63462, Stop: 64004, Start Num: 89
Candidate Starts for EricMillard_105:
(31, 63300), (34, 63324), (Start: 68 @63429 has 1 MA's), (Start: 89 @63462 has 25 MA's), (Start: 97 @63480 has 1 MA's), (Start: 116 @63537 has 1 MA's), (152, 63600), (161, 63615), (170, 63633), (199, 63690), (201, 63696), (219, 63756), (243, 63849),

Gene: EricMillard_142 Start: 78398, Stop: 79000, Start Num: 85
Candidate Starts for EricMillard_142:
(53, 78329), (Start: 85 @78398 has 17 MA's), (123, 78503), (136, 78524), (137, 78527), (152, 78551), (153, 78554), (156, 78560), (205, 78662), (213, 78689), (218, 78707), (237, 78794), (296, 78986),

Gene: Eureka_37 Start: 33608, Stop: 33108, Start Num: 78
Candidate Starts for Eureka_37:
(Start: 78 @33608 has 4 MA's), (Start: 109 @33551 has 1 MA's), (120, 33515),

Gene: Filch_113 Start: 63036, Stop: 63536, Start Num: 82
Candidate Starts for Filch_113:
(56, 62982), (Start: 82 @63036 has 22 MA's), (Start: 109 @63090 has 1 MA's), (152, 63171), (153, 63174), (170, 63198), (192, 63231), (207, 63288), (252, 63450),

Gene: Forsytheast_64 Start: 41180, Stop: 40623, Start Num: 114
Candidate Starts for Forsytheast_64:
(Start: 114 @41180 has 9 MA's), (132, 41138), (142, 41120), (196, 41036), (200, 41018), (215, 40967), (226, 40913), (250, 40811), (297, 40643),

Gene: Fosterous_34 Start: 32991, Stop: 32518, Start Num: 107
Candidate Starts for Fosterous_34:
(45, 33129), (Start: 62 @33075 has 2 MA's), (64, 33066), (94, 33018), (Start: 107 @32991 has 17 MA's), (146, 32892), (175, 32850), (177, 32847), (196, 32811), (211, 32754), (221, 32721), (229, 32673),

Gene: Francesca_39 Start: 21303, Stop: 21839, Start Num: 90
Candidate Starts for Francesca_39:
(Start: 90 @21303 has 11 MA's), (198, 21498), (199, 21501), (227, 21618), (290, 21804), (292, 21822),

Gene: Frankie_34 Start: 27904, Stop: 27416, Start Num: 82
Candidate Starts for Frankie_34:
(Start: 82 @27904 has 22 MA's), (Start: 116 @27829 has 1 MA's), (140, 27787), (148, 27775), (160, 27757), (170, 27739), (190, 27712), (248, 27517), (265, 27478),

Gene: FruityLoops_126 Start: 91104, Stop: 91676, Start Num: 84
Candidate Starts for FruityLoops_126:
(Start: 84 @91104 has 2 MA's), (110, 91164), (129, 91221), (133, 91230), (143, 91248), (153, 91263), (167, 91302), (170, 91305), (193, 91347), (196, 91353), (199, 91365), (200, 91368), (207, 91401), (215, 91416),

Gene: FugateOSU_60 Start: 53224, Stop: 52700, Start Num: 100
Candidate Starts for FugateOSU_60:
(59, 53293), (91, 53239), (Start: 100 @53224 has 8 MA's), (Start: 103 @53215 has 8 MA's), (124, 53149), (147, 53104), (156, 53080), (175, 53044), (179, 53038), (196, 53005), (210, 52951), (212, 52948), (244, 52831), (249, 52810), (273, 52735),

Gene: GAL1_27 Start: 22156, Stop: 22695, Start Num: 74
Candidate Starts for GAL1_27:
(Start: 74 @22156 has 11 MA's), (113, 22234), (148, 22300), (150, 22303), (178, 22348), (188, 22366), (192, 22372), (193, 22375), (198, 22390), (199, 22393), (200, 22396), (204, 22408), (228, 22510), (230, 22519),

Gene: GMA1_68 Start: 40382, Stop: 40945, Start Num: 61
Candidate Starts for GMA1_68:
(12, 40088), (14, 40115), (20, 40187), (32, 40280), (61, 40382), (73, 40412), (Start: 109 @40481 has 1 MA's), (121, 40520), (177, 40598), (196, 40628), (204, 40655), (207, 40676), (222, 40718), (227, 40754), (230, 40766), (253, 40838),

Gene: GMA1_47 Start: 30722, Stop: 31246, Start Num: 75
Candidate Starts for GMA1_47:
(9, 30347), (18, 30500), (41, 30635), (46, 30653), (60, 30698), (69, 30707), (75, 30722), (Start: 109 @30779 has 1 MA's), (207, 30986), (224, 31037), (236, 31097), (255, 31154),

Gene: GMA4_67 Start: 43840, Stop: 44490, Start Num: 67
Candidate Starts for GMA4_67:
(67, 43840), (93, 43870), (187, 44059), (191, 44065), (207, 44122), (261, 44284),

Gene: GageAP_64 Start: 42203, Stop: 41646, Start Num: 114
Candidate Starts for GageAP_64:
(Start: 114 @42203 has 9 MA's), (132, 42161), (142, 42143), (196, 42059), (200, 42041), (215, 41990), (226, 41936), (250, 41834), (297, 41666),

Gene: Galactic_32 Start: 27751, Stop: 28350, Start Num: 39
Candidate Starts for Galactic_32:
(Start: 39 @27751 has 5 MA's), (Start: 74 @27853 has 11 MA's), (199, 28075), (207, 28111), (254, 28276), (267, 28321),

Gene: Galadriel_36 Start: 33480, Stop: 33007, Start Num: 107
Candidate Starts for Galadriel_36:
(45, 33618), (Start: 62 @33564 has 2 MA's), (64, 33555), (94, 33507), (Start: 107 @33480 has 17 MA's), (146, 33381), (175, 33339), (177, 33336), (196, 33300), (211, 33243), (221, 33210), (229, 33162),

Gene: Gator_36 Start: 33782, Stop: 33150, Start Num: 44
Candidate Starts for Gator_36:
(Start: 44 @33782 has 2 MA's), (Start: 55 @33743 has 1 MA's), (58, 33737), (Start: 96 @33671 has 6 MA's), (Start: 111 @33629 has 1 MA's), (152, 33542), (198, 33464), (199, 33461), (208, 33425),

Gene: Girr_32 Start: 27712, Stop: 28464, Start Num: 50
Candidate Starts for Girr_32:
(Start: 50 @27712 has 3 MA's), (Start: 74 @27775 has 11 MA's), (106, 27823), (121, 27871), (191, 27982), (196, 27991), (227, 28117), (304, 28384),

Gene: Glexan_36 Start: 33731, Stop: 33138, Start Num: 55
Candidate Starts for Glexan_36:
(Start: 44 @33770 has 2 MA's), (Start: 55 @33731 has 1 MA's), (58, 33725), (Start: 96 @33659 has 6 MA's), (Start: 111 @33617 has 1 MA's), (152, 33530), (198, 33452), (199, 33449), (208, 33413),

Gene: Goku_110 Start: 63579, Stop: 64079, Start Num: 82
Candidate Starts for Goku_110:
(56, 63525), (Start: 82 @63579 has 22 MA's), (Start: 109 @63633 has 1 MA's), (152, 63714), (153, 63717), (170, 63741), (192, 63774), (207, 63831), (252, 63993),

Gene: Goku_37 Start: 33337, Stop: 32837, Start Num: 78
Candidate Starts for Goku_37:
(Start: 78 @33337 has 4 MA's), (Start: 109 @33280 has 1 MA's), (120, 33244),

Gene: Goldilocks_114 Start: 63260, Stop: 63760, Start Num: 82
Candidate Starts for Goldilocks_114:

(56, 63206), (Start: 82 @63260 has 22 MA's), (Start: 109 @63314 has 1 MA's), (152, 63395), (153, 63398), (170, 63422), (192, 63455), (207, 63512), (252, 63674),

Gene: Gonephishing_141 Start: 75522, Stop: 76124, Start Num: 85
Candidate Starts for Gonephishing_141:
(53, 75453), (Start: 85 @75522 has 17 MA's), (123, 75627), (136, 75648), (137, 75651), (152, 75675), (153, 75678), (156, 75684), (205, 75786), (213, 75813), (218, 75831), (237, 75918), (296, 76110),

Gene: Graduation_10 Start: 4816, Stop: 5397, Start Num: 112
Candidate Starts for Graduation_10:
(Start: 112 @4816 has 27 MA's), (165, 4918), (181, 4939), (200, 4987), (279, 5266),

Gene: GroundGoblin_9 Start: 4591, Stop: 5169, Start Num: 112
Candidate Starts for GroundGoblin_9:
(Start: 112 @4591 has 27 MA's), (183, 4717), (279, 5050),

Gene: Gwendoluna_9 Start: 4700, Stop: 5281, Start Num: 112
Candidate Starts for Gwendoluna_9:
(Start: 112 @4700 has 27 MA's), (165, 4802), (181, 4823), (200, 4871), (279, 5150),

Gene: HUHilltop_45 Start: 31495, Stop: 31986, Start Num: 80
Candidate Starts for HUHilltop_45:
(61, 31456), (63, 31459), (Start: 77 @31492 has 1 MA's), (Start: 80 @31495 has 6 MA's), (Start: 97 @31513 has 1 MA's), (101, 31522), (185, 31687), (189, 31696), (196, 31702), (199, 31714), (207, 31750), (224, 31801), (230, 31840),

Gene: Hamulus_31 Start: 27654, Stop: 28418, Start Num: 47
Candidate Starts for Hamulus_31:
(Start: 39 @27627 has 5 MA's), (Start: 47 @27654 has 7 MA's), (Start: 74 @27729 has 11 MA's), (106, 27777), (121, 27825), (191, 27936), (196, 27945), (227, 28071), (304, 28338),

Gene: Hannaconda_43 Start: 36122, Stop: 36664, Start Num: 74
Candidate Starts for Hannaconda_43:
(Start: 43 @36035 has 1 MA's), (Start: 74 @36122 has 11 MA's), (Start: 109 @36185 has 1 MA's), (135, 36251), (150, 36275), (172, 36308), (192, 36341), (199, 36362), (200, 36365), (207, 36398), (227, 36476), (262, 36587), (278, 36635),

Gene: Hannaconda_141 Start: 76044, Stop: 76646, Start Num: 85
Candidate Starts for Hannaconda_141:
(Start: 85 @76044 has 17 MA's), (123, 76149), (136, 76170), (137, 76173), (152, 76197), (153, 76200), (156, 76206), (192, 76266), (213, 76335), (218, 76353), (227, 76404), (237, 76440), (266, 76536), (296, 76632),

Gene: Happabalu_60 Start: 53248, Stop: 52724, Start Num: 100
Candidate Starts for Happabalu_60:
(59, 53317), (91, 53263), (Start: 100 @53248 has 8 MA's), (Start: 103 @53239 has 8 MA's), (124, 53173), (147, 53128), (156, 53104), (175, 53068), (179, 53062), (196, 53029), (210, 52975), (212, 52972), (244, 52855), (249, 52834), (273, 52759),

Gene: Harella_37 Start: 34175, Stop: 33654, Start Num: 96
Candidate Starts for Harella_37:
(Start: 44 @34286 has 2 MA's), (Start: 55 @34247 has 1 MA's), (58, 34241), (Start: 96 @34175 has 6 MA's), (Start: 111 @34133 has 1 MA's), (152, 34046), (198, 33968), (199, 33965), (208, 33929),

Gene: Henry_39 Start: 34174, Stop: 33542, Start Num: 44
Candidate Starts for Henry_39:
(Start: 44 @34174 has 2 MA's), (Start: 55 @34135 has 1 MA's), (58, 34129), (Start: 96 @34063 has 6 MA's), (Start: 111 @34021 has 1 MA's), (152, 33934), (198, 33856), (199, 33853), (208, 33817),

Gene: Hermia_10 Start: 4783, Stop: 5361, Start Num: 112
Candidate Starts for Hermia_10:
(Start: 112 @4783 has 27 MA's), (183, 4909), (279, 5242),

Gene: Hidrated_134 Start: 78691, Stop: 79290, Start Num: 87
Candidate Starts for Hidrated_134:
(Start: 87 @78691 has 12 MA's), (123, 78793), (136, 78814), (137, 78817), (171, 78880), (192, 78910), (196, 78919), (218, 78997), (237, 79084), (258, 79144), (266, 79180), (296, 79276),

Gene: Hidrated_152 Start: 87549, Stop: 88058, Start Num: 74
Candidate Starts for Hidrated_152:
(Start: 72 @87546 has 1 MA's), (Start: 74 @87549 has 11 MA's), (101, 87582), (Start: 116 @87633 has 1 MA's), (137, 87669), (192, 87759), (196, 87768), (199, 87780), (200, 87783), (207, 87816), (219, 87846), (235, 87927), (266, 88020), (276, 88044),

Gene: Hlubikazi_31 Start: 27761, Stop: 28381, Start Num: 47
Candidate Starts for Hlubikazi_31:
(28, 27677), (Start: 39 @27734 has 5 MA's), (Start: 47 @27761 has 7 MA's), (Start: 74 @27836 has 11 MA's), (199, 28058), (207, 28094), (254, 28259), (267, 28304),

Gene: HokkenD_142 Start: 79202, Stop: 79804, Start Num: 85
Candidate Starts for HokkenD_142:
(53, 79133), (Start: 85 @79202 has 17 MA's), (123, 79307), (136, 79328), (137, 79331), (152, 79355), (153, 79358), (156, 79364), (205, 79466), (213, 79493), (218, 79511), (237, 79598), (296, 79790),

Gene: Holt_116 Start: 63658, Stop: 64158, Start Num: 82
Candidate Starts for Holt_116:
(56, 63604), (Start: 82 @63658 has 22 MA's), (Start: 109 @63712 has 1 MA's), (152, 63793), (153, 63796), (170, 63820), (192, 63853), (207, 63910), (252, 64072),

Gene: Hortense_58 Start: 41496, Stop: 42002, Start Num: 89
Candidate Starts for Hortense_58:
(21, 41271), (25, 41301), (Start: 89 @41496 has 25 MA's), (Start: 116 @41571 has 1 MA's), (121, 41583), (148, 41625), (199, 41712), (210, 41751),

Gene: Howe_58 Start: 41496, Stop: 42002, Start Num: 89
Candidate Starts for Howe_58:
(21, 41271), (25, 41301), (Start: 89 @41496 has 25 MA's), (Start: 116 @41571 has 1 MA's), (121, 41583), (148, 41625), (199, 41712), (210, 41751),

Gene: Hughesyang_148 Start: 79867, Stop: 80466, Start Num: 87
Candidate Starts for Hughesyang_148:
(Start: 87 @79867 has 12 MA's), (123, 79969), (136, 79990), (137, 79993), (171, 80056), (192, 80086), (196, 80095), (205, 80128), (218, 80173), (237, 80260), (258, 80320), (266, 80356), (296, 80452),

Gene: Hughesyang_111 Start: 64353, Stop: 64895, Start Num: 89
Candidate Starts for Hughesyang_111:

(31, 64191), (34, 64215), (Start: 68 @64320 has 1 MA's), (Start: 89 @64353 has 25 MA's), (Start: 97 @64371 has 1 MA's), (Start: 116 @64428 has 1 MA's), (152, 64491), (161, 64506), (170, 64524), (199, 64581), (201, 64587), (219, 64647), (243, 64740),

Gene: Icee_112 Start: 62768, Stop: 63268, Start Num: 82
Candidate Starts for Icee_112:
(56, 62714), (Start: 82 @62768 has 22 MA's), (Start: 109 @62822 has 1 MA's), (152, 62903), (153, 62906), (170, 62930), (192, 62963), (207, 63020), (252, 63182),

Gene: Island3_46 Start: 33137, Stop: 33628, Start Num: 80
Candidate Starts for Island3_46:
(Start: 44 @33044 has 2 MA's), (61, 33098), (63, 33101), (Start: 77 @33134 has 1 MA's), (Start: 80 @33137 has 6 MA's), (Start: 97 @33155 has 1 MA's), (101, 33164), (185, 33329), (189, 33338), (196, 33344), (199, 33356), (207, 33392), (224, 33443), (230, 33482),

Gene: JalFarm20_33 Start: 27847, Stop: 27341, Start Num: 82
Candidate Starts for JalFarm20_33:
(Start: 82 @27847 has 22 MA's), (Start: 97 @27832 has 1 MA's), (113, 27781), (Start: 116 @27772 has 1 MA's), (140, 27730), (150, 27715), (157, 27703), (160, 27700), (171, 27679), (199, 27640), (207, 27604), (230, 27514), (251, 27448), (265, 27418),

Gene: JeTaime_109 Start: 62868, Stop: 63383, Start Num: 82
Candidate Starts for JeTaime_109:
(56, 62814), (Start: 82 @62868 has 22 MA's), (Start: 109 @62922 has 1 MA's), (152, 63003), (153, 63006), (170, 63030), (192, 63063), (207, 63120), (252, 63282),

Gene: Jesabah_61 Start: 53289, Stop: 52765, Start Num: 100
Candidate Starts for Jesabah_61:
(59, 53358), (91, 53304), (Start: 100 @53289 has 8 MA's), (Start: 103 @53280 has 8 MA's), (124, 53214), (147, 53169), (156, 53145), (175, 53109), (179, 53103), (196, 53070), (210, 53016), (212, 53013), (244, 52896), (249, 52875), (273, 52800),

Gene: KBG_9 Start: 4959, Stop: 5540, Start Num: 112
Candidate Starts for KBG_9:
(Start: 112 @4959 has 27 MA's), (165, 5061), (181, 5082), (200, 5130), (279, 5409),

Gene: Kabocha_97 Start: 70776, Stop: 71294, Start Num: 92
Candidate Starts for Kabocha_97:
(Start: 65 @70734 has 1 MA's), (71, 70749), (Start: 92 @70776 has 5 MA's), (148, 70899), (153, 70908), (171, 70932), (230, 71112),

Gene: Kalah2_105 Start: 63688, Stop: 64230, Start Num: 89
Candidate Starts for Kalah2_105:
(31, 63526), (34, 63550), (Start: 68 @63655 has 1 MA's), (Start: 89 @63688 has 25 MA's), (Start: 97 @63706 has 1 MA's), (Start: 116 @63763 has 1 MA's), (152, 63826), (161, 63841), (170, 63859), (199, 63916), (201, 63922), (219, 63982), (243, 64075),

Gene: Kalah2_140 Start: 78988, Stop: 79587, Start Num: 87
Candidate Starts for Kalah2_140:
(Start: 87 @78988 has 12 MA's), (123, 79090), (136, 79111), (137, 79114), (171, 79177), (192, 79207), (196, 79216), (205, 79249), (218, 79294), (237, 79381), (258, 79441), (266, 79477), (296, 79573),

Gene: KashFlow_40 Start: 35743, Stop: 36285, Start Num: 74

Candidate Starts for KashFlow_40:
(Start: 43 @35656 has 1 MA's), (Start: 74 @35743 has 11 MA's), (Start: 109 @35806 has 1 MA's), (135, 35872), (150, 35896), (172, 35929), (192, 35962), (199, 35983), (200, 35986), (207, 36019), (227, 36097), (262, 36208), (278, 36256),

Gene: KashFlow_148 Start: 78305, Stop: 78904, Start Num: 89
Candidate Starts for KashFlow_148:
(Start: 89 @78305 has 25 MA's), (121, 78395), (171, 78491), (197, 78536), (205, 78563), (218, 78608), (226, 78650), (227, 78659), (271, 78806), (277, 78821), (296, 78890),

Gene: Keitabear_36 Start: 34510, Stop: 33947, Start Num: 62
Candidate Starts for Keitabear_36:
(45, 34564), (Start: 62 @34510 has 2 MA's), (64, 34501), (94, 34453), (Start: 107 @34426 has 17 MA's), (158, 34306), (196, 34243), (199, 34231), (256, 34024),

Gene: Kenmech_10 Start: 4617, Stop: 5195, Start Num: 112
Candidate Starts for Kenmech_10:
(Start: 112 @4617 has 27 MA's), (183, 4743), (279, 5076),

Gene: KikiBouba_10 Start: 4592, Stop: 5170, Start Num: 112
Candidate Starts for KikiBouba_10:
(Start: 112 @4592 has 27 MA's), (183, 4718), (279, 5051),

Gene: Kimchi_115 Start: 63385, Stop: 63885, Start Num: 82
Candidate Starts for Kimchi_115:
(56, 63331), (Start: 82 @63385 has 22 MA's), (Start: 109 @63439 has 1 MA's), (152, 63520), (153, 63523), (170, 63547), (192, 63580), (207, 63637), (252, 63799),

Gene: KingMidas_32 Start: 28828, Stop: 29370, Start Num: 74
Candidate Starts for KingMidas_32:
(Start: 74 @28828 has 11 MA's), (127, 28942), (207, 29095), (227, 29173), (230, 29185),

Gene: KingTut_52 Start: 48894, Stop: 48379, Start Num: 103
Candidate Starts for KingTut_52:
(59, 48972), (91, 48918), (Start: 100 @48903 has 8 MA's), (Start: 103 @48894 has 8 MA's), (124, 48828), (147, 48783), (156, 48759), (175, 48723), (179, 48717), (196, 48684), (210, 48630), (212, 48627), (244, 48510), (249, 48489), (273, 48414),

Gene: Kingsley_29 Start: 26483, Stop: 27247, Start Num: 47
Candidate Starts for Kingsley_29:
(Start: 39 @26456 has 5 MA's), (Start: 47 @26483 has 7 MA's), (Start: 74 @26558 has 11 MA's), (106, 26606), (121, 26654), (191, 26765), (196, 26774), (227, 26900), (304, 27167),

Gene: Klein_147 Start: 77536, Stop: 78138, Start Num: 85
Candidate Starts for Klein_147:
(53, 77467), (Start: 85 @77536 has 17 MA's), (123, 77641), (136, 77662), (137, 77665), (152, 77689), (153, 77692), (156, 77698), (205, 77800), (213, 77827), (218, 77845), (237, 77932), (296, 78124),

Gene: Kuwabara_68 Start: 41993, Stop: 42493, Start Num: 85
Candidate Starts for Kuwabara_68:
(Start: 85 @41993 has 17 MA's), (160, 42122), (207, 42230), (237, 42350),

Gene: LeeroyJenkins_114 Start: 56842, Stop: 56381, Start Num: 99

Candidate Starts for LeeroyJenkins_114:
(Start: 99 @56842 has 6 MA's), (167, 56713), (221, 56590),

Gene: LeeroyJenkins_94 Start: 49860, Stop: 49351, Start Num: 89
Candidate Starts for LeeroyJenkins_94:
(Start: 89 @49860 has 25 MA's), (171, 49689), (175, 49683), (195, 49653), (209, 49599), (224, 49551),

Gene: LeiMonet_62 Start: 52635, Stop: 52111, Start Num: 100
Candidate Starts for LeiMonet_62:
(59, 52704), (91, 52650), (Start: 100 @52635 has 8 MA's), (Start: 103 @52626 has 8 MA's), (124, 52560), (147, 52515), (156, 52491), (175, 52455), (179, 52449), (196, 52416), (210, 52362), (212, 52359), (244, 52242), (249, 52221), (273, 52146),

Gene: Lennon_36 Start: 34213, Stop: 33740, Start Num: 107
Candidate Starts for Lennon_36:
(45, 34351), (Start: 62 @34297 has 2 MA's), (94, 34240), (Start: 107 @34213 has 17 MA's), (146, 34114), (175, 34072), (177, 34069), (196, 34033), (211, 33976), (219, 33952), (229, 33895),

Gene: Leozinho_32 Start: 27392, Stop: 27934, Start Num: 74
Candidate Starts for Leozinho_32:
(Start: 74 @27392 has 11 MA's), (127, 27506), (207, 27659), (227, 27737), (230, 27749),

Gene: LilBib_8 Start: 4381, Stop: 4959, Start Num: 112
Candidate Starts for LilBib_8:
(Start: 112 @4381 has 27 MA's), (183, 4507), (279, 4840),

Gene: LilSpotty_83 Start: 48505, Stop: 49212, Start Num: 38
Candidate Starts for LilSpotty_83:
(Start: 38 @48505 has 1 MA's), (Start: 103 @48661 has 8 MA's), (130, 48739), (139, 48757), (154, 48781), (196, 48865), (199, 48877), (202, 48886), (211, 48922), (241, 49051), (280, 49180),

Gene: LittleE_112 Start: 62894, Stop: 63436, Start Num: 89
Candidate Starts for LittleE_112:
(Start: 89 @62894 has 25 MA's), (Start: 97 @62912 has 1 MA's), (152, 63032), (161, 63047), (170, 63065), (199, 63122), (201, 63128), (219, 63188), (243, 63281), (285, 63422),

Gene: LittleE_150 Start: 78544, Stop: 79146, Start Num: 85
Candidate Starts for LittleE_150:
(Start: 85 @78544 has 17 MA's), (144, 78682), (152, 78694), (171, 78736), (193, 78769), (205, 78808), (209, 78829), (227, 78904), (235, 78934), (296, 79132),

Gene: Lopsy_58 Start: 51828, Stop: 51313, Start Num: 103
Candidate Starts for Lopsy_58:
(59, 51906), (91, 51852), (Start: 100 @51837 has 8 MA's), (Start: 103 @51828 has 8 MA's), (124, 51762), (147, 51717), (156, 51693), (175, 51657), (179, 51651), (196, 51618), (210, 51564), (212, 51561), (244, 51444), (249, 51423), (273, 51348),

Gene: LostAndPhound_60 Start: 52723, Stop: 52199, Start Num: 100
Candidate Starts for LostAndPhound_60:
(59, 52792), (91, 52738), (Start: 100 @52723 has 8 MA's), (Start: 103 @52714 has 8 MA's), (124, 52648), (147, 52603), (156, 52579), (175, 52543), (179, 52537), (196, 52504), (210, 52450), (212, 52447), (244, 52330), (249, 52309), (273, 52234),

Gene: Love_39 Start: 33996, Stop: 33523, Start Num: 107
Candidate Starts for Love_39:
(45, 34134), (Start: 62 @34080 has 2 MA's), (64, 34071), (94, 34023), (Start: 107 @33996 has 17 MA's), (146, 33897), (175, 33855), (177, 33852), (196, 33816), (211, 33759), (221, 33726), (229, 33678),

Gene: LunaBlu_33 Start: 28027, Stop: 28524, Start Num: 74
Candidate Starts for LunaBlu_33:
(Start: 39 @27925 has 5 MA's), (Start: 74 @28027 has 11 MA's), (199, 28249), (207, 28285), (254, 28450), (267, 28495),

Gene: Lysidious_60 Start: 40309, Stop: 40836, Start Num: 89
Candidate Starts for Lysidious_60:
(Start: 89 @40309 has 25 MA's), (Start: 99 @40330 has 6 MA's), (193, 40510),

Gene: Mandlovu_31 Start: 27703, Stop: 28323, Start Num: 47
Candidate Starts for Mandlovu_31:
(28, 27619), (Start: 39 @27676 has 5 MA's), (Start: 47 @27703 has 7 MA's), (Start: 74 @27778 has 11 MA's), (199, 28000), (207, 28036), (254, 28201), (267, 28246),

Gene: Maravista_65 Start: 42918, Stop: 43388, Start Num: 99
Candidate Starts for Maravista_65:
(Start: 99 @42918 has 6 MA's), (160, 43035), (207, 43143), (237, 43263),

Gene: Marshmallow_38 Start: 34061, Stop: 33540, Start Num: 96
Candidate Starts for Marshmallow_38:
(Start: 57 @34127 has 8 MA's), (Start: 96 @34061 has 6 MA's), (Start: 111 @34019 has 1 MA's), (152, 33932), (198, 33854), (199, 33851), (208, 33815),

Gene: Marshmallow_109 Start: 63582, Stop: 64082, Start Num: 82
Candidate Starts for Marshmallow_109:
(Start: 82 @63582 has 22 MA's), (Start: 109 @63636 has 1 MA's), (152, 63717), (153, 63720), (170, 63744), (192, 63777), (207, 63834), (252, 63996),

Gene: Matalotodo_59 Start: 52707, Stop: 52192, Start Num: 103
Candidate Starts for Matalotodo_59:
(59, 52785), (91, 52731), (Start: 100 @52716 has 8 MA's), (Start: 103 @52707 has 8 MA's), (124, 52641), (147, 52596), (156, 52572), (175, 52536), (179, 52530), (196, 52497), (210, 52443), (212, 52440), (244, 52323), (249, 52302), (273, 52227),

Gene: McCrothy_36 Start: 33804, Stop: 33331, Start Num: 107
Candidate Starts for McCrothy_36:
(45, 33942), (Start: 62 @33888 has 2 MA's), (64, 33879), (94, 33831), (Start: 107 @33804 has 17 MA's), (146, 33705), (175, 33663), (177, 33660), (196, 33624), (211, 33567), (221, 33534), (229, 33486),

Gene: McKinley_38 Start: 34022, Stop: 33549, Start Num: 107
Candidate Starts for McKinley_38:
(45, 34160), (Start: 62 @34106 has 2 MA's), (64, 34097), (94, 34049), (Start: 107 @34022 has 17 MA's), (146, 33923), (175, 33881), (177, 33878), (196, 33842), (211, 33785), (229, 33704),

Gene: Mellie_57 Start: 38319, Stop: 38846, Start Num: 89
Candidate Starts for Mellie_57:

(Start: 89 @38319 has 25 MA's), (Start: 99 @38340 has 6 MA's), (193, 38520), (266, 38784),

Gene: Mesmerelda_59 Start: 52711, Stop: 52196, Start Num: 103
Candidate Starts for Mesmerelda_59:
(59, 52789), (91, 52735), (Start: 100 @52720 has 8 MA's), (Start: 103 @52711 has 8 MA's), (124, 52645), (147, 52600), (156, 52576), (175, 52540), (179, 52534), (196, 52501), (210, 52447), (212, 52444), (244, 52327), (249, 52306), (273, 52231),

Gene: Mila11_95 Start: 59511, Stop: 59011, Start Num: 89
Candidate Starts for Mila11_95:
(16, 59790), (17, 59787), (22, 59730), (Start: 30 @59670 has 1 MA's), (70, 59538), (Start: 89 @59511 has 25 MA's), (98, 59499), (102, 59490), (193, 59310), (199, 59292), (217, 59232),

Gene: Minerva_162 Start: 85665, Stop: 86177, Start Num: 72
Candidate Starts for Minerva_162:
(Start: 72 @85665 has 1 MA's), (Start: 74 @85668 has 11 MA's), (101, 85701), (Start: 116 @85752 has 1 MA's), (137, 85788), (192, 85878), (196, 85887), (199, 85899), (200, 85902), (207, 85935), (219, 85965), (235, 86046), (266, 86139), (276, 86163),

Gene: Minerva_148 Start: 78849, Stop: 79448, Start Num: 87
Candidate Starts for Minerva_148:
(Start: 87 @78849 has 12 MA's), (123, 78951), (136, 78972), (137, 78975), (171, 79038), (192, 79068), (196, 79077), (205, 79110), (218, 79155), (237, 79242), (258, 79302), (266, 79338), (296, 79434),

Gene: MinionDave_33 Start: 28083, Stop: 28682, Start Num: 39
Candidate Starts for MinionDave_33:
(Start: 39 @28083 has 5 MA's), (Start: 74 @28185 has 11 MA's), (199, 28407), (207, 28443), (254, 28608), (267, 28653),

Gene: MisterCuddles_32 Start: 27712, Stop: 28464, Start Num: 50
Candidate Starts for MisterCuddles_32:
(Start: 50 @27712 has 3 MA's), (Start: 74 @27775 has 11 MA's), (106, 27823), (121, 27871), (191, 27982), (196, 27991), (227, 28117), (304, 28384),

Gene: Mollymur_102 Start: 68397, Stop: 68978, Start Num: 90
Candidate Starts for Mollymur_102:
(13, 68076), (27, 68211), (Start: 90 @68397 has 11 MA's), (140, 68514), (159, 68541), (171, 68565), (206, 68646), (230, 68757), (268, 68886), (279, 68916), (281, 68922),

Gene: Monet_9 Start: 4498, Stop: 5076, Start Num: 112
Candidate Starts for Monet_9:
(Start: 112 @4498 has 27 MA's), (183, 4624), (279, 4957),

Gene: Moose_64 Start: 41180, Stop: 40623, Start Num: 114
Candidate Starts for Moose_64:
(Start: 114 @41180 has 9 MA's), (132, 41138), (142, 41120), (196, 41036), (200, 41018), (215, 40967), (226, 40913), (250, 40811), (297, 40643),

Gene: Morrissey_46 Start: 35134, Stop: 34631, Start Num: 104
Candidate Starts for Morrissey_46:
(1, 35755), (2, 35731), (3, 35701), (4, 35656), (7, 35611), (13, 35482), (35, 35293), (101, 35143), (Start: 104 @35134 has 2 MA's), (115, 35095), (118, 35086), (135, 35047), (182, 34954), (196, 34927), (198, 34918), (199, 34915), (200, 34912), (208, 34879),

Gene: Mova_51 Start: 35948, Stop: 36499, Start Num: 74
Candidate Starts for Mova_51:
(Start: 74 @35948 has 11 MA's), (76, 35951), (119, 36041), (144, 36083), (186, 36143), (207, 36209), (222, 36251), (230, 36299),

Gene: Mozy_32 Start: 27800, Stop: 28405, Start Num: 116
Candidate Starts for Mozy_32:
(Start: 74 @27716 has 11 MA's), (Start: 116 @27800 has 1 MA's), (163, 27872), (180, 27896), (184, 27902), (197, 27932), (204, 27953), (207, 27974), (229, 28061),

Gene: Mozy_92 Start: 49652, Stop: 50401, Start Num: 30
Candidate Starts for Mozy_92:
(29, 49640), (Start: 30 @49652 has 1 MA's), (79, 49799), (137, 49931), (146, 49946), (168, 49991), (220, 50144),

Gene: MulchSalad_27 Start: 23891, Stop: 24409, Start Num: 66
Candidate Starts for MulchSalad_27:
(Start: 66 @23891 has 1 MA's), (113, 23975), (167, 24071), (171, 24077), (199, 24119), (201, 24125), (207, 24155),

Gene: Mutaforma13_54 Start: 38739, Stop: 39290, Start Num: 74
Candidate Starts for Mutaforma13_54:
(Start: 74 @38739 has 11 MA's), (76, 38742), (119, 38832), (144, 38874), (186, 38934), (207, 39000), (222, 39042), (230, 39090),

Gene: Myrale_38 Start: 33992, Stop: 33405, Start Num: 57
Candidate Starts for Myrale_38:
(Start: 57 @33992 has 8 MA's), (Start: 96 @33926 has 6 MA's), (Start: 111 @33884 has 1 MA's), (152, 33797), (198, 33719), (199, 33716), (208, 33680),

Gene: NEHalo_60 Start: 41604, Stop: 41047, Start Num: 114
Candidate Starts for NEHalo_60:
(Start: 114 @41604 has 9 MA's), (132, 41562), (142, 41544), (196, 41460), (200, 41442), (215, 41391), (226, 41337), (250, 41235), (297, 41067),

Gene: Nekros_146 Start: 78699, Stop: 79298, Start Num: 89
Candidate Starts for Nekros_146:
(Start: 89 @78699 has 25 MA's), (121, 78789), (171, 78885), (197, 78930), (205, 78957), (218, 79002), (226, 79044), (227, 79053), (271, 79200), (277, 79215), (296, 79284),

Gene: Nerujay_9 Start: 4453, Stop: 5034, Start Num: 112
Candidate Starts for Nerujay_9:
(Start: 112 @4453 has 27 MA's), (165, 4555), (181, 4576), (200, 4624), (279, 4903),

Gene: NewHope4_33 Start: 27527, Stop: 27021, Start Num: 82
Candidate Starts for NewHope4_33:
(Start: 82 @27527 has 22 MA's), (Start: 97 @27512 has 1 MA's), (113, 27461), (Start: 116 @27452 has 1 MA's), (140, 27410), (150, 27395), (157, 27383), (160, 27380), (171, 27359), (199, 27320), (207, 27284), (230, 27194), (251, 27128), (265, 27098),

Gene: Nibley_154 Start: 82613, Stop: 83122, Start Num: 74
Candidate Starts for Nibley_154:

(Start: 72 @82610 has 1 MA's), (Start: 74 @82613 has 11 MA's), (101, 82646), (Start: 116 @82697 has 1 MA's), (137, 82733), (192, 82823), (196, 82832), (199, 82844), (207, 82880), (219, 82910), (235, 82991), (266, 83084), (276, 83108),

Gene: Nimrod_111 Start: 63730, Stop: 64230, Start Num: 82
Candidate Starts for Nimrod_111:
(56, 63676), (Start: 82 @63730 has 22 MA's), (Start: 109 @63784 has 1 MA's), (152, 63865), (153, 63868), (170, 63892), (192, 63925), (207, 63982), (252, 64144),

Gene: Nordenberg_30 Start: 32192, Stop: 31719, Start Num: 107
Candidate Starts for Nordenberg_30:
(45, 32330), (Start: 62 @32276 has 2 MA's), (64, 32267), (94, 32219), (Start: 107 @32192 has 17 MA's), (146, 32093), (175, 32051), (177, 32048), (196, 32012), (211, 31955), (221, 31922), (229, 31874),

Gene: Norz_9 Start: 4534, Stop: 5112, Start Num: 112
Candidate Starts for Norz_9:
(Start: 112 @4534 has 27 MA's), (183, 4660), (279, 4993),

Gene: Nova53_37 Start: 21310, Stop: 21888, Start Num: 95
Candidate Starts for Nova53_37:
(Start: 95 @21310 has 1 MA's), (151, 21442), (200, 21532), (208, 21565), (228, 21646), (237, 21679), (249, 21712), (255, 21730), (291, 21844), (296, 21859), (298, 21871),

Gene: Noxious_10 Start: 4783, Stop: 5361, Start Num: 112
Candidate Starts for Noxious_10:
(Start: 112 @4783 has 27 MA's), (183, 4909), (279, 5242),

Gene: Omega_117 Start: 63909, Stop: 64451, Start Num: 89
Candidate Starts for Omega_117:
(Start: 68 @63876 has 1 MA's), (Start: 89 @63909 has 25 MA's), (Start: 97 @63927 has 1 MA's), (152, 64047), (161, 64062), (170, 64080), (199, 64137), (201, 64143), (219, 64203), (243, 64296), (285, 64437),

Gene: Omega_154 Start: 79628, Stop: 80230, Start Num: 85
Candidate Starts for Omega_154:
(Start: 85 @79628 has 17 MA's), (144, 79766), (152, 79778), (171, 79820), (193, 79853), (205, 79892), (209, 79913), (227, 79988), (235, 80018), (296, 80216),

Gene: Omega_51 Start: 42659, Stop: 43288, Start Num: 43
Candidate Starts for Omega_51:
(Start: 43 @42659 has 1 MA's), (Start: 74 @42746 has 11 MA's), (Start: 109 @42809 has 1 MA's), (135, 42875), (150, 42899), (172, 42932), (192, 42965), (199, 42986), (200, 42989), (207, 43022), (227, 43100), (262, 43211), (278, 43259),

Gene: Optimus_141 Start: 76720, Stop: 77322, Start Num: 85
Candidate Starts for Optimus_141:
(53, 76651), (Start: 85 @76720 has 17 MA's), (123, 76825), (136, 76846), (137, 76849), (152, 76873), (153, 76876), (156, 76882), (205, 76984), (213, 77011), (218, 77029), (237, 77116), (296, 77308),

Gene: Orfeu_58 Start: 52711, Stop: 52187, Start Num: 100
Candidate Starts for Orfeu_58:

(59, 52780), (91, 52726), (Start: 100 @52711 has 8 MA's), (Start: 103 @52702 has 8 MA's), (124, 52636), (147, 52591), (156, 52567), (175, 52531), (179, 52525), (196, 52492), (210, 52438), (212, 52435), (244, 52318), (249, 52297), (273, 52222),

Gene: Ovechkin_31 Start: 27645, Stop: 28436, Start Num: 39
Candidate Starts for Ovechkin_31:
(Start: 39 @27645 has 5 MA's), (Start: 47 @27672 has 7 MA's), (Start: 74 @27747 has 11 MA's), (106, 27795), (121, 27843), (191, 27954), (196, 27963), (227, 28089), (304, 28356),

Gene: Papez_9 Start: 5271, Stop: 5849, Start Num: 112
Candidate Starts for Papez_9:
(Start: 112 @5271 has 27 MA's), (183, 5397), (279, 5730),

Gene: Paries_38 Start: 33658, Stop: 33185, Start Num: 107
Candidate Starts for Paries_38:
(37, 33820), (45, 33796), (Start: 62 @33742 has 2 MA's), (64, 33733), (94, 33685), (Start: 107 @33658 has 17 MA's), (146, 33559), (175, 33517), (177, 33514), (196, 33478), (211, 33421), (221, 33388), (229, 33340),

Gene: Peregrin_178 Start: 94313, Stop: 94846, Start Num: 88
Candidate Starts for Peregrin_178:
(Start: 88 @94313 has 1 MA's), (Start: 116 @94391 has 1 MA's), (176, 94499), (201, 94553), (225, 94640), (227, 94661), (264, 94781),

Gene: Phineas_45 Start: 31827, Stop: 32321, Start Num: 77
Candidate Starts for Phineas_45:
(61, 31791), (63, 31794), (Start: 77 @31827 has 1 MA's), (Start: 80 @31830 has 6 MA's), (Start: 97 @31848 has 1 MA's), (101, 31857), (185, 32022), (189, 32031), (196, 32037), (199, 32049), (207, 32085), (224, 32136), (230, 32175),

Gene: Phoebus_113 Start: 65664, Stop: 66206, Start Num: 89
Candidate Starts for Phoebus_113:
(31, 65502), (34, 65526), (Start: 68 @65631 has 1 MA's), (Start: 89 @65664 has 25 MA's), (Start: 97 @65682 has 1 MA's), (Start: 116 @65739 has 1 MA's), (152, 65802), (161, 65817), (170, 65835), (199, 65892), (201, 65898), (219, 65958), (243, 66051),

Gene: Phoebus_149 Start: 81221, Stop: 81820, Start Num: 87
Candidate Starts for Phoebus_149:
(Start: 87 @81221 has 12 MA's), (123, 81323), (136, 81344), (137, 81347), (171, 81410), (192, 81440), (196, 81449), (205, 81482), (218, 81527), (237, 81614), (258, 81674), (266, 81710), (296, 81806),

Gene: Pipefish_29 Start: 27509, Stop: 27015, Start Num: 104
Candidate Starts for Pipefish_29:
(Start: 104 @27509 has 2 MA's), (179, 27344), (196, 27311), (209, 27260),

Gene: Pippy_62 Start: 40280, Stop: 40750, Start Num: 99
Candidate Starts for Pippy_62:
(Start: 99 @40280 has 6 MA's), (160, 40397), (207, 40505), (237, 40625),

Gene: Placalicious_60 Start: 53221, Stop: 52697, Start Num: 100
Candidate Starts for Placalicious_60:
(59, 53290), (91, 53236), (Start: 100 @53221 has 8 MA's), (Start: 103 @53212 has 8 MA's), (124, 53146), (147, 53101), (156, 53077), (175, 53041), (179, 53035), (196, 53002), (210, 52948), (212,

52945), (244, 52828), (249, 52807), (273, 52732),

Gene: Podrick_58 Start: 51964, Stop: 51449, Start Num: 103
Candidate Starts for Podrick_58:
(59, 52042), (91, 51988), (Start: 100 @51973 has 8 MA's), (Start: 103 @51964 has 8 MA's), (124, 51898), (147, 51853), (156, 51829), (175, 51793), (179, 51787), (196, 51754), (210, 51700), (212, 51697), (244, 51580), (249, 51559), (273, 51484),

Gene: Porcelain_108 Start: 60257, Stop: 60832, Start Num: 68
Candidate Starts for Porcelain_108:
(Start: 68 @60257 has 1 MA's), (Start: 89 @60290 has 25 MA's), (Start: 97 @60308 has 1 MA's), (Start: 116 @60365 has 1 MA's), (152, 60428), (161, 60443), (170, 60461), (199, 60518), (201, 60524), (219, 60584), (243, 60677),

Gene: Porky_109 Start: 62562, Stop: 63008, Start Num: 109
Candidate Starts for Porky_109:
(56, 62454), (Start: 82 @62508 has 22 MA's), (Start: 109 @62562 has 1 MA's), (152, 62643), (153, 62646), (170, 62670), (192, 62703), (207, 62760), (252, 62922),

Gene: Pound_50 Start: 43906, Stop: 44415, Start Num: 99
Candidate Starts for Pound_50:
(49, 43795), (71, 43864), (Start: 85 @43882 has 17 MA's), (Start: 99 @43906 has 6 MA's), (121, 43972), (148, 44026), (174, 44071), (207, 44158), (227, 44236), (231, 44248), (284, 44401),

Gene: PowerRanger_8 Start: 4332, Stop: 4910, Start Num: 112
Candidate Starts for PowerRanger_8:
(Start: 112 @4332 has 27 MA's), (183, 4458), (279, 4791),

Gene: Pumpkin_40 Start: 34140, Stop: 33619, Start Num: 96
Candidate Starts for Pumpkin_40:
(Start: 57 @34206 has 8 MA's), (Start: 96 @34140 has 6 MA's), (Start: 111 @34098 has 1 MA's), (152, 34011), (198, 33933), (199, 33930), (208, 33894),

Gene: Pygmy_47 Start: 33294, Stop: 33785, Start Num: 80
Candidate Starts for Pygmy_47:
(61, 33255), (63, 33258), (Start: 77 @33291 has 1 MA's), (Start: 80 @33294 has 6 MA's), (Start: 97 @33312 has 1 MA's), (101, 33321), (185, 33486), (189, 33495), (196, 33501), (199, 33513), (207, 33549), (224, 33600), (230, 33639),

Gene: QTRlifeCrisis_8 Start: 4494, Stop: 5075, Start Num: 112
Candidate Starts for QTRlifeCrisis_8:
(Start: 112 @4494 has 27 MA's), (165, 4596), (181, 4617), (200, 4665), (279, 4944),

Gene: Ramsey_33 Start: 27746, Stop: 28345, Start Num: 39
Candidate Starts for Ramsey_33:
(Start: 39 @27746 has 5 MA's), (Start: 74 @27848 has 11 MA's), (199, 28070), (207, 28106), (254, 28271), (267, 28316),

Gene: RedWattleHog_22 Start: 25760, Stop: 26308, Start Num: 85
Candidate Starts for RedWattleHog_22:
(70, 25739), (Start: 85 @25760 has 17 MA's), (139, 25880), (222, 26048), (224, 26057), (228, 26087), (230, 26096), (273, 26222),

Gene: RedWattleHog_85 Start: 77917, Stop: 78504, Start Num: 87
Candidate Starts for RedWattleHog_85:
(Start: 87 @77917 has 12 MA's), (113, 77989), (135, 78037), (138, 78043), (166, 78091), (171, 78100), (173, 78103), (179, 78112), (195, 78142), (200, 78160), (208, 78193), (223, 78238), (229, 78280), (249, 78340), (296, 78484),

Gene: Rofo_36 Start: 33056, Stop: 32583, Start Num: 107
Candidate Starts for Rofo_36:
(45, 33194), (Start: 62 @33140 has 2 MA's), (64, 33131), (94, 33083), (Start: 107 @33056 has 17 MA's), (146, 32957), (175, 32915), (177, 32912), (196, 32876), (211, 32819), (221, 32786), (229, 32738),

Gene: Ruby_32 Start: 27712, Stop: 28464, Start Num: 50
Candidate Starts for Ruby_32:
(Start: 50 @27712 has 3 MA's), (Start: 74 @27775 has 11 MA's), (106, 27823), (121, 27871), (191, 27982), (196, 27991), (227, 28117), (304, 28384),

Gene: Saguaro_52 Start: 46118, Stop: 45648, Start Num: 85
Candidate Starts for Saguaro_52:
(Start: 55 @46169 has 1 MA's), (Start: 85 @46118 has 17 MA's), (Start: 99 @46097 has 6 MA's), (Start: 109 @46070 has 1 MA's), (113, 46052), (Start: 116 @46043 has 1 MA's), (121, 46031), (145, 45992), (199, 45905), (227, 45791), (239, 45746),

Gene: Sassafras_31 Start: 27690, Stop: 28187, Start Num: 74
Candidate Starts for Sassafras_31:
(Start: 39 @27588 has 5 MA's), (Start: 74 @27690 has 11 MA's), (199, 27912), (207, 27948), (254, 28113), (267, 28158),

Gene: Schomber_94 Start: 69164, Stop: 69682, Start Num: 92
Candidate Starts for Schomber_94:
(Start: 65 @69122 has 1 MA's), (71, 69137), (Start: 92 @69164 has 5 MA's), (148, 69287), (153, 69296), (171, 69320), (230, 69500),

Gene: ScoobyDoobyDoo_184 Start: 103006, Stop: 103509, Start Num: 111
Candidate Starts for ScoobyDoobyDoo_184:
(Start: 95 @102958 has 1 MA's), (102, 102973), (105, 102985), (Start: 108 @102991 has 1 MA's), (Start: 111 @103006 has 1 MA's), (175, 103123), (199, 103174), (204, 103189), (230, 103300), (240, 103333), (245, 103342), (249, 103357), (263, 103399), (287, 103462), (294, 103489),

Gene: Sedona_36 Start: 34162, Stop: 33689, Start Num: 107
Candidate Starts for Sedona_36:
(45, 34300), (Start: 62 @34246 has 2 MA's), (64, 34237), (94, 34189), (Start: 107 @34162 has 17 MA's), (146, 34063), (175, 34021), (177, 34018), (196, 33982), (211, 33925), (221, 33892), (229, 33844),

Gene: Shaboozey_39 Start: 35483, Stop: 36025, Start Num: 74
Candidate Starts for Shaboozey_39:
(Start: 43 @35396 has 1 MA's), (Start: 74 @35483 has 11 MA's), (Start: 109 @35546 has 1 MA's), (135, 35612), (150, 35636), (172, 35669), (192, 35702), (199, 35723), (200, 35726), (207, 35759), (227, 35837), (262, 35948), (278, 35996),

Gene: Shaboozey_158 Start: 83054, Stop: 83566, Start Num: 72
Candidate Starts for Shaboozey_158:

(Start: 72 @83054 has 1 MA's), (Start: 74 @83057 has 11 MA's), (101, 83090), (Start: 116 @83141 has 1 MA's), (137, 83177), (192, 83267), (196, 83276), (199, 83288), (207, 83324), (219, 83354), (235, 83435), (266, 83528), (276, 83552),

Gene: ShamWow_38 Start: 34129, Stop: 33542, Start Num: 57
Candidate Starts for ShamWow_38:
(Start: 57 @34129 has 8 MA's), (Start: 96 @34063 has 6 MA's), (Start: 111 @34021 has 1 MA's), (152, 33934), (198, 33856), (199, 33853), (208, 33817),

Gene: Shipwreck_47 Start: 33269, Stop: 33760, Start Num: 80
Candidate Starts for Shipwreck_47:
(61, 33230), (63, 33233), (Start: 77 @33266 has 1 MA's), (Start: 80 @33269 has 6 MA's), (Start: 97 @33287 has 1 MA's), (101, 33296), (185, 33461), (189, 33470), (196, 33476), (199, 33488), (207, 33524), (224, 33575), (230, 33614),

Gene: Shlim410_56 Start: 41496, Stop: 42002, Start Num: 89
Candidate Starts for Shlim410_56:
(21, 41271), (25, 41301), (Start: 89 @41496 has 25 MA's), (Start: 116 @41571 has 1 MA's), (121, 41583), (148, 41625), (199, 41712), (210, 41751),

Gene: Sitar_36 Start: 34297, Stop: 33740, Start Num: 62
Candidate Starts for Sitar_36:
(45, 34351), (Start: 62 @34297 has 2 MA's), (94, 34240), (Start: 107 @34213 has 17 MA's), (146, 34114), (175, 34072), (177, 34069), (196, 34033), (211, 33976), (219, 33952), (229, 33895),

Gene: SoilAssassin_64 Start: 43104, Stop: 43649, Start Num: 52
Candidate Starts for SoilAssassin_64:
(Start: 52 @43104 has 2 MA's), (Start: 68 @43146 has 1 MA's), (81, 43167), (Start: 99 @43191 has 6 MA's), (Start: 112 @43230 has 27 MA's), (Start: 116 @43242 has 1 MA's), (128, 43272), (196, 43377), (230, 43515),

Gene: Solon_8 Start: 4653, Stop: 5234, Start Num: 112
Candidate Starts for Solon_8:
(Start: 112 @4653 has 27 MA's), (165, 4755), (181, 4776), (200, 4824), (279, 5103),

Gene: Soul22_35 Start: 27040, Stop: 27804, Start Num: 47
Candidate Starts for Soul22_35:
(Start: 39 @27013 has 5 MA's), (Start: 47 @27040 has 7 MA's), (Start: 74 @27115 has 11 MA's), (106, 27163), (121, 27211), (191, 27322), (196, 27331), (227, 27457), (304, 27724),

Gene: SpeedDemon_1040 Start: 70108, Stop: 70686, Start Num: 90
Candidate Starts for SpeedDemon_1040:
(13, 69790), (36, 69976), (Start: 90 @70108 has 11 MA's), (Start: 109 @70156 has 1 MA's), (113, 70174), (120, 70192), (140, 70225), (199, 70327), (214, 70378), (234, 70480), (274, 70606),

Gene: SpikeBT_9 Start: 4433, Stop: 5011, Start Num: 112
Candidate Starts for SpikeBT_9:
(Start: 112 @4433 has 27 MA's), (183, 4559), (279, 4892),

Gene: SpikeBT_61 Start: 41461, Stop: 40904, Start Num: 114
Candidate Starts for SpikeBT_61:
(Start: 114 @41461 has 9 MA's), (132, 41419), (142, 41401), (196, 41317), (200, 41299), (215, 41248), (226, 41194), (250, 41092), (297, 40924),

Gene: Squee_8 Start: 4160, Stop: 4741, Start Num: 112
Candidate Starts for Squee_8:
(Start: 112 @4160 has 27 MA's), (165, 4262), (181, 4283), (200, 4331), (279, 4610),

Gene: StAnnes_29 Start: 27239, Stop: 28003, Start Num: 47
Candidate Starts for StAnnes_29:
(Start: 39 @27212 has 5 MA's), (Start: 47 @27239 has 7 MA's), (Start: 74 @27314 has 11 MA's), (106, 27362), (121, 27410), (191, 27521), (196, 27530), (227, 27656), (304, 27923),

Gene: Stank_113 Start: 63457, Stop: 63957, Start Num: 82
Candidate Starts for Stank_113:
(56, 63403), (Start: 82 @63457 has 22 MA's), (Start: 109 @63511 has 1 MA's), (152, 63592), (153, 63595), (170, 63619), (192, 63652), (207, 63709), (252, 63871),

Gene: Starcevich_34 Start: 27605, Stop: 27099, Start Num: 82
Candidate Starts for Starcevich_34:
(Start: 82 @27605 has 22 MA's), (Start: 97 @27590 has 1 MA's), (113, 27539), (Start: 116 @27530 has 1 MA's), (140, 27488), (150, 27473), (157, 27461), (160, 27458), (171, 27437), (199, 27398), (207, 27362), (230, 27272), (251, 27206), (265, 27176),

Gene: Stickynote_47 Start: 43021, Stop: 42431, Start Num: 83
Candidate Starts for Stickynote_47:
(33, 43153), (34, 43150), (Start: 83 @43021 has 3 MA's), (105, 42973), (117, 42934), (126, 42910), (127, 42907), (208, 42763), (227, 42685), (236, 42652), (270, 42544), (300, 42439),

Gene: Stormageddon_82 Start: 77898, Stop: 78485, Start Num: 87
Candidate Starts for Stormageddon_82:
(Start: 87 @77898 has 12 MA's), (113, 77970), (135, 78018), (138, 78024), (166, 78072), (171, 78081), (173, 78084), (179, 78093), (195, 78123), (200, 78141), (208, 78174), (223, 78219), (229, 78261), (249, 78321), (296, 78465),

Gene: Strokeseat_31 Start: 27760, Stop: 28380, Start Num: 47
Candidate Starts for Strokeseat_31:
(28, 27676), (Start: 39 @27733 has 5 MA's), (Start: 47 @27760 has 7 MA's), (Start: 74 @27835 has 11 MA's), (199, 28057), (207, 28093), (254, 28258), (267, 28303),

Gene: Superphikiman_145 Start: 75577, Stop: 76179, Start Num: 85
Candidate Starts for Superphikiman_145:
(Start: 85 @75577 has 17 MA's), (123, 75682), (136, 75703), (137, 75706), (152, 75730), (153, 75733), (156, 75739), (192, 75799), (213, 75868), (218, 75886), (227, 75937), (237, 75973), (266, 76069), (296, 76165),

Gene: SwissCheese_66 Start: 41680, Stop: 41123, Start Num: 114
Candidate Starts for SwissCheese_66:
(Start: 114 @41680 has 9 MA's), (132, 41638), (142, 41620), (196, 41536), (200, 41518), (215, 41467), (226, 41413), (250, 41311), (297, 41143),

Gene: TBrady12_114 Start: 62894, Stop: 63394, Start Num: 82
Candidate Starts for TBrady12_114:
(56, 62840), (Start: 82 @62894 has 22 MA's), (Start: 109 @62948 has 1 MA's), (152, 63029), (153, 63032), (170, 63056), (192, 63089), (207, 63146), (252, 63308),

Gene: Tangent_36 Start: 32578, Stop: 32105, Start Num: 107
Candidate Starts for Tangent_36:
(45, 32716), (Start: 62 @32662 has 2 MA's), (64, 32653), (94, 32605), (Start: 107 @32578 has 17 MA's), (146, 32479), (175, 32437), (177, 32434), (196, 32398), (211, 32341), (221, 32308), (229, 32260),

Gene: Teaspoon_111 Start: 63442, Stop: 63942, Start Num: 82
Candidate Starts for Teaspoon_111:
(56, 63388), (Start: 82 @63442 has 22 MA's), (Start: 109 @63496 has 1 MA's), (152, 63577), (153, 63580), (170, 63604), (192, 63637), (207, 63694), (252, 63856),

Gene: Teaspoon_39 Start: 34016, Stop: 33495, Start Num: 96
Candidate Starts for Teaspoon_39:
(Start: 57 @34082 has 8 MA's), (Start: 96 @34016 has 6 MA's), (Start: 111 @33974 has 1 MA's), (152, 33887), (198, 33809), (199, 33806), (208, 33770),

Gene: TheloniousMonk_9 Start: 4484, Stop: 5062, Start Num: 112
Candidate Starts for TheloniousMonk_9:
(Start: 112 @4484 has 27 MA's), (183, 4610), (279, 4943),

Gene: Thibault_95 Start: 58448, Stop: 58990, Start Num: 89
Candidate Starts for Thibault_95:
(Start: 89 @58448 has 25 MA's), (Start: 97 @58466 has 1 MA's), (152, 58586), (161, 58601), (170, 58619), (194, 58658), (199, 58676), (201, 58682), (219, 58742), (243, 58835), (285, 58976),

Gene: Thibault_132 Start: 76186, Stop: 76788, Start Num: 85
Candidate Starts for Thibault_132:
(Start: 85 @76186 has 17 MA's), (144, 76324), (152, 76336), (171, 76378), (197, 76423), (199, 76429), (209, 76471), (227, 76546), (235, 76576), (296, 76774),

Gene: ThreeRngTarjay_109 Start: 64920, Stop: 65462, Start Num: 89
Candidate Starts for ThreeRngTarjay_109:
(31, 64758), (34, 64782), (Start: 68 @64887 has 1 MA's), (Start: 89 @64920 has 25 MA's), (Start: 97 @64938 has 1 MA's), (Start: 116 @64995 has 1 MA's), (152, 65058), (161, 65073), (170, 65091), (199, 65148), (201, 65154), (219, 65214), (243, 65307),

Gene: ThreeRngTarjay_144 Start: 79812, Stop: 80411, Start Num: 87
Candidate Starts for ThreeRngTarjay_144:
(Start: 87 @79812 has 12 MA's), (123, 79914), (136, 79935), (137, 79938), (171, 80001), (192, 80031), (196, 80040), (205, 80073), (218, 80118), (237, 80205), (258, 80265), (266, 80301), (296, 80397),

Gene: Toni_59 Start: 52612, Stop: 52088, Start Num: 100
Candidate Starts for Toni_59:
(59, 52681), (91, 52627), (Start: 100 @52612 has 8 MA's), (Start: 103 @52603 has 8 MA's), (124, 52537), (147, 52492), (156, 52468), (175, 52432), (179, 52426), (196, 52393), (210, 52339), (212, 52336), (244, 52219), (249, 52198), (273, 52123),

Gene: Toto_38 Start: 34063, Stop: 33542, Start Num: 96
Candidate Starts for Toto_38:
(Start: 57 @34129 has 8 MA's), (Start: 96 @34063 has 6 MA's), (Start: 111 @34021 has 1 MA's), (152, 33934), (198, 33856), (199, 33853), (208, 33817),

Gene: Towmatter_90 Start: 63151, Stop: 63720, Start Num: 90

Candidate Starts for Towmatter_90:
(13, 62842), (24, 62953), (Start: 90 @63151 has 11 MA's), (140, 63268), (171, 63319), (199, 63373), (211, 63418), (249, 63562), (268, 63628),

Gene: Treddle_9 Start: 4499, Stop: 5077, Start Num: 112
Candidate Starts for Treddle_9:
(Start: 112 @4499 has 27 MA's), (183, 4625), (279, 4958),

Gene: Tuco_39 Start: 34637, Stop: 34050, Start Num: 57
Candidate Starts for Tuco_39:
(Start: 57 @34637 has 8 MA's), (Start: 96 @34571 has 6 MA's), (Start: 111 @34529 has 1 MA's), (152, 34442), (198, 34364), (199, 34361), (208, 34325),

Gene: Twinkle_57 Start: 42555, Stop: 43061, Start Num: 89
Candidate Starts for Twinkle_57:
(21, 42330), (25, 42360), (Start: 89 @42555 has 25 MA's), (Start: 116 @42630 has 1 MA's), (121, 42642), (148, 42684), (199, 42771), (210, 42810),

Gene: Twister6_58 Start: 42736, Stop: 43260, Start Num: 65
Candidate Starts for Twister6_58:
(Start: 65 @42736 has 1 MA's), (Start: 99 @42787 has 6 MA's), (106, 42805), (147, 42883), (196, 42964), (198, 42973), (232, 43114),

Gene: UBSmoodge_128 Start: 91385, Stop: 91951, Start Num: 84
Candidate Starts for UBSmoodge_128:
(Start: 84 @91385 has 2 MA's), (123, 91484), (131, 91508), (153, 91541), (164, 91571), (171, 91583), (192, 91616), (199, 91637), (200, 91640), (228, 91754), (230, 91763), (269, 91889),

Gene: Vivi2_38 Start: 33736, Stop: 33263, Start Num: 107
Candidate Starts for Vivi2_38:
(45, 33874), (Start: 62 @33820 has 2 MA's), (64, 33811), (94, 33763), (Start: 107 @33736 has 17 MA's), (146, 33637), (175, 33595), (177, 33592), (196, 33556), (211, 33499), (221, 33466), (229, 33418),

Gene: Wanda_148 Start: 77329, Stop: 77928, Start Num: 87
Candidate Starts for Wanda_148:
(Start: 87 @77329 has 12 MA's), (123, 77431), (136, 77452), (137, 77455), (171, 77518), (192, 77548), (196, 77557), (205, 77590), (218, 77635), (237, 77722), (258, 77782), (266, 77818), (296, 77914),

Gene: Whitspit_9 Start: 4658, Stop: 5239, Start Num: 112
Candidate Starts for Whitspit_9:
(Start: 112 @4658 has 27 MA's), (165, 4760), (181, 4781), (200, 4829), (279, 5108),

Gene: Wiggin_113 Start: 62887, Stop: 63387, Start Num: 82
Candidate Starts for Wiggin_113:
(Start: 82 @62887 has 22 MA's), (Start: 109 @62941 has 1 MA's), (152, 63022), (153, 63025), (170, 63049), (192, 63082), (207, 63139), (252, 63301),

Gene: WilliamBoone_144 Start: 75606, Stop: 76268, Start Num: 48
Candidate Starts for WilliamBoone_144:
(40, 75582), (Start: 48 @75606 has 1 MA's), (121, 75792), (163, 75861), (171, 75876), (196, 75918), (275, 76194), (295, 76260),

Gene: Xandras_110 Start: 62710, Stop: 63210, Start Num: 82
Candidate Starts for Xandras_110:
(56, 62656), (Start: 82 @62710 has 22 MA's), (Start: 109 @62764 has 1 MA's), (152, 62845), (153, 62848), (170, 62872), (192, 62905), (207, 62962), (252, 63124),

Gene: Xiaokay_158 Start: 87015, Stop: 87527, Start Num: 72
Candidate Starts for Xiaokay_158:
(Start: 72 @87015 has 1 MA's), (Start: 74 @87018 has 11 MA's), (101, 87051), (Start: 116 @87102 has 1 MA's), (137, 87138), (192, 87228), (196, 87237), (199, 87249), (200, 87252), (207, 87285), (219, 87315), (235, 87396), (266, 87489), (276, 87513),

Gene: Xiaokay_103 Start: 61376, Stop: 61900, Start Num: 97
Candidate Starts for Xiaokay_103:
(Start: 89 @61358 has 25 MA's), (Start: 97 @61376 has 1 MA's), (152, 61496), (161, 61511), (170, 61529), (194, 61568), (199, 61586), (201, 61592), (219, 61652), (243, 61745), (285, 61886),

Gene: Zelink_108 Start: 64885, Stop: 65409, Start Num: 97
Candidate Starts for Zelink_108:
(31, 64705), (34, 64729), (Start: 68 @64834 has 1 MA's), (Start: 89 @64867 has 25 MA's), (Start: 97 @64885 has 1 MA's), (Start: 116 @64942 has 1 MA's), (152, 65005), (161, 65020), (170, 65038), (199, 65095), (201, 65101), (219, 65161), (243, 65254),

Gene: Zelink_143 Start: 80141, Stop: 80740, Start Num: 87
Candidate Starts for Zelink_143:
(Start: 87 @80141 has 12 MA's), (123, 80243), (136, 80264), (137, 80267), (171, 80330), (192, 80360), (196, 80369), (205, 80402), (218, 80447), (237, 80534), (258, 80594), (266, 80630), (296, 80726),

Gene: Zeuska_8 Start: 4378, Stop: 4959, Start Num: 112
Candidate Starts for Zeuska_8:
(Start: 112 @4378 has 27 MA's), (165, 4480), (181, 4501), (200, 4549), (279, 4828),

Gene: Zucker_50 Start: 32261, Stop: 32884, Start Num: 54
Candidate Starts for Zucker_50:
(6, 31859), (7, 31883), (8, 31901), (26, 32147), (51, 32249), (Start: 54 @32261 has 1 MA's), (Start: 99 @32354 has 6 MA's), (125, 32432), (155, 32501), (196, 32579), (198, 32588), (200, 32594), (201, 32597), (209, 32633), (228, 32708),