Zoomed Pham 290797

Zoomed Pham 290797

Zoomed Pham 290797

Zoomed Pham 290797

Zoomed Pham 290797

201: Gandica_col_41
202: Eevee_66
203: AddiRose_25
204: Yotsuba_26
205: SweetLover_26
206: Pippin_65_35
207: Serendream_66
208: Daddy_65_125
209: JoyLin_26

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 290797 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290797 has 258 members, 61 are drafts.

Phages represented in each track:
• Track 1 : Xenomorph_20
• Track 2 : BenIlo_20
• Track 3 : Mooshroom_21, Kardesai_20, Hankly_20
• Track 4 : Elsa_22, Nason_22, Arcadia_22
• Track 5 : BenitoAntonio_22
• Track 6 : KeaneyLin_20, GoCrazy_20
• Track 7 : Circum_22
• Track 8 : Bowling_22, Dynamite_21, NapoleonB_21
• Track 9 : YoshiYama_21
• Track 10 : Correa_21
• Track 11 : Tribby_22
• Track 12 : Cheesy_22
• Track 13 : JEGGS_21
• Track 14 : Mudcat_21
• Track 15 : Heisenberger_21
• Track 16 : Brunswick_26
• Track 17 : CastorTray_28
• Track 18 : Hemma_23
• Track 19 : Dinallo_27, Tenno_27
• Track 20 : Nightmare_27, LucySwiss_26
• Track 21 : Synepsis_25
• Track 22 : Niktson_26, ElephantMan_26
• Track 23 : AreFloNak_26, Nivinsha_26
• Track 24 : Darby_26
• Track 25 : Issa_26
• Track 26 : Tatanka_26
• Track 27 : CapnMurica_26
• Track 28 : ScienceWizSam_28
• Track 29 : Westerlin_27
• Track 30 : Acai_26
• Track 31 : Trustiboi_27
• Track 32 : MiniBagel_26
• Track 33 : Breylor17_27
• Track 34 : Teacup_26
• Track 35 : DevitoJr_26
• Track 36 : Gordon_26
• Track 37 : LilHuddy_27

- Track 38 : Bouchard_27
- Track 39 : Chlochlo_27
- Track 40 : Shepard_27
- Track 41 : Phaby_27
- Track 42 : Giantsbane_27
- Track 43 : Tipton_27
- Track 44 : Tokki_27
- Track 45 : Ingrid_26, Loretta_26
- Track 46 : Anandi_29
- Track 47 : MediumFry_24
- Track 48 : Caterpillar_24
- Track 49 : Makai_26, Truckee_25
- Track 50 : TrixiePhattel_26
- Track 51 : Biscute_27
- Track 52 : Barbonzobean_29
- Track 53 : Altjira_25
- Track 54 : Phaila_25
- Track 55 : Navi1117_26
- Track 56 : Leathea_26
- Track 57 : Stardrop_27
- Track 58 : Kinny_28
- Track 59 : PoeMe_27
- Track 60 : KevinMinion_26
- Track 61 : Renaldo_31
- Track 62 : BarbieDoll_29
- Track 63 : Muglass_28
- Track 64 : Tenney120_26
- Track 65 : Mardi_27
- Track 66 : Argan_25
- Track 67 : Uzumaki_26
- Track 68 : GantcherGoblin_25
- Track 69 : Zeina_26
- Track 70 : Lewando_29
- Track 71 : Inked_28
- Track 72 : Zippen_26
- Track 73 : Jeremy4pt0_22
- Track 74 : Natasha_23
- Track 75 : Sprinkle_23
- Track 76 : ProfFrink_23, MrAaronian_23, Djungelskog_23
- Track 77 : Stayer_23, BronxBay_23
- Track 78 : Sporto_24
- Track 79 : StarLord_23, Sloopyjoe_23
- Track 80 : Boog_23
- Track 81 : Spain_22
- Track 82 : RustyBoy_23
- Track 83 : Salk_23, Linda_23
- Track 84 : Raunak_23
- Track 85 : Onestar_23
- Track 86 : DoctorPepper_23
- Track 87 : Powelldog_24
- Track 88 : Shiba_23
- Track 89 : Egad_23
- Track 90 : HerbBucket_22

- Track 91 : Michelle_23
- Track 92 : Espio_24, FrodoSwaggins_23, Popy_23
- Track 93 : Indigenous_23, Jaylociraptor_23
- Track 94 : Maya_23
- Track 95 : Meibysrarus_23
- Track 96 : Hoshi_23, Esketit_23
- Track 97 : HazuAndZazu_23
- Track 98 : TonyStarch_23
- Track 99 : Namo_23, Rima_23
- Track 100 : OlympicHelado_23
- Track 101 : Spectropatronm_23
- Track 102 : Soshi_23
- Track 103 : CherryBlossom_23
- Track 104 : TaidaOne_23
- Track 105 : DrGrey_23
- Track 106 : TieDye_22
- Track 107 : IceWarrior_23
- Track 108 : Madamato_23
- Track 109 : Wigberry_24
- Track 110 : FidgetOrca_23
- Track 111 : GirlPower_22
- Track 112 : Scap1_19
- Track 113 : PherryCruz_18, RavenPuff_18
- Track 114 : Ditters_19
- Track 115 : RosaAsantewaa_19
- Track 116 : SheRa_19
- Track 117 : Annihilus_19
- Track 118 : Bilo_19
- Track 119 : HotFries_18
- Track 120 : GoblinVoyage_19
- Track 121 : Sangak_19, Doxi13_19
- Track 122 : Moozy_19
- Track 123 : Monse_19
- Track 124 : LibertyBell_21
- Track 125 : Thiqqums_21, Miek_21, SendItCS_20, CricKo_21, Rainydai_21, Regigigas_22
- Track 126 : FromIndy_22
- Track 127 : Bing_24
- Track 128 : Kardashian_22
- Track 129 : ClubPenguin_22
- Track 130 : Pepy6_035
- Track 131 : Poco6_036
- Track 132 : PerroGrande22_39
- Track 133 : ArtetaBall_33
- Track 134 : Figliar_32
- Track 135 : OhMyWard_32
- Track 136 : Madvan_32
- Track 137 : Vardy_32
- Track 138 : Hydrus_33
- Track 139 : JulesRay_29, Football_30, Bugg_30
- Track 140 : Phepper_32
- Track 141 : Schwartz33_33
- Track 142 : Perkunas_31, SweetCrkHerbs_31, Talon44_30

- Track 143 : Blanky_32
- Track 144 : AlainaMarie_32, EndAve_32
- Track 145 : MajinBuu_32
- Track 146 : Luthien_33, Nithya_32
- Track 147 : Hortihabitatio_32
- Track 148 : Kerry_29, Odesza_29, Gill_29, Tanis_29, Gravy_29
- Track 149 : Runhaar_32, Burley_32
- Track 150 : Zeph_33
- Track 151 : Rickmore_31
- Track 152 : Chikenjars_32
- Track 153 : Duffington_32
- Track 154 : TenaciousP_33, Jodelie19_33
- Track 155 : Dancer_29
- Track 156 : CWormy_32
- Track 157 : FortCran_29, Artorias_29
- Track 158 : Pherobrine_31
- Track 159 : Citrus_31
- Track 160 : Tairn4Wing_31
- Track 161 : Gusicorn_32, PestoPenguin_35, BetterYeti_32, Aloe25_35
- Track 162 : Kenosha_32
- Track 163 : Avazak_29
- Track 164 : Glintora_32
- Track 165 : Capybara_29
- Track 166 : Demure_31
- Track 167 : Crocheter_32
- Track 168 : Mysticmoon_32
- Track 169 : Fazel_30
- Track 170 : Arataki_31
- Track 171 : Tonaltzin_34
- Track 172 : Conley_30
- Track 173 : ChickyNuggy_30
- Track 174 : BluerMoon_32
- Track 175 : Petito_31
- Track 176 : Secretariat_30
- Track 177 : Dialga_33
- Track 178 : Trufflozitus_32
- Track 179 : Mossy_33
- Track 180 : Captrips_29
- Track 181 : Eddiemania_33
- Track 182 : ShaggyRogers_32
- Track 183 : OlgasClover_32
- Track 184 : NoPickles_29
- Track 185 : Untouchable_32
- Track 186 : Aflac_32
- Track 187 : Roney_29
- Track 188 : Nadmeg_33
- Track 189 : Damascus_24
- Track 190 : DizzyRudy_24
- Track 191 : Count_30
- Track 192 : Camille_24
- Track 193 : Mema_24
- Track 194 : Arzan_22
- Track 195 : Jazzy4900_24, Sunny4976_23

- Track 196 : GermyBearimy_25
- Track 197 : Kureo_41
- Track 198 : Marianna39_41
- Track 199 : JeNeSaisPas_39
- Track 200 : Paella_40, Qui_40, Elver_40
- Track 201 : Gandionco_41
- Track 202 : Eevee_26
- Track 203 : AddiRose_25
- Track 204 : Yotsuba_26
- Track 205 : Sweetclover_26
- Track 206 : Pippin15_25
- Track 207 : Serenabean_25
- Track 208 : Daddyjeff_25
- Track 209 : JoyLin_26

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

The start number called the most often in the published annotations is 19, it was called in 160 of the 197 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Acai_26, AddiRose_25, Aflac_32, AlainaMarie_32, Aloe25_35, Altjira_25, Annihilus_19, Arataki_31, Arcadia_22, AreFloNak_26, Argan_25, ArtetaBall_33, Artorias_29, Avazak_29, Barbonzobean_29, BenitoAntonio_22, Benllo_20, BetterYeti_32, Bilo_19, Biscute_27, Blanky_32, BluerMoon_32, Boog_23, Bouchard_27, Bowling_22, Breylor17_27, BronxBay_23, Brunswick_26, Bugg_30, Burley_32, CWormy_32, Camille_24, CapnMurica_26, Captrips_29, Capybara_29, CastorTray_28, Caterpillar_24, Cheesy_22, ChickyNuggy_30, Chikenjars_32, Chlochlo_27, Circum_22, Citrus_31, Conley_30, Correa_21, Count_30, Crocheter_32, Daddyjeff_25, Damascus_24, Dancer_29, Darby_26, Demure_31, DevitoJr_26, Dialga_33, Dinallo_27, Ditters_19, DizzyRudy_24, Djungelskog_23, DoctorPepper_23, Doxi13_19, Duffington_32, Dynamite_21, Eddiemania_33, Eevee_26, ElephantMan_26, Elsa_22, Elver_40, EndAve_32, Fazel_30, Figliar_32, Football_30, FortCran_29, GantcherGoblin_25, Giantsbane_27, Gill_29, Glintora_32, GoCrazy_20, GoblinVoyage_19, Gordon_26, Gravy_29, Gusicorn_32, Hankly_20, Heisenberger_21, Hemma_23, HerbBucket_22, Hortihabitatio_32, HotFries_18, Hydrus_33, Ingrid_26, Inked_28, Issa_26, JEGGS_21, Jodelie19_33, JoyLin_26, JulesRay_29, Kardesai_20, KeaneyLin_20, Kenosha_32, Kerry_29, KevinMinion_26, Kinny_28, Leathea_26, Lewando_29, LilHuddy_27, Linda_23, Loretta_26, LucySwiss_26, Luthien_33, Madvan_32, MajinBuu_32, Makai_26, MediumFry_24, Mema_24, Michelle_23, MiniBagel_26, Monse_19, Mooshroom_21, Mossy_33, MrAaronian_23, Mudcat_21, Muglass_28, Mysticmoon_32, Nadmeg_33, NapoleonB_21, Nason_22, Natasha_23, Navi1117_26, Nightmare_27, Niktson_26, Nithya_32, Nivinsha_26, NoPickles_29, Odesza_29, OhMyWard_32, OlgasClover_32, Paella_40, Pepy6_035, Perkunas_31, PerroGrande22_39, PestoPenguin_35, Petito_31, Phaby_27, Phaila_25, Phepper_32, Pherobrine_31, PherryCruz_18, Pippin15_25, Poco6_036, PoeMe_27, Powelldog_24, ProfFrink_23, Qui_40, RavenPuff_18, Rickmore_31, Roney_29, RosaAsantewaa_19, Runhaar_32, RustyBoy_23, Salk_23, Sangak_19, Schwartz33_33, ScienceWizSam_28, Secretariat_30, Serenabean_25, ShaggyRogers_32, SheRa_19, Shepard_27,

Sloopyjoe_23, Sporto_24, Sprinkle_23, StarLord_23, Stardrop_27, Stayer_23, SweetCrkHerbs_31, Sweetclover_26, Synepsis_25, Tairn4Wing_31, Talon44_30, Tanis_29, Tatanka_26, Teacup_26, TenaciousP_33, Tenney120_26, Tenno_27, Tipton_27, Tokki_27, Tonaltzin_34, Tribby_22, TrixiePhattel_26, Truckee_25, Trufflozitus_32, Trustiboi_27, Untouchable_32, Uzumaki_26, Vardy_32, Westerlin_27, Xenomorph_20, YoshiYama_21, Zeina_26, Zeph_33, Zippen_26,

Genes that have the "Most Annotated" start but do not call it:
• Anandi_29, BarbieDoll_29, Egad_23, Gandionco_41, JeNeSaisPas_39, Jeremy4pt0_22, Kureo_41, Mardi_27, Marianna39_41, Moozy_19, Onestar_23, Raunak_23, Renaldo_31, Scap1_19, Shiba_23, Spain_22, Yotsuba_26,

Genes that do not have the "Most Annotated" start:
• Arzan_22, Bing_24, CherryBlossom_23, ClubPenguin_22, CricKo_21, DrGrey_23, Esketit_23, Espio_24, FidgetOrca_23, FrodoSwaggins_23, FromIndy_22, GermyBearimy_25, GirlPower_22, HazuAndZazu_23, Hoshi_23, IceWarrior_23, Indigenous_23, Jaylociraptor_23, Jazzy4900_24, Kardashian_22, LibertyBell_21, Madamato_23, Maya_23, Meibysrarus_23, Miek_21, Namo_23, OlympicHelado_23, Popy_23, Rainydai_21, Regigigas_22, Rima_23, SendItCS_20, Soshi_23, Spectropatronm_23, Sunny4976_23, TaidaOne_23, Thiqqums_21, TieDye_22, TonyStarch_23, Wigberry_24,

Summary by start number:

Start 2:
• Found in 35 of 258 (13.6%) of genes in pham
• Manual Annotations of this start: 31 of 197
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bing_24 (BI5), CherryBlossom_23 (BI1), CricKo_21 (BI4), DrGrey_23 (BI1), Esketit_23 (BI1), Espio_24 (BI1), FidgetOrca_23 (BI1), FrodoSwaggins_23 (BI1), FromIndy_22 (BI4), GirlPower_22 (BI1), HazuAndZazu_23 (BI1), Hoshi_23 (BI1), IceWarrior_23 (BI1), Indigenous_23 (BI1), Jaylociraptor_23 (BI1), Kardashian_22 (BI6), LibertyBell_21 (BI3), Madamato_23 (BI1), Maya_23 (BI1), Meibysrarus_23 (BI1), Miek_21 (BI4), Namo_23 (BI1), OlympicHelado_23 (BI1), Popy_23 (BI1), Rainydai_21 (BI4), Regigigas_22 (BI4), Rima_23 (BI1), SendItCS_20 (BI4), Soshi_23 (BI1), Spectropatronm_23 (BI1), TaidaOne_23 (BI1), Thiqqums_21 (BI4), TieDye_22 (BI1), TonyStarch_23 (BI1), Wigberry_24 (BI1),

Start 5:
• Found in 4 of 258 (1.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arzan_22 (FI), GermyBearimy_25 (FI), Jazzy4900_24 (FI), Sunny4976_23 (FI),

Start 16:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 197
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ClubPenguin_22 (BI7),

Start 18:

• Found in 128 of 258 (49.6%) of genes in pham
• Manual Annotations of this start: 2 of 197
• Called 3.1% of time when present
• Phage (with cluster) where this start called: BarbieDoll_29 (AU6), Mardi_27 (AU6), Moozy_19 (BI2), Scap1_19 (BI2),

Start 19:
• Found in 218 of 258 (84.5%) of genes in pham
• Manual Annotations of this start: 160 of 197
• Called 92.2% of time when present
• Phage (with cluster) where this start called: Acai_26 (AU1), AddiRose_25 (JA), Aflac_32 (DJ), AlainaMarie_32 (DJ), Aloe25_35 (DJ), Altjira_25 (AU6), Annihilus_19 (BI2), Arataki_31 (DJ), Arcadia_22 (AM), AreFloNak_26 (AU1), Argan_25 (AU6), ArtetaBall_33 (DJ), Artorias_29 (DJ), Avazak_29 (DJ), Barbonzobean_29 (AU6), BenitoAntonio_22 (AM), Benllo_20 (AM), BetterYeti_32 (DJ), Bilo_19 (BI2), Biscute_27 (AU6), Blanky_32 (DJ), BluerMoon_32 (DJ), Boog_23 (AW), Bouchard_27 (AU2), Bowling_22 (AM), Breylor17_27 (AU1), BronxBay_23 (AW), Brunswick_26 (AU1), Bugg_30 (DJ), Burley_32 (DJ), CWormy_32 (DJ), Camille_24 (EL), CapnMurica_26 (AU1), Captrips_29 (DJ), Capybara_29 (DJ), CastorTray_28 (AU1), Caterpillar_24 (AU4), Cheesy_22 (AM), ChickyNuggy_30 (DJ), Chikenjars_32 (DJ), Chlochlo_27 (AU2), Circum_22 (AM), Citrus_31 (DJ), Conley_30 (DJ), Correa_21 (AM), Count_30 (EL), Crocheter_32 (DJ), Daddyjeff_25 (JA), Damascus_24 (EL), Dancer_29 (DJ), Darby_26 (AU1), Demure_31 (DJ), DevitoJr_26 (AU1), Dialga_33 (DJ), Dinallo_27 (AU1), Ditters_19 (BI2), DizzyRudy_24 (EL), Djungelskog_23 (AW), DoctorPepper_23 (AW), Doxi13_19 (BI2), Duffington_32 (DJ), Dynamite_21 (AM), Eddiemania_33 (DJ), Eevee_26 (JA), ElephantMan_26 (AU1), Elsa_22 (AM), Elver_40 (FK), EndAve_32 (DJ), Fazel_30 (DJ), Figliar_32 (DJ), Football_30 (DJ), FortCran_29 (DJ), GantcherGoblin_25 (AU6), Giantsbane_27 (AU2), Gill_29 (DJ), Glintora_32 (DJ), GoCrazy_20 (AM), GoblinVoyage_19 (BI2), Gordon_26 (AU1), Gravy_29 (DJ), Gusicorn_32 (DJ), Hankly_20 (AM), Heisenberger_21 (AM), Hemma_23 (AU1), HerbBucket_22 (AW), Hortihabitatio_32 (DJ), HotFries_18 (BI2), Hydrus_33 (DJ), Ingrid_26 (AU3), Inked_28 (AU7), Issa_26 (AU1), JEGGS_21 (AM), Jodelie19_33 (DJ), JoyLin_26 (JA), JulesRay_29 (DJ), Kardesai_20 (AM), KeaneyLin_20 (AM), Kenosha_32 (DJ), Kerry_29 (DJ), KevinMinion_26 (AU6), Kinny_28 (AU6), Leathea_26 (AU6), Lewando_29 (AU6), LilHuddy_27 (AU2), Linda_23 (AW), Loretta_26 (AU3), LucySwiss_26 (AU1), Luthien_33 (DJ), Madvan_32 (DJ), MajinBuu_32 (DJ), Makai_26 (AU5), MediumFry_24 (AU4), Mema_24 (EL), Michelle_23 (AW), MiniBagel_26 (AU1), Monse_19 (BI2), Mooshroom_21 (AM), Mossy_33 (DJ), MrAaronian_23 (AW), Mudcat_21 (AM), Muglass_28 (AU6), Mysticmoon_32 (DJ), Nadmeg_33 (DJ), NapoleonB_21 (AM), Nason_22 (AM), Natasha_23 (AW), Navi1117_26 (AU6), Nightmare_27 (AU1), Niktson_26 (AU1), Nithya_32 (DJ), Nivinsha_26 (AU1), NoPickles_29 (DJ), Odesza_29 (DJ), OhMyWard_32 (DJ), OlgasClover_32 (DJ), Paella_40 (FK), Pepy6_035 (CC), Perkunas_31 (DJ), PerroGrande22_39 (CC), PestoPenguin_35 (DJ), Petito_31 (DJ), Phaby_27 (AU2), Phaila_25 (AU6), Phepper_32 (DJ), Pherobrine_31 (DJ), PherryCruz_18 (BI2), Pippin15_25 (JA), Poco6_036 (CC), PoeMe_27 (AU6), Powelldog_24 (AW), ProfFrink_23 (AW), Qui_40 (FK), RavenPuff_18 (BI2), Rickmore_31 (DJ), Roney_29 (DJ), RosaAsantewaa_19 (BI2), Runhaar_32 (DJ), RustyBoy_23 (AW), Salk_23 (AW), Sangak_19 (BI2), Schwartz33_33 (DJ), ScienceWizSam_28 (AU1), Secretariat_30 (DJ), Serenabean_25 (JA), ShaggyRogers_32 (DJ), SheRa_19 (BI2), Shepard_27 (AU2), Sloopyjoe_23 (AW), Sporto_24 (AW), Sprinkle_23 (AW), StarLord_23 (AW), Stardrop_27 (AU6), Stayer_23 (AW), SweetCrkHerbs_31 (DJ), Sweetclover_26 (JA),

Synepsis_25 (AU1), Tairn4Wing_31 (DJ), Talon44_30 (DJ), Tanis_29 (DJ), Tatanka_26 (AU1), Teacup_26 (AU1), TenaciousP_33 (DJ), Tenney120_26 (AU6), Tenno_27 (AU1), Tipton_27 (AU2), Tokki_27 (AU2), Tonaltzin_34 (DJ), Tribby_22 (AM), TrixiePhattel_26 (AU6), Truckee_25 (AU5), Trufflozitus_32 (DJ), Trustiboi_27 (AU1), Untouchable_32 (DJ), Uzumaki_26 (AU6), Vardy_32 (DJ), Westerlin_27 (AU1), Xenomorph_20 (AM), YoshiYama_21 (AM), Zeina_26 (AU6), Zeph_33 (DJ), Zippen_26 (AU7),

Start 23:
• Found in 218 of 258 (84.5%) of genes in pham
• Manual Annotations of this start: 3 of 197
• Called 5.5% of time when present
• Phage (with cluster) where this start called: Anandi_29 (AU4), Egad_23 (AW), Gandionco_41 (FK), JeNeSaisPas_39 (FK), Jeremy4pt0_22 (AW), Kureo_41 (FK), Marianna39_41 (FK), Onestar_23 (AW), Raunak_23 (AW), Shiba_23 (AW), Spain_22 (AW), Yotsuba_26 (JA),

Start 34:
• Found in 49 of 258 (19.0%) of genes in pham
• No Manual Annotations of this start.
• Called 2.0% of time when present
• Phage (with cluster) where this start called: Renaldo_31 (AU6),

Summary by clusters:

There are 22 clusters represented in this pham: DJ, FI, FK, JA, AU1, AU3, AU2, AU5, AU4, AU7, AU6, EL, CC, AM, AW, BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster AM:
•Start number 19 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster AU1:
•Start number 19 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:
•Start number 19 was manually annotated 7 times for cluster AU2.

Info for manual annotations of cluster AU3:
•Start number 19 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:
•Start number 19 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:
•Start number 19 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:
•Start number 19 was manually annotated 11 times for cluster AU6.

Info for manual annotations of cluster AU7:
•Start number 19 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

•Start number 19 was manually annotated 16 times for cluster AW.
•Start number 23 was manually annotated 2 times for cluster AW.

Info for manual annotations of cluster BI1:
•Start number 2 was manually annotated 23 times for cluster BI1.

Info for manual annotations of cluster BI2:
•Start number 18 was manually annotated 2 times for cluster BI2.
•Start number 19 was manually annotated 9 times for cluster BI2.

Info for manual annotations of cluster BI3:
•Start number 2 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:
•Start number 2 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:
•Start number 2 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BI6:
•Start number 2 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:
•Start number 16 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster DJ:
•Start number 19 was manually annotated 55 times for cluster DJ.

Info for manual annotations of cluster EL:
•Start number 19 was manually annotated 4 times for cluster EL.

Info for manual annotations of cluster FK:
•Start number 19 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:
•Start number 19 was manually annotated 7 times for cluster JA.
•Start number 23 was manually annotated 1 time for cluster JA.

Gene Information:

Gene: Acai_26 Start: 20116, Stop: 24702, Start Num: 19
Candidate Starts for Acai_26:
(Start: 18 @20095 has 2 MA's), (Start: 19 @20116 has 160 MA's), (Start: 23 @20146 has 3 MA's), (30, 20200), (34, 20221), (40, 20257), (49, 20335), (60, 20395), (66, 20419), (68, 20431), (71, 20461), (74, 20512), (78, 20542), (79, 20584), (80, 20602), (84, 20644), (86, 20674), (88, 20719), (89, 20731), (96, 20785), (99, 20800), (101, 20812), (105, 20833), (119, 20926), (122, 20959), (126, 20974), (132, 21022), (151, 21193), (166, 21307), (167, 21310), (173, 21358), (194, 21472), (201, 21496), (204, 21511), (207, 21523), (222, 21598), (239, 21691), (244, 21706), (246, 21712), (253, 21730), (265, 21802), (283, 21868), (306, 21970), (308, 21976), (316, 22009), (317, 22012), (323, 22039), (343,

22153), (352, 22210), (354, 22222), (366, 22276), (369, 22285), (370, 22288), (376, 22309), (385, 22354), (391, 22375), (408, 22471), (415, 22492), (422, 22513), (424, 22531), (425, 22534), (436, 22585), (441, 22615), (443, 22630), (445, 22642), (474, 22762), (479, 22792), (498, 22870), (501, 22885), (504, 22894), (506, 22906), (511, 22927), (514, 22936), (522, 22981), (523, 22984), (524, 22993), (531, 23014), (538, 23044), (543, 23056), (551, 23077), (553, 23083), (558, 23104), (566, 23128), (567, 23137), (577, 23191), (583, 23206), (586, 23215), (599, 23254), (602, 23266), (604, 23272), (612, 23296), (614, 23305), (634, 23380), (635, 23383), (639, 23401), (657, 23467), (660, 23476), (672, 23530), (673, 23533), (704, 23659), (705, 23662), (711, 23683), (719, 23716), (721, 23725), (734, 23785), (739, 23806), (745, 23839), (753, 23872), (761, 23929), (771, 23989), (776, 24013), (786, 24091), (788, 24103), (811, 24229), (821, 24271), (829, 24319), (836, 24352), (839, 24364), (842, 24370), (845, 24391), (846, 24394), (847, 24400), (855, 24439), (860, 24466), (866, 24493), (905, 24652), (910, 24679),

Gene: AddiRose_25 Start: 18536, Stop: 23140, Start Num: 19
Candidate Starts for AddiRose_25:
(Start: 19 @18536 has 160 MA's), (Start: 23 @18569 has 3 MA's), (43, 18692), (45, 18716), (57, 18806), (61, 18824), (65, 18836), (71, 18881), (75, 18938), (79, 19004), (84, 19064), (92, 19175), (96, 19205), (99, 19220), (118, 19343), (119, 19346), (121, 19367), (126, 19394), (133, 19451), (140, 19541), (150, 19610), (152, 19625), (154, 19646), (157, 19667), (180, 19808), (184, 19829), (187, 19850), (197, 19904), (233, 20093), (324, 20480), (343, 20606), (347, 20636), (369, 20738), (373, 20750), (382, 20789), (422, 20966), (425, 20987), (430, 21011), (431, 21014), (439, 21050), (465, 21179), (480, 21251), (483, 21272), (489, 21290), (498, 21323), (501, 21341), (506, 21362), (508, 21368), (511, 21383), (519, 21422), (527, 21458), (534, 21482), (536, 21491), (540, 21506), (554, 21548), (566, 21590), (567, 21599), (570, 21626), (571, 21629), (578, 21656), (583, 21668), (586, 21677), (605, 21737), (614, 21767), (622, 21794), (663, 21950), (675, 22001), (683, 22037), (693, 22076), (698, 22103), (702, 22115), (707, 22133), (713, 22154), (720, 22181), (725, 22199), (734, 22247), (743, 22289), (768, 22433), (773, 22457), (775, 22466), (776, 22475), (780, 22508), (786, 22553), (796, 22607), (806, 22679), (813, 22703), (825, 22757), (827, 22772), (829, 22781), (831, 22793), (833, 22802), (836, 22814), (838, 22823), (855, 22901), (856, 22904), (870, 22976), (911, 23129),

Gene: Aflac_32 Start: 23512, Stop: 28626, Start Num: 19
Candidate Starts for Aflac_32:
(Start: 19 @23512 has 160 MA's), (Start: 23 @23542 has 3 MA's), (28, 23587), (49, 23731), (61, 23797), (71, 23857), (72, 23878), (79, 23980), (87, 24106), (90, 24142), (96, 24181), (105, 24229), (110, 24271), (117, 24343), (122, 24391), (137, 24517), (145, 24592), (146, 24604), (151, 24625), (163, 24730), (164, 24733), (207, 24955), (220, 25021), (236, 25111), (247, 25147), (260, 25198), (267, 25246), (271, 25258), (300, 25402), (308, 25441), (313, 25468), (343, 25630), (350, 25678), (353, 25693), (354, 25699), (359, 25717), (370, 25765), (385, 25831), (397, 25882), (398, 25894), (401, 25912), (414, 25966), (425, 26011), (429, 26032), (432, 26041), (436, 26062), (440, 26083), (450, 26137), (451, 26140), (454, 26149), (460, 26170), (462, 26182), (466, 26203), (468, 26209), (472, 26227), (479, 26263), (484, 26293), (498, 26341), (501, 26353), (503, 26359), (504, 26362), (506, 26374), (507, 26377), (512, 26398), (519, 26434), (532, 26488), (533, 26491), (538, 26512), (544, 26524), (546, 26527), (560, 26575), (565, 26590), (566, 26593), (567, 26602), (569, 26623), (575, 26650), (576, 26653), (582, 26677), (586, 26689), (592, 26710), (594, 26722), (596, 26731), (600, 26743), (608, 26770), (618, 26803), (620, 26809), (625, 26827), (638, 26881), (642, 26896), (661, 26965), (687, 27076), (716, 27187), (728, 27232), (745, 27322), (770, 27466), (779, 27529), (782, 27556), (794, 27628), (797, 27640), (798, 27649), (804, 27703), (812, 27724), (814, 27736), (848, 27898), (865, 27985), (872, 28003), (883, 28033), (886, 28051), (887, 28054), (891, 28066), (898, 28093), (915, 28204), (923, 28267), (924, 28279), (931, 28327), (941, 28381), (946, 28408), (963, 28522), (976, 28612),

Gene: AlainaMarie_32 Start: 23499, Stop: 28610, Start Num: 19

Candidate Starts for AlainaMarie_32:
(Start: 19 @23499 has 160 MA's), (Start: 23 @23529 has 3 MA's), (28, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105, 24216), (110, 24258), (117, 24330), (122, 24378), (137, 24504), (145, 24579), (146, 24591), (151, 24612), (163, 24717), (164, 24720), (207, 24942), (220, 25008), (221, 25011), (233, 25080), (236, 25098), (260, 25185), (272, 25254), (291, 25356), (293, 25359), (300, 25386), (308, 25425), (313, 25452), (343, 25614), (350, 25662), (354, 25683), (359, 25701), (361, 25716), (370, 25749), (385, 25815), (396, 25863), (397, 25866), (400, 25887), (401, 25896), (414, 25950), (425, 25995), (429, 26016), (432, 26025), (439, 26058), (440, 26067), (443, 26091), (450, 26121), (451, 26124), (454, 26133), (457, 26145), (460, 26154), (462, 26166), (466, 26187), (468, 26193), (479, 26247), (484, 26277), (498, 26325), (501, 26337), (503, 26343), (504, 26346), (507, 26361), (512, 26382), (519, 26418), (532, 26472), (533, 26475), (536, 26487), (538, 26496), (544, 26508), (546, 26511), (551, 26526), (558, 26553), (560, 26559), (565, 26574), (566, 26577), (567, 26586), (568, 26601), (569, 26607), (573, 26622), (575, 26634), (576, 26637), (586, 26673), (592, 26694), (594, 26706), (596, 26715), (600, 26727), (608, 26754), (615, 26778), (618, 26787), (620, 26793), (625, 26811), (642, 26880), (661, 26949), (697, 27105), (745, 27306), (770, 27450), (779, 27513), (782, 27540), (794, 27612), (797, 27624), (798, 27633), (804, 27687), (812, 27708), (814, 27720), (848, 27882), (865, 27969), (872, 27987), (883, 28017), (886, 28035), (887, 28038), (891, 28050), (898, 28077), (915, 28188), (924, 28263), (931, 28311), (941, 28365), (946, 28392), (963, 28506), (976, 28596),

Gene: Aloe25_35 Start: 23289, Stop: 28400, Start Num: 19
Candidate Starts for Aloe25_35:
(Start: 19 @23289 has 160 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (343, 25404), (353, 25467), (354, 25473), (359, 25491), (360, 25497), (366, 25527), (374, 25551), (385, 25605), (392, 25629), (396, 25653), (397, 25656), (400, 25677), (401, 25686), (411, 25731), (414, 25740), (425, 25785), (429, 25806), (432, 25815), (433, 25821), (436, 25836), (438, 25842), (440, 25857), (450, 25911), (451, 25914), (454, 25923), (457, 25935), (460, 25944), (462, 25956), (466, 25977), (468, 25983), (474, 26007), (479, 26037), (481, 26052), (498, 26115), (501, 26127), (503, 26133), (504, 26136), (506, 26148), (507, 26151), (519, 26208), (532, 26262), (533, 26265), (538, 26286), (544, 26298), (546, 26301), (560, 26349), (565, 26364), (566, 26367), (567, 26376), (568, 26391), (569, 26397), (575, 26424), (576, 26427), (578, 26433), (586, 26463), (592, 26484), (594, 26496), (596, 26505), (600, 26517), (608, 26544), (618, 26577), (620, 26583), (625, 26601), (632, 26631), (661, 26739), (682, 26829), (687, 26850), (716, 26961), (728, 27006), (739, 27063), (745, 27096), (770, 27240), (779, 27303), (789, 27369), (794, 27402), (797, 27414), (804, 27477), (812, 27498), (814, 27510), (818, 27531), (848, 27672), (865, 27759), (872, 27777), (883, 27807), (886, 27825), (887, 27828), (888, 27834), (891, 27840), (898, 27867), (915, 27978), (923, 28041), (924, 28053), (935, 28122), (941, 28155), (945, 28179), (963, 28296), (976, 28386),

Gene: Altjira_25 Start: 19696, Stop: 24333, Start Num: 19
Candidate Starts for Altjira_25:
(Start: 18 @19675 has 2 MA's), (Start: 19 @19696 has 160 MA's), (Start: 23 @19726 has 3 MA's), (30, 19780), (31, 19789), (61, 20059), (62, 20062), (71, 20119), (72, 20140), (78, 20200), (79, 20242), (84, 20302), (96, 20443), (99, 20458), (105, 20491), (109, 20530), (110, 20533), (117, 20569), (119, 20584), (126, 20632), (163, 20956), (164, 20959), (167, 20968), (175, 21028), (185, 21070), (194, 21130), (195, 21136), (198, 21145), (203, 21160), (204, 21169), (224, 21268), (225, 21280), (226, 21289), (228, 21301), (301, 21586), (317, 21655), (343, 21796), (350, 21844), (357, 21874), (366, 21919), (369, 21928), (376, 21952), (380, 21970), (390, 22015), (391, 22018), (394, 22027), (404, 22093), (415, 22135), (422, 22156), (425, 22177), (436, 22228), (441, 22258), (443, 22273), (454, 22315), (459, 22333), (468, 22381), (469, 22384), (480, 22441), (485, 22468), (506, 22549), (509,

22558), (519, 22609), (527, 22645), (536, 22678), (538, 22687), (543, 22699), (551, 22720), (558, 22747), (566, 22771), (567, 22780), (583, 22849), (584, 22852), (585, 22855), (586, 22858), (596, 22888), (602, 22909), (609, 22930), (614, 22948), (617, 22957), (622, 22975), (637, 23035), (645, 23068), (652, 23092), (665, 23137), (671, 23170), (672, 23173), (673, 23176), (678, 23194), (707, 23314), (708, 23317), (713, 23335), (715, 23344), (719, 23359), (735, 23434), (736, 23437), (751, 23506), (758, 23560), (761, 23572), (780, 23689), (786, 23734), (795, 23782), (822, 23917), (823, 23920), (825, 23938), (829, 23962), (842, 24013), (855, 24082), (858, 24100),

Gene: Anandi_29 Start: 20696, Stop: 25264, Start Num: 23
Candidate Starts for Anandi_29:
(Start: 18 @20645 has 2 MA's), (Start: 19 @20666 has 160 MA's), (Start: 23 @20696 has 3 MA's), (30, 20750), (40, 20807), (46, 20855), (60, 20945), (66, 20969), (71, 21011), (78, 21092), (79, 21134), (80, 21152), (84, 21194), (86, 21224), (88, 21269), (89, 21281), (93, 21320), (96, 21335), (99, 21350), (105, 21383), (117, 21461), (119, 21476), (122, 21509), (126, 21524), (127, 21533), (132, 21572), (151, 21743), (158, 21812), (159, 21815), (167, 21860), (172, 21902), (175, 21920), (184, 21959), (188, 21980), (189, 21983), (192, 22010), (204, 22061), (210, 22085), (233, 22211), (257, 22310), (288, 22445), (298, 22490), (316, 22568), (337, 22652), (343, 22703), (359, 22790), (364, 22817), (369, 22835), (376, 22859), (385, 22904), (391, 22925), (398, 22967), (404, 23000), (405, 23003), (422, 23063), (425, 23084), (443, 23180), (444, 23183), (449, 23207), (450, 23210), (461, 23249), (470, 23297), (474, 23312), (481, 23357), (482, 23360), (486, 23378), (488, 23384), (489, 23387), (501, 23435), (504, 23444), (505, 23450), (511, 23477), (522, 23531), (523, 23534), (527, 23552), (538, 23594), (543, 23609), (549, 23618), (551, 23630), (556, 23651), (558, 23657), (559, 23660), (562, 23669), (566, 23681), (567, 23690), (577, 23744), (578, 23747), (585, 23765), (586, 23768), (597, 23801), (599, 23807), (604, 23825), (606, 23831), (614, 23858), (625, 23894), (633, 23930), (635, 23936), (639, 23954), (641, 23960), (645, 23978), (653, 24005), (657, 24020), (666, 24050), (667, 24056), (672, 24083), (673, 24086), (683, 24128), (693, 24167), (704, 24212), (705, 24215), (721, 24278), (724, 24287), (734, 24338), (743, 24380), (744, 24389), (745, 24392), (748, 24404), (765, 24512), (780, 24599), (786, 24644), (787, 24647), (802, 24734), (813, 24794), (821, 24824), (829, 24872), (831, 24884), (833, 24893), (839, 24917), (855, 24992), (858, 25010), (860, 25019), (866, 25046), (905, 25208),

Gene: Annihilus_19 Start: 13516, Stop: 18744, Start Num: 19
Candidate Starts for Annihilus_19:
(Start: 18 @13495 has 2 MA's), (Start: 19 @13516 has 160 MA's), (Start: 23 @13546 has 3 MA's), (42, 13648), (45, 13699), (61, 13807), (79, 13990), (87, 14116), (90, 14152), (96, 14191), (110, 14281), (154, 14668), (177, 14818), (182, 14842), (194, 14914), (243, 15145), (265, 15223), (270, 15241), (273, 15244), (279, 15277), (305, 15385), (321, 15445), (343, 15526), (354, 15595), (366, 15649), (388, 15736), (389, 15739), (391, 15748), (410, 15850), (422, 15886), (425, 15904), (436, 15955), (458, 16057), (461, 16069), (463, 16084), (478, 16153), (479, 16162), (484, 16192), (497, 16237), (503, 16258), (510, 16288), (513, 16300), (514, 16303), (518, 16324), (519, 16333), (527, 16369), (536, 16402), (563, 16486), (570, 16531), (571, 16534), (572, 16537), (586, 16582), (596, 16612), (610, 16657), (614, 16672), (624, 16705), (629, 16726), (631, 16735), (633, 16744), (639, 16768), (640, 16771), (643, 16780), (648, 16801), (651, 16813), (659, 16840), (668, 16879), (673, 16900), (681, 16936), (683, 16942), (717, 17074), (719, 17083), (721, 17092), (724, 17101), (725, 17104), (728, 17116), (729, 17119), (730, 17128), (732, 17137), (751, 17230), (758, 17284), (786, 17392), (789, 17407), (796, 17446), (799, 17461), (826, 17605), (874, 17839), (894, 17914), (936, 18193), (937, 18196), (939, 18217), (948, 18265), (950, 18271), (964, 18379), (968, 18424), (972, 18451), (981, 18553), (994, 18706),

Gene: Arataki_31 Start: 22605, Stop: 27719, Start Num: 19
Candidate Starts for Arataki_31:
(Start: 19 @22605 has 160 MA's), (Start: 23 @22635 has 3 MA's), (28, 22680), (49, 22824), (56, 22869), (57, 22872), (60, 22884), (61, 22890), (71, 22950), (72, 22971), (79, 23073), (81, 23109), (87,

23199), (96, 23274), (101, 23301), (105, 23322), (108, 23346), (110, 23364), (122, 23484), (139, 23640), (145, 23685), (151, 23718), (163, 23823), (164, 23826), (174, 23892), (177, 23901), (204, 24036), (220, 24114), (236, 24204), (260, 24291), (267, 24339), (283, 24414), (300, 24495), (308, 24534), (313, 24561), (339, 24702), (343, 24723), (353, 24786), (354, 24792), (359, 24810), (360, 24816), (370, 24858), (374, 24870), (376, 24879), (385, 24924), (395, 24966), (397, 24975), (398, 24987), (400, 24996), (401, 25005), (414, 25059), (425, 25104), (429, 25125), (432, 25134), (437, 25158), (438, 25161), (439, 25167), (450, 25230), (451, 25233), (454, 25242), (457, 25254), (459, 25260), (460, 25263), (462, 25275), (466, 25296), (468, 25302), (469, 25305), (474, 25326), (479, 25356), (481, 25371), (484, 25386), (498, 25434), (501, 25446), (503, 25452), (504, 25455), (506, 25467), (507, 25470), (519, 25527), (532, 25581), (538, 25605), (544, 25617), (546, 25620), (559, 25665), (560, 25668), (565, 25683), (566, 25686), (567, 25695), (568, 25710), (569, 25716), (570, 25722), (575, 25743), (576, 25746), (580, 25758), (583, 25773), (586, 25782), (592, 25803), (594, 25815), (600, 25836), (608, 25863), (618, 25896), (620, 25902), (625, 25920), (632, 25950), (642, 25989), (661, 26058), (690, 26181), (708, 26250), (728, 26325), (745, 26415), (770, 26559), (779, 26622), (789, 26688), (794, 26721), (797, 26733), (804, 26796), (812, 26817), (814, 26829), (818, 26850), (848, 26991), (865, 27078), (872, 27096), (883, 27126), (886, 27144), (887, 27147), (891, 27159), (898, 27186), (915, 27297), (924, 27372), (935, 27441), (941, 27474), (945, 27498), (963, 27615), (976, 27705),

Gene: Arcadia_22 Start: 17670, Stop: 22148, Start Num: 19
Candidate Starts for Arcadia_22:
(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 160 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133, 18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (343, 19668), (350, 19716), (361, 19770), (364, 19782), (366, 19791), (369, 19800), (376, 19824), (385, 19869), (391, 19890), (404, 19965), (412, 19998), (422, 20028), (425, 20049), (429, 20070), (441, 20130), (442, 20136), (450, 20175), (451, 20178), (456, 20193), (469, 20256), (474, 20277), (479, 20307), (484, 20337), (490, 20355), (501, 20403), (507, 20427), (511, 20445), (514, 20454), (515, 20463), (517, 20469), (520, 20490), (527, 20520), (536, 20553), (537, 20559), (538, 20562), (543, 20574), (551, 20595), (566, 20646), (567, 20655), (571, 20685), (573, 20691), (583, 20724), (586, 20733), (596, 20763), (599, 20772), (602, 20784), (614, 20823), (622, 20850), (624, 20856), (625, 20859), (628, 20874), (635, 20901), (639, 20919), (643, 20931), (652, 20967), (678, 21069), (693, 21132), (701, 21168), (702, 21171), (704, 21177), (708, 21192), (713, 21210), (719, 21234), (723, 21249), (724, 21252), (729, 21270), (734, 21303), (739, 21324), (751, 21381), (758, 21435), (760, 21444), (780, 21498), (783, 21525), (786, 21543), (795, 21591), (796, 21597), (806, 21669), (825, 21747), (827, 21762), (835, 21801), (842, 21825), (854, 21894), (858, 21915), (881, 22008), (911, 22137),

Gene: AreFloNak_26 Start: 20074, Stop: 24663, Start Num: 19
Candidate Starts for AreFloNak_26:
(Start: 18 @20053 has 2 MA's), (Start: 19 @20074 has 160 MA's), (Start: 23 @20104 has 3 MA's), (30, 20158), (34, 20179), (40, 20215), (49, 20293), (60, 20353), (66, 20377), (68, 20389), (71, 20419), (74, 20470), (78, 20500), (79, 20542), (80, 20560), (84, 20602), (86, 20632), (88, 20677), (89, 20689), (96, 20743), (99, 20758), (101, 20770), (105, 20791), (119, 20884), (122, 20917), (126, 20932), (132, 20980), (151, 21151), (166, 21265), (167, 21268), (194, 21430), (201, 21454), (204, 21469), (207, 21481), (222, 21556), (239, 21649), (244, 21664), (246, 21670), (253, 21688), (265, 21760), (278, 21811), (283, 21826), (290, 21856), (306, 21928), (308, 21934), (316, 21967), (317, 21970), (323, 21997), (343, 22111), (352, 22168), (354, 22180), (366, 22234), (369, 22243), (370, 22246), (376, 22267), (385, 22312), (391, 22333), (398, 22375), (401, 22393), (415, 22450), (422, 22471), (425, 22492), (441, 22573), (443, 22588), (444, 22591), (450, 22618), (451, 22621), (463, 22672), (479, 22750), (481, 22765), (482, 22768), (486, 22786), (488, 22792), (490, 22798), (493, 22807), (501,

22843), (504, 22852), (511, 22885), (522, 22939), (523, 22942), (527, 22960), (531, 22972), (538, 23002), (543, 23017), (549, 23026), (551, 23038), (556, 23059), (567, 23098), (578, 23155), (583, 23167), (586, 23176), (599, 23215), (602, 23227), (612, 23257), (614, 23266), (625, 23302), (634, 23341), (635, 23344), (639, 23362), (641, 23368), (657, 23428), (660, 23437), (672, 23491), (673, 23494), (676, 23503), (704, 23620), (705, 23623), (711, 23644), (719, 23677), (720, 23680), (721, 23686), (724, 23695), (730, 23722), (739, 23767), (753, 23833), (759, 23884), (761, 23890), (771, 23950), (783, 24034), (786, 24052), (788, 24064), (819, 24223), (821, 24232), (829, 24280), (836, 24313), (839, 24325), (842, 24331), (845, 24352), (846, 24355), (847, 24361), (855, 24400), (860, 24427), (905, 24613), (910, 24640),

Gene: Argan_25 Start: 18963, Stop: 23600, Start Num: 19
Candidate Starts for Argan_25:
(Start: 18 @18942 has 2 MA's), (Start: 19 @18963 has 160 MA's), (Start: 23 @18993 has 3 MA's), (30, 19047), (31, 19056), (61, 19326), (62, 19329), (71, 19386), (72, 19407), (78, 19467), (79, 19509), (84, 19569), (88, 19644), (96, 19710), (99, 19725), (105, 19758), (109, 19797), (110, 19800), (117, 19836), (119, 19851), (126, 19899), (146, 20097), (157, 20172), (164, 20226), (167, 20235), (175, 20295), (185, 20337), (194, 20397), (195, 20403), (198, 20412), (203, 20427), (204, 20436), (224, 20535), (225, 20547), (228, 20568), (301, 20853), (313, 20913), (317, 20922), (343, 21063), (350, 21111), (351, 21117), (355, 21135), (357, 21141), (366, 21186), (369, 21195), (376, 21219), (380, 21237), (390, 21282), (391, 21285), (394, 21294), (404, 21360), (415, 21402), (419, 21414), (422, 21423), (425, 21444), (436, 21495), (441, 21525), (443, 21540), (454, 21582), (459, 21600), (468, 21648), (469, 21651), (480, 21708), (506, 21816), (509, 21825), (519, 21876), (527, 21912), (536, 21945), (538, 21954), (543, 21966), (551, 21987), (558, 22014), (566, 22038), (567, 22047), (583, 22116), (584, 22119), (585, 22122), (586, 22125), (596, 22155), (602, 22176), (609, 22197), (614, 22215), (617, 22224), (622, 22242), (637, 22302), (645, 22335), (649, 22350), (651, 22356), (652, 22359), (665, 22404), (672, 22440), (673, 22443), (675, 22449), (678, 22461), (679, 22464), (707, 22581), (708, 22584), (713, 22602), (722, 22638), (732, 22680), (736, 22704), (751, 22773), (758, 22827), (761, 22839), (780, 22956), (786, 23001), (822, 23184), (825, 23205), (829, 23229), (842, 23280), (855, 23349), (856, 23352), (858, 23367),

Gene: ArtetaBall_33 Start: 23642, Stop: 28753, Start Num: 19
Candidate Starts for ArtetaBall_33:
(Start: 19 @23642 has 160 MA's), (Start: 23 @23672 has 3 MA's), (28, 23717), (49, 23861), (61, 23927), (71, 23987), (72, 24008), (79, 24110), (87, 24236), (90, 24272), (96, 24311), (101, 24338), (105, 24359), (110, 24401), (120, 24500), (122, 24521), (137, 24647), (145, 24722), (146, 24734), (151, 24755), (163, 24860), (164, 24863), (233, 25223), (260, 25328), (272, 25397), (277, 25418), (291, 25499), (293, 25502), (300, 25529), (308, 25568), (313, 25595), (343, 25757), (350, 25805), (354, 25826), (359, 25844), (370, 25892), (374, 25904), (385, 25958), (397, 26009), (398, 26021), (400, 26030), (401, 26039), (425, 26138), (429, 26159), (432, 26168), (437, 26192), (438, 26195), (439, 26201), (450, 26264), (451, 26267), (454, 26276), (459, 26294), (460, 26297), (462, 26309), (466, 26330), (468, 26336), (469, 26339), (474, 26360), (479, 26390), (481, 26405), (484, 26420), (498, 26468), (501, 26480), (503, 26486), (504, 26489), (506, 26501), (507, 26504), (519, 26561), (532, 26615), (538, 26639), (544, 26651), (546, 26654), (559, 26699), (560, 26702), (565, 26717), (566, 26720), (567, 26729), (568, 26744), (569, 26750), (570, 26756), (575, 26777), (576, 26780), (580, 26792), (583, 26807), (586, 26816), (592, 26837), (594, 26849), (600, 26870), (608, 26897), (618, 26930), (620, 26936), (625, 26954), (632, 26984), (642, 27023), (708, 27284), (728, 27359), (745, 27449), (770, 27593), (779, 27656), (789, 27722), (794, 27755), (797, 27767), (804, 27830), (812, 27851), (814, 27863), (818, 27884), (830, 27941), (848, 28025), (865, 28112), (872, 28130), (883, 28160), (886, 28178), (887, 28181), (888, 28187), (891, 28193), (898, 28220), (915, 28331), (924, 28406), (935, 28475), (941, 28508), (945, 28532), (963, 28649), (976, 28739),

Gene: Artorias_29 Start: 20505, Stop: 25607, Start Num: 19
Candidate Starts for Artorias_29:

(Start: 19 @20505 has 160 MA's), (Start: 23 @20535 has 3 MA's), (44, 20673), (48, 20718), (49, 20724), (51, 20733), (53, 20748), (56, 20769), (61, 20790), (68, 20820), (71, 20850), (72, 20871), (79, 20973), (84, 21033), (88, 21108), (89, 21120), (92, 21144), (96, 21174), (99, 21189), (105, 21222), (110, 21264), (115, 21315), (124, 21369), (125, 21372), (135, 21471), (138, 21495), (151, 21591), (163, 21696), (164, 21699), (175, 21768), (177, 21774), (178, 21780), (213, 21957), (224, 22008), (233, 22059), (247, 22113), (248, 22116), (300, 22368), (301, 22371), (318, 22446), (331, 22503), (341, 22587), (343, 22596), (356, 22671), (359, 22683), (361, 22698), (362, 22701), (367, 22722), (380, 22770), (385, 22797), (391, 22818), (394, 22827), (397, 22848), (398, 22860), (400, 22869), (401, 22878), (414, 22932), (415, 22935), (422, 22956), (429, 22998), (435, 23025), (438, 23034), (440, 23049), (441, 23058), (443, 23073), (445, 23085), (447, 23094), (457, 23127), (460, 23136), (478, 23220), (479, 23229), (481, 23244), (482, 23247), (486, 23265), (498, 23307), (504, 23328), (507, 23343), (509, 23349), (517, 23385), (519, 23400), (533, 23457), (536, 23469), (538, 23478), (544, 23490), (550, 23502), (551, 23508), (556, 23529), (560, 23541), (566, 23559), (567, 23568), (568, 23583), (569, 23589), (572, 23601), (582, 23643), (583, 23646), (586, 23655), (592, 23676), (594, 23688), (608, 23736), (611, 23745), (618, 23769), (620, 23775), (625, 23793), (626, 23802), (632, 23823), (650, 23892), (655, 23910), (661, 23931), (702, 24102), (716, 24153), (747, 24297), (758, 24366), (770, 24432), (778, 24483), (797, 24606), (804, 24669), (817, 24717), (818, 24723), (820, 24732), (830, 24780), (845, 24852), (857, 24912), (862, 24933), (863, 24936), (873, 24987), (875, 24996), (883, 25014), (887, 25035), (891, 25047), (909, 25140), (915, 25185), (924, 25260), (926, 25278), (929, 25299), (945, 25386), (962, 25497), (976, 25593),

Gene: Arzan_22 Start: 17242, Stop: 22302, Start Num: 5
Candidate Starts for Arzan_22:
(5, 17242), (7, 17272), (11, 17326), (13, 17347), (31, 17554), (32, 17560), (33, 17563), (49, 17683), (55, 17716), (61, 17749), (69, 17788), (72, 17830), (77, 17881), (79, 17932), (87, 18058), (89, 18079), (96, 18133), (102, 18163), (119, 18265), (121, 18286), (127, 18322), (132, 18361), (145, 18499), (151, 18532), (159, 18604), (161, 18625), (163, 18637), (164, 18640), (172, 18691), (179, 18724), (185, 18751), (187, 18769), (204, 18850), (212, 18949), (216, 18985), (221, 19021), (227, 19066), (245, 19171), (266, 19306), (293, 19468), (294, 19471), (303, 19531), (314, 19594), (315, 19600), (336, 19714), (343, 19768), (347, 19798), (355, 19840), (358, 19852), (368, 19897), (369, 19900), (372, 19909), (376, 19924), (385, 19969), (391, 19990), (394, 19999), (400, 20041), (422, 20128), (429, 20170), (443, 20245), (454, 20287), (466, 20347), (474, 20377), (490, 20455), (493, 20464), (499, 20494), (506, 20524), (527, 20620), (535, 20647), (536, 20653), (538, 20662), (543, 20674), (544, 20677), (551, 20695), (556, 20716), (566, 20746), (567, 20755), (578, 20812), (580, 20818), (586, 20833), (592, 20848), (599, 20872), (601, 20878), (609, 20905), (611, 20911), (614, 20923), (635, 21001), (637, 21010), (647, 21049), (648, 21052), (655, 21079), (663, 21106), (668, 21130), (681, 21187), (683, 21193), (684, 21202), (706, 21283), (721, 21343), (723, 21349), (724, 21352), (732, 21388), (734, 21403), (775, 21622), (786, 21709), (800, 21778), (819, 21880), (822, 21892), (825, 21913), (833, 21958), (837, 21976), (842, 21991), (847, 22021), (854, 22060), (907, 22276),

Gene: Avazak_29 Start: 20512, Stop: 25614, Start Num: 19
Candidate Starts for Avazak_29:
(Start: 19 @20512 has 160 MA's), (Start: 23 @20542 has 3 MA's), (44, 20680), (48, 20725), (49, 20731), (51, 20740), (53, 20755), (56, 20776), (61, 20797), (68, 20827), (71, 20857), (72, 20878), (79, 20980), (84, 21040), (88, 21115), (89, 21127), (92, 21151), (96, 21181), (99, 21196), (105, 21229), (110, 21271), (115, 21322), (124, 21376), (125, 21379), (135, 21478), (138, 21502), (143, 21538), (151, 21598), (163, 21703), (164, 21706), (175, 21775), (177, 21781), (178, 21787), (213, 21964), (224, 22015), (233, 22066), (247, 22120), (248, 22123), (276, 22255), (283, 22294), (300, 22375), (301, 22378), (318, 22453), (331, 22510), (341, 22594), (343, 22603), (356, 22678), (359, 22690), (361, 22705), (362, 22708), (367, 22729), (380, 22777), (385, 22804), (391, 22825), (394, 22834), (397, 22855), (398, 22867), (400, 22876), (401, 22885), (415, 22942), (422, 22963), (425, 22984), (429, 23005), (435, 23032), (438, 23041), (440, 23056), (441, 23065), (443, 23080), (445, 23092), (447, 23101), (457, 23134), (460, 23143), (478, 23227), (479, 23236), (481, 23251), (486, 23272),

(498, 23314), (504, 23335), (507, 23350), (517, 23392), (519, 23407), (533, 23464), (536, 23476), (538, 23485), (544, 23497), (550, 23509), (551, 23515), (556, 23536), (560, 23548), (563, 23557), (566, 23566), (567, 23575), (568, 23590), (569, 23596), (572, 23608), (578, 23632), (582, 23650), (586, 23662), (592, 23683), (594, 23695), (608, 23743), (611, 23752), (618, 23776), (620, 23782), (621, 23785), (625, 23800), (626, 23809), (627, 23812), (632, 23830), (650, 23899), (661, 23938), (702, 24109), (716, 24160), (747, 24304), (758, 24373), (770, 24439), (778, 24490), (797, 24613), (804, 24676), (817, 24724), (818, 24730), (820, 24739), (830, 24787), (845, 24859), (857, 24919), (862, 24940), (863, 24943), (873, 24994), (875, 25003), (883, 25021), (887, 25042), (891, 25054), (909, 25147), (915, 25192), (924, 25267), (926, 25285), (929, 25306), (945, 25393), (962, 25504), (976, 25600),

Gene: BarbieDoll_29 Start: 20909, Stop: 25573, Start Num: 18
Candidate Starts for BarbieDoll_29:
(Start: 18 @20909 has 2 MA's), (Start: 19 @20930 has 160 MA's), (Start: 23 @20960 has 3 MA's), (30, 21014), (34, 21035), (40, 21071), (49, 21239), (60, 21299), (71, 21365), (72, 21386), (79, 21488), (80, 21506), (84, 21548), (88, 21623), (89, 21635), (96, 21689), (99, 21704), (105, 21737), (117, 21815), (119, 21830), (131, 21920), (137, 21989), (151, 22097), (157, 22151), (163, 22202), (164, 22205), (175, 22274), (185, 22316), (194, 22376), (195, 22382), (198, 22391), (203, 22406), (204, 22415), (220, 22493), (224, 22514), (225, 22526), (228, 22547), (281, 22754), (289, 22778), (301, 22832), (317, 22901), (343, 23042), (355, 23114), (357, 23120), (366, 23165), (368, 23171), (369, 23174), (376, 23198), (380, 23216), (391, 23264), (394, 23273), (415, 23381), (422, 23402), (425, 23423), (435, 23471), (441, 23504), (443, 23519), (459, 23579), (481, 23696), (506, 23795), (507, 23798), (519, 23855), (522, 23870), (524, 23882), (527, 23891), (536, 23924), (538, 23933), (543, 23945), (566, 24017), (567, 24026), (575, 24074), (583, 24095), (585, 24101), (586, 24104), (605, 24164), (614, 24194), (617, 24203), (639, 24290), (640, 24293), (641, 24296), (645, 24314), (649, 24329), (654, 24344), (657, 24356), (665, 24383), (672, 24419), (673, 24422), (675, 24428), (678, 24440), (690, 24494), (698, 24530), (708, 24563), (713, 24581), (719, 24605), (720, 24608), (726, 24629), (741, 24710), (748, 24740), (751, 24752), (758, 24806), (761, 24818), (780, 24935), (786, 24980), (799, 25049), (825, 25184), (829, 25208), (839, 25253), (842, 25259), (849, 25298), (855, 25328), (858, 25346),

Gene: Barbonzobean_29 Start: 20527, Stop: 25158, Start Num: 19
Candidate Starts for Barbonzobean_29:
(Start: 18 @20506 has 2 MA's), (Start: 19 @20527 has 160 MA's), (Start: 23 @20557 has 3 MA's), (30, 20611), (34, 20632), (40, 20668), (49, 20836), (60, 20896), (71, 20962), (72, 20983), (79, 21085), (80, 21103), (84, 21145), (88, 21220), (89, 21232), (96, 21286), (99, 21301), (105, 21334), (117, 21412), (119, 21427), (131, 21517), (137, 21586), (146, 21673), (151, 21694), (157, 21748), (163, 21799), (164, 21802), (175, 21871), (185, 21913), (194, 21973), (195, 21979), (198, 21988), (203, 22003), (204, 22012), (224, 22111), (225, 22123), (228, 22144), (281, 22351), (289, 22375), (301, 22429), (317, 22498), (343, 22636), (351, 22690), (355, 22708), (357, 22714), (366, 22759), (368, 22765), (369, 22768), (376, 22792), (380, 22810), (391, 22858), (394, 22867), (398, 22900), (415, 22975), (422, 22996), (425, 23017), (435, 23065), (441, 23098), (443, 23113), (459, 23173), (481, 23290), (506, 23389), (507, 23392), (519, 23449), (524, 23476), (527, 23485), (536, 23518), (538, 23527), (543, 23539), (551, 23560), (556, 23581), (558, 23587), (567, 23620), (571, 23650), (586, 23698), (596, 23728), (605, 23758), (614, 23788), (617, 23797), (639, 23884), (640, 23887), (641, 23890), (645, 23908), (649, 23923), (654, 23938), (665, 23977), (671, 24010), (673, 24016), (675, 24022), (678, 24034), (690, 24088), (698, 24124), (707, 24154), (708, 24157), (713, 24175), (719, 24199), (720, 24202), (741, 24304), (748, 24334), (751, 24346), (761, 24412), (780, 24529), (786, 24574), (825, 24778), (829, 24802), (839, 24847), (842, 24853), (849, 24892), (855, 24922), (858, 24940),

Gene: BenitoAntonio_22 Start: 17286, Stop: 21764, Start Num: 19
Candidate Starts for BenitoAntonio_22:

(Start: 18 @17265 has 2 MA's), (Start: 19 @17286 has 160 MA's), (Start: 23 @17316 has 3 MA's), (26, 17349), (30, 17370), (68, 17601), (71, 17631), (78, 17712), (79, 17754), (80, 17772), (84, 17814), (89, 17901), (96, 17955), (99, 17970), (105, 18003), (117, 18081), (119, 18096), (126, 18144), (133, 18201), (137, 18255), (138, 18267), (145, 18330), (151, 18363), (164, 18471), (174, 18537), (182, 18570), (184, 18579), (187, 18600), (246, 18882), (259, 18927), (260, 18936), (302, 19095), (310, 19128), (317, 19155), (343, 19284), (357, 19362), (366, 19407), (369, 19416), (373, 19428), (376, 19440), (382, 19467), (385, 19485), (391, 19506), (404, 19581), (408, 19602), (409, 19605), (412, 19614), (422, 19644), (429, 19686), (441, 19746), (442, 19752), (443, 19761), (451, 19794), (455, 19806), (456, 19809), (467, 19866), (469, 19872), (474, 19893), (479, 19923), (484, 19953), (490, 19971), (501, 20019), (507, 20043), (511, 20061), (514, 20070), (517, 20085), (520, 20106), (527, 20136), (536, 20169), (537, 20175), (538, 20178), (543, 20190), (551, 20211), (566, 20262), (567, 20271), (571, 20301), (573, 20307), (583, 20340), (586, 20349), (596, 20379), (599, 20388), (602, 20400), (614, 20439), (622, 20466), (624, 20472), (625, 20475), (635, 20517), (643, 20547), (652, 20583), (678, 20685), (693, 20748), (701, 20784), (702, 20787), (704, 20793), (708, 20808), (713, 20826), (719, 20850), (723, 20865), (724, 20868), (729, 20886), (734, 20919), (739, 20940), (751, 20997), (758, 21051), (760, 21060), (780, 21114), (783, 21141), (786, 21159), (795, 21207), (796, 21213), (806, 21285), (825, 21363), (827, 21378), (835, 21417), (842, 21441), (854, 21510), (858, 21531), (881, 21624), (911, 21753),

Gene: Benllo_20 Start: 17570, Stop: 22048, Start Num: 19
Candidate Starts for Benllo_20:
(Start: 18 @17549 has 2 MA's), (Start: 19 @17570 has 160 MA's), (Start: 23 @17600 has 3 MA's), (26, 17633), (30, 17654), (68, 17885), (71, 17915), (78, 17996), (79, 18038), (80, 18056), (84, 18098), (89, 18185), (96, 18239), (99, 18254), (105, 18287), (117, 18365), (119, 18380), (126, 18428), (128, 18443), (133, 18485), (141, 18581), (145, 18614), (151, 18647), (164, 18755), (174, 18821), (182, 18854), (184, 18863), (185, 18866), (187, 18884), (246, 19166), (255, 19190), (260, 19220), (302, 19379), (317, 19439), (343, 19568), (350, 19616), (357, 19646), (361, 19670), (364, 19682), (366, 19691), (369, 19700), (376, 19724), (385, 19769), (391, 19790), (404, 19865), (412, 19898), (422, 19928), (425, 19949), (429, 19970), (441, 20030), (442, 20036), (450, 20075), (456, 20093), (474, 20177), (479, 20207), (484, 20237), (490, 20255), (501, 20303), (507, 20327), (511, 20345), (514, 20354), (515, 20363), (517, 20369), (520, 20390), (527, 20420), (536, 20453), (537, 20459), (542, 20468), (551, 20495), (558, 20522), (567, 20555), (570, 20582), (572, 20588), (579, 20615), (586, 20633), (596, 20663), (599, 20672), (602, 20684), (604, 20690), (605, 20693), (609, 20705), (614, 20723), (622, 20750), (624, 20756), (641, 20825), (648, 20852), (652, 20867), (678, 20969), (701, 21068), (702, 21071), (704, 21077), (708, 21092), (713, 21110), (723, 21149), (724, 21152), (729, 21170), (734, 21203), (739, 21224), (751, 21281), (758, 21335), (760, 21344), (780, 21398), (783, 21425), (786, 21443), (795, 21491), (796, 21497), (806, 21569), (825, 21647), (831, 21683), (835, 21701), (842, 21725), (846, 21749), (854, 21794), (858, 21815), (911, 22037),

Gene: BetterYeti_32 Start: 23289, Stop: 28400, Start Num: 19
Candidate Starts for BetterYeti_32:
(Start: 19 @23289 has 160 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (343, 25404), (353, 25467), (354, 25473), (359, 25491), (360, 25497), (366, 25527), (374, 25551), (385, 25605), (392, 25629), (396, 25653), (397, 25656), (400, 25677), (401, 25686), (411, 25731), (414, 25740), (425, 25785), (429, 25806), (432, 25815), (433, 25821), (436, 25836), (438, 25842), (440, 25857), (450, 25911), (451, 25914), (454, 25923), (457, 25935), (460, 25944), (462, 25956), (466, 25977), (468, 25983), (474, 26007), (479, 26037), (481, 26052), (498, 26115), (501, 26127), (503, 26133), (504, 26136), (506, 26148), (507, 26151), (519, 26208), (532, 26262), (533, 26265), (538, 26286), (544, 26298), (546, 26301), (560, 26349), (565, 26364), (566, 26367), (567, 26376), (568, 26391), (569, 26397),

(575, 26424), (576, 26427), (578, 26433), (586, 26463), (592, 26484), (594, 26496), (596, 26505), (600, 26517), (608, 26544), (618, 26577), (620, 26583), (625, 26601), (632, 26631), (661, 26739), (682, 26829), (687, 26850), (716, 26961), (728, 27006), (739, 27063), (745, 27096), (770, 27240), (779, 27303), (789, 27369), (794, 27402), (797, 27414), (804, 27477), (812, 27498), (814, 27510), (818, 27531), (848, 27672), (865, 27759), (872, 27777), (883, 27807), (886, 27825), (887, 27828), (888, 27834), (891, 27840), (898, 27867), (915, 27978), (923, 28041), (924, 28053), (935, 28122), (941, 28155), (945, 28179), (963, 28296), (976, 28386),

Gene: Bilo_19 Start: 14007, Stop: 19235, Start Num: 19
Candidate Starts for Bilo_19:
(Start: 18 @13986 has 2 MA's), (Start: 19 @14007 has 160 MA's), (Start: 23 @14037 has 3 MA's), (45, 14190), (60, 14292), (61, 14298), (79, 14481), (85, 14562), (87, 14607), (90, 14643), (96, 14682), (103, 14715), (108, 14754), (110, 14772), (154, 15159), (177, 15309), (182, 15333), (194, 15405), (243, 15636), (258, 15684), (265, 15714), (270, 15732), (279, 15768), (343, 16017), (354, 16086), (369, 16149), (376, 16173), (389, 16230), (391, 16239), (398, 16281), (410, 16341), (412, 16347), (414, 16353), (422, 16377), (432, 16425), (458, 16548), (468, 16599), (478, 16644), (479, 16653), (484, 16683), (497, 16728), (503, 16749), (513, 16791), (514, 16794), (518, 16815), (519, 16824), (527, 16860), (536, 16893), (570, 17022), (572, 17028), (573, 17031), (586, 17073), (596, 17103), (610, 17148), (614, 17163), (624, 17196), (629, 17217), (631, 17226), (633, 17235), (639, 17259), (640, 17262), (648, 17292), (657, 17325), (668, 17370), (673, 17391), (683, 17433), (686, 17448), (703, 17514), (707, 17529), (721, 17583), (724, 17592), (725, 17595), (728, 17607), (729, 17610), (732, 17628), (758, 17775), (786, 17883), (789, 17898), (826, 18096), (874, 18330), (894, 18405), (927, 18642), (936, 18684), (937, 18687), (939, 18708), (948, 18756), (950, 18762), (964, 18870), (972, 18942), (981, 19044), (994, 19197),

Gene: Bing_24 Start: 16028, Stop: 21496, Start Num: 2
Candidate Starts for Bing_24:
(1, 16007), (Start: 2 @16028 has 31 MA's), (3, 16058), (8, 16133), (14, 16214), (15, 16217), (35, 16385), (60, 16571), (71, 16637), (79, 16760), (85, 16841), (87, 16886), (93, 16946), (96, 16961), (105, 17009), (110, 17051), (133, 17243), (138, 17309), (154, 17438), (166, 17519), (167, 17522), (177, 17588), (241, 17906), (246, 17924), (258, 17963), (270, 18011), (274, 18020), (279, 18047), (292, 18098), (300, 18131), (302, 18143), (306, 18161), (313, 18194), (316, 18200), (317, 18203), (343, 18293), (352, 18350), (354, 18362), (369, 18425), (388, 18503), (389, 18506), (391, 18515), (415, 18632), (422, 18653), (440, 18743), (458, 18824), (468, 18875), (478, 18920), (479, 18929), (496, 19001), (505, 19034), (511, 19061), (513, 19067), (516, 19082), (519, 19100), (527, 19136), (562, 19250), (566, 19262), (570, 19298), (572, 19304), (575, 19319), (586, 19349), (610, 19424), (614, 19439), (619, 19454), (622, 19466), (624, 19472), (627, 19487), (631, 19502), (637, 19526), (651, 19580), (652, 19583), (657, 19601), (663, 19622), (671, 19661), (676, 19676), (683, 19709), (703, 19790), (717, 19841), (721, 19859), (724, 19868), (732, 19904), (751, 19997), (782, 20135), (786, 20159), (787, 20162), (795, 20207), (826, 20372), (886, 20645), (933, 20948), (937, 20963), (939, 20984), (950, 21038), (957, 21089),

Gene: Biscute_27 Start: 20578, Stop: 25209, Start Num: 19
Candidate Starts for Biscute_27:
(Start: 18 @20557 has 2 MA's), (Start: 19 @20578 has 160 MA's), (Start: 23 @20608 has 3 MA's), (30, 20662), (34, 20683), (40, 20719), (49, 20887), (60, 20947), (71, 21013), (72, 21034), (79, 21136), (80, 21154), (84, 21196), (89, 21283), (96, 21337), (99, 21352), (105, 21385), (117, 21463), (119, 21478), (131, 21568), (137, 21637), (146, 21724), (151, 21745), (157, 21799), (163, 21850), (164, 21853), (175, 21922), (185, 21964), (194, 22024), (195, 22030), (198, 22039), (203, 22054), (204, 22063), (224, 22162), (225, 22174), (228, 22195), (281, 22402), (289, 22426), (301, 22480), (317, 22549), (341, 22678), (343, 22687), (357, 22765), (366, 22810), (368, 22816), (369, 22819), (376, 22843), (380, 22861), (391, 22909), (394, 22918), (398, 22951), (415, 23026), (422, 23047), (425, 23068), (429, 23089), (435, 23116), (441, 23149), (443, 23164), (459, 23224), (481, 23341), (506, 23440),

(507, 23443), (519, 23500), (524, 23527), (527, 23536), (536, 23569), (538, 23578), (543, 23590), (551, 23611), (556, 23632), (558, 23638), (567, 23671), (571, 23701), (586, 23749), (596, 23779), (605, 23809), (614, 23839), (617, 23848), (639, 23935), (640, 23938), (641, 23941), (645, 23959), (649, 23974), (654, 23989), (665, 24028), (671, 24061), (673, 24067), (675, 24073), (678, 24085), (690, 24139), (698, 24175), (707, 24205), (708, 24208), (713, 24226), (719, 24250), (720, 24253), (741, 24355), (748, 24385), (751, 24397), (761, 24463), (780, 24580), (786, 24625), (825, 24829), (829, 24853), (839, 24898), (842, 24904), (849, 24943), (855, 24973), (858, 24991),

Gene: Blanky_32 Start: 24491, Stop: 29593, Start Num: 19
Candidate Starts for Blanky_32:
(Start: 19 @24491 has 160 MA's), (Start: 23 @24521 has 3 MA's), (28, 24566), (48, 24704), (49, 24710), (61, 24776), (68, 24806), (79, 24971), (84, 25031), (89, 25118), (92, 25142), (96, 25172), (99, 25187), (105, 25220), (115, 25313), (137, 25481), (151, 25589), (152, 25601), (158, 25658), (163, 25694), (164, 25697), (175, 25766), (177, 25772), (213, 25955), (214, 25961), (233, 26057), (236, 26075), (272, 26231), (298, 26357), (300, 26366), (343, 26597), (344, 26603), (354, 26666), (356, 26672), (359, 26684), (364, 26711), (369, 26729), (372, 26738), (385, 26798), (392, 26822), (394, 26828), (397, 26849), (399, 26867), (400, 26870), (414, 26933), (429, 26999), (435, 27026), (441, 27059), (445, 27086), (450, 27104), (451, 27107), (454, 27116), (457, 27128), (459, 27134), (460, 27137), (462, 27149), (481, 27245), (490, 27278), (495, 27299), (498, 27308), (501, 27320), (504, 27329), (507, 27344), (509, 27350), (510, 27356), (512, 27365), (516, 27383), (518, 27392), (519, 27401), (527, 27437), (533, 27458), (538, 27479), (555, 27524), (556, 27530), (564, 27554), (566, 27560), (567, 27569), (568, 27584), (569, 27590), (578, 27626), (586, 27656), (592, 27677), (594, 27689), (600, 27710), (601, 27713), (608, 27737), (611, 27746), (618, 27770), (620, 27776), (625, 27794), (626, 27803), (627, 27806), (641, 27860), (650, 27893), (659, 27923), (702, 28103), (708, 28124), (728, 28199), (758, 28367), (764, 28397), (769, 28430), (794, 28595), (797, 28607), (798, 28616), (804, 28670), (817, 28718), (830, 28781), (842, 28832), (865, 28952), (872, 28970), (883, 29000), (887, 29021), (888, 29027), (891, 29033), (898, 29060), (903, 29087), (915, 29171), (923, 29234), (924, 29246), (935, 29315), (943, 29357), (946, 29375), (954, 29423), (976, 29579),

Gene: BluerMoon_32 Start: 23509, Stop: 28623, Start Num: 19
Candidate Starts for BluerMoon_32:
(Start: 19 @23509 has 160 MA's), (Start: 23 @23539 has 3 MA's), (28, 23584), (49, 23728), (60, 23788), (61, 23794), (71, 23854), (72, 23875), (79, 23977), (87, 24103), (90, 24139), (96, 24178), (105, 24226), (110, 24268), (117, 24340), (122, 24388), (137, 24514), (145, 24589), (146, 24601), (151, 24622), (163, 24727), (164, 24730), (207, 24952), (220, 25018), (236, 25108), (247, 25144), (260, 25195), (267, 25243), (271, 25255), (300, 25399), (308, 25438), (313, 25465), (343, 25627), (350, 25675), (354, 25696), (359, 25714), (370, 25762), (385, 25828), (397, 25879), (398, 25891), (401, 25909), (414, 25963), (425, 26008), (429, 26029), (432, 26038), (436, 26059), (440, 26080), (450, 26134), (451, 26137), (454, 26146), (460, 26167), (462, 26179), (466, 26200), (468, 26206), (472, 26224), (479, 26260), (484, 26290), (498, 26338), (501, 26350), (503, 26356), (504, 26359), (506, 26371), (507, 26374), (512, 26395), (519, 26431), (532, 26485), (533, 26488), (538, 26509), (544, 26521), (546, 26524), (560, 26572), (565, 26587), (566, 26590), (567, 26599), (569, 26620), (575, 26647), (576, 26650), (582, 26674), (586, 26686), (592, 26707), (594, 26719), (596, 26728), (600, 26740), (608, 26767), (618, 26800), (620, 26806), (625, 26824), (638, 26878), (642, 26893), (661, 26962), (687, 27073), (716, 27184), (728, 27229), (745, 27319), (766, 27442), (770, 27463), (779, 27526), (782, 27553), (794, 27625), (797, 27637), (798, 27646), (804, 27700), (812, 27721), (814, 27733), (818, 27754), (848, 27895), (865, 27982), (872, 28000), (883, 28030), (886, 28048), (887, 28051), (891, 28063), (898, 28090), (915, 28201), (924, 28276), (941, 28378), (946, 28405), (963, 28519), (976, 28609),

Gene: Boog_23 Start: 17241, Stop: 21791, Start Num: 19
Candidate Starts for Boog_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 160 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (343, 19263), (354, 19332), (355, 19335), (364, 19377), (366, 19386), (369, 19395), (378, 19425), (385, 19464), (387, 19470), (391, 19485), (398, 19527), (422, 19623), (425, 19644), (430, 19668), (441, 19725), (443, 19740), (450, 19770), (454, 19782), (461, 19809), (463, 19824), (474, 19872), (479, 19902), (481, 19917), (490, 19950), (492, 19956), (501, 19995), (504, 20004), (506, 20016), (511, 20037), (524, 20103), (527, 20112), (536, 20145), (537, 20151), (538, 20154), (543, 20166), (544, 20169), (552, 20190), (557, 20211), (567, 20247), (575, 20295), (586, 20325), (614, 20415), (630, 20472), (641, 20517), (645, 20535), (653, 20562), (655, 20571), (657, 20577), (671, 20637), (675, 20649), (678, 20661), (690, 20715), (700, 20757), (702, 20763), (704, 20769), (714, 20805), (720, 20829), (721, 20835), (723, 20841), (724, 20844), (734, 20895), (737, 20907), (743, 20937), (744, 20946), (767, 21078), (780, 21156), (786, 21201), (792, 21234), (802, 21291), (821, 21381), (825, 21405), (829, 21429), (831, 21441), (833, 21450), (836, 21462), (839, 21474), (849, 21519), (855, 21549), (858, 21567), (867, 21606), (890, 21684),

Gene: Bouchard_27 Start: 20253, Stop: 24839, Start Num: 19
Candidate Starts for Bouchard_27:
(Start: 18 @20232 has 2 MA's), (Start: 19 @20253 has 160 MA's), (Start: 23 @20283 has 3 MA's), (30, 20337), (68, 20568), (71, 20598), (78, 20679), (79, 20721), (80, 20739), (84, 20781), (89, 20868), (96, 20922), (99, 20937), (100, 20943), (105, 20970), (117, 21048), (119, 21063), (122, 21096), (126, 21111), (127, 21120), (130, 21147), (132, 21159), (136, 21213), (146, 21309), (151, 21330), (164, 21438), (167, 21447), (174, 21504), (176, 21510), (203, 21639), (207, 21660), (210, 21672), (260, 21909), (283, 22005), (306, 22107), (308, 22113), (317, 22149), (343, 22293), (352, 22350), (361, 22395), (366, 22416), (369, 22425), (370, 22428), (376, 22449), (391, 22515), (393, 22521), (401, 22575), (415, 22632), (422, 22653), (424, 22671), (425, 22674), (429, 22695), (431, 22701), (436, 22725), (443, 22770), (445, 22782), (471, 22893), (474, 22902), (476, 22914), (479, 22932), (493, 22989), (501, 23025), (502, 23028), (504, 23034), (506, 23046), (507, 23049), (511, 23067), (514, 23076), (524, 23133), (538, 23184), (543, 23196), (552, 23220), (553, 23223), (566, 23268), (567, 23277), (583, 23346), (586, 23355), (599, 23394), (602, 23406), (614, 23445), (641, 23547), (647, 23571), (648, 23574), (657, 23607), (658, 23610), (659, 23613), (660, 23616), (672, 23670), (673, 23673), (679, 23694), (702, 23793), (711, 23823), (714, 23835), (717, 23847), (721, 23865), (724, 23874), (725, 23877), (755, 24033), (761, 24069), (786, 24231), (788, 24243), (796, 24285), (811, 24369), (825, 24435), (829, 24459), (842, 24510), (855, 24579), (856, 24582), (860, 24606), (905, 24789),

Gene: Bowling_22 Start: 17384, Stop: 21862, Start Num: 19
Candidate Starts for Bowling_22:
(Start: 18 @17363 has 2 MA's), (Start: 19 @17384 has 160 MA's), (Start: 23 @17414 has 3 MA's), (26, 17447), (30, 17468), (68, 17699), (71, 17729), (72, 17750), (78, 17810), (79, 17852), (80, 17870), (84, 17912), (89, 17999), (96, 18053), (99, 18068), (105, 18101), (119, 18194), (126, 18242), (128, 18257), (133, 18299), (137, 18353), (145, 18428), (151, 18461), (164, 18569), (174, 18635), (182, 18668), (184, 18677), (185, 18680), (187, 18698), (246, 18980), (255, 19004), (260, 19034), (302, 19193), (317, 19253), (343, 19382), (357, 19460), (363, 19490), (366, 19505), (369, 19514), (376, 19538), (382, 19565), (385, 19583), (391, 19604), (404, 19679), (408, 19700), (412, 19712), (422, 19742), (429, 19784), (441, 19844), (442, 19850), (450, 19889), (469, 19970), (474, 19991), (479, 20021), (484, 20051), (490, 20069), (501, 20117), (507, 20141), (511, 20159), (514, 20168), (515, 20177), (517, 20183), (520, 20204), (527, 20234), (536, 20267), (537, 20273), (538, 20276), (543, 20288), (551, 20309), (566, 20360), (567, 20369), (571, 20399), (573, 20405), (583, 20438), (586, 20447), (596, 20477), (599, 20486), (602, 20498), (609, 20519), (614, 20537), (622, 20564), (624, 20570),

(625, 20573), (628, 20588), (635, 20615), (639, 20633), (643, 20645), (652, 20681), (678, 20783), (693, 20846), (701, 20882), (702, 20885), (704, 20891), (708, 20906), (713, 20924), (723, 20963), (724, 20966), (729, 20984), (734, 21017), (739, 21038), (751, 21095), (758, 21149), (760, 21158), (780, 21212), (783, 21239), (786, 21257), (795, 21305), (796, 21311), (806, 21383), (825, 21461), (827, 21476), (835, 21515), (842, 21539), (854, 21608), (858, 21629), (881, 21722), (911, 21851),

Gene: Breylor17_27 Start: 20680, Stop: 25269, Start Num: 19
Candidate Starts for Breylor17_27:
(Start: 18 @20659 has 2 MA's), (Start: 19 @20680 has 160 MA's), (Start: 23 @20710 has 3 MA's), (30, 20764), (34, 20785), (40, 20821), (49, 20899), (60, 20959), (66, 20983), (68, 20995), (71, 21025), (74, 21076), (78, 21106), (79, 21148), (80, 21166), (84, 21208), (86, 21238), (88, 21283), (89, 21295), (96, 21349), (99, 21364), (101, 21376), (105, 21397), (119, 21490), (122, 21523), (126, 21538), (132, 21586), (146, 21736), (151, 21757), (166, 21871), (167, 21874), (173, 21922), (194, 22036), (201, 22060), (204, 22075), (207, 22087), (239, 22255), (244, 22270), (246, 22276), (253, 22294), (265, 22366), (278, 22417), (283, 22432), (290, 22462), (306, 22534), (308, 22540), (316, 22573), (317, 22576), (323, 22603), (343, 22717), (352, 22774), (354, 22786), (366, 22840), (369, 22849), (370, 22852), (376, 22873), (385, 22918), (391, 22939), (398, 22981), (401, 22999), (415, 23056), (422, 23077), (425, 23098), (441, 23179), (443, 23194), (444, 23197), (451, 23227), (463, 23278), (479, 23356), (481, 23371), (482, 23374), (486, 23392), (488, 23398), (490, 23404), (493, 23413), (501, 23449), (504, 23458), (511, 23491), (522, 23545), (523, 23548), (527, 23566), (531, 23578), (538, 23608), (543, 23623), (549, 23632), (551, 23644), (556, 23665), (567, 23704), (578, 23761), (583, 23773), (586, 23782), (599, 23821), (602, 23833), (612, 23863), (614, 23872), (625, 23908), (634, 23947), (635, 23950), (641, 23974), (647, 23998), (657, 24034), (660, 24043), (666, 24064), (672, 24097), (673, 24100), (704, 24226), (705, 24229), (711, 24250), (719, 24283), (720, 24286), (721, 24292), (724, 24301), (730, 24328), (739, 24373), (753, 24439), (759, 24490), (761, 24496), (771, 24556), (776, 24580), (783, 24640), (786, 24658), (788, 24670), (796, 24712), (819, 24829), (821, 24838), (829, 24886), (836, 24919), (839, 24931), (842, 24937), (845, 24958), (846, 24961), (847, 24967), (855, 25006), (860, 25033), (905, 25219), (910, 25246),

Gene: BronxBay_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for BronxBay_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Brunswick_26 Start: 20146, Stop: 24735, Start Num: 19
Candidate Starts for Brunswick_26:

(Start: 18 @20125 has 2 MA's), (Start: 19 @20146 has 160 MA's), (Start: 23 @20176 has 3 MA's), (30, 20230), (34, 20251), (40, 20287), (49, 20365), (60, 20425), (66, 20449), (68, 20461), (71, 20491), (74, 20542), (78, 20572), (79, 20614), (80, 20632), (84, 20674), (86, 20704), (88, 20749), (89, 20761), (96, 20815), (99, 20830), (101, 20842), (105, 20863), (119, 20956), (122, 20989), (126, 21004), (132, 21052), (146, 21202), (151, 21223), (164, 21331), (166, 21337), (167, 21340), (173, 21388), (194, 21502), (201, 21526), (204, 21541), (207, 21553), (222, 21628), (228, 21673), (239, 21721), (244, 21736), (246, 21742), (253, 21760), (265, 21832), (277, 21874), (278, 21883), (290, 21928), (306, 22000), (308, 22006), (316, 22039), (317, 22042), (323, 22069), (343, 22183), (352, 22240), (354, 22252), (366, 22306), (369, 22315), (370, 22318), (376, 22339), (385, 22384), (391, 22405), (413, 22516), (415, 22522), (422, 22543), (424, 22561), (425, 22564), (429, 22585), (441, 22645), (443, 22660), (444, 22663), (450, 22690), (451, 22693), (459, 22720), (479, 22822), (481, 22837), (482, 22840), (486, 22858), (488, 22864), (489, 22867), (493, 22879), (501, 22915), (504, 22924), (511, 22957), (522, 23011), (523, 23014), (527, 23032), (531, 23044), (538, 23074), (543, 23089), (549, 23098), (551, 23110), (567, 23170), (576, 23221), (578, 23227), (583, 23239), (586, 23248), (599, 23287), (602, 23299), (606, 23311), (612, 23329), (614, 23338), (634, 23413), (635, 23416), (639, 23434), (657, 23500), (659, 23506), (660, 23509), (672, 23563), (673, 23566), (704, 23692), (705, 23695), (711, 23716), (719, 23749), (721, 23758), (739, 23839), (745, 23872), (753, 23905), (761, 23962), (771, 24022), (776, 24046), (786, 24124), (788, 24136), (811, 24262), (821, 24304), (829, 24352), (836, 24385), (839, 24397), (842, 24403), (845, 24424), (846, 24427), (847, 24433), (855, 24472), (860, 24499), (866, 24526), (905, 24685), (910, 24712),

Gene: Bugg_30 Start: 20548, Stop: 25650, Start Num: 19
Candidate Starts for Bugg_30:
(Start: 19 @20548 has 160 MA's), (Start: 23 @20578 has 3 MA's), (44, 20716), (49, 20767), (51, 20776), (53, 20791), (56, 20812), (61, 20833), (68, 20863), (71, 20893), (72, 20914), (79, 21016), (84, 21076), (88, 21151), (89, 21163), (92, 21187), (96, 21217), (99, 21232), (105, 21265), (110, 21307), (115, 21358), (124, 21412), (125, 21415), (135, 21514), (138, 21538), (151, 21634), (160, 21718), (163, 21739), (164, 21742), (175, 21811), (177, 21817), (178, 21823), (213, 22000), (224, 22051), (233, 22102), (247, 22156), (248, 22159), (276, 22291), (283, 22330), (300, 22411), (301, 22414), (318, 22489), (331, 22546), (341, 22630), (343, 22639), (354, 22708), (356, 22714), (359, 22726), (361, 22741), (362, 22744), (367, 22765), (380, 22813), (385, 22840), (391, 22861), (394, 22870), (397, 22891), (398, 22903), (400, 22912), (401, 22921), (414, 22975), (415, 22978), (422, 22999), (429, 23041), (438, 23077), (440, 23092), (441, 23101), (443, 23116), (445, 23128), (447, 23137), (457, 23170), (460, 23179), (478, 23263), (479, 23272), (481, 23287), (486, 23308), (498, 23350), (504, 23371), (507, 23386), (509, 23392), (517, 23428), (519, 23443), (533, 23500), (536, 23512), (538, 23521), (544, 23533), (550, 23545), (551, 23551), (556, 23572), (560, 23584), (566, 23602), (567, 23611), (568, 23626), (569, 23632), (572, 23644), (582, 23686), (583, 23689), (586, 23698), (592, 23719), (594, 23731), (608, 23779), (611, 23788), (618, 23812), (620, 23818), (625, 23836), (626, 23845), (650, 23935), (655, 23953), (656, 23956), (661, 23974), (702, 24145), (716, 24196), (747, 24340), (770, 24475), (778, 24526), (797, 24649), (804, 24712), (817, 24760), (818, 24766), (820, 24775), (830, 24823), (845, 24895), (857, 24955), (862, 24976), (863, 24979), (873, 25030), (875, 25039), (883, 25057), (887, 25078), (891, 25090), (909, 25183), (915, 25228), (924, 25303), (926, 25321), (929, 25342), (945, 25429), (962, 25540), (976, 25636),

Gene: Burley_32 Start: 23250, Stop: 28361, Start Num: 19
Candidate Starts for Burley_32:
(Start: 19 @23250 has 160 MA's), (Start: 23 @23280 has 3 MA's), (28, 23325), (34, 23355), (49, 23469), (61, 23535), (71, 23595), (72, 23616), (79, 23718), (87, 23844), (90, 23880), (96, 23919), (101, 23946), (105, 23967), (110, 24009), (120, 24108), (122, 24129), (137, 24255), (145, 24330), (146, 24342), (151, 24363), (163, 24468), (164, 24471), (233, 24831), (260, 24936), (272, 25005), (277, 25026), (291, 25107), (293, 25110), (300, 25137), (308, 25176), (313, 25203), (343, 25365), (350, 25413), (354, 25434), (359, 25452), (370, 25500), (374, 25512), (385, 25566), (397, 25617), (398, 25629), (400, 25638), (401, 25647), (414, 25701), (425, 25746), (428, 25761), (429, 25767), (432,

25776), (433, 25782), (437, 25800), (438, 25803), (439, 25809), (440, 25818), (450, 25872), (451, 25875), (454, 25884), (459, 25902), (460, 25905), (462, 25917), (466, 25938), (468, 25944), (469, 25947), (474, 25968), (479, 25998), (481, 26013), (490, 26046), (494, 26061), (498, 26076), (501, 26088), (503, 26094), (504, 26097), (506, 26109), (507, 26112), (519, 26169), (532, 26223), (533, 26226), (538, 26247), (544, 26259), (546, 26262), (560, 26310), (565, 26325), (566, 26328), (567, 26337), (569, 26358), (575, 26385), (576, 26388), (582, 26412), (586, 26424), (592, 26445), (594, 26457), (600, 26478), (608, 26505), (618, 26538), (620, 26544), (625, 26562), (632, 26592), (642, 26631), (687, 26811), (690, 26823), (708, 26892), (745, 27057), (766, 27180), (770, 27201), (789, 27330), (794, 27363), (797, 27375), (804, 27438), (812, 27459), (814, 27471), (817, 27486), (830, 27549), (848, 27633), (865, 27720), (872, 27738), (883, 27768), (886, 27786), (887, 27789), (888, 27795), (891, 27801), (898, 27828), (915, 27939), (924, 28014), (926, 28032), (941, 28116), (945, 28140), (963, 28257), (976, 28347),

Gene: CWormy_32 Start: 22950, Stop: 28061, Start Num: 19
Candidate Starts for CWormy_32:
(Start: 19 @22950 has 160 MA's), (Start: 23 @22980 has 3 MA's), (28, 23025), (49, 23169), (61, 23235), (71, 23295), (72, 23316), (79, 23418), (86, 23508), (87, 23544), (90, 23580), (96, 23619), (101, 23646), (105, 23667), (110, 23709), (122, 23829), (137, 23955), (145, 24030), (146, 24042), (151, 24063), (159, 24135), (163, 24168), (164, 24171), (184, 24279), (233, 24531), (260, 24636), (272, 24705), (291, 24807), (293, 24810), (300, 24837), (308, 24876), (313, 24903), (343, 25065), (350, 25113), (354, 25134), (359, 25152), (370, 25200), (374, 25212), (385, 25266), (397, 25317), (398, 25329), (400, 25338), (401, 25347), (414, 25401), (425, 25446), (428, 25461), (429, 25467), (432, 25476), (433, 25482), (437, 25500), (438, 25503), (439, 25509), (440, 25518), (450, 25572), (451, 25575), (454, 25584), (459, 25602), (460, 25605), (462, 25617), (466, 25638), (468, 25644), (469, 25647), (474, 25668), (479, 25698), (481, 25713), (490, 25746), (498, 25776), (501, 25788), (503, 25794), (504, 25797), (506, 25809), (507, 25812), (519, 25869), (532, 25923), (538, 25947), (544, 25959), (546, 25962), (559, 26007), (560, 26010), (565, 26025), (566, 26028), (567, 26037), (568, 26052), (569, 26058), (570, 26064), (575, 26085), (576, 26088), (580, 26100), (583, 26115), (586, 26124), (592, 26145), (594, 26157), (600, 26178), (608, 26205), (618, 26238), (620, 26244), (625, 26262), (632, 26292), (642, 26331), (661, 26400), (708, 26592), (728, 26667), (745, 26757), (770, 26901), (779, 26964), (789, 27030), (794, 27063), (797, 27075), (804, 27138), (812, 27159), (814, 27171), (818, 27192), (830, 27249), (848, 27333), (865, 27420), (872, 27438), (883, 27468), (886, 27486), (887, 27489), (888, 27495), (891, 27501), (898, 27528), (915, 27639), (924, 27714), (935, 27783), (941, 27816), (945, 27840), (963, 27957), (976, 28047),

Gene: Camille_24 Start: 16246, Stop: 20454, Start Num: 19
Candidate Starts for Camille_24:
(Start: 18 @16225 has 2 MA's), (Start: 19 @16246 has 160 MA's), (22, 16258), (Start: 23 @16279 has 3 MA's), (44, 16417), (46, 16438), (57, 16516), (61, 16534), (71, 16594), (79, 16717), (84, 16777), (92, 16888), (95, 16912), (96, 16918), (99, 16933), (105, 16966), (112, 17029), (118, 17056), (119, 17059), (121, 17080), (122, 17092), (128, 17122), (152, 17338), (156, 17374), (165, 17437), (168, 17446), (177, 17509), (187, 17563), (191, 17587), (210, 17668), (214, 17698), (231, 17788), (243, 17836), (285, 17917), (290, 17938), (313, 18043), (318, 18055), (328, 18085), (341, 18154), (343, 18163), (354, 18232), (355, 18235), (366, 18286), (369, 18295), (376, 18319), (378, 18325), (379, 18328), (381, 18340), (384, 18358), (385, 18364), (391, 18385), (395, 18406), (397, 18415), (398, 18427), (400, 18436), (408, 18481), (415, 18502), (423, 18532), (432, 18574), (434, 18586), (439, 18607), (441, 18625), (446, 18655), (457, 18694), (466, 18733), (473, 18760), (478, 18784), (514, 18850), (518, 18871), (551, 18901), (573, 18997), (583, 19030), (586, 19039), (590, 19054), (591, 19057), (602, 19096), (603, 19099), (604, 19102), (610, 19120), (614, 19135), (624, 19168), (634, 19210), (635, 19213), (645, 19255), (653, 19282), (657, 19297), (666, 19327), (674, 19366), (680, 19390), (682, 19402), (683, 19405), (692, 19441), (693, 19444), (701, 19480), (716, 19534), (723, 19561), (725, 19567), (738, 19633), (740, 19645), (741, 19651), (750, 19690), (753, 19702), (755, 19723), (780, 19810), (786, 19855), (796, 19909), (805, 19975), (809, 19987), (813, 20005), (825, 20059),

(827, 20074), (829, 20083), (833, 20104), (836, 20116), (837, 20122), (852, 20194), (868, 20263), (879, 20299), (884, 20314), (906, 20419), (910, 20434),

Gene: CapnMurica_26 Start: 21235, Stop: 25824, Start Num: 19
Candidate Starts for CapnMurica_26:
(Start: 18 @21214 has 2 MA's), (Start: 19 @21235 has 160 MA's), (Start: 23 @21265 has 3 MA's), (30, 21319), (34, 21340), (40, 21376), (60, 21514), (68, 21550), (71, 21580), (79, 21703), (80, 21721), (84, 21763), (91, 21871), (96, 21904), (99, 21919), (105, 21952), (117, 22030), (119, 22045), (121, 22066), (122, 22078), (127, 22102), (133, 22150), (141, 22246), (145, 22279), (151, 22312), (160, 22396), (164, 22420), (167, 22429), (207, 22642), (214, 22684), (222, 22717), (239, 22810), (244, 22825), (246, 22831), (253, 22849), (254, 22858), (260, 22891), (261, 22900), (278, 22972), (290, 23017), (306, 23089), (308, 23095), (316, 23128), (317, 23131), (323, 23158), (343, 23272), (352, 23329), (354, 23341), (366, 23395), (369, 23404), (370, 23407), (376, 23428), (385, 23473), (391, 23494), (413, 23605), (415, 23611), (422, 23632), (424, 23650), (425, 23653), (429, 23674), (441, 23734), (443, 23749), (444, 23752), (450, 23779), (451, 23782), (459, 23809), (476, 23893), (479, 23911), (481, 23926), (482, 23929), (486, 23947), (488, 23953), (489, 23956), (493, 23968), (494, 23974), (501, 24004), (504, 24013), (511, 24046), (522, 24100), (523, 24103), (527, 24121), (538, 24163), (543, 24178), (549, 24187), (551, 24199), (567, 24259), (578, 24316), (583, 24328), (586, 24337), (599, 24376), (602, 24388), (604, 24394), (608, 24406), (612, 24418), (614, 24427), (634, 24502), (635, 24505), (639, 24523), (657, 24589), (660, 24598), (672, 24652), (673, 24655), (704, 24781), (711, 24805), (719, 24838), (721, 24847), (726, 24862), (730, 24883), (739, 24928), (753, 24994), (761, 25051), (771, 25111), (782, 25189), (786, 25213), (788, 25225), (811, 25351), (821, 25393), (829, 25441), (836, 25474), (839, 25486), (842, 25492), (845, 25513), (846, 25516), (847, 25522), (855, 25561), (860, 25588), (905, 25774),

Gene: Captrips_29 Start: 20541, Stop: 25643, Start Num: 19
Candidate Starts for Captrips_29:
(Start: 19 @20541 has 160 MA's), (Start: 23 @20571 has 3 MA's), (44, 20709), (48, 20754), (49, 20760), (51, 20769), (53, 20784), (56, 20805), (61, 20826), (68, 20856), (71, 20886), (72, 20907), (79, 21009), (84, 21069), (88, 21144), (89, 21156), (92, 21180), (96, 21210), (99, 21225), (105, 21258), (110, 21300), (115, 21351), (124, 21405), (125, 21408), (135, 21507), (138, 21531), (151, 21627), (163, 21732), (164, 21735), (175, 21804), (177, 21810), (178, 21816), (213, 21993), (224, 22044), (233, 22095), (247, 22149), (248, 22152), (283, 22323), (300, 22404), (301, 22407), (318, 22482), (331, 22539), (341, 22623), (343, 22632), (353, 22695), (354, 22701), (356, 22707), (359, 22719), (361, 22734), (362, 22737), (367, 22758), (380, 22806), (385, 22833), (391, 22854), (394, 22863), (397, 22884), (398, 22896), (400, 22905), (401, 22914), (414, 22968), (415, 22971), (422, 22992), (429, 23034), (438, 23070), (440, 23085), (441, 23094), (443, 23109), (445, 23121), (447, 23130), (457, 23163), (460, 23172), (478, 23256), (479, 23265), (481, 23280), (482, 23283), (486, 23301), (498, 23343), (504, 23364), (507, 23379), (517, 23421), (519, 23436), (533, 23493), (536, 23505), (538, 23514), (544, 23526), (550, 23538), (551, 23544), (556, 23565), (560, 23577), (566, 23595), (567, 23604), (568, 23619), (569, 23625), (572, 23637), (582, 23679), (583, 23682), (586, 23691), (592, 23712), (594, 23724), (608, 23772), (611, 23781), (618, 23805), (620, 23811), (625, 23829), (626, 23838), (632, 23859), (650, 23928), (661, 23967), (702, 24138), (716, 24189), (747, 24333), (770, 24468), (778, 24519), (797, 24642), (804, 24705), (817, 24753), (818, 24759), (820, 24768), (830, 24816), (845, 24888), (857, 24948), (862, 24969), (863, 24972), (873, 25023), (875, 25032), (883, 25050), (887, 25071), (891, 25083), (909, 25176), (915, 25221), (924, 25296), (926, 25314), (929, 25335), (945, 25422), (962, 25533), (976, 25629),

Gene: Capybara_29 Start: 20616, Stop: 25718, Start Num: 19
Candidate Starts for Capybara_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (44, 20784), (48, 20829), (49, 20835), (51, 20844), (53, 20859), (56, 20880), (61, 20901), (68, 20931), (71, 20961), (72, 20982), (79, 21084), (84, 21144), (88, 21219), (89, 21231), (92, 21255), (96, 21285), (99, 21300), (105, 21333),

(110, 21375), (115, 21426), (124, 21480), (125, 21483), (135, 21582), (138, 21606), (151, 21702), (163, 21807), (164, 21810), (175, 21879), (177, 21885), (178, 21891), (213, 22068), (224, 22119), (233, 22170), (247, 22224), (248, 22227), (276, 22359), (295, 22461), (300, 22479), (301, 22482), (318, 22557), (331, 22614), (341, 22698), (343, 22707), (359, 22794), (367, 22833), (380, 22881), (385, 22908), (391, 22929), (394, 22938), (397, 22959), (398, 22971), (400, 22980), (401, 22989), (406, 23016), (414, 23043), (415, 23046), (422, 23067), (429, 23109), (435, 23136), (438, 23145), (440, 23160), (441, 23169), (443, 23184), (445, 23196), (447, 23205), (451, 23217), (457, 23238), (460, 23247), (478, 23331), (479, 23340), (481, 23355), (482, 23358), (486, 23376), (490, 23388), (491, 23391), (498, 23418), (504, 23439), (507, 23454), (517, 23496), (519, 23511), (533, 23568), (536, 23580), (538, 23589), (544, 23601), (550, 23613), (551, 23619), (556, 23640), (560, 23652), (566, 23670), (567, 23679), (568, 23694), (569, 23700), (572, 23712), (582, 23754), (583, 23757), (586, 23766), (592, 23787), (594, 23799), (608, 23847), (611, 23856), (618, 23880), (620, 23886), (625, 23904), (626, 23913), (632, 23934), (650, 24003), (655, 24021), (656, 24024), (661, 24042), (691, 24168), (702, 24213), (716, 24264), (747, 24408), (770, 24543), (778, 24594), (789, 24672), (797, 24717), (804, 24780), (810, 24798), (817, 24828), (818, 24834), (830, 24891), (845, 24963), (857, 25023), (862, 25044), (863, 25047), (873, 25098), (875, 25107), (887, 25146), (891, 25158), (909, 25251), (915, 25296), (924, 25371), (929, 25410), (935, 25440), (945, 25497), (962, 25608), (976, 25704),

Gene: CastorTray_28 Start: 20538, Stop: 25127, Start Num: 19
Candidate Starts for CastorTray_28:
(Start: 18 @20517 has 2 MA's), (Start: 19 @20538 has 160 MA's), (Start: 23 @20568 has 3 MA's), (30, 20622), (34, 20643), (40, 20679), (49, 20757), (60, 20817), (66, 20841), (68, 20853), (71, 20883), (74, 20934), (78, 20964), (79, 21006), (80, 21024), (84, 21066), (86, 21096), (88, 21141), (89, 21153), (96, 21207), (99, 21222), (101, 21234), (105, 21255), (119, 21348), (122, 21381), (126, 21396), (132, 21444), (146, 21594), (151, 21615), (166, 21729), (167, 21732), (194, 21894), (201, 21918), (204, 21933), (207, 21945), (239, 22113), (244, 22128), (246, 22134), (253, 22152), (265, 22224), (278, 22275), (283, 22290), (290, 22320), (306, 22392), (308, 22398), (316, 22431), (317, 22434), (323, 22461), (343, 22575), (352, 22632), (354, 22644), (366, 22698), (369, 22707), (370, 22710), (376, 22731), (385, 22776), (391, 22797), (398, 22839), (401, 22857), (415, 22914), (422, 22935), (425, 22956), (441, 23037), (443, 23052), (444, 23055), (450, 23082), (451, 23085), (463, 23136), (479, 23214), (481, 23229), (482, 23232), (486, 23250), (488, 23256), (490, 23262), (493, 23271), (501, 23307), (502, 23310), (504, 23316), (505, 23322), (511, 23349), (522, 23403), (523, 23406), (527, 23424), (531, 23436), (538, 23466), (543, 23481), (549, 23490), (551, 23502), (556, 23523), (567, 23562), (578, 23619), (583, 23631), (586, 23640), (599, 23679), (602, 23691), (612, 23721), (614, 23730), (625, 23766), (634, 23805), (635, 23808), (639, 23826), (641, 23832), (657, 23892), (658, 23895), (660, 23901), (666, 23922), (672, 23955), (673, 23958), (704, 24084), (705, 24087), (711, 24108), (719, 24141), (720, 24144), (721, 24150), (724, 24159), (730, 24186), (736, 24219), (739, 24231), (753, 24297), (759, 24348), (761, 24354), (771, 24414), (776, 24438), (783, 24498), (786, 24516), (788, 24528), (796, 24570), (819, 24687), (821, 24696), (829, 24744), (836, 24777), (839, 24789), (842, 24795), (845, 24816), (846, 24819), (847, 24825), (855, 24864), (860, 24891), (905, 25077), (910, 25104),

Gene: Caterpillar_24 Start: 19324, Stop: 23907, Start Num: 19
Candidate Starts for Caterpillar_24:
(Start: 18 @19303 has 2 MA's), (Start: 19 @19324 has 160 MA's), (Start: 23 @19354 has 3 MA's), (30, 19408), (40, 19465), (46, 19513), (68, 19639), (71, 19669), (78, 19750), (79, 19792), (80, 19810), (84, 19852), (86, 19882), (88, 19927), (89, 19939), (96, 19993), (99, 20008), (100, 20014), (105, 20041), (112, 20104), (117, 20119), (119, 20134), (122, 20167), (126, 20182), (127, 20191), (132, 20230), (141, 20335), (151, 20401), (158, 20470), (164, 20509), (167, 20518), (175, 20578), (176, 20581), (201, 20704), (202, 20707), (210, 20743), (243, 20911), (246, 20920), (254, 20941), (260, 20974), (283, 21070), (296, 21124), (306, 21172), (308, 21178), (309, 21181), (317, 21214), (343, 21361), (361, 21463), (366, 21484), (369, 21493), (370, 21496), (376, 21517), (391, 21583), (404, 21658),

(407, 21673), (413, 21694), (415, 21700), (422, 21721), (425, 21742), (429, 21763), (441, 21823), (443, 21838), (444, 21841), (449, 21865), (455, 21883), (470, 21955), (479, 22000), (481, 22015), (482, 22018), (486, 22036), (488, 22042), (490, 22048), (501, 22093), (504, 22102), (507, 22117), (511, 22135), (516, 22156), (522, 22189), (523, 22192), (527, 22210), (543, 22267), (549, 22276), (551, 22288), (556, 22309), (558, 22315), (559, 22318), (566, 22339), (567, 22348), (576, 22399), (578, 22405), (583, 22417), (586, 22426), (597, 22459), (614, 22516), (633, 22588), (634, 22591), (635, 22594), (639, 22612), (641, 22618), (647, 22642), (657, 22678), (659, 22684), (663, 22699), (671, 22738), (683, 22786), (693, 22825), (711, 22894), (721, 22936), (724, 22945), (753, 23083), (754, 23092), (755, 23104), (760, 23137), (761, 23140), (780, 23257), (782, 23278), (788, 23314), (796, 23356), (806, 23428), (829, 23530), (839, 23575), (842, 23581), (855, 23650), (860, 23677), (905, 23857), (907, 23866),

Gene: Cheesy_22 Start: 17385, Stop: 21863, Start Num: 19
Candidate Starts for Cheesy_22:
(Start: 18 @17364 has 2 MA's), (Start: 19 @17385 has 160 MA's), (Start: 23 @17415 has 3 MA's), (26, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (117, 18180), (119, 18195), (126, 18243), (133, 18300), (137, 18354), (141, 18396), (145, 18429), (151, 18462), (164, 18570), (174, 18636), (182, 18669), (184, 18678), (185, 18681), (187, 18699), (246, 18981), (255, 19005), (260, 19035), (302, 19194), (310, 19227), (317, 19254), (343, 19383), (357, 19461), (366, 19506), (369, 19515), (373, 19527), (376, 19539), (382, 19566), (385, 19584), (391, 19605), (404, 19680), (408, 19701), (409, 19704), (412, 19713), (422, 19743), (425, 19764), (429, 19785), (441, 19845), (442, 19851), (450, 19890), (451, 19893), (456, 19908), (469, 19971), (474, 19992), (479, 20022), (484, 20052), (490, 20070), (501, 20118), (507, 20142), (511, 20160), (514, 20169), (515, 20178), (517, 20184), (520, 20205), (527, 20235), (536, 20268), (537, 20274), (538, 20277), (543, 20289), (551, 20310), (566, 20361), (567, 20370), (571, 20400), (573, 20406), (583, 20439), (586, 20448), (596, 20478), (599, 20487), (602, 20499), (614, 20538), (622, 20565), (624, 20571), (625, 20574), (628, 20589), (635, 20616), (643, 20646), (652, 20682), (678, 20784), (693, 20847), (701, 20883), (702, 20886), (708, 20907), (713, 20925), (723, 20964), (725, 20970), (729, 20985), (733, 21006), (734, 21018), (758, 21150), (760, 21159), (780, 21213), (783, 21240), (786, 21258), (795, 21306), (796, 21312), (806, 21384), (825, 21462), (831, 21498), (835, 21516), (842, 21540), (846, 21564), (854, 21609), (858, 21630), (911, 21852),

Gene: CherryBlossom_23 Start: 16177, Stop: 21663, Start Num: 2
Candidate Starts for CherryBlossom_23:
(1, 16156), (Start: 2 @16177 has 31 MA's), (3, 16207), (14, 16351), (42, 16561), (54, 16681), (61, 16720), (68, 16750), (70, 16774), (71, 16780), (72, 16801), (73, 16816), (79, 16903), (86, 16993), (87, 17029), (88, 17038), (90, 17065), (96, 17104), (97, 17113), (101, 17131), (105, 17152), (110, 17194), (111, 17203), (122, 17311), (134, 17416), (145, 17512), (154, 17578), (177, 17728), (192, 17812), (196, 17833), (207, 17875), (232, 18010), (267, 18142), (270, 18151), (279, 18187), (281, 18196), (292, 18238), (300, 18271), (339, 18424), (343, 18445), (353, 18508), (354, 18514), (356, 18520), (361, 18547), (366, 18568), (368, 18574), (369, 18577), (376, 18601), (385, 18646), (388, 18655), (389, 18658), (391, 18667), (404, 18742), (410, 18769), (415, 18784), (416, 18787), (422, 18805), (425, 18823), (429, 18844), (440, 18895), (454, 18961), (458, 18976), (476, 19063), (479, 19081), (483, 19108), (508, 19198), (509, 19201), (518, 19243), (519, 19252), (527, 19288), (532, 19306), (533, 19309), (551, 19363), (552, 19366), (566, 19414), (570, 19450), (572, 19456), (577, 19477), (586, 19501), (596, 19531), (614, 19591), (624, 19624), (625, 19627), (628, 19642), (637, 19678), (648, 19720), (651, 19732), (652, 19735), (666, 19783), (671, 19813), (676, 19828), (683, 19861), (686, 19876), (702, 19939), (723, 20017), (724, 20020), (732, 20056), (744, 20122), (759, 20209), (760, 20212), (786, 20311), (795, 20359), (796, 20365), (826, 20524), (886, 20797), (908, 20899), (922, 21022), (937, 21115), (939, 21136), (948, 21184), (950, 21190), (951, 21196), (957, 21241), (969, 21349), (972, 21370), (978, 21418), (986, 21505), (993, 21607), (994, 21616),

Gene: ChickyNuggy_30 Start: 20253, Stop: 25355, Start Num: 19
Candidate Starts for ChickyNuggy_30:
(Start: 19 @20253 has 160 MA's), (Start: 23 @20283 has 3 MA's), (44, 20421), (49, 20472), (51, 20481), (53, 20496), (56, 20517), (61, 20538), (68, 20568), (71, 20598), (72, 20619), (79, 20721), (84, 20781), (88, 20856), (89, 20868), (92, 20892), (96, 20922), (99, 20937), (105, 20970), (110, 21012), (115, 21063), (124, 21117), (125, 21120), (135, 21219), (138, 21243), (151, 21339), (160, 21423), (163, 21444), (164, 21447), (175, 21516), (177, 21522), (178, 21528), (213, 21705), (224, 21756), (233, 21807), (247, 21861), (248, 21864), (276, 21996), (283, 22035), (300, 22116), (301, 22119), (318, 22194), (320, 22203), (331, 22251), (341, 22335), (343, 22344), (354, 22413), (356, 22419), (359, 22431), (361, 22446), (362, 22449), (367, 22470), (380, 22518), (385, 22545), (391, 22566), (394, 22575), (397, 22596), (398, 22608), (400, 22617), (401, 22626), (414, 22680), (415, 22683), (422, 22704), (429, 22746), (435, 22773), (438, 22782), (440, 22797), (441, 22806), (443, 22821), (445, 22833), (447, 22842), (457, 22875), (460, 22884), (478, 22968), (479, 22977), (481, 22992), (482, 22995), (486, 23013), (498, 23055), (504, 23076), (507, 23091), (517, 23133), (519, 23148), (533, 23205), (536, 23217), (538, 23226), (544, 23238), (550, 23250), (551, 23256), (556, 23277), (560, 23289), (566, 23307), (567, 23316), (568, 23331), (569, 23337), (572, 23349), (582, 23391), (583, 23394), (586, 23403), (592, 23424), (594, 23436), (608, 23484), (611, 23493), (618, 23517), (620, 23523), (625, 23541), (626, 23550), (632, 23571), (650, 23640), (661, 23679), (702, 23850), (716, 23901), (747, 24045), (770, 24180), (778, 24231), (797, 24354), (804, 24417), (817, 24465), (818, 24471), (820, 24480), (830, 24528), (845, 24600), (857, 24660), (862, 24681), (863, 24684), (873, 24735), (875, 24744), (883, 24762), (887, 24783), (891, 24795), (909, 24888), (915, 24933), (924, 25008), (926, 25026), (929, 25047), (945, 25134), (962, 25245), (976, 25341),

Gene: Chikenjars_32 Start: 23502, Stop: 28613, Start Num: 19
Candidate Starts for Chikenjars_32:
(Start: 19 @23502 has 160 MA's), (Start: 23 @23532 has 3 MA's), (28, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (117, 24333), (122, 24381), (137, 24507), (145, 24582), (151, 24615), (163, 24720), (164, 24723), (207, 24945), (220, 25011), (221, 25014), (233, 25083), (260, 25188), (272, 25257), (291, 25359), (293, 25362), (300, 25389), (308, 25428), (313, 25455), (343, 25617), (350, 25665), (354, 25686), (359, 25704), (370, 25752), (385, 25818), (393, 25845), (394, 25848), (396, 25866), (397, 25869), (400, 25890), (401, 25899), (411, 25944), (414, 25953), (425, 25998), (429, 26019), (432, 26028), (439, 26061), (440, 26070), (443, 26094), (450, 26124), (451, 26127), (454, 26136), (457, 26148), (460, 26157), (462, 26169), (466, 26190), (468, 26196), (479, 26250), (498, 26328), (501, 26340), (503, 26346), (504, 26349), (507, 26364), (512, 26385), (519, 26421), (532, 26475), (533, 26478), (536, 26490), (538, 26499), (544, 26511), (546, 26514), (551, 26529), (558, 26556), (560, 26562), (565, 26577), (566, 26580), (567, 26589), (568, 26604), (569, 26610), (573, 26625), (575, 26637), (576, 26640), (582, 26664), (586, 26676), (592, 26697), (594, 26709), (596, 26718), (600, 26730), (608, 26757), (615, 26781), (618, 26790), (620, 26796), (625, 26814), (642, 26883), (661, 26952), (697, 27108), (745, 27309), (770, 27453), (779, 27516), (782, 27543), (794, 27615), (797, 27627), (798, 27636), (804, 27690), (812, 27711), (814, 27723), (848, 27885), (865, 27972), (872, 27990), (883, 28020), (886, 28038), (887, 28041), (891, 28053), (898, 28080), (915, 28191), (924, 28266), (931, 28314), (941, 28368), (946, 28395), (963, 28509), (976, 28599),

Gene: Chlochlo_27 Start: 20283, Stop: 24878, Start Num: 19
Candidate Starts for Chlochlo_27:
(Start: 18 @20262 has 2 MA's), (Start: 19 @20283 has 160 MA's), (Start: 23 @20313 has 3 MA's), (30, 20367), (68, 20598), (71, 20628), (78, 20709), (79, 20751), (80, 20769), (84, 20811), (89, 20898), (96, 20952), (99, 20967), (100, 20973), (105, 21000), (117, 21078), (119, 21093), (122, 21126), (126, 21141), (127, 21150), (130, 21177), (132, 21189), (136, 21243), (146, 21339), (151, 21360), (167, 21477), (174, 21534), (176, 21540), (187, 21597), (203, 21669), (210, 21702), (211, 21705), (260, 21939), (281, 22032), (283, 22035), (288, 22053), (306, 22137), (308, 22143), (317, 22179), (343, 22326), (351, 22380), (352, 22383), (366, 22449), (369, 22458), (370, 22461), (376, 22482), (382,

22509), (391, 22548), (392, 22551), (415, 22665), (422, 22686), (424, 22704), (425, 22707), (443, 22803), (445, 22815), (474, 22935), (479, 22965), (481, 22980), (493, 23022), (498, 23043), (501, 23058), (504, 23067), (506, 23079), (511, 23100), (522, 23154), (527, 23175), (536, 23208), (537, 23214), (538, 23217), (546, 23235), (548, 23238), (551, 23256), (566, 23307), (567, 23316), (577, 23370), (586, 23394), (597, 23427), (614, 23484), (633, 23556), (634, 23559), (639, 23580), (645, 23604), (648, 23613), (657, 23646), (658, 23649), (660, 23655), (670, 23700), (671, 23706), (683, 23754), (711, 23862), (721, 23904), (724, 23913), (755, 24072), (758, 24096), (760, 24105), (767, 24147), (771, 24168), (775, 24183), (786, 24270), (788, 24282), (796, 24324), (811, 24408), (825, 24474), (829, 24498), (839, 24543), (842, 24549), (855, 24618), (856, 24621), (860, 24645), (905, 24828),

Gene: Circum_22 Start: 17392, Stop: 21870, Start Num: 19
Candidate Starts for Circum_22:
(Start: 18 @17371 has 2 MA's), (Start: 19 @17392 has 160 MA's), (Start: 23 @17422 has 3 MA's), (26, 17455), (30, 17476), (68, 17707), (71, 17737), (78, 17818), (79, 17860), (80, 17878), (84, 17920), (89, 18007), (96, 18061), (99, 18076), (105, 18109), (117, 18187), (119, 18202), (126, 18250), (133, 18307), (137, 18361), (141, 18403), (145, 18436), (151, 18469), (164, 18577), (174, 18643), (182, 18676), (184, 18685), (185, 18688), (187, 18706), (246, 18988), (255, 19012), (260, 19042), (302, 19201), (317, 19261), (343, 19390), (350, 19438), (361, 19492), (364, 19504), (366, 19513), (369, 19522), (376, 19546), (385, 19591), (391, 19612), (404, 19687), (412, 19720), (422, 19750), (429, 19792), (441, 19852), (442, 19858), (450, 19897), (456, 19915), (469, 19978), (474, 19999), (479, 20029), (484, 20059), (490, 20077), (501, 20125), (507, 20149), (511, 20167), (514, 20176), (515, 20185), (517, 20191), (520, 20212), (527, 20242), (536, 20275), (537, 20281), (538, 20284), (543, 20296), (551, 20317), (566, 20368), (567, 20377), (571, 20407), (573, 20413), (583, 20446), (586, 20455), (596, 20485), (599, 20494), (602, 20506), (614, 20545), (622, 20572), (624, 20578), (625, 20581), (628, 20596), (635, 20623), (639, 20641), (643, 20653), (652, 20689), (678, 20791), (701, 20890), (702, 20893), (704, 20899), (708, 20914), (713, 20932), (719, 20956), (723, 20971), (724, 20974), (729, 20992), (734, 21025), (739, 21046), (763, 21178), (780, 21220), (786, 21265), (788, 21277), (796, 21319), (806, 21391), (821, 21445), (825, 21469), (829, 21493), (831, 21505), (835, 21523), (846, 21571), (854, 21616), (858, 21637), (881, 21730), (911, 21859),

Gene: Citrus_31 Start: 23506, Stop: 28617, Start Num: 19
Candidate Starts for Citrus_31:
(Start: 19 @23506 has 160 MA's), (Start: 23 @23536 has 3 MA's), (28, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (86, 24064), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (122, 24385), (137, 24511), (145, 24586), (146, 24598), (151, 24619), (163, 24724), (164, 24727), (207, 24949), (220, 25015), (221, 25018), (233, 25087), (260, 25192), (272, 25261), (277, 25282), (291, 25363), (293, 25366), (300, 25393), (308, 25432), (313, 25459), (343, 25621), (350, 25669), (354, 25690), (359, 25708), (370, 25756), (385, 25822), (393, 25849), (394, 25852), (396, 25870), (397, 25873), (400, 25894), (401, 25903), (414, 25957), (425, 26002), (429, 26023), (432, 26032), (439, 26065), (440, 26074), (443, 26098), (450, 26128), (451, 26131), (454, 26140), (457, 26152), (460, 26161), (462, 26173), (466, 26194), (468, 26200), (479, 26254), (484, 26284), (498, 26332), (501, 26344), (503, 26350), (504, 26353), (507, 26368), (512, 26389), (519, 26425), (532, 26479), (536, 26494), (538, 26503), (544, 26515), (546, 26518), (551, 26533), (558, 26560), (560, 26566), (565, 26581), (566, 26584), (567, 26593), (568, 26608), (569, 26614), (573, 26629), (575, 26641), (576, 26644), (586, 26680), (592, 26701), (594, 26713), (596, 26722), (600, 26734), (608, 26761), (615, 26785), (618, 26794), (620, 26800), (625, 26818), (642, 26887), (661, 26956), (697, 27112), (745, 27313), (770, 27457), (779, 27520), (782, 27547), (794, 27619), (797, 27631), (798, 27640), (804, 27694), (812, 27715), (814, 27727), (848, 27889), (865, 27976), (872, 27994), (883, 28024), (886, 28042), (887, 28045), (891, 28057), (898, 28084), (915, 28195), (924, 28270), (931, 28318), (941, 28372), (946, 28399), (963, 28513), (976, 28603),

Gene: ClubPenguin_22 Start: 15929, Stop: 21244, Start Num: 16

Candidate Starts for ClubPenguin_22:
(14, 15908), (Start: 16 @15929 has 1 MA's), (17, 15959), (45, 16181), (47, 16202), (79, 16472), (86, 16562), (87, 16598), (96, 16673), (105, 16721), (107, 16730), (110, 16763), (154, 17150), (155, 17153), (166, 17231), (182, 17324), (192, 17384), (203, 17426), (261, 17696), (278, 17756), (293, 17813), (317, 17915), (343, 18023), (366, 18146), (369, 18155), (385, 18224), (388, 18233), (389, 18236), (400, 18296), (415, 18362), (419, 18374), (422, 18383), (425, 18401), (429, 18422), (446, 18512), (468, 18605), (478, 18650), (479, 18659), (484, 18689), (495, 18728), (496, 18731), (506, 18770), (513, 18797), (518, 18821), (519, 18830), (526, 18863), (527, 18866), (531, 18878), (536, 18899), (550, 18935), (554, 18950), (570, 19028), (575, 19049), (577, 19055), (583, 19070), (586, 19079), (614, 19169), (624, 19202), (636, 19253), (639, 19265), (651, 19310), (683, 19439), (693, 19478), (701, 19514), (707, 19535), (717, 19571), (721, 19589), (724, 19598), (732, 19634), (734, 19649), (735, 19655), (744, 19700), (780, 19844), (785, 19880), (786, 19889), (803, 20003), (825, 20096), (843, 20180), (902, 20447), (912, 20501), (918, 20582), (930, 20663), (937, 20696), (939, 20717), (949, 20768), (955, 20807), (957, 20822), (962, 20870), (964, 20879), (965, 20891), (972, 20951), (978, 20999), (980, 21023), (983, 21068),

Gene: Conley_30 Start: 21600, Stop: 26687, Start Num: 19
Candidate Starts for Conley_30:
(Start: 19 @21600 has 160 MA's), (Start: 23 @21630 has 3 MA's), (44, 21768), (53, 21843), (56, 21864), (61, 21885), (68, 21915), (71, 21945), (72, 21966), (79, 22068), (84, 22128), (88, 22203), (89, 22215), (92, 22239), (96, 22269), (99, 22284), (105, 22317), (106, 22323), (110, 22359), (115, 22410), (124, 22464), (125, 22467), (135, 22566), (151, 22686), (157, 22740), (160, 22770), (163, 22791), (164, 22794), (175, 22863), (177, 22869), (213, 23052), (235, 23160), (236, 23172), (239, 23184), (247, 23208), (254, 23226), (300, 23463), (301, 23466), (308, 23502), (318, 23541), (320, 23550), (331, 23598), (341, 23682), (343, 23691), (353, 23754), (354, 23760), (356, 23766), (359, 23778), (362, 23796), (374, 23838), (380, 23865), (385, 23892), (391, 23913), (394, 23922), (397, 23943), (398, 23955), (399, 23961), (400, 23964), (401, 23973), (415, 24030), (422, 24051), (429, 24093), (435, 24120), (437, 24126), (440, 24144), (441, 24153), (443, 24168), (445, 24180), (447, 24189), (457, 24222), (460, 24231), (478, 24315), (479, 24324), (481, 24339), (486, 24360), (498, 24402), (501, 24414), (504, 24423), (507, 24438), (517, 24480), (519, 24495), (533, 24552), (536, 24564), (538, 24573), (544, 24585), (550, 24597), (551, 24603), (556, 24624), (560, 24636), (563, 24645), (566, 24654), (567, 24663), (568, 24678), (569, 24684), (572, 24696), (575, 24711), (578, 24720), (582, 24738), (592, 24771), (594, 24783), (608, 24831), (611, 24840), (618, 24864), (620, 24870), (625, 24888), (626, 24897), (627, 24900), (632, 24918), (650, 24987), (661, 25026), (685, 25131), (686, 25134), (687, 25137), (702, 25197), (728, 25293), (730, 25305), (739, 25350), (747, 25392), (770, 25527), (794, 25689), (804, 25764), (818, 25818), (824, 25839), (845, 25947), (857, 26007), (865, 26046), (872, 26064), (873, 26067), (883, 26094), (885, 26100), (887, 26115), (888, 26121), (891, 26127), (895, 26145), (896, 26148), (914, 26253), (915, 26265), (924, 26340), (926, 26358), (929, 26379), (932, 26391), (945, 26466), (956, 26526), (968, 26622), (976, 26673),

Gene: Correa_21 Start: 16900, Stop: 21378, Start Num: 19
Candidate Starts for Correa_21:
(Start: 18 @16879 has 2 MA's), (Start: 19 @16900 has 160 MA's), (Start: 23 @16930 has 3 MA's), (26, 16963), (30, 16984), (68, 17215), (71, 17245), (78, 17326), (79, 17368), (80, 17386), (84, 17428), (89, 17515), (96, 17569), (99, 17584), (105, 17617), (119, 17710), (126, 17758), (128, 17773), (133, 17815), (137, 17869), (145, 17944), (151, 17977), (164, 18085), (174, 18151), (182, 18184), (184, 18193), (185, 18196), (187, 18214), (246, 18496), (255, 18520), (260, 18550), (302, 18709), (317, 18769), (343, 18898), (357, 18976), (363, 19006), (366, 19021), (369, 19030), (376, 19054), (382, 19081), (385, 19099), (391, 19120), (404, 19195), (408, 19216), (412, 19228), (422, 19258), (429, 19300), (441, 19360), (442, 19366), (450, 19405), (455, 19420), (456, 19423), (467, 19480), (469, 19486), (474, 19507), (479, 19537), (484, 19567), (490, 19585), (501, 19633), (507, 19657), (511, 19675), (514, 19684), (517, 19699), (520, 19720), (527, 19750), (536, 19783), (537, 19789), (538, 19792), (543, 19804), (551, 19825), (566, 19876), (567, 19885), (571, 19915), (573, 19921), (583,

19954), (586, 19963), (596, 19993), (599, 20002), (602, 20014), (608, 20032), (614, 20053), (622, 20080), (624, 20086), (625, 20089), (628, 20104), (635, 20131), (643, 20161), (652, 20197), (678, 20299), (693, 20362), (701, 20398), (702, 20401), (708, 20422), (713, 20440), (723, 20479), (725, 20485), (729, 20500), (733, 20521), (734, 20533), (758, 20665), (780, 20728), (783, 20755), (786, 20773), (795, 20821), (796, 20827), (806, 20899), (825, 20977), (831, 21013), (835, 21031), (844, 21064), (846, 21079), (854, 21124), (911, 21367),

Gene: Count_30 Start: 23420, Stop: 27673, Start Num: 19
Candidate Starts for Count_30:
(Start: 18 @23399 has 2 MA's), (Start: 19 @23420 has 160 MA's), (Start: 23 @23453 has 3 MA's), (38, 23555), (57, 23690), (62, 23711), (71, 23768), (79, 23891), (84, 23951), (92, 24062), (95, 24086), (96, 24092), (99, 24107), (105, 24140), (106, 24146), (119, 24233), (121, 24254), (122, 24266), (126, 24281), (145, 24467), (152, 24512), (165, 24611), (168, 24620), (187, 24737), (191, 24761), (198, 24794), (242, 25007), (302, 25166), (306, 25184), (327, 25268), (336, 25310), (354, 25433), (355, 25436), (366, 25487), (369, 25496), (375, 25517), (388, 25574), (395, 25607), (397, 25616), (400, 25637), (401, 25646), (408, 25682), (415, 25703), (423, 25733), (429, 25766), (431, 25772), (434, 25787), (439, 25808), (441, 25826), (447, 25862), (451, 25874), (454, 25883), (457, 25895), (466, 25934), (470, 25949), (471, 25955), (476, 25976), (479, 25994), (511, 26042), (514, 26051), (516, 26063), (518, 26072), (551, 26114), (552, 26117), (566, 26165), (567, 26174), (570, 26201), (583, 26243), (586, 26252), (598, 26294), (604, 26315), (610, 26333), (612, 26339), (614, 26348), (624, 26381), (625, 26384), (652, 26492), (653, 26495), (657, 26510), (659, 26516), (674, 26579), (678, 26594), (683, 26618), (692, 26654), (693, 26657), (701, 26693), (708, 26717), (709, 26720), (715, 26744), (716, 26747), (734, 26828), (743, 26870), (763, 26981), (780, 27023), (786, 27068), (803, 27182), (807, 27200), (827, 27290), (839, 27344), (855, 27419), (906, 27632),

Gene: CricKo_21 Start: 15072, Stop: 20549, Start Num: 2
Candidate Starts for CricKo_21:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: Crocheter_32 Start: 23642, Stop: 28753, Start Num: 19
Candidate Starts for Crocheter_32:
(Start: 19 @23642 has 160 MA's), (Start: 23 @23672 has 3 MA's), (28, 23717), (49, 23861), (60, 23921), (61, 23927), (71, 23987), (72, 24008), (79, 24110), (87, 24236), (90, 24272), (96, 24311), (101, 24338), (105, 24359), (110, 24401), (117, 24473), (122, 24521), (137, 24647), (145, 24722), (146, 24734), (151, 24755), (163, 24860), (164, 24863), (184, 24971), (233, 25223), (260, 25328), (272, 25397), (277, 25418), (291, 25499), (293, 25502), (300, 25529), (308, 25568), (313, 25595), (339, 25736), (343, 25757), (353, 25820), (354, 25826), (359, 25844), (360, 25850), (370, 25892), (374, 25904), (376, 25913), (385, 25958), (395, 26000), (397, 26009), (398, 26021), (400, 26030), (401, 26039), (425, 26138), (429, 26159), (432, 26168), (437, 26192), (438, 26195), (450, 26264), (451,

26267), (454, 26276), (459, 26294), (460, 26297), (462, 26309), (466, 26330), (468, 26336), (469, 26339), (474, 26360), (479, 26390), (481, 26405), (484, 26420), (498, 26468), (501, 26480), (503, 26486), (504, 26489), (506, 26501), (507, 26504), (519, 26561), (532, 26615), (538, 26639), (544, 26651), (546, 26654), (559, 26699), (560, 26702), (565, 26717), (566, 26720), (567, 26729), (568, 26744), (569, 26750), (570, 26756), (575, 26777), (576, 26780), (580, 26792), (583, 26807), (586, 26816), (592, 26837), (594, 26849), (600, 26870), (608, 26897), (618, 26930), (620, 26936), (625, 26954), (632, 26984), (642, 27023), (661, 27092), (687, 27203), (690, 27215), (708, 27284), (728, 27359), (745, 27449), (770, 27593), (779, 27656), (789, 27722), (794, 27755), (797, 27767), (804, 27830), (812, 27851), (814, 27863), (818, 27884), (830, 27941), (848, 28025), (865, 28112), (872, 28130), (883, 28160), (886, 28178), (887, 28181), (888, 28187), (891, 28193), (898, 28220), (915, 28331), (924, 28406), (935, 28475), (941, 28508), (945, 28532), (963, 28649), (976, 28739),

Gene: Daddyjeff_25 Start: 18508, Stop: 23112, Start Num: 19
Candidate Starts for Daddyjeff_25:
(Start: 19 @18508 has 160 MA's), (Start: 23 @18541 has 3 MA's), (34, 18616), (43, 18664), (45, 18688), (57, 18778), (61, 18796), (65, 18808), (71, 18853), (79, 18976), (84, 19036), (92, 19147), (96, 19177), (99, 19192), (105, 19225), (109, 19264), (118, 19315), (119, 19318), (121, 19339), (122, 19351), (133, 19423), (140, 19513), (150, 19582), (152, 19597), (154, 19618), (157, 19639), (180, 19780), (184, 19801), (187, 19822), (197, 19876), (224, 20014), (233, 20065), (244, 20110), (316, 20416), (321, 20434), (343, 20578), (347, 20608), (366, 20701), (368, 20707), (369, 20710), (373, 20722), (382, 20761), (399, 20848), (422, 20938), (425, 20959), (431, 20986), (439, 21022), (465, 21151), (480, 21223), (483, 21244), (489, 21262), (498, 21295), (501, 21313), (506, 21334), (507, 21337), (519, 21394), (521, 21406), (527, 21430), (529, 21436), (536, 21463), (554, 21520), (566, 21562), (567, 21571), (570, 21598), (571, 21601), (578, 21628), (583, 21640), (586, 21649), (590, 21658), (610, 21724), (614, 21739), (622, 21766), (663, 21922), (675, 21973), (683, 22009), (693, 22048), (698, 22075), (702, 22087), (707, 22105), (713, 22126), (720, 22153), (725, 22171), (734, 22219), (748, 22285), (768, 22405), (773, 22429), (775, 22438), (780, 22480), (786, 22525), (796, 22579), (806, 22651), (813, 22675), (825, 22729), (827, 22744), (829, 22753), (831, 22765), (833, 22774), (836, 22786), (838, 22795), (855, 22873), (856, 22876), (870, 22948), (911, 23101),

Gene: Damascus_24 Start: 16928, Stop: 21136, Start Num: 19
Candidate Starts for Damascus_24:
(Start: 18 @16907 has 2 MA's), (Start: 19 @16928 has 160 MA's), (Start: 23 @16961 has 3 MA's), (46, 17120), (57, 17198), (71, 17276), (79, 17399), (84, 17459), (92, 17570), (95, 17594), (96, 17600), (99, 17615), (105, 17648), (118, 17738), (119, 17741), (121, 17762), (122, 17774), (137, 17900), (152, 18020), (160, 18092), (164, 18116), (185, 18227), (198, 18302), (214, 18380), (232, 18473), (243, 18518), (281, 18587), (298, 18653), (302, 18674), (328, 18767), (341, 18836), (343, 18845), (354, 18914), (366, 18968), (369, 18977), (374, 18992), (376, 19001), (379, 19010), (384, 19040), (385, 19046), (391, 19067), (395, 19088), (398, 19109), (400, 19118), (401, 19127), (406, 19154), (408, 19163), (415, 19184), (416, 19187), (420, 19199), (441, 19307), (445, 19334), (451, 19355), (456, 19370), (463, 19397), (464, 19400), (466, 19415), (471, 19436), (476, 19457), (479, 19475), (514, 19532), (516, 19544), (517, 19547), (518, 19553), (551, 19583), (567, 19643), (571, 19673), (583, 19712), (586, 19721), (593, 19751), (602, 19778), (603, 19781), (604, 19784), (614, 19817), (624, 19850), (635, 19895), (645, 19937), (657, 19979), (658, 19982), (659, 19985), (674, 20048), (683, 20087), (692, 20123), (693, 20126), (701, 20162), (735, 20303), (763, 20450), (780, 20492), (786, 20537), (796, 20591), (811, 20675), (821, 20717), (822, 20720), (833, 20786), (836, 20798), (842, 20816), (852, 20876), (868, 20945), (879, 20981), (889, 21020), (910, 21116),

Gene: Dancer_29 Start: 20241, Stop: 25343, Start Num: 19
Candidate Starts for Dancer_29:
(Start: 19 @20241 has 160 MA's), (Start: 23 @20271 has 3 MA's), (44, 20409), (49, 20460), (51, 20469), (53, 20484), (56, 20505), (61, 20526), (68, 20556), (71, 20586), (72, 20607), (79, 20709), (84, 20769), (88, 20844), (89, 20856), (92, 20880), (96, 20910), (99, 20925), (105, 20958), (110, 21000),

(115, 21051), (124, 21105), (125, 21108), (135, 21207), (138, 21231), (151, 21327), (160, 21411), (163, 21432), (164, 21435), (175, 21504), (177, 21510), (178, 21516), (213, 21693), (224, 21744), (233, 21795), (247, 21849), (248, 21852), (276, 21984), (283, 22023), (300, 22104), (301, 22107), (318, 22182), (331, 22239), (341, 22323), (343, 22332), (354, 22401), (356, 22407), (359, 22419), (361, 22434), (362, 22437), (367, 22458), (380, 22506), (385, 22533), (391, 22554), (394, 22563), (397, 22584), (398, 22596), (400, 22605), (401, 22614), (414, 22668), (415, 22671), (422, 22692), (429, 22734), (438, 22770), (440, 22785), (441, 22794), (443, 22809), (445, 22821), (447, 22830), (457, 22863), (460, 22872), (478, 22956), (479, 22965), (481, 22980), (486, 23001), (498, 23043), (504, 23064), (507, 23079), (509, 23085), (517, 23121), (519, 23136), (533, 23193), (536, 23205), (538, 23214), (544, 23226), (550, 23238), (551, 23244), (556, 23265), (560, 23277), (566, 23295), (567, 23304), (568, 23319), (569, 23325), (572, 23337), (582, 23379), (583, 23382), (586, 23391), (592, 23412), (594, 23424), (608, 23472), (611, 23481), (618, 23505), (620, 23511), (625, 23529), (626, 23538), (650, 23628), (655, 23646), (656, 23649), (661, 23667), (702, 23838), (716, 23889), (747, 24033), (758, 24102), (770, 24168), (778, 24219), (797, 24342), (804, 24405), (817, 24453), (818, 24459), (820, 24468), (830, 24516), (845, 24588), (857, 24648), (862, 24669), (863, 24672), (873, 24723), (875, 24732), (883, 24750), (887, 24771), (891, 24783), (909, 24876), (915, 24921), (924, 24996), (926, 25014), (929, 25035), (945, 25122), (962, 25233), (976, 25329),

Gene: Darby_26 Start: 19984, Stop: 24573, Start Num: 19
Candidate Starts for Darby_26:
(Start: 18 @19963 has 2 MA's), (Start: 19 @19984 has 160 MA's), (Start: 23 @20014 has 3 MA's), (30, 20068), (34, 20089), (40, 20125), (49, 20203), (60, 20263), (66, 20287), (68, 20299), (71, 20329), (74, 20380), (78, 20410), (79, 20452), (80, 20470), (84, 20512), (86, 20542), (88, 20587), (89, 20599), (96, 20653), (99, 20668), (101, 20680), (105, 20701), (119, 20794), (122, 20827), (126, 20842), (132, 20890), (146, 21040), (151, 21061), (153, 21082), (166, 21175), (167, 21178), (173, 21226), (194, 21340), (201, 21364), (207, 21391), (222, 21466), (239, 21559), (244, 21574), (246, 21580), (253, 21598), (265, 21670), (278, 21721), (283, 21736), (290, 21766), (306, 21838), (308, 21844), (312, 21862), (316, 21877), (317, 21880), (323, 21907), (343, 22021), (352, 22078), (354, 22090), (366, 22144), (369, 22153), (370, 22156), (376, 22177), (385, 22222), (391, 22243), (398, 22285), (401, 22303), (415, 22360), (422, 22381), (425, 22402), (441, 22483), (443, 22498), (444, 22501), (450, 22528), (451, 22531), (463, 22582), (479, 22660), (481, 22675), (482, 22678), (486, 22696), (488, 22702), (490, 22708), (493, 22717), (501, 22753), (504, 22762), (511, 22795), (522, 22849), (523, 22852), (527, 22870), (531, 22882), (538, 22912), (543, 22927), (549, 22936), (551, 22948), (556, 22969), (567, 23008), (578, 23065), (583, 23077), (586, 23086), (599, 23125), (602, 23137), (612, 23167), (614, 23176), (634, 23251), (639, 23272), (641, 23278), (657, 23338), (660, 23347), (672, 23401), (673, 23404), (704, 23530), (705, 23533), (711, 23554), (719, 23587), (720, 23590), (721, 23596), (724, 23605), (730, 23632), (739, 23677), (753, 23743), (759, 23794), (761, 23800), (771, 23860), (776, 23884), (783, 23944), (786, 23962), (788, 23974), (796, 24016), (819, 24133), (821, 24142), (829, 24190), (836, 24223), (839, 24235), (842, 24241), (845, 24262), (846, 24265), (847, 24271), (855, 24310), (860, 24337), (905, 24523), (910, 24550),

Gene: Demure_31 Start: 22605, Stop: 27719, Start Num: 19
Candidate Starts for Demure_31:
(Start: 19 @22605 has 160 MA's), (Start: 23 @22635 has 3 MA's), (28, 22680), (49, 22824), (56, 22869), (57, 22872), (60, 22884), (61, 22890), (71, 22950), (72, 22971), (79, 23073), (81, 23109), (87, 23199), (96, 23274), (101, 23301), (105, 23322), (108, 23346), (110, 23364), (122, 23484), (139, 23640), (145, 23685), (151, 23718), (163, 23823), (164, 23826), (174, 23892), (177, 23901), (204, 24036), (220, 24114), (236, 24204), (260, 24291), (267, 24339), (283, 24414), (300, 24495), (308, 24534), (313, 24561), (339, 24702), (343, 24723), (353, 24786), (354, 24792), (359, 24810), (360, 24816), (370, 24858), (374, 24870), (376, 24879), (385, 24924), (395, 24966), (397, 24975), (398, 24987), (400, 24996), (401, 25005), (414, 25059), (425, 25104), (429, 25125), (432, 25134), (437, 25158), (438, 25161), (439, 25167), (450, 25230), (451, 25233), (454, 25242), (457, 25254), (459, 25260), (460, 25263), (462, 25275), (466, 25296), (468, 25302), (469, 25305), (474, 25326), (479,

25356), (481, 25371), (484, 25386), (498, 25434), (501, 25446), (503, 25452), (504, 25455), (506, 25467), (507, 25470), (519, 25527), (532, 25581), (538, 25605), (544, 25617), (546, 25620), (559, 25665), (560, 25668), (565, 25683), (566, 25686), (567, 25695), (568, 25710), (569, 25716), (570, 25722), (575, 25743), (576, 25746), (580, 25758), (583, 25773), (586, 25782), (592, 25803), (594, 25815), (600, 25836), (608, 25863), (618, 25896), (620, 25902), (625, 25920), (632, 25950), (642, 25989), (661, 26058), (708, 26250), (728, 26325), (745, 26415), (770, 26559), (779, 26622), (789, 26688), (794, 26721), (797, 26733), (804, 26796), (812, 26817), (814, 26829), (818, 26850), (848, 26991), (865, 27078), (872, 27096), (883, 27126), (886, 27144), (887, 27147), (891, 27159), (898, 27186), (915, 27297), (924, 27372), (935, 27441), (941, 27474), (945, 27498), (963, 27615), (976, 27705),

Gene: DevitoJr_26 Start: 20152, Stop: 24744, Start Num: 19
Candidate Starts for DevitoJr_26:
(Start: 18 @20131 has 2 MA's), (Start: 19 @20152 has 160 MA's), (Start: 23 @20182 has 3 MA's), (30, 20236), (34, 20257), (40, 20293), (49, 20371), (60, 20431), (66, 20455), (68, 20467), (71, 20497), (74, 20548), (78, 20578), (79, 20620), (80, 20638), (84, 20680), (86, 20710), (88, 20755), (89, 20767), (96, 20821), (99, 20836), (101, 20848), (105, 20869), (119, 20962), (122, 20995), (126, 21010), (132, 21058), (151, 21229), (166, 21343), (167, 21346), (173, 21394), (194, 21508), (201, 21532), (204, 21547), (239, 21727), (244, 21742), (246, 21748), (253, 21766), (265, 21838), (283, 21904), (306, 22006), (308, 22012), (316, 22045), (317, 22048), (323, 22075), (343, 22192), (352, 22249), (354, 22261), (366, 22315), (369, 22324), (370, 22327), (376, 22348), (385, 22393), (391, 22414), (413, 22525), (415, 22531), (422, 22552), (424, 22570), (429, 22594), (441, 22654), (443, 22669), (444, 22672), (450, 22699), (451, 22702), (479, 22831), (481, 22846), (482, 22849), (486, 22867), (488, 22873), (489, 22876), (493, 22888), (501, 22924), (504, 22933), (511, 22966), (522, 23020), (523, 23023), (527, 23041), (531, 23053), (538, 23083), (543, 23098), (549, 23107), (551, 23119), (567, 23179), (578, 23236), (583, 23248), (586, 23257), (599, 23296), (602, 23308), (612, 23338), (614, 23347), (634, 23422), (635, 23425), (639, 23443), (657, 23509), (659, 23515), (660, 23518), (672, 23572), (673, 23575), (704, 23701), (705, 23704), (711, 23725), (719, 23758), (721, 23767), (739, 23848), (745, 23881), (753, 23914), (761, 23971), (771, 24031), (776, 24055), (786, 24133), (788, 24145), (811, 24271), (821, 24313), (829, 24361), (836, 24394), (839, 24406), (842, 24412), (845, 24433), (846, 24436), (847, 24442), (855, 24481), (860, 24508), (905, 24694), (910, 24721),

Gene: Dialga_33 Start: 23664, Stop: 28775, Start Num: 19
Candidate Starts for Dialga_33:
(Start: 19 @23664 has 160 MA's), (Start: 23 @23694 has 3 MA's), (28, 23739), (49, 23883), (60, 23943), (61, 23949), (71, 24009), (72, 24030), (79, 24132), (87, 24258), (90, 24294), (96, 24333), (101, 24360), (105, 24381), (110, 24423), (117, 24495), (122, 24543), (137, 24669), (145, 24744), (146, 24756), (151, 24777), (163, 24882), (164, 24885), (184, 24993), (233, 25245), (260, 25350), (272, 25419), (277, 25440), (291, 25521), (293, 25524), (300, 25551), (308, 25590), (313, 25617), (339, 25758), (343, 25779), (353, 25842), (354, 25848), (359, 25866), (360, 25872), (370, 25914), (374, 25926), (376, 25935), (385, 25980), (395, 26022), (397, 26031), (398, 26043), (400, 26052), (401, 26061), (425, 26160), (429, 26181), (432, 26190), (437, 26214), (438, 26217), (450, 26286), (451, 26289), (454, 26298), (459, 26316), (460, 26319), (462, 26331), (466, 26352), (468, 26358), (469, 26361), (474, 26382), (479, 26412), (481, 26427), (484, 26442), (498, 26490), (501, 26502), (503, 26508), (504, 26511), (506, 26523), (507, 26526), (519, 26583), (532, 26637), (538, 26661), (544, 26673), (546, 26676), (559, 26721), (560, 26724), (565, 26739), (566, 26742), (567, 26751), (568, 26766), (569, 26772), (570, 26778), (575, 26799), (576, 26802), (580, 26814), (583, 26829), (586, 26838), (592, 26859), (594, 26871), (600, 26892), (608, 26919), (618, 26952), (620, 26958), (625, 26976), (632, 27006), (642, 27045), (661, 27114), (687, 27225), (690, 27237), (708, 27306), (728, 27381), (745, 27471), (770, 27615), (779, 27678), (789, 27744), (794, 27777), (797, 27789), (804, 27852), (812, 27873), (814, 27885), (818, 27906), (848, 28047), (865, 28134), (872, 28152), (883, 28182), (886, 28200), (887, 28203), (891, 28215), (898, 28242), (915, 28353), (924, 28428), (935, 28497), (941, 28530), (945, 28554), (963, 28671), (976, 28761),

Gene: Dinallo_27 Start: 21223, Stop: 25812, Start Num: 19
Candidate Starts for Dinallo_27:
(Start: 18 @21202 has 2 MA's), (Start: 19 @21223 has 160 MA's), (Start: 23 @21253 has 3 MA's), (30, 21307), (34, 21328), (40, 21364), (60, 21502), (68, 21538), (71, 21568), (79, 21691), (80, 21709), (84, 21751), (91, 21859), (96, 21892), (99, 21907), (105, 21940), (117, 22018), (119, 22033), (121, 22054), (122, 22066), (127, 22090), (133, 22138), (141, 22234), (145, 22267), (151, 22300), (160, 22384), (164, 22408), (167, 22417), (200, 22600), (207, 22630), (222, 22705), (223, 22711), (239, 22798), (244, 22813), (246, 22819), (253, 22837), (254, 22846), (260, 22879), (261, 22888), (278, 22960), (290, 23005), (306, 23077), (308, 23083), (316, 23116), (317, 23119), (323, 23146), (343, 23260), (352, 23317), (354, 23329), (366, 23383), (369, 23392), (370, 23395), (376, 23416), (385, 23461), (391, 23482), (413, 23593), (415, 23599), (422, 23620), (424, 23638), (429, 23662), (441, 23722), (443, 23737), (444, 23740), (450, 23767), (451, 23770), (459, 23797), (476, 23881), (479, 23899), (481, 23914), (482, 23917), (486, 23935), (488, 23941), (489, 23944), (493, 23956), (494, 23962), (501, 23992), (504, 24001), (511, 24034), (522, 24088), (523, 24091), (527, 24109), (538, 24151), (543, 24166), (549, 24175), (551, 24187), (567, 24247), (578, 24304), (583, 24316), (586, 24325), (599, 24364), (602, 24376), (604, 24382), (608, 24394), (612, 24406), (614, 24415), (634, 24490), (635, 24493), (639, 24511), (657, 24577), (660, 24586), (672, 24640), (673, 24643), (704, 24769), (711, 24793), (719, 24826), (721, 24835), (726, 24850), (730, 24871), (739, 24916), (745, 24949), (753, 24982), (761, 25039), (771, 25099), (782, 25177), (786, 25201), (788, 25213), (811, 25339), (821, 25381), (829, 25429), (836, 25462), (839, 25474), (842, 25480), (845, 25501), (846, 25504), (847, 25510), (855, 25549), (860, 25576), (905, 25762), (910, 25789),

Gene: Ditters_19 Start: 13979, Stop: 19201, Start Num: 19
Candidate Starts for Ditters_19:
(Start: 18 @13958 has 2 MA's), (Start: 19 @13979 has 160 MA's), (Start: 23 @14009 has 3 MA's), (61, 14270), (66, 14288), (74, 14381), (79, 14453), (87, 14579), (90, 14615), (96, 14654), (108, 14726), (110, 14744), (136, 14981), (154, 15131), (159, 15170), (177, 15281), (182, 15305), (192, 15365), (206, 15422), (243, 15608), (258, 15656), (265, 15686), (270, 15704), (279, 15740), (281, 15749), (305, 15851), (317, 15896), (334, 15932), (340, 15974), (343, 15986), (354, 16055), (369, 16118), (374, 16133), (376, 16142), (377, 16145), (382, 16169), (389, 16199), (406, 16295), (422, 16346), (439, 16427), (446, 16475), (455, 16505), (458, 16517), (468, 16568), (478, 16613), (479, 16622), (484, 16652), (497, 16697), (503, 16718), (506, 16733), (513, 16760), (514, 16763), (518, 16784), (519, 16793), (527, 16829), (536, 16862), (570, 16991), (572, 16997), (583, 17033), (586, 17042), (596, 17072), (602, 17093), (604, 17099), (608, 17111), (610, 17117), (614, 17132), (624, 17165), (629, 17186), (631, 17195), (633, 17204), (640, 17231), (648, 17261), (651, 17273), (652, 17276), (657, 17294), (659, 17300), (668, 17339), (676, 17369), (679, 17381), (681, 17396), (683, 17402), (686, 17417), (717, 17534), (721, 17552), (724, 17561), (725, 17564), (728, 17576), (732, 17597), (733, 17600), (754, 17708), (764, 17774), (786, 17852), (789, 17867), (826, 18065), (832, 18095), (850, 18182), (874, 18299), (894, 18374), (904, 18425), (920, 18551), (937, 18656), (939, 18677), (940, 18680), (950, 18731), (952, 18749), (960, 18815), (962, 18830), (969, 18890), (972, 18911), (977, 18950), (980, 18983), (994, 19163),

Gene: DizzyRudy_24 Start: 16857, Stop: 21065, Start Num: 19
Candidate Starts for DizzyRudy_24:
(Start: 18 @16836 has 2 MA's), (Start: 19 @16857 has 160 MA's), (Start: 23 @16890 has 3 MA's), (46, 17049), (71, 17205), (79, 17328), (84, 17388), (92, 17499), (95, 17523), (96, 17529), (99, 17544), (105, 17577), (118, 17667), (119, 17670), (121, 17691), (122, 17703), (137, 17829), (152, 17949), (160, 18021), (164, 18045), (185, 18156), (198, 18231), (214, 18309), (221, 18336), (232, 18402), (281, 18516), (298, 18582), (302, 18603), (328, 18696), (341, 18765), (343, 18774), (354, 18843), (366, 18897), (369, 18906), (374, 18921), (376, 18930), (379, 18939), (384, 18969), (385, 18975), (391, 18996), (395, 19017), (398, 19038), (400, 19047), (401, 19056), (406, 19083), (408, 19092), (415, 19113), (416, 19116), (420, 19128), (441, 19236), (445, 19263), (451, 19284), (464, 19329), (466,

19344), (471, 19365), (476, 19386), (479, 19404), (514, 19461), (516, 19473), (517, 19476), (518, 19482), (551, 19512), (567, 19572), (571, 19602), (583, 19641), (586, 19650), (593, 19680), (602, 19707), (603, 19710), (604, 19713), (614, 19746), (624, 19779), (633, 19818), (635, 19824), (645, 19866), (653, 19893), (657, 19908), (658, 19911), (659, 19914), (674, 19977), (677, 19986), (683, 20016), (692, 20052), (693, 20055), (701, 20091), (735, 20232), (763, 20379), (780, 20421), (786, 20466), (796, 20520), (811, 20604), (821, 20646), (822, 20649), (833, 20715), (836, 20727), (842, 20745), (852, 20805), (868, 20874), (879, 20910), (889, 20949), (910, 21045),

Gene: Djungelskog_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for Djungelskog_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: DoctorPepper_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for DoctorPepper_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (620, 20432), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (698, 20750), (700, 20756), (702, 20762), (704, 20768), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605), (890, 21683),

Gene: Doxi13_19 Start: 13488, Stop: 18716, Start Num: 19
Candidate Starts for Doxi13_19:

(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 160 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (343, 15498), (354, 15567), (366, 15621), (388, 15708), (389, 15711), (410, 15822), (422, 15858), (425, 15876), (436, 15927), (458, 16029), (461, 16041), (463, 16056), (478, 16125), (479, 16134), (484, 16164), (497, 16209), (503, 16230), (510, 16260), (513, 16272), (514, 16275), (518, 16296), (519, 16305), (527, 16341), (536, 16374), (562, 16455), (563, 16458), (570, 16503), (571, 16506), (572, 16509), (586, 16554), (596, 16584), (610, 16629), (614, 16644), (624, 16677), (629, 16698), (631, 16707), (633, 16716), (639, 16740), (640, 16743), (668, 16851), (679, 16893), (681, 16908), (683, 16914), (703, 16995), (717, 17046), (719, 17055), (721, 17064), (724, 17073), (725, 17076), (728, 17088), (729, 17091), (730, 17100), (732, 17109), (736, 17133), (751, 17202), (758, 17256), (786, 17364), (789, 17379), (796, 17418), (826, 17577), (874, 17811), (894, 17886), (902, 17919), (927, 18123), (936, 18165), (937, 18168), (939, 18189), (948, 18237), (950, 18243), (964, 18351), (972, 18423), (981, 18525), (994, 18678),

Gene: DrGrey_23 Start: 16676, Stop: 22156, Start Num: 2
Candidate Starts for DrGrey_23:
(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90, 17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (335, 18881), (343, 18935), (354, 19004), (366, 19058), (376, 19091), (385, 19136), (388, 19145), (391, 19157), (404, 19232), (406, 19244), (418, 19283), (422, 19295), (429, 19334), (436, 19364), (439, 19376), (446, 19424), (458, 19466), (467, 19514), (479, 19571), (509, 19691), (518, 19733), (519, 19742), (527, 19778), (532, 19796), (533, 19799), (536, 19811), (551, 19853), (552, 19856), (566, 19904), (570, 19940), (572, 19946), (577, 19967), (586, 19991), (614, 20081), (624, 20114), (628, 20132), (631, 20144), (633, 20153), (648, 20210), (651, 20222), (652, 20225), (657, 20243), (671, 20303), (676, 20318), (683, 20351), (686, 20366), (705, 20438), (717, 20483), (721, 20501), (724, 20510), (732, 20546), (735, 20567), (736, 20570), (780, 20756), (782, 20777), (783, 20783), (786, 20801), (787, 20804), (789, 20816), (795, 20849), (796, 20855), (825, 21005), (826, 21014), (886, 21287), (908, 21389), (937, 21605), (939, 21626), (948, 21674), (950, 21680), (951, 21686), (957, 21731), (972, 21860), (978, 21908), (993, 22100), (994, 22109),

Gene: Duffington_32 Start: 23487, Stop: 28601, Start Num: 19
Candidate Starts for Duffington_32:
(Start: 19 @23487 has 160 MA's), (Start: 23 @23517 has 3 MA's), (28, 23562), (49, 23706), (61, 23772), (71, 23832), (72, 23853), (79, 23955), (87, 24081), (90, 24117), (96, 24156), (105, 24204), (110, 24246), (117, 24318), (122, 24366), (137, 24492), (145, 24567), (146, 24579), (151, 24600), (163, 24705), (164, 24708), (207, 24930), (220, 24996), (236, 25086), (247, 25122), (260, 25173), (267, 25221), (271, 25233), (300, 25377), (308, 25416), (313, 25443), (343, 25605), (350, 25653), (353, 25668), (354, 25674), (359, 25692), (370, 25740), (385, 25806), (397, 25857), (398, 25869), (401, 25887), (414, 25941), (425, 25986), (429, 26007), (432, 26016), (436, 26037), (440, 26058), (450, 26112), (451, 26115), (454, 26124), (460, 26145), (462, 26157), (466, 26178), (468, 26184), (472, 26202), (479, 26238), (484, 26268), (498, 26316), (501, 26328), (503, 26334), (504, 26337), (506, 26349), (507, 26352), (512, 26373), (519, 26409), (532, 26463), (533, 26466), (538, 26487), (544, 26499), (546, 26502), (560, 26550), (565, 26565), (566, 26568), (567, 26577), (569, 26598), (575, 26625), (576, 26628), (582, 26652), (586, 26664), (592, 26685), (594, 26697), (596, 26706), (600, 26718), (608, 26745), (618, 26778), (620, 26784), (625, 26802), (642, 26871), (661, 26940), (687, 27051), (716, 27162), (728, 27207), (745, 27297), (770, 27441), (779, 27504), (782, 27531), (794, 27603), (797, 27615), (798, 27624), (804, 27678), (812, 27699), (814, 27711), (848, 27873), (865, 27960), (872, 27978), (883, 28008), (886, 28026), (887, 28029), (891, 28041), (898, 28068),

(915, 28179), (924, 28254), (931, 28302), (941, 28356), (946, 28383), (963, 28497), (976, 28587),

Gene: Dynamite_21 Start: 17193, Stop: 21671, Start Num: 19
Candidate Starts for Dynamite_21:
(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 160 MA's), (Start: 23 @17223 has 3 MA's), (26, 17256), (30, 17277), (68, 17508), (71, 17538), (72, 17559), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (119, 18003), (126, 18051), (128, 18066), (133, 18108), (137, 18162), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (343, 19191), (357, 19269), (363, 19299), (366, 19314), (369, 19323), (376, 19347), (382, 19374), (385, 19392), (391, 19413), (404, 19488), (408, 19509), (412, 19521), (422, 19551), (429, 19593), (441, 19653), (442, 19659), (450, 19698), (469, 19779), (474, 19800), (479, 19830), (484, 19860), (490, 19878), (501, 19926), (507, 19950), (511, 19968), (514, 19977), (515, 19986), (517, 19992), (520, 20013), (527, 20043), (536, 20076), (537, 20082), (538, 20085), (543, 20097), (551, 20118), (566, 20169), (567, 20178), (571, 20208), (573, 20214), (583, 20247), (586, 20256), (596, 20286), (599, 20295), (602, 20307), (609, 20328), (614, 20346), (622, 20373), (624, 20379), (625, 20382), (628, 20397), (635, 20424), (639, 20442), (643, 20454), (652, 20490), (678, 20592), (693, 20655), (701, 20691), (702, 20694), (704, 20700), (708, 20715), (713, 20733), (723, 20772), (724, 20775), (729, 20793), (734, 20826), (739, 20847), (751, 20904), (758, 20958), (760, 20967), (780, 21021), (783, 21048), (786, 21066), (795, 21114), (796, 21120), (806, 21192), (825, 21270), (827, 21285), (835, 21324), (842, 21348), (854, 21417), (858, 21438), (881, 21531), (911, 21660),

Gene: Eddiemania_33 Start: 24148, Stop: 29262, Start Num: 19
Candidate Starts for Eddiemania_33:
(Start: 19 @24148 has 160 MA's), (Start: 23 @24178 has 3 MA's), (28, 24223), (49, 24367), (61, 24433), (71, 24493), (72, 24514), (79, 24616), (87, 24742), (90, 24778), (96, 24817), (101, 24844), (105, 24865), (110, 24907), (122, 25027), (145, 25228), (146, 25240), (151, 25261), (160, 25345), (163, 25366), (164, 25369), (184, 25477), (204, 25579), (236, 25747), (247, 25783), (260, 25834), (267, 25882), (300, 26038), (308, 26077), (312, 26095), (313, 26104), (343, 26266), (353, 26329), (354, 26335), (359, 26353), (360, 26359), (370, 26401), (385, 26467), (397, 26518), (398, 26530), (401, 26548), (414, 26602), (425, 26647), (429, 26668), (432, 26677), (436, 26698), (439, 26710), (440, 26719), (443, 26743), (450, 26773), (451, 26776), (454, 26785), (459, 26803), (460, 26806), (462, 26818), (466, 26839), (468, 26845), (469, 26848), (472, 26863), (474, 26869), (479, 26899), (481, 26914), (484, 26929), (497, 26974), (498, 26977), (501, 26989), (503, 26995), (504, 26998), (506, 27010), (507, 27013), (511, 27031), (519, 27070), (532, 27124), (538, 27148), (544, 27160), (546, 27163), (560, 27211), (565, 27226), (566, 27229), (567, 27238), (568, 27253), (569, 27259), (575, 27286), (576, 27289), (580, 27301), (583, 27316), (586, 27325), (592, 27346), (594, 27358), (600, 27379), (608, 27406), (618, 27439), (620, 27445), (625, 27463), (632, 27493), (642, 27532), (690, 27724), (708, 27793), (745, 27958), (770, 28102), (779, 28165), (789, 28231), (794, 28264), (797, 28276), (804, 28339), (812, 28360), (814, 28372), (817, 28387), (830, 28450), (848, 28534), (865, 28621), (872, 28639), (883, 28669), (886, 28687), (888, 28696), (891, 28702), (898, 28729), (915, 28840), (924, 28915), (935, 28984), (941, 29017), (945, 29041), (963, 29158), (976, 29248),

Gene: Eevee_26 Start: 20575, Stop: 25152, Start Num: 19
Candidate Starts for Eevee_26:
(Start: 19 @20575 has 160 MA's), (Start: 23 @20608 has 3 MA's), (45, 20755), (57, 20845), (58, 20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (122, 21454), (136, 21571), (146, 21667), (177, 21871), (180, 21883), (193, 21964), (221, 22099), (238, 22192), (254, 22255), (264, 22294), (280, 22357), (286, 22372), (332, 22576), (343, 22627), (359, 22714), (365, 22744), (368, 22756), (369, 22759), (373, 22771), (376, 22783), (382, 22810), (392, 22852), (399, 22897), (419, 22978), (421, 22984), (425, 23008), (427, 23014), (440, 23080), (445, 23116), (452, 23140), (461, 23173), (465, 23200), (467, 23209), (471, 23227), (476, 23248), (481, 23281), (488, 23308), (489, 23311), (501, 23362), (509, 23392), (511, 23404), (527, 23479), (533, 23500), (535, 23506),

(539, 23521), (566, 23605), (567, 23614), (570, 23641), (586, 23692), (598, 23728), (614, 23782), (635, 23860), (659, 23950), (667, 23980), (675, 24016), (683, 24052), (693, 24091), (707, 24148), (713, 24169), (719, 24193), (720, 24196), (723, 24208), (725, 24214), (743, 24304), (749, 24334), (750, 24337), (751, 24340), (759, 24400), (763, 24415), (772, 24469), (786, 24568), (805, 24688), (806, 24694), (829, 24796), (831, 24808), (833, 24817), (855, 24913), (856, 24916), (911, 25141),

Gene: Egad_23 Start: 17271, Stop: 21791, Start Num: 23
Candidate Starts for Egad_23:
(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 160 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (343, 19263), (354, 19332), (355, 19335), (364, 19377), (366, 19386), (369, 19395), (378, 19425), (385, 19464), (387, 19470), (391, 19485), (398, 19527), (422, 19623), (425, 19644), (426, 19647), (430, 19668), (441, 19725), (443, 19740), (450, 19770), (454, 19782), (461, 19809), (463, 19824), (474, 19872), (479, 19902), (481, 19917), (490, 19950), (492, 19956), (501, 19995), (504, 20004), (506, 20016), (511, 20037), (524, 20103), (527, 20112), (536, 20145), (537, 20151), (538, 20154), (543, 20166), (544, 20169), (552, 20190), (557, 20211), (567, 20247), (575, 20295), (586, 20325), (614, 20415), (630, 20472), (641, 20517), (645, 20535), (653, 20562), (655, 20571), (657, 20577), (671, 20637), (675, 20649), (678, 20661), (690, 20715), (698, 20751), (700, 20757), (702, 20763), (704, 20769), (714, 20805), (720, 20829), (721, 20835), (723, 20841), (724, 20844), (734, 20895), (737, 20907), (744, 20946), (767, 21078), (775, 21114), (780, 21156), (786, 21201), (802, 21291), (821, 21381), (825, 21405), (829, 21429), (831, 21441), (833, 21450), (836, 21462), (839, 21474), (849, 21519), (855, 21549), (858, 21567), (867, 21606),

Gene: ElephantMan_26 Start: 20686, Stop: 25275, Start Num: 19
Candidate Starts for ElephantMan_26:
(Start: 18 @20665 has 2 MA's), (Start: 19 @20686 has 160 MA's), (Start: 23 @20716 has 3 MA's), (30, 20770), (34, 20791), (40, 20827), (49, 20905), (60, 20965), (66, 20989), (68, 21001), (71, 21031), (78, 21112), (79, 21154), (80, 21172), (84, 21214), (86, 21244), (88, 21289), (89, 21301), (96, 21355), (99, 21370), (101, 21382), (105, 21403), (119, 21496), (122, 21529), (126, 21544), (132, 21592), (146, 21742), (151, 21763), (164, 21871), (166, 21877), (167, 21880), (173, 21928), (194, 22042), (201, 22066), (204, 22081), (207, 22093), (222, 22168), (228, 22213), (239, 22261), (244, 22276), (246, 22282), (253, 22300), (265, 22372), (277, 22414), (278, 22423), (290, 22468), (306, 22540), (308, 22546), (316, 22579), (317, 22582), (323, 22609), (343, 22723), (350, 22771), (352, 22780), (354, 22792), (366, 22846), (369, 22855), (370, 22858), (376, 22879), (385, 22924), (391, 22945), (413, 23056), (415, 23062), (422, 23083), (424, 23101), (425, 23104), (429, 23125), (441, 23185), (443, 23200), (444, 23203), (450, 23230), (451, 23233), (479, 23362), (481, 23377), (482, 23380), (486, 23398), (488, 23404), (493, 23419), (501, 23455), (504, 23464), (511, 23497), (522, 23551), (523, 23554), (527, 23572), (531, 23584), (538, 23614), (543, 23629), (549, 23638), (551, 23650), (567, 23710), (576, 23761), (578, 23767), (583, 23779), (586, 23788), (599, 23827), (602, 23839), (606, 23851), (612, 23869), (614, 23878), (634, 23953), (635, 23956), (639, 23974), (657, 24040), (659, 24046), (660, 24049), (672, 24103), (673, 24106), (704, 24232), (705, 24235), (711, 24256), (719, 24289), (721, 24298), (739, 24379), (745, 24412), (753, 24445), (761, 24502), (771, 24562), (776, 24586), (786, 24664), (788, 24676), (811, 24802), (821, 24844), (829, 24892), (836, 24925), (839, 24937), (842, 24943), (845, 24964), (846, 24967), (855, 25012), (860, 25039), (866, 25066), (867, 25069), (905, 25225), (910, 25252),

Gene: Elsa_22 Start: 17670, Stop: 22148, Start Num: 19
Candidate Starts for Elsa_22:

(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 160 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133, 18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (343, 19668), (350, 19716), (361, 19770), (364, 19782), (366, 19791), (369, 19800), (376, 19824), (385, 19869), (391, 19890), (404, 19965), (412, 19998), (422, 20028), (425, 20049), (429, 20070), (441, 20130), (442, 20136), (450, 20175), (451, 20178), (456, 20193), (469, 20256), (474, 20277), (479, 20307), (484, 20337), (490, 20355), (501, 20403), (507, 20427), (511, 20445), (514, 20454), (515, 20463), (517, 20469), (520, 20490), (527, 20520), (536, 20553), (537, 20559), (538, 20562), (543, 20574), (551, 20595), (566, 20646), (567, 20655), (571, 20685), (573, 20691), (583, 20724), (586, 20733), (596, 20763), (599, 20772), (602, 20784), (614, 20823), (622, 20850), (624, 20856), (625, 20859), (628, 20874), (635, 20901), (639, 20919), (643, 20931), (652, 20967), (678, 21069), (693, 21132), (701, 21168), (702, 21171), (704, 21177), (708, 21192), (713, 21210), (719, 21234), (723, 21249), (724, 21252), (729, 21270), (734, 21303), (739, 21324), (751, 21381), (758, 21435), (760, 21444), (780, 21498), (783, 21525), (786, 21543), (795, 21591), (796, 21597), (806, 21669), (825, 21747), (827, 21762), (835, 21801), (842, 21825), (854, 21894), (858, 21915), (881, 22008), (911, 22137),

Gene: Elver_40 Start: 29219, Stop: 33769, Start Num: 19
Candidate Starts for Elver_40:
(Start: 19 @29219 has 160 MA's), (Start: 23 @29249 has 3 MA's), (34, 29324), (40, 29360), (49, 29438), (79, 29687), (87, 29813), (92, 29858), (93, 29873), (96, 29888), (101, 29915), (105, 29936), (108, 29960), (110, 29978), (122, 30095), (129, 30140), (132, 30158), (144, 30281), (146, 30308), (149, 30320), (152, 30341), (182, 30536), (198, 30623), (200, 30629), (210, 30671), (219, 30722), (230, 30785), (250, 30860), (252, 30869), (282, 30989), (304, 31067), (305, 31076), (343, 31244), (357, 31322), (366, 31367), (369, 31376), (376, 31400), (385, 31445), (391, 31466), (408, 31562), (419, 31595), (425, 31625), (441, 31706), (443, 31721), (444, 31724), (463, 31805), (469, 31832), (479, 31883), (483, 31910), (490, 31931), (491, 31934), (501, 31976), (522, 32072), (527, 32093), (531, 32105), (536, 32126), (538, 32135), (543, 32147), (556, 32189), (566, 32219), (567, 32228), (575, 32276), (576, 32279), (583, 32297), (586, 32306), (602, 32357), (605, 32366), (614, 32396), (625, 32432), (631, 32459), (652, 32540), (653, 32543), (673, 32624), (677, 32636), (683, 32666), (686, 32681), (689, 32690), (693, 32705), (702, 32744), (713, 32783), (717, 32798), (719, 32807), (722, 32819), (725, 32828), (726, 32831), (734, 32876), (735, 32882), (747, 32939), (751, 32954), (755, 32984), (771, 33080), (780, 33137), (786, 33182), (800, 33251), (813, 33332), (819, 33353), (825, 33386), (833, 33431), (835, 33440), (839, 33455), (842, 33461), (854, 33530), (858, 33548), (869, 33599),

Gene: EndAve_32 Start: 23502, Stop: 28613, Start Num: 19
Candidate Starts for EndAve_32:
(Start: 19 @23502 has 160 MA's), (Start: 23 @23532 has 3 MA's), (28, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (117, 24333), (122, 24381), (137, 24507), (145, 24582), (146, 24594), (151, 24615), (163, 24720), (164, 24723), (207, 24945), (220, 25011), (221, 25014), (233, 25083), (236, 25101), (260, 25188), (272, 25257), (291, 25359), (293, 25362), (300, 25389), (308, 25428), (313, 25455), (343, 25617), (350, 25665), (354, 25686), (359, 25704), (361, 25719), (370, 25752), (385, 25818), (396, 25866), (397, 25869), (400, 25890), (401, 25899), (414, 25953), (425, 25998), (429, 26019), (432, 26028), (439, 26061), (440, 26070), (443, 26094), (450, 26124), (451, 26127), (454, 26136), (457, 26148), (460, 26157), (462, 26169), (466, 26190), (468, 26196), (479, 26250), (484, 26280), (498, 26328), (501, 26340), (503, 26346), (504, 26349), (507, 26364), (512, 26385), (519, 26421), (532, 26475), (533, 26478), (536, 26490), (538, 26499), (544, 26511), (546, 26514), (551, 26529), (558, 26556), (560, 26562), (565, 26577), (566, 26580), (567, 26589), (568, 26604), (569, 26610), (573, 26625), (575, 26637), (576, 26640), (586, 26676), (592, 26697), (594, 26709), (596,

26718), (600, 26730), (608, 26757), (615, 26781), (618, 26790), (620, 26796), (625, 26814), (642, 26883), (661, 26952), (697, 27108), (745, 27309), (770, 27453), (779, 27516), (782, 27543), (794, 27615), (797, 27627), (798, 27636), (804, 27690), (812, 27711), (814, 27723), (848, 27885), (865, 27972), (872, 27990), (883, 28020), (886, 28038), (887, 28041), (891, 28053), (898, 28080), (915, 28191), (924, 28266), (931, 28314), (941, 28368), (946, 28395), (963, 28509), (976, 28599),

Gene: Esketit_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for Esketit_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346), (552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Espio_24 Start: 16677, Stop: 22157, Start Num: 2
Candidate Starts for Espio_24:
(1, 16656), (Start: 2 @16677 has 31 MA's), (3, 16707), (14, 16851), (17, 16902), (25, 16986), (42, 17061), (53, 17178), (54, 17181), (60, 17214), (68, 17250), (71, 17280), (79, 17403), (87, 17529), (90, 17565), (96, 17604), (98, 17616), (105, 17652), (110, 17694), (133, 17886), (138, 17952), (146, 18027), (151, 18048), (154, 18081), (162, 18144), (163, 18153), (177, 18231), (207, 18378), (231, 18510), (246, 18567), (267, 18645), (270, 18654), (274, 18663), (279, 18690), (298, 18765), (300, 18774), (315, 18840), (316, 18843), (335, 18882), (343, 18936), (354, 19005), (366, 19059), (376, 19092), (385, 19137), (388, 19146), (391, 19158), (404, 19233), (418, 19284), (422, 19296), (429, 19335), (436, 19365), (439, 19377), (446, 19425), (458, 19467), (467, 19515), (479, 19572), (509, 19692), (518, 19734), (519, 19743), (527, 19779), (532, 19797), (533, 19800), (536, 19812), (551, 19854), (552, 19857), (566, 19905), (570, 19941), (572, 19947), (577, 19968), (586, 19992), (614, 20082), (624, 20115), (628, 20133), (631, 20145), (633, 20154), (648, 20211), (651, 20223), (652, 20226), (657, 20244), (671, 20304), (676, 20319), (683, 20352), (686, 20367), (705, 20439), (717, 20484), (721, 20502), (724, 20511), (732, 20547), (735, 20568), (736, 20571), (780, 20757), (782, 20778), (783, 20784), (786, 20802), (787, 20805), (789, 20817), (795, 20850), (796, 20856), (825, 21006), (826, 21015), (886, 21288), (908, 21390), (937, 21606), (939, 21627), (948, 21675), (950, 21681), (951, 21687), (957, 21732), (972, 21861), (978, 21909), (993, 22101), (994, 22110),

Gene: Fazel_30 Start: 22536, Stop: 27638, Start Num: 19
Candidate Starts for Fazel_30:
(Start: 19 @22536 has 160 MA's), (Start: 23 @22566 has 3 MA's), (28, 22611), (48, 22749), (49, 22755), (61, 22821), (68, 22851), (79, 23016), (84, 23076), (89, 23163), (92, 23187), (96, 23217), (99, 23232), (105, 23265), (115, 23358), (137, 23526), (151, 23634), (152, 23646), (158, 23703), (163, 23739), (164, 23742), (175, 23811), (177, 23817), (213, 24000), (214, 24006), (233, 24102), (236, 24120), (272, 24276), (298, 24402), (300, 24411), (343, 24642), (344, 24648), (354, 24711), (359,

24729), (364, 24756), (369, 24774), (385, 24843), (392, 24867), (394, 24873), (397, 24894), (399, 24912), (400, 24915), (414, 24978), (425, 25023), (429, 25044), (435, 25071), (441, 25104), (445, 25131), (450, 25149), (451, 25152), (454, 25161), (457, 25173), (459, 25179), (460, 25182), (462, 25194), (472, 25239), (481, 25290), (490, 25323), (495, 25344), (498, 25353), (501, 25365), (504, 25374), (507, 25389), (509, 25395), (510, 25401), (512, 25410), (515, 25425), (516, 25428), (518, 25437), (519, 25446), (527, 25482), (533, 25503), (538, 25524), (551, 25554), (555, 25569), (556, 25575), (564, 25599), (566, 25605), (567, 25614), (568, 25629), (569, 25635), (578, 25671), (582, 25689), (586, 25701), (592, 25722), (594, 25734), (600, 25755), (601, 25758), (608, 25782), (611, 25791), (618, 25815), (620, 25821), (625, 25839), (626, 25848), (627, 25851), (650, 25938), (659, 25968), (708, 26169), (728, 26244), (739, 26301), (745, 26334), (766, 26457), (794, 26640), (797, 26652), (798, 26661), (804, 26715), (817, 26763), (827, 26814), (838, 26865), (844, 26886), (851, 26934), (857, 26958), (865, 26997), (872, 27015), (886, 27063), (887, 27066), (891, 27078), (915, 27216), (924, 27291), (946, 27420), (954, 27468), (963, 27534), (968, 27573), (976, 27624),

Gene: FidgetOrca_23 Start: 16166, Stop: 21652, Start Num: 2
Candidate Starts for FidgetOrca_23:
(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (54, 16670), (61, 16709), (68, 16739), (70, 16763), (71, 16769), (72, 16790), (73, 16805), (79, 16892), (86, 16982), (87, 17018), (88, 17027), (90, 17054), (96, 17093), (97, 17102), (101, 17120), (105, 17141), (110, 17183), (111, 17192), (122, 17300), (134, 17405), (145, 17501), (154, 17567), (177, 17717), (192, 17801), (196, 17822), (207, 17864), (232, 17999), (267, 18131), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (339, 18413), (343, 18434), (353, 18497), (354, 18503), (356, 18509), (361, 18536), (366, 18557), (368, 18563), (369, 18566), (376, 18590), (385, 18635), (388, 18644), (389, 18647), (391, 18656), (404, 18731), (410, 18758), (415, 18773), (416, 18776), (422, 18794), (425, 18812), (429, 18833), (440, 18884), (458, 18965), (476, 19052), (479, 19070), (483, 19097), (509, 19190), (518, 19232), (519, 19241), (527, 19277), (532, 19295), (533, 19298), (551, 19352), (566, 19403), (570, 19439), (572, 19445), (577, 19466), (586, 19490), (596, 19520), (614, 19580), (624, 19613), (625, 19616), (628, 19631), (637, 19667), (648, 19709), (651, 19721), (652, 19724), (666, 19772), (671, 19802), (676, 19817), (683, 19850), (686, 19865), (702, 19928), (723, 20006), (732, 20045), (744, 20111), (759, 20198), (760, 20201), (786, 20300), (795, 20348), (796, 20354), (826, 20513), (886, 20786), (908, 20888), (922, 21011), (937, 21104), (939, 21125), (948, 21173), (950, 21179), (951, 21185), (957, 21230), (969, 21338), (972, 21359), (978, 21407), (986, 21494), (993, 21596), (994, 21605),

Gene: Figliar_32 Start: 23512, Stop: 28611, Start Num: 19
Candidate Starts for Figliar_32:
(Start: 19 @23512 has 160 MA's), (Start: 23 @23542 has 3 MA's), (28, 23587), (48, 23725), (49, 23731), (59, 23785), (61, 23797), (64, 23809), (68, 23827), (79, 23992), (84, 24052), (89, 24139), (92, 24163), (96, 24193), (99, 24208), (105, 24241), (115, 24334), (137, 24502), (151, 24610), (152, 24622), (154, 24643), (158, 24679), (163, 24715), (164, 24718), (175, 24787), (177, 24793), (192, 24877), (207, 24940), (213, 24976), (221, 25009), (235, 25084), (236, 25096), (247, 25132), (260, 25183), (267, 25231), (271, 25243), (300, 25387), (308, 25426), (313, 25453), (343, 25615), (350, 25663), (354, 25684), (359, 25702), (370, 25750), (385, 25816), (397, 25867), (398, 25879), (401, 25897), (414, 25951), (425, 25996), (429, 26017), (432, 26026), (435, 26044), (436, 26047), (440, 26068), (450, 26122), (451, 26125), (454, 26134), (460, 26155), (462, 26167), (466, 26188), (468, 26194), (472, 26212), (479, 26248), (484, 26278), (498, 26326), (501, 26338), (503, 26344), (504, 26347), (506, 26359), (507, 26362), (512, 26383), (519, 26419), (532, 26473), (533, 26476), (538, 26497), (544, 26509), (546, 26512), (560, 26560), (565, 26575), (566, 26578), (567, 26587), (569, 26608), (575, 26635), (576, 26638), (582, 26662), (586, 26674), (592, 26695), (594, 26707), (596, 26716), (600, 26728), (608, 26755), (618, 26788), (620, 26794), (625, 26812), (638, 26866), (642, 26881), (661, 26950), (687, 27061), (716, 27172), (728, 27217), (745, 27307), (770, 27451), (779, 27514), (782, 27541), (794, 27613), (797, 27625), (798, 27634), (804, 27688), (812, 27709), (814, 27721), (848, 27883), (865, 27970), (872, 27988), (883, 28018), (886, 28036), (887, 28039), (891,

28051), (898, 28078), (915, 28189), (923, 28252), (924, 28264), (931, 28312), (941, 28366), (946, 28393), (963, 28507), (976, 28597),

Gene: Football_30 Start: 20253, Stop: 25355, Start Num: 19
Candidate Starts for Football_30:
(Start: 19 @20253 has 160 MA's), (Start: 23 @20283 has 3 MA's), (44, 20421), (49, 20472), (51, 20481), (53, 20496), (56, 20517), (61, 20538), (68, 20568), (71, 20598), (72, 20619), (79, 20721), (84, 20781), (88, 20856), (89, 20868), (92, 20892), (96, 20922), (99, 20937), (105, 20970), (110, 21012), (115, 21063), (124, 21117), (125, 21120), (135, 21219), (138, 21243), (151, 21339), (160, 21423), (163, 21444), (164, 21447), (175, 21516), (177, 21522), (178, 21528), (213, 21705), (224, 21756), (233, 21807), (247, 21861), (248, 21864), (276, 21996), (283, 22035), (300, 22116), (301, 22119), (318, 22194), (331, 22251), (341, 22335), (343, 22344), (354, 22413), (356, 22419), (359, 22431), (361, 22446), (362, 22449), (367, 22470), (380, 22518), (385, 22545), (391, 22566), (394, 22575), (397, 22596), (398, 22608), (400, 22617), (401, 22626), (414, 22680), (415, 22683), (422, 22704), (429, 22746), (438, 22782), (440, 22797), (441, 22806), (443, 22821), (445, 22833), (447, 22842), (457, 22875), (460, 22884), (478, 22968), (479, 22977), (481, 22992), (486, 23013), (498, 23055), (504, 23076), (507, 23091), (509, 23097), (517, 23133), (519, 23148), (533, 23205), (536, 23217), (538, 23226), (544, 23238), (550, 23250), (551, 23256), (556, 23277), (560, 23289), (566, 23307), (567, 23316), (568, 23331), (569, 23337), (572, 23349), (582, 23391), (583, 23394), (586, 23403), (592, 23424), (594, 23436), (608, 23484), (611, 23493), (618, 23517), (620, 23523), (625, 23541), (626, 23550), (650, 23640), (655, 23658), (656, 23661), (661, 23679), (702, 23850), (716, 23901), (747, 24045), (770, 24180), (778, 24231), (797, 24354), (804, 24417), (817, 24465), (818, 24471), (820, 24480), (830, 24528), (845, 24600), (857, 24660), (862, 24681), (863, 24684), (873, 24735), (875, 24744), (883, 24762), (887, 24783), (891, 24795), (909, 24888), (915, 24933), (924, 25008), (926, 25026), (929, 25047), (945, 25134), (962, 25245), (976, 25341),

Gene: FortCran_29 Start: 20505, Stop: 25607, Start Num: 19
Candidate Starts for FortCran_29:
(Start: 19 @20505 has 160 MA's), (Start: 23 @20535 has 3 MA's), (44, 20673), (48, 20718), (49, 20724), (51, 20733), (53, 20748), (56, 20769), (61, 20790), (68, 20820), (71, 20850), (72, 20871), (79, 20973), (84, 21033), (88, 21108), (89, 21120), (92, 21144), (96, 21174), (99, 21189), (105, 21222), (110, 21264), (115, 21315), (124, 21369), (125, 21372), (135, 21471), (138, 21495), (151, 21591), (163, 21696), (164, 21699), (175, 21768), (177, 21774), (178, 21780), (213, 21957), (224, 22008), (233, 22059), (247, 22113), (248, 22116), (300, 22368), (301, 22371), (318, 22446), (331, 22503), (341, 22587), (343, 22596), (356, 22671), (359, 22683), (361, 22698), (362, 22701), (367, 22722), (380, 22770), (385, 22797), (391, 22818), (394, 22827), (397, 22848), (398, 22860), (400, 22869), (401, 22878), (414, 22932), (415, 22935), (422, 22956), (429, 22998), (435, 23025), (438, 23034), (440, 23049), (441, 23058), (443, 23073), (445, 23085), (447, 23094), (457, 23127), (460, 23136), (478, 23220), (479, 23229), (481, 23244), (482, 23247), (486, 23265), (498, 23307), (504, 23328), (507, 23343), (509, 23349), (517, 23385), (519, 23400), (533, 23457), (536, 23469), (538, 23478), (544, 23490), (550, 23502), (551, 23508), (556, 23529), (560, 23541), (566, 23559), (567, 23568), (568, 23583), (569, 23589), (572, 23601), (582, 23643), (583, 23646), (586, 23655), (592, 23676), (594, 23688), (608, 23736), (611, 23745), (618, 23769), (620, 23775), (625, 23793), (626, 23802), (632, 23823), (650, 23892), (655, 23910), (661, 23931), (702, 24102), (716, 24153), (747, 24297), (758, 24366), (770, 24432), (778, 24483), (797, 24606), (804, 24669), (817, 24717), (818, 24723), (820, 24732), (830, 24780), (845, 24852), (857, 24912), (862, 24933), (863, 24936), (873, 24987), (875, 24996), (883, 25014), (887, 25035), (891, 25047), (909, 25140), (915, 25185), (924, 25260), (926, 25278), (929, 25299), (945, 25386), (962, 25497), (976, 25593),

Gene: FrodoSwaggins_23 Start: 16676, Stop: 22156, Start Num: 2
Candidate Starts for FrodoSwaggins_23:
(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90,

17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (335, 18881), (343, 18935), (354, 19004), (366, 19058), (376, 19091), (385, 19136), (388, 19145), (391, 19157), (404, 19232), (418, 19283), (422, 19295), (429, 19334), (436, 19364), (439, 19376), (446, 19424), (458, 19466), (467, 19514), (479, 19571), (509, 19691), (518, 19733), (519, 19742), (527, 19778), (532, 19796), (533, 19799), (536, 19811), (551, 19853), (552, 19856), (566, 19904), (570, 19940), (572, 19946), (577, 19967), (586, 19991), (614, 20081), (624, 20114), (628, 20132), (631, 20144), (633, 20153), (648, 20210), (651, 20222), (652, 20225), (657, 20243), (671, 20303), (676, 20318), (683, 20351), (686, 20366), (705, 20438), (717, 20483), (721, 20501), (724, 20510), (732, 20546), (735, 20567), (736, 20570), (780, 20756), (782, 20777), (783, 20783), (786, 20801), (787, 20804), (789, 20816), (795, 20849), (796, 20855), (825, 21005), (826, 21014), (886, 21287), (908, 21389), (937, 21605), (939, 21626), (948, 21674), (950, 21680), (951, 21686), (957, 21731), (972, 21860), (978, 21908), (993, 22100), (994, 22109),

Gene: FromIndy_22 Start: 15060, Stop: 20537, Start Num: 2
Candidate Starts for FromIndy_22:
(Start: 2 @15060 has 31 MA's), (3, 15090), (6, 15144), (9, 15171), (10, 15201), (12, 15204), (14, 15234), (79, 15786), (87, 15912), (96, 15987), (104, 16029), (110, 16077), (118, 16161), (133, 16269), (151, 16431), (154, 16464), (163, 16536), (177, 16614), (207, 16761), (279, 17073), (281, 17082), (299, 17145), (313, 17208), (343, 17319), (349, 17361), (354, 17388), (357, 17397), (369, 17451), (376, 17475), (389, 17532), (391, 17541), (411, 17646), (414, 17655), (422, 17679), (439, 17760), (458, 17850), (468, 17901), (476, 17937), (479, 17955), (484, 17985), (495, 18024), (496, 18027), (506, 18066), (514, 18096), (518, 18117), (519, 18126), (526, 18159), (527, 18162), (533, 18183), (554, 18246), (570, 18324), (572, 18330), (583, 18366), (584, 18369), (585, 18372), (586, 18375), (602, 18426), (605, 18435), (608, 18444), (614, 18465), (623, 18495), (624, 18498), (639, 18561), (640, 18564), (641, 18567), (652, 18609), (657, 18627), (666, 18657), (676, 18702), (683, 18735), (701, 18810), (703, 18816), (712, 18846), (717, 18867), (724, 18894), (728, 18909), (732, 18930), (736, 18954), (750, 19020), (756, 19062), (759, 19083), (764, 19107), (786, 19185), (795, 19233), (826, 19398), (874, 19632), (897, 19713), (904, 19758), (913, 19803), (937, 19989), (939, 20010), (942, 20022), (950, 20064), (957, 20115), (962, 20163), (967, 20202), (974, 20253), (985, 20376), (991, 20415),

Gene: Gandionco_41 Start: 29771, Stop: 34291, Start Num: 23
Candidate Starts for Gandionco_41:
(Start: 19 @29741 has 160 MA's), (Start: 23 @29771 has 3 MA's), (34, 29846), (40, 29882), (49, 29960), (78, 30167), (79, 30209), (87, 30335), (92, 30380), (93, 30395), (96, 30410), (101, 30437), (105, 30458), (108, 30482), (110, 30500), (122, 30617), (129, 30662), (132, 30680), (144, 30803), (146, 30830), (149, 30842), (152, 30863), (182, 31058), (198, 31145), (200, 31151), (210, 31193), (219, 31244), (250, 31382), (252, 31391), (282, 31511), (304, 31589), (305, 31598), (343, 31766), (357, 31844), (366, 31889), (369, 31898), (376, 31922), (385, 31967), (386, 31970), (391, 31988), (408, 32084), (419, 32117), (425, 32147), (431, 32174), (441, 32228), (443, 32243), (444, 32246), (463, 32327), (469, 32354), (479, 32405), (483, 32432), (490, 32453), (491, 32456), (501, 32498), (522, 32594), (527, 32615), (531, 32627), (536, 32648), (538, 32657), (543, 32669), (556, 32711), (566, 32741), (567, 32750), (575, 32798), (576, 32801), (583, 32819), (586, 32828), (602, 32879), (605, 32888), (614, 32918), (625, 32954), (652, 33062), (653, 33065), (673, 33146), (677, 33158), (683, 33188), (686, 33203), (693, 33227), (702, 33266), (713, 33305), (717, 33320), (719, 33329), (722, 33341), (725, 33350), (726, 33353), (734, 33398), (735, 33404), (747, 33461), (751, 33476), (755, 33506), (771, 33602), (780, 33659), (786, 33704), (800, 33773), (813, 33854), (819, 33875), (825, 33908), (833, 33953), (835, 33962), (839, 33977), (842, 33983), (854, 34052), (858, 34070), (869, 34121),

Gene: GantcherGoblin_25 Start: 19002, Stop: 23639, Start Num: 19

Candidate Starts for GantcherGoblin_25:
(Start: 18 @18981 has 2 MA's), (Start: 19 @19002 has 160 MA's), (Start: 23 @19032 has 3 MA's), (30, 19086), (31, 19095), (61, 19365), (62, 19368), (71, 19425), (72, 19446), (78, 19506), (79, 19548), (84, 19608), (89, 19695), (93, 19734), (96, 19749), (99, 19764), (105, 19797), (109, 19836), (110, 19839), (117, 19875), (119, 19890), (126, 19938), (163, 20262), (167, 20274), (175, 20334), (185, 20376), (194, 20436), (195, 20442), (198, 20451), (203, 20466), (204, 20475), (224, 20574), (225, 20586), (226, 20595), (228, 20607), (301, 20892), (313, 20952), (317, 20961), (343, 21102), (350, 21150), (355, 21174), (357, 21180), (366, 21225), (369, 21234), (376, 21258), (380, 21276), (390, 21321), (391, 21324), (394, 21333), (404, 21399), (415, 21441), (419, 21453), (422, 21462), (425, 21483), (436, 21534), (441, 21564), (443, 21579), (454, 21621), (459, 21639), (468, 21687), (469, 21690), (480, 21747), (485, 21774), (506, 21855), (509, 21864), (519, 21915), (527, 21951), (536, 21984), (538, 21993), (543, 22005), (553, 22032), (558, 22053), (566, 22077), (567, 22086), (583, 22155), (584, 22158), (585, 22161), (586, 22164), (596, 22194), (602, 22215), (609, 22236), (614, 22254), (617, 22263), (622, 22281), (637, 22341), (645, 22374), (649, 22389), (651, 22395), (652, 22398), (665, 22443), (671, 22476), (672, 22479), (673, 22482), (678, 22500), (707, 22620), (708, 22623), (713, 22641), (722, 22677), (732, 22719), (736, 22743), (751, 22812), (758, 22866), (761, 22878), (780, 22995), (786, 23040), (795, 23088), (822, 23223), (825, 23244), (829, 23268), (842, 23319), (855, 23388), (858, 23406),

Gene: GermyBearimy_25 Start: 17673, Stop: 22733, Start Num: 5
Candidate Starts for GermyBearimy_25:
(5, 17673), (7, 17703), (11, 17757), (13, 17778), (31, 17985), (32, 17991), (33, 17994), (49, 18114), (55, 18147), (61, 18180), (72, 18261), (76, 18300), (77, 18312), (79, 18363), (87, 18489), (89, 18510), (96, 18564), (102, 18594), (119, 18696), (121, 18717), (127, 18753), (132, 18792), (145, 18930), (151, 18963), (159, 19035), (161, 19056), (163, 19068), (164, 19071), (172, 19122), (179, 19155), (185, 19182), (187, 19200), (204, 19281), (216, 19416), (221, 19452), (227, 19497), (245, 19602), (266, 19737), (293, 19899), (294, 19902), (303, 19962), (314, 20025), (315, 20031), (336, 20145), (343, 20199), (347, 20229), (358, 20283), (368, 20328), (369, 20331), (372, 20340), (376, 20355), (385, 20400), (391, 20421), (394, 20430), (400, 20472), (422, 20559), (429, 20601), (443, 20676), (454, 20718), (466, 20778), (474, 20808), (490, 20886), (493, 20895), (499, 20925), (506, 20955), (527, 21051), (536, 21084), (538, 21093), (543, 21105), (544, 21108), (551, 21126), (556, 21147), (566, 21177), (567, 21186), (578, 21243), (580, 21249), (586, 21264), (592, 21279), (599, 21303), (601, 21309), (609, 21336), (611, 21342), (614, 21354), (635, 21432), (637, 21441), (647, 21480), (648, 21483), (655, 21510), (663, 21537), (668, 21561), (681, 21618), (683, 21624), (684, 21633), (717, 21756), (719, 21765), (724, 21783), (725, 21786), (731, 21816), (732, 21819), (751, 21912), (780, 22095), (782, 22116), (786, 22140), (788, 22152), (792, 22173), (795, 22188), (833, 22389), (837, 22407), (840, 22416), (842, 22422), (847, 22452), (854, 22491), (859, 22518), (907, 22707),

Gene: Giantsbane_27 Start: 19149, Stop: 23738, Start Num: 19
Candidate Starts for Giantsbane_27:
(Start: 18 @19128 has 2 MA's), (Start: 19 @19149 has 160 MA's), (Start: 23 @19179 has 3 MA's), (30, 19233), (40, 19290), (60, 19428), (68, 19464), (71, 19494), (78, 19575), (79, 19617), (80, 19635), (84, 19677), (89, 19764), (96, 19818), (99, 19833), (100, 19839), (105, 19866), (117, 19944), (119, 19959), (122, 19992), (126, 20007), (127, 20016), (130, 20043), (132, 20055), (136, 20109), (151, 20226), (164, 20334), (167, 20343), (174, 20400), (176, 20406), (199, 20523), (203, 20535), (207, 20556), (210, 20568), (214, 20598), (228, 20676), (246, 20745), (260, 20805), (283, 20901), (296, 20955), (306, 21003), (308, 21009), (317, 21045), (343, 21189), (345, 21201), (352, 21246), (354, 21258), (366, 21312), (369, 21321), (370, 21324), (376, 21345), (391, 21411), (402, 21477), (404, 21486), (405, 21489), (406, 21498), (413, 21522), (415, 21528), (422, 21549), (424, 21567), (425, 21570), (429, 21591), (441, 21651), (443, 21666), (444, 21669), (449, 21693), (450, 21696), (451, 21699), (461, 21735), (479, 21828), (481, 21843), (482, 21846), (486, 21864), (488, 21870), (493, 21885), (501, 21921), (504, 21930), (511, 21963), (522, 22017), (523, 22020), (527, 22038), (543, 22095), (549, 22104), (551, 22116), (556, 22137), (558, 22143), (559, 22146), (567, 22176), (578, 22233),

(583, 22245), (585, 22251), (586, 22254), (614, 22344), (625, 22380), (641, 22446), (647, 22470),
(648, 22473), (657, 22506), (658, 22509), (659, 22512), (660, 22515), (672, 22569), (673, 22572),
(702, 22692), (711, 22722), (714, 22734), (721, 22764), (724, 22773), (726, 22779), (744, 22875),
(755, 22932), (761, 22968), (772, 23031), (786, 23130), (788, 23142), (806, 23256), (829, 23358),
(839, 23403), (842, 23409), (846, 23433), (849, 23448), (855, 23478), (860, 23505), (866, 23532),
(877, 23577),

Gene: Gill_29 Start: 20616, Stop: 25730, Start Num: 19
Candidate Starts for Gill_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49,
20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93,
21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151,
21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (213, 22080), (224, 22131), (233,
22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318,
22569), (331, 22626), (341, 22710), (343, 22719), (359, 22806), (367, 22845), (380, 22893), (385,
22920), (391, 22941), (394, 22950), (397, 22971), (398, 22983), (400, 22992), (401, 23001), (406,
23028), (414, 23055), (415, 23058), (422, 23079), (429, 23121), (435, 23148), (438, 23157), (440,
23172), (441, 23181), (443, 23196), (445, 23208), (447, 23217), (451, 23229), (457, 23250), (460,
23259), (478, 23343), (479, 23352), (481, 23367), (482, 23370), (486, 23388), (490, 23400), (491,
23403), (498, 23430), (504, 23451), (507, 23466), (517, 23508), (519, 23523), (533, 23580), (536,
23592), (538, 23601), (544, 23613), (550, 23625), (551, 23631), (556, 23652), (560, 23664), (566,
23682), (567, 23691), (568, 23706), (569, 23712), (572, 23724), (582, 23766), (583, 23769), (586,
23778), (592, 23799), (594, 23811), (608, 23859), (611, 23868), (618, 23892), (620, 23898), (625,
23916), (626, 23925), (632, 23946), (650, 24015), (655, 24033), (656, 24036), (661, 24054), (691,
24180), (702, 24225), (716, 24276), (747, 24420), (770, 24555), (778, 24606), (789, 24684), (797,
24729), (804, 24792), (810, 24810), (817, 24840), (818, 24846), (830, 24903), (845, 24975), (857,
25035), (862, 25056), (863, 25059), (873, 25110), (875, 25119), (887, 25158), (891, 25170), (909,
25263), (915, 25308), (924, 25383), (929, 25422), (935, 25452), (945, 25509), (962, 25620), (976,
25716),

Gene: GirlPower_22 Start: 17641, Stop: 23130, Start Num: 2
Candidate Starts for GirlPower_22:
(1, 17620), (Start: 2 @17641 has 31 MA's), (3, 17671), (14, 17815), (34, 17983), (49, 18118), (61,
18184), (68, 18214), (71, 18244), (79, 18367), (85, 18448), (86, 18457), (87, 18493), (96, 18568), (101,
18595), (104, 18610), (105, 18616), (110, 18658), (113, 18709), (133, 18847), (154, 19042), (166,
19123), (177, 19192), (196, 19297), (208, 19342), (246, 19528), (270, 19615), (279, 19651), (281,
19660), (339, 19888), (343, 19909), (353, 19972), (354, 19978), (356, 19984), (366, 20032), (368,
20038), (369, 20041), (376, 20065), (385, 20110), (388, 20119), (389, 20122), (394, 20140), (414,
20245), (422, 20269), (437, 20341), (440, 20359), (458, 20440), (479, 20545), (509, 20665), (518,
20707), (519, 20716), (527, 20752), (533, 20773), (552, 20830), (566, 20878), (570, 20914), (577,
20941), (586, 20965), (596, 20995), (614, 21055), (624, 21088), (628, 21106), (633, 21127), (643,
21163), (648, 21184), (651, 21196), (652, 21199), (657, 21217), (659, 21223), (671, 21277), (676,
21292), (683, 21325), (686, 21340), (702, 21403), (723, 21481), (724, 21484), (732, 21520), (744,
21586), (749, 21607), (759, 21673), (762, 21685), (786, 21775), (795, 21823), (825, 21979), (826,
21988), (899, 22309), (913, 22393), (937, 22579), (939, 22600), (944, 22624), (948, 22648), (950,
22654), (951, 22660), (957, 22705), (969, 22813), (978, 22882), (986, 22969), (993, 23074), (994,
23083),

Gene: Glintora_32 Start: 23473, Stop: 28560, Start Num: 19
Candidate Starts for Glintora_32:
(Start: 19 @23473 has 160 MA's), (Start: 23 @23503 has 3 MA's), (28, 23548), (61, 23758), (71,
23818), (72, 23839), (79, 23941), (84, 24001), (93, 24127), (96, 24142), (99, 24157), (105, 24190),
(115, 24283), (124, 24337), (125, 24340), (128, 24355), (145, 24526), (151, 24559), (152, 24571),

(158, 24628), (160, 24643), (173, 24724), (177, 24742), (213, 24925), (233, 25027), (236, 25045),
(247, 25081), (260, 25132), (271, 25192), (295, 25318), (300, 25336), (308, 25375), (313, 25402),
(343, 25564), (350, 25612), (354, 25633), (359, 25651), (370, 25699), (385, 25765), (397, 25816),
(398, 25828), (401, 25846), (414, 25900), (425, 25945), (429, 25966), (432, 25975), (437, 25999),
(438, 26002), (440, 26017), (450, 26071), (451, 26074), (454, 26083), (460, 26104), (462, 26116),
(466, 26137), (468, 26143), (472, 26161), (479, 26197), (481, 26212), (482, 26215), (484, 26227),
(498, 26275), (501, 26287), (503, 26293), (504, 26296), (507, 26311), (512, 26332), (519, 26368),
(533, 26425), (538, 26446), (544, 26458), (546, 26461), (559, 26506), (560, 26509), (565, 26524),
(566, 26527), (567, 26536), (569, 26557), (575, 26584), (586, 26623), (588, 26632), (592, 26644),
(594, 26656), (600, 26677), (608, 26704), (618, 26737), (620, 26743), (625, 26761), (626, 26770),
(632, 26791), (659, 26890), (661, 26899), (708, 27091), (716, 27121), (728, 27166), (739, 27223),
(745, 27256), (770, 27400), (779, 27463), (782, 27490), (794, 27562), (797, 27574), (798, 27583),
(804, 27637), (812, 27658), (814, 27670), (817, 27685), (818, 27691), (848, 27832), (865, 27919),
(872, 27937), (883, 27967), (888, 27994), (891, 28000), (898, 28027), (903, 28054), (915, 28138),
(924, 28213), (941, 28315), (963, 28456), (976, 28546),

Gene: GoCrazy_20 Start: 17193, Stop: 21671, Start Num: 19
Candidate Starts for GoCrazy_20:
(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 160 MA's), (Start: 23 @17223 has 3 MA's), (30,
17277), (40, 17334), (68, 17508), (71, 17538), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89,
17808), (96, 17862), (99, 17877), (105, 17910), (117, 17988), (119, 18003), (126, 18051), (133,
18108), (141, 18204), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184,
18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317,
19062), (343, 19191), (350, 19239), (357, 19269), (361, 19293), (364, 19305), (366, 19314), (369,
19323), (376, 19347), (385, 19392), (391, 19413), (404, 19488), (408, 19509), (409, 19512), (412,
19521), (422, 19551), (429, 19593), (441, 19653), (442, 19659), (443, 19668), (451, 19701), (455,
19713), (456, 19716), (469, 19779), (474, 19800), (479, 19830), (484, 19860), (490, 19878), (501,
19926), (507, 19950), (511, 19968), (514, 19977), (520, 20013), (527, 20043), (536, 20076), (537,
20082), (538, 20085), (543, 20097), (551, 20118), (566, 20169), (567, 20178), (573, 20214), (583,
20247), (586, 20256), (596, 20286), (599, 20295), (602, 20307), (614, 20346), (622, 20373), (624,
20379), (625, 20382), (628, 20397), (635, 20424), (643, 20454), (652, 20490), (678, 20592), (693,
20655), (701, 20691), (708, 20715), (713, 20733), (723, 20772), (725, 20778), (729, 20793), (733,
20814), (734, 20826), (758, 20958), (780, 21021), (783, 21048), (786, 21066), (795, 21114), (796,
21120), (806, 21192), (825, 21270), (831, 21306), (835, 21324), (842, 21348), (846, 21372), (854,
21417), (858, 21438), (911, 21660),

Gene: GoblinVoyage_19 Start: 13488, Stop: 18716, Start Num: 19
Candidate Starts for GoblinVoyage_19:
(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 160 MA's), (Start: 23 @13518 has 3 MA's), (42,
13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253),
(154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213),
(273, 15216), (279, 15249), (305, 15357), (321, 15417), (343, 15498), (354, 15567), (366, 15621),
(388, 15708), (389, 15711), (410, 15822), (422, 15858), (425, 15876), (436, 15927), (458, 16029),
(461, 16041), (463, 16056), (478, 16125), (479, 16134), (484, 16164), (497, 16209), (503, 16230),
(510, 16260), (513, 16272), (514, 16275), (518, 16296), (519, 16305), (527, 16341), (536, 16374),
(563, 16458), (570, 16503), (571, 16506), (572, 16509), (586, 16554), (596, 16584), (610, 16629),
(614, 16644), (624, 16677), (629, 16698), (631, 16707), (633, 16716), (639, 16740), (640, 16743),
(668, 16851), (679, 16893), (681, 16908), (683, 16914), (703, 16995), (717, 17046), (719, 17055),
(720, 17058), (721, 17064), (724, 17073), (725, 17076), (728, 17088), (729, 17091), (730, 17100),
(732, 17109), (736, 17133), (751, 17202), (758, 17256), (786, 17364), (789, 17379), (796, 17418),
(826, 17577), (874, 17811), (894, 17886), (902, 17919), (927, 18123), (936, 18165), (937, 18168),
(939, 18189), (948, 18237), (950, 18243), (964, 18351), (972, 18423), (981, 18525), (994, 18678),

Gene: Gordon_26 Start: 21257, Stop: 25849, Start Num: 19
Candidate Starts for Gordon_26:
(Start: 18 @21236 has 2 MA's), (Start: 19 @21257 has 160 MA's), (Start: 23 @21287 has 3 MA's), (30, 21341), (40, 21398), (49, 21476), (60, 21536), (68, 21572), (71, 21602), (79, 21725), (80, 21743), (84, 21785), (96, 21926), (99, 21941), (105, 21974), (117, 22052), (119, 22067), (121, 22088), (122, 22100), (127, 22124), (133, 22172), (141, 22268), (145, 22301), (151, 22334), (156, 22382), (164, 22442), (167, 22451), (173, 22499), (190, 22580), (194, 22613), (201, 22637), (204, 22652), (207, 22664), (239, 22832), (246, 22853), (253, 22871), (260, 22913), (265, 22943), (278, 22994), (283, 23009), (290, 23039), (306, 23111), (308, 23117), (316, 23150), (317, 23153), (343, 23297), (352, 23354), (354, 23366), (366, 23420), (369, 23429), (370, 23432), (376, 23453), (385, 23498), (391, 23519), (398, 23561), (401, 23579), (415, 23636), (422, 23657), (425, 23678), (429, 23699), (441, 23759), (443, 23774), (444, 23777), (450, 23804), (451, 23807), (463, 23858), (479, 23936), (481, 23951), (482, 23954), (486, 23972), (488, 23978), (489, 23981), (490, 23984), (493, 23993), (501, 24029), (504, 24038), (511, 24071), (522, 24125), (523, 24128), (527, 24146), (531, 24158), (538, 24188), (543, 24203), (549, 24212), (551, 24224), (556, 24245), (567, 24284), (578, 24341), (583, 24353), (586, 24362), (599, 24401), (602, 24413), (612, 24443), (614, 24452), (625, 24488), (634, 24527), (635, 24530), (639, 24548), (641, 24554), (657, 24614), (660, 24623), (672, 24677), (673, 24680), (704, 24806), (705, 24809), (711, 24830), (720, 24866), (721, 24872), (724, 24881), (730, 24908), (736, 24941), (739, 24953), (753, 25019), (761, 25076), (771, 25136), (776, 25160), (786, 25238), (788, 25250), (811, 25376), (819, 25409), (821, 25418), (829, 25466), (836, 25499), (839, 25511), (842, 25517), (845, 25538), (846, 25541), (847, 25547), (855, 25586), (860, 25613), (905, 25799), (910, 25826),

Gene: Gravy_29 Start: 20616, Stop: 25730, Start Num: 19
Candidate Starts for Gravy_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (213, 22080), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (331, 22626), (341, 22710), (343, 22719), (359, 22806), (367, 22845), (380, 22893), (385, 22920), (391, 22941), (394, 22950), (397, 22971), (398, 22983), (400, 22992), (401, 23001), (406, 23028), (414, 23055), (415, 23058), (422, 23079), (429, 23121), (435, 23148), (438, 23157), (440, 23172), (441, 23181), (443, 23196), (445, 23208), (447, 23217), (451, 23229), (457, 23250), (460, 23259), (478, 23343), (479, 23352), (481, 23367), (482, 23370), (486, 23388), (490, 23400), (491, 23403), (498, 23430), (504, 23451), (507, 23466), (517, 23508), (519, 23523), (533, 23580), (536, 23592), (538, 23601), (544, 23613), (550, 23625), (551, 23631), (556, 23652), (560, 23664), (566, 23682), (567, 23691), (568, 23706), (569, 23712), (572, 23724), (582, 23766), (583, 23769), (586, 23778), (592, 23799), (594, 23811), (608, 23859), (611, 23868), (618, 23892), (620, 23898), (625, 23916), (626, 23925), (632, 23946), (650, 24015), (655, 24033), (656, 24036), (661, 24054), (691, 24180), (702, 24225), (716, 24276), (747, 24420), (770, 24555), (778, 24606), (789, 24684), (797, 24729), (804, 24792), (810, 24810), (817, 24840), (818, 24846), (830, 24903), (845, 24975), (857, 25035), (862, 25056), (863, 25059), (873, 25110), (875, 25119), (887, 25158), (891, 25170), (909, 25263), (915, 25308), (924, 25383), (929, 25422), (935, 25452), (945, 25509), (962, 25620), (976, 25716),

Gene: Gusicorn_32 Start: 23289, Stop: 28400, Start Num: 19
Candidate Starts for Gusicorn_32:
(Start: 19 @23289 has 160 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (343, 25404), (353, 25467),

(354, 25473), (359, 25491), (360, 25497), (366, 25527), (374, 25551), (385, 25605), (392, 25629), (396, 25653), (397, 25656), (400, 25677), (401, 25686), (411, 25731), (414, 25740), (425, 25785), (429, 25806), (432, 25815), (433, 25821), (436, 25836), (438, 25842), (440, 25857), (450, 25911), (451, 25914), (454, 25923), (457, 25935), (460, 25944), (462, 25956), (466, 25977), (468, 25983), (474, 26007), (479, 26037), (481, 26052), (498, 26115), (501, 26127), (503, 26133), (504, 26136), (506, 26148), (507, 26151), (519, 26208), (532, 26262), (533, 26265), (538, 26286), (544, 26298), (546, 26301), (560, 26349), (565, 26364), (566, 26367), (567, 26376), (568, 26391), (569, 26397), (575, 26424), (576, 26427), (578, 26433), (586, 26463), (592, 26484), (594, 26496), (596, 26505), (600, 26517), (608, 26544), (618, 26577), (620, 26583), (625, 26601), (632, 26631), (661, 26739), (682, 26829), (687, 26850), (716, 26961), (728, 27006), (739, 27063), (745, 27096), (770, 27240), (779, 27303), (789, 27369), (794, 27402), (797, 27414), (804, 27477), (812, 27498), (814, 27510), (818, 27531), (848, 27672), (865, 27759), (872, 27777), (883, 27807), (886, 27825), (887, 27828), (888, 27834), (891, 27840), (898, 27867), (915, 27978), (923, 28041), (924, 28053), (935, 28122), (941, 28155), (945, 28179), (963, 28296), (976, 28386),

Gene: Hankly_20 Start: 16415, Stop: 20893, Start Num: 19
Candidate Starts for Hankly_20:
(Start: 18 @16394 has 2 MA's), (Start: 19 @16415 has 160 MA's), (Start: 23 @16445 has 3 MA's), (30, 16499), (40, 16556), (68, 16730), (71, 16760), (78, 16841), (79, 16883), (80, 16901), (84, 16943), (89, 17030), (93, 17069), (96, 17084), (99, 17099), (105, 17132), (117, 17210), (119, 17225), (126, 17273), (128, 17288), (133, 17330), (141, 17426), (145, 17459), (151, 17492), (164, 17600), (174, 17666), (182, 17699), (184, 17708), (185, 17711), (187, 17729), (246, 18011), (255, 18035), (260, 18065), (302, 18224), (317, 18284), (343, 18413), (350, 18461), (357, 18491), (361, 18515), (364, 18527), (366, 18536), (369, 18545), (376, 18569), (385, 18614), (391, 18635), (404, 18710), (412, 18743), (422, 18773), (425, 18794), (429, 18815), (441, 18875), (442, 18881), (450, 18920), (456, 18938), (474, 19022), (479, 19052), (484, 19082), (490, 19100), (501, 19148), (507, 19172), (511, 19190), (514, 19199), (515, 19208), (517, 19214), (520, 19235), (527, 19265), (536, 19298), (537, 19304), (542, 19313), (551, 19340), (558, 19367), (567, 19400), (570, 19427), (572, 19433), (579, 19460), (586, 19478), (596, 19508), (599, 19517), (602, 19529), (604, 19535), (605, 19538), (609, 19550), (614, 19568), (622, 19595), (624, 19601), (641, 19670), (648, 19697), (652, 19712), (678, 19814), (701, 19913), (702, 19916), (704, 19922), (708, 19937), (713, 19955), (723, 19994), (724, 19997), (729, 20015), (734, 20048), (739, 20069), (751, 20126), (758, 20180), (780, 20243), (783, 20270), (786, 20288), (795, 20336), (796, 20342), (806, 20414), (825, 20492), (827, 20507), (835, 20546), (842, 20570), (846, 20594), (854, 20639), (858, 20660), (911, 20882),

Gene: HazuAndZazu_23 Start: 16677, Stop: 22163, Start Num: 2
Candidate Starts for HazuAndZazu_23:
(1, 16656), (Start: 2 @16677 has 31 MA's), (3, 16707), (14, 16851), (42, 17061), (53, 17178), (54, 17181), (60, 17214), (68, 17250), (71, 17280), (79, 17403), (87, 17529), (96, 17604), (105, 17652), (110, 17694), (133, 17883), (154, 18078), (163, 18150), (177, 18228), (196, 18333), (207, 18375), (232, 18510), (267, 18642), (270, 18651), (279, 18687), (292, 18738), (300, 18771), (339, 18924), (343, 18945), (353, 19008), (354, 19014), (356, 19020), (361, 19047), (366, 19068), (369, 19077), (376, 19101), (385, 19146), (388, 19155), (389, 19158), (391, 19167), (404, 19242), (410, 19269), (415, 19284), (416, 19287), (422, 19305), (425, 19323), (429, 19344), (440, 19395), (454, 19461), (458, 19476), (476, 19563), (479, 19581), (483, 19608), (508, 19698), (509, 19701), (518, 19743), (519, 19752), (527, 19788), (532, 19806), (533, 19809), (551, 19863), (552, 19866), (566, 19914), (570, 19950), (577, 19977), (586, 20001), (596, 20031), (614, 20091), (624, 20124), (625, 20127), (628, 20142), (631, 20154), (637, 20178), (648, 20220), (651, 20232), (652, 20235), (666, 20283), (671, 20313), (676, 20328), (683, 20361), (686, 20376), (702, 20439), (723, 20517), (724, 20520), (732, 20556), (744, 20622), (759, 20709), (760, 20712), (786, 20811), (795, 20859), (796, 20865), (826, 21024), (886, 21297), (894, 21333), (908, 21399), (922, 21522), (937, 21615), (939, 21636), (948, 21684), (950, 21690), (951, 21696), (957, 21741), (969, 21849), (972, 21870), (978, 21918), (986, 22005), (993, 22107), (994, 22116),

Gene: Heisenberger_21 Start: 17063, Stop: 21541, Start Num: 19
Candidate Starts for Heisenberger_21:
(Start: 18 @17042 has 2 MA's), (Start: 19 @17063 has 160 MA's), (Start: 23 @17093 has 3 MA's), (26, 17126), (30, 17147), (68, 17378), (71, 17408), (78, 17489), (79, 17531), (80, 17549), (84, 17591), (89, 17678), (96, 17732), (99, 17747), (105, 17780), (117, 17858), (119, 17873), (126, 17921), (133, 17978), (137, 18032), (141, 18074), (142, 18077), (145, 18107), (151, 18140), (164, 18248), (174, 18314), (182, 18347), (184, 18356), (185, 18359), (187, 18377), (246, 18659), (255, 18683), (260, 18713), (302, 18872), (317, 18932), (343, 19061), (350, 19109), (357, 19139), (364, 19175), (366, 19184), (369, 19193), (376, 19217), (385, 19262), (391, 19283), (404, 19358), (412, 19391), (422, 19421), (425, 19442), (429, 19463), (441, 19523), (442, 19529), (450, 19568), (451, 19571), (456, 19586), (469, 19649), (474, 19670), (479, 19700), (484, 19730), (490, 19748), (501, 19796), (507, 19820), (511, 19838), (514, 19847), (515, 19856), (517, 19862), (520, 19883), (527, 19913), (536, 19946), (537, 19952), (538, 19955), (543, 19967), (551, 19988), (566, 20039), (567, 20048), (571, 20078), (573, 20084), (583, 20117), (586, 20126), (596, 20156), (599, 20165), (602, 20177), (614, 20216), (622, 20243), (624, 20249), (625, 20252), (628, 20267), (635, 20294), (639, 20312), (643, 20324), (652, 20360), (678, 20462), (693, 20525), (701, 20561), (702, 20564), (704, 20570), (708, 20585), (713, 20603), (719, 20627), (723, 20642), (724, 20645), (729, 20663), (734, 20696), (739, 20717), (751, 20774), (758, 20828), (760, 20837), (780, 20891), (783, 20918), (786, 20936), (795, 20984), (796, 20990), (806, 21062), (825, 21140), (827, 21155), (835, 21194), (842, 21218), (854, 21287), (858, 21308), (911, 21530),

Gene: Hemma_23 Start: 16594, Stop: 21183, Start Num: 19
Candidate Starts for Hemma_23:
(Start: 18 @16573 has 2 MA's), (Start: 19 @16594 has 160 MA's), (Start: 23 @16624 has 3 MA's), (30, 16678), (68, 16909), (71, 16939), (72, 16960), (78, 17020), (79, 17062), (80, 17080), (83, 17116), (84, 17122), (86, 17152), (88, 17197), (89, 17209), (96, 17263), (99, 17278), (105, 17311), (117, 17389), (119, 17404), (122, 17437), (126, 17452), (127, 17461), (132, 17500), (143, 17611), (145, 17638), (151, 17671), (152, 17683), (158, 17740), (160, 17755), (164, 17779), (166, 17785), (167, 17788), (175, 17848), (182, 17878), (194, 17950), (210, 18013), (221, 18070), (239, 18169), (241, 18172), (249, 18202), (257, 18238), (270, 18307), (273, 18310), (295, 18406), (298, 18418), (308, 18463), (309, 18466), (312, 18481), (325, 18532), (343, 18625), (355, 18697), (359, 18712), (364, 18739), (369, 18757), (371, 18763), (376, 18781), (385, 18826), (391, 18847), (398, 18889), (401, 18907), (407, 18937), (419, 18976), (422, 18985), (425, 19006), (430, 19030), (441, 19087), (443, 19102), (444, 19105), (450, 19132), (451, 19135), (461, 19171), (479, 19264), (497, 19339), (501, 19357), (504, 19366), (506, 19378), (522, 19453), (524, 19465), (527, 19474), (536, 19507), (538, 19516), (545, 19537), (552, 19558), (566, 19606), (567, 19615), (570, 19642), (572, 19648), (573, 19651), (578, 19672), (586, 19693), (587, 19696), (614, 19783), (639, 19879), (641, 19885), (646, 19906), (653, 19930), (657, 19945), (659, 19951), (666, 19975), (670, 19999), (679, 20032), (683, 20053), (684, 20062), (690, 20083), (704, 20137), (706, 20143), (721, 20203), (730, 20239), (733, 20251), (739, 20284), (744, 20314), (753, 20350), (754, 20359), (755, 20371), (771, 20467), (780, 20524), (786, 20569), (788, 20581), (811, 20707), (829, 20797), (839, 20842), (842, 20848), (846, 20872), (855, 20917), (860, 20944), (900, 21094), (905, 21133), (910, 21160),

Gene: HerbBucket_22 Start: 17241, Stop: 21791, Start Num: 19
Candidate Starts for HerbBucket_22:
(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 160 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (343, 19263), (354, 19332), (355, 19335), (364, 19377), (366, 19386), (369, 19395), (378, 19425),

(385, 19464), (387, 19470), (391, 19485), (398, 19527), (422, 19623), (425, 19644), (426, 19647), (430, 19668), (441, 19725), (443, 19740), (450, 19770), (454, 19782), (461, 19809), (463, 19824), (474, 19872), (479, 19902), (481, 19917), (490, 19950), (492, 19956), (501, 19995), (504, 20004), (506, 20016), (511, 20037), (524, 20103), (527, 20112), (536, 20145), (537, 20151), (538, 20154), (543, 20166), (544, 20169), (552, 20190), (557, 20211), (567, 20247), (575, 20295), (586, 20325), (614, 20415), (620, 20433), (630, 20472), (641, 20517), (645, 20535), (653, 20562), (655, 20571), (657, 20577), (671, 20637), (678, 20661), (690, 20715), (698, 20751), (700, 20757), (702, 20763), (704, 20769), (714, 20805), (721, 20835), (723, 20841), (724, 20844), (734, 20895), (737, 20907), (744, 20946), (767, 21078), (775, 21114), (780, 21156), (786, 21201), (802, 21291), (821, 21381), (825, 21405), (829, 21429), (831, 21441), (833, 21450), (836, 21462), (839, 21474), (849, 21519), (855, 21549), (858, 21567), (867, 21606), (890, 21684),

Gene: Hortihabitatio_32 Start: 22913, Stop: 28030, Start Num: 19
Candidate Starts for Hortihabitatio_32:
(Start: 19 @22913 has 160 MA's), (Start: 23 @22943 has 3 MA's), (28, 22988), (49, 23132), (51, 23141), (60, 23192), (61, 23198), (69, 23237), (71, 23258), (72, 23279), (79, 23381), (87, 23507), (90, 23543), (96, 23582), (105, 23630), (110, 23672), (117, 23744), (122, 23792), (137, 23918), (141, 23960), (145, 23993), (151, 24026), (155, 24062), (160, 24110), (163, 24131), (164, 24134), (217, 24410), (233, 24494), (298, 24794), (300, 24803), (305, 24833), (320, 24890), (343, 25034), (344, 25040), (354, 25103), (359, 25121), (361, 25136), (369, 25166), (385, 25235), (392, 25259), (394, 25265), (395, 25277), (397, 25286), (398, 25298), (400, 25307), (408, 25352), (414, 25370), (425, 25415), (429, 25436), (435, 25463), (440, 25487), (441, 25496), (443, 25511), (447, 25532), (451, 25544), (454, 25553), (457, 25565), (460, 25574), (464, 25592), (466, 25607), (469, 25616), (474, 25637), (479, 25667), (495, 25736), (498, 25745), (501, 25757), (503, 25763), (504, 25766), (507, 25781), (510, 25793), (515, 25817), (517, 25823), (519, 25838), (524, 25865), (531, 25886), (533, 25895), (538, 25916), (551, 25946), (558, 25973), (559, 25976), (566, 25997), (569, 26027), (570, 26033), (575, 26054), (576, 26057), (578, 26063), (586, 26093), (592, 26114), (594, 26126), (600, 26147), (608, 26174), (611, 26183), (618, 26207), (620, 26213), (621, 26216), (625, 26231), (626, 26240), (627, 26243), (632, 26261), (641, 26297), (650, 26330), (653, 26339), (659, 26360), (661, 26369), (690, 26492), (694, 26504), (702, 26540), (708, 26561), (721, 26612), (745, 26726), (758, 26804), (766, 26849), (794, 27032), (797, 27044), (804, 27107), (808, 27119), (812, 27128), (814, 27140), (818, 27161), (827, 27206), (857, 27350), (865, 27389), (883, 27437), (886, 27455), (887, 27458), (891, 27470), (915, 27608), (923, 27671), (924, 27683), (926, 27701), (935, 27752), (946, 27812), (954, 27860), (968, 27965), (976, 28016),

Gene: Hoshi_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for Hoshi_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346), (552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119),

(948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: HotFries_18 Start: 13486, Stop: 18714, Start Num: 19
Candidate Starts for HotFries_18:
(Start: 18 @13465 has 2 MA's), (Start: 19 @13486 has 160 MA's), (Start: 23 @13516 has 3 MA's), (42, 13618), (45, 13669), (61, 13777), (79, 13960), (87, 14086), (90, 14122), (96, 14161), (110, 14251), (154, 14638), (177, 14788), (182, 14812), (194, 14884), (243, 15115), (265, 15193), (270, 15211), (273, 15214), (279, 15247), (305, 15355), (321, 15415), (343, 15496), (354, 15565), (366, 15619), (373, 15640), (388, 15706), (389, 15709), (410, 15820), (422, 15856), (425, 15874), (436, 15925), (458, 16027), (461, 16039), (463, 16054), (478, 16123), (479, 16132), (484, 16162), (503, 16228), (510, 16258), (513, 16270), (514, 16273), (518, 16294), (519, 16303), (527, 16339), (536, 16372), (563, 16456), (570, 16501), (571, 16504), (572, 16507), (586, 16552), (596, 16582), (610, 16627), (614, 16642), (624, 16675), (629, 16696), (631, 16705), (633, 16714), (639, 16738), (640, 16741), (648, 16771), (651, 16783), (668, 16849), (673, 16870), (679, 16891), (681, 16906), (683, 16912), (717, 17044), (719, 17053), (721, 17062), (724, 17071), (725, 17074), (728, 17086), (729, 17089), (730, 17098), (732, 17107), (751, 17200), (758, 17254), (786, 17362), (789, 17377), (796, 17416), (826, 17575), (874, 17809), (894, 17884), (936, 18163), (937, 18166), (939, 18187), (948, 18235), (950, 18241), (964, 18349), (972, 18421), (977, 18460), (978, 18469), (981, 18523), (994, 18676),

Gene: Hydrus_33 Start: 24017, Stop: 29128, Start Num: 19
Candidate Starts for Hydrus_33:
(Start: 19 @24017 has 160 MA's), (Start: 23 @24047 has 3 MA's), (28, 24092), (49, 24236), (60, 24296), (61, 24302), (71, 24362), (72, 24383), (79, 24485), (87, 24611), (90, 24647), (96, 24686), (105, 24734), (110, 24776), (117, 24848), (122, 24896), (137, 25022), (145, 25097), (146, 25109), (151, 25130), (159, 25202), (163, 25235), (164, 25238), (184, 25346), (233, 25598), (260, 25703), (272, 25772), (277, 25793), (291, 25874), (293, 25877), (300, 25904), (308, 25943), (313, 25970), (339, 26111), (343, 26132), (353, 26195), (354, 26201), (359, 26219), (360, 26225), (370, 26267), (374, 26279), (376, 26288), (385, 26333), (395, 26375), (397, 26384), (398, 26396), (400, 26405), (401, 26414), (425, 26513), (429, 26534), (432, 26543), (437, 26567), (438, 26570), (450, 26639), (451, 26642), (454, 26651), (459, 26669), (460, 26672), (462, 26684), (466, 26705), (468, 26711), (469, 26714), (474, 26735), (479, 26765), (481, 26780), (484, 26795), (498, 26843), (501, 26855), (503, 26861), (504, 26864), (506, 26876), (507, 26879), (519, 26936), (532, 26990), (538, 27014), (544, 27026), (546, 27029), (559, 27074), (560, 27077), (565, 27092), (566, 27095), (567, 27104), (568, 27119), (569, 27125), (570, 27131), (575, 27152), (576, 27155), (580, 27167), (583, 27182), (586, 27191), (592, 27212), (594, 27224), (600, 27245), (608, 27272), (618, 27305), (620, 27311), (625, 27329), (632, 27359), (642, 27398), (661, 27467), (687, 27578), (690, 27590), (708, 27659), (728, 27734), (745, 27824), (770, 27968), (779, 28031), (789, 28097), (794, 28130), (797, 28142), (804, 28205), (812, 28226), (814, 28238), (818, 28259), (830, 28316), (848, 28400), (865, 28487), (872, 28505), (883, 28535), (886, 28553), (887, 28556), (888, 28562), (891, 28568), (898, 28595), (915, 28706), (924, 28781), (935, 28850), (941, 28883), (945, 28907), (963, 29024), (976, 29114),

Gene: IceWarrior_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for IceWarrior_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (53, 16661), (68, 16733), (71, 16763), (79, 16886), (87, 17012), (96, 17087), (105, 17135), (110, 17177), (133, 17366), (154, 17561), (163, 17633), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346),

(552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Indigenous_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for Indigenous_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346), (552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Ingrid_26 Start: 19877, Stop: 24463, Start Num: 19
Candidate Starts for Ingrid_26:
(Start: 18 @19856 has 2 MA's), (Start: 19 @19877 has 160 MA's), (Start: 23 @19907 has 3 MA's), (30, 19961), (40, 20018), (46, 20066), (60, 20156), (68, 20192), (71, 20222), (79, 20345), (84, 20405), (88, 20480), (96, 20546), (99, 20561), (105, 20594), (117, 20672), (119, 20687), (121, 20708), (122, 20720), (129, 20765), (133, 20792), (136, 20837), (141, 20888), (145, 20921), (151, 20954), (167, 21071), (173, 21119), (174, 21128), (197, 21245), (201, 21257), (202, 21260), (244, 21467), (260, 21527), (283, 21623), (296, 21677), (306, 21725), (308, 21731), (317, 21767), (343, 21911), (352, 21968), (354, 21980), (366, 22034), (369, 22043), (370, 22046), (376, 22067), (377, 22070), (386, 22115), (391, 22133), (404, 22208), (405, 22211), (407, 22223), (415, 22250), (422, 22271), (424, 22289), (425, 22292), (429, 22313), (441, 22373), (443, 22388), (444, 22391), (449, 22415), (450, 22418), (451, 22421), (459, 22448), (463, 22472), (465, 22484), (479, 22550), (481, 22565), (482, 22568), (486, 22586), (488, 22592), (489, 22595), (490, 22598), (501, 22643), (502, 22646), (504, 22652), (506, 22664), (511, 22685), (522, 22739), (523, 22742), (530, 22769), (537, 22799), (543, 22817), (549, 22826), (551, 22838), (556, 22859), (566, 22889), (567, 22898), (575, 22946), (578, 22955), (580, 22961), (586, 22976), (589, 22982), (596, 23006), (599, 23015), (612, 23057), (614, 23066), (625, 23102), (635, 23144), (639, 23162), (641, 23168), (647, 23192), (657, 23228), (671, 23288), (683, 23336), (684, 23345), (693, 23375), (711, 23444), (721, 23486), (724, 23495), (754, 23642), (755, 23654), (761, 23690), (775, 23765), (780, 23807), (786, 23852), (788, 23864), (796, 23906), (825, 24056), (829, 24080), (839, 24125), (841, 24128), (842, 24131), (846, 24155), (849, 24170), (855, 24200), (860, 24227), (907, 24422), (910, 24440),

Gene: Inked_28 Start: 20894, Stop: 25474, Start Num: 19
Candidate Starts for Inked_28:

(Start: 18 @20873 has 2 MA's), (Start: 19 @20894 has 160 MA's), (Start: 23 @20924 has 3 MA's), (40, 21035), (60, 21173), (68, 21209), (71, 21239), (79, 21362), (80, 21380), (84, 21422), (96, 21563), (99, 21578), (105, 21611), (117, 21689), (119, 21704), (121, 21725), (122, 21737), (133, 21809), (145, 21938), (151, 21971), (164, 22079), (167, 22088), (180, 22166), (185, 22190), (205, 22292), (210, 22313), (222, 22376), (247, 22493), (260, 22544), (265, 22574), (283, 22640), (306, 22742), (308, 22748), (311, 22763), (312, 22766), (317, 22784), (343, 22928), (351, 22982), (352, 22985), (361, 23030), (369, 23060), (370, 23063), (376, 23084), (377, 23087), (391, 23150), (393, 23156), (402, 23216), (404, 23225), (407, 23240), (415, 23267), (417, 23273), (422, 23288), (425, 23309), (429, 23330), (441, 23390), (443, 23405), (444, 23408), (449, 23432), (450, 23435), (451, 23438), (463, 23489), (470, 23522), (479, 23567), (481, 23582), (482, 23585), (488, 23609), (490, 23615), (493, 23624), (501, 23660), (504, 23669), (511, 23702), (522, 23756), (523, 23759), (527, 23777), (538, 23819), (542, 23828), (543, 23834), (549, 23843), (551, 23855), (552, 23858), (555, 23870), (556, 23876), (558, 23882), (559, 23885), (567, 23915), (577, 23969), (578, 23972), (585, 23990), (586, 23993), (587, 23996), (596, 24023), (597, 24026), (614, 24083), (625, 24119), (633, 24155), (634, 24158), (635, 24161), (641, 24185), (642, 24188), (647, 24209), (658, 24248), (659, 24251), (671, 24305), (683, 24353), (684, 24362), (711, 24461), (721, 24503), (723, 24509), (724, 24512), (732, 24548), (753, 24650), (755, 24671), (761, 24707), (767, 24746), (780, 24824), (788, 24881), (829, 25097), (839, 25142), (855, 25217), (878, 25316), (905, 25424), (910, 25451),

Gene: Issa_26 Start: 19961, Stop: 24553, Start Num: 19
Candidate Starts for Issa_26:
(Start: 18 @19940 has 2 MA's), (Start: 19 @19961 has 160 MA's), (Start: 23 @19991 has 3 MA's), (30, 20045), (34, 20066), (40, 20102), (49, 20180), (60, 20240), (66, 20264), (68, 20276), (71, 20306), (74, 20357), (78, 20387), (79, 20429), (80, 20447), (84, 20489), (86, 20519), (88, 20564), (89, 20576), (96, 20630), (99, 20645), (101, 20657), (105, 20678), (119, 20771), (122, 20804), (126, 20819), (132, 20867), (151, 21038), (166, 21152), (167, 21155), (173, 21203), (194, 21317), (201, 21341), (204, 21356), (239, 21536), (244, 21551), (246, 21557), (253, 21575), (265, 21647), (283, 21713), (306, 21815), (308, 21821), (316, 21854), (317, 21857), (323, 21884), (343, 22001), (352, 22058), (354, 22070), (366, 22124), (369, 22133), (370, 22136), (376, 22157), (391, 22223), (413, 22334), (415, 22340), (422, 22361), (424, 22379), (429, 22403), (441, 22463), (443, 22478), (444, 22481), (450, 22508), (451, 22511), (479, 22640), (481, 22655), (482, 22658), (486, 22676), (488, 22682), (489, 22685), (493, 22697), (501, 22733), (504, 22742), (511, 22775), (522, 22829), (523, 22832), (527, 22850), (531, 22862), (538, 22892), (543, 22907), (549, 22916), (551, 22928), (567, 22988), (578, 23045), (583, 23057), (586, 23066), (599, 23105), (602, 23117), (612, 23147), (614, 23156), (634, 23231), (635, 23234), (639, 23252), (657, 23318), (659, 23324), (660, 23327), (672, 23381), (673, 23384), (704, 23510), (705, 23513), (711, 23534), (719, 23567), (721, 23576), (739, 23657), (745, 23690), (753, 23723), (761, 23780), (771, 23840), (776, 23864), (786, 23942), (788, 23954), (811, 24080), (821, 24122), (829, 24170), (836, 24203), (839, 24215), (842, 24221), (845, 24242), (846, 24245), (847, 24251), (855, 24290), (860, 24317), (905, 24503), (910, 24530),

Gene: JEGGS_21 Start: 17117, Stop: 21595, Start Num: 19
Candidate Starts for JEGGS_21:
(Start: 18 @17096 has 2 MA's), (Start: 19 @17117 has 160 MA's), (Start: 23 @17147 has 3 MA's), (26, 17180), (30, 17201), (49, 17336), (51, 17345), (57, 17384), (68, 17432), (71, 17462), (78, 17543), (79, 17585), (80, 17603), (84, 17645), (89, 17732), (96, 17786), (99, 17801), (105, 17834), (117, 17912), (119, 17927), (126, 17975), (133, 18032), (137, 18086), (141, 18128), (145, 18161), (151, 18194), (164, 18302), (174, 18368), (182, 18401), (184, 18410), (185, 18413), (187, 18431), (246, 18713), (255, 18737), (260, 18767), (302, 18926), (317, 18986), (343, 19115), (350, 19163), (357, 19193), (364, 19229), (366, 19238), (369, 19247), (376, 19271), (385, 19316), (391, 19337), (404, 19412), (412, 19445), (422, 19475), (425, 19496), (429, 19517), (441, 19577), (442, 19583), (450, 19622), (451, 19625), (456, 19640), (469, 19703), (474, 19724), (479, 19754), (484, 19784), (490, 19802), (501, 19850), (507, 19874), (511, 19892), (514, 19901), (515, 19910), (517, 19916), (520, 19937), (527, 19967), (536, 20000), (537, 20006), (538, 20009), (543, 20021), (551, 20042), (566, 20093),

(567, 20102), (571, 20132), (573, 20138), (583, 20171), (586, 20180), (596, 20210), (599, 20219), (602, 20231), (614, 20270), (622, 20297), (624, 20303), (625, 20306), (628, 20321), (635, 20348), (639, 20366), (643, 20378), (652, 20414), (678, 20516), (693, 20579), (701, 20615), (702, 20618), (704, 20624), (708, 20639), (713, 20657), (719, 20681), (723, 20696), (724, 20699), (729, 20717), (734, 20750), (739, 20771), (751, 20828), (758, 20882), (760, 20891), (780, 20945), (783, 20972), (786, 20990), (795, 21038), (796, 21044), (806, 21116), (825, 21194), (827, 21209), (835, 21248), (842, 21272), (854, 21341), (858, 21362), (881, 21455), (911, 21584),

Gene: Jaylociraptor_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for Jaylociraptor_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346), (552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Jazzy4900_24 Start: 18500, Stop: 23560, Start Num: 5
Candidate Starts for Jazzy4900_24:
(5, 18500), (7, 18530), (11, 18584), (13, 18605), (31, 18812), (33, 18821), (34, 18824), (49, 18941), (55, 18974), (61, 19007), (69, 19046), (72, 19088), (79, 19190), (81, 19226), (86, 19280), (87, 19316), (89, 19337), (96, 19391), (119, 19523), (120, 19535), (121, 19544), (127, 19580), (145, 19757), (151, 19790), (159, 19862), (163, 19895), (164, 19898), (179, 19982), (212, 20207), (216, 20243), (218, 20267), (221, 20279), (240, 20405), (268, 20573), (293, 20726), (294, 20729), (314, 20852), (315, 20858), (327, 20909), (336, 20972), (343, 21026), (347, 21056), (361, 21128), (369, 21158), (372, 21167), (376, 21182), (385, 21227), (391, 21248), (393, 21254), (400, 21299), (422, 21386), (429, 21428), (443, 21503), (461, 21572), (474, 21635), (479, 21665), (490, 21713), (493, 21722), (506, 21782), (527, 21878), (536, 21911), (538, 21920), (543, 21932), (544, 21935), (551, 21953), (556, 21974), (566, 22004), (567, 22013), (570, 22040), (578, 22070), (586, 22091), (601, 22136), (609, 22163), (614, 22181), (635, 22259), (647, 22307), (648, 22310), (658, 22346), (668, 22388), (676, 22418), (677, 22421), (681, 22445), (683, 22451), (684, 22460), (706, 22541), (719, 22592), (724, 22610), (731, 22643), (732, 22646), (744, 22712), (758, 22793), (780, 22922), (786, 22967), (802, 23057), (819, 23138), (821, 23147), (825, 23171), (833, 23216), (837, 23234), (842, 23249), (854, 23318), (882, 23429),

Gene: JeNeSaisPas_39 Start: 29784, Stop: 34304, Start Num: 23
Candidate Starts for JeNeSaisPas_39:
(Start: 19 @29754 has 160 MA's), (Start: 23 @29784 has 3 MA's), (34, 29859), (40, 29895), (49, 29973), (78, 30180), (79, 30222), (87, 30348), (92, 30393), (93, 30408), (96, 30423), (101, 30450), (105, 30471), (108, 30495), (110, 30513), (122, 30630), (129, 30675), (132, 30693), (144, 30816), (146, 30843), (149, 30855), (152, 30876), (182, 31071), (198, 31158), (210, 31206), (219, 31257),

(250, 31395), (252, 31404), (282, 31524), (304, 31602), (305, 31611), (343, 31779), (357, 31857), (366, 31902), (369, 31911), (376, 31935), (385, 31980), (391, 32001), (408, 32097), (419, 32130), (425, 32160), (431, 32187), (441, 32241), (443, 32256), (444, 32259), (463, 32340), (469, 32367), (479, 32418), (483, 32445), (490, 32466), (491, 32469), (501, 32511), (522, 32607), (527, 32628), (531, 32640), (536, 32661), (538, 32670), (543, 32682), (556, 32724), (566, 32754), (567, 32763), (575, 32811), (576, 32814), (583, 32832), (586, 32841), (602, 32892), (605, 32901), (614, 32931), (625, 32967), (631, 32994), (652, 33075), (653, 33078), (673, 33159), (677, 33171), (683, 33201), (686, 33216), (689, 33225), (693, 33240), (702, 33279), (713, 33318), (717, 33333), (719, 33342), (722, 33354), (725, 33363), (726, 33366), (734, 33411), (735, 33417), (747, 33474), (751, 33489), (755, 33519), (771, 33615), (780, 33672), (786, 33717), (800, 33786), (813, 33867), (819, 33888), (825, 33921), (833, 33966), (835, 33975), (839, 33990), (842, 33996), (854, 34065), (858, 34083), (869, 34134),

Gene: Jeremy4pt0_22 Start: 17270, Stop: 21790, Start Num: 23
Candidate Starts for Jeremy4pt0_22:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (698, 20750), (700, 20756), (702, 20762), (704, 20768), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605), (890, 21683),

Gene: Jodelie19_33 Start: 24936, Stop: 30050, Start Num: 19
Candidate Starts for Jodelie19_33:
(Start: 19 @24936 has 160 MA's), (Start: 23 @24966 has 3 MA's), (28, 25011), (49, 25155), (61, 25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653), (110, 25695), (117, 25767), (122, 25815), (137, 25941), (145, 26016), (146, 26028), (151, 26049), (163, 26154), (164, 26157), (207, 26379), (220, 26445), (236, 26535), (247, 26571), (260, 26622), (267, 26670), (271, 26682), (300, 26826), (308, 26865), (313, 26892), (343, 27054), (350, 27102), (353, 27117), (354, 27123), (359, 27141), (370, 27189), (385, 27255), (397, 27306), (398, 27318), (401, 27336), (414, 27390), (425, 27435), (429, 27456), (432, 27465), (436, 27486), (440, 27507), (450, 27561), (451, 27564), (454, 27573), (460, 27594), (462, 27606), (466, 27627), (468, 27633), (472, 27651), (479, 27687), (484, 27717), (498, 27765), (501, 27777), (503, 27783), (504, 27786), (506, 27798), (507, 27801), (512, 27822), (519, 27858), (532, 27912), (533, 27915), (536, 27927), (538, 27936), (544, 27948), (546, 27951), (560, 27999), (565, 28014), (566, 28017), (567, 28026), (569, 28047), (575, 28074), (576, 28077), (582, 28101), (586, 28113), (592, 28134), (594, 28146), (596, 28155), (600, 28167), (608, 28194), (611, 28203), (618, 28227), (620, 28233), (625, 28251), (638, 28305), (642, 28320), (661, 28389), (687, 28500), (716, 28611), (728, 28656), (745, 28746), (766, 28869), (770, 28890), (779, 28953), (782, 28980), (794, 29052), (797, 29064), (798, 29073), (804, 29127), (812, 29148), (814, 29160), (848, 29322), (865, 29409), (872, 29427), (883, 29457), (886, 29475), (887, 29478), (891, 29490), (898, 29517), (915, 29628), (924, 29703), (931, 29751),

(941, 29805), (946, 29832), (963, 29946), (976, 30036),

Gene: JoyLin_26 Start: 20566, Stop: 25143, Start Num: 19
Candidate Starts for JoyLin_26:
(Start: 19 @20566 has 160 MA's), (Start: 23 @20599 has 3 MA's), (45, 20746), (57, 20836), (58, 20839), (79, 21034), (87, 21160), (96, 21235), (105, 21283), (110, 21325), (122, 21445), (136, 21562), (146, 21658), (177, 21862), (180, 21874), (193, 21955), (221, 22090), (238, 22183), (254, 22246), (264, 22285), (280, 22348), (286, 22363), (332, 22567), (343, 22618), (359, 22705), (365, 22735), (368, 22747), (369, 22750), (373, 22762), (376, 22774), (382, 22801), (392, 22843), (399, 22888), (419, 22969), (421, 22975), (425, 22999), (427, 23005), (440, 23071), (445, 23107), (452, 23131), (461, 23164), (465, 23191), (467, 23200), (471, 23218), (476, 23239), (481, 23272), (488, 23299), (489, 23302), (501, 23353), (509, 23383), (511, 23395), (527, 23470), (533, 23491), (535, 23497), (539, 23512), (566, 23596), (567, 23605), (570, 23632), (586, 23683), (598, 23719), (614, 23773), (635, 23851), (659, 23941), (667, 23971), (675, 24007), (683, 24043), (693, 24082), (707, 24139), (713, 24160), (719, 24184), (720, 24187), (723, 24199), (725, 24205), (743, 24295), (749, 24325), (750, 24328), (751, 24331), (759, 24391), (763, 24406), (767, 24436), (772, 24460), (786, 24559), (805, 24679), (806, 24685), (829, 24787), (831, 24799), (833, 24808), (855, 24904), (856, 24907), (911, 25132),

Gene: JulesRay_29 Start: 20535, Stop: 25637, Start Num: 19
Candidate Starts for JulesRay_29:
(Start: 19 @20535 has 160 MA's), (Start: 23 @20565 has 3 MA's), (44, 20703), (49, 20754), (51, 20763), (53, 20778), (56, 20799), (61, 20820), (68, 20850), (71, 20880), (72, 20901), (79, 21003), (84, 21063), (88, 21138), (89, 21150), (92, 21174), (96, 21204), (99, 21219), (105, 21252), (110, 21294), (115, 21345), (124, 21399), (125, 21402), (135, 21501), (138, 21525), (151, 21621), (160, 21705), (163, 21726), (164, 21729), (175, 21798), (177, 21804), (178, 21810), (213, 21987), (224, 22038), (233, 22089), (247, 22143), (248, 22146), (276, 22278), (283, 22317), (300, 22398), (301, 22401), (318, 22476), (331, 22533), (341, 22617), (343, 22626), (354, 22695), (356, 22701), (359, 22713), (361, 22728), (362, 22731), (367, 22752), (380, 22800), (385, 22827), (391, 22848), (394, 22857), (397, 22878), (398, 22890), (400, 22899), (401, 22908), (414, 22962), (415, 22965), (422, 22986), (429, 23028), (438, 23064), (440, 23079), (441, 23088), (443, 23103), (445, 23115), (447, 23124), (457, 23157), (460, 23166), (478, 23250), (479, 23259), (481, 23274), (486, 23295), (498, 23337), (504, 23358), (507, 23373), (509, 23379), (517, 23415), (519, 23430), (533, 23487), (536, 23499), (538, 23508), (544, 23520), (550, 23532), (551, 23538), (556, 23559), (560, 23571), (566, 23589), (567, 23598), (568, 23613), (569, 23619), (572, 23631), (582, 23673), (583, 23676), (586, 23685), (592, 23706), (594, 23718), (608, 23766), (611, 23775), (618, 23799), (620, 23805), (625, 23823), (626, 23832), (650, 23922), (655, 23940), (656, 23943), (661, 23961), (702, 24132), (716, 24183), (747, 24327), (770, 24462), (778, 24513), (797, 24636), (804, 24699), (817, 24747), (818, 24753), (820, 24762), (830, 24810), (845, 24882), (857, 24942), (862, 24963), (863, 24966), (873, 25017), (875, 25026), (883, 25044), (887, 25065), (891, 25077), (909, 25170), (915, 25215), (924, 25290), (926, 25308), (929, 25329), (945, 25416), (962, 25527), (976, 25623),

Gene: Kardashian_22 Start: 16096, Stop: 21585, Start Num: 2
Candidate Starts for Kardashian_22:
(1, 16075), (Start: 2 @16096 has 31 MA's), (3, 16126), (14, 16270), (20, 16354), (25, 16405), (54, 16612), (68, 16681), (79, 16834), (81, 16870), (87, 16960), (96, 17035), (105, 17083), (110, 17125), (133, 17317), (138, 17383), (154, 17512), (166, 17593), (177, 17662), (193, 17755), (209, 17818), (213, 17845), (237, 17968), (270, 18085), (273, 18088), (275, 18097), (293, 18175), (300, 18205), (317, 18277), (326, 18292), (343, 18367), (353, 18430), (354, 18436), (357, 18445), (369, 18499), (388, 18577), (389, 18580), (410, 18691), (422, 18727), (425, 18745), (440, 18817), (446, 18856), (458, 18898), (468, 18949), (478, 18994), (495, 19072), (511, 19135), (513, 19141), (518, 19165), (519, 19174), (526, 19207), (527, 19210), (570, 19372), (571, 19375), (572, 19378), (575, 19393), (583, 19414), (586, 19423), (605, 19483), (610, 19498), (614, 19513), (624, 19546), (626, 19558),

(629, 19567), (640, 19612), (643, 19621), (651, 19654), (652, 19657), (657, 19675), (683, 19783), (703, 19864), (705, 19870), (717, 19915), (724, 19942), (730, 19969), (732, 19978), (744, 20044), (759, 20131), (760, 20134), (777, 20167), (786, 20233), (795, 20281), (796, 20287), (802, 20323), (826, 20446), (874, 20680), (904, 20806), (917, 20893), (925, 20974), (928, 20995), (937, 21037), (939, 21058), (950, 21112), (957, 21163), (962, 21211), (968, 21265), (970, 21280), (990, 21454),

Gene: Kardesai_20 Start: 16796, Stop: 21274, Start Num: 19
Candidate Starts for Kardesai_20:
(Start: 18 @16775 has 2 MA's), (Start: 19 @16796 has 160 MA's), (Start: 23 @16826 has 3 MA's), (30, 16880), (40, 16937), (68, 17111), (71, 17141), (78, 17222), (79, 17264), (80, 17282), (84, 17324), (89, 17411), (93, 17450), (96, 17465), (99, 17480), (105, 17513), (117, 17591), (119, 17606), (126, 17654), (128, 17669), (133, 17711), (141, 17807), (145, 17840), (151, 17873), (164, 17981), (174, 18047), (182, 18080), (184, 18089), (185, 18092), (187, 18110), (246, 18392), (255, 18416), (260, 18446), (302, 18605), (317, 18665), (343, 18794), (350, 18842), (357, 18872), (361, 18896), (364, 18908), (366, 18917), (369, 18926), (376, 18950), (385, 18995), (391, 19016), (404, 19091), (412, 19124), (422, 19154), (425, 19175), (429, 19196), (441, 19256), (442, 19262), (450, 19301), (456, 19319), (474, 19403), (479, 19433), (484, 19463), (490, 19481), (501, 19529), (507, 19553), (511, 19571), (514, 19580), (515, 19589), (517, 19595), (520, 19616), (527, 19646), (536, 19679), (537, 19685), (542, 19694), (551, 19721), (558, 19748), (567, 19781), (570, 19808), (572, 19814), (579, 19841), (586, 19859), (596, 19889), (599, 19898), (602, 19910), (604, 19916), (605, 19919), (609, 19931), (614, 19949), (622, 19976), (624, 19982), (641, 20051), (648, 20078), (652, 20093), (678, 20195), (701, 20294), (702, 20297), (704, 20303), (708, 20318), (713, 20336), (723, 20375), (724, 20378), (729, 20396), (734, 20429), (739, 20450), (751, 20507), (758, 20561), (780, 20624), (783, 20651), (786, 20669), (795, 20717), (796, 20723), (806, 20795), (825, 20873), (827, 20888), (835, 20927), (842, 20951), (846, 20975), (854, 21020), (858, 21041), (911, 21263),

Gene: KeaneyLin_20 Start: 17193, Stop: 21671, Start Num: 19
Candidate Starts for KeaneyLin_20:
(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 160 MA's), (Start: 23 @17223 has 3 MA's), (30, 17277), (40, 17334), (68, 17508), (71, 17538), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (117, 17988), (119, 18003), (126, 18051), (133, 18108), (141, 18204), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (343, 19191), (350, 19239), (357, 19269), (361, 19293), (364, 19305), (366, 19314), (369, 19323), (376, 19347), (385, 19392), (391, 19413), (404, 19488), (408, 19509), (409, 19512), (412, 19521), (422, 19551), (429, 19593), (441, 19653), (442, 19659), (443, 19668), (451, 19701), (455, 19713), (456, 19716), (469, 19779), (474, 19800), (479, 19830), (484, 19860), (490, 19878), (501, 19926), (507, 19950), (511, 19968), (514, 19977), (520, 20013), (527, 20043), (536, 20076), (537, 20082), (538, 20085), (543, 20097), (551, 20118), (566, 20169), (567, 20178), (573, 20214), (583, 20247), (586, 20256), (596, 20286), (599, 20295), (602, 20307), (614, 20346), (622, 20373), (624, 20379), (625, 20382), (628, 20397), (635, 20424), (643, 20454), (652, 20490), (678, 20592), (693, 20655), (701, 20691), (708, 20715), (713, 20733), (723, 20772), (725, 20778), (729, 20793), (733, 20814), (734, 20826), (758, 20958), (780, 21021), (783, 21048), (786, 21066), (795, 21114), (796, 21120), (806, 21192), (825, 21270), (831, 21306), (835, 21324), (842, 21348), (846, 21372), (854, 21417), (858, 21438), (911, 21660),

Gene: Kenosha_32 Start: 24052, Stop: 29163, Start Num: 19
Candidate Starts for Kenosha_32:
(Start: 19 @24052 has 160 MA's), (Start: 23 @24082 has 3 MA's), (28, 24127), (49, 24271), (60, 24331), (61, 24337), (71, 24397), (72, 24418), (79, 24520), (86, 24610), (87, 24646), (90, 24682), (96, 24721), (101, 24748), (105, 24769), (110, 24811), (117, 24883), (122, 24931), (137, 25057), (145, 25132), (146, 25144), (151, 25165), (163, 25270), (164, 25273), (184, 25381), (233, 25633), (260, 25738), (272, 25807), (277, 25828), (291, 25909), (293, 25912), (300, 25939), (308, 25978), (313,

26005), (339, 26146), (343, 26167), (353, 26230), (354, 26236), (359, 26254), (360, 26260), (370, 26302), (374, 26314), (376, 26323), (385, 26368), (397, 26419), (398, 26431), (400, 26440), (401, 26449), (425, 26548), (429, 26569), (432, 26578), (437, 26602), (438, 26605), (439, 26611), (450, 26674), (451, 26677), (454, 26686), (457, 26698), (459, 26704), (460, 26707), (462, 26719), (466, 26740), (468, 26746), (469, 26749), (474, 26770), (479, 26800), (481, 26815), (484, 26830), (498, 26878), (501, 26890), (503, 26896), (504, 26899), (506, 26911), (507, 26914), (519, 26971), (532, 27025), (533, 27028), (538, 27049), (544, 27061), (546, 27064), (559, 27109), (560, 27112), (565, 27127), (566, 27130), (567, 27139), (568, 27154), (569, 27160), (570, 27166), (575, 27187), (576, 27190), (580, 27202), (583, 27217), (586, 27226), (592, 27247), (594, 27259), (600, 27280), (608, 27307), (618, 27340), (620, 27346), (625, 27364), (632, 27394), (642, 27433), (690, 27625), (708, 27694), (728, 27769), (745, 27859), (770, 28003), (789, 28132), (794, 28165), (797, 28177), (798, 28186), (804, 28240), (812, 28261), (814, 28273), (817, 28288), (830, 28351), (848, 28435), (865, 28522), (872, 28540), (873, 28543), (883, 28570), (886, 28588), (887, 28591), (888, 28597), (891, 28603), (898, 28630), (915, 28741), (924, 28816), (935, 28885), (941, 28918), (945, 28942), (963, 29059), (976, 29149),

Gene: Kerry_29 Start: 20616, Stop: 25730, Start Num: 19
Candidate Starts for Kerry_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (213, 22080), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (331, 22626), (341, 22710), (343, 22719), (359, 22806), (367, 22845), (380, 22893), (385, 22920), (391, 22941), (394, 22950), (397, 22971), (398, 22983), (400, 22992), (401, 23001), (406, 23028), (414, 23055), (415, 23058), (422, 23079), (429, 23121), (435, 23148), (438, 23157), (440, 23172), (441, 23181), (443, 23196), (445, 23208), (447, 23217), (451, 23229), (457, 23250), (460, 23259), (478, 23343), (479, 23352), (481, 23367), (482, 23370), (486, 23388), (490, 23400), (491, 23403), (498, 23430), (504, 23451), (507, 23466), (517, 23508), (519, 23523), (533, 23580), (536, 23592), (538, 23601), (544, 23613), (550, 23625), (551, 23631), (556, 23652), (560, 23664), (566, 23682), (567, 23691), (568, 23706), (569, 23712), (572, 23724), (582, 23766), (583, 23769), (586, 23778), (592, 23799), (594, 23811), (608, 23859), (611, 23868), (618, 23892), (620, 23898), (625, 23916), (626, 23925), (632, 23946), (650, 24015), (655, 24033), (656, 24036), (661, 24054), (691, 24180), (702, 24225), (716, 24276), (747, 24420), (770, 24555), (778, 24606), (789, 24684), (797, 24729), (804, 24792), (810, 24810), (817, 24840), (818, 24846), (830, 24903), (845, 24975), (857, 25035), (862, 25056), (863, 25059), (873, 25110), (875, 25119), (887, 25158), (891, 25170), (909, 25263), (915, 25308), (924, 25383), (929, 25422), (935, 25452), (945, 25509), (962, 25620), (976, 25716),

Gene: KevinMinion_26 Start: 20096, Stop: 24733, Start Num: 19
Candidate Starts for KevinMinion_26:
(Start: 18 @20075 has 2 MA's), (Start: 19 @20096 has 160 MA's), (Start: 23 @20126 has 3 MA's), (30, 20180), (31, 20189), (61, 20459), (62, 20462), (71, 20519), (72, 20540), (78, 20600), (79, 20642), (84, 20702), (89, 20789), (93, 20828), (96, 20843), (99, 20858), (105, 20891), (109, 20930), (110, 20933), (117, 20969), (119, 20984), (126, 21032), (163, 21356), (167, 21368), (175, 21428), (185, 21470), (194, 21530), (195, 21536), (198, 21545), (203, 21560), (204, 21569), (224, 21668), (225, 21680), (226, 21689), (228, 21701), (301, 21986), (313, 22046), (317, 22055), (343, 22196), (350, 22244), (355, 22268), (357, 22274), (366, 22319), (369, 22328), (376, 22352), (380, 22370), (390, 22415), (391, 22418), (394, 22427), (404, 22493), (415, 22535), (419, 22547), (422, 22556), (425, 22577), (436, 22628), (441, 22658), (443, 22673), (454, 22715), (459, 22733), (468, 22781), (469, 22784), (480, 22841), (506, 22949), (509, 22958), (519, 23009), (527, 23045), (536, 23078), (538, 23087), (543, 23099), (551, 23120), (553, 23126), (558, 23147), (566, 23171), (567, 23180), (583, 23249), (584, 23252), (585, 23255), (586, 23258), (596, 23288), (602, 23309), (609, 23330), (614, 23348),

(617, 23357), (622, 23375), (637, 23435), (645, 23468), (649, 23483), (651, 23489), (652, 23492),
(665, 23537), (671, 23570), (673, 23576), (678, 23594), (707, 23714), (708, 23717), (713, 23735),
(732, 23813), (736, 23837), (751, 23906), (758, 23960), (780, 24089), (786, 24134), (822, 24317),
(825, 24338), (829, 24362), (842, 24413), (855, 24482), (858, 24500),

Gene: Kinny_28 Start: 20843, Stop: 25486, Start Num: 19
Candidate Starts for Kinny_28:
(Start: 18 @20822 has 2 MA's), (Start: 19 @20843 has 160 MA's), (Start: 23 @20873 has 3 MA's), (30,
20927), (34, 20948), (40, 20984), (49, 21152), (60, 21212), (71, 21278), (72, 21299), (79, 21401), (80,
21419), (84, 21461), (88, 21536), (89, 21548), (96, 21602), (99, 21617), (105, 21650), (117, 21728),
(119, 21743), (131, 21833), (137, 21902), (151, 22010), (157, 22064), (163, 22115), (164, 22118),
(175, 22187), (185, 22229), (194, 22289), (195, 22295), (198, 22304), (203, 22319), (204, 22328),
(224, 22427), (225, 22439), (228, 22460), (281, 22667), (289, 22691), (301, 22745), (317, 22814),
(343, 22955), (355, 23027), (357, 23033), (366, 23078), (368, 23084), (369, 23087), (376, 23111),
(380, 23129), (391, 23177), (394, 23186), (415, 23294), (422, 23315), (425, 23336), (435, 23384),
(441, 23417), (443, 23432), (447, 23453), (459, 23492), (481, 23609), (506, 23708), (507, 23711),
(519, 23768), (524, 23795), (527, 23804), (536, 23837), (538, 23846), (543, 23858), (566, 23930),
(567, 23939), (575, 23987), (583, 24008), (585, 24014), (586, 24017), (605, 24077), (614, 24107),
(617, 24116), (639, 24203), (640, 24206), (641, 24209), (645, 24227), (654, 24257), (665, 24296),
(671, 24329), (672, 24332), (673, 24335), (675, 24341), (678, 24353), (690, 24407), (698, 24443),
(708, 24476), (713, 24494), (719, 24518), (720, 24521), (741, 24623), (748, 24653), (751, 24665),
(758, 24719), (761, 24731), (780, 24848), (786, 24893), (799, 24962), (825, 25097), (829, 25121),
(839, 25166), (842, 25172), (849, 25211), (855, 25241),

Gene: Kureo_41 Start: 28594, Stop: 33114, Start Num: 23
Candidate Starts for Kureo_41:
(Start: 19 @28564 has 160 MA's), (Start: 23 @28594 has 3 MA's), (34, 28669), (40, 28705), (49,
28783), (78, 28990), (79, 29032), (87, 29158), (92, 29203), (93, 29218), (96, 29233), (101, 29260),
(105, 29281), (108, 29305), (110, 29323), (122, 29440), (129, 29485), (132, 29503), (144, 29626),
(146, 29653), (149, 29665), (152, 29686), (182, 29881), (198, 29968), (200, 29974), (210, 30016),
(219, 30067), (250, 30205), (252, 30214), (282, 30334), (304, 30412), (305, 30421), (343, 30589),
(357, 30667), (366, 30712), (369, 30721), (376, 30745), (385, 30790), (386, 30793), (391, 30811),
(408, 30907), (419, 30940), (425, 30970), (431, 30997), (441, 31051), (443, 31066), (444, 31069),
(463, 31150), (469, 31177), (479, 31228), (483, 31255), (490, 31276), (491, 31279), (501, 31321),
(504, 31330), (522, 31417), (527, 31438), (531, 31450), (536, 31471), (538, 31480), (543, 31492),
(556, 31534), (566, 31564), (567, 31573), (575, 31621), (576, 31624), (583, 31642), (586, 31651),
(602, 31702), (605, 31711), (614, 31741), (625, 31777), (631, 31804), (652, 31885), (653, 31888),
(673, 31969), (677, 31981), (683, 32011), (686, 32026), (689, 32035), (693, 32050), (702, 32089),
(713, 32128), (717, 32143), (719, 32152), (722, 32164), (725, 32173), (726, 32176), (734, 32221),
(735, 32227), (747, 32284), (751, 32299), (755, 32329), (771, 32425), (780, 32482), (786, 32527),
(800, 32596), (813, 32677), (819, 32698), (825, 32731), (833, 32776), (835, 32785), (839, 32800),
(842, 32806), (854, 32875), (858, 32893), (869, 32944),

Gene: Leathea_26 Start: 18979, Stop: 23520, Start Num: 19
Candidate Starts for Leathea_26:
(Start: 18 @18958 has 2 MA's), (Start: 19 @18979 has 160 MA's), (Start: 23 @19009 has 3 MA's), (30,
19063), (49, 19198), (66, 19282), (71, 19324), (78, 19405), (79, 19447), (84, 19507), (88, 19582), (93,
19633), (96, 19648), (99, 19663), (105, 19696), (108, 19720), (117, 19774), (119, 19789), (126,
19837), (137, 19948), (146, 20035), (151, 20056), (164, 20164), (175, 20233), (185, 20275), (194,
20335), (195, 20341), (198, 20350), (204, 20374), (224, 20473), (225, 20485), (228, 20506), (301,
20791), (317, 20860), (343, 20998), (345, 21010), (357, 21076), (361, 21100), (366, 21121), (368,
21127), (369, 21130), (376, 21154), (380, 21172), (391, 21220), (394, 21229), (398, 21262), (419,
21349), (422, 21358), (425, 21379), (441, 21460), (468, 21583), (469, 21586), (470, 21592), (473,

21604), (474, 21607), (506, 21751), (507, 21754), (519, 21811), (527, 21847), (536, 21880), (538, 21889), (543, 21901), (558, 21949), (566, 21973), (567, 21982), (575, 22030), (583, 22051), (586, 22060), (604, 22117), (605, 22120), (609, 22132), (614, 22150), (637, 22237), (639, 22246), (640, 22249), (641, 22252), (645, 22270), (665, 22339), (671, 22372), (672, 22375), (675, 22384), (678, 22396), (698, 22486), (708, 22519), (713, 22537), (715, 22546), (719, 22561), (720, 22564), (751, 22708), (758, 22762), (761, 22774), (767, 22813), (780, 22891), (786, 22936), (821, 23116), (825, 23140), (829, 23164), (839, 23209), (842, 23215), (849, 23254), (855, 23284), (871, 23362), (874, 23371), (900, 23452),

Gene: Lewando_29 Start: 20912, Stop: 25555, Start Num: 19
Candidate Starts for Lewando_29:
(Start: 18 @20891 has 2 MA's), (Start: 19 @20912 has 160 MA's), (Start: 23 @20942 has 3 MA's), (30, 20996), (34, 21017), (40, 21053), (49, 21221), (51, 21230), (60, 21281), (71, 21347), (72, 21368), (79, 21470), (80, 21488), (84, 21530), (88, 21605), (89, 21617), (96, 21671), (99, 21686), (105, 21719), (117, 21797), (119, 21812), (131, 21902), (137, 21971), (151, 22079), (157, 22133), (164, 22187), (175, 22256), (185, 22298), (194, 22358), (195, 22364), (198, 22373), (203, 22388), (204, 22397), (224, 22496), (225, 22508), (228, 22529), (281, 22736), (289, 22760), (301, 22814), (317, 22883), (343, 23024), (355, 23096), (357, 23102), (366, 23147), (368, 23153), (369, 23156), (376, 23180), (380, 23198), (390, 23243), (391, 23246), (393, 23252), (394, 23255), (398, 23288), (401, 23306), (415, 23363), (422, 23384), (425, 23405), (435, 23453), (441, 23486), (443, 23501), (459, 23561), (470, 23618), (481, 23678), (506, 23777), (507, 23780), (519, 23837), (524, 23864), (527, 23873), (536, 23906), (538, 23915), (543, 23927), (551, 23948), (566, 23999), (567, 24008), (575, 24056), (583, 24077), (585, 24083), (586, 24086), (605, 24146), (614, 24176), (617, 24185), (639, 24272), (640, 24275), (641, 24278), (645, 24296), (649, 24311), (654, 24326), (665, 24365), (671, 24398), (672, 24401), (673, 24404), (675, 24410), (678, 24422), (708, 24545), (713, 24563), (736, 24665), (751, 24734), (758, 24788), (780, 24917), (786, 24962), (799, 25031), (825, 25166), (829, 25190), (839, 25235), (842, 25241), (849, 25280), (855, 25310), (858, 25328),

Gene: LibertyBell_21 Start: 14934, Stop: 20459, Start Num: 2
Candidate Starts for LibertyBell_21:
(1, 14913), (Start: 2 @14934 has 31 MA's), (3, 14964), (4, 14988), (29, 15264), (35, 15306), (36, 15309), (41, 15339), (61, 15552), (79, 15735), (87, 15861), (90, 15897), (96, 15936), (103, 15969), (105, 15984), (110, 16026), (133, 16218), (134, 16251), (151, 16380), (177, 16563), (178, 16569), (193, 16656), (209, 16719), (236, 16866), (246, 16899), (265, 16968), (275, 16998), (279, 17022), (300, 17106), (302, 17118), (317, 17178), (336, 17214), (343, 17268), (354, 17337), (368, 17397), (369, 17400), (385, 17469), (389, 17481), (419, 17619), (422, 17628), (425, 17646), (458, 17799), (481, 17919), (486, 17940), (490, 17952), (495, 17973), (496, 17976), (506, 18015), (513, 18042), (516, 18057), (518, 18066), (519, 18075), (526, 18108), (527, 18111), (554, 18195), (570, 18273), (571, 18276), (572, 18279), (575, 18294), (580, 18309), (583, 18315), (584, 18318), (586, 18324), (605, 18384), (610, 18399), (614, 18414), (624, 18447), (628, 18465), (639, 18510), (640, 18513), (648, 18543), (651, 18555), (652, 18558), (657, 18576), (676, 18651), (683, 18684), (693, 18723), (701, 18759), (707, 18780), (718, 18822), (722, 18837), (725, 18846), (728, 18858), (730, 18870), (732, 18879), (734, 18894), (739, 18915), (786, 19134), (826, 19347), (874, 19581), (904, 19707), (921, 19836), (934, 19932), (937, 19938), (939, 19959), (957, 20064), (961, 20103), (964, 20121), (968, 20166), (975, 20211), (983, 20307),

Gene: LilHuddy_27 Start: 20332, Stop: 24921, Start Num: 19
Candidate Starts for LilHuddy_27:
(Start: 18 @20311 has 2 MA's), (Start: 19 @20332 has 160 MA's), (Start: 23 @20362 has 3 MA's), (30, 20416), (60, 20611), (66, 20635), (68, 20647), (71, 20677), (78, 20758), (79, 20800), (80, 20818), (84, 20860), (86, 20890), (88, 20935), (89, 20947), (96, 21001), (99, 21016), (100, 21022), (105, 21049), (112, 21112), (117, 21127), (119, 21142), (122, 21175), (126, 21190), (132, 21238), (141, 21343), (151, 21409), (158, 21478), (164, 21517), (167, 21526), (171, 21541), (174, 21583), (175, 21586),

(186, 21637), (210, 21751), (221, 21808), (234, 21880), (243, 21919), (253, 21946), (260, 21988),
(283, 22084), (306, 22186), (308, 22192), (317, 22228), (343, 22375), (345, 22387), (351, 22429),
(352, 22432), (361, 22477), (366, 22498), (369, 22507), (370, 22510), (376, 22531), (391, 22597),
(392, 22600), (415, 22714), (422, 22735), (424, 22753), (425, 22756), (443, 22852), (445, 22864),
(474, 22984), (479, 23014), (493, 23071), (501, 23107), (504, 23116), (506, 23128), (511, 23149),
(514, 23158), (525, 23218), (535, 23251), (537, 23263), (538, 23266), (543, 23278), (553, 23305),
(556, 23320), (558, 23326), (559, 23329), (566, 23350), (567, 23359), (583, 23428), (586, 23437),
(599, 23476), (614, 23527), (641, 23629), (647, 23653), (648, 23656), (657, 23689), (658, 23692),
(659, 23695), (660, 23698), (672, 23752), (673, 23755), (679, 23776), (702, 23875), (711, 23905),
(714, 23917), (717, 23929), (721, 23947), (724, 23956), (725, 23959), (755, 24115), (758, 24139),
(760, 24148), (771, 24211), (775, 24226), (786, 24313), (788, 24325), (796, 24367), (811, 24451),
(825, 24517), (829, 24541), (839, 24586), (841, 24589), (842, 24592), (855, 24661), (856, 24664),
(860, 24688), (905, 24871),

Gene: Linda_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for Linda_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26,
17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84,
17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020),
(119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425),
(167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836),
(262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118),
(322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394),
(378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643),
(426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808),
(463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994),
(504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150),
(538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294),
(586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570),
(657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (698, 20750), (700, 20756),
(702, 20762), (704, 20768), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843),
(734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200),
(802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461),
(839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605), (890, 21683),

Gene: Loretta_26 Start: 19877, Stop: 24463, Start Num: 19
Candidate Starts for Loretta_26:
(Start: 18 @19856 has 2 MA's), (Start: 19 @19877 has 160 MA's), (Start: 23 @19907 has 3 MA's), (30,
19961), (40, 20018), (46, 20066), (60, 20156), (68, 20192), (71, 20222), (79, 20345), (84, 20405), (88,
20480), (96, 20546), (99, 20561), (105, 20594), (117, 20672), (119, 20687), (121, 20708), (122,
20720), (129, 20765), (133, 20792), (136, 20837), (141, 20888), (145, 20921), (151, 20954), (167,
21071), (173, 21119), (174, 21128), (197, 21245), (201, 21257), (202, 21260), (244, 21467), (260,
21527), (283, 21623), (296, 21677), (306, 21725), (308, 21731), (317, 21767), (343, 21911), (352,
21968), (354, 21980), (366, 22034), (369, 22043), (370, 22046), (376, 22067), (377, 22070), (386,
22115), (391, 22133), (404, 22208), (405, 22211), (407, 22223), (415, 22250), (422, 22271), (424,
22289), (425, 22292), (429, 22313), (441, 22373), (443, 22388), (444, 22391), (449, 22415), (450,
22418), (451, 22421), (459, 22448), (463, 22472), (465, 22484), (479, 22550), (481, 22565), (482,
22568), (486, 22586), (488, 22592), (489, 22595), (490, 22598), (501, 22643), (502, 22646), (504,
22652), (506, 22664), (511, 22685), (522, 22739), (523, 22742), (530, 22769), (537, 22799), (543,
22817), (549, 22826), (551, 22838), (556, 22859), (566, 22889), (567, 22898), (575, 22946), (578,
22955), (580, 22961), (586, 22976), (589, 22982), (596, 23006), (599, 23015), (612, 23057), (614,
23066), (625, 23102), (635, 23144), (639, 23162), (641, 23168), (647, 23192), (657, 23228), (671,
23288), (683, 23336), (684, 23345), (693, 23375), (711, 23444), (721, 23486), (724, 23495), (754,

23642), (755, 23654), (761, 23690), (775, 23765), (780, 23807), (786, 23852), (788, 23864), (796, 23906), (825, 24056), (829, 24080), (839, 24125), (841, 24128), (842, 24131), (846, 24155), (849, 24170), (855, 24200), (860, 24227), (907, 24422), (910, 24440),

Gene: LucySwiss_26 Start: 19986, Stop: 24578, Start Num: 19
Candidate Starts for LucySwiss_26:
(Start: 18 @19965 has 2 MA's), (Start: 19 @19986 has 160 MA's), (Start: 23 @20016 has 3 MA's), (30, 20070), (34, 20091), (40, 20127), (49, 20205), (60, 20265), (66, 20289), (68, 20301), (71, 20331), (74, 20382), (78, 20412), (79, 20454), (80, 20472), (84, 20514), (86, 20544), (88, 20589), (89, 20601), (96, 20655), (99, 20670), (101, 20682), (105, 20703), (119, 20796), (122, 20829), (126, 20844), (132, 20892), (151, 21063), (166, 21177), (167, 21180), (173, 21228), (194, 21342), (201, 21366), (239, 21561), (244, 21576), (246, 21582), (253, 21600), (265, 21672), (283, 21738), (306, 21840), (308, 21846), (316, 21879), (317, 21882), (323, 21909), (343, 22026), (352, 22083), (354, 22095), (366, 22149), (369, 22158), (370, 22161), (376, 22182), (385, 22227), (391, 22248), (413, 22359), (415, 22365), (422, 22386), (424, 22404), (429, 22428), (441, 22488), (443, 22503), (444, 22506), (450, 22533), (451, 22536), (479, 22665), (481, 22680), (482, 22683), (486, 22701), (488, 22707), (489, 22710), (493, 22722), (501, 22758), (504, 22767), (511, 22800), (522, 22854), (523, 22857), (527, 22875), (531, 22887), (538, 22917), (543, 22932), (549, 22941), (551, 22953), (567, 23013), (578, 23070), (583, 23082), (586, 23091), (599, 23130), (602, 23142), (612, 23172), (614, 23181), (634, 23256), (635, 23259), (639, 23277), (657, 23343), (659, 23349), (660, 23352), (672, 23406), (673, 23409), (704, 23535), (705, 23538), (711, 23559), (719, 23592), (721, 23601), (739, 23682), (745, 23715), (753, 23748), (761, 23805), (771, 23865), (776, 23889), (786, 23967), (788, 23979), (811, 24105), (821, 24147), (829, 24195), (836, 24228), (839, 24240), (842, 24246), (845, 24267), (846, 24270), (847, 24276), (855, 24315), (860, 24342), (905, 24528), (910, 24555),

Gene: Luthien_33 Start: 23500, Stop: 28611, Start Num: 19
Candidate Starts for Luthien_33:
(Start: 19 @23500 has 160 MA's), (Start: 23 @23530 has 3 MA's), (28, 23575), (49, 23719), (61, 23785), (71, 23845), (72, 23866), (79, 23968), (86, 24058), (87, 24094), (90, 24130), (96, 24169), (105, 24217), (110, 24259), (117, 24331), (122, 24379), (137, 24505), (145, 24580), (146, 24592), (151, 24613), (163, 24718), (164, 24721), (207, 24943), (220, 25009), (221, 25012), (233, 25081), (260, 25186), (272, 25255), (291, 25357), (293, 25360), (300, 25387), (308, 25426), (313, 25453), (343, 25615), (350, 25663), (354, 25684), (359, 25702), (370, 25750), (385, 25816), (393, 25843), (394, 25846), (396, 25864), (397, 25867), (400, 25888), (401, 25897), (414, 25951), (425, 25996), (429, 26017), (432, 26026), (439, 26059), (440, 26068), (443, 26092), (450, 26122), (451, 26125), (454, 26134), (457, 26146), (460, 26155), (462, 26167), (466, 26188), (468, 26194), (479, 26248), (498, 26326), (501, 26338), (503, 26344), (504, 26347), (507, 26362), (512, 26383), (519, 26419), (532, 26473), (533, 26476), (536, 26488), (538, 26497), (544, 26509), (546, 26512), (551, 26527), (558, 26554), (560, 26560), (565, 26575), (566, 26578), (567, 26587), (568, 26602), (569, 26608), (573, 26623), (575, 26635), (576, 26638), (586, 26674), (592, 26695), (594, 26707), (596, 26716), (600, 26728), (608, 26755), (615, 26779), (618, 26788), (620, 26794), (625, 26812), (642, 26881), (661, 26950), (697, 27106), (745, 27307), (770, 27451), (779, 27514), (782, 27541), (794, 27613), (797, 27625), (798, 27634), (804, 27688), (812, 27709), (814, 27721), (848, 27883), (865, 27970), (872, 27988), (883, 28018), (886, 28036), (887, 28039), (891, 28051), (898, 28078), (915, 28189), (924, 28264), (931, 28312), (941, 28366), (946, 28393), (963, 28507), (976, 28597),

Gene: Madamato_23 Start: 16133, Stop: 21622, Start Num: 2
Candidate Starts for Madamato_23:
(1, 16112), (Start: 2 @16133 has 31 MA's), (3, 16163), (14, 16307), (24, 16433), (42, 16517), (49, 16610), (51, 16619), (61, 16676), (68, 16706), (71, 16736), (72, 16757), (79, 16859), (87, 16985), (96, 17060), (105, 17108), (110, 17150), (133, 17339), (154, 17534), (161, 17594), (162, 17597), (167, 17618), (177, 17684), (207, 17831), (232, 17966), (270, 18107), (279, 18143), (281, 18152), (292, 18194), (300, 18227), (302, 18239), (313, 18290), (339, 18383), (343, 18404), (354, 18473), (356,

18479), (366, 18527), (369, 18536), (376, 18560), (385, 18605), (388, 18614), (389, 18617), (391, 18626), (410, 18728), (415, 18743), (422, 18764), (429, 18803), (431, 18809), (458, 18935), (468, 18986), (479, 19040), (495, 19109), (496, 19112), (507, 19154), (513, 19178), (518, 19202), (519, 19211), (527, 19247), (533, 19268), (566, 19373), (570, 19409), (572, 19415), (586, 19460), (614, 19550), (619, 19565), (624, 19583), (631, 19613), (635, 19628), (637, 19637), (643, 19658), (648, 19679), (651, 19691), (657, 19712), (676, 19787), (683, 19820), (702, 19898), (717, 19952), (721, 19970), (724, 19979), (732, 20015), (735, 20036), (780, 20225), (786, 20270), (826, 20483), (886, 20756), (937, 21074), (939, 21095), (948, 21143), (950, 21149), (951, 21155), (957, 21200), (962, 21248), (969, 21308), (974, 21338), (978, 21377), (993, 21566), (994, 21575),

Gene: Madvan_32 Start: 23284, Stop: 28395, Start Num: 19
Candidate Starts for Madvan_32:
(Start: 19 @23284 has 160 MA's), (Start: 23 @23314 has 3 MA's), (28, 23359), (49, 23503), (60, 23563), (61, 23569), (71, 23629), (72, 23650), (79, 23752), (86, 23842), (87, 23878), (90, 23914), (96, 23953), (101, 23980), (105, 24001), (110, 24043), (122, 24163), (137, 24289), (145, 24364), (146, 24376), (151, 24397), (159, 24469), (163, 24502), (164, 24505), (184, 24613), (233, 24865), (260, 24970), (272, 25039), (291, 25141), (293, 25144), (300, 25171), (308, 25210), (313, 25237), (343, 25399), (350, 25447), (354, 25468), (359, 25486), (370, 25534), (374, 25546), (385, 25600), (397, 25651), (398, 25663), (400, 25672), (401, 25681), (414, 25735), (425, 25780), (428, 25795), (429, 25801), (432, 25810), (433, 25816), (437, 25834), (438, 25837), (439, 25843), (440, 25852), (450, 25906), (451, 25909), (454, 25918), (459, 25936), (460, 25939), (462, 25951), (466, 25972), (468, 25978), (469, 25981), (474, 26002), (479, 26032), (481, 26047), (490, 26080), (498, 26110), (501, 26122), (503, 26128), (504, 26131), (506, 26143), (507, 26146), (519, 26203), (532, 26257), (533, 26260), (538, 26281), (544, 26293), (546, 26296), (559, 26341), (560, 26344), (565, 26359), (566, 26362), (567, 26371), (568, 26386), (569, 26392), (570, 26398), (575, 26419), (576, 26422), (580, 26434), (583, 26449), (586, 26458), (592, 26479), (594, 26491), (600, 26512), (608, 26539), (618, 26572), (620, 26578), (625, 26596), (632, 26626), (642, 26665), (661, 26734), (708, 26926), (728, 27001), (745, 27091), (770, 27235), (779, 27298), (789, 27364), (794, 27397), (797, 27409), (804, 27472), (812, 27493), (814, 27505), (818, 27526), (830, 27583), (848, 27667), (865, 27754), (872, 27772), (883, 27802), (886, 27820), (887, 27823), (888, 27829), (891, 27835), (898, 27862), (915, 27973), (924, 28048), (935, 28117), (941, 28150), (945, 28174), (963, 28291), (976, 28381),

Gene: MajinBuu_32 Start: 23507, Stop: 28621, Start Num: 19
Candidate Starts for MajinBuu_32:
(Start: 19 @23507 has 160 MA's), (Start: 23 @23537 has 3 MA's), (28, 23582), (49, 23726), (61, 23792), (71, 23852), (72, 23873), (79, 23975), (87, 24101), (90, 24137), (96, 24176), (105, 24224), (110, 24266), (117, 24338), (122, 24386), (137, 24512), (145, 24587), (146, 24599), (151, 24620), (163, 24725), (164, 24728), (207, 24950), (220, 25016), (236, 25106), (247, 25142), (260, 25193), (267, 25241), (271, 25253), (300, 25397), (308, 25436), (313, 25463), (343, 25625), (350, 25673), (353, 25688), (354, 25694), (359, 25712), (370, 25760), (385, 25826), (397, 25877), (398, 25889), (401, 25907), (414, 25961), (425, 26006), (429, 26027), (432, 26036), (436, 26057), (440, 26078), (450, 26132), (451, 26135), (454, 26144), (460, 26165), (462, 26177), (466, 26198), (468, 26204), (472, 26222), (479, 26258), (484, 26288), (498, 26336), (501, 26348), (503, 26354), (504, 26357), (506, 26369), (507, 26372), (512, 26393), (519, 26429), (532, 26483), (533, 26486), (538, 26507), (544, 26519), (546, 26522), (560, 26570), (565, 26585), (566, 26588), (567, 26597), (569, 26618), (575, 26645), (576, 26648), (582, 26672), (586, 26684), (592, 26705), (594, 26717), (596, 26726), (600, 26738), (608, 26765), (611, 26774), (618, 26798), (620, 26804), (625, 26822), (638, 26876), (642, 26891), (661, 26960), (676, 27020), (687, 27071), (716, 27182), (728, 27227), (745, 27317), (766, 27440), (770, 27461), (779, 27524), (782, 27551), (794, 27623), (797, 27635), (798, 27644), (804, 27698), (812, 27719), (814, 27731), (848, 27893), (865, 27980), (872, 27998), (883, 28028), (886, 28046), (887, 28049), (891, 28061), (898, 28088), (915, 28199), (924, 28274), (931, 28322), (941, 28376), (946, 28403), (963, 28517), (976, 28607),

Gene: Makai_26 Start: 20118, Stop: 24710, Start Num: 19
Candidate Starts for Makai_26:
(Start: 18 @20097 has 2 MA's), (Start: 19 @20118 has 160 MA's), (Start: 23 @20148 has 3 MA's), (30, 20202), (40, 20259), (49, 20337), (60, 20397), (66, 20421), (71, 20463), (79, 20586), (80, 20604), (84, 20646), (88, 20721), (89, 20733), (93, 20772), (96, 20787), (99, 20802), (105, 20835), (117, 20913), (119, 20928), (129, 21006), (137, 21087), (151, 21195), (167, 21312), (169, 21318), (192, 21462), (193, 21471), (210, 21537), (260, 21774), (275, 21834), (281, 21867), (283, 21870), (306, 21972), (308, 21978), (317, 22014), (343, 22158), (350, 22206), (351, 22212), (352, 22215), (361, 22260), (366, 22281), (369, 22290), (370, 22293), (376, 22314), (377, 22317), (391, 22380), (392, 22383), (415, 22497), (422, 22518), (424, 22536), (425, 22539), (436, 22590), (441, 22620), (443, 22635), (445, 22647), (471, 22758), (474, 22767), (479, 22797), (500, 22887), (501, 22890), (504, 22899), (506, 22911), (511, 22932), (515, 22950), (522, 22986), (527, 23007), (536, 23040), (554, 23097), (566, 23139), (567, 23148), (575, 23196), (583, 23217), (586, 23226), (596, 23256), (614, 23316), (625, 23352), (633, 23388), (645, 23436), (658, 23481), (660, 23487), (666, 23508), (671, 23538), (683, 23586), (693, 23625), (694, 23628), (721, 23736), (724, 23745), (731, 23778), (749, 23868), (757, 23916), (771, 24000), (786, 24102), (788, 24114), (796, 24156), (819, 24273), (821, 24282), (829, 24330), (839, 24375), (842, 24381), (855, 24450), (860, 24477), (905, 24660),

Gene: Mardi_27 Start: 19509, Stop: 24161, Start Num: 18
Candidate Starts for Mardi_27:
(Start: 18 @19509 has 2 MA's), (Start: 19 @19530 has 160 MA's), (Start: 23 @19560 has 3 MA's), (30, 19614), (31, 19623), (61, 19893), (62, 19896), (71, 19953), (72, 19974), (78, 20034), (79, 20076), (84, 20136), (88, 20211), (96, 20277), (99, 20292), (105, 20325), (109, 20364), (110, 20367), (117, 20403), (119, 20418), (126, 20466), (157, 20739), (164, 20793), (167, 20802), (175, 20862), (194, 20964), (195, 20970), (198, 20979), (203, 20994), (204, 21003), (224, 21102), (225, 21114), (226, 21123), (228, 21135), (301, 21420), (313, 21480), (317, 21489), (343, 21630), (350, 21678), (355, 21702), (357, 21708), (361, 21732), (366, 21753), (369, 21762), (376, 21786), (380, 21804), (390, 21849), (391, 21852), (394, 21861), (404, 21927), (415, 21969), (419, 21981), (422, 21990), (425, 22011), (436, 22062), (441, 22092), (443, 22107), (454, 22149), (459, 22167), (468, 22215), (469, 22218), (470, 22224), (485, 22302), (506, 22383), (509, 22392), (519, 22443), (527, 22479), (536, 22512), (538, 22521), (543, 22533), (551, 22554), (553, 22560), (558, 22581), (566, 22605), (567, 22614), (570, 22641), (583, 22683), (584, 22686), (585, 22689), (586, 22692), (602, 22743), (609, 22764), (614, 22782), (622, 22809), (640, 22881), (641, 22884), (645, 22902), (652, 22926), (665, 22971), (671, 23004), (672, 23007), (673, 23010), (678, 23028), (707, 23148), (708, 23151), (713, 23169), (715, 23178), (732, 23247), (736, 23271), (751, 23340), (758, 23394), (775, 23481), (780, 23523), (786, 23568), (795, 23616), (822, 23751), (825, 23772), (828, 23790), (829, 23796), (842, 23847), (855, 23916), (858, 23934),

Gene: Marianna39_41 Start: 29771, Stop: 34291, Start Num: 23
Candidate Starts for Marianna39_41:
(Start: 19 @29741 has 160 MA's), (Start: 23 @29771 has 3 MA's), (34, 29846), (40, 29882), (49, 29960), (79, 30209), (87, 30335), (92, 30380), (93, 30395), (96, 30410), (101, 30437), (105, 30458), (108, 30482), (110, 30500), (122, 30617), (129, 30662), (132, 30680), (144, 30803), (146, 30830), (149, 30842), (152, 30863), (182, 31058), (198, 31145), (200, 31151), (210, 31193), (219, 31244), (250, 31382), (252, 31391), (282, 31511), (304, 31589), (305, 31598), (343, 31766), (357, 31844), (366, 31889), (369, 31898), (376, 31922), (385, 31967), (386, 31970), (391, 31988), (408, 32084), (419, 32117), (425, 32147), (431, 32174), (441, 32228), (443, 32243), (444, 32246), (463, 32327), (469, 32354), (479, 32405), (483, 32432), (490, 32453), (491, 32456), (501, 32498), (522, 32594), (527, 32615), (531, 32627), (536, 32648), (538, 32657), (543, 32669), (556, 32711), (566, 32741), (567, 32750), (575, 32798), (576, 32801), (583, 32819), (586, 32828), (602, 32879), (605, 32888), (614, 32918), (625, 32954), (652, 33062), (653, 33065), (673, 33146), (677, 33158), (683, 33188), (686, 33203), (693, 33227), (702, 33266), (713, 33305), (717, 33320), (719, 33329), (722, 33341), (725, 33350), (726, 33353), (734, 33398), (735, 33404), (747, 33461), (751, 33476), (755, 33506),

(771, 33602), (780, 33659), (786, 33704), (800, 33773), (813, 33854), (819, 33875), (825, 33908), (833, 33953), (835, 33962), (839, 33977), (842, 33983), (854, 34052), (858, 34070), (869, 34121),

Gene: Maya_23 Start: 16174, Stop: 21660, Start Num: 2
Candidate Starts for Maya_23:
(1, 16153), (Start: 2 @16174 has 31 MA's), (3, 16204), (14, 16348), (42, 16558), (54, 16678), (61, 16717), (68, 16747), (70, 16771), (71, 16777), (72, 16798), (73, 16813), (79, 16900), (86, 16990), (87, 17026), (88, 17035), (90, 17062), (96, 17101), (97, 17110), (101, 17128), (105, 17149), (110, 17191), (111, 17200), (122, 17308), (134, 17413), (145, 17509), (154, 17575), (177, 17725), (192, 17809), (196, 17830), (207, 17872), (232, 18007), (267, 18139), (270, 18148), (279, 18184), (281, 18193), (292, 18235), (300, 18268), (306, 18298), (339, 18421), (343, 18442), (353, 18505), (354, 18511), (356, 18517), (361, 18544), (366, 18565), (368, 18571), (369, 18574), (376, 18598), (385, 18643), (388, 18652), (389, 18655), (391, 18664), (404, 18739), (410, 18766), (416, 18784), (422, 18802), (425, 18820), (429, 18841), (440, 18892), (454, 18958), (458, 18973), (476, 19060), (479, 19078), (483, 19105), (509, 19198), (518, 19240), (519, 19249), (527, 19285), (528, 19288), (532, 19303), (533, 19306), (536, 19318), (551, 19360), (552, 19363), (566, 19411), (570, 19447), (572, 19453), (577, 19474), (586, 19498), (596, 19528), (614, 19588), (624, 19621), (625, 19624), (628, 19639), (631, 19651), (637, 19675), (648, 19717), (651, 19729), (652, 19732), (666, 19780), (671, 19810), (676, 19825), (683, 19858), (686, 19873), (702, 19936), (721, 20008), (723, 20014), (724, 20017), (732, 20053), (744, 20119), (759, 20206), (760, 20209), (786, 20308), (795, 20356), (796, 20362), (826, 20521), (886, 20794), (894, 20830), (908, 20896), (922, 21019), (937, 21112), (939, 21133), (948, 21181), (950, 21187), (951, 21193), (957, 21238), (969, 21346), (972, 21367), (978, 21415), (986, 21502), (993, 21604), (994, 21613),

Gene: MediumFry_24 Start: 19326, Stop: 23909, Start Num: 19
Candidate Starts for MediumFry_24:
(Start: 18 @19305 has 2 MA's), (Start: 19 @19326 has 160 MA's), (Start: 23 @19356 has 3 MA's), (30, 19410), (40, 19467), (46, 19515), (68, 19641), (71, 19671), (78, 19752), (79, 19794), (80, 19812), (84, 19854), (86, 19884), (88, 19929), (89, 19941), (96, 19995), (99, 20010), (100, 20016), (105, 20043), (112, 20106), (117, 20121), (119, 20136), (122, 20169), (126, 20184), (127, 20193), (132, 20232), (141, 20337), (158, 20472), (164, 20511), (167, 20520), (170, 20529), (175, 20580), (176, 20583), (201, 20706), (202, 20709), (210, 20745), (246, 20922), (254, 20943), (260, 20976), (283, 21072), (296, 21126), (306, 21174), (308, 21180), (317, 21216), (343, 21363), (361, 21465), (366, 21486), (369, 21495), (370, 21498), (376, 21519), (377, 21522), (391, 21585), (404, 21660), (407, 21675), (413, 21696), (415, 21702), (422, 21723), (425, 21744), (429, 21765), (441, 21825), (443, 21840), (444, 21843), (449, 21867), (450, 21870), (479, 22002), (481, 22017), (482, 22020), (486, 22038), (488, 22044), (490, 22050), (501, 22095), (502, 22098), (504, 22104), (507, 22119), (511, 22137), (516, 22158), (522, 22191), (523, 22194), (527, 22212), (543, 22269), (549, 22278), (551, 22290), (556, 22311), (558, 22317), (559, 22320), (566, 22341), (567, 22350), (576, 22401), (578, 22407), (583, 22419), (586, 22428), (597, 22461), (614, 22518), (633, 22590), (634, 22593), (635, 22596), (639, 22614), (641, 22620), (647, 22644), (657, 22680), (659, 22686), (663, 22701), (671, 22740), (683, 22788), (693, 22827), (702, 22866), (711, 22896), (721, 22938), (724, 22947), (753, 23085), (754, 23094), (755, 23106), (761, 23142), (780, 23259), (782, 23280), (788, 23316), (796, 23358), (806, 23430), (829, 23532), (839, 23577), (842, 23583), (855, 23652), (860, 23679), (905, 23859), (907, 23868),

Gene: Meibysrarus_23 Start: 16160, Stop: 21646, Start Num: 2
Candidate Starts for Meibysrarus_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221),

(300, 18254), (306, 18284), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (454, 18944), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (528, 19274), (532, 19289), (533, 19292), (536, 19304), (551, 19346), (552, 19349), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (631, 19637), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (721, 19994), (723, 20000), (724, 20003), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Mema_24 Start: 19137, Stop: 23351, Start Num: 19
Candidate Starts for Mema_24:
(Start: 19 @19137 has 160 MA's), (Start: 23 @19170 has 3 MA's), (43, 19293), (45, 19317), (71, 19485), (79, 19608), (84, 19668), (92, 19779), (95, 19803), (96, 19809), (99, 19824), (105, 19857), (106, 19863), (119, 19950), (121, 19971), (122, 19983), (137, 20109), (152, 20229), (160, 20301), (172, 20376), (198, 20511), (214, 20589), (285, 20808), (302, 20883), (311, 20922), (328, 20976), (330, 20988), (341, 21045), (343, 21054), (355, 21126), (366, 21177), (369, 21186), (374, 21201), (376, 21210), (379, 21219), (384, 21249), (385, 21255), (387, 21261), (391, 21276), (395, 21297), (400, 21327), (406, 21363), (408, 21372), (423, 21423), (439, 21498), (447, 21552), (448, 21555), (451, 21564), (457, 21585), (466, 21624), (477, 21672), (478, 21675), (514, 21741), (518, 21762), (556, 21819), (557, 21822), (563, 21840), (567, 21858), (571, 21888), (575, 21906), (583, 21927), (586, 21936), (603, 21996), (604, 21999), (614, 22032), (624, 22065), (635, 22110), (647, 22158), (657, 22194), (658, 22197), (659, 22200), (680, 22287), (682, 22299), (683, 22302), (692, 22338), (693, 22341), (716, 22431), (723, 22458), (725, 22464), (738, 22530), (740, 22542), (750, 22587), (753, 22599), (780, 22707), (786, 22752), (796, 22806), (825, 22956), (839, 23025), (842, 23031), (845, 23052), (868, 23160), (881, 23208), (910, 23331),

Gene: Michelle_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for Michelle_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (393, 19490), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Miek_21 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for Miek_21:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: MiniBagel_26 Start: 21214, Stop: 25803, Start Num: 19
Candidate Starts for MiniBagel_26:
(Start: 18 @21193 has 2 MA's), (Start: 19 @21214 has 160 MA's), (Start: 23 @21244 has 3 MA's), (30, 21298), (34, 21319), (40, 21355), (60, 21493), (68, 21529), (71, 21559), (79, 21682), (80, 21700), (84, 21742), (91, 21850), (96, 21883), (99, 21898), (105, 21931), (117, 22009), (119, 22024), (121, 22045), (122, 22057), (127, 22081), (133, 22129), (141, 22225), (145, 22258), (151, 22291), (160, 22375), (167, 22408), (207, 22621), (222, 22696), (239, 22789), (244, 22804), (246, 22810), (253, 22828), (254, 22837), (260, 22870), (261, 22879), (278, 22951), (290, 22996), (306, 23068), (308, 23074), (316, 23107), (317, 23110), (323, 23137), (343, 23251), (352, 23308), (354, 23320), (366, 23374), (369, 23383), (370, 23386), (376, 23407), (385, 23452), (391, 23473), (413, 23584), (415, 23590), (422, 23611), (424, 23629), (429, 23653), (441, 23713), (443, 23728), (444, 23731), (450, 23758), (451, 23761), (459, 23788), (476, 23872), (479, 23890), (481, 23905), (482, 23908), (486, 23926), (488, 23932), (489, 23935), (493, 23947), (494, 23953), (501, 23983), (504, 23992), (511, 24025), (522, 24079), (523, 24082), (527, 24100), (538, 24142), (543, 24157), (549, 24166), (551, 24178), (567, 24238), (578, 24295), (583, 24307), (586, 24316), (599, 24355), (602, 24367), (604, 24373), (608, 24385), (612, 24397), (614, 24406), (634, 24481), (635, 24484), (639, 24502), (657, 24568), (660, 24577), (672, 24631), (673, 24634), (711, 24784), (719, 24817), (721, 24826), (726, 24841), (730, 24862), (739, 24907), (745, 24940), (753, 24973), (761, 25030), (771, 25090), (782, 25168), (786, 25192), (788, 25204), (811, 25330), (821, 25372), (829, 25420), (836, 25453), (839, 25465), (842, 25471), (845, 25492), (846, 25495), (847, 25501), (855, 25540), (860, 25567), (905, 25753), (910, 25780),

Gene: Monse_19 Start: 13515, Stop: 18743, Start Num: 19
Candidate Starts for Monse_19:
(Start: 18 @13494 has 2 MA's), (Start: 19 @13515 has 160 MA's), (Start: 23 @13545 has 3 MA's), (42, 13647), (45, 13698), (61, 13806), (79, 13989), (87, 14115), (90, 14151), (96, 14190), (108, 14262), (110, 14280), (118, 14364), (136, 14517), (151, 14634), (154, 14667), (177, 14817), (182, 14841), (192, 14901), (206, 14958), (243, 15144), (265, 15222), (270, 15240), (279, 15276), (281, 15285), (317, 15432), (321, 15447), (343, 15525), (350, 15573), (354, 15594), (369, 15657), (374, 15672), (376, 15681), (377, 15684), (389, 15738), (406, 15834), (422, 15885), (431, 15930), (432, 15933), (446, 16014), (458, 16056), (468, 16107), (478, 16152), (479, 16161), (484, 16191), (497, 16236), (503, 16257), (505, 16266), (513, 16299), (514, 16302), (518, 16323), (519, 16332), (527, 16368), (536, 16401), (570, 16530), (572, 16536), (583, 16572), (586, 16581), (608, 16650), (610, 16656), (614, 16671), (624, 16704), (629, 16725), (639, 16767), (640, 16770), (648, 16800), (651, 16812), (652, 16815), (663, 16854), (683, 16941), (686, 16956), (702, 17019), (704, 17025), (728, 17115), (732, 17136), (735, 17157), (749, 17223), (754, 17247), (759, 17289), (760, 17292), (786, 17391),

(795, 17439), (826, 17604), (832, 17634), (874, 17838), (894, 17913), (904, 17964), (937, 18195), (939, 18216), (950, 18270), (953, 18300), (962, 18369), (965, 18390), (972, 18450), (977, 18489), (978, 18498), (979, 18501), (981, 18552), (993, 18696), (994, 18705),

Gene: Mooshroom_21 Start: 16796, Stop: 21274, Start Num: 19
Candidate Starts for Mooshroom_21:
(Start: 18 @16775 has 2 MA's), (Start: 19 @16796 has 160 MA's), (Start: 23 @16826 has 3 MA's), (30, 16880), (40, 16937), (68, 17111), (71, 17141), (78, 17222), (79, 17264), (80, 17282), (84, 17324), (89, 17411), (93, 17450), (96, 17465), (99, 17480), (105, 17513), (117, 17591), (119, 17606), (126, 17654), (128, 17669), (133, 17711), (141, 17807), (145, 17840), (151, 17873), (164, 17981), (174, 18047), (182, 18080), (184, 18089), (185, 18092), (187, 18110), (246, 18392), (255, 18416), (260, 18446), (302, 18605), (317, 18665), (343, 18794), (350, 18842), (357, 18872), (361, 18896), (364, 18908), (366, 18917), (369, 18926), (376, 18950), (385, 18995), (391, 19016), (404, 19091), (412, 19124), (422, 19154), (425, 19175), (429, 19196), (441, 19256), (442, 19262), (450, 19301), (456, 19319), (474, 19403), (479, 19433), (484, 19463), (490, 19481), (501, 19529), (507, 19553), (511, 19571), (514, 19580), (515, 19589), (517, 19595), (520, 19616), (527, 19646), (536, 19679), (537, 19685), (542, 19694), (551, 19721), (558, 19748), (567, 19781), (570, 19808), (572, 19814), (579, 19841), (586, 19859), (596, 19889), (599, 19898), (602, 19910), (604, 19916), (605, 19919), (609, 19931), (614, 19949), (622, 19976), (624, 19982), (641, 20051), (648, 20078), (652, 20093), (678, 20195), (701, 20294), (702, 20297), (704, 20303), (708, 20318), (713, 20336), (723, 20375), (724, 20378), (729, 20396), (734, 20429), (739, 20450), (751, 20507), (758, 20561), (780, 20624), (783, 20651), (786, 20669), (795, 20717), (796, 20723), (806, 20795), (825, 20873), (827, 20888), (835, 20927), (842, 20951), (846, 20975), (854, 21020), (858, 21041), (911, 21263),

Gene: Moozy_19 Start: 13482, Stop: 18731, Start Num: 18
Candidate Starts for Moozy_19:
(Start: 18 @13482 has 2 MA's), (Start: 19 @13503 has 160 MA's), (Start: 23 @13533 has 3 MA's), (42, 13635), (45, 13686), (61, 13794), (79, 13977), (87, 14103), (90, 14139), (96, 14178), (110, 14268), (154, 14655), (177, 14805), (182, 14829), (194, 14901), (243, 15132), (265, 15210), (270, 15228), (273, 15231), (279, 15264), (305, 15372), (321, 15432), (343, 15513), (354, 15582), (366, 15636), (388, 15723), (389, 15726), (391, 15735), (410, 15837), (422, 15873), (425, 15891), (436, 15942), (458, 16044), (461, 16056), (463, 16071), (478, 16140), (479, 16149), (484, 16179), (497, 16224), (503, 16245), (510, 16275), (513, 16287), (514, 16290), (518, 16311), (519, 16320), (527, 16356), (536, 16389), (563, 16473), (570, 16518), (571, 16521), (572, 16524), (586, 16569), (596, 16599), (610, 16644), (614, 16659), (624, 16692), (629, 16713), (631, 16722), (633, 16731), (639, 16755), (640, 16758), (643, 16767), (648, 16788), (651, 16800), (659, 16827), (668, 16866), (673, 16887), (681, 16923), (683, 16929), (717, 17061), (719, 17070), (721, 17079), (724, 17088), (725, 17091), (728, 17103), (729, 17106), (730, 17115), (732, 17124), (751, 17217), (758, 17271), (786, 17379), (789, 17394), (796, 17433), (826, 17592), (874, 17826), (894, 17901), (936, 18180), (937, 18183), (939, 18204), (948, 18252), (950, 18258), (964, 18366), (968, 18411), (972, 18438), (981, 18540), (994, 18693),

Gene: Mossy_33 Start: 24706, Stop: 29808, Start Num: 19
Candidate Starts for Mossy_33:
(Start: 19 @24706 has 160 MA's), (Start: 23 @24736 has 3 MA's), (28, 24781), (48, 24919), (49, 24925), (61, 24991), (68, 25021), (79, 25186), (84, 25246), (89, 25333), (92, 25357), (96, 25387), (99, 25402), (105, 25435), (115, 25528), (137, 25696), (151, 25804), (152, 25816), (158, 25873), (163, 25909), (164, 25912), (175, 25981), (177, 25987), (213, 26170), (214, 26176), (233, 26272), (236, 26290), (272, 26446), (298, 26572), (300, 26581), (339, 26791), (343, 26812), (344, 26818), (354, 26881), (359, 26899), (364, 26926), (369, 26944), (385, 27013), (392, 27037), (394, 27043), (397, 27064), (400, 27085), (414, 27148), (425, 27193), (429, 27214), (435, 27241), (437, 27247), (440, 27265), (441, 27274), (445, 27301), (450, 27319), (451, 27322), (454, 27331), (457, 27343), (459, 27349), (460, 27352), (462, 27364), (481, 27460), (490, 27493), (495, 27514), (497, 27520), (498,

27523), (501, 27535), (504, 27544), (507, 27559), (509, 27565), (510, 27571), (512, 27580), (515, 27595), (516, 27598), (519, 27616), (527, 27652), (533, 27673), (538, 27694), (551, 27724), (555, 27739), (556, 27745), (559, 27754), (561, 27760), (564, 27769), (566, 27775), (567, 27784), (568, 27799), (569, 27805), (574, 27829), (578, 27841), (586, 27871), (592, 27892), (594, 27904), (600, 27925), (601, 27928), (608, 27952), (611, 27961), (618, 27985), (620, 27991), (625, 28009), (626, 28018), (627, 28021), (641, 28075), (650, 28108), (687, 28258), (690, 28270), (694, 28282), (702, 28318), (708, 28339), (728, 28414), (758, 28582), (764, 28612), (769, 28645), (782, 28738), (794, 28810), (797, 28822), (798, 28831), (804, 28885), (817, 28933), (830, 28996), (842, 29047), (848, 29080), (865, 29167), (872, 29185), (883, 29215), (887, 29236), (888, 29242), (891, 29248), (898, 29275), (903, 29302), (915, 29386), (923, 29449), (924, 29461), (943, 29572), (946, 29590), (954, 29638), (976, 29794),

Gene: MrAaronian_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for MrAaronian_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Mudcat_21 Start: 19094, Stop: 23572, Start Num: 19
Candidate Starts for Mudcat_21:
(Start: 18 @19073 has 2 MA's), (Start: 19 @19094 has 160 MA's), (Start: 23 @19124 has 3 MA's), (26, 19157), (30, 19178), (68, 19409), (71, 19439), (78, 19520), (79, 19562), (80, 19580), (84, 19622), (89, 19709), (96, 19763), (99, 19778), (105, 19811), (117, 19889), (119, 19904), (126, 19952), (128, 19967), (133, 20009), (137, 20063), (141, 20105), (142, 20108), (145, 20138), (151, 20171), (164, 20279), (174, 20345), (182, 20378), (184, 20387), (185, 20390), (187, 20408), (246, 20690), (255, 20714), (260, 20744), (302, 20903), (310, 20936), (317, 20963), (343, 21092), (357, 21170), (366, 21215), (369, 21224), (373, 21236), (376, 21248), (382, 21275), (385, 21293), (391, 21314), (404, 21389), (408, 21410), (409, 21413), (412, 21422), (422, 21452), (425, 21473), (429, 21494), (441, 21554), (442, 21560), (450, 21599), (451, 21602), (456, 21617), (469, 21680), (474, 21701), (479, 21731), (484, 21761), (490, 21779), (501, 21827), (507, 21851), (511, 21869), (514, 21878), (515, 21887), (517, 21893), (520, 21914), (527, 21944), (536, 21977), (537, 21983), (538, 21986), (543, 21998), (551, 22019), (566, 22070), (567, 22079), (571, 22109), (573, 22115), (583, 22148), (586, 22157), (596, 22187), (599, 22196), (602, 22208), (614, 22247), (622, 22274), (624, 22280), (625, 22283), (628, 22298), (635, 22325), (639, 22343), (643, 22355), (652, 22391), (678, 22493), (693, 22556), (701, 22592), (702, 22595), (704, 22601), (708, 22616), (713, 22634), (719, 22658), (723, 22673), (724, 22676), (729, 22694), (734, 22727), (739, 22748), (751, 22805), (758, 22859), (760, 22868), (780, 22922), (783, 22949), (786, 22967), (795, 23015), (796, 23021), (806, 23093), (825, 23171), (827, 23186), (835, 23225), (842, 23249), (854, 23318), (858, 23339), (911, 23561),

Gene: Muglass_28 Start: 20482, Stop: 25113, Start Num: 19
Candidate Starts for Muglass_28:
(Start: 18 @20461 has 2 MA's), (Start: 19 @20482 has 160 MA's), (Start: 23 @20512 has 3 MA's), (30, 20566), (34, 20587), (40, 20623), (49, 20791), (60, 20851), (71, 20917), (72, 20938), (79, 21040), (80, 21058), (84, 21100), (88, 21175), (89, 21187), (96, 21241), (99, 21256), (105, 21289), (117, 21367), (119, 21382), (131, 21472), (137, 21541), (151, 21649), (157, 21703), (164, 21757), (175, 21826), (185, 21868), (194, 21928), (195, 21934), (198, 21943), (203, 21958), (204, 21967), (224, 22066), (225, 22078), (228, 22099), (281, 22306), (289, 22330), (301, 22384), (317, 22453), (341, 22582), (343, 22591), (357, 22669), (366, 22714), (368, 22720), (369, 22723), (376, 22747), (380, 22765), (391, 22813), (394, 22822), (398, 22855), (415, 22930), (422, 22951), (425, 22972), (429, 22993), (435, 23020), (441, 23053), (443, 23068), (459, 23128), (481, 23245), (506, 23344), (507, 23347), (519, 23404), (524, 23431), (527, 23440), (536, 23473), (538, 23482), (543, 23494), (551, 23515), (556, 23536), (558, 23542), (567, 23575), (571, 23605), (586, 23653), (596, 23683), (605, 23713), (614, 23743), (617, 23752), (639, 23839), (640, 23842), (641, 23845), (645, 23863), (649, 23878), (654, 23893), (665, 23932), (671, 23965), (673, 23971), (675, 23977), (678, 23989), (690, 24043), (698, 24079), (707, 24109), (708, 24112), (713, 24130), (719, 24154), (720, 24157), (741, 24259), (748, 24289), (751, 24301), (761, 24367), (780, 24484), (786, 24529), (825, 24733), (829, 24757), (839, 24802), (842, 24808), (849, 24847), (855, 24877), (858, 24895),

Gene: Mysticmoon_32 Start: 23315, Stop: 28429, Start Num: 19
Candidate Starts for Mysticmoon_32:
(Start: 19 @23315 has 160 MA's), (Start: 23 @23345 has 3 MA's), (28, 23390), (49, 23534), (60, 23594), (61, 23600), (69, 23639), (71, 23660), (72, 23681), (79, 23783), (87, 23909), (90, 23945), (96, 23984), (101, 24011), (105, 24032), (110, 24074), (122, 24194), (145, 24395), (151, 24428), (154, 24461), (160, 24512), (163, 24533), (164, 24536), (177, 24611), (204, 24746), (217, 24812), (221, 24827), (233, 24896), (236, 24914), (246, 24947), (254, 24968), (256, 24977), (260, 25001), (272, 25070), (277, 25091), (283, 25124), (284, 25127), (298, 25196), (300, 25205), (320, 25292), (332, 25352), (338, 25403), (343, 25436), (344, 25442), (354, 25505), (359, 25523), (369, 25568), (385, 25637), (392, 25661), (394, 25667), (397, 25688), (401, 25718), (414, 25772), (415, 25775), (428, 25832), (429, 25838), (437, 25871), (440, 25889), (441, 25898), (443, 25913), (445, 25925), (450, 25943), (451, 25946), (454, 25955), (457, 25967), (459, 25973), (460, 25976), (466, 26009), (471, 26030), (479, 26069), (490, 26117), (494, 26132), (495, 26138), (498, 26147), (501, 26159), (504, 26168), (506, 26180), (507, 26183), (508, 26186), (509, 26189), (510, 26195), (512, 26204), (524, 26267), (531, 26288), (533, 26297), (538, 26318), (556, 26369), (564, 26393), (566, 26399), (568, 26423), (569, 26429), (575, 26456), (576, 26459), (586, 26495), (592, 26516), (594, 26528), (596, 26537), (600, 26549), (608, 26576), (611, 26585), (618, 26609), (620, 26615), (625, 26633), (632, 26663), (642, 26702), (650, 26732), (659, 26762), (690, 26894), (708, 26963), (745, 27128), (766, 27251), (794, 27434), (797, 27446), (798, 27455), (804, 27509), (817, 27557), (838, 27659), (844, 27680), (851, 27728), (865, 27791), (872, 27809), (886, 27857), (887, 27860), (891, 27872), (898, 27899), (915, 28010), (924, 28085), (941, 28187), (946, 28214), (947, 28217), (963, 28325), (968, 28364), (976, 28415),

Gene: Nadmeg_33 Start: 24715, Stop: 29826, Start Num: 19
Candidate Starts for Nadmeg_33:
(Start: 19 @24715 has 160 MA's), (Start: 23 @24745 has 3 MA's), (28, 24790), (49, 24934), (60, 24994), (61, 25000), (71, 25060), (72, 25081), (79, 25183), (86, 25273), (87, 25309), (90, 25345), (96, 25384), (101, 25411), (105, 25432), (110, 25474), (117, 25546), (122, 25594), (137, 25720), (145, 25795), (146, 25807), (151, 25828), (163, 25933), (164, 25936), (184, 26044), (233, 26296), (260, 26401), (272, 26470), (277, 26491), (291, 26572), (293, 26575), (300, 26602), (308, 26641), (313, 26668), (339, 26809), (343, 26830), (353, 26893), (354, 26899), (359, 26917), (360, 26923), (370, 26965), (376, 26986), (385, 27031), (397, 27082), (398, 27094), (400, 27103), (401, 27112), (425, 27211), (429, 27232), (432, 27241), (437, 27265), (438, 27268), (439, 27274), (450, 27337), (451,

27340), (454, 27349), (459, 27367), (460, 27370), (462, 27382), (466, 27403), (468, 27409), (469, 27412), (474, 27433), (479, 27463), (481, 27478), (484, 27493), (498, 27541), (501, 27553), (503, 27559), (504, 27562), (506, 27574), (507, 27577), (519, 27634), (532, 27688), (538, 27712), (544, 27724), (546, 27727), (559, 27772), (560, 27775), (565, 27790), (566, 27793), (567, 27802), (568, 27817), (569, 27823), (570, 27829), (575, 27850), (576, 27853), (580, 27865), (583, 27880), (586, 27889), (592, 27910), (594, 27922), (600, 27943), (608, 27970), (618, 28003), (620, 28009), (625, 28027), (632, 28057), (642, 28096), (708, 28357), (728, 28432), (745, 28522), (770, 28666), (779, 28729), (789, 28795), (794, 28828), (797, 28840), (804, 28903), (812, 28924), (814, 28936), (818, 28957), (830, 29014), (848, 29098), (865, 29185), (872, 29203), (883, 29233), (886, 29251), (887, 29254), (888, 29260), (891, 29266), (898, 29293), (915, 29404), (924, 29479), (935, 29548), (941, 29581), (945, 29605), (963, 29722), (976, 29812),

Gene: Namo_23 Start: 16166, Stop: 21652, Start Num: 2
Candidate Starts for Namo_23:
(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (339, 18413), (343, 18434), (353, 18497), (354, 18503), (356, 18509), (361, 18536), (366, 18557), (368, 18563), (369, 18566), (376, 18590), (385, 18635), (388, 18644), (389, 18647), (391, 18656), (404, 18731), (410, 18758), (416, 18776), (422, 18794), (425, 18812), (429, 18833), (440, 18884), (454, 18950), (458, 18965), (476, 19052), (479, 19070), (483, 19097), (508, 19187), (509, 19190), (518, 19232), (519, 19241), (527, 19277), (532, 19295), (533, 19298), (551, 19352), (552, 19355), (566, 19403), (570, 19439), (572, 19445), (577, 19466), (586, 19490), (596, 19520), (614, 19580), (624, 19613), (625, 19616), (628, 19631), (637, 19667), (648, 19709), (651, 19721), (652, 19724), (666, 19772), (671, 19802), (676, 19817), (683, 19850), (686, 19865), (702, 19928), (723, 20006), (724, 20009), (732, 20045), (744, 20111), (759, 20198), (760, 20201), (786, 20300), (795, 20348), (796, 20354), (826, 20513), (886, 20786), (894, 20822), (908, 20888), (922, 21011), (928, 21062), (937, 21104), (939, 21125), (948, 21173), (950, 21179), (951, 21185), (957, 21230), (969, 21338), (972, 21359), (978, 21407), (986, 21494), (993, 21596), (994, 21605),

Gene: NapoleonB_21 Start: 17193, Stop: 21671, Start Num: 19
Candidate Starts for NapoleonB_21:
(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 160 MA's), (Start: 23 @17223 has 3 MA's), (26, 17256), (30, 17277), (68, 17508), (71, 17538), (72, 17559), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (119, 18003), (126, 18051), (128, 18066), (133, 18108), (137, 18162), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (343, 19191), (357, 19269), (363, 19299), (366, 19314), (369, 19323), (376, 19347), (382, 19374), (385, 19392), (391, 19413), (404, 19488), (408, 19509), (412, 19521), (422, 19551), (429, 19593), (441, 19653), (442, 19659), (450, 19698), (469, 19779), (474, 19800), (479, 19830), (484, 19860), (490, 19878), (501, 19926), (507, 19950), (511, 19968), (514, 19977), (515, 19986), (517, 19992), (520, 20013), (527, 20043), (536, 20076), (537, 20082), (538, 20085), (543, 20097), (551, 20118), (566, 20169), (567, 20178), (571, 20208), (573, 20214), (583, 20247), (586, 20256), (596, 20286), (599, 20295), (602, 20307), (609, 20328), (614, 20346), (622, 20373), (624, 20379), (625, 20382), (628, 20397), (635, 20424), (639, 20442), (643, 20454), (652, 20490), (678, 20592), (693, 20655), (701, 20691), (702, 20694), (704, 20700), (708, 20715), (713, 20733), (723, 20772), (724, 20775), (729, 20793), (734, 20826), (739, 20847), (751, 20904), (758, 20958), (760, 20967), (780, 21021), (783, 21048), (786, 21066), (795, 21114), (796, 21120), (806, 21192), (825, 21270), (827, 21285), (835, 21324), (842, 21348), (854, 21417), (858, 21438), (881, 21531), (911, 21660),

Gene: Nason_22 Start: 17670, Stop: 22148, Start Num: 19
Candidate Starts for Nason_22:

(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 160 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133, 18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (343, 19668), (350, 19716), (361, 19770), (364, 19782), (366, 19791), (369, 19800), (376, 19824), (385, 19869), (391, 19890), (404, 19965), (412, 19998), (422, 20028), (425, 20049), (429, 20070), (441, 20130), (442, 20136), (450, 20175), (451, 20178), (456, 20193), (469, 20256), (474, 20277), (479, 20307), (484, 20337), (490, 20355), (501, 20403), (507, 20427), (511, 20445), (514, 20454), (515, 20463), (517, 20469), (520, 20490), (527, 20520), (536, 20553), (537, 20559), (538, 20562), (543, 20574), (551, 20595), (566, 20646), (567, 20655), (571, 20685), (573, 20691), (583, 20724), (586, 20733), (596, 20763), (599, 20772), (602, 20784), (614, 20823), (622, 20850), (624, 20856), (625, 20859), (628, 20874), (635, 20901), (639, 20919), (643, 20931), (652, 20967), (678, 21069), (693, 21132), (701, 21168), (702, 21171), (704, 21177), (708, 21192), (713, 21210), (719, 21234), (723, 21249), (724, 21252), (729, 21270), (734, 21303), (739, 21324), (751, 21381), (758, 21435), (760, 21444), (780, 21498), (783, 21525), (786, 21543), (795, 21591), (796, 21597), (806, 21669), (825, 21747), (827, 21762), (835, 21801), (842, 21825), (854, 21894), (858, 21915), (881, 22008), (911, 22137),

Gene: Natasha_23 Start: 16651, Stop: 21195, Start Num: 19
Candidate Starts for Natasha_23:
(Start: 18 @16630 has 2 MA's), (Start: 19 @16651 has 160 MA's), (Start: 23 @16681 has 3 MA's), (64, 16948), (68, 16966), (71, 16996), (78, 17077), (79, 17119), (80, 17137), (84, 17179), (86, 17209), (88, 17254), (89, 17266), (96, 17320), (99, 17335), (100, 17341), (105, 17368), (112, 17431), (117, 17446), (119, 17461), (122, 17494), (126, 17509), (127, 17518), (132, 17557), (137, 17620), (145, 17695), (152, 17740), (154, 17761), (158, 17797), (164, 17836), (166, 17842), (175, 17905), (177, 17911), (198, 18022), (270, 18343), (283, 18391), (292, 18430), (298, 18454), (305, 18490), (306, 18493), (308, 18499), (317, 18535), (339, 18649), (343, 18670), (351, 18724), (359, 18757), (368, 18799), (369, 18802), (376, 18826), (383, 18862), (385, 18871), (388, 18880), (391, 18892), (400, 18943), (408, 18988), (415, 19009), (422, 19030), (425, 19051), (430, 19075), (439, 19114), (441, 19132), (443, 19147), (447, 19168), (459, 19207), (463, 19231), (474, 19279), (479, 19309), (481, 19324), (490, 19357), (492, 19363), (501, 19402), (506, 19423), (511, 19444), (514, 19453), (532, 19537), (536, 19552), (538, 19561), (543, 19573), (551, 19594), (566, 19645), (567, 19654), (583, 19723), (586, 19732), (596, 19762), (597, 19765), (610, 19807), (614, 19822), (628, 19873), (633, 19894), (647, 19948), (657, 19984), (658, 19987), (671, 20044), (672, 20047), (679, 20071), (688, 20113), (696, 20152), (698, 20158), (704, 20176), (706, 20182), (727, 20263), (734, 20302), (739, 20323), (742, 20341), (751, 20380), (753, 20389), (767, 20485), (771, 20506), (780, 20563), (786, 20608), (788, 20620), (792, 20641), (802, 20698), (805, 20728), (827, 20827), (842, 20887), (847, 20917), (855, 20956), (858, 20974),

Gene: Navi1117_26 Start: 19247, Stop: 23806, Start Num: 19
Candidate Starts for Navi1117_26:
(Start: 18 @19226 has 2 MA's), (Start: 19 @19247 has 160 MA's), (Start: 23 @19277 has 3 MA's), (30, 19331), (34, 19352), (61, 19532), (62, 19535), (71, 19592), (72, 19613), (78, 19673), (79, 19715), (84, 19775), (88, 19850), (96, 19916), (99, 19931), (105, 19964), (109, 20003), (110, 20006), (117, 20042), (119, 20057), (126, 20105), (157, 20378), (164, 20432), (167, 20441), (175, 20501), (185, 20543), (194, 20603), (195, 20609), (198, 20618), (203, 20633), (204, 20642), (224, 20741), (225, 20753), (226, 20762), (228, 20774), (301, 21059), (313, 21119), (317, 21128), (341, 21260), (343, 21269), (350, 21317), (351, 21323), (355, 21341), (357, 21347), (361, 21371), (366, 21392), (369, 21401), (376, 21425), (380, 21443), (388, 21479), (390, 21488), (391, 21491), (394, 21500), (411, 21596), (415, 21608), (419, 21620), (422, 21629), (425, 21650), (429, 21671), (435, 21698), (441, 21731), (465, 21842), (468, 21854), (469, 21857), (480, 21914), (506, 22022), (515, 22061), (519, 22082), (524, 22109), (527, 22118), (536, 22151), (538, 22160), (543, 22172), (551, 22193), (558, 22220),

(566, 22244), (567, 22253), (583, 22322), (584, 22325), (585, 22328), (586, 22331), (596, 22361), (602, 22382), (609, 22403), (612, 22412), (614, 22421), (622, 22448), (645, 22541), (649, 22556), (652, 22565), (658, 22586), (665, 22610), (671, 22643), (672, 22646), (673, 22649), (678, 22667), (708, 22790), (713, 22808), (726, 22856), (735, 22907), (751, 22979), (761, 23045), (775, 23120), (780, 23162), (786, 23207), (795, 23255), (822, 23390), (825, 23411), (829, 23435), (842, 23486), (855, 23555), (858, 23573),

Gene: Nightmare_27 Start: 20521, Stop: 25113, Start Num: 19
Candidate Starts for Nightmare_27:
(Start: 18 @20500 has 2 MA's), (Start: 19 @20521 has 160 MA's), (Start: 23 @20551 has 3 MA's), (30, 20605), (34, 20626), (40, 20662), (49, 20740), (60, 20800), (66, 20824), (68, 20836), (71, 20866), (74, 20917), (78, 20947), (79, 20989), (80, 21007), (84, 21049), (86, 21079), (88, 21124), (89, 21136), (96, 21190), (99, 21205), (101, 21217), (105, 21238), (119, 21331), (122, 21364), (126, 21379), (132, 21427), (151, 21598), (166, 21712), (167, 21715), (173, 21763), (194, 21877), (201, 21901), (239, 22096), (244, 22111), (246, 22117), (253, 22135), (265, 22207), (283, 22273), (306, 22375), (308, 22381), (316, 22414), (317, 22417), (323, 22444), (343, 22561), (352, 22618), (354, 22630), (366, 22684), (369, 22693), (370, 22696), (376, 22717), (385, 22762), (391, 22783), (413, 22894), (415, 22900), (422, 22921), (424, 22939), (429, 22963), (441, 23023), (443, 23038), (444, 23041), (450, 23068), (451, 23071), (479, 23200), (481, 23215), (482, 23218), (486, 23236), (488, 23242), (489, 23245), (493, 23257), (501, 23293), (504, 23302), (511, 23335), (522, 23389), (523, 23392), (527, 23410), (531, 23422), (538, 23452), (543, 23467), (549, 23476), (551, 23488), (567, 23548), (578, 23605), (583, 23617), (586, 23626), (599, 23665), (602, 23677), (612, 23707), (614, 23716), (634, 23791), (635, 23794), (639, 23812), (657, 23878), (659, 23884), (660, 23887), (672, 23941), (673, 23944), (704, 24070), (705, 24073), (711, 24094), (719, 24127), (721, 24136), (739, 24217), (745, 24250), (753, 24283), (761, 24340), (771, 24400), (776, 24424), (786, 24502), (788, 24514), (811, 24640), (821, 24682), (829, 24730), (836, 24763), (839, 24775), (842, 24781), (845, 24802), (846, 24805), (847, 24811), (855, 24850), (860, 24877), (905, 25063), (910, 25090),

Gene: Niktson_26 Start: 20686, Stop: 25275, Start Num: 19
Candidate Starts for Niktson_26:
(Start: 18 @20665 has 2 MA's), (Start: 19 @20686 has 160 MA's), (Start: 23 @20716 has 3 MA's), (30, 20770), (34, 20791), (40, 20827), (49, 20905), (60, 20965), (66, 20989), (68, 21001), (71, 21031), (78, 21112), (79, 21154), (80, 21172), (84, 21214), (86, 21244), (88, 21289), (89, 21301), (96, 21355), (99, 21370), (101, 21382), (105, 21403), (119, 21496), (122, 21529), (126, 21544), (132, 21592), (146, 21742), (151, 21763), (164, 21871), (166, 21877), (167, 21880), (173, 21928), (194, 22042), (201, 22066), (204, 22081), (207, 22093), (222, 22168), (228, 22213), (239, 22261), (244, 22276), (246, 22282), (253, 22300), (265, 22372), (277, 22414), (278, 22423), (290, 22468), (306, 22540), (308, 22546), (316, 22579), (317, 22582), (323, 22609), (343, 22723), (350, 22771), (352, 22780), (354, 22792), (366, 22846), (369, 22855), (370, 22858), (376, 22879), (385, 22924), (391, 22945), (413, 23056), (415, 23062), (422, 23083), (424, 23101), (425, 23104), (429, 23125), (441, 23185), (443, 23200), (444, 23203), (450, 23230), (451, 23233), (479, 23362), (481, 23377), (482, 23380), (486, 23398), (488, 23404), (493, 23419), (501, 23455), (504, 23464), (511, 23497), (522, 23551), (523, 23554), (527, 23572), (531, 23584), (538, 23614), (543, 23629), (549, 23638), (551, 23650), (567, 23710), (576, 23761), (578, 23767), (583, 23779), (586, 23788), (599, 23827), (602, 23839), (606, 23851), (612, 23869), (614, 23878), (634, 23953), (635, 23956), (639, 23974), (657, 24040), (659, 24046), (660, 24049), (672, 24103), (673, 24106), (704, 24232), (705, 24235), (711, 24256), (719, 24289), (721, 24298), (739, 24379), (745, 24412), (753, 24445), (761, 24502), (771, 24562), (776, 24586), (786, 24664), (788, 24676), (811, 24802), (821, 24844), (829, 24892), (836, 24925), (839, 24937), (842, 24943), (845, 24964), (846, 24967), (855, 25012), (860, 25039), (866, 25066), (867, 25069), (905, 25225), (910, 25252),

Gene: Nithya_32 Start: 23499, Stop: 28610, Start Num: 19
Candidate Starts for Nithya_32:

(Start: 19 @23499 has 160 MA's), (Start: 23 @23529 has 3 MA's), (28, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105, 24216), (110, 24258), (117, 24330), (122, 24378), (137, 24504), (145, 24579), (146, 24591), (151, 24612), (163, 24717), (164, 24720), (207, 24942), (220, 25008), (221, 25011), (233, 25080), (260, 25185), (272, 25254), (291, 25356), (293, 25359), (300, 25386), (308, 25425), (313, 25452), (343, 25614), (350, 25662), (354, 25683), (359, 25701), (370, 25749), (385, 25815), (393, 25842), (394, 25845), (396, 25863), (397, 25866), (400, 25887), (401, 25896), (414, 25950), (425, 25995), (429, 26016), (432, 26025), (439, 26058), (440, 26067), (443, 26091), (450, 26121), (451, 26124), (454, 26133), (457, 26145), (460, 26154), (462, 26166), (466, 26187), (468, 26193), (479, 26247), (498, 26325), (501, 26337), (503, 26343), (504, 26346), (507, 26361), (512, 26382), (519, 26418), (532, 26472), (533, 26475), (536, 26487), (538, 26496), (544, 26508), (546, 26511), (551, 26526), (558, 26553), (560, 26559), (565, 26574), (566, 26577), (567, 26586), (568, 26601), (569, 26607), (573, 26622), (575, 26634), (576, 26637), (586, 26673), (592, 26694), (594, 26706), (596, 26715), (600, 26727), (608, 26754), (615, 26778), (618, 26787), (620, 26793), (625, 26811), (642, 26880), (661, 26949), (697, 27105), (745, 27306), (770, 27450), (779, 27513), (782, 27540), (794, 27612), (797, 27624), (798, 27633), (804, 27687), (812, 27708), (814, 27720), (848, 27882), (865, 27969), (872, 27987), (883, 28017), (886, 28035), (887, 28038), (891, 28050), (898, 28077), (915, 28188), (924, 28263), (931, 28311), (941, 28365), (946, 28392), (963, 28506), (976, 28596),

Gene: Nivinsha_26 Start: 20074, Stop: 24663, Start Num: 19
Candidate Starts for Nivinsha_26:
(Start: 18 @20053 has 2 MA's), (Start: 19 @20074 has 160 MA's), (Start: 23 @20104 has 3 MA's), (30, 20158), (34, 20179), (40, 20215), (49, 20293), (60, 20353), (66, 20377), (68, 20389), (71, 20419), (74, 20470), (78, 20500), (79, 20542), (80, 20560), (84, 20602), (86, 20632), (88, 20677), (89, 20689), (96, 20743), (99, 20758), (101, 20770), (105, 20791), (119, 20884), (122, 20917), (126, 20932), (132, 20980), (151, 21151), (166, 21265), (167, 21268), (194, 21430), (201, 21454), (204, 21469), (207, 21481), (222, 21556), (239, 21649), (244, 21664), (246, 21670), (253, 21688), (265, 21760), (278, 21811), (283, 21826), (290, 21856), (306, 21928), (308, 21934), (316, 21967), (317, 21970), (323, 21997), (343, 22111), (352, 22168), (354, 22180), (366, 22234), (369, 22243), (370, 22246), (376, 22267), (385, 22312), (391, 22333), (398, 22375), (401, 22393), (415, 22450), (422, 22471), (425, 22492), (441, 22573), (443, 22588), (444, 22591), (450, 22618), (451, 22621), (463, 22672), (479, 22750), (481, 22765), (482, 22768), (486, 22786), (488, 22792), (490, 22798), (493, 22807), (501, 22843), (504, 22852), (511, 22885), (522, 22939), (523, 22942), (527, 22960), (531, 22972), (538, 23002), (543, 23017), (549, 23026), (551, 23038), (556, 23059), (567, 23098), (578, 23155), (583, 23167), (586, 23176), (599, 23215), (602, 23227), (612, 23257), (614, 23266), (625, 23302), (634, 23341), (635, 23344), (639, 23362), (641, 23368), (657, 23428), (660, 23437), (672, 23491), (673, 23494), (676, 23503), (704, 23620), (705, 23623), (711, 23644), (719, 23677), (720, 23680), (721, 23686), (724, 23695), (730, 23722), (739, 23767), (753, 23833), (759, 23884), (761, 23890), (771, 23950), (783, 24034), (786, 24052), (788, 24064), (819, 24223), (821, 24232), (829, 24280), (836, 24313), (839, 24325), (842, 24331), (845, 24352), (846, 24355), (847, 24361), (855, 24400), (860, 24427), (905, 24613), (910, 24640),

Gene: NoPickles_29 Start: 20260, Stop: 25362, Start Num: 19
Candidate Starts for NoPickles_29:
(Start: 19 @20260 has 160 MA's), (Start: 23 @20290 has 3 MA's), (44, 20428), (48, 20473), (49, 20479), (51, 20488), (53, 20503), (56, 20524), (61, 20545), (68, 20575), (71, 20605), (72, 20626), (79, 20728), (84, 20788), (88, 20863), (89, 20875), (92, 20899), (96, 20929), (99, 20944), (105, 20977), (110, 21019), (115, 21070), (124, 21124), (125, 21127), (135, 21226), (138, 21250), (151, 21346), (163, 21451), (164, 21454), (175, 21523), (177, 21529), (178, 21535), (213, 21712), (224, 21763), (233, 21814), (247, 21868), (248, 21871), (283, 22042), (300, 22123), (301, 22126), (318, 22201), (331, 22258), (341, 22342), (343, 22351), (353, 22414), (354, 22420), (356, 22426), (359, 22438), (361, 22453), (362, 22456), (367, 22477), (380, 22525), (385, 22552), (391, 22573), (394, 22582), (397, 22603), (398, 22615), (400, 22624), (401, 22633), (406, 22660), (414, 22687), (415, 22690),

(422, 22711), (429, 22753), (435, 22780), (438, 22789), (440, 22804), (441, 22813), (443, 22828), (445, 22840), (447, 22849), (451, 22861), (457, 22882), (460, 22891), (478, 22975), (479, 22984), (481, 22999), (482, 23002), (486, 23020), (490, 23032), (491, 23035), (498, 23062), (504, 23083), (507, 23098), (517, 23140), (519, 23155), (533, 23212), (536, 23224), (538, 23233), (544, 23245), (550, 23257), (551, 23263), (556, 23284), (560, 23296), (566, 23314), (567, 23323), (568, 23338), (569, 23344), (572, 23356), (582, 23398), (583, 23401), (586, 23410), (592, 23431), (594, 23443), (608, 23491), (611, 23500), (618, 23524), (620, 23530), (625, 23548), (626, 23557), (632, 23578), (650, 23647), (655, 23665), (656, 23668), (661, 23686), (691, 23812), (702, 23857), (716, 23908), (747, 24052), (770, 24187), (778, 24238), (789, 24316), (797, 24361), (804, 24424), (810, 24442), (817, 24472), (818, 24478), (830, 24535), (845, 24607), (857, 24667), (862, 24688), (863, 24691), (873, 24742), (875, 24751), (887, 24790), (891, 24802), (909, 24895), (915, 24940), (924, 25015), (929, 25054), (935, 25084), (945, 25141), (962, 25252), (976, 25348),

Gene: Odesza_29 Start: 20616, Stop: 25730, Start Num: 19
Candidate Starts for Odesza_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (213, 22080), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (331, 22626), (341, 22710), (343, 22719), (359, 22806), (367, 22845), (380, 22893), (385, 22920), (391, 22941), (394, 22950), (397, 22971), (398, 22983), (400, 22992), (401, 23001), (406, 23028), (414, 23055), (415, 23058), (422, 23079), (429, 23121), (435, 23148), (438, 23157), (440, 23172), (441, 23181), (443, 23196), (445, 23208), (447, 23217), (451, 23229), (457, 23250), (460, 23259), (478, 23343), (479, 23352), (481, 23367), (482, 23370), (486, 23388), (490, 23400), (491, 23403), (498, 23430), (504, 23451), (507, 23466), (517, 23508), (519, 23523), (533, 23580), (536, 23592), (538, 23601), (544, 23613), (550, 23625), (551, 23631), (556, 23652), (560, 23664), (566, 23682), (567, 23691), (568, 23706), (569, 23712), (572, 23724), (582, 23766), (583, 23769), (586, 23778), (592, 23799), (594, 23811), (608, 23859), (611, 23868), (618, 23892), (620, 23898), (625, 23916), (626, 23925), (632, 23946), (650, 24015), (655, 24033), (656, 24036), (661, 24054), (691, 24180), (702, 24225), (716, 24276), (747, 24420), (770, 24555), (778, 24606), (789, 24684), (797, 24729), (804, 24792), (810, 24810), (817, 24840), (818, 24846), (830, 24903), (845, 24975), (857, 25035), (862, 25056), (863, 25059), (873, 25110), (875, 25119), (887, 25158), (891, 25170), (909, 25263), (915, 25308), (924, 25383), (929, 25422), (935, 25452), (945, 25509), (962, 25620), (976, 25716),

Gene: OhMyWard_32 Start: 24046, Stop: 29148, Start Num: 19
Candidate Starts for OhMyWard_32:
(Start: 19 @24046 has 160 MA's), (Start: 23 @24076 has 3 MA's), (28, 24121), (48, 24259), (49, 24265), (61, 24331), (68, 24361), (79, 24526), (84, 24586), (89, 24673), (92, 24697), (96, 24727), (99, 24742), (105, 24775), (115, 24868), (137, 25036), (151, 25144), (152, 25156), (158, 25213), (163, 25249), (164, 25252), (167, 25261), (175, 25321), (177, 25327), (213, 25510), (214, 25516), (233, 25612), (236, 25630), (272, 25786), (298, 25912), (300, 25921), (343, 26152), (344, 26158), (354, 26221), (359, 26239), (364, 26266), (369, 26284), (385, 26353), (392, 26377), (394, 26383), (397, 26404), (399, 26422), (400, 26425), (414, 26488), (425, 26533), (429, 26554), (435, 26581), (441, 26614), (445, 26641), (450, 26659), (451, 26662), (454, 26671), (459, 26689), (460, 26692), (462, 26704), (481, 26800), (490, 26833), (495, 26854), (498, 26863), (501, 26875), (504, 26884), (507, 26899), (509, 26905), (510, 26911), (512, 26920), (515, 26935), (516, 26938), (518, 26947), (519, 26956), (527, 26992), (533, 27013), (538, 27034), (551, 27064), (555, 27079), (556, 27085), (564, 27109), (566, 27115), (567, 27124), (568, 27139), (569, 27145), (578, 27181), (582, 27199), (586, 27211), (592, 27232), (594, 27244), (600, 27265), (601, 27268), (608, 27292), (611, 27301), (618, 27325), (620, 27331), (625, 27349), (626, 27358), (627, 27361), (650, 27448), (659, 27478), (690, 27610), (708, 27679), (745, 27844), (764, 27952), (769, 27985), (782, 28078), (794, 28150), (797,

28162), (798, 28171), (804, 28225), (817, 28273), (830, 28336), (842, 28387), (848, 28420), (865, 28507), (872, 28525), (883, 28555), (887, 28576), (888, 28582), (891, 28588), (898, 28615), (903, 28642), (915, 28726), (923, 28789), (924, 28801), (943, 28912), (946, 28930), (954, 28978), (976, 29134),

Gene: OlgasClover_32 Start: 24235, Stop: 29334, Start Num: 19
Candidate Starts for OlgasClover_32:
(Start: 19 @24235 has 160 MA's), (Start: 23 @24265 has 3 MA's), (28, 24310), (48, 24448), (49, 24454), (59, 24508), (61, 24520), (64, 24532), (68, 24550), (79, 24715), (84, 24775), (89, 24862), (92, 24886), (96, 24916), (99, 24931), (105, 24964), (115, 25057), (137, 25225), (151, 25333), (152, 25345), (158, 25402), (163, 25438), (164, 25441), (175, 25510), (177, 25516), (192, 25600), (207, 25663), (213, 25699), (221, 25732), (235, 25807), (236, 25819), (247, 25855), (260, 25906), (267, 25954), (271, 25966), (300, 26110), (308, 26149), (313, 26176), (343, 26338), (350, 26386), (354, 26407), (359, 26425), (370, 26473), (385, 26539), (397, 26590), (398, 26602), (401, 26620), (414, 26674), (425, 26719), (429, 26740), (432, 26749), (436, 26770), (439, 26782), (440, 26791), (450, 26845), (451, 26848), (454, 26857), (460, 26878), (462, 26890), (466, 26911), (468, 26917), (472, 26935), (479, 26971), (484, 27001), (498, 27049), (501, 27061), (503, 27067), (504, 27070), (506, 27082), (507, 27085), (512, 27106), (519, 27142), (532, 27196), (533, 27199), (538, 27220), (544, 27232), (546, 27235), (560, 27283), (565, 27298), (566, 27301), (567, 27310), (569, 27331), (575, 27358), (576, 27361), (582, 27385), (586, 27397), (592, 27418), (594, 27430), (596, 27439), (600, 27451), (608, 27478), (618, 27511), (620, 27517), (625, 27535), (627, 27547), (638, 27589), (642, 27604), (661, 27673), (687, 27784), (716, 27895), (728, 27940), (745, 28030), (770, 28174), (779, 28237), (782, 28264), (794, 28336), (797, 28348), (798, 28357), (804, 28411), (812, 28432), (814, 28444), (848, 28606), (865, 28693), (872, 28711), (883, 28741), (886, 28759), (887, 28762), (891, 28774), (898, 28801), (915, 28912), (924, 28987), (931, 29035), (941, 29089), (946, 29116), (963, 29230), (976, 29320),

Gene: OlympicHelado_23 Start: 16166, Stop: 21652, Start Num: 2
Candidate Starts for OlympicHelado_23:
(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (192, 17801), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (339, 18413), (343, 18434), (353, 18497), (354, 18503), (356, 18509), (361, 18536), (366, 18557), (368, 18563), (369, 18566), (376, 18590), (385, 18635), (388, 18644), (389, 18647), (404, 18731), (410, 18758), (415, 18773), (416, 18776), (422, 18794), (425, 18812), (429, 18833), (440, 18884), (454, 18950), (458, 18965), (476, 19052), (479, 19070), (483, 19097), (509, 19190), (518, 19232), (519, 19241), (527, 19277), (532, 19295), (533, 19298), (536, 19310), (551, 19352), (552, 19355), (566, 19403), (570, 19439), (572, 19445), (577, 19466), (586, 19490), (596, 19520), (614, 19580), (624, 19613), (625, 19616), (628, 19631), (637, 19667), (648, 19709), (651, 19721), (652, 19724), (666, 19772), (671, 19802), (676, 19817), (683, 19850), (686, 19865), (702, 19928), (722, 20003), (723, 20006), (724, 20009), (732, 20045), (744, 20111), (759, 20198), (760, 20201), (786, 20300), (795, 20348), (796, 20354), (825, 20504), (826, 20513), (886, 20786), (922, 21011), (937, 21104), (939, 21125), (944, 21149), (948, 21173), (950, 21179), (951, 21185), (957, 21230), (969, 21338), (978, 21407), (986, 21494), (993, 21596), (994, 21605),

Gene: Onestar_23 Start: 17044, Stop: 21576, Start Num: 23
Candidate Starts for Onestar_23:
(Start: 18 @16993 has 2 MA's), (Start: 19 @17014 has 160 MA's), (Start: 23 @17044 has 3 MA's), (26, 17077), (51, 17242), (66, 17317), (68, 17329), (71, 17359), (79, 17482), (80, 17500), (84, 17542), (86, 17572), (88, 17617), (89, 17629), (96, 17683), (99, 17698), (105, 17731), (109, 17770), (112, 17794), (117, 17809), (119, 17824), (122, 17857), (126, 17872), (128, 17887), (132, 17920), (164, 18199), (167, 18208), (173, 18256), (202, 18397), (210, 18433), (233, 18559), (243, 18601), (247, 18613),

(262, 18697), (283, 18781), (288, 18799), (298, 18844), (315, 18922), (339, 19033), (343, 19054),
(345, 19066), (354, 19123), (355, 19126), (366, 19177), (368, 19183), (369, 19186), (373, 19198),
(380, 19228), (385, 19255), (391, 19276), (400, 19327), (411, 19381), (422, 19414), (425, 19435),
(431, 19462), (450, 19561), (454, 19573), (463, 19615), (474, 19663), (498, 19771), (501, 19786),
(506, 19807), (514, 19837), (527, 19903), (536, 19936), (538, 19945), (543, 19957), (546, 19963),
(552, 19981), (566, 20029), (567, 20038), (576, 20089), (584, 20110), (586, 20116), (614, 20206),
(629, 20260), (633, 20278), (640, 20305), (641, 20308), (653, 20353), (657, 20368), (665, 20395),
(671, 20428), (684, 20485), (690, 20506), (693, 20515), (700, 20548), (707, 20572), (716, 20605),
(720, 20620), (721, 20626), (724, 20635), (725, 20638), (744, 20737), (745, 20740), (751, 20764),
(780, 20947), (786, 20992), (791, 21022), (792, 21025), (796, 21046), (801, 21070), (802, 21082),
(829, 21220), (836, 21253), (839, 21265), (855, 21340), (867, 21397), (890, 21469),

Gene: Paella_40 Start: 29221, Stop: 33771, Start Num: 19
Candidate Starts for Paella_40:
(Start: 19 @29221 has 160 MA's), (Start: 23 @29251 has 3 MA's), (34, 29326), (40, 29362), (49,
29440), (79, 29689), (87, 29815), (92, 29860), (93, 29875), (96, 29890), (101, 29917), (105, 29938),
(108, 29962), (110, 29980), (122, 30097), (129, 30142), (132, 30160), (144, 30283), (146, 30310),
(149, 30322), (152, 30343), (182, 30538), (198, 30625), (200, 30631), (210, 30673), (219, 30724),
(230, 30787), (250, 30862), (252, 30871), (282, 30991), (304, 31069), (305, 31078), (343, 31246),
(357, 31324), (366, 31369), (369, 31378), (376, 31402), (385, 31447), (391, 31468), (408, 31564),
(419, 31597), (425, 31627), (441, 31708), (443, 31723), (444, 31726), (463, 31807), (469, 31834),
(479, 31885), (483, 31912), (490, 31933), (491, 31936), (501, 31978), (522, 32074), (527, 32095),
(531, 32107), (536, 32128), (538, 32137), (543, 32149), (556, 32191), (566, 32221), (567, 32230),
(575, 32278), (576, 32281), (583, 32299), (586, 32308), (602, 32359), (605, 32368), (614, 32398),
(625, 32434), (631, 32461), (652, 32542), (653, 32545), (673, 32626), (677, 32638), (683, 32668),
(686, 32683), (689, 32692), (693, 32707), (702, 32746), (713, 32785), (717, 32800), (719, 32809),
(722, 32821), (725, 32830), (726, 32833), (734, 32878), (735, 32884), (747, 32941), (751, 32956),
(755, 32986), (771, 33082), (780, 33139), (786, 33184), (800, 33253), (813, 33334), (819, 33355),
(825, 33388), (833, 33433), (835, 33442), (839, 33457), (842, 33463), (854, 33532), (858, 33550),
(869, 33601),

Gene: Pepy6_035 Start: 30017, Stop: 35869, Start Num: 19
Candidate Starts for Pepy6_035:
(Start: 18 @29996 has 2 MA's), (Start: 19 @30017 has 160 MA's), (Start: 23 @30047 has 3 MA's), (28,
30092), (30, 30101), (34, 30122), (44, 30185), (49, 30236), (71, 30362), (72, 30383), (78, 30443), (79,
30485), (84, 30545), (92, 30656), (96, 30686), (99, 30701), (105, 30734), (110, 30776), (116, 30827),
(123, 30881), (124, 30884), (128, 30899), (152, 31115), (159, 31175), (161, 31196), (167, 31220),
(207, 31433), (213, 31469), (232, 31568), (287, 31826), (300, 31877), (308, 31916), (309, 31919),
(319, 31961), (321, 31967), (330, 32012), (333, 32033), (339, 32087), (343, 32108), (364, 32222),
(372, 32249), (376, 32264), (379, 32273), (383, 32300), (391, 32330), (392, 32333), (394, 32339),
(399, 32378), (401, 32390), (411, 32435), (412, 32438), (425, 32489), (429, 32510), (432, 32519),
(436, 32540), (441, 32570), (445, 32597), (447, 32606), (449, 32612), (460, 32648), (462, 32660),
(471, 32702), (472, 32705), (475, 32717), (478, 32732), (483, 32768), (488, 32783), (498, 32819),
(501, 32831), (508, 32858), (518, 32903), (519, 32912), (522, 32927), (531, 32960), (533, 32969),
(535, 32975), (538, 32990), (552, 33023), (558, 33047), (563, 33062), (567, 33080), (573, 33116),
(581, 33152), (583, 33158), (592, 33188), (594, 33200), (595, 33206), (600, 33221), (607, 33245),
(611, 33257), (613, 33263), (615, 33272), (616, 33275), (632, 33335), (638, 33359), (659, 33434),
(681, 33530), (746, 33806), (751, 33824), (752, 33830), (755, 33854), (764, 33908), (781, 34016),
(784, 34043), (786, 34058), (793, 34112), (817, 34238), (828, 34298), (893, 34586), (930, 34850),
(938, 34898), (956, 35000), (959, 35033), (971, 35132), (973, 35141), (982, 35246), (984, 35264),
(988, 35300), (992, 35345), (997, 35627), (998, 35660), (999, 35855),

Gene: Perkunas_31 Start: 21027, Stop: 26129, Start Num: 19

Candidate Starts for Perkunas_31:
(Start: 19 @21027 has 160 MA's), (Start: 23 @21057 has 3 MA's), (44, 21195), (48, 21240), (56, 21291), (60, 21306), (61, 21312), (68, 21342), (71, 21372), (72, 21393), (79, 21495), (84, 21555), (92, 21666), (96, 21696), (99, 21711), (105, 21744), (110, 21786), (115, 21837), (124, 21891), (125, 21894), (135, 21993), (151, 22113), (163, 22218), (164, 22221), (175, 22290), (177, 22296), (204, 22431), (247, 22635), (248, 22638), (295, 22872), (300, 22890), (308, 22929), (313, 22956), (318, 22968), (320, 22977), (341, 23109), (343, 23118), (356, 23193), (359, 23205), (360, 23211), (380, 23292), (384, 23313), (385, 23319), (391, 23340), (394, 23349), (397, 23370), (398, 23382), (400, 23391), (401, 23400), (406, 23427), (414, 23454), (415, 23457), (422, 23478), (429, 23520), (437, 23553), (438, 23556), (440, 23571), (441, 23580), (445, 23607), (447, 23616), (451, 23628), (457, 23649), (460, 23658), (466, 23691), (478, 23742), (479, 23751), (481, 23766), (486, 23787), (491, 23802), (497, 23826), (498, 23829), (501, 23841), (503, 23847), (504, 23850), (517, 23907), (519, 23922), (533, 23979), (536, 23991), (538, 24000), (544, 24012), (550, 24024), (551, 24030), (559, 24060), (560, 24063), (563, 24072), (566, 24081), (567, 24090), (568, 24105), (569, 24111), (572, 24123), (582, 24165), (586, 24177), (592, 24198), (594, 24210), (611, 24267), (618, 24291), (620, 24297), (621, 24300), (625, 24315), (627, 24327), (632, 24345), (650, 24414), (656, 24435), (678, 24522), (702, 24624), (707, 24642), (734, 24756), (739, 24777), (747, 24819), (770, 24954), (797, 25128), (804, 25191), (810, 25209), (817, 25239), (818, 25245), (824, 25266), (845, 25374), (857, 25434), (862, 25455), (863, 25458), (873, 25509), (875, 25518), (883, 25536), (887, 25557), (891, 25569), (909, 25662), (915, 25707), (923, 25770), (924, 25782), (929, 25821), (935, 25851), (941, 25884), (945, 25908), (956, 25968), (976, 26115),

Gene: PerroGrande22_39 Start: 31343, Stop: 37222, Start Num: 19
Candidate Starts for PerroGrande22_39:
(Start: 19 @31343 has 160 MA's), (Start: 23 @31373 has 3 MA's), (28, 31418), (30, 31427), (34, 31448), (44, 31511), (48, 31556), (49, 31562), (52, 31577), (53, 31586), (56, 31607), (57, 31610), (61, 31628), (64, 31640), (71, 31688), (79, 31811), (86, 31901), (87, 31937), (90, 31973), (96, 32012), (105, 32060), (110, 32102), (149, 32447), (151, 32456), (155, 32492), (160, 32540), (163, 32561), (164, 32564), (166, 32570), (177, 32639), (214, 32828), (222, 32861), (230, 32912), (235, 32930), (239, 32954), (287, 33179), (300, 33230), (308, 33269), (313, 33296), (330, 33365), (336, 33407), (339, 33440), (343, 33461), (352, 33518), (364, 33575), (376, 33617), (379, 33626), (391, 33683), (392, 33686), (393, 33689), (394, 33692), (399, 33731), (401, 33743), (412, 33791), (425, 33842), (429, 33863), (432, 33872), (436, 33893), (441, 33923), (442, 33929), (453, 33977), (460, 34001), (462, 34013), (465, 34028), (471, 34055), (472, 34058), (475, 34070), (478, 34085), (488, 34136), (495, 34163), (498, 34172), (501, 34184), (507, 34208), (508, 34211), (518, 34256), (519, 34265), (522, 34280), (531, 34313), (533, 34322), (536, 34334), (538, 34343), (552, 34376), (556, 34394), (558, 34400), (563, 34415), (564, 34418), (567, 34433), (569, 34454), (573, 34469), (582, 34508), (592, 34541), (594, 34553), (595, 34559), (600, 34574), (607, 34598), (611, 34610), (613, 34616), (632, 34688), (659, 34787), (676, 34856), (681, 34883), (746, 35159), (751, 35177), (755, 35207), (760, 35240), (764, 35261), (781, 35369), (784, 35396), (797, 35480), (817, 35591), (828, 35651), (834, 35681), (853, 35780), (930, 36203), (938, 36251), (956, 36353), (973, 36494), (982, 36599), (988, 36653), (992, 36698), (995, 36764), (996, 36863), (997, 36980), (998, 37013), (999, 37208),

Gene: PestoPenguin_35 Start: 23289, Stop: 28400, Start Num: 19
Candidate Starts for PestoPenguin_35:
(Start: 19 @23289 has 160 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (343, 25404), (353, 25467), (354, 25473), (359, 25491), (360, 25497), (366, 25527), (374, 25551), (385, 25605), (392, 25629), (396, 25653), (397, 25656), (400, 25677), (401, 25686), (411, 25731), (414, 25740), (425, 25785), (429, 25806), (432, 25815), (433, 25821), (436, 25836), (438, 25842), (440, 25857), (450, 25911),

(451, 25914), (454, 25923), (457, 25935), (460, 25944), (462, 25956), (466, 25977), (468, 25983),
(474, 26007), (479, 26037), (481, 26052), (498, 26115), (501, 26127), (503, 26133), (504, 26136),
(506, 26148), (507, 26151), (519, 26208), (532, 26262), (533, 26265), (538, 26286), (544, 26298),
(546, 26301), (560, 26349), (565, 26364), (566, 26367), (567, 26376), (568, 26391), (569, 26397),
(575, 26424), (576, 26427), (578, 26433), (586, 26463), (592, 26484), (594, 26496), (596, 26505),
(600, 26517), (608, 26544), (618, 26577), (620, 26583), (625, 26601), (632, 26631), (661, 26739),
(682, 26829), (687, 26850), (716, 26961), (728, 27006), (739, 27063), (745, 27096), (770, 27240),
(779, 27303), (789, 27369), (794, 27402), (797, 27414), (804, 27477), (812, 27498), (814, 27510),
(818, 27531), (848, 27672), (865, 27759), (872, 27777), (883, 27807), (886, 27825), (887, 27828),
(888, 27834), (891, 27840), (898, 27867), (915, 27978), (923, 28041), (924, 28053), (935, 28122),
(941, 28155), (945, 28179), (963, 28296), (976, 28386),

Gene: Petito_31 Start: 21794, Stop: 26884, Start Num: 19
Candidate Starts for Petito_31:
(Start: 19 @21794 has 160 MA's), (Start: 23 @21824 has 3 MA's), (44, 21962), (48, 22007), (49,
22013), (53, 22037), (56, 22058), (61, 22079), (68, 22109), (71, 22139), (72, 22160), (79, 22262), (84,
22322), (88, 22397), (89, 22409), (92, 22433), (96, 22463), (99, 22478), (105, 22511), (106, 22517),
(110, 22553), (115, 22604), (124, 22658), (125, 22661), (135, 22760), (138, 22784), (151, 22880),
(157, 22934), (160, 22964), (163, 22985), (164, 22988), (175, 23057), (177, 23063), (207, 23210),
(213, 23246), (220, 23276), (233, 23348), (239, 23378), (247, 23402), (300, 23657), (318, 23735),
(320, 23744), (331, 23792), (341, 23876), (343, 23885), (353, 23948), (359, 23972), (362, 23990),
(367, 24011), (380, 24059), (385, 24086), (394, 24116), (397, 24137), (398, 24149), (400, 24158),
(401, 24167), (414, 24221), (415, 24224), (422, 24245), (429, 24287), (435, 24314), (438, 24323),
(440, 24338), (441, 24347), (443, 24362), (445, 24374), (447, 24383), (451, 24395), (457, 24416),
(460, 24425), (472, 24482), (478, 24509), (479, 24518), (481, 24533), (482, 24536), (486, 24554),
(498, 24596), (501, 24608), (504, 24617), (507, 24632), (517, 24674), (519, 24689), (533, 24746),
(536, 24758), (538, 24767), (544, 24779), (550, 24791), (551, 24797), (556, 24818), (560, 24830),
(563, 24839), (566, 24848), (567, 24857), (568, 24872), (569, 24878), (572, 24890), (578, 24914),
(582, 24932), (586, 24944), (592, 24965), (594, 24977), (608, 25025), (611, 25034), (618, 25058),
(620, 25064), (621, 25067), (625, 25082), (626, 25091), (627, 25094), (632, 25112), (650, 25181),
(656, 25202), (676, 25280), (690, 25343), (695, 25364), (704, 25397), (730, 25499), (739, 25544),
(747, 25586), (758, 25655), (770, 25721), (781, 25793), (794, 25883), (804, 25958), (818, 26012),
(824, 26033), (830, 26069), (838, 26108), (842, 26120), (845, 26141), (863, 26225), (872, 26258),
(883, 26288), (885, 26294), (887, 26309), (891, 26321), (914, 26447), (915, 26459), (924, 26534),
(926, 26552), (929, 26573), (932, 26585), (945, 26660), (946, 26663), (976, 26870),

Gene: Phaby_27 Start: 20255, Stop: 24850, Start Num: 19
Candidate Starts for Phaby_27:
(Start: 18 @20234 has 2 MA's), (Start: 19 @20255 has 160 MA's), (Start: 23 @20285 has 3 MA's), (30,
20339), (68, 20570), (71, 20600), (78, 20681), (79, 20723), (80, 20741), (84, 20783), (89, 20870), (96,
20924), (99, 20939), (100, 20945), (105, 20972), (117, 21050), (119, 21065), (122, 21098), (126,
21113), (127, 21122), (130, 21149), (132, 21161), (136, 21215), (146, 21311), (151, 21332), (167,
21449), (174, 21506), (176, 21512), (187, 21569), (203, 21641), (210, 21674), (211, 21677), (260,
21911), (281, 22004), (283, 22007), (306, 22109), (308, 22115), (317, 22151), (343, 22298), (351,
22352), (352, 22355), (366, 22421), (369, 22430), (370, 22433), (376, 22454), (382, 22481), (391,
22520), (392, 22523), (415, 22637), (422, 22658), (424, 22676), (425, 22679), (443, 22775), (445,
22787), (474, 22907), (479, 22937), (481, 22952), (493, 22994), (498, 23015), (501, 23030), (504,
23039), (506, 23051), (511, 23072), (522, 23126), (527, 23147), (536, 23180), (537, 23186), (538,
23189), (546, 23207), (548, 23210), (551, 23228), (566, 23279), (567, 23288), (577, 23342), (586,
23366), (597, 23399), (604, 23423), (614, 23456), (633, 23528), (634, 23531), (639, 23552), (645,
23576), (648, 23585), (657, 23618), (658, 23621), (660, 23627), (670, 23672), (671, 23678), (683,
23726), (711, 23834), (721, 23876), (724, 23885), (755, 24044), (758, 24068), (760, 24077), (767,
24119), (771, 24140), (775, 24155), (786, 24242), (788, 24254), (796, 24296), (811, 24380), (825,

24446), (829, 24470), (839, 24515), (842, 24521), (855, 24590), (856, 24593), (860, 24617), (905, 24800),

Gene: Phaila_25 Start: 18580, Stop: 23217, Start Num: 19
Candidate Starts for Phaila_25:
(Start: 18 @18559 has 2 MA's), (Start: 19 @18580 has 160 MA's), (Start: 23 @18610 has 3 MA's), (30, 18664), (31, 18673), (61, 18943), (62, 18946), (71, 19003), (72, 19024), (78, 19084), (79, 19126), (84, 19186), (93, 19312), (96, 19327), (99, 19342), (105, 19375), (109, 19414), (110, 19417), (117, 19453), (119, 19468), (126, 19516), (157, 19789), (164, 19843), (167, 19852), (175, 19912), (185, 19954), (194, 20014), (195, 20020), (198, 20029), (203, 20044), (204, 20053), (224, 20152), (225, 20164), (226, 20173), (228, 20185), (301, 20470), (313, 20530), (317, 20539), (343, 20680), (350, 20728), (351, 20734), (357, 20758), (366, 20803), (369, 20812), (376, 20836), (380, 20854), (390, 20899), (391, 20902), (394, 20911), (404, 20977), (415, 21019), (419, 21031), (422, 21040), (425, 21061), (436, 21112), (441, 21142), (443, 21157), (454, 21199), (459, 21217), (468, 21265), (469, 21268), (480, 21325), (506, 21433), (509, 21442), (519, 21493), (522, 21508), (527, 21529), (536, 21562), (538, 21571), (543, 21583), (551, 21604), (553, 21610), (558, 21631), (566, 21655), (567, 21664), (583, 21733), (584, 21736), (585, 21739), (586, 21742), (596, 21772), (602, 21793), (609, 21814), (614, 21832), (617, 21841), (622, 21859), (637, 21919), (639, 21928), (645, 21952), (649, 21967), (651, 21973), (652, 21976), (665, 22021), (671, 22054), (672, 22057), (673, 22060), (678, 22078), (707, 22198), (708, 22201), (713, 22219), (732, 22297), (735, 22318), (751, 22390), (758, 22444), (761, 22456), (780, 22573), (786, 22618), (822, 22801), (825, 22822), (829, 22846), (842, 22897), (855, 22966), (858, 22984),

Gene: Phepper_32 Start: 23282, Stop: 28393, Start Num: 19
Candidate Starts for Phepper_32:
(Start: 19 @23282 has 160 MA's), (Start: 23 @23312 has 3 MA's), (28, 23357), (49, 23501), (61, 23567), (71, 23627), (72, 23648), (79, 23750), (87, 23876), (90, 23912), (96, 23951), (101, 23978), (105, 23999), (110, 24041), (122, 24161), (137, 24287), (145, 24362), (151, 24395), (163, 24500), (164, 24503), (233, 24863), (260, 24968), (272, 25037), (277, 25058), (291, 25139), (293, 25142), (300, 25169), (308, 25208), (313, 25235), (343, 25397), (350, 25445), (354, 25466), (359, 25484), (370, 25532), (374, 25544), (385, 25598), (397, 25649), (398, 25661), (400, 25670), (401, 25679), (414, 25733), (425, 25778), (428, 25793), (429, 25799), (432, 25808), (433, 25814), (437, 25832), (438, 25835), (439, 25841), (440, 25850), (450, 25904), (451, 25907), (454, 25916), (459, 25934), (460, 25937), (462, 25949), (466, 25970), (468, 25976), (469, 25979), (474, 26000), (479, 26030), (481, 26045), (490, 26078), (494, 26093), (498, 26108), (501, 26120), (503, 26126), (504, 26129), (506, 26141), (507, 26144), (519, 26201), (532, 26255), (533, 26258), (538, 26279), (544, 26291), (546, 26294), (560, 26342), (565, 26357), (566, 26360), (567, 26369), (569, 26390), (575, 26417), (576, 26420), (582, 26444), (586, 26456), (592, 26477), (594, 26489), (600, 26510), (608, 26537), (618, 26570), (620, 26576), (625, 26594), (632, 26624), (642, 26663), (687, 26843), (690, 26855), (708, 26924), (745, 27089), (766, 27212), (770, 27233), (789, 27362), (794, 27395), (797, 27407), (804, 27470), (812, 27491), (814, 27503), (817, 27518), (830, 27581), (848, 27665), (865, 27752), (872, 27770), (883, 27800), (886, 27818), (887, 27821), (888, 27827), (891, 27833), (898, 27860), (915, 27971), (924, 28046), (926, 28064), (941, 28148), (945, 28172), (963, 28289), (976, 28379),

Gene: Pherobrine_31 Start: 23313, Stop: 28427, Start Num: 19
Candidate Starts for Pherobrine_31:
(Start: 19 @23313 has 160 MA's), (Start: 23 @23343 has 3 MA's), (28, 23388), (49, 23532), (60, 23592), (61, 23598), (69, 23637), (71, 23658), (72, 23679), (79, 23781), (81, 23817), (87, 23907), (90, 23943), (96, 23982), (101, 24009), (105, 24030), (110, 24072), (122, 24192), (145, 24393), (151, 24426), (154, 24459), (160, 24510), (163, 24531), (164, 24534), (177, 24609), (204, 24744), (217, 24810), (221, 24825), (233, 24894), (236, 24912), (246, 24945), (254, 24966), (256, 24975), (260, 24999), (272, 25068), (277, 25089), (283, 25122), (284, 25125), (298, 25194), (300, 25203), (320, 25290), (332, 25350), (338, 25401), (343, 25434), (344, 25440), (354, 25503), (359, 25521), (369,

25566), (385, 25635), (392, 25659), (394, 25665), (397, 25686), (401, 25716), (414, 25770), (415, 25773), (428, 25830), (429, 25836), (437, 25869), (440, 25887), (441, 25896), (443, 25911), (445, 25923), (450, 25941), (451, 25944), (454, 25953), (457, 25965), (459, 25971), (460, 25974), (466, 26007), (471, 26028), (479, 26067), (490, 26115), (494, 26130), (495, 26136), (498, 26145), (501, 26157), (504, 26166), (506, 26178), (507, 26181), (508, 26184), (509, 26187), (510, 26193), (512, 26202), (524, 26265), (531, 26286), (533, 26295), (538, 26316), (556, 26367), (558, 26373), (559, 26376), (564, 26391), (566, 26397), (568, 26421), (569, 26427), (575, 26454), (576, 26457), (586, 26493), (592, 26514), (594, 26526), (596, 26535), (600, 26547), (608, 26574), (611, 26583), (618, 26607), (620, 26613), (625, 26631), (632, 26661), (642, 26700), (650, 26730), (659, 26760), (690, 26892), (708, 26961), (745, 27126), (764, 27234), (769, 27267), (782, 27360), (794, 27432), (797, 27444), (804, 27507), (817, 27555), (838, 27657), (844, 27678), (848, 27702), (851, 27726), (865, 27789), (872, 27807), (886, 27855), (887, 27858), (891, 27870), (898, 27897), (915, 28008), (924, 28083), (941, 28185), (946, 28212), (947, 28215), (963, 28323), (968, 28362), (976, 28413),

Gene: PherryCruz_18 Start: 13488, Stop: 18716, Start Num: 19
Candidate Starts for PherryCruz_18:
(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 160 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (343, 15498), (353, 15561), (354, 15567), (366, 15621), (373, 15642), (388, 15708), (389, 15711), (410, 15822), (422, 15858), (425, 15876), (436, 15927), (458, 16029), (461, 16041), (463, 16056), (478, 16125), (479, 16134), (484, 16164), (497, 16209), (503, 16230), (510, 16260), (513, 16272), (514, 16275), (518, 16296), (519, 16305), (527, 16341), (536, 16374), (562, 16455), (563, 16458), (570, 16503), (571, 16506), (572, 16509), (586, 16554), (596, 16584), (610, 16629), (614, 16644), (624, 16677), (629, 16698), (631, 16707), (633, 16716), (639, 16740), (640, 16743), (643, 16752), (648, 16773), (651, 16785), (659, 16812), (668, 16851), (673, 16872), (679, 16893), (681, 16908), (683, 16914), (717, 17046), (719, 17055), (721, 17064), (724, 17073), (725, 17076), (728, 17088), (729, 17091), (730, 17100), (732, 17109), (751, 17202), (758, 17256), (786, 17364), (789, 17379), (826, 17577), (874, 17811), (894, 17886), (936, 18165), (937, 18168), (939, 18189), (948, 18237), (950, 18243), (964, 18351), (972, 18423), (981, 18525), (994, 18678),

Gene: Pippin15_25 Start: 18211, Stop: 22791, Start Num: 19
Candidate Starts for Pippin15_25:
(Start: 19 @18211 has 160 MA's), (Start: 23 @18244 has 3 MA's), (45, 18391), (58, 18484), (79, 18679), (81, 18715), (87, 18805), (105, 18928), (110, 18970), (122, 19090), (156, 19372), (160, 19408), (167, 19441), (177, 19507), (207, 19654), (221, 19735), (238, 19828), (273, 19954), (286, 20008), (343, 20260), (368, 20389), (369, 20392), (373, 20404), (382, 20443), (395, 20503), (398, 20524), (412, 20590), (415, 20599), (425, 20641), (427, 20647), (429, 20662), (434, 20683), (455, 20782), (465, 20833), (471, 20860), (476, 20881), (479, 20899), (486, 20935), (492, 20953), (501, 20995), (507, 21019), (508, 21022), (511, 21037), (514, 21046), (527, 21115), (533, 21136), (536, 21148), (539, 21157), (543, 21169), (552, 21193), (566, 21241), (583, 21319), (586, 21328), (609, 21400), (612, 21409), (614, 21418), (633, 21490), (644, 21532), (651, 21559), (664, 21604), (674, 21649), (675, 21652), (683, 21688), (693, 21727), (699, 21757), (713, 21805), (725, 21850), (736, 21907), (755, 22006), (756, 22015), (760, 22039), (764, 22060), (780, 22159), (786, 22204), (823, 22390), (829, 22432), (831, 22444), (836, 22465), (839, 22477), (855, 22552), (856, 22555), (858, 22570), (888, 22681), (911, 22780),

Gene: Poco6_036 Start: 32036, Stop: 37891, Start Num: 19
Candidate Starts for Poco6_036:
(Start: 19 @32036 has 160 MA's), (Start: 23 @32066 has 3 MA's), (28, 32111), (30, 32120), (34, 32141), (44, 32204), (49, 32255), (53, 32279), (71, 32381), (72, 32402), (79, 32519), (84, 32579), (92, 32690), (96, 32720), (99, 32735), (105, 32768), (116, 32861), (124, 32909), (147, 33110), (152,

33140), (177, 33311), (194, 33407), (213, 33494), (287, 33851), (300, 33902), (308, 33941), (319, 33986), (330, 34037), (333, 34058), (339, 34112), (343, 34133), (352, 34190), (364, 34247), (372, 34274), (376, 34289), (379, 34298), (383, 34325), (391, 34355), (392, 34358), (394, 34364), (401, 34415), (412, 34463), (425, 34514), (429, 34535), (432, 34544), (436, 34565), (440, 34586), (449, 34637), (451, 34643), (457, 34664), (460, 34673), (462, 34685), (465, 34700), (471, 34727), (472, 34730), (478, 34757), (494, 34829), (498, 34844), (501, 34856), (508, 34883), (518, 34928), (519, 34937), (531, 34985), (533, 34994), (538, 35015), (552, 35048), (556, 35066), (558, 35072), (563, 35087), (564, 35090), (565, 35093), (567, 35105), (581, 35177), (583, 35183), (592, 35213), (594, 35225), (595, 35231), (598, 35240), (600, 35246), (607, 35270), (611, 35282), (613, 35288), (632, 35360), (638, 35384), (656, 35450), (659, 35459), (676, 35528), (681, 35555), (746, 35831), (751, 35849), (755, 35879), (760, 35912), (764, 35933), (781, 36041), (784, 36068), (793, 36137), (797, 36152), (873, 36542), (930, 36872), (938, 36920), (956, 37022), (973, 37163), (982, 37268), (988, 37322), (992, 37367), (995, 37433), (996, 37532), (997, 37649), (998, 37682), (999, 37877),

Gene: PoeMe_27 Start: 19861, Stop: 24495, Start Num: 19
Candidate Starts for PoeMe_27:
(Start: 18 @19840 has 2 MA's), (Start: 19 @19861 has 160 MA's), (Start: 23 @19891 has 3 MA's), (30, 19945), (31, 19954), (61, 20224), (62, 20227), (71, 20284), (72, 20305), (78, 20365), (79, 20407), (84, 20467), (88, 20542), (96, 20608), (99, 20623), (105, 20656), (109, 20695), (110, 20698), (117, 20734), (119, 20749), (126, 20797), (157, 21070), (164, 21124), (167, 21133), (175, 21193), (185, 21235), (194, 21295), (195, 21301), (198, 21310), (204, 21334), (224, 21433), (225, 21445), (226, 21454), (228, 21466), (263, 21601), (301, 21751), (313, 21811), (317, 21820), (343, 21958), (348, 21991), (350, 22006), (355, 22030), (357, 22036), (361, 22060), (366, 22081), (369, 22090), (376, 22114), (380, 22132), (390, 22177), (391, 22180), (394, 22189), (415, 22297), (419, 22309), (422, 22318), (425, 22339), (436, 22390), (441, 22420), (443, 22435), (454, 22477), (459, 22495), (468, 22543), (469, 22546), (485, 22630), (487, 22636), (506, 22711), (509, 22720), (519, 22771), (527, 22807), (536, 22840), (538, 22849), (543, 22861), (544, 22864), (556, 22903), (566, 22933), (567, 22942), (583, 23011), (586, 23020), (596, 23050), (602, 23071), (614, 23110), (634, 23185), (637, 23197), (645, 23230), (649, 23245), (652, 23254), (654, 23260), (665, 23299), (671, 23332), (672, 23335), (673, 23338), (678, 23356), (704, 23464), (708, 23479), (713, 23497), (715, 23506), (719, 23521), (720, 23524), (735, 23596), (751, 23668), (758, 23722), (771, 23794), (780, 23851), (786, 23896), (822, 24079), (825, 24100), (829, 24124), (842, 24175), (855, 24244), (858, 24262),

Gene: Popy_23 Start: 16676, Stop: 22156, Start Num: 2
Candidate Starts for Popy_23:
(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90, 17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (335, 18881), (343, 18935), (354, 19004), (366, 19058), (376, 19091), (385, 19136), (388, 19145), (391, 19157), (404, 19232), (418, 19283), (422, 19295), (429, 19334), (436, 19364), (439, 19376), (446, 19424), (458, 19466), (467, 19514), (479, 19571), (509, 19691), (518, 19733), (519, 19742), (527, 19778), (532, 19796), (533, 19799), (536, 19811), (551, 19853), (552, 19856), (566, 19904), (570, 19940), (572, 19946), (577, 19967), (586, 19991), (614, 20081), (624, 20114), (628, 20132), (631, 20144), (633, 20153), (648, 20210), (651, 20222), (652, 20225), (657, 20243), (671, 20303), (676, 20318), (683, 20351), (686, 20366), (705, 20438), (717, 20483), (721, 20501), (724, 20510), (732, 20546), (735, 20567), (736, 20570), (780, 20756), (782, 20777), (783, 20783), (786, 20801), (787, 20804), (789, 20816), (795, 20849), (796, 20855), (825, 21005), (826, 21014), (886, 21287), (908, 21389), (937, 21605), (939, 21626), (948, 21674), (950, 21680), (951, 21686), (957, 21731), (972, 21860), (978, 21908), (993, 22100), (994, 22109),

Gene: Powelldog_24 Start: 17004, Stop: 21530, Start Num: 19

Candidate Starts for Powelldog_24:
(Start: 18 @16983 has 2 MA's), (Start: 19 @17004 has 160 MA's), (Start: 23 @17034 has 3 MA's), (29, 17085), (31, 17097), (40, 17145), (45, 17181), (50, 17229), (60, 17283), (61, 17289), (79, 17472), (80, 17490), (83, 17526), (84, 17532), (89, 17619), (91, 17640), (96, 17673), (99, 17688), (102, 17703), (105, 17721), (117, 17799), (119, 17814), (122, 17847), (126, 17862), (132, 17910), (135, 17961), (137, 17973), (146, 18060), (148, 18069), (149, 18072), (152, 18093), (157, 18135), (160, 18165), (164, 18189), (175, 18258), (182, 18288), (183, 18291), (187, 18318), (192, 18348), (204, 18399), (263, 18669), (277, 18720), (297, 18804), (301, 18819), (311, 18867), (329, 18915), (343, 18996), (352, 19053), (355, 19068), (358, 19080), (365, 19113), (366, 19119), (369, 19128), (376, 19152), (380, 19170), (385, 19197), (391, 19218), (394, 19227), (396, 19245), (400, 19269), (404, 19293), (422, 19356), (423, 19365), (441, 19458), (456, 19521), (459, 19533), (465, 19569), (479, 19635), (502, 19731), (506, 19749), (511, 19770), (516, 19791), (519, 19809), (522, 19824), (524, 19836), (527, 19845), (531, 19857), (536, 19878), (538, 19887), (543, 19899), (547, 19908), (554, 19929), (559, 19950), (566, 19971), (567, 19980), (572, 20013), (583, 20049), (585, 20055), (586, 20058), (596, 20088), (607, 20124), (608, 20127), (609, 20130), (614, 20148), (631, 20211), (635, 20226), (638, 20238), (641, 20250), (642, 20253), (647, 20274), (648, 20277), (651, 20289), (655, 20304), (657, 20310), (663, 20331), (675, 20382), (679, 20397), (681, 20412), (689, 20442), (701, 20493), (705, 20505), (707, 20514), (720, 20562), (729, 20595), (734, 20628), (735, 20634), (736, 20637), (744, 20679), (759, 20766), (772, 20835), (782, 20910), (786, 20934), (788, 20946), (806, 21060), (816, 21099), (836, 21195), (839, 21207), (842, 21213), (880, 21387), (901, 21459),

Gene: ProfFrink_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for ProfFrink_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Qui_40 Start: 29221, Stop: 33771, Start Num: 19
Candidate Starts for Qui_40:
(Start: 19 @29221 has 160 MA's), (Start: 23 @29251 has 3 MA's), (34, 29326), (40, 29362), (49, 29440), (79, 29689), (87, 29815), (92, 29860), (93, 29875), (96, 29890), (101, 29917), (105, 29938), (108, 29962), (110, 29980), (122, 30097), (129, 30142), (132, 30160), (144, 30283), (146, 30310), (149, 30322), (152, 30343), (182, 30538), (198, 30625), (200, 30631), (210, 30673), (219, 30724), (230, 30787), (250, 30862), (252, 30871), (282, 30991), (304, 31069), (305, 31078), (343, 31246), (357, 31324), (366, 31369), (369, 31378), (376, 31402), (385, 31447), (391, 31468), (408, 31564), (419, 31597), (425, 31627), (441, 31708), (443, 31723), (444, 31726), (463, 31807), (469, 31834), (479, 31885), (483, 31912), (490, 31933), (491, 31936), (501, 31978), (522, 32074), (527, 32095), (531, 32107), (536, 32128), (538, 32137), (543, 32149), (556, 32191), (566, 32221), (567, 32230),

(575, 32278), (576, 32281), (583, 32299), (586, 32308), (602, 32359), (605, 32368), (614, 32398), (625, 32434), (631, 32461), (652, 32542), (653, 32545), (673, 32626), (677, 32638), (683, 32668), (686, 32683), (689, 32692), (693, 32707), (702, 32746), (713, 32785), (717, 32800), (719, 32809), (722, 32821), (725, 32830), (726, 32833), (734, 32878), (735, 32884), (747, 32941), (751, 32956), (755, 32986), (771, 33082), (780, 33139), (786, 33184), (800, 33253), (813, 33334), (819, 33355), (825, 33388), (833, 33433), (835, 33442), (839, 33457), (842, 33463), (854, 33532), (858, 33550), (869, 33601),

Gene: Rainydai_21 Start: 15072, Stop: 20549, Start Num: 2
Candidate Starts for Rainydai_21:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: Raunak_23 Start: 17270, Stop: 21790, Start Num: 23
Candidate Starts for Raunak_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (357, 19340), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (675, 20648), (678, 20660), (690, 20714), (698, 20750), (702, 20762), (704, 20768), (714, 20804), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605), (890, 21683),

Gene: RavenPuff_18 Start: 13488, Stop: 18716, Start Num: 19
Candidate Starts for RavenPuff_18:
(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 160 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (343, 15498), (353, 15561), (354, 15567),

(366, 15621), (373, 15642), (388, 15708), (389, 15711), (410, 15822), (422, 15858), (425, 15876), (436, 15927), (458, 16029), (461, 16041), (463, 16056), (478, 16125), (479, 16134), (484, 16164), (497, 16209), (503, 16230), (510, 16260), (513, 16272), (514, 16275), (518, 16296), (519, 16305), (527, 16341), (536, 16374), (562, 16455), (563, 16458), (570, 16503), (571, 16506), (572, 16509), (586, 16554), (596, 16584), (610, 16629), (614, 16644), (624, 16677), (629, 16698), (631, 16707), (633, 16716), (639, 16740), (640, 16743), (643, 16752), (648, 16773), (651, 16785), (659, 16812), (668, 16851), (673, 16872), (679, 16893), (681, 16908), (683, 16914), (717, 17046), (719, 17055), (721, 17064), (724, 17073), (725, 17076), (728, 17088), (729, 17091), (730, 17100), (732, 17109), (751, 17202), (758, 17256), (786, 17364), (789, 17379), (826, 17577), (874, 17811), (894, 17886), (936, 18165), (937, 18168), (939, 18189), (948, 18237), (950, 18243), (964, 18351), (972, 18423), (981, 18525), (994, 18678),

Gene: Regigigas_22 Start: 15072, Stop: 20549, Start Num: 2
Candidate Starts for Regigigas_22:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: Renaldo_31 Start: 21026, Stop: 25564, Start Num: 34
Candidate Starts for Renaldo_31:
(Start: 18 @20900 has 2 MA's), (Start: 19 @20921 has 160 MA's), (Start: 23 @20951 has 3 MA's), (30, 21005), (34, 21026), (40, 21062), (49, 21230), (60, 21290), (71, 21356), (72, 21377), (79, 21479), (80, 21497), (84, 21539), (88, 21614), (89, 21626), (96, 21680), (99, 21695), (105, 21728), (117, 21806), (119, 21821), (131, 21911), (137, 21980), (157, 22142), (164, 22196), (175, 22265), (185, 22307), (194, 22367), (195, 22373), (198, 22382), (203, 22397), (204, 22406), (224, 22505), (225, 22517), (228, 22538), (281, 22745), (289, 22769), (301, 22823), (317, 22892), (343, 23033), (355, 23105), (357, 23111), (366, 23156), (368, 23162), (369, 23165), (376, 23189), (380, 23207), (390, 23252), (391, 23255), (393, 23261), (394, 23264), (398, 23297), (401, 23315), (415, 23372), (422, 23393), (425, 23414), (435, 23462), (441, 23495), (443, 23510), (459, 23570), (506, 23786), (507, 23789), (519, 23846), (522, 23861), (524, 23873), (527, 23882), (536, 23915), (538, 23924), (543, 23936), (551, 23957), (566, 24008), (567, 24017), (575, 24065), (583, 24086), (585, 24092), (586, 24095), (605, 24155), (614, 24185), (617, 24194), (639, 24281), (640, 24284), (641, 24287), (645, 24305), (649, 24320), (654, 24335), (665, 24374), (671, 24407), (672, 24410), (673, 24413), (675, 24419), (678, 24431), (708, 24554), (713, 24572), (736, 24674), (751, 24743), (758, 24797), (780, 24926), (786, 24971), (799, 25040), (825, 25175), (829, 25199), (839, 25244), (842, 25250), (849, 25289), (855, 25319),

Gene: Rickmore_31 Start: 21933, Stop: 27044, Start Num: 19
Candidate Starts for Rickmore_31:
(Start: 19 @21933 has 160 MA's), (Start: 23 @21963 has 3 MA's), (28, 22008), (49, 22152), (60, 22212), (61, 22218), (71, 22278), (72, 22299), (79, 22401), (86, 22491), (87, 22527), (90, 22563), (96,

22602), (98, 22614), (105, 22650), (110, 22692), (117, 22764), (122, 22812), (137, 22938), (141, 22980), (145, 23013), (146, 23025), (151, 23046), (163, 23151), (164, 23154), (207, 23376), (217, 23430), (267, 23667), (270, 23676), (277, 23709), (279, 23721), (291, 23790), (293, 23793), (300, 23820), (313, 23886), (343, 24048), (350, 24096), (353, 24111), (354, 24117), (357, 24126), (359, 24135), (385, 24249), (397, 24300), (398, 24312), (400, 24321), (401, 24330), (406, 24357), (425, 24429), (429, 24450), (432, 24459), (438, 24486), (440, 24501), (441, 24510), (450, 24555), (451, 24558), (460, 24588), (462, 24600), (467, 24624), (471, 24642), (472, 24645), (478, 24672), (479, 24681), (482, 24699), (490, 24729), (498, 24759), (501, 24771), (503, 24777), (504, 24780), (507, 24795), (509, 24801), (519, 24852), (532, 24906), (536, 24921), (538, 24930), (544, 24942), (546, 24945), (550, 24954), (559, 24990), (560, 24993), (565, 25008), (566, 25011), (567, 25020), (569, 25041), (575, 25068), (576, 25071), (583, 25098), (586, 25107), (592, 25128), (594, 25140), (600, 25161), (608, 25188), (618, 25221), (620, 25227), (625, 25245), (627, 25257), (632, 25275), (656, 25365), (661, 25383), (662, 25386), (705, 25563), (714, 25596), (745, 25740), (747, 25749), (766, 25863), (770, 25884), (782, 25974), (794, 26046), (797, 26058), (798, 26067), (804, 26121), (812, 26142), (817, 26169), (818, 26175), (830, 26232), (839, 26274), (865, 26403), (872, 26421), (883, 26451), (887, 26472), (891, 26484), (915, 26622), (924, 26697), (941, 26799), (945, 26823), (946, 26826), (957, 26892), (963, 26940), (976, 27030),

Gene: Rima_23 Start: 16166, Stop: 21652, Start Num: 2
Candidate Starts for Rima_23:
(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (339, 18413), (343, 18434), (353, 18497), (354, 18503), (356, 18509), (361, 18536), (366, 18557), (368, 18563), (369, 18566), (376, 18590), (385, 18635), (388, 18644), (389, 18647), (391, 18656), (404, 18731), (410, 18758), (416, 18776), (422, 18794), (425, 18812), (429, 18833), (440, 18884), (454, 18950), (458, 18965), (476, 19052), (479, 19070), (483, 19097), (508, 19187), (509, 19190), (518, 19232), (519, 19241), (527, 19277), (532, 19295), (533, 19298), (551, 19352), (552, 19355), (566, 19403), (570, 19439), (572, 19445), (577, 19466), (586, 19490), (596, 19520), (614, 19580), (624, 19613), (625, 19616), (628, 19631), (637, 19667), (648, 19709), (651, 19721), (652, 19724), (666, 19772), (671, 19802), (676, 19817), (683, 19850), (686, 19865), (702, 19928), (723, 20006), (724, 20009), (732, 20045), (744, 20111), (759, 20198), (760, 20201), (786, 20300), (795, 20348), (796, 20354), (826, 20513), (886, 20786), (894, 20822), (908, 20888), (922, 21011), (928, 21062), (937, 21104), (939, 21125), (948, 21173), (950, 21179), (951, 21185), (957, 21230), (969, 21338), (972, 21359), (978, 21407), (986, 21494), (993, 21596), (994, 21605),

Gene: Roney_29 Start: 20616, Stop: 25730, Start Num: 19
Candidate Starts for Roney_29:
(Start: 19 @20616 has 160 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (213, 22080), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (331, 22626), (341, 22710), (343, 22719), (359, 22806), (367, 22845), (380, 22893), (385, 22920), (391, 22941), (394, 22950), (397, 22971), (398, 22983), (400, 22992), (401, 23001), (406, 23028), (414, 23055), (415, 23058), (422, 23079), (429, 23121), (435, 23148), (438, 23157), (440, 23172), (441, 23181), (443, 23196), (445, 23208), (447, 23217), (451, 23229), (457, 23250), (460, 23259), (478, 23343), (479, 23352), (481, 23367), (482, 23370), (486, 23388), (490, 23400), (491, 23403), (498, 23430), (504, 23451), (507, 23466), (511, 23484), (517, 23508), (519, 23523), (533, 23580), (536, 23592), (538, 23601), (544, 23613), (550, 23625), (551, 23631), (556, 23652), (560, 23664), (566, 23682), (567, 23691), (568, 23706), (569, 23712), (572, 23724), (582, 23766), (583, 23769), (586, 23778), (592, 23799), (594, 23811), (608, 23859), (611, 23868), (618, 23892), (620,

23898), (625, 23916), (626, 23925), (632, 23946), (650, 24015), (655, 24033), (656, 24036), (661, 24054), (691, 24180), (702, 24225), (716, 24276), (747, 24420), (770, 24555), (778, 24606), (789, 24684), (797, 24729), (804, 24792), (810, 24810), (817, 24840), (818, 24846), (830, 24903), (845, 24975), (857, 25035), (862, 25056), (863, 25059), (873, 25110), (875, 25119), (887, 25158), (891, 25170), (909, 25263), (915, 25308), (924, 25383), (929, 25422), (935, 25452), (945, 25509), (962, 25620), (976, 25716),

Gene: RosaAsantewaa_19 Start: 13292, Stop: 18511, Start Num: 19
Candidate Starts for RosaAsantewaa_19:
(Start: 18 @13271 has 2 MA's), (Start: 19 @13292 has 160 MA's), (Start: 23 @13322 has 3 MA's), (37, 13397), (39, 13403), (51, 13526), (76, 13703), (79, 13766), (87, 13892), (96, 13967), (103, 14000), (105, 14015), (110, 14057), (133, 14249), (136, 14294), (146, 14390), (154, 14444), (177, 14594), (193, 14687), (209, 14750), (267, 15008), (300, 15137), (315, 15203), (317, 15209), (337, 15257), (343, 15308), (350, 15356), (354, 15377), (369, 15440), (376, 15464), (385, 15509), (388, 15518), (412, 15638), (415, 15647), (422, 15668), (429, 15707), (447, 15803), (455, 15827), (458, 15839), (468, 15890), (478, 15935), (496, 16016), (506, 16055), (507, 16058), (511, 16076), (513, 16082), (514, 16085), (518, 16106), (519, 16115), (525, 16145), (527, 16151), (531, 16163), (570, 16313), (572, 16319), (586, 16364), (614, 16454), (616, 16460), (624, 16487), (640, 16553), (657, 16616), (675, 16688), (683, 16724), (686, 16739), (698, 16790), (721, 16874), (724, 16883), (728, 16898), (732, 16919), (733, 16922), (735, 16940), (750, 17009), (786, 17174), (790, 17198), (826, 17387), (861, 17558), (874, 17621), (894, 17696), (913, 17792), (937, 17978), (939, 17999), (950, 18053), (956, 18095), (958, 18116), (960, 18137), (965, 18173), (966, 18182), (967, 18191), (972, 18233), (980, 18305), (989, 18392),

Gene: Runhaar_32 Start: 23285, Stop: 28396, Start Num: 19
Candidate Starts for Runhaar_32:
(Start: 19 @23285 has 160 MA's), (Start: 23 @23315 has 3 MA's), (28, 23360), (34, 23390), (49, 23504), (61, 23570), (71, 23630), (72, 23651), (79, 23753), (87, 23879), (90, 23915), (96, 23954), (101, 23981), (105, 24002), (110, 24044), (120, 24143), (122, 24164), (137, 24290), (145, 24365), (146, 24377), (151, 24398), (163, 24503), (164, 24506), (233, 24866), (260, 24971), (272, 25040), (277, 25061), (291, 25142), (293, 25145), (300, 25172), (308, 25211), (313, 25238), (343, 25400), (350, 25448), (354, 25469), (359, 25487), (370, 25535), (374, 25547), (385, 25601), (397, 25652), (398, 25664), (400, 25673), (401, 25682), (414, 25736), (425, 25781), (428, 25796), (429, 25802), (432, 25811), (433, 25817), (437, 25835), (438, 25838), (439, 25844), (440, 25853), (450, 25907), (451, 25910), (454, 25919), (459, 25937), (460, 25940), (462, 25952), (466, 25973), (468, 25979), (469, 25982), (474, 26003), (479, 26033), (481, 26048), (490, 26081), (494, 26096), (498, 26111), (501, 26123), (503, 26129), (504, 26132), (506, 26144), (507, 26147), (519, 26204), (532, 26258), (533, 26261), (538, 26282), (544, 26294), (546, 26297), (560, 26345), (565, 26360), (566, 26363), (567, 26372), (569, 26393), (575, 26420), (576, 26423), (582, 26447), (586, 26459), (592, 26480), (594, 26492), (600, 26513), (608, 26540), (618, 26573), (620, 26579), (625, 26597), (632, 26627), (642, 26666), (687, 26846), (690, 26858), (708, 26927), (745, 27092), (766, 27215), (770, 27236), (789, 27365), (794, 27398), (797, 27410), (804, 27473), (812, 27494), (814, 27506), (817, 27521), (830, 27584), (848, 27668), (865, 27755), (872, 27773), (883, 27803), (886, 27821), (887, 27824), (888, 27830), (891, 27836), (898, 27863), (915, 27974), (924, 28049), (926, 28067), (941, 28151), (945, 28175), (963, 28292), (976, 28382),

Gene: RustyBoy_23 Start: 16633, Stop: 21177, Start Num: 19
Candidate Starts for RustyBoy_23:
(Start: 18 @16612 has 2 MA's), (Start: 19 @16633 has 160 MA's), (Start: 23 @16663 has 3 MA's), (64, 16930), (68, 16948), (71, 16978), (78, 17059), (79, 17101), (80, 17119), (84, 17161), (86, 17191), (88, 17236), (89, 17248), (96, 17302), (99, 17317), (100, 17323), (105, 17350), (112, 17413), (117, 17428), (119, 17443), (122, 17476), (126, 17491), (127, 17500), (132, 17539), (137, 17602), (145, 17677), (152, 17722), (154, 17743), (158, 17779), (164, 17818), (166, 17824), (175, 17887), (177, 17893),

(198, 18004), (263, 18298), (270, 18325), (283, 18373), (290, 18403), (292, 18412), (298, 18436), (305, 18472), (306, 18475), (308, 18481), (317, 18517), (339, 18631), (343, 18652), (351, 18706), (359, 18739), (368, 18781), (369, 18784), (376, 18808), (383, 18844), (385, 18853), (388, 18862), (391, 18874), (398, 18916), (400, 18925), (408, 18970), (415, 18991), (422, 19012), (425, 19033), (430, 19057), (439, 19096), (441, 19114), (443, 19129), (447, 19150), (459, 19189), (463, 19213), (474, 19261), (479, 19291), (481, 19306), (490, 19339), (492, 19345), (501, 19384), (506, 19405), (511, 19426), (514, 19435), (532, 19519), (536, 19534), (538, 19543), (543, 19555), (551, 19576), (566, 19627), (567, 19636), (583, 19705), (586, 19714), (596, 19744), (597, 19747), (610, 19789), (614, 19804), (628, 19855), (633, 19876), (647, 19930), (657, 19966), (658, 19969), (671, 20026), (672, 20029), (679, 20053), (688, 20095), (696, 20134), (698, 20140), (704, 20158), (706, 20164), (727, 20245), (734, 20284), (739, 20305), (742, 20323), (751, 20362), (753, 20371), (767, 20467), (771, 20488), (780, 20545), (786, 20590), (788, 20602), (792, 20623), (802, 20680), (805, 20710), (827, 20809), (842, 20869), (855, 20938), (858, 20956),

Gene: Salk_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for Salk_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (698, 20750), (700, 20756), (702, 20762), (704, 20768), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605), (890, 21683),

Gene: Sangak_19 Start: 13489, Stop: 18717, Start Num: 19
Candidate Starts for Sangak_19:
(Start: 18 @13468 has 2 MA's), (Start: 19 @13489 has 160 MA's), (Start: 23 @13519 has 3 MA's), (42, 13621), (45, 13672), (61, 13780), (79, 13963), (87, 14089), (90, 14125), (96, 14164), (110, 14254), (154, 14641), (177, 14791), (182, 14815), (194, 14887), (243, 15118), (265, 15196), (270, 15214), (273, 15217), (279, 15250), (305, 15358), (321, 15418), (343, 15499), (354, 15568), (366, 15622), (388, 15709), (389, 15712), (410, 15823), (422, 15859), (425, 15877), (436, 15928), (458, 16030), (461, 16042), (463, 16057), (478, 16126), (479, 16135), (484, 16165), (497, 16210), (503, 16231), (510, 16261), (513, 16273), (514, 16276), (518, 16297), (519, 16306), (527, 16342), (536, 16375), (562, 16456), (563, 16459), (570, 16504), (571, 16507), (572, 16510), (586, 16555), (596, 16585), (610, 16630), (614, 16645), (624, 16678), (629, 16699), (631, 16708), (633, 16717), (639, 16741), (640, 16744), (668, 16852), (679, 16894), (681, 16909), (683, 16915), (703, 16996), (717, 17047), (719, 17056), (721, 17065), (724, 17074), (725, 17077), (728, 17089), (729, 17092), (730, 17101), (732, 17110), (736, 17134), (751, 17203), (758, 17257), (786, 17365), (789, 17380), (796, 17419), (826, 17578), (874, 17812), (894, 17887), (902, 17920), (927, 18124), (936, 18166), (937, 18169), (939, 18190), (948, 18238), (950, 18244), (964, 18352), (972, 18424), (981, 18526), (994, 18679),

Gene: Scap1_19 Start: 13425, Stop: 18671, Start Num: 18

Candidate Starts for Scap1_19:
(Start: 18 @13425 has 2 MA's), (Start: 19 @13446 has 160 MA's), (Start: 23 @13476 has 3 MA's), (45, 13629), (56, 13716), (61, 13737), (66, 13755), (74, 13848), (79, 13920), (87, 14046), (90, 14082), (96, 14121), (98, 14133), (108, 14193), (110, 14211), (136, 14448), (154, 14598), (177, 14748), (182, 14772), (206, 14889), (243, 15075), (258, 15123), (270, 15171), (279, 15207), (281, 15216), (315, 15357), (317, 15363), (343, 15456), (354, 15525), (369, 15588), (374, 15603), (376, 15612), (377, 15615), (389, 15669), (398, 15720), (416, 15798), (422, 15816), (439, 15897), (458, 15987), (468, 16038), (478, 16083), (479, 16092), (484, 16122), (497, 16167), (503, 16188), (506, 16203), (513, 16230), (514, 16233), (518, 16254), (519, 16263), (527, 16299), (570, 16461), (572, 16467), (583, 16503), (586, 16512), (596, 16542), (602, 16563), (604, 16569), (608, 16581), (610, 16587), (614, 16602), (624, 16635), (629, 16656), (631, 16665), (633, 16674), (640, 16701), (648, 16731), (651, 16743), (652, 16746), (676, 16839), (683, 16872), (686, 16887), (719, 17013), (721, 17022), (724, 17031), (725, 17034), (728, 17046), (732, 17067), (733, 17070), (754, 17178), (783, 17304), (786, 17322), (826, 17535), (832, 17565), (850, 17652), (885, 17796), (902, 17877), (916, 17973), (937, 18126), (939, 18147), (953, 18231), (960, 18285), (962, 18300), (969, 18360), (972, 18381), (973, 18384), (977, 18420), (980, 18453), (994, 18633),

Gene: Schwartz33_33 Start: 23640, Stop: 28727, Start Num: 19
Candidate Starts for Schwartz33_33:
(Start: 19 @23640 has 160 MA's), (21, 23646), (Start: 23 @23670 has 3 MA's), (45, 23817), (53, 23883), (56, 23904), (61, 23925), (68, 23955), (71, 23985), (72, 24006), (79, 24108), (84, 24168), (88, 24243), (92, 24279), (96, 24309), (99, 24324), (105, 24357), (115, 24450), (124, 24504), (125, 24507), (145, 24693), (151, 24726), (160, 24810), (163, 24831), (164, 24834), (175, 24903), (177, 24909), (178, 24915), (202, 25032), (204, 25044), (210, 25068), (220, 25122), (221, 25125), (229, 25179), (236, 25212), (300, 25503), (313, 25569), (330, 25635), (341, 25722), (342, 25728), (343, 25731), (353, 25794), (354, 25800), (359, 25818), (374, 25878), (385, 25932), (394, 25962), (398, 25995), (400, 26004), (401, 26013), (414, 26067), (416, 26073), (425, 26112), (429, 26133), (432, 26142), (437, 26166), (438, 26169), (439, 26175), (440, 26184), (443, 26208), (450, 26238), (451, 26241), (452, 26244), (460, 26271), (471, 26325), (479, 26364), (486, 26400), (498, 26442), (503, 26460), (504, 26463), (506, 26475), (507, 26478), (509, 26484), (512, 26499), (515, 26514), (519, 26535), (524, 26562), (533, 26592), (538, 26613), (556, 26664), (566, 26694), (567, 26703), (577, 26757), (586, 26790), (592, 26811), (594, 26823), (600, 26844), (608, 26871), (618, 26904), (620, 26910), (625, 26928), (626, 26937), (627, 26940), (650, 27027), (661, 27066), (662, 27069), (672, 27114), (690, 27189), (705, 27246), (710, 27264), (747, 27432), (752, 27453), (766, 27546), (781, 27639), (786, 27681), (794, 27729), (797, 27741), (804, 27804), (808, 27816), (814, 27837), (817, 27852), (818, 27858), (848, 27999), (868, 28095), (872, 28104), (886, 28152), (887, 28155), (891, 28167), (915, 28305), (924, 28380), (945, 28506), (976, 28713),

Gene: ScienceWizSam_28 Start: 20475, Stop: 25064, Start Num: 19
Candidate Starts for ScienceWizSam_28:
(Start: 18 @20454 has 2 MA's), (Start: 19 @20475 has 160 MA's), (Start: 23 @20505 has 3 MA's), (30, 20559), (34, 20580), (40, 20616), (49, 20694), (60, 20754), (66, 20778), (68, 20790), (71, 20820), (74, 20871), (78, 20901), (79, 20943), (80, 20961), (84, 21003), (86, 21033), (88, 21078), (89, 21090), (96, 21144), (99, 21159), (101, 21171), (105, 21192), (119, 21285), (122, 21318), (126, 21333), (132, 21381), (137, 21444), (151, 21552), (166, 21666), (167, 21669), (173, 21717), (194, 21831), (201, 21855), (204, 21870), (207, 21882), (239, 22050), (244, 22065), (246, 22071), (253, 22089), (265, 22161), (278, 22212), (283, 22227), (290, 22257), (306, 22329), (308, 22335), (312, 22353), (316, 22368), (317, 22371), (323, 22398), (343, 22512), (352, 22569), (354, 22581), (366, 22635), (369, 22644), (370, 22647), (376, 22668), (385, 22713), (391, 22734), (398, 22776), (401, 22794), (415, 22851), (422, 22872), (425, 22893), (441, 22974), (443, 22989), (444, 22992), (450, 23019), (451, 23022), (463, 23073), (479, 23151), (481, 23166), (482, 23169), (486, 23187), (488, 23193), (490, 23199), (493, 23208), (501, 23244), (502, 23247), (504, 23253), (505, 23259), (511, 23286), (522, 23340), (523, 23343), (527, 23361), (531, 23373), (538, 23403), (543, 23418), (549, 23427), (551,

23439), (556, 23460), (567, 23499), (578, 23556), (583, 23568), (586, 23577), (599, 23616), (602, 23628), (612, 23658), (614, 23667), (634, 23742), (635, 23745), (639, 23763), (641, 23769), (657, 23829), (658, 23832), (660, 23838), (666, 23859), (672, 23892), (673, 23895), (704, 24021), (705, 24024), (711, 24045), (719, 24078), (720, 24081), (721, 24087), (724, 24096), (730, 24123), (739, 24168), (753, 24234), (759, 24285), (761, 24291), (771, 24351), (776, 24375), (783, 24435), (786, 24453), (788, 24465), (819, 24624), (821, 24633), (829, 24681), (836, 24714), (839, 24726), (842, 24732), (845, 24753), (846, 24756), (847, 24762), (855, 24801), (860, 24828), (905, 25014), (910, 25041),

Gene: Secretariat_30 Start: 22365, Stop: 27458, Start Num: 19
Candidate Starts for Secretariat_30:
(Start: 19 @22365 has 160 MA's), (Start: 23 @22395 has 3 MA's), (27, 22434), (45, 22542), (49, 22584), (63, 22659), (67, 22677), (71, 22710), (78, 22803), (79, 22845), (84, 22905), (92, 23016), (96, 23046), (99, 23061), (105, 23094), (108, 23118), (114, 23184), (115, 23187), (124, 23241), (125, 23244), (128, 23259), (160, 23547), (163, 23568), (175, 23640), (221, 23862), (229, 23916), (235, 23937), (236, 23949), (258, 24024), (269, 24087), (277, 24126), (279, 24138), (283, 24159), (295, 24222), (300, 24240), (301, 24243), (307, 24276), (332, 24384), (338, 24435), (339, 24447), (341, 24459), (343, 24468), (354, 24537), (356, 24543), (359, 24555), (364, 24582), (370, 24603), (385, 24669), (392, 24693), (394, 24699), (398, 24732), (400, 24741), (401, 24750), (414, 24804), (425, 24849), (429, 24870), (432, 24879), (438, 24906), (440, 24921), (443, 24945), (450, 24975), (451, 24978), (457, 24999), (459, 25005), (460, 25008), (466, 25041), (479, 25101), (495, 25170), (498, 25179), (501, 25191), (503, 25197), (504, 25200), (505, 25206), (512, 25236), (516, 25254), (518, 25263), (519, 25272), (524, 25299), (531, 25320), (533, 25329), (544, 25362), (559, 25410), (566, 25431), (567, 25440), (568, 25455), (569, 25461), (586, 25527), (592, 25548), (594, 25560), (600, 25581), (608, 25608), (611, 25617), (613, 25623), (614, 25629), (620, 25647), (625, 25665), (632, 25695), (655, 25782), (659, 25794), (665, 25815), (666, 25818), (669, 25836), (701, 25971), (704, 25980), (705, 25983), (758, 26238), (761, 26250), (766, 26283), (779, 26367), (794, 26466), (804, 26541), (808, 26553), (812, 26562), (818, 26595), (827, 26640), (865, 26823), (872, 26841), (880, 26865), (887, 26892), (888, 26898), (891, 26904), (915, 27042), (919, 27081), (924, 27117), (926, 27135), (945, 27237), (976, 27444),

Gene: SendItCS_20 Start: 15072, Stop: 20549, Start Num: 2
Candidate Starts for SendItCS_20:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: Serenabean_25 Start: 18537, Stop: 23141, Start Num: 19
Candidate Starts for Serenabean_25:
(Start: 19 @18537 has 160 MA's), (Start: 23 @18570 has 3 MA's), (34, 18645), (43, 18693), (45, 18717), (57, 18807), (61, 18825), (65, 18837), (71, 18882), (75, 18939), (79, 19005), (84, 19065), (92,

19176), (96, 19206), (99, 19221), (118, 19344), (119, 19347), (121, 19368), (126, 19395), (133, 19452), (136, 19497), (140, 19542), (150, 19611), (152, 19626), (154, 19647), (157, 19668), (180, 19809), (184, 19830), (187, 19851), (197, 19905), (224, 20043), (233, 20094), (244, 20139), (316, 20445), (321, 20463), (343, 20607), (347, 20637), (366, 20730), (368, 20736), (369, 20739), (373, 20751), (382, 20790), (387, 20814), (399, 20877), (422, 20967), (425, 20988), (431, 21015), (439, 21051), (465, 21180), (483, 21273), (489, 21291), (498, 21324), (501, 21342), (506, 21363), (508, 21369), (511, 21384), (519, 21423), (527, 21459), (529, 21465), (536, 21492), (554, 21549), (566, 21591), (567, 21600), (570, 21627), (571, 21630), (578, 21657), (583, 21669), (586, 21678), (590, 21687), (605, 21738), (606, 21741), (614, 21768), (622, 21795), (663, 21951), (675, 22002), (683, 22038), (693, 22077), (698, 22104), (702, 22116), (707, 22134), (713, 22155), (720, 22182), (725, 22200), (734, 22248), (748, 22314), (768, 22434), (773, 22458), (775, 22467), (776, 22476), (780, 22509), (786, 22554), (796, 22608), (825, 22758), (829, 22782), (831, 22794), (833, 22803), (838, 22824), (855, 22902), (856, 22905), (870, 22977), (911, 23130),

Gene: ShaggyRogers_32 Start: 23288, Stop: 28399, Start Num: 19
Candidate Starts for ShaggyRogers_32:
(Start: 19 @23288 has 160 MA's), (Start: 23 @23318 has 3 MA's), (28, 23363), (49, 23507), (60, 23567), (61, 23573), (71, 23633), (72, 23654), (79, 23756), (87, 23882), (90, 23918), (96, 23957), (101, 23984), (105, 24005), (110, 24047), (122, 24167), (135, 24281), (137, 24293), (145, 24368), (146, 24380), (151, 24401), (163, 24506), (164, 24509), (233, 24869), (236, 24887), (272, 25043), (291, 25145), (293, 25148), (300, 25175), (308, 25214), (313, 25241), (320, 25262), (343, 25403), (353, 25466), (354, 25472), (359, 25490), (360, 25496), (370, 25538), (374, 25550), (385, 25604), (392, 25628), (395, 25646), (397, 25655), (398, 25667), (400, 25676), (401, 25685), (411, 25730), (414, 25739), (425, 25784), (429, 25805), (432, 25814), (438, 25841), (440, 25856), (450, 25910), (451, 25913), (454, 25922), (457, 25934), (460, 25943), (462, 25955), (466, 25976), (468, 25982), (474, 26006), (479, 26036), (481, 26051), (498, 26114), (501, 26126), (503, 26132), (504, 26135), (506, 26147), (507, 26150), (519, 26207), (532, 26261), (533, 26264), (538, 26285), (544, 26297), (546, 26300), (560, 26348), (565, 26363), (566, 26366), (567, 26375), (568, 26390), (569, 26396), (575, 26423), (576, 26426), (586, 26462), (592, 26483), (594, 26495), (596, 26504), (600, 26516), (608, 26543), (618, 26576), (620, 26582), (625, 26600), (632, 26630), (661, 26738), (687, 26849), (716, 26960), (728, 27005), (739, 27062), (745, 27095), (770, 27239), (779, 27302), (789, 27368), (794, 27401), (797, 27413), (804, 27476), (812, 27497), (814, 27509), (818, 27530), (848, 27671), (865, 27758), (872, 27776), (883, 27806), (886, 27824), (887, 27827), (888, 27833), (891, 27839), (898, 27866), (915, 27977), (923, 28040), (924, 28052), (935, 28121), (941, 28154), (945, 28178), (963, 28295), (976, 28385),

Gene: SheRa_19 Start: 13487, Stop: 18715, Start Num: 19
Candidate Starts for SheRa_19:
(Start: 18 @13466 has 2 MA's), (Start: 19 @13487 has 160 MA's), (Start: 23 @13517 has 3 MA's), (42, 13619), (45, 13670), (61, 13778), (79, 13961), (87, 14087), (90, 14123), (96, 14162), (110, 14252), (154, 14639), (177, 14789), (182, 14813), (194, 14885), (243, 15116), (265, 15194), (270, 15212), (273, 15215), (279, 15248), (305, 15356), (321, 15416), (343, 15497), (354, 15566), (366, 15620), (373, 15641), (388, 15707), (389, 15710), (410, 15821), (422, 15857), (425, 15875), (436, 15926), (458, 16028), (461, 16040), (463, 16055), (478, 16124), (479, 16133), (484, 16163), (503, 16229), (510, 16259), (513, 16271), (514, 16274), (518, 16295), (519, 16304), (527, 16340), (528, 16343), (536, 16373), (563, 16457), (570, 16502), (571, 16505), (572, 16508), (586, 16553), (596, 16583), (610, 16628), (614, 16643), (624, 16676), (629, 16697), (631, 16706), (633, 16715), (639, 16739), (640, 16742), (648, 16772), (651, 16784), (668, 16850), (673, 16871), (679, 16892), (681, 16907), (683, 16913), (717, 17045), (719, 17054), (721, 17063), (724, 17072), (725, 17075), (728, 17087), (729, 17090), (730, 17099), (732, 17108), (751, 17201), (758, 17255), (786, 17363), (789, 17378), (796, 17417), (826, 17576), (874, 17810), (894, 17885), (936, 18164), (937, 18167), (939, 18188), (948, 18236), (950, 18242), (964, 18350), (972, 18422), (977, 18461), (978, 18470), (981, 18524), (994, 18677),

Gene: Shepard_27 Start: 20329, Stop: 24918, Start Num: 19
Candidate Starts for Shepard_27:
(Start: 18 @20308 has 2 MA's), (Start: 19 @20329 has 160 MA's), (Start: 23 @20359 has 3 MA's), (30, 20413), (60, 20608), (66, 20632), (68, 20644), (71, 20674), (78, 20755), (79, 20797), (80, 20815), (84, 20857), (86, 20887), (88, 20932), (89, 20944), (96, 20998), (99, 21013), (100, 21019), (105, 21046), (112, 21109), (117, 21124), (119, 21139), (122, 21172), (126, 21187), (132, 21235), (141, 21340), (151, 21406), (158, 21475), (164, 21514), (167, 21523), (171, 21538), (174, 21580), (175, 21583), (186, 21634), (210, 21748), (221, 21805), (234, 21877), (243, 21916), (253, 21943), (260, 21985), (283, 22081), (306, 22183), (308, 22189), (317, 22225), (343, 22372), (345, 22384), (351, 22426), (352, 22429), (361, 22474), (366, 22495), (369, 22504), (370, 22507), (376, 22528), (391, 22594), (392, 22597), (415, 22711), (422, 22732), (424, 22750), (425, 22753), (443, 22849), (445, 22861), (474, 22981), (479, 23011), (493, 23068), (501, 23104), (504, 23113), (506, 23125), (511, 23146), (514, 23155), (525, 23215), (535, 23248), (537, 23260), (538, 23263), (543, 23275), (553, 23302), (556, 23317), (558, 23323), (559, 23326), (566, 23347), (567, 23356), (583, 23425), (586, 23434), (599, 23473), (614, 23524), (630, 23581), (641, 23626), (647, 23650), (648, 23653), (657, 23686), (658, 23689), (659, 23692), (660, 23695), (672, 23749), (673, 23752), (679, 23773), (702, 23872), (711, 23902), (714, 23914), (717, 23926), (721, 23944), (724, 23953), (725, 23956), (755, 24112), (758, 24136), (760, 24145), (771, 24208), (775, 24223), (786, 24310), (788, 24322), (796, 24364), (811, 24448), (825, 24514), (829, 24538), (839, 24583), (841, 24586), (842, 24589), (855, 24658), (856, 24661), (860, 24685), (905, 24868),

Gene: Shiba_23 Start: 17270, Stop: 21790, Start Num: 23
Candidate Starts for Shiba_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Sloopyjoe_23 Start: 17241, Stop: 21791, Start Num: 19
Candidate Starts for Sloopyjoe_23:
(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 160 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (200, 18618), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (343, 19263), (354, 19332), (355, 19335), (364, 19377), (366, 19386), (369, 19395), (378, 19425), (385, 19464), (387, 19470), (391, 19485), (398, 19527), (422, 19623), (425, 19644),

(426, 19647), (430, 19668), (441, 19725), (443, 19740), (450, 19770), (454, 19782), (461, 19809), (463, 19824), (474, 19872), (479, 19902), (481, 19917), (490, 19950), (492, 19956), (501, 19995), (504, 20004), (506, 20016), (511, 20037), (524, 20103), (527, 20112), (536, 20145), (537, 20151), (538, 20154), (543, 20166), (544, 20169), (552, 20190), (557, 20211), (567, 20247), (575, 20295), (586, 20325), (614, 20415), (630, 20472), (641, 20517), (645, 20535), (653, 20562), (655, 20571), (657, 20577), (671, 20637), (675, 20649), (678, 20661), (690, 20715), (700, 20757), (702, 20763), (704, 20769), (713, 20802), (714, 20805), (720, 20829), (721, 20835), (723, 20841), (724, 20844), (734, 20895), (737, 20907), (744, 20946), (767, 21078), (775, 21114), (780, 21156), (786, 21201), (802, 21291), (821, 21381), (825, 21405), (829, 21429), (831, 21441), (833, 21450), (836, 21462), (839, 21474), (849, 21519), (855, 21549), (858, 21567), (867, 21606), (890, 21684),

Gene: Soshi_23 Start: 16685, Stop: 22165, Start Num: 2
Candidate Starts for Soshi_23:
(1, 16664), (Start: 2 @16685 has 31 MA's), (3, 16715), (14, 16859), (25, 16994), (42, 17069), (53, 17186), (54, 17189), (60, 17222), (68, 17258), (71, 17288), (77, 17360), (79, 17411), (87, 17537), (90, 17573), (96, 17612), (98, 17624), (105, 17660), (110, 17702), (133, 17894), (138, 17960), (146, 18035), (151, 18056), (154, 18089), (162, 18152), (163, 18161), (177, 18239), (207, 18386), (231, 18518), (246, 18575), (267, 18653), (270, 18662), (274, 18671), (279, 18698), (298, 18773), (300, 18782), (315, 18848), (316, 18851), (335, 18890), (343, 18944), (354, 19013), (366, 19067), (376, 19100), (385, 19145), (388, 19154), (391, 19166), (404, 19241), (406, 19253), (418, 19292), (422, 19304), (429, 19343), (436, 19373), (446, 19433), (458, 19475), (467, 19523), (468, 19526), (479, 19580), (509, 19700), (518, 19742), (519, 19751), (527, 19787), (533, 19808), (536, 19820), (551, 19862), (552, 19865), (556, 19883), (566, 19913), (570, 19949), (572, 19955), (577, 19976), (586, 20000), (596, 20030), (614, 20090), (624, 20123), (628, 20141), (631, 20153), (633, 20162), (648, 20219), (651, 20231), (652, 20234), (657, 20252), (666, 20282), (671, 20312), (683, 20360), (686, 20375), (705, 20447), (717, 20492), (721, 20510), (724, 20519), (732, 20555), (735, 20576), (736, 20579), (780, 20765), (782, 20786), (783, 20792), (786, 20810), (789, 20825), (795, 20858), (796, 20864), (825, 21014), (826, 21023), (886, 21296), (888, 21305), (922, 21521), (937, 21614), (939, 21635), (948, 21683), (950, 21689), (951, 21695), (957, 21740), (978, 21917), (993, 22109), (994, 22118),

Gene: Spain_22 Start: 17270, Stop: 21790, Start Num: 23
Candidate Starts for Spain_22:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Spectropatronm_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Spectropatronm_23:
(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (339, 18407), (343, 18428), (353, 18491), (354, 18497), (356, 18503), (361, 18530), (366, 18551), (368, 18557), (369, 18560), (376, 18584), (385, 18629), (388, 18638), (389, 18641), (391, 18650), (404, 18725), (410, 18752), (415, 18767), (416, 18770), (422, 18788), (425, 18806), (429, 18827), (440, 18878), (458, 18959), (476, 19046), (479, 19064), (483, 19091), (509, 19184), (518, 19226), (519, 19235), (527, 19271), (532, 19289), (533, 19292), (551, 19346), (566, 19397), (570, 19433), (572, 19439), (577, 19460), (586, 19484), (596, 19514), (614, 19574), (624, 19607), (625, 19610), (628, 19625), (637, 19661), (648, 19703), (651, 19715), (652, 19718), (666, 19766), (671, 19796), (676, 19811), (683, 19844), (686, 19859), (702, 19922), (723, 20000), (732, 20039), (744, 20105), (759, 20192), (760, 20195), (786, 20294), (795, 20342), (796, 20348), (826, 20507), (886, 20780), (894, 20816), (908, 20882), (922, 21005), (937, 21098), (939, 21119), (948, 21167), (950, 21173), (951, 21179), (957, 21224), (969, 21332), (972, 21353), (978, 21401), (986, 21488), (993, 21590), (994, 21599),

Gene: Sporto_24 Start: 18451, Stop: 23001, Start Num: 19
Candidate Starts for Sporto_24:
(Start: 18 @18430 has 2 MA's), (Start: 19 @18451 has 160 MA's), (Start: 23 @18481 has 3 MA's), (30, 18535), (45, 18628), (51, 18679), (54, 18697), (68, 18766), (71, 18796), (78, 18877), (79, 18919), (80, 18937), (84, 18979), (86, 19009), (88, 19054), (89, 19066), (96, 19120), (99, 19135), (100, 19141), (105, 19168), (112, 19231), (117, 19246), (119, 19261), (122, 19294), (126, 19309), (132, 19357), (137, 19420), (146, 19507), (148, 19516), (158, 19597), (159, 19600), (160, 19612), (164, 19636), (167, 19645), (172, 19687), (175, 19705), (198, 19822), (260, 20095), (283, 20191), (288, 20209), (298, 20254), (308, 20299), (317, 20335), (339, 20449), (343, 20470), (345, 20482), (346, 20497), (366, 20593), (369, 20602), (374, 20617), (376, 20626), (382, 20653), (386, 20674), (388, 20680), (391, 20692), (401, 20752), (404, 20767), (422, 20830), (425, 20851), (430, 20875), (441, 20932), (443, 20947), (444, 20950), (451, 20980), (454, 20989), (461, 21016), (463, 21031), (476, 21091), (479, 21109), (481, 21124), (490, 21157), (492, 21163), (501, 21202), (504, 21211), (506, 21223), (511, 21244), (516, 21265), (524, 21310), (527, 21319), (536, 21352), (537, 21358), (538, 21361), (543, 21373), (551, 21394), (554, 21403), (563, 21436), (567, 21454), (573, 21490), (575, 21502), (583, 21523), (586, 21532), (591, 21544), (602, 21583), (614, 21622), (625, 21658), (629, 21676), (641, 21724), (649, 21757), (653, 21769), (657, 21784), (671, 21844), (678, 21868), (689, 21916), (690, 21922), (696, 21952), (707, 21988), (720, 22036), (721, 22042), (723, 22048), (724, 22051), (734, 22102), (743, 22144), (751, 22180), (753, 22189), (755, 22210), (780, 22363), (786, 22408), (802, 22498), (813, 22558), (821, 22588), (829, 22636), (831, 22648), (839, 22681), (846, 22711), (867, 22816), (876, 22852), (911, 22990),

Gene: Sprinkle_23 Start: 17380, Stop: 21912, Start Num: 19
Candidate Starts for Sprinkle_23:
(Start: 18 @17359 has 2 MA's), (Start: 19 @17380 has 160 MA's), (Start: 23 @17410 has 3 MA's), (31, 17473), (49, 17599), (61, 17665), (66, 17683), (68, 17695), (71, 17725), (78, 17806), (79, 17848), (80, 17866), (84, 17908), (89, 17995), (93, 18034), (96, 18049), (99, 18064), (105, 18097), (119, 18190), (122, 18223), (126, 18238), (128, 18253), (132, 18286), (138, 18361), (152, 18469), (154, 18490), (158, 18526), (160, 18541), (164, 18565), (175, 18634), (193, 18733), (197, 18748), (198, 18751), (222, 18862), (225, 18886), (253, 18988), (283, 19120), (288, 19138), (298, 19183), (316, 19261), (341, 19372), (343, 19381), (359, 19468), (361, 19483), (369, 19513), (376, 19537), (385, 19582), (388, 19591), (391, 19603), (394, 19612), (415, 19720), (422, 19741), (425, 19762), (430, 19786), (441, 19843), (443, 19858), (461, 19927), (474, 19990), (479, 20020), (481, 20035), (492, 20074), (497, 20095), (501, 20113), (511, 20155), (514, 20164), (522, 20209), (527, 20230), (536, 20263),

(537, 20269), (538, 20272), (543, 20284), (553, 20311), (566, 20356), (568, 20380), (583, 20434), (586, 20443), (596, 20473), (609, 20515), (614, 20533), (631, 20596), (643, 20641), (647, 20659), (649, 20668), (657, 20695), (663, 20716), (675, 20767), (683, 20803), (693, 20842), (706, 20893), (707, 20899), (708, 20902), (713, 20920), (727, 20974), (742, 21052), (751, 21091), (753, 21100), (775, 21232), (780, 21274), (786, 21319), (796, 21373), (802, 21409), (805, 21439), (806, 21445), (827, 21538), (836, 21580), (849, 21637), (855, 21667), (856, 21670),

Gene: StarLord_23 Start: 17241, Stop: 21791, Start Num: 19
Candidate Starts for StarLord_23:
(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 160 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (200, 18618), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (343, 19263), (354, 19332), (355, 19335), (364, 19377), (366, 19386), (369, 19395), (378, 19425), (385, 19464), (387, 19470), (391, 19485), (398, 19527), (422, 19623), (425, 19644), (426, 19647), (430, 19668), (441, 19725), (443, 19740), (450, 19770), (454, 19782), (461, 19809), (463, 19824), (474, 19872), (479, 19902), (481, 19917), (490, 19950), (492, 19956), (501, 19995), (504, 20004), (506, 20016), (511, 20037), (524, 20103), (527, 20112), (536, 20145), (537, 20151), (538, 20154), (543, 20166), (544, 20169), (552, 20190), (557, 20211), (567, 20247), (575, 20295), (586, 20325), (614, 20415), (630, 20472), (641, 20517), (645, 20535), (653, 20562), (655, 20571), (657, 20577), (671, 20637), (675, 20649), (678, 20661), (690, 20715), (700, 20757), (702, 20763), (704, 20769), (713, 20802), (714, 20805), (720, 20829), (721, 20835), (723, 20841), (724, 20844), (734, 20895), (737, 20907), (744, 20946), (767, 21078), (775, 21114), (780, 21156), (786, 21201), (802, 21291), (821, 21381), (825, 21405), (829, 21429), (831, 21441), (833, 21450), (836, 21462), (839, 21474), (849, 21519), (855, 21549), (858, 21567), (867, 21606), (890, 21684),

Gene: Stardrop_27 Start: 19557, Stop: 24191, Start Num: 19
Candidate Starts for Stardrop_27:
(Start: 18 @19536 has 2 MA's), (Start: 19 @19557 has 160 MA's), (Start: 23 @19587 has 3 MA's), (30, 19641), (31, 19650), (61, 19920), (62, 19923), (71, 19980), (72, 20001), (79, 20103), (84, 20163), (88, 20238), (96, 20304), (99, 20319), (105, 20352), (109, 20391), (110, 20394), (117, 20430), (119, 20445), (126, 20493), (157, 20766), (164, 20820), (167, 20829), (175, 20889), (194, 20991), (195, 20997), (198, 21006), (204, 21030), (224, 21129), (225, 21141), (226, 21150), (263, 21297), (301, 21447), (313, 21507), (317, 21516), (343, 21654), (350, 21702), (355, 21726), (357, 21732), (361, 21756), (366, 21777), (369, 21786), (376, 21810), (380, 21828), (390, 21873), (391, 21876), (394, 21885), (415, 21993), (422, 22014), (425, 22035), (436, 22086), (441, 22116), (443, 22131), (454, 22173), (459, 22191), (468, 22239), (469, 22242), (485, 22326), (487, 22332), (506, 22407), (509, 22416), (519, 22467), (527, 22503), (536, 22536), (538, 22545), (543, 22557), (551, 22578), (553, 22584), (558, 22605), (566, 22629), (567, 22638), (570, 22665), (583, 22707), (584, 22710), (585, 22713), (586, 22716), (602, 22767), (609, 22788), (614, 22806), (622, 22833), (640, 22905), (641, 22908), (645, 22926), (652, 22950), (665, 22995), (671, 23028), (672, 23031), (673, 23034), (678, 23052), (708, 23175), (713, 23193), (715, 23202), (719, 23217), (720, 23220), (735, 23292), (751, 23364), (758, 23418), (771, 23490), (780, 23547), (786, 23592), (822, 23775), (825, 23796), (829, 23820), (842, 23871), (855, 23940), (858, 23958),

Gene: Stayer_23 Start: 17240, Stop: 21790, Start Num: 19
Candidate Starts for Stayer_23:
(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 160 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425),

(167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (343, 19262), (354, 19331), (355, 19334), (364, 19376), (366, 19385), (369, 19394), (378, 19424), (385, 19463), (387, 19469), (391, 19484), (398, 19526), (422, 19622), (425, 19643), (426, 19646), (430, 19667), (441, 19724), (443, 19739), (450, 19769), (454, 19781), (461, 19808), (463, 19823), (474, 19871), (479, 19901), (481, 19916), (490, 19949), (492, 19955), (501, 19994), (504, 20003), (506, 20015), (511, 20036), (524, 20102), (527, 20111), (536, 20144), (537, 20150), (538, 20153), (543, 20165), (544, 20168), (552, 20189), (557, 20210), (567, 20246), (575, 20294), (586, 20324), (614, 20414), (630, 20471), (641, 20516), (645, 20534), (653, 20561), (655, 20570), (657, 20576), (671, 20636), (675, 20648), (678, 20660), (690, 20714), (700, 20756), (702, 20762), (704, 20768), (713, 20801), (714, 20804), (720, 20828), (721, 20834), (723, 20840), (724, 20843), (734, 20894), (737, 20906), (744, 20945), (767, 21077), (775, 21113), (780, 21155), (786, 21200), (802, 21290), (821, 21380), (825, 21404), (829, 21428), (831, 21440), (833, 21449), (836, 21461), (839, 21473), (849, 21518), (855, 21548), (858, 21566), (867, 21605),

Gene: Sunny4976_23 Start: 18500, Stop: 23560, Start Num: 5
Candidate Starts for Sunny4976_23:
(5, 18500), (7, 18530), (11, 18584), (13, 18605), (31, 18812), (33, 18821), (34, 18824), (49, 18941), (55, 18974), (61, 19007), (69, 19046), (72, 19088), (79, 19190), (81, 19226), (86, 19280), (87, 19316), (89, 19337), (96, 19391), (119, 19523), (120, 19535), (121, 19544), (127, 19580), (145, 19757), (151, 19790), (159, 19862), (163, 19895), (164, 19898), (179, 19982), (212, 20207), (216, 20243), (218, 20267), (221, 20279), (240, 20405), (268, 20573), (293, 20726), (294, 20729), (314, 20852), (315, 20858), (327, 20909), (336, 20972), (343, 21026), (347, 21056), (361, 21128), (369, 21158), (372, 21167), (376, 21182), (385, 21227), (391, 21248), (393, 21254), (400, 21299), (422, 21386), (429, 21428), (443, 21503), (461, 21572), (474, 21635), (479, 21665), (490, 21713), (493, 21722), (506, 21782), (527, 21878), (536, 21911), (538, 21920), (543, 21932), (544, 21935), (551, 21953), (556, 21974), (566, 22004), (567, 22013), (570, 22040), (578, 22070), (586, 22091), (601, 22136), (609, 22163), (614, 22181), (635, 22259), (647, 22307), (648, 22310), (658, 22346), (668, 22388), (676, 22418), (677, 22421), (681, 22445), (683, 22451), (684, 22460), (706, 22541), (719, 22592), (724, 22610), (731, 22643), (732, 22646), (744, 22712), (758, 22793), (780, 22922), (786, 22967), (802, 23057), (819, 23138), (821, 23147), (825, 23171), (833, 23216), (837, 23234), (842, 23249), (854, 23318), (882, 23429),

Gene: SweetCrkHerbs_31 Start: 20700, Stop: 25802, Start Num: 19
Candidate Starts for SweetCrkHerbs_31:
(Start: 19 @20700 has 160 MA's), (Start: 23 @20730 has 3 MA's), (44, 20868), (48, 20913), (56, 20964), (60, 20979), (61, 20985), (68, 21015), (71, 21045), (72, 21066), (79, 21168), (84, 21228), (92, 21339), (96, 21369), (99, 21384), (105, 21417), (110, 21459), (115, 21510), (124, 21564), (125, 21567), (135, 21666), (151, 21786), (163, 21891), (164, 21894), (175, 21963), (177, 21969), (204, 22104), (247, 22308), (248, 22311), (295, 22545), (300, 22563), (308, 22602), (313, 22629), (318, 22641), (320, 22650), (341, 22782), (343, 22791), (356, 22866), (359, 22878), (360, 22884), (380, 22965), (384, 22986), (385, 22992), (391, 23013), (394, 23022), (397, 23043), (398, 23055), (400, 23064), (401, 23073), (406, 23100), (414, 23127), (415, 23130), (422, 23151), (429, 23193), (437, 23226), (438, 23229), (440, 23244), (441, 23253), (445, 23280), (447, 23289), (451, 23301), (457, 23322), (460, 23331), (466, 23364), (478, 23415), (479, 23424), (481, 23439), (486, 23460), (491, 23475), (497, 23499), (498, 23502), (501, 23514), (503, 23520), (504, 23523), (517, 23580), (519, 23595), (533, 23652), (536, 23664), (538, 23673), (544, 23685), (550, 23697), (551, 23703), (559, 23733), (560, 23736), (563, 23745), (566, 23754), (567, 23763), (568, 23778), (569, 23784), (572, 23796), (582, 23838), (586, 23850), (592, 23871), (594, 23883), (611, 23940), (618, 23964), (620, 23970), (621, 23973), (625, 23988), (627, 24000), (632, 24018), (650, 24087), (656, 24108), (678, 24195), (702, 24297), (707, 24315), (734, 24429), (739, 24450), (747, 24492), (770, 24627), (797, 24801), (804, 24864), (810, 24882), (817, 24912), (818, 24918), (824, 24939), (845, 25047), (857, 25107), (862, 25128), (863, 25131), (873, 25182), (875, 25191), (883, 25209), (887, 25230), (891,

25242), (909, 25335), (915, 25380), (923, 25443), (924, 25455), (929, 25494), (935, 25524), (941, 25557), (945, 25581), (956, 25641), (976, 25788),

Gene: Sweetclover_26 Start: 17996, Stop: 22579, Start Num: 19
Candidate Starts for Sweetclover_26:
(Start: 19 @17996 has 160 MA's), (Start: 23 @18029 has 3 MA's), (45, 18176), (57, 18266), (65, 18296), (71, 18341), (79, 18464), (84, 18524), (92, 18635), (96, 18665), (99, 18680), (105, 18713), (117, 18791), (119, 18806), (121, 18827), (133, 18911), (140, 19001), (152, 19085), (154, 19106), (157, 19127), (187, 19310), (197, 19364), (207, 19403), (224, 19502), (246, 19604), (336, 19994), (343, 20048), (350, 20096), (351, 20102), (366, 20171), (369, 20180), (376, 20204), (378, 20210), (382, 20231), (391, 20270), (403, 20339), (410, 20372), (414, 20384), (422, 20408), (425, 20429), (428, 20444), (440, 20501), (443, 20525), (451, 20558), (452, 20561), (483, 20714), (486, 20723), (489, 20732), (498, 20765), (501, 20783), (506, 20804), (519, 20864), (522, 20879), (527, 20900), (529, 20906), (536, 20933), (541, 20951), (555, 20996), (566, 21032), (567, 21041), (570, 21068), (571, 21071), (583, 21110), (586, 21119), (605, 21179), (609, 21191), (631, 21272), (651, 21350), (663, 21392), (675, 21443), (683, 21479), (688, 21500), (693, 21518), (696, 21539), (698, 21545), (707, 21575), (720, 21623), (725, 21641), (733, 21677), (734, 21689), (743, 21731), (761, 21833), (775, 21908), (776, 21917), (780, 21950), (806, 22121), (825, 22199), (829, 22223), (831, 22235), (833, 22244), (855, 22343), (856, 22346), (858, 22361), (864, 22391), (911, 22571),

Gene: Synepsis_25 Start: 20138, Stop: 24727, Start Num: 19
Candidate Starts for Synepsis_25:
(Start: 18 @20117 has 2 MA's), (Start: 19 @20138 has 160 MA's), (Start: 23 @20168 has 3 MA's), (30, 20222), (34, 20243), (40, 20279), (49, 20357), (60, 20417), (66, 20441), (68, 20453), (71, 20483), (74, 20534), (78, 20564), (79, 20606), (80, 20624), (84, 20666), (86, 20696), (88, 20741), (89, 20753), (96, 20807), (99, 20822), (101, 20834), (105, 20855), (119, 20948), (122, 20981), (126, 20996), (132, 21044), (146, 21194), (151, 21215), (166, 21329), (167, 21332), (173, 21380), (194, 21494), (201, 21518), (204, 21533), (207, 21545), (239, 21713), (244, 21728), (246, 21734), (253, 21752), (265, 21824), (278, 21875), (283, 21890), (290, 21920), (306, 21992), (308, 21998), (316, 22031), (317, 22034), (323, 22061), (343, 22175), (352, 22232), (354, 22244), (366, 22298), (369, 22307), (370, 22310), (376, 22331), (385, 22376), (391, 22397), (401, 22457), (415, 22514), (422, 22535), (425, 22556), (441, 22637), (443, 22652), (444, 22655), (450, 22682), (451, 22685), (463, 22736), (479, 22814), (481, 22829), (482, 22832), (486, 22850), (488, 22856), (490, 22862), (493, 22871), (501, 22907), (504, 22916), (511, 22949), (522, 23003), (523, 23006), (527, 23024), (531, 23036), (538, 23066), (543, 23081), (549, 23090), (551, 23102), (556, 23123), (567, 23162), (578, 23219), (583, 23231), (586, 23240), (599, 23279), (602, 23291), (612, 23321), (614, 23330), (625, 23366), (634, 23405), (635, 23408), (639, 23426), (641, 23432), (657, 23492), (660, 23501), (666, 23522), (672, 23555), (673, 23558), (676, 23567), (704, 23684), (705, 23687), (711, 23708), (719, 23741), (720, 23744), (721, 23750), (724, 23759), (730, 23786), (739, 23831), (753, 23897), (759, 23948), (761, 23954), (771, 24014), (776, 24038), (783, 24098), (786, 24116), (788, 24128), (819, 24287), (821, 24296), (829, 24344), (836, 24377), (839, 24389), (842, 24395), (845, 24416), (846, 24419), (847, 24425), (855, 24464), (860, 24491), (905, 24677), (910, 24704),

Gene: TaidaOne_23 Start: 16808, Stop: 22294, Start Num: 2
Candidate Starts for TaidaOne_23:
(1, 16787), (Start: 2 @16808 has 31 MA's), (3, 16838), (14, 16982), (42, 17192), (53, 17309), (68, 17381), (71, 17411), (79, 17534), (87, 17660), (96, 17735), (105, 17783), (110, 17825), (133, 18014), (154, 18209), (163, 18281), (177, 18359), (196, 18464), (207, 18506), (232, 18641), (267, 18773), (270, 18782), (279, 18818), (281, 18827), (292, 18869), (300, 18902), (306, 18932), (339, 19055), (343, 19076), (353, 19139), (354, 19145), (356, 19151), (361, 19178), (366, 19199), (368, 19205), (369, 19208), (376, 19232), (385, 19277), (388, 19286), (389, 19289), (404, 19373), (410, 19400), (415, 19415), (416, 19418), (422, 19436), (425, 19454), (429, 19475), (440, 19526), (454, 19592), (458, 19607), (476, 19694), (479, 19712), (483, 19739), (509, 19832), (518, 19874), (519, 19883),

(527, 19919), (532, 19937), (533, 19940), (536, 19952), (551, 19994), (552, 19997), (566, 20045), (570, 20081), (572, 20087), (577, 20108), (586, 20132), (596, 20162), (614, 20222), (624, 20255), (625, 20258), (628, 20273), (631, 20285), (637, 20309), (648, 20351), (651, 20363), (652, 20366), (666, 20414), (671, 20444), (676, 20459), (683, 20492), (686, 20507), (702, 20570), (721, 20642), (723, 20648), (724, 20651), (732, 20687), (744, 20753), (759, 20840), (760, 20843), (786, 20942), (795, 20990), (796, 20996), (825, 21146), (826, 21155), (886, 21428), (922, 21653), (937, 21746), (939, 21767), (944, 21791), (948, 21815), (950, 21821), (951, 21827), (957, 21872), (969, 21980), (978, 22049), (986, 22136), (993, 22238), (994, 22247),

Gene: Tairn4Wing_31 Start: 20533, Stop: 25635, Start Num: 19
Candidate Starts for Tairn4Wing_31:
(Start: 19 @20533 has 160 MA's), (Start: 23 @20563 has 3 MA's), (44, 20701), (48, 20746), (49, 20752), (51, 20761), (53, 20776), (56, 20797), (61, 20818), (68, 20848), (71, 20878), (72, 20899), (79, 21001), (84, 21061), (88, 21136), (89, 21148), (92, 21172), (96, 21202), (99, 21217), (105, 21250), (110, 21292), (115, 21343), (124, 21397), (125, 21400), (135, 21499), (138, 21523), (143, 21559), (151, 21619), (163, 21724), (164, 21727), (175, 21796), (177, 21802), (178, 21808), (213, 21985), (224, 22036), (233, 22087), (247, 22141), (248, 22144), (257, 22171), (271, 22252), (276, 22276), (283, 22315), (300, 22396), (301, 22399), (318, 22474), (320, 22483), (331, 22531), (341, 22615), (343, 22624), (354, 22693), (356, 22699), (359, 22711), (361, 22726), (362, 22729), (367, 22750), (380, 22798), (385, 22825), (391, 22846), (394, 22855), (397, 22876), (398, 22888), (400, 22897), (401, 22906), (415, 22963), (422, 22984), (429, 23026), (435, 23053), (438, 23062), (440, 23077), (441, 23086), (443, 23101), (445, 23113), (447, 23122), (451, 23134), (457, 23155), (460, 23164), (478, 23248), (479, 23257), (481, 23272), (482, 23275), (486, 23293), (498, 23335), (504, 23356), (507, 23371), (517, 23413), (519, 23428), (533, 23485), (536, 23497), (538, 23506), (544, 23518), (550, 23530), (551, 23536), (556, 23557), (560, 23569), (566, 23587), (567, 23596), (568, 23611), (569, 23617), (572, 23629), (582, 23671), (586, 23683), (592, 23704), (594, 23716), (608, 23764), (611, 23773), (618, 23797), (620, 23803), (621, 23806), (625, 23821), (626, 23830), (627, 23833), (632, 23851), (650, 23920), (661, 23959), (702, 24130), (716, 24181), (747, 24325), (758, 24394), (770, 24460), (778, 24511), (797, 24634), (804, 24697), (817, 24745), (818, 24751), (820, 24760), (830, 24808), (845, 24880), (857, 24940), (862, 24961), (863, 24964), (873, 25015), (875, 25024), (883, 25042), (887, 25063), (891, 25075), (909, 25168), (915, 25213), (924, 25288), (926, 25306), (929, 25327), (945, 25414), (962, 25525), (976, 25621),

Gene: Talon44_30 Start: 20700, Stop: 25802, Start Num: 19
Candidate Starts for Talon44_30:
(Start: 19 @20700 has 160 MA's), (Start: 23 @20730 has 3 MA's), (44, 20868), (48, 20913), (56, 20964), (60, 20979), (61, 20985), (68, 21015), (71, 21045), (72, 21066), (79, 21168), (84, 21228), (92, 21339), (96, 21369), (99, 21384), (105, 21417), (110, 21459), (115, 21510), (124, 21564), (125, 21567), (135, 21666), (151, 21786), (163, 21891), (164, 21894), (175, 21963), (177, 21969), (204, 22104), (247, 22308), (248, 22311), (295, 22545), (300, 22563), (308, 22602), (313, 22629), (318, 22641), (320, 22650), (341, 22782), (343, 22791), (356, 22866), (359, 22878), (360, 22884), (380, 22965), (384, 22986), (385, 22992), (391, 23013), (394, 23022), (397, 23043), (398, 23055), (400, 23064), (401, 23073), (406, 23100), (414, 23127), (415, 23130), (422, 23151), (429, 23193), (437, 23226), (438, 23229), (440, 23244), (441, 23253), (445, 23280), (447, 23289), (451, 23301), (457, 23322), (460, 23331), (466, 23364), (478, 23415), (479, 23424), (481, 23439), (486, 23460), (491, 23475), (497, 23499), (498, 23502), (501, 23514), (503, 23520), (504, 23523), (517, 23580), (519, 23595), (533, 23652), (536, 23664), (538, 23673), (544, 23685), (550, 23697), (551, 23703), (559, 23733), (560, 23736), (563, 23745), (566, 23754), (567, 23763), (568, 23778), (569, 23784), (572, 23796), (582, 23838), (586, 23850), (592, 23871), (594, 23883), (611, 23940), (618, 23964), (620, 23970), (621, 23973), (625, 23988), (627, 24000), (632, 24018), (650, 24087), (656, 24108), (678, 24195), (702, 24297), (707, 24315), (734, 24429), (739, 24450), (747, 24492), (770, 24627), (797, 24801), (804, 24864), (810, 24882), (817, 24912), (818, 24918), (824, 24939), (845, 25047), (857, 25107), (862, 25128), (863, 25131), (873, 25182), (875, 25191), (883, 25209), (887, 25230), (891,

25242), (909, 25335), (915, 25380), (923, 25443), (924, 25455), (929, 25494), (935, 25524), (941, 25557), (945, 25581), (956, 25641), (976, 25788),

Gene: Tanis_29 Start: 20466, Stop: 25580, Start Num: 19
Candidate Starts for Tanis_29:
(Start: 19 @20466 has 160 MA's), (Start: 23 @20496 has 3 MA's), (45, 20643), (48, 20679), (49, 20685), (56, 20730), (61, 20751), (68, 20781), (79, 20946), (84, 21006), (88, 21081), (92, 21117), (93, 21132), (96, 21147), (99, 21162), (105, 21195), (115, 21288), (124, 21342), (125, 21345), (151, 21564), (163, 21669), (164, 21672), (175, 21741), (177, 21747), (213, 21930), (224, 21981), (233, 22032), (247, 22086), (248, 22089), (276, 22221), (295, 22323), (300, 22341), (301, 22344), (318, 22419), (331, 22476), (341, 22560), (343, 22569), (359, 22656), (367, 22695), (380, 22743), (385, 22770), (391, 22791), (394, 22800), (397, 22821), (398, 22833), (400, 22842), (401, 22851), (406, 22878), (414, 22905), (415, 22908), (422, 22929), (429, 22971), (435, 22998), (438, 23007), (440, 23022), (441, 23031), (443, 23046), (445, 23058), (447, 23067), (451, 23079), (457, 23100), (460, 23109), (478, 23193), (479, 23202), (481, 23217), (482, 23220), (486, 23238), (490, 23250), (491, 23253), (498, 23280), (504, 23301), (507, 23316), (517, 23358), (519, 23373), (533, 23430), (536, 23442), (538, 23451), (544, 23463), (550, 23475), (551, 23481), (556, 23502), (560, 23514), (566, 23532), (567, 23541), (568, 23556), (569, 23562), (572, 23574), (582, 23616), (583, 23619), (586, 23628), (592, 23649), (594, 23661), (608, 23709), (611, 23718), (618, 23742), (620, 23748), (625, 23766), (626, 23775), (632, 23796), (650, 23865), (655, 23883), (656, 23886), (661, 23904), (691, 24030), (702, 24075), (716, 24126), (747, 24270), (770, 24405), (778, 24456), (789, 24534), (797, 24579), (804, 24642), (810, 24660), (817, 24690), (818, 24696), (830, 24753), (845, 24825), (857, 24885), (862, 24906), (863, 24909), (873, 24960), (875, 24969), (887, 25008), (891, 25020), (909, 25113), (915, 25158), (924, 25233), (929, 25272), (935, 25302), (945, 25359), (962, 25470), (976, 25566),

Gene: Tatanka_26 Start: 20622, Stop: 25211, Start Num: 19
Candidate Starts for Tatanka_26:
(Start: 18 @20601 has 2 MA's), (Start: 19 @20622 has 160 MA's), (Start: 23 @20652 has 3 MA's), (30, 20706), (34, 20727), (40, 20763), (49, 20841), (60, 20901), (66, 20925), (68, 20937), (71, 20967), (74, 21018), (78, 21048), (79, 21090), (80, 21108), (84, 21150), (86, 21180), (88, 21225), (89, 21237), (96, 21291), (99, 21306), (101, 21318), (105, 21339), (119, 21432), (122, 21465), (126, 21480), (132, 21528), (146, 21678), (151, 21699), (166, 21813), (167, 21816), (173, 21864), (194, 21978), (201, 22002), (204, 22017), (207, 22029), (239, 22197), (244, 22212), (246, 22218), (253, 22236), (265, 22308), (278, 22359), (283, 22374), (290, 22404), (306, 22476), (308, 22482), (312, 22500), (316, 22515), (317, 22518), (323, 22545), (343, 22659), (352, 22716), (354, 22728), (366, 22782), (369, 22791), (370, 22794), (376, 22815), (385, 22860), (391, 22881), (415, 22998), (422, 23019), (425, 23040), (429, 23061), (441, 23121), (443, 23136), (444, 23139), (450, 23166), (451, 23169), (476, 23280), (479, 23298), (481, 23313), (482, 23316), (486, 23334), (488, 23340), (489, 23343), (493, 23355), (501, 23391), (504, 23400), (511, 23433), (522, 23487), (523, 23490), (527, 23508), (531, 23520), (538, 23550), (543, 23565), (549, 23574), (551, 23586), (567, 23646), (576, 23697), (578, 23703), (583, 23715), (586, 23724), (599, 23763), (602, 23775), (612, 23805), (614, 23814), (634, 23889), (635, 23892), (639, 23910), (657, 23976), (659, 23982), (660, 23985), (672, 24039), (673, 24042), (704, 24168), (705, 24171), (711, 24192), (719, 24225), (721, 24234), (739, 24315), (745, 24348), (753, 24381), (761, 24438), (771, 24498), (786, 24600), (788, 24612), (819, 24771), (821, 24780), (829, 24828), (836, 24861), (839, 24873), (842, 24879), (845, 24900), (846, 24903), (847, 24909), (855, 24948), (860, 24975), (905, 25161), (910, 25188),

Gene: Teacup_26 Start: 19991, Stop: 24583, Start Num: 19
Candidate Starts for Teacup_26:
(Start: 18 @19970 has 2 MA's), (Start: 19 @19991 has 160 MA's), (Start: 23 @20021 has 3 MA's), (30, 20075), (34, 20096), (40, 20132), (60, 20270), (68, 20306), (71, 20336), (79, 20459), (80, 20477), (84, 20519), (91, 20627), (96, 20660), (99, 20675), (105, 20708), (112, 20771), (117, 20786), (119, 20801),

(121, 20822), (122, 20834), (133, 20906), (136, 20951), (141, 21002), (145, 21035), (151, 21068),
(156, 21116), (167, 21185), (173, 21233), (194, 21347), (201, 21371), (207, 21398), (222, 21473),
(239, 21566), (244, 21581), (246, 21587), (253, 21605), (260, 21647), (278, 21728), (290, 21773),
(306, 21845), (308, 21851), (316, 21884), (317, 21887), (323, 21914), (343, 22031), (352, 22088),
(354, 22100), (366, 22154), (369, 22163), (370, 22166), (376, 22187), (385, 22232), (391, 22253),
(415, 22370), (422, 22391), (424, 22409), (425, 22412), (429, 22433), (441, 22493), (443, 22508),
(444, 22511), (450, 22538), (451, 22541), (479, 22670), (481, 22685), (482, 22688), (486, 22706),
(488, 22712), (489, 22715), (493, 22727), (501, 22763), (504, 22772), (511, 22805), (522, 22859),
(523, 22862), (527, 22880), (531, 22892), (538, 22922), (543, 22937), (549, 22946), (551, 22958),
(567, 23018), (576, 23069), (578, 23075), (583, 23087), (586, 23096), (599, 23135), (602, 23147),
(604, 23153), (606, 23159), (612, 23177), (614, 23186), (634, 23261), (635, 23264), (639, 23282),
(657, 23348), (659, 23354), (660, 23357), (671, 23408), (704, 23540), (705, 23543), (711, 23564),
(719, 23597), (721, 23606), (739, 23687), (745, 23720), (753, 23753), (761, 23810), (771, 23870),
(776, 23894), (786, 23972), (788, 23984), (811, 24110), (821, 24152), (829, 24200), (836, 24233),
(839, 24245), (842, 24251), (845, 24272), (846, 24275), (847, 24281), (855, 24320), (860, 24347),
(866, 24374), (905, 24533), (910, 24560),

Gene: TenaciousP_33 Start: 24936, Stop: 30050, Start Num: 19
Candidate Starts for TenaciousP_33:
(Start: 19 @24936 has 160 MA's), (Start: 23 @24966 has 3 MA's), (28, 25011), (49, 25155), (61,
25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653),
(110, 25695), (117, 25767), (122, 25815), (137, 25941), (145, 26016), (146, 26028), (151, 26049),
(163, 26154), (164, 26157), (207, 26379), (220, 26445), (236, 26535), (247, 26571), (260, 26622),
(267, 26670), (271, 26682), (300, 26826), (308, 26865), (313, 26892), (343, 27054), (350, 27102),
(353, 27117), (354, 27123), (359, 27141), (370, 27189), (385, 27255), (397, 27306), (398, 27318),
(401, 27336), (414, 27390), (425, 27435), (429, 27456), (432, 27465), (436, 27486), (440, 27507),
(450, 27561), (451, 27564), (454, 27573), (460, 27594), (462, 27606), (466, 27627), (468, 27633),
(472, 27651), (479, 27687), (484, 27717), (498, 27765), (501, 27777), (503, 27783), (504, 27786),
(506, 27798), (507, 27801), (512, 27822), (519, 27858), (532, 27912), (533, 27915), (536, 27927),
(538, 27936), (544, 27948), (546, 27951), (560, 27999), (565, 28014), (566, 28017), (567, 28026),
(569, 28047), (575, 28074), (576, 28077), (582, 28101), (586, 28113), (592, 28134), (594, 28146),
(596, 28155), (600, 28167), (608, 28194), (611, 28203), (618, 28227), (620, 28233), (625, 28251),
(638, 28305), (642, 28320), (661, 28389), (687, 28500), (716, 28611), (728, 28656), (745, 28746),
(766, 28869), (770, 28890), (779, 28953), (782, 28980), (794, 29052), (797, 29064), (798, 29073),
(804, 29127), (812, 29148), (814, 29160), (848, 29322), (865, 29409), (872, 29427), (883, 29457),
(886, 29475), (887, 29478), (891, 29490), (898, 29517), (915, 29628), (924, 29703), (931, 29751),
(941, 29805), (946, 29832), (963, 29946), (976, 30036),

Gene: Tenney120_26 Start: 19291, Stop: 23928, Start Num: 19
Candidate Starts for Tenney120_26:
(Start: 18 @19270 has 2 MA's), (Start: 19 @19291 has 160 MA's), (Start: 23 @19321 has 3 MA's), (30,
19375), (31, 19384), (61, 19654), (62, 19657), (71, 19714), (72, 19735), (78, 19795), (79, 19837), (84,
19897), (89, 19984), (93, 20023), (96, 20038), (99, 20053), (105, 20086), (109, 20125), (110, 20128),
(117, 20164), (119, 20179), (126, 20227), (163, 20551), (167, 20563), (175, 20623), (185, 20665),
(194, 20725), (195, 20731), (198, 20740), (203, 20755), (204, 20764), (224, 20863), (225, 20875),
(226, 20884), (228, 20896), (301, 21181), (313, 21241), (317, 21250), (343, 21391), (350, 21439),
(355, 21463), (357, 21469), (366, 21514), (369, 21523), (376, 21547), (380, 21565), (390, 21610),
(391, 21613), (394, 21622), (404, 21688), (415, 21730), (419, 21742), (422, 21751), (425, 21772),
(436, 21823), (441, 21853), (443, 21868), (454, 21910), (459, 21928), (468, 21976), (469, 21979),
(480, 22036), (485, 22063), (506, 22144), (509, 22153), (519, 22204), (527, 22240), (536, 22273),
(538, 22282), (543, 22294), (553, 22321), (558, 22342), (566, 22366), (567, 22375), (583, 22444),
(584, 22447), (585, 22450), (586, 22453), (596, 22483), (602, 22504), (609, 22525), (614, 22543),
(617, 22552), (622, 22570), (637, 22630), (645, 22663), (649, 22678), (651, 22684), (652, 22687),

(665, 22732), (671, 22765), (672, 22768), (673, 22771), (678, 22789), (707, 22909), (708, 22912), (713, 22930), (732, 23008), (735, 23029), (751, 23101), (758, 23155), (761, 23167), (780, 23284), (786, 23329), (795, 23377), (822, 23512), (825, 23533), (829, 23557), (842, 23608), (855, 23677), (858, 23695),

Gene: Tenno_27 Start: 21223, Stop: 25812, Start Num: 19
Candidate Starts for Tenno_27:
(Start: 18 @21202 has 2 MA's), (Start: 19 @21223 has 160 MA's), (Start: 23 @21253 has 3 MA's), (30, 21307), (34, 21328), (40, 21364), (60, 21502), (68, 21538), (71, 21568), (79, 21691), (80, 21709), (84, 21751), (91, 21859), (96, 21892), (99, 21907), (105, 21940), (117, 22018), (119, 22033), (121, 22054), (122, 22066), (127, 22090), (133, 22138), (141, 22234), (145, 22267), (151, 22300), (160, 22384), (164, 22408), (167, 22417), (200, 22600), (207, 22630), (222, 22705), (223, 22711), (239, 22798), (244, 22813), (246, 22819), (253, 22837), (254, 22846), (260, 22879), (261, 22888), (278, 22960), (290, 23005), (306, 23077), (308, 23083), (316, 23116), (317, 23119), (323, 23146), (343, 23260), (352, 23317), (354, 23329), (366, 23383), (369, 23392), (370, 23395), (376, 23416), (385, 23461), (391, 23482), (413, 23593), (415, 23599), (422, 23620), (424, 23638), (429, 23662), (441, 23722), (443, 23737), (444, 23740), (450, 23767), (451, 23770), (459, 23797), (476, 23881), (479, 23899), (481, 23914), (482, 23917), (486, 23935), (488, 23941), (489, 23944), (493, 23956), (494, 23962), (501, 23992), (504, 24001), (511, 24034), (522, 24088), (523, 24091), (527, 24109), (538, 24151), (543, 24166), (549, 24175), (551, 24187), (567, 24247), (578, 24304), (583, 24316), (586, 24325), (599, 24364), (602, 24376), (604, 24382), (608, 24394), (612, 24406), (614, 24415), (634, 24490), (635, 24493), (639, 24511), (657, 24577), (660, 24586), (672, 24640), (673, 24643), (704, 24769), (711, 24793), (719, 24826), (721, 24835), (726, 24850), (730, 24871), (739, 24916), (745, 24949), (753, 24982), (761, 25039), (771, 25099), (782, 25177), (786, 25201), (788, 25213), (811, 25339), (821, 25381), (829, 25429), (836, 25462), (839, 25474), (842, 25480), (845, 25501), (846, 25504), (847, 25510), (855, 25549), (860, 25576), (905, 25762), (910, 25789),

Gene: Thiqqums_21 Start: 15072, Stop: 20549, Start Num: 2
Candidate Starts for Thiqqums_21:
(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (343, 17331), (349, 17373), (354, 17400), (357, 17409), (369, 17463), (376, 17487), (389, 17544), (411, 17658), (422, 17691), (429, 17730), (439, 17772), (440, 17781), (445, 17817), (458, 17862), (468, 17913), (476, 17949), (479, 17967), (484, 17997), (495, 18036), (496, 18039), (506, 18078), (507, 18081), (514, 18108), (518, 18129), (519, 18138), (526, 18171), (527, 18174), (533, 18195), (554, 18258), (570, 18336), (572, 18342), (583, 18378), (584, 18381), (585, 18384), (586, 18387), (605, 18447), (608, 18456), (614, 18477), (623, 18507), (624, 18510), (639, 18573), (640, 18576), (641, 18579), (652, 18621), (657, 18639), (666, 18669), (676, 18714), (678, 18723), (683, 18747), (701, 18822), (703, 18828), (717, 18879), (724, 18906), (728, 18921), (730, 18933), (732, 18942), (736, 18966), (750, 19032), (759, 19095), (764, 19119), (786, 19197), (795, 19245), (802, 19287), (826, 19410), (850, 19527), (874, 19644), (897, 19725), (904, 19770), (913, 19815), (937, 20001), (939, 20022), (942, 20034), (950, 20076), (957, 20127), (962, 20175), (967, 20214), (974, 20265), (985, 20388), (991, 20427),

Gene: TieDye_22 Start: 15852, Stop: 21338, Start Num: 2
Candidate Starts for TieDye_22:
(1, 15831), (Start: 2 @15852 has 31 MA's), (3, 15882), (14, 16026), (42, 16236), (54, 16356), (61, 16395), (68, 16425), (70, 16449), (71, 16455), (72, 16476), (73, 16491), (79, 16578), (82, 16620), (86, 16668), (87, 16704), (88, 16713), (90, 16740), (96, 16779), (97, 16788), (105, 16827), (107, 16836), (110, 16869), (111, 16878), (122, 16986), (134, 17091), (145, 17187), (154, 17253), (177, 17403), (192, 17487), (196, 17508), (207, 17550), (232, 17685), (246, 17739), (270, 17826), (279, 17862), (281, 17871), (292, 17913), (300, 17946), (306, 17976), (339, 18099), (343, 18120), (353, 18183),

(354, 18189), (356, 18195), (361, 18222), (366, 18243), (368, 18249), (369, 18252), (376, 18276), (385, 18321), (388, 18330), (389, 18333), (404, 18417), (410, 18444), (415, 18459), (416, 18462), (422, 18480), (425, 18498), (429, 18519), (440, 18570), (454, 18636), (458, 18651), (476, 18738), (479, 18756), (483, 18783), (509, 18876), (518, 18918), (519, 18927), (527, 18963), (532, 18981), (533, 18984), (536, 18996), (551, 19038), (552, 19041), (566, 19089), (570, 19125), (572, 19131), (577, 19152), (586, 19176), (596, 19206), (614, 19266), (624, 19299), (625, 19302), (628, 19317), (631, 19329), (637, 19353), (648, 19395), (651, 19407), (652, 19410), (666, 19458), (671, 19488), (676, 19503), (683, 19536), (686, 19551), (702, 19614), (721, 19686), (723, 19692), (724, 19695), (732, 19731), (744, 19797), (759, 19884), (760, 19887), (786, 19986), (795, 20034), (796, 20040), (825, 20190), (826, 20199), (886, 20472), (922, 20697), (937, 20790), (939, 20811), (944, 20835), (948, 20859), (950, 20865), (951, 20871), (957, 20916), (969, 21024), (978, 21093), (986, 21180), (993, 21282), (994, 21291),

Gene: Tipton_27 Start: 20319, Stop: 24914, Start Num: 19
Candidate Starts for Tipton_27:
(Start: 18 @20298 has 2 MA's), (Start: 19 @20319 has 160 MA's), (Start: 23 @20349 has 3 MA's), (30, 20403), (68, 20634), (71, 20664), (78, 20745), (79, 20787), (80, 20805), (84, 20847), (89, 20934), (96, 20988), (99, 21003), (100, 21009), (105, 21036), (117, 21114), (119, 21129), (122, 21162), (126, 21177), (127, 21186), (130, 21213), (132, 21225), (136, 21279), (146, 21375), (151, 21396), (167, 21513), (174, 21570), (176, 21576), (187, 21633), (203, 21705), (210, 21738), (211, 21741), (260, 21975), (281, 22068), (283, 22071), (306, 22173), (308, 22179), (317, 22215), (343, 22362), (351, 22416), (352, 22419), (366, 22485), (369, 22494), (370, 22497), (376, 22518), (382, 22545), (391, 22584), (392, 22587), (415, 22701), (422, 22722), (424, 22740), (425, 22743), (443, 22839), (445, 22851), (474, 22971), (479, 23001), (481, 23016), (493, 23058), (498, 23079), (501, 23094), (504, 23103), (506, 23115), (511, 23136), (522, 23190), (527, 23211), (536, 23244), (537, 23250), (538, 23253), (546, 23271), (548, 23274), (551, 23292), (566, 23343), (567, 23352), (577, 23406), (586, 23430), (597, 23463), (604, 23487), (614, 23520), (633, 23592), (639, 23616), (645, 23640), (648, 23649), (657, 23682), (658, 23685), (660, 23691), (670, 23736), (671, 23742), (683, 23790), (711, 23898), (721, 23940), (724, 23949), (755, 24108), (758, 24132), (760, 24141), (767, 24183), (771, 24204), (775, 24219), (786, 24306), (788, 24318), (796, 24360), (811, 24444), (825, 24510), (829, 24534), (839, 24579), (842, 24585), (855, 24654), (856, 24657), (860, 24681), (905, 24864),

Gene: Tokki_27 Start: 20280, Stop: 24866, Start Num: 19
Candidate Starts for Tokki_27:
(Start: 18 @20259 has 2 MA's), (Start: 19 @20280 has 160 MA's), (Start: 23 @20310 has 3 MA's), (30, 20364), (68, 20595), (71, 20625), (78, 20706), (79, 20748), (80, 20766), (84, 20808), (89, 20895), (96, 20949), (99, 20964), (100, 20970), (105, 20997), (117, 21075), (119, 21090), (122, 21123), (126, 21138), (127, 21147), (130, 21174), (132, 21186), (136, 21240), (151, 21357), (166, 21471), (167, 21474), (174, 21531), (176, 21537), (203, 21666), (210, 21699), (260, 21936), (283, 22032), (306, 22134), (308, 22140), (317, 22176), (343, 22320), (351, 22374), (352, 22377), (366, 22443), (369, 22452), (370, 22455), (376, 22476), (391, 22542), (393, 22548), (401, 22602), (415, 22659), (422, 22680), (424, 22698), (425, 22701), (429, 22722), (431, 22728), (436, 22752), (443, 22797), (445, 22809), (471, 22920), (474, 22929), (476, 22941), (479, 22959), (493, 23016), (501, 23052), (502, 23055), (504, 23061), (506, 23073), (507, 23076), (511, 23094), (514, 23103), (524, 23160), (538, 23211), (543, 23223), (552, 23247), (553, 23250), (566, 23295), (567, 23304), (583, 23373), (586, 23382), (599, 23421), (602, 23433), (614, 23472), (641, 23574), (647, 23598), (648, 23601), (657, 23634), (658, 23637), (659, 23640), (660, 23643), (672, 23697), (673, 23700), (679, 23721), (702, 23820), (711, 23850), (714, 23862), (717, 23874), (721, 23892), (724, 23901), (725, 23904), (755, 24060), (758, 24084), (760, 24093), (771, 24156), (775, 24171), (786, 24258), (788, 24270), (796, 24312), (811, 24396), (825, 24462), (829, 24486), (839, 24531), (842, 24537), (855, 24606), (856, 24609), (860, 24633), (905, 24816),

Gene: Tonaltzin_34 Start: 23506, Stop: 28620, Start Num: 19

Candidate Starts for Tonaltzin_34:
(Start: 19 @23506 has 160 MA's), (Start: 23 @23536 has 3 MA's), (28, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (117, 24337), (122, 24385), (137, 24511), (145, 24586), (146, 24598), (151, 24619), (163, 24724), (164, 24727), (207, 24949), (220, 25015), (236, 25105), (247, 25141), (260, 25192), (267, 25240), (271, 25252), (300, 25396), (308, 25435), (313, 25462), (343, 25624), (350, 25672), (353, 25687), (354, 25693), (359, 25711), (370, 25759), (385, 25825), (397, 25876), (398, 25888), (401, 25906), (414, 25960), (425, 26005), (429, 26026), (432, 26035), (436, 26056), (440, 26077), (450, 26131), (451, 26134), (454, 26143), (460, 26164), (462, 26176), (466, 26197), (468, 26203), (472, 26221), (479, 26257), (484, 26287), (498, 26335), (501, 26347), (503, 26353), (504, 26356), (506, 26368), (507, 26371), (512, 26392), (519, 26428), (532, 26482), (533, 26485), (538, 26506), (544, 26518), (546, 26521), (560, 26569), (565, 26584), (566, 26587), (567, 26596), (569, 26617), (575, 26644), (576, 26647), (582, 26671), (586, 26683), (592, 26704), (594, 26716), (596, 26725), (600, 26737), (608, 26764), (618, 26797), (620, 26803), (625, 26821), (638, 26875), (642, 26890), (661, 26959), (687, 27070), (716, 27181), (728, 27226), (745, 27316), (766, 27439), (770, 27460), (779, 27523), (782, 27550), (794, 27622), (797, 27634), (798, 27643), (804, 27697), (812, 27718), (814, 27730), (848, 27892), (865, 27979), (872, 27997), (883, 28027), (886, 28045), (887, 28048), (891, 28060), (898, 28087), (915, 28198), (924, 28273), (931, 28321), (941, 28375), (946, 28402), (963, 28516), (976, 28606),

Gene: TonyStarch_23 Start: 16166, Stop: 21652, Start Num: 2
Candidate Starts for TonyStarch_23:
(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (192, 17801), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (339, 18413), (343, 18434), (353, 18497), (354, 18503), (356, 18509), (361, 18536), (366, 18557), (368, 18563), (369, 18566), (376, 18590), (385, 18635), (388, 18644), (389, 18647), (391, 18656), (404, 18731), (410, 18758), (416, 18776), (422, 18794), (425, 18812), (429, 18833), (440, 18884), (454, 18950), (458, 18965), (476, 19052), (479, 19070), (483, 19097), (509, 19190), (518, 19232), (519, 19241), (527, 19277), (528, 19280), (532, 19295), (533, 19298), (536, 19310), (551, 19352), (552, 19355), (566, 19403), (570, 19439), (572, 19445), (577, 19466), (586, 19490), (596, 19520), (614, 19580), (624, 19613), (625, 19616), (628, 19631), (631, 19643), (637, 19667), (648, 19709), (651, 19721), (652, 19724), (666, 19772), (671, 19802), (676, 19817), (683, 19850), (686, 19865), (702, 19928), (721, 20000), (723, 20006), (724, 20009), (732, 20045), (744, 20111), (759, 20198), (760, 20201), (786, 20300), (795, 20348), (796, 20354), (826, 20513), (886, 20786), (894, 20822), (908, 20888), (922, 21011), (937, 21104), (939, 21125), (948, 21173), (950, 21179), (951, 21185), (957, 21230), (969, 21338), (972, 21359), (978, 21407), (986, 21494), (993, 21596), (994, 21605),

Gene: Tribby_22 Start: 17385, Stop: 21863, Start Num: 19
Candidate Starts for Tribby_22:
(Start: 18 @17364 has 2 MA's), (Start: 19 @17385 has 160 MA's), (Start: 23 @17415 has 3 MA's), (26, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (117, 18180), (119, 18195), (126, 18243), (128, 18258), (133, 18300), (137, 18354), (145, 18429), (151, 18462), (164, 18570), (174, 18636), (182, 18669), (184, 18678), (185, 18681), (187, 18699), (246, 18981), (255, 19005), (260, 19035), (267, 19065), (302, 19194), (317, 19254), (343, 19383), (357, 19461), (364, 19497), (366, 19506), (369, 19515), (376, 19539), (382, 19566), (385, 19584), (391, 19605), (404, 19680), (412, 19713), (422, 19743), (429, 19785), (441, 19845), (442, 19851), (450, 19890), (451, 19893), (456, 19908), (469, 19971), (474, 19992), (479, 20022), (484, 20052), (490, 20070), (501, 20118), (507, 20142), (511, 20160), (514, 20169), (517, 20184), (520, 20205), (527, 20235), (536, 20268), (537, 20274), (538, 20277), (543, 20289), (551, 20310), (566, 20361), (567, 20370), (571, 20400), (573, 20406), (583, 20439), (586, 20448), (596, 20478), (602, 20499), (614, 20538), (622, 20565), (624, 20571), (625,

20574), (628, 20589), (635, 20616), (643, 20646), (652, 20682), (678, 20784), (688, 20829), (701, 20883), (702, 20886), (704, 20892), (713, 20925), (723, 20964), (725, 20970), (729, 20985), (734, 21018), (758, 21150), (780, 21213), (783, 21240), (786, 21258), (795, 21306), (796, 21312), (806, 21384), (825, 21462), (831, 21498), (835, 21516), (842, 21540), (846, 21564), (854, 21609), (858, 21630), (911, 21852),

Gene: TrixiePhattel_26 Start: 19204, Stop: 23763, Start Num: 19
Candidate Starts for TrixiePhattel_26:
(Start: 18 @19183 has 2 MA's), (Start: 19 @19204 has 160 MA's), (Start: 23 @19234 has 3 MA's), (30, 19288), (34, 19309), (47, 19402), (49, 19423), (61, 19489), (62, 19492), (71, 19549), (72, 19570), (78, 19630), (79, 19672), (84, 19732), (93, 19858), (96, 19873), (99, 19888), (105, 19921), (117, 19999), (119, 20014), (126, 20062), (141, 20215), (146, 20260), (151, 20281), (154, 20314), (164, 20389), (167, 20398), (172, 20440), (175, 20458), (185, 20500), (194, 20560), (195, 20566), (198, 20575), (203, 20590), (204, 20599), (224, 20698), (225, 20710), (226, 20719), (228, 20731), (301, 21016), (313, 21076), (317, 21085), (339, 21205), (343, 21226), (355, 21298), (357, 21304), (366, 21349), (369, 21358), (376, 21382), (380, 21400), (391, 21448), (394, 21457), (407, 21538), (415, 21565), (419, 21577), (422, 21586), (425, 21607), (441, 21688), (465, 21799), (468, 21811), (469, 21814), (485, 21898), (489, 21910), (506, 21979), (515, 22018), (519, 22039), (527, 22075), (536, 22108), (538, 22117), (543, 22129), (544, 22132), (566, 22201), (567, 22210), (571, 22240), (583, 22279), (586, 22288), (596, 22318), (602, 22339), (614, 22378), (637, 22465), (641, 22480), (645, 22498), (649, 22513), (652, 22522), (654, 22528), (665, 22567), (671, 22600), (672, 22603), (678, 22624), (679, 22627), (698, 22714), (707, 22744), (708, 22747), (713, 22765), (719, 22789), (725, 22810), (735, 22864), (736, 22867), (751, 22936), (758, 22990), (780, 23119), (786, 23164), (821, 23344), (825, 23368), (829, 23392), (839, 23437), (842, 23443), (849, 23482), (855, 23512), (858, 23530), (892, 23650),

Gene: Truckee_25 Start: 20163, Stop: 24755, Start Num: 19
Candidate Starts for Truckee_25:
(Start: 18 @20142 has 2 MA's), (Start: 19 @20163 has 160 MA's), (Start: 23 @20193 has 3 MA's), (30, 20247), (40, 20304), (49, 20382), (60, 20442), (66, 20466), (71, 20508), (79, 20631), (80, 20649), (84, 20691), (88, 20766), (89, 20778), (93, 20817), (96, 20832), (99, 20847), (105, 20880), (117, 20958), (119, 20973), (129, 21051), (137, 21132), (151, 21240), (167, 21357), (169, 21363), (192, 21507), (193, 21516), (210, 21582), (260, 21819), (275, 21879), (281, 21912), (283, 21915), (306, 22017), (308, 22023), (317, 22059), (343, 22203), (350, 22251), (351, 22257), (352, 22260), (361, 22305), (366, 22326), (369, 22335), (370, 22338), (376, 22359), (377, 22362), (391, 22425), (392, 22428), (415, 22542), (422, 22563), (424, 22581), (425, 22584), (436, 22635), (441, 22665), (443, 22680), (445, 22692), (471, 22803), (474, 22812), (479, 22842), (500, 22932), (501, 22935), (504, 22944), (506, 22956), (511, 22977), (515, 22995), (522, 23031), (527, 23052), (536, 23085), (554, 23142), (566, 23184), (567, 23193), (575, 23241), (583, 23262), (586, 23271), (596, 23301), (614, 23361), (625, 23397), (633, 23433), (645, 23481), (658, 23526), (660, 23532), (666, 23553), (671, 23583), (683, 23631), (693, 23670), (694, 23673), (721, 23781), (724, 23790), (731, 23823), (749, 23913), (757, 23961), (771, 24045), (786, 24147), (788, 24159), (796, 24201), (819, 24318), (821, 24327), (829, 24375), (839, 24420), (842, 24426), (855, 24495), (860, 24522), (905, 24705),

Gene: Trufflozitus_32 Start: 20534, Stop: 25636, Start Num: 19
Candidate Starts for Trufflozitus_32:
(Start: 19 @20534 has 160 MA's), (Start: 23 @20564 has 3 MA's), (44, 20702), (48, 20747), (49, 20753), (51, 20762), (53, 20777), (56, 20798), (61, 20819), (68, 20849), (71, 20879), (72, 20900), (79, 21002), (84, 21062), (88, 21137), (89, 21149), (92, 21173), (96, 21203), (99, 21218), (105, 21251), (110, 21293), (115, 21344), (124, 21398), (125, 21401), (135, 21500), (138, 21524), (143, 21560), (151, 21620), (163, 21725), (164, 21728), (175, 21797), (177, 21803), (178, 21809), (213, 21986), (224, 22037), (233, 22088), (247, 22142), (248, 22145), (257, 22172), (276, 22277), (283, 22316), (300, 22397), (301, 22400), (318, 22475), (320, 22484), (331, 22532), (341, 22616), (343, 22625),

(354, 22694), (356, 22700), (359, 22712), (361, 22727), (362, 22730), (367, 22751), (380, 22799),
(385, 22826), (391, 22847), (394, 22856), (397, 22877), (398, 22889), (400, 22898), (401, 22907),
(414, 22961), (415, 22964), (422, 22985), (429, 23027), (435, 23054), (438, 23063), (440, 23078),
(441, 23087), (443, 23102), (445, 23114), (447, 23123), (451, 23135), (457, 23156), (460, 23165),
(478, 23249), (479, 23258), (481, 23273), (486, 23294), (498, 23336), (504, 23357), (507, 23372),
(517, 23414), (519, 23429), (533, 23486), (536, 23498), (538, 23507), (544, 23519), (550, 23531),
(551, 23537), (556, 23558), (558, 23564), (560, 23570), (566, 23588), (567, 23597), (568, 23612),
(569, 23618), (572, 23630), (582, 23672), (586, 23684), (592, 23705), (594, 23717), (608, 23765),
(611, 23774), (618, 23798), (620, 23804), (621, 23807), (625, 23822), (626, 23831), (627, 23834),
(632, 23852), (650, 23921), (661, 23960), (702, 24131), (716, 24182), (747, 24326), (758, 24395),
(770, 24461), (778, 24512), (797, 24635), (804, 24698), (817, 24746), (818, 24752), (820, 24761),
(830, 24809), (845, 24881), (857, 24941), (862, 24962), (863, 24965), (873, 25016), (875, 25025),
(883, 25043), (887, 25064), (891, 25076), (909, 25169), (915, 25214), (924, 25289), (926, 25307),
(929, 25328), (945, 25415), (962, 25526), (976, 25622),

Gene: Trustiboi_27 Start: 20688, Stop: 25280, Start Num: 19
Candidate Starts for Trustiboi_27:
(Start: 18 @20667 has 2 MA's), (Start: 19 @20688 has 160 MA's), (Start: 23 @20718 has 3 MA's), (30,
20772), (34, 20793), (40, 20829), (49, 20907), (60, 20967), (66, 20991), (68, 21003), (71, 21033), (74,
21084), (78, 21114), (79, 21156), (80, 21174), (84, 21216), (86, 21246), (88, 21291), (89, 21303), (96,
21357), (99, 21372), (101, 21384), (105, 21405), (119, 21498), (122, 21531), (126, 21546), (132,
21594), (146, 21744), (151, 21765), (166, 21879), (167, 21882), (194, 22044), (201, 22068), (204,
22083), (207, 22095), (239, 22263), (244, 22278), (246, 22284), (253, 22302), (265, 22374), (278,
22425), (283, 22440), (290, 22470), (306, 22542), (308, 22548), (316, 22581), (317, 22584), (343,
22728), (350, 22776), (352, 22785), (354, 22797), (366, 22851), (369, 22860), (370, 22863), (376,
22884), (385, 22929), (391, 22950), (398, 22992), (401, 23010), (415, 23067), (422, 23088), (425,
23109), (441, 23190), (443, 23205), (444, 23208), (450, 23235), (463, 23289), (479, 23367), (481,
23382), (482, 23385), (486, 23403), (488, 23409), (490, 23415), (493, 23424), (501, 23460), (504,
23469), (511, 23502), (522, 23556), (523, 23559), (527, 23577), (531, 23589), (538, 23619), (543,
23634), (549, 23643), (551, 23655), (556, 23676), (567, 23715), (578, 23772), (583, 23784), (586,
23793), (599, 23832), (602, 23844), (612, 23874), (614, 23883), (625, 23919), (634, 23958), (635,
23961), (639, 23979), (641, 23985), (657, 24045), (660, 24054), (672, 24108), (673, 24111), (676,
24120), (704, 24237), (705, 24240), (711, 24261), (719, 24294), (720, 24297), (721, 24303), (724,
24312), (730, 24339), (753, 24450), (759, 24501), (761, 24507), (771, 24567), (776, 24591), (783,
24651), (786, 24669), (788, 24681), (819, 24840), (821, 24849), (829, 24897), (836, 24930), (839,
24942), (842, 24948), (845, 24969), (846, 24972), (847, 24978), (855, 25017), (860, 25044), (905,
25230), (910, 25257),

Gene: Untouchable_32 Start: 23641, Stop: 28752, Start Num: 19
Candidate Starts for Untouchable_32:
(Start: 19 @23641 has 160 MA's), (Start: 23 @23671 has 3 MA's), (28, 23716), (49, 23860), (60,
23920), (61, 23926), (71, 23986), (72, 24007), (79, 24109), (87, 24235), (90, 24271), (96, 24310), (101,
24337), (105, 24358), (110, 24400), (117, 24472), (122, 24520), (137, 24646), (145, 24721), (146,
24733), (151, 24754), (163, 24859), (164, 24862), (184, 24970), (233, 25222), (260, 25327), (272,
25396), (277, 25417), (291, 25498), (293, 25501), (300, 25528), (308, 25567), (313, 25594), (339,
25735), (343, 25756), (353, 25819), (354, 25825), (359, 25843), (360, 25849), (370, 25891), (374,
25903), (376, 25912), (385, 25957), (395, 25999), (397, 26008), (398, 26020), (400, 26029), (401,
26038), (425, 26137), (429, 26158), (432, 26167), (437, 26191), (438, 26194), (450, 26263), (451,
26266), (454, 26275), (459, 26293), (460, 26296), (462, 26308), (466, 26329), (468, 26335), (469,
26338), (474, 26359), (479, 26389), (481, 26404), (484, 26419), (498, 26467), (501, 26479), (503,
26485), (504, 26488), (506, 26500), (507, 26503), (519, 26560), (532, 26614), (538, 26638), (544,
26650), (546, 26653), (559, 26698), (560, 26701), (565, 26716), (566, 26719), (567, 26728), (568,
26743), (569, 26749), (570, 26755), (575, 26776), (576, 26779), (580, 26791), (583, 26806), (586,

26815), (592, 26836), (594, 26848), (600, 26869), (608, 26896), (618, 26929), (620, 26935), (625, 26953), (632, 26983), (642, 27022), (661, 27091), (687, 27202), (690, 27214), (708, 27283), (728, 27358), (745, 27448), (770, 27592), (774, 27616), (789, 27721), (794, 27754), (797, 27766), (804, 27829), (812, 27850), (814, 27862), (818, 27883), (830, 27940), (848, 28024), (865, 28111), (872, 28129), (883, 28159), (886, 28177), (887, 28180), (888, 28186), (891, 28192), (898, 28219), (915, 28330), (924, 28405), (935, 28474), (941, 28507), (945, 28531), (963, 28648), (976, 28738),

Gene: Uzumaki_26 Start: 19821, Stop: 24458, Start Num: 19
Candidate Starts for Uzumaki_26:
(Start: 18 @19800 has 2 MA's), (Start: 19 @19821 has 160 MA's), (Start: 23 @19851 has 3 MA's), (30, 19905), (31, 19914), (61, 20184), (62, 20187), (71, 20244), (72, 20265), (78, 20325), (79, 20367), (84, 20427), (89, 20514), (93, 20553), (96, 20568), (99, 20583), (105, 20616), (109, 20655), (110, 20658), (117, 20694), (119, 20709), (126, 20757), (163, 21081), (167, 21093), (175, 21153), (181, 21174), (185, 21195), (194, 21255), (195, 21261), (198, 21270), (203, 21285), (204, 21294), (224, 21393), (225, 21405), (226, 21414), (228, 21426), (301, 21711), (313, 21771), (317, 21780), (343, 21921), (350, 21969), (351, 21975), (355, 21993), (357, 21999), (366, 22044), (369, 22053), (376, 22077), (380, 22095), (390, 22140), (391, 22143), (394, 22152), (404, 22218), (415, 22260), (422, 22281), (425, 22302), (436, 22353), (441, 22383), (443, 22398), (454, 22440), (459, 22458), (468, 22506), (469, 22509), (480, 22566), (506, 22674), (509, 22683), (519, 22734), (522, 22749), (527, 22770), (536, 22803), (538, 22812), (543, 22824), (551, 22845), (553, 22851), (558, 22872), (566, 22896), (567, 22905), (583, 22974), (584, 22977), (585, 22980), (586, 22983), (596, 23013), (602, 23034), (609, 23055), (614, 23073), (617, 23082), (622, 23100), (637, 23160), (645, 23193), (649, 23208), (651, 23214), (652, 23217), (665, 23262), (672, 23298), (673, 23301), (675, 23307), (678, 23319), (679, 23322), (707, 23439), (708, 23442), (713, 23460), (722, 23496), (732, 23538), (736, 23562), (751, 23631), (758, 23685), (761, 23697), (780, 23814), (786, 23859), (795, 23907), (822, 24042), (825, 24063), (829, 24087), (842, 24138), (855, 24207), (856, 24210), (858, 24225),

Gene: Vardy_32 Start: 23250, Stop: 28361, Start Num: 19
Candidate Starts for Vardy_32:
(Start: 19 @23250 has 160 MA's), (Start: 23 @23280 has 3 MA's), (28, 23325), (49, 23469), (61, 23535), (71, 23595), (72, 23616), (79, 23718), (87, 23844), (90, 23880), (96, 23919), (101, 23946), (105, 23967), (110, 24009), (120, 24108), (122, 24129), (137, 24255), (145, 24330), (146, 24342), (151, 24363), (163, 24468), (164, 24471), (233, 24831), (260, 24936), (272, 25005), (277, 25026), (291, 25107), (293, 25110), (300, 25137), (308, 25176), (313, 25203), (343, 25365), (350, 25413), (354, 25434), (359, 25452), (370, 25500), (374, 25512), (385, 25566), (397, 25617), (398, 25629), (400, 25638), (401, 25647), (414, 25701), (425, 25746), (428, 25761), (429, 25767), (432, 25776), (433, 25782), (437, 25800), (438, 25803), (439, 25809), (440, 25818), (450, 25872), (451, 25875), (454, 25884), (459, 25902), (460, 25905), (462, 25917), (466, 25938), (468, 25944), (469, 25947), (474, 25968), (479, 25998), (481, 26013), (490, 26046), (494, 26061), (498, 26076), (501, 26088), (503, 26094), (504, 26097), (506, 26109), (507, 26112), (519, 26169), (532, 26223), (533, 26226), (538, 26247), (544, 26259), (546, 26262), (560, 26310), (565, 26325), (566, 26328), (567, 26337), (569, 26358), (575, 26385), (576, 26388), (582, 26412), (586, 26424), (592, 26445), (594, 26457), (600, 26478), (608, 26505), (618, 26538), (620, 26544), (625, 26562), (632, 26592), (642, 26631), (687, 26811), (690, 26823), (708, 26892), (745, 27057), (766, 27180), (770, 27201), (789, 27330), (794, 27363), (797, 27375), (804, 27438), (812, 27459), (814, 27471), (817, 27486), (830, 27549), (848, 27633), (865, 27720), (872, 27738), (883, 27768), (886, 27786), (887, 27789), (888, 27795), (891, 27801), (898, 27828), (915, 27939), (924, 28014), (926, 28032), (941, 28116), (945, 28140), (963, 28257), (976, 28347),

Gene: Westerlin_27 Start: 21800, Stop: 26392, Start Num: 19
Candidate Starts for Westerlin_27:
(Start: 18 @21779 has 2 MA's), (Start: 19 @21800 has 160 MA's), (Start: 23 @21830 has 3 MA's), (30, 21884), (34, 21905), (40, 21941), (60, 22079), (68, 22115), (71, 22145), (79, 22268), (80, 22286), (84,

22328), (91, 22436), (96, 22469), (99, 22484), (105, 22517), (112, 22580), (117, 22595), (119, 22610),
(121, 22631), (122, 22643), (127, 22667), (133, 22715), (141, 22811), (145, 22844), (151, 22877),
(160, 22961), (164, 22985), (167, 22994), (207, 23207), (214, 23249), (222, 23282), (223, 23288),
(239, 23375), (244, 23390), (246, 23396), (251, 23408), (253, 23414), (260, 23456), (278, 23537),
(283, 23552), (306, 23654), (308, 23660), (316, 23693), (317, 23696), (323, 23723), (343, 23840),
(352, 23897), (354, 23909), (366, 23963), (369, 23972), (370, 23975), (376, 23996), (385, 24041),
(391, 24062), (398, 24104), (413, 24173), (415, 24179), (422, 24200), (425, 24221), (429, 24242),
(441, 24302), (443, 24317), (444, 24320), (450, 24347), (451, 24350), (479, 24479), (481, 24494),
(482, 24497), (486, 24515), (488, 24521), (489, 24524), (493, 24536), (501, 24572), (504, 24581),
(511, 24614), (522, 24668), (523, 24671), (527, 24689), (531, 24701), (538, 24731), (543, 24746),
(549, 24755), (551, 24767), (567, 24827), (576, 24878), (578, 24884), (583, 24896), (586, 24905),
(599, 24944), (602, 24956), (604, 24962), (606, 24968), (612, 24986), (614, 24995), (634, 25070),
(635, 25073), (639, 25091), (657, 25157), (659, 25163), (660, 25166), (671, 25217), (704, 25349),
(705, 25352), (711, 25373), (719, 25406), (721, 25415), (739, 25496), (745, 25529), (753, 25562),
(761, 25619), (771, 25679), (776, 25703), (786, 25781), (788, 25793), (811, 25919), (821, 25961),
(829, 26009), (836, 26042), (839, 26054), (842, 26060), (845, 26081), (846, 26084), (847, 26090),
(855, 26129), (860, 26156), (866, 26183), (905, 26342), (910, 26369),

Gene: Wigberry_24 Start: 15580, Stop: 21045, Start Num: 2
Candidate Starts for Wigberry_24:
(1, 15559), (Start: 2 @15580 has 31 MA's), (3, 15610), (8, 15685), (14, 15766), (15, 15769), (62,
16132), (71, 16189), (79, 16312), (85, 16393), (87, 16438), (93, 16498), (96, 16513), (105, 16561),
(110, 16603), (133, 16795), (138, 16861), (151, 16957), (154, 16990), (177, 17140), (246, 17476),
(258, 17515), (279, 17599), (292, 17650), (300, 17683), (313, 17746), (343, 17845), (352, 17902),
(354, 17914), (369, 17977), (388, 18055), (389, 18058), (410, 18169), (422, 18205), (440, 18295),
(458, 18376), (468, 18427), (478, 18472), (496, 18553), (511, 18613), (513, 18619), (519, 18652),
(527, 18688), (562, 18802), (566, 18814), (570, 18850), (572, 18856), (575, 18871), (586, 18901),
(597, 18934), (610, 18976), (614, 18991), (619, 19006), (624, 19024), (628, 19042), (637, 19078),
(651, 19132), (657, 19153), (671, 19213), (676, 19228), (683, 19261), (703, 19342), (705, 19348),
(717, 19393), (721, 19411), (724, 19420), (728, 19435), (732, 19456), (733, 19459), (736, 19480),
(751, 19549), (782, 19687), (786, 19711), (795, 19759), (826, 19924), (886, 20197), (937, 20515),
(939, 20536), (950, 20590), (957, 20641), (972, 20770), (987, 20923), (991, 20941),

Gene: Xenomorph_20 Start: 17403, Stop: 21881, Start Num: 19
Candidate Starts for Xenomorph_20:
(Start: 18 @17382 has 2 MA's), (Start: 19 @17403 has 160 MA's), (Start: 23 @17433 has 3 MA's), (26,
17466), (30, 17487), (49, 17622), (51, 17631), (68, 17718), (71, 17748), (79, 17871), (80, 17889), (84,
17931), (89, 18018), (93, 18057), (96, 18072), (99, 18087), (105, 18120), (117, 18198), (119, 18213),
(126, 18261), (128, 18276), (133, 18318), (135, 18360), (137, 18372), (141, 18414), (145, 18447),
(151, 18480), (164, 18588), (174, 18654), (182, 18687), (184, 18696), (185, 18699), (187, 18717),
(193, 18756), (246, 18999), (260, 19053), (302, 19212), (310, 19245), (317, 19272), (343, 19401),
(357, 19479), (366, 19524), (368, 19530), (369, 19533), (373, 19545), (376, 19557), (382, 19584),
(385, 19602), (391, 19623), (404, 19698), (408, 19719), (409, 19722), (412, 19731), (422, 19761),
(429, 19803), (430, 19806), (441, 19863), (442, 19869), (443, 19878), (451, 19911), (455, 19923),
(456, 19926), (467, 19983), (469, 19989), (474, 20010), (479, 20040), (484, 20070), (490, 20088),
(501, 20136), (507, 20160), (511, 20178), (514, 20187), (517, 20202), (520, 20223), (527, 20253),
(536, 20286), (537, 20292), (538, 20295), (543, 20307), (551, 20328), (566, 20379), (567, 20388),
(571, 20418), (573, 20424), (583, 20457), (586, 20466), (596, 20496), (599, 20505), (602, 20517),
(608, 20535), (614, 20556), (622, 20583), (624, 20589), (625, 20592), (628, 20607), (635, 20634),
(643, 20664), (652, 20700), (678, 20802), (693, 20865), (701, 20901), (702, 20904), (708, 20925),
(713, 20943), (723, 20982), (725, 20988), (729, 21003), (733, 21024), (734, 21036), (758, 21168),
(780, 21231), (783, 21258), (786, 21276), (795, 21324), (796, 21330), (806, 21402), (825, 21480),
(831, 21516), (835, 21534), (842, 21558), (846, 21582), (854, 21627), (858, 21648), (911, 21870),

Gene: YoshiYama_21 Start: 17434, Stop: 21912, Start Num: 19
Candidate Starts for YoshiYama_21:
(Start: 18 @17413 has 2 MA's), (Start: 19 @17434 has 160 MA's), (Start: 23 @17464 has 3 MA's), (26, 17497), (30, 17518), (49, 17653), (51, 17662), (68, 17749), (71, 17779), (78, 17860), (79, 17902), (80, 17920), (84, 17962), (89, 18049), (93, 18088), (96, 18103), (99, 18118), (105, 18151), (117, 18229), (119, 18244), (126, 18292), (128, 18307), (133, 18349), (135, 18391), (137, 18403), (141, 18445), (145, 18478), (151, 18511), (164, 18619), (174, 18685), (182, 18718), (184, 18727), (185, 18730), (187, 18748), (193, 18787), (246, 19030), (259, 19075), (260, 19084), (302, 19243), (310, 19276), (317, 19303), (343, 19432), (357, 19510), (366, 19555), (369, 19564), (373, 19576), (376, 19588), (382, 19615), (385, 19633), (391, 19654), (404, 19729), (408, 19750), (409, 19753), (412, 19762), (422, 19792), (429, 19834), (441, 19894), (442, 19900), (443, 19909), (451, 19942), (455, 19954), (456, 19957), (467, 20014), (469, 20020), (474, 20041), (479, 20071), (484, 20101), (490, 20119), (501, 20167), (507, 20191), (511, 20209), (514, 20218), (520, 20254), (527, 20284), (536, 20317), (537, 20323), (538, 20326), (543, 20338), (551, 20359), (566, 20410), (567, 20419), (573, 20455), (577, 20473), (583, 20488), (586, 20497), (599, 20536), (602, 20548), (614, 20587), (622, 20614), (624, 20620), (625, 20623), (628, 20638), (635, 20665), (643, 20695), (652, 20731), (678, 20833), (693, 20896), (701, 20932), (702, 20935), (708, 20956), (713, 20974), (723, 21013), (725, 21019), (729, 21034), (733, 21055), (734, 21067), (758, 21199), (780, 21262), (783, 21289), (786, 21307), (795, 21355), (796, 21361), (806, 21433), (825, 21511), (831, 21547), (835, 21565), (842, 21589), (846, 21613), (854, 21658), (858, 21679), (911, 21901),

Gene: Yotsuba_26 Start: 20608, Stop: 25152, Start Num: 23
Candidate Starts for Yotsuba_26:
(Start: 19 @20575 has 160 MA's), (Start: 23 @20608 has 3 MA's), (45, 20755), (57, 20845), (58, 20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (122, 21454), (136, 21571), (146, 21667), (177, 21871), (180, 21883), (193, 21964), (221, 22099), (238, 22192), (254, 22255), (264, 22294), (280, 22357), (286, 22372), (332, 22576), (343, 22627), (359, 22714), (365, 22744), (368, 22756), (369, 22759), (373, 22771), (376, 22783), (382, 22810), (392, 22852), (399, 22897), (419, 22978), (421, 22984), (425, 23008), (427, 23014), (440, 23080), (445, 23116), (452, 23140), (461, 23173), (465, 23200), (467, 23209), (471, 23227), (476, 23248), (481, 23281), (488, 23308), (489, 23311), (501, 23362), (509, 23392), (511, 23404), (527, 23479), (533, 23500), (535, 23506), (539, 23521), (566, 23605), (567, 23614), (570, 23641), (586, 23692), (598, 23728), (614, 23782), (635, 23860), (659, 23950), (667, 23980), (675, 24016), (683, 24052), (693, 24091), (707, 24148), (713, 24169), (719, 24193), (720, 24196), (723, 24208), (725, 24214), (743, 24304), (749, 24334), (750, 24337), (751, 24340), (759, 24400), (763, 24415), (772, 24469), (786, 24568), (805, 24688), (806, 24694), (829, 24796), (831, 24808), (833, 24817), (855, 24913), (856, 24916), (911, 25141),

Gene: Zeina_26 Start: 19202, Stop: 23839, Start Num: 19
Candidate Starts for Zeina_26:
(Start: 18 @19181 has 2 MA's), (Start: 19 @19202 has 160 MA's), (Start: 23 @19232 has 3 MA's), (30, 19286), (31, 19295), (61, 19565), (62, 19568), (71, 19625), (72, 19646), (78, 19706), (79, 19748), (84, 19808), (88, 19883), (96, 19949), (99, 19964), (105, 19997), (109, 20036), (110, 20039), (117, 20075), (119, 20090), (126, 20138), (157, 20411), (164, 20465), (167, 20474), (175, 20534), (185, 20576), (194, 20636), (195, 20642), (198, 20651), (203, 20666), (204, 20675), (224, 20774), (225, 20786), (226, 20795), (228, 20807), (301, 21092), (313, 21152), (317, 21161), (343, 21302), (350, 21350), (355, 21374), (357, 21380), (366, 21425), (369, 21434), (376, 21458), (380, 21476), (390, 21521), (391, 21524), (394, 21533), (404, 21599), (415, 21641), (419, 21653), (422, 21662), (425, 21683), (436, 21734), (441, 21764), (443, 21779), (454, 21821), (459, 21839), (468, 21887), (469, 21890), (485, 21974), (506, 22055), (509, 22064), (519, 22115), (527, 22151), (536, 22184), (538, 22193), (543, 22205), (551, 22226), (553, 22232), (558, 22253), (566, 22277), (567, 22286), (570, 22313), (583, 22355), (584, 22358), (585, 22361), (586, 22364), (602, 22415), (609, 22436), (614, 22454), (622, 22481), (641, 22556), (645, 22574), (652, 22598), (665, 22643), (671, 22676), (672, 22679),

(673, 22682), (678, 22700), (707, 22820), (708, 22823), (713, 22841), (732, 22919), (736, 22943), (751, 23012), (758, 23066), (775, 23153), (780, 23195), (786, 23240), (795, 23288), (822, 23423), (825, 23444), (829, 23468), (842, 23519), (855, 23588), (858, 23606),

Gene: Zeph_33 Start: 23999, Stop: 29110, Start Num: 19
Candidate Starts for Zeph_33:
(Start: 19 @23999 has 160 MA's), (Start: 23 @24029 has 3 MA's), (28, 24074), (49, 24218), (60, 24278), (61, 24284), (71, 24344), (72, 24365), (79, 24467), (87, 24593), (90, 24629), (96, 24668), (105, 24716), (110, 24758), (117, 24830), (122, 24878), (137, 25004), (145, 25079), (146, 25091), (151, 25112), (159, 25184), (163, 25217), (164, 25220), (184, 25328), (233, 25580), (260, 25685), (272, 25754), (277, 25775), (291, 25856), (293, 25859), (300, 25886), (308, 25925), (313, 25952), (339, 26093), (343, 26114), (353, 26177), (354, 26183), (359, 26201), (360, 26207), (370, 26249), (374, 26261), (376, 26270), (385, 26315), (395, 26357), (397, 26366), (398, 26378), (400, 26387), (401, 26396), (425, 26495), (429, 26516), (432, 26525), (437, 26549), (438, 26552), (450, 26621), (451, 26624), (454, 26633), (459, 26651), (460, 26654), (462, 26666), (466, 26687), (468, 26693), (469, 26696), (474, 26717), (479, 26747), (481, 26762), (484, 26777), (498, 26825), (501, 26837), (503, 26843), (504, 26846), (506, 26858), (507, 26861), (519, 26918), (532, 26972), (538, 26996), (544, 27008), (546, 27011), (559, 27056), (560, 27059), (565, 27074), (566, 27077), (567, 27086), (568, 27101), (569, 27107), (570, 27113), (575, 27134), (576, 27137), (580, 27149), (583, 27164), (586, 27173), (592, 27194), (594, 27206), (600, 27227), (608, 27254), (618, 27287), (620, 27293), (625, 27311), (632, 27341), (642, 27380), (661, 27449), (708, 27641), (728, 27716), (745, 27806), (770, 27950), (779, 28013), (789, 28079), (794, 28112), (797, 28124), (804, 28187), (812, 28208), (814, 28220), (818, 28241), (830, 28298), (848, 28382), (865, 28469), (872, 28487), (883, 28517), (886, 28535), (887, 28538), (888, 28544), (891, 28550), (898, 28577), (915, 28688), (924, 28763), (941, 28865), (945, 28889), (963, 29006), (976, 29096),

Gene: Zippen_26 Start: 20476, Stop: 25059, Start Num: 19
Candidate Starts for Zippen_26:
(Start: 18 @20455 has 2 MA's), (Start: 19 @20476 has 160 MA's), (Start: 23 @20506 has 3 MA's), (40, 20617), (46, 20665), (49, 20695), (60, 20755), (66, 20779), (68, 20791), (71, 20821), (79, 20944), (80, 20962), (84, 21004), (91, 21112), (96, 21145), (99, 21160), (105, 21193), (117, 21271), (119, 21286), (121, 21307), (122, 21319), (133, 21391), (145, 21520), (151, 21553), (164, 21661), (167, 21670), (185, 21772), (207, 21883), (210, 21895), (215, 21928), (222, 21958), (239, 22051), (251, 22084), (260, 22126), (283, 22222), (306, 22324), (308, 22330), (311, 22345), (317, 22366), (343, 22510), (349, 22552), (351, 22564), (352, 22567), (366, 22633), (369, 22642), (370, 22645), (376, 22666), (377, 22669), (391, 22732), (393, 22738), (404, 22807), (407, 22822), (415, 22849), (417, 22855), (422, 22870), (424, 22888), (425, 22891), (429, 22912), (441, 22972), (443, 22987), (444, 22990), (449, 23014), (450, 23017), (451, 23020), (479, 23149), (481, 23164), (482, 23167), (486, 23185), (488, 23191), (490, 23197), (493, 23206), (501, 23242), (502, 23245), (504, 23251), (511, 23284), (522, 23338), (523, 23341), (527, 23359), (538, 23401), (543, 23416), (549, 23425), (551, 23437), (552, 23440), (555, 23452), (556, 23458), (558, 23464), (559, 23467), (567, 23497), (577, 23551), (578, 23554), (585, 23572), (586, 23575), (587, 23578), (600, 23617), (614, 23665), (633, 23737), (634, 23740), (635, 23743), (641, 23767), (642, 23770), (647, 23791), (658, 23830), (659, 23833), (671, 23887), (683, 23935), (711, 24043), (721, 24085), (723, 24091), (724, 24094), (732, 24130), (753, 24232), (755, 24253), (761, 24289), (767, 24328), (771, 24349), (780, 24406), (788, 24463), (815, 24607), (825, 24655), (829, 24679), (836, 24712), (839, 24724), (842, 24730), (846, 24754), (855, 24799), (860, 24826), (905, 25009), (911, 25039),