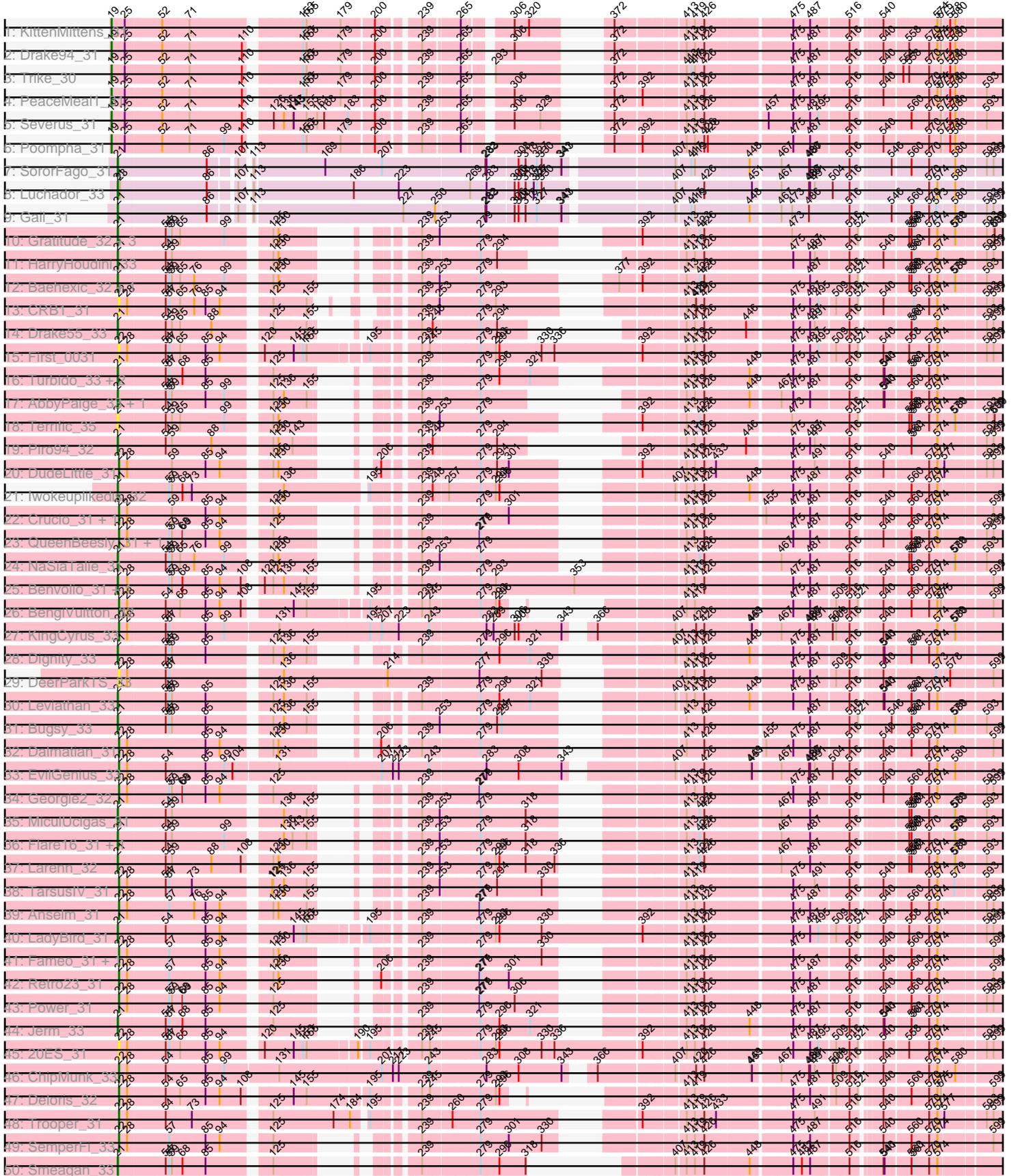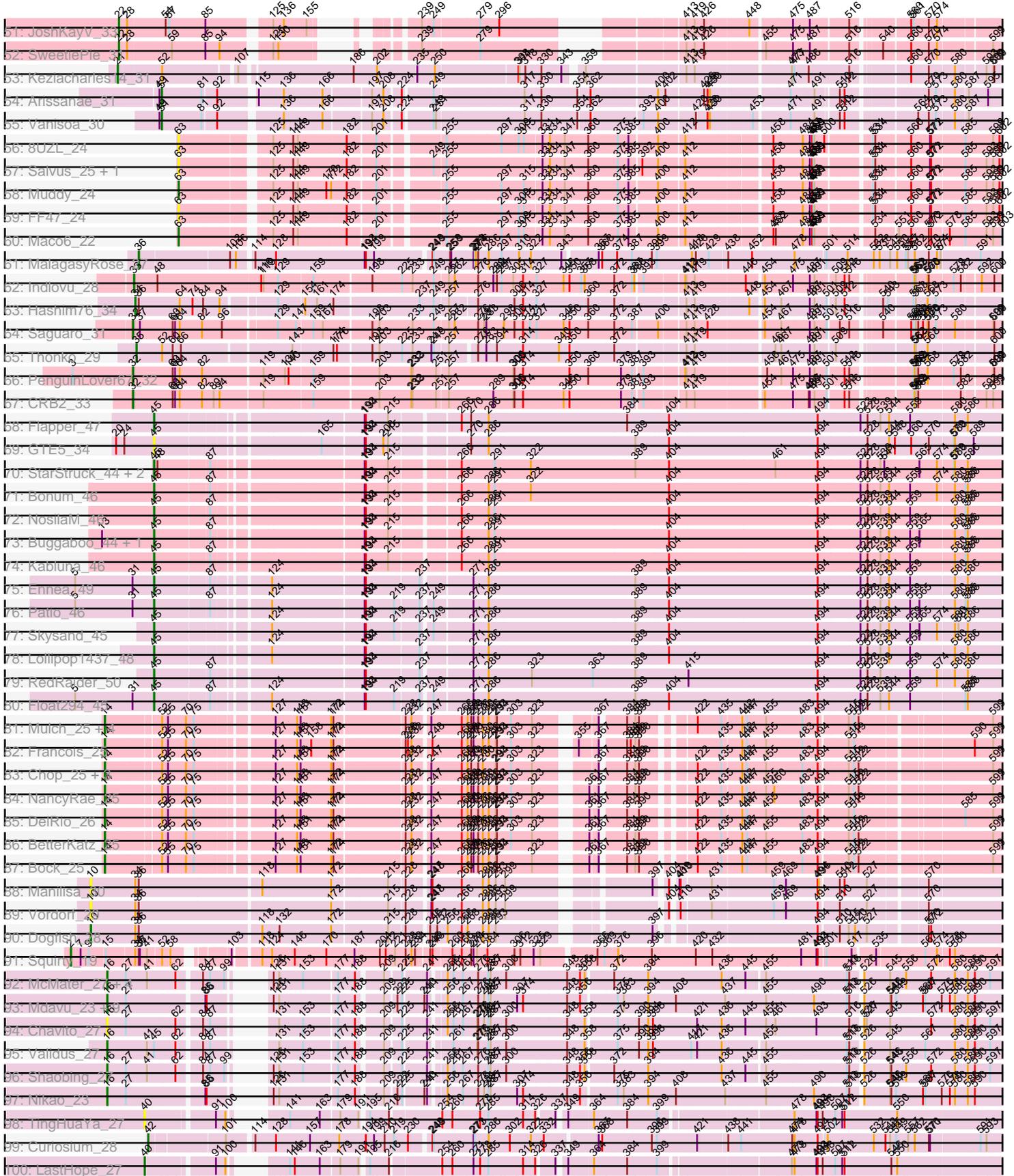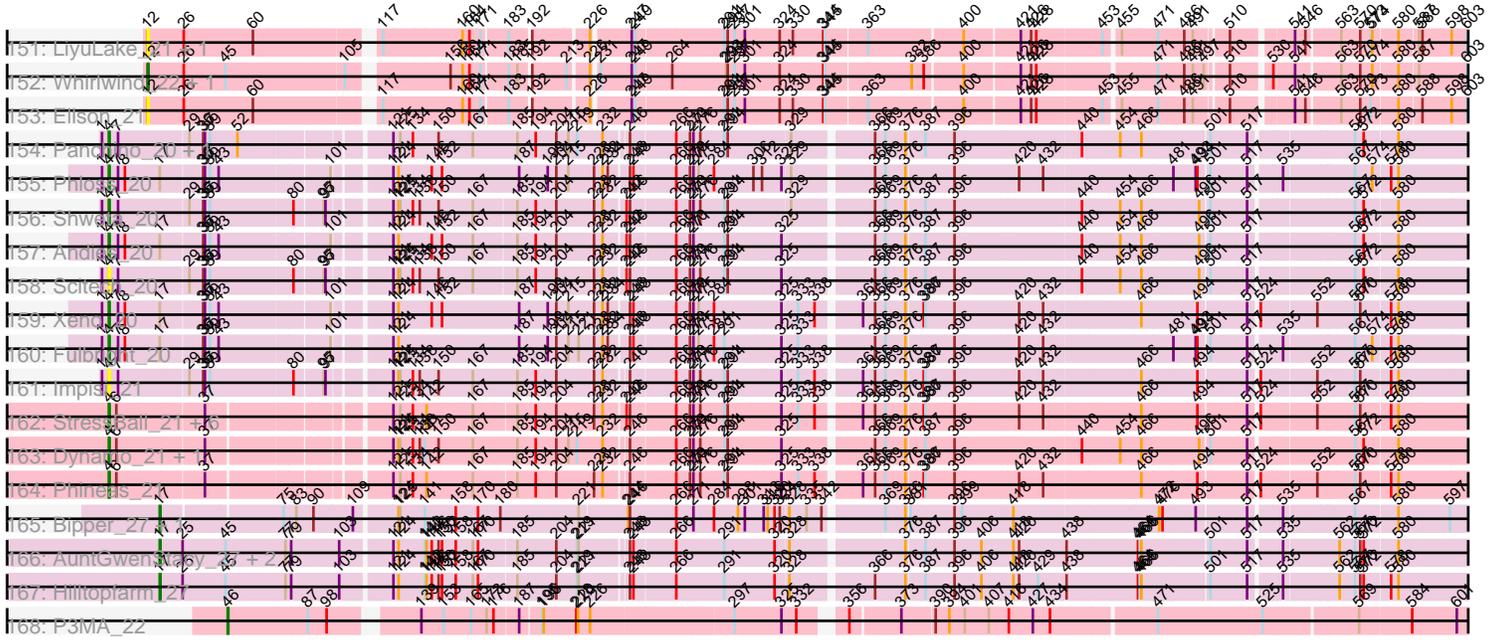Zoomed Pham 290809

Zoomed Pham 290809

Zoomed Pham 290809

Zoomed Pham 290809

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 290809 Report

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

Pham number 290809 has 249 members, 32 are drafts.

Phages represented in each track:
• Track 1 : KittenMittens_31
• Track 2 : Drake94_31
• Track 3 : Trike_30
• Track 4 : PeaceMeal1_31
• Track 5 : Severus_31
• Track 6 : Poompha_31
• Track 7 : SororFago_31
• Track 8 : Luchador_33
• Track 9 : Gail_31
• Track 10 : Gratitude_32, Equemioh13_33, Updawg_33, WideWale_33
• Track 11 : HarryHoudini_33
• Track 12 : Baehexic_32, Centaur_33
• Track 13 : CRB1_31
• Track 14 : Drake55_33
• Track 15 : First_0031
• Track 16 : Turbido_33, LilTurb_33, Whabigail7_33
• Track 17 : AbbyPaige_33, Agape74_33
• Track 18 : Terrific_35
• Track 19 : Piro94_32
• Track 20 : DudeLittle_31
• Track 21 : Iwokeuplikedis_32
• Track 22 : Crucio_31, SnapTap_31
• Track 23 : QueenBeesly_31, FiringLine_31
• Track 24 : NaSiaTalie_31
• Track 25 : Benvolio_31, Echild_31
• Track 26 : BengiVuitton_32
• Track 27 : KingCyrus_33
• Track 28 : Dignity_33
• Track 29 : DeerParkTS_33
• Track 30 : Leviathan_33
• Track 31 : Bugsy_33
• Track 32 : Dalmatian_31
• Track 33 : EvilGenius_33
• Track 34 : Georgie2_32
• Track 35 : MiculUcigas_31
• Track 36 : Flare16_31, Sknot_31
• Track 37 : Larenn_32

- Track 38 : TarsusIV_31
- Track 39 : Anselm_31
- Track 40 : LadyBird_31
- Track 41 : Fameo_31, QueenB2_31
- Track 42 : Retro23_31
- Track 43 : Power_31
- Track 44 : Jerm_33
- Track 45 : 20ES_31
- Track 46 : ChipMunk_33
- Track 47 : Deloris_32
- Track 48 : Trooper_31
- Track 49 : SemperFi_33
- Track 50 : Smeagan_33
- Track 51 : JoshKayV_33
- Track 52 : SweetiePie_31
- Track 53 : Keziacharles14_31
- Track 54 : Arissanae_31
- Track 55 : Vanisoa_30
- Track 56 : 8UZL_24
- Track 57 : Salvus_25, LongHai_25
- Track 58 : Muddy_24
- Track 59 : FF47_24
- Track 60 : Maco6_22
- Track 61 : MalagasyRose_27
- Track 62 : Indlovu_28
- Track 63 : Hashim76_34
- Track 64 : Saguaro_31
- Track 65 : Thonko_29
- Track 66 : PenguinLover67_32
- Track 67 : CRB2_33
- Track 68 : Flapper_47
- Track 69 : GTE5_34
- Track 70 : StarStruck_44, MerCougar_44, Outis_44
- Track 71 : Bonum_46
- Track 72 : NosilaM_46
- Track 73 : Buggaboo_44, SuperSulley_44
- Track 74 : Kabluna_46
- Track 75 : Ennea_49
- Track 76 : Patio_46
- Track 77 : Skysand_45
- Track 78 : Lollipop1437_48
- Track 79 : RedRaider_50
- Track 80 : Float294_45
- Track 81 : Mulch_25, Parada_25, WheatThin_25, Nadeem_25, Brylie_25
- Track 82 : Francois_25
- Track 83 : Chop_25, Ayotoya_25, GrandSlam_25, Hamood_25
- Track 84 : NancyRae_25
- Track 85 : DelRio_26
- Track 86 : BetterKatz_25
- Track 87 : Bock_25
- Track 88 : Manilisa_30
- Track 89 : Vordorf_29
- Track 90 : Dogfish_28

- Track 91 : Squirty_19
- Track 92 : McMater_27, Peanam_27, Niklas_27, Richo_27, Dartin_27
- Track 93 : Mdavu_23, Teejan_23, SgtBeansprout_23, Enkosi_23, Biglebops_23, Amelie_23, Trice_23, LilPharaoh_23, Torres_23, Nutello_23
- Track 94 : Chavito_27
- Track 95 : Validus_27
- Track 96 : Shaobing_27
- Track 97 : Nikao_23
- Track 98 : TingHuaYa_27
- Track 99 : Curiosium_28
- Track 100 : LastHope_27
- Track 101 : ZoeJ_23
- Track 102 : Findley_23
- Track 103 : Mufasa_23, Doughnut_23, BoostSeason_23
- Track 104 : Milly_23
- Track 105 : Strobilo_23
- Track 106 : DismalStressor_23, DismalFunk_23, Marcoliusprime_23
- Track 107 : TM4_23
- Track 108 : MacnCheese_27
- Track 109 : Pharb_26
- Track 110 : TBond007_26, Pixie_26
- Track 111 : Keshu_26
- Track 112 : Hurricane_26
- Track 113 : TribleTrouble_25
- Track 114 : Lea83_26, ShedlockHolmes_26
- Track 115 : YasnayaPolyana_28, Fionnbharth_28, JF1_28, Y2_28, Wintermute_28, Malthus_29, Y10_28
- Track 116 : MissDaisy_28
- Track 117 : Slarp_28, Chancellor_28, Qhanda_29, Cheetobro_28
- Track 118 : Bobquesha_29
- Track 119 : Patt_28
- Track 120 : Mitti_28
- Track 121 : OmniCritical_28
- Track 122 : Kraw_28
- Track 123 : Lebo14_28
- Track 124 : Reptar3000_28
- Track 125 : Phrank_26, Bryler_26, Cain_26
- Track 126 : Ekdilam_24
- Track 127 : Krueger_26
- Track 128 : Syra333_26
- Track 129 : DarthP_26
- Track 130 : Sunflower1121_25
- Track 131 : TClif_26
- Track 132 : November_25
- Track 133 : Tigress9_27
- Track 134 : Ximenita_27
- Track 135 : Yuna_28
- Track 136 : Amohnition_26
- Track 137 : Amgine_25
- Track 138 : Tierra_26
- Track 139 : PhelpsODU_26, Unicorn_26
- Track 140 : Shadow1_25
- Track 141 : Lavahound_25

- Track 142 : Hammy_26
- Track 143 : Ellie_24
- Track 144 : Fefferhead_26
- Track 145 : Applecrisp_25
- Track 146 : MiniLon_21, Lolly9_21, MiniMac_21
- Track 147 : Samty_21, Finnry_21, Moostard_21, Bellis_21
- Track 148 : TriFive_21, Lumos_21, Nicholas_21, Red305_21, Jobypre_21, Snenia_21, Jubie_21, Clautastrophe_21, Kingsolomon_21, MsGreen_21
- Track 149 : KirDoubleO7_19
- Track 150 : DuncansLeg_21
- Track 151 : LiyuLake_21, BourbonZero_20
- Track 152 : Whirlwind_22, Krypton555_21
- Track 153 : Ellson_21
- Track 154 : Panchino_20, SkinnyPete_20
- Track 155 : Phloss_20
- Track 156 : Shweta_20
- Track 157 : Andies_20
- Track 158 : Scitech_20
- Track 159 : Xeno_20
- Track 160 : Fulbright_20
- Track 161 : Impisi_21
- Track 162 : StressBall_21, Glaske_21, KilKor_21, Phalm_21, Gavriela_21, Megiddo_21, CactusJack_21
- Track 163 : Dynamo_21, Willsammy_21
- Track 164 : Phineas_21
- Track 165 : Bipper_27, Cracklewink_27
- Track 166 : AuntGwenStacy_27, Faiyaz_27, Typha_27
- Track 167 : Hilltopfarm_27
- Track 168 : P3MA_22

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

The start number called the most often in the published annotations is 16, it was called in 55 of the 217 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Amelie_23, Amgine_25, Amohnition_26, Applecrisp_25, Biglebops_23, BoostSeason_23, Bryler_26, Cain_26, Chavito_27, DarthP_26, Dartin_27, DismalFunk_23, DismalStressor_23, Doughnut_23, Ekdilam_24, Ellie_24, Enkosi_23, Fefferhead_26, Findley_23, Hammy_26, Hurricane_26, Keshu_26, Krueger_26, Lavahound_25, Lea83_26, LilPharaoh_23, MacnCheese_27, Marcoliusprime_23, McMater_27, Mdavu_23, Milly_23, Mufasa_23, Nikao_23, Niklas_27, November_25, Nutello_23, Peanam_27, Pharb_26, PhelpsODU_26, Phrank_26, Pixie_26, Richo_27, SgtBeansprout_23, Shadow1_25, Shaobing_27, ShedlockHolmes_26, Strobilo_23, Sunflower1121_25, Syra333_26, TBond007_26, TClif_26, TM4_23, Teejan_23, Tierra_26, Torres_23, TribleTrouble_25, Trice_23, Unicorn_26, Validus_27, Ximenita_27, Yuna_28, ZoeJ_23,

Genes that have the "Most Annotated" start but do not call it:
- Tigress9_27,

Genes that do not have the "Most Annotated" start:
• 20ES_31, 8UZL_24, AbbyPaige_33, Agape74_33, Andies_20, Anselm_31,
Arissanae_31, AuntGwenStacy_27, Ayotoya_25, Baehexic_32, Bellis_21,
BengiVuitton_32, Benvolio_31, BetterKatz_25, Bipper_27, Bobquesha_29, Bock_25,
Bonum_46, BourbonZero_20, Brylie_25, Buggaboo_44, Bugsy_33, CRB1_31,
CRB2_33, CactusJack_21, Centaur_33, Chancellor_28, Cheetobro_28,
ChipMunk_33, Chop_25, Clautastrophe_21, Cracklewink_27, Crucio_31,
Curiosium_28, Dalmatian_31, DeerParkTS_33, DelRio_26, Deloris_32, Dignity_33,
Dogfish_28, Drake55_33, Drake94_31, DudeLittle_31, DuncansLeg_21, Dynamo_21,
Echild_31, Ellson_21, Ennea_49, Equemioh13_33, EvilGenius_33, FF47_24,
Faiyaz_27, Fameo_31, Finnry_21, Fionnbharth_28, FiringLine_31, First_0031,
Flapper_47, Flare16_31, Float294_45, Francois_25, Fulbright_20, GTE5_34,
Gail_31, Gavriela_21, Georgie2_32, Glaske_21, GrandSlam_25, Gratitude_32,
Hamood_25, HarryHoudini_33, Hashim76_34, Hilltopfarm_27, Impisi_21, Indlovu_28,
Iwokeuplikedis_32, JF1_28, Jerm_33, Jobypre_21, JoshKayV_33, Jubie_21,
Kabluna_46, Keziacharles14_31, KilKor_21, KingCyrus_33, Kingsolomon_21,
KirDoubleO7_19, KittenMittens_31, Kraw_28, Krypton555_21, LadyBird_31,
Larenn_32, LastHope_27, Lebo14_28, Leviathan_33, LilTurb_33, LiyuLake_21,
Lollipop1437_48, Lolly9_21, LongHai_25, Luchador_33, Lumos_21, Maco6_22,
MalagasyRose_27, Malthus_29, Manilisa_30, Megiddo_21, MerCougar_44,
MiculUcigas_31, MiniLon_21, MiniMac_21, MissDaisy_28, Mitti_28, Moostard_21,
MsGreen_21, Muddy_24, Mulch_25, NaSiaTalie_31, Nadeem_25, NancyRae_25,
Nicholas_21, NosilaM_46, OmniCritical_28, Outis_44, P3MA_22, Panchino_20,
Parada_25, Patio_46, Patt_28, PeaceMeal1_31, PenguinLover67_32, Phalm_21,
Phineas_21, Phloss_20, Piro94_32, Poompha_31, Power_31, Qhanda_29,
QueenB2_31, QueenBeesly_31, Red305_21, RedRaider_50, Reptar3000_28,
Retro23_31, Saguaro_31, Salvus_25, Samty_21, Scitech_20, SemperFi_33,
Severus_31, Shweta_20, SkinnyPete_20, Sknot_31, Skysand_45, Slarp_28,
Smeagan_33, SnapTap_31, Snenia_21, SororFago_31, Squirty_19, StarStruck_44,
StressBall_21, SuperSulley_44, SweetiePie_31, TarsusIV_31, Terrific_35,
Thonko_29, TingHuaYa_27, TriFive_21, Trike_30, Trooper_31, Turbido_33,
Typha_27, Updawg_33, Vanisoa_30, Vordorf_29, Whabigail7_33, WheatThin_25,
Whirlwind_22, WideWale_33, Willsammy_21, Wintermute_28, Xeno_20, Y10_28,
Y2_28, YasnayaPolyana_28,

Summary by start number:

Start 2:
• Found in 1 of 249 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Squirty_19 (F3),

Start 4:
• Found in 19 of 249 (7.6%) of genes in pham
• Manual Annotations of this start: 17 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Andies_20 (N), CactusJack_21 (P1),
Dynamo_21 (P1), Fulbright_20 (N), Gavriela_21 (P1), Glaske_21 (P1), Impisi_21 (N),
KilKor_21 (P1), Megiddo_21 (P1), Panchino_20 (N), Phalm_21 (P1), Phineas_21
(P1), Phloss_20 (N), Scitech_20 (N), Shweta_20 (N), SkinnyPete_20 (N),
StressBall_21 (P1), Willsammy_21 (P1), Xeno_20 (N),

Start 10:
• Found in 3 of 249 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dogfish_28 (DT), Manilisa_30 (DT), Vordorf_29 (DT),

Start 12:
• Found in 24 of 249 (9.6%) of genes in pham
• Manual Annotations of this start: 19 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bellis_21 (L3), BourbonZero_20 (L3), Clautastrophe_21 (L3), DuncansLeg_21 (L3), Ellson_21 (L3), Finnry_21 (L3), Jobypre_21 (L3), Jubie_21 (L3), Kingsolomon_21 (L3), KirDoubleO7_19 (L3), Krypton555_21 (L3), LiyuLake_21 (L3), Lolly9_21 (L3), Lumos_21 (L3), MiniLon_21 (L3), MiniMac_21 (L3), Moostard_21 (L3), MsGreen_21 (L3), Nicholas_21 (L3), Red305_21 (L3), Samty_21 (L3), Snenia_21 (L3), TriFive_21 (L3), Whirlwind_22 (L3),

Start 14:
• Found in 14 of 249 (5.6%) of genes in pham
• Manual Annotations of this start: 14 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ayotoya_25 (DI), BetterKatz_25 (DI), Bock_25 (DI), Brylie_25 (DI), Chop_25 (DI), DelRio_26 (DI), Francois_25 (DI), GrandSlam_25 (DI), Hamood_25 (DI), Mulch_25 (DI), Nadeem_25 (DI), NancyRae_25 (DI), Parada_25 (DI), WheatThin_25 (DI),

Start 16:
• Found in 63 of 249 (25.3%) of genes in pham
• Manual Annotations of this start: 55 of 217
• Called 98.4% of time when present
• Phage (with cluster) where this start called: Amelie_23 (K1), Amgine_25 (K6), Amohnition_26 (K6), Applecrisp_25 (K6), Biglebops_23 (K1), BoostSeason_23 (K2), Bryler_26 (K6), Cain_26 (K6), Chavito_27 (K1), DarthP_26 (K6), Dartin_27 (K1), DismalFunk_23 (K2), DismalStressor_23 (K2), Doughnut_23 (K2), Ekdilam_24 (K6), Ellie_24 (K6), Enkosi_23 (K1), Fefferhead_26 (K6), Findley_23 (K2), Hammy_26 (K6), Hurricane_26 (K3), Keshu_26 (K3), Krueger_26 (K6), Lavahound_25 (K6), Lea83_26 (K3), LilPharaoh_23 (K1), MacnCheese_27 (K3), Marcoliusprime_23 (K2), McMater_27 (K1), Mdavu_23 (K1), Milly_23 (K2), Mufasa_23 (K2), Nikao_23 (K1), Niklas_27 (K1), November_25 (K6), Nutello_23 (K1), Peanam_27 (K1), Pharb_26 (K3), PhelpsODU_26 (K6), Phrank_26 (K6), Pixie_26 (K3), Richo_27 (K1), SgtBeansprout_23 (K1), Shadow1_25 (K6), Shaobing_27 (K1), ShedlockHolmes_26 (K3), Strobilo_23 (K2), Sunflower1121_25 (K6), Syra333_26 (K6), TBond007_26 (K3), TClif_26 (K6), TM4_23 (K2), Teejan_23 (K1), Tierra_26 (K6), Torres_23 (K1), TribleTrouble_25 (K3), Trice_23 (K1), Unicorn_26 (K6), Validus_27 (K1), Ximenita_27 (K6), Yuna_28 (K6), ZoeJ_23 (K2),

Start 17:
• Found in 10 of 249 (4.0%) of genes in pham
• Manual Annotations of this start: 5 of 217
• Called 60.0% of time when present

• Phage (with cluster) where this start called: AuntGwenStacy_27 (Y), Bipper_27 (Y), Cracklewink_27 (Y), Faiyaz_27 (Y), Hilltopfarm_27 (Y), Typha_27 (Y),

Start 18:
• Found in 9 of 249 (3.6%) of genes in pham
• No Manual Annotations of this start.
• Called 11.1% of time when present
• Phage (with cluster) where this start called: Tigress9_27 (K6),

Start 19:
• Found in 6 of 249 (2.4%) of genes in pham
• Manual Annotations of this start: 6 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Drake94_31 (A10), KittenMittens_31 (A10), PeaceMeal1_31 (A10), Poompha_31 (A10), Severus_31 (A10), Trike_30 (A10),

Start 21:
• Found in 42 of 249 (16.9%) of genes in pham
• Manual Annotations of this start: 31 of 217
• Called 78.6% of time when present
• Phage (with cluster) where this start called: AbbyPaige_33 (A2), Agape74_33 (A2), Baehexic_32 (A2), Benvolio_31 (A2), Bugsy_33 (A2), Centaur_33 (A2), Dignity_33 (A2), Drake55_33 (A2), Echild_31 (A2), Equemioh13_33 (A2), Flare16_31 (A2), Gail_31 (A14), Gratitude_32 (A2), HarryHoudini_33 (A2), Iwokeuplikedis_32 (A2), Jerm_33 (A2), Keziacharles14_31 (A9), LadyBird_31 (A2), Larenn_32 (A2), Leviathan_33 (A2), LilTurb_33 (A2), Luchador_33 (A14), MiculUcigas_31 (A2), NaSiaTalie_31 (A2), Piro94_32 (A2), Sknot_31 (A2), Smeagan_33 (A2), SororFago_31 (A14), Terrific_35 (A2), Turbido_33 (A2), Updawg_33 (A2), Whabigail7_33 (A2), WideWale_33 (A2),

Start 22:
• Found in 31 of 249 (12.4%) of genes in pham
• Manual Annotations of this start: 22 of 217
• Called 83.9% of time when present
• Phage (with cluster) where this start called: 20ES_31 (A2), Anselm_31 (A2), BengiVuitton_32 (A2), CRB1_31 (A2), ChipMunk_33 (A2), Crucio_31 (A2), Dalmatian_31 (A2), DeerParkTS_33 (A2), Deloris_32 (A2), DudeLittle_31 (A2), EvilGenius_33 (A2), Fameo_31 (A2), FiringLine_31 (A2), First_0031 (A2), Georgie2_32 (A2), JoshKayV_33 (A2), KingCyrus_33 (A2), Power_31 (A2), QueenB2_31 (A2), QueenBeesly_31 (A2), Retro23_31 (A2), SemperFi_33 (A2), SnapTap_31 (A2), SweetiePie_31 (A2), TarsusIV_31 (A2), Trooper_31 (A2),

Start 32:
• Found in 3 of 249 (1.2%) of genes in pham
• Manual Annotations of this start: 3 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CRB2_33 (B9), PenguinLover67_32 (B9), Saguaro_31 (B7),

Start 33:
• Found in 1 of 249 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 217

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlovu_28 (B11),

Start 34:
- Found in 6 of 249 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 217
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Hashim76_34 (B13),

Start 35:
- Found in 1 of 249 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 217
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko_29 (B8),

Start 36:
- Found in 15 of 249 (6.0%) of genes in pham
- Manual Annotations of this start: 1 of 217
- Called 6.7% of time when present
- Phage (with cluster) where this start called: MalagasyRose_27 (AG),

Start 40:
- Found in 21 of 249 (8.4%) of genes in pham
- Manual Annotations of this start: 18 of 217
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha_29 (K4), Chancellor_28 (K4), Cheetobro_28 (K4), Fionnbharth_28 (K4), JF1_28 (K4), Kraw_28 (K4), LastHope_27 (K1), Lebo14_28 (K4), Malthus_29 (K4), MissDaisy_28 (K4), Mitti_28 (K4), OmniCritical_28 (K4), Patt_28 (K4), Qhanda_29 (K4), Reptar3000_28 (K4), Slarp_28 (K4), TingHuaYa_27 (K1), Wintermute_28 (K4), Y10_28 (K4), Y2_28 (K4), YasnayaPolyana_28 (K4),

Start 42:
- Found in 6 of 249 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 217
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Curiosium_28 (K1),

Start 45:
- Found in 43 of 249 (17.3%) of genes in pham
- Manual Annotations of this start: 15 of 217
- Called 37.2% of time when present
- Phage (with cluster) where this start called: Bonum_46 (CR2), Buggaboo_44 (CR2), Ennea_49 (CR3), Flapper_47 (CR1), Float294_45 (CR3), GTE5_34 (CR1), Kabluna_46 (CR2), Lollipop1437_48 (CR3), MerCougar_44 (CR2), NosilaM_46 (CR2), Outis_44 (CR2), Patio_46 (CR3), RedRaider_50 (CR3), Skysand_45 (CR3), StarStruck_44 (CR2), SuperSulley_44 (CR2),

Start 46:
- Found in 1 of 249 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 217
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA_22 (singleton),

Start 51:
• Found in 2 of 249 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arissanae_31 (A9), Vanisoa_30 (A9),

Start 63:
• Found in 6 of 249 (2.4%) of genes in pham
• Manual Annotations of this start: 2 of 217
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 8UZL_24 (AB), FF47_24 (AB), LongHai_25 (AB), Maco6_22 (AB), Muddy_24 (AB), Salvus_25 (AB),

Summary by clusters:

There are 27 clusters represented in this pham: singleton, DI, B11, K3, K2, K1, P1, B13, K4, DT, A14, A10, A2, A9, AB, AG, N, F3, L3, Y, CR2, CR3, CR1, B7, B8, B9, K6,

Info for manual annotations of cluster A10:
•Start number 19 was manually annotated 6 times for cluster A10.

Info for manual annotations of cluster A14:
•Start number 21 was manually annotated 3 times for cluster A14.

Info for manual annotations of cluster A2:
•Start number 21 was manually annotated 27 times for cluster A2.
•Start number 22 was manually annotated 22 times for cluster A2.

Info for manual annotations of cluster A9:
•Start number 21 was manually annotated 1 time for cluster A9.
•Start number 51 was manually annotated 2 times for cluster A9.

Info for manual annotations of cluster AB:
•Start number 63 was manually annotated 2 times for cluster AB.

Info for manual annotations of cluster AG:
•Start number 36 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster B11:
•Start number 33 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:
•Start number 34 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B7:
•Start number 32 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:
•Start number 35 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

•Start number 32 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster CR1:
•Start number 45 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 45 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 45 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster DI:
•Start number 14 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DT:
•Start number 10 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster F3:
•Start number 2 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster K1:
•Start number 16 was manually annotated 13 times for cluster K1.
•Start number 40 was manually annotated 1 time for cluster K1.
•Start number 42 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:
•Start number 16 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:
•Start number 16 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 40 was manually annotated 17 times for cluster K4.

Info for manual annotations of cluster K6:
•Start number 16 was manually annotated 22 times for cluster K6.

Info for manual annotations of cluster L3:
•Start number 12 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster N:
•Start number 4 was manually annotated 7 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 4 was manually annotated 10 times for cluster P1.

Info for manual annotations of cluster Y:
•Start number 17 was manually annotated 5 times for cluster Y.

Gene Information:

Gene: 20ES_31 Start: 22797, Stop: 25202, Start Num: 22
Candidate Starts for 20ES_31:
(Start: 22 @22797 has 22 MA's), (28, 22818), (54, 22908), (57, 22917), (65, 22938), (85, 23001), (94, 23037), (120, 23118), (145, 23187), (153, 23208), (155, 23217), (190, 23328), (195, 23349), (239, 23439), (245, 23454), (279, 23574), (293, 23607), (296, 23616), (330, 23715), (336, 23742), (392, 23955), (413, 24045), (419, 24063), (426, 24087), (475, 24288), (487, 24327), (495, 24348), (509, 24384), (516, 24417), (521, 24438), (540, 24474), (558, 24528), (570, 24579), (574, 24600), (593, 24705), (599, 24720), (650, 24930), (688, 24999), (756, 25170), (759, 25179), (761, 25185),

Gene: 8UZL_24 Start: 19399, Stop: 21717, Start Num: 63
Candidate Starts for 8UZL_24:
(Start: 63 @19399 has 2 MA's), (125, 19600), (144, 19645), (149, 19657), (182, 19768), (201, 19834), (255, 19975), (297, 20107), (309, 20146), (315, 20158), (331, 20197), (334, 20215), (347, 20251), (360, 20311), (375, 20386), (385, 20413), (400, 20476), (412, 20533), (458, 20728), (484, 20797), (487, 20815), (488, 20821), (489, 20824), (491, 20827), (500, 20851), (531, 20944), (534, 20950), (560, 21028), (571, 21076), (572, 21079), (585, 21157), (599, 21223), (602, 21235), (618, 21298), (623, 21319), (630, 21340), (642, 21397), (643, 21418), (657, 21457), (680, 21499), (701, 21532), (705, 21538), (708, 21553), (736, 21637),

Gene: AbbyPaige_33 Start: 23268, Stop: 25358, Start Num: 21
Candidate Starts for AbbyPaige_33:
(Start: 21 @23268 has 31 MA's), (54, 23382), (57, 23391), (59, 23397), (85, 23481), (99, 23529), (125, 23619), (136, 23643), (155, 23697), (239, 23808), (279, 23943), (413, 24180), (419, 24198), (426, 24222), (448, 24330), (467, 24393), (475, 24423), (487, 24462), (516, 24552), (540, 24609), (541, 24612), (560, 24669), (570, 24714), (574, 24735), (612, 24912), (613, 24924), (623, 24951), (644, 25056), (690, 25146), (738, 25269), (744, 25281), (753, 25305), (761, 25335), (766, 25350),

Gene: Agape74_33 Start: 23244, Stop: 25334, Start Num: 21
Candidate Starts for Agape74_33:
(Start: 21 @23244 has 31 MA's), (54, 23358), (57, 23367), (59, 23373), (85, 23457), (99, 23505), (125, 23595), (136, 23619), (155, 23673), (239, 23784), (279, 23919), (413, 24156), (419, 24174), (426, 24198), (448, 24306), (467, 24369), (475, 24399), (487, 24438), (516, 24528), (540, 24585), (541, 24588), (560, 24645), (570, 24690), (574, 24711), (612, 24888), (613, 24900), (623, 24927), (644, 25032), (690, 25122), (738, 25245), (744, 25257), (753, 25281), (761, 25311), (766, 25326),

Gene: Amelie_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Amelie_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277), (586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673),

Gene: Amgine_25 Start: 20975, Stop: 23359, Start Num: 16
Candidate Starts for Amgine_25:
(Start: 16 @20975 has 55 MA's), (Start: 22 @21005 has 22 MA's), (27, 21023), (50, 21107), (131, 21281), (177, 21413), (207, 21503), (225, 21545), (241, 21596), (260, 21638), (261, 21641), (276, 21698), (285, 21722), (287, 21728), (300, 21767), (320, 21824), (348, 21920), (375, 22037), (395, 22106), (402, 22145), (411, 22163), (414, 22175), (450, 22319), (492, 22454), (493, 22457), (494, 22460), (508, 22499), (526, 22553), (566, 22694), (567, 22700), (572, 22715), (573, 22727), (578,

22757), (593, 22844), (596, 22850), (635, 23000), (645, 23063), (656, 23090), (662, 23099), (718, 23201), (725, 23222), (726, 23225), (762, 23333),

Gene: Amohnition_26 Start: 21373, Stop: 23781, Start Num: 16
Candidate Starts for Amohnition_26:
(Start: 16 @21373 has 55 MA's), (18, 21382), (27, 21421), (62, 21544), (85, 21601), (87, 21613), (131, 21679), (135, 21688), (153, 21733), (177, 21811), (207, 21901), (209, 21907), (225, 21943), (241, 21994), (260, 22036), (261, 22039), (266, 22060), (285, 22120), (287, 22126), (348, 22318), (375, 22435), (395, 22504), (402, 22543), (411, 22561), (414, 22573), (450, 22717), (492, 22852), (494, 22858), (508, 22897), (526, 22951), (543, 23005), (566, 23092), (567, 23098), (572, 23113), (573, 23125), (578, 23155), (593, 23242), (596, 23248), (635, 23398), (643, 23452), (720, 23611), (725, 23626), (726, 23629), (762, 23755),

Gene: Andies_20 Start: 17553, Stop: 20192, Start Num: 4
Candidate Starts for Andies_20:
(1, 17541), (Start: 4 @17553 has 17 MA's), (7, 17565), (8, 17577), (Start: 17 @17631 has 5 MA's), (Start: 36 @17700 has 1 MA's), (37, 17703), (39, 17712), (43, 17727), (101, 17904), (121, 17985), (124, 17994), (146, 18051), (152, 18066), (167, 18117), (185, 18189), (194, 18219), (204, 18255), (228, 18318), (232, 18333), (242, 18360), (246, 18366), (266, 18441), (270, 18465), (271, 18471), (291, 18525), (294, 18531), (325, 18618), (366, 18750), (369, 18768), (376, 18801), (387, 18828), (396, 18879), (440, 19089), (454, 19155), (466, 19191), (496, 19290), (501, 19302), (517, 19365), (567, 19527), (572, 19542), (580, 19593), (605, 19710), (614, 19755), (628, 19797), (636, 19833), (644, 19887), (666, 19935), (733, 20079), (749, 20136), (761, 20175), (764, 20184),

Gene: Anselm_31 Start: 22873, Stop: 25074, Start Num: 22
Candidate Starts for Anselm_31:
(Start: 22 @22873 has 22 MA's), (28, 22894), (57, 22993), (76, 23056), (85, 23083), (94, 23119), (125, 23221), (130, 23233), (155, 23299), (239, 23410), (277, 23542), (279, 23545), (413, 23899), (419, 23917), (426, 23941), (475, 24142), (487, 24181), (516, 24271), (540, 24328), (560, 24388), (570, 24433), (574, 24454), (593, 24559), (599, 24574), (613, 24643), (623, 24670), (635, 24715), (644, 24775), (653, 24799), (728, 24949), (744, 24997), (753, 25021),

Gene: Applecrisp_25 Start: 21389, Stop: 23770, Start Num: 16
Candidate Starts for Applecrisp_25:
(Start: 16 @21389 has 55 MA's), (Start: 22 @21419 has 22 MA's), (27, 21437), (50, 21521), (131, 21695), (177, 21827), (207, 21917), (225, 21959), (241, 22010), (260, 22052), (261, 22055), (276, 22112), (285, 22136), (287, 22142), (300, 22181), (320, 22238), (348, 22334), (375, 22451), (395, 22520), (402, 22559), (411, 22577), (414, 22589), (450, 22733), (492, 22868), (493, 22871), (494, 22874), (508, 22913), (526, 22967), (566, 23105), (567, 23111), (572, 23126), (573, 23138), (578, 23168), (593, 23255), (596, 23261), (623, 23366), (631, 23390), (635, 23411), (645, 23474), (725, 23633), (726, 23636), (762, 23744),

Gene: Arissanae_31 Start: 22459, Stop: 24807, Start Num: 51
Candidate Starts for Arissanae_31:
(49, 22453), (Start: 51 @22459 has 2 MA's), (81, 22558), (92, 22591), (115, 22666), (136, 22726), (166, 22816), (197, 22918), (208, 22945), (224, 22981), (249, 23050), (317, 23266), (330, 23308), (354, 23398), (362, 23425), (400, 23572), (402, 23590), (426, 23674), (428, 23683), (430, 23689), (471, 23869), (491, 23929), (510, 23977), (512, 23989), (570, 24169), (573, 24187), (580, 24226), (587, 24256), (595, 24301), (605, 24337), (607, 24340), (621, 24403), (657, 24547), (696, 24613), (736, 24727), (755, 24772), (759, 24784),

Gene: AuntGwenStacy_27 Start: 23429, Stop: 26023, Start Num: 17
Candidate Starts for AuntGwenStacy_27:

(Start: 17 @23429 has 5 MA's), (25, 23468), (Start: 45 @23543 has 15 MA's), (77, 23645), (79, 23654), (103, 23732), (121, 23813), (124, 23822), (141, 23867), (142, 23870), (146, 23879), (150, 23891), (152, 23894), (158, 23918), (167, 23945), (170, 23954), (185, 24017), (204, 24083), (219, 24119), (221, 24122), (246, 24194), (248, 24200), (266, 24269), (291, 24353), (320, 24434), (328, 24455), (376, 24629), (387, 24656), (396, 24707), (406, 24752), (418, 24803), (420, 24812), (438, 24890), (464, 25013), (465, 25016), (466, 25019), (501, 25130), (517, 25193), (535, 25241), (562, 25328), (567, 25355), (570, 25364), (572, 25370), (580, 25421), (605, 25538), (607, 25541), (628, 25625), (636, 25661), (642, 25691), (644, 25715), (666, 25766), (670, 25772), (674, 25778), (724, 25880), (735, 25916), (761, 26006), (764, 26015),

Gene: Ayotoya_25 Start: 21393, Stop: 23903, Start Num: 14
Candidate Starts for Ayotoya_25:
(Start: 14 @21393 has 14 MA's), (52, 21525), (55, 21540), (70, 21585), (75, 21603), (127, 21768), (148, 21822), (151, 21831), (172, 21909), (174, 21915), (228, 22080), (232, 22095), (247, 22131), (266, 22206), (268, 22218), (270, 22227), (276, 22245), (280, 22257), (293, 22290), (294, 22293), (303, 22329), (323, 22383), (367, 22506), (384, 22560), (389, 22581), (390, 22590), (422, 22692), (435, 22752), (442, 22800), (447, 22812), (455, 22857), (483, 22944), (494, 22983), (515, 23052), (519, 23064), (522, 23076), (599, 23364), (606, 23394), (624, 23475), (630, 23496), (636, 23523), (640, 23547), (713, 23712), (729, 23757), (758, 23856), (768, 23895),

Gene: Baehexic_32 Start: 23237, Stop: 25444, Start Num: 21
Candidate Starts for Baehexic_32:
(Start: 21 @23237 has 31 MA's), (54, 23351), (57, 23360), (59, 23366), (65, 23387), (76, 23423), (99, 23498), (125, 23588), (130, 23600), (239, 23777), (253, 23816), (279, 23912), (377, 24125), (392, 24173), (413, 24263), (423, 24293), (426, 24305), (487, 24545), (516, 24644), (521, 24665), (558, 24755), (560, 24761), (561, 24767), (570, 24806), (574, 24827), (579, 24863), (580, 24866), (593, 24932), (644, 25148), (667, 25196), (706, 25259), (728, 25319), (744, 25367), (761, 25421),

Gene: Bellis_21 Start: 19726, Stop: 22239, Start Num: 12
Candidate Starts for Bellis_21:
(Start: 12 @19726 has 19 MA's), (26, 19789), (Start: 45 @19861 has 15 MA's), (72, 19951), (74, 19957), (96, 20029), (160, 20221), (164, 20233), (171, 20251), (183, 20290), (192, 20320), (213, 20377), (226, 20407), (231, 20413), (247, 20467), (249, 20473), (293, 20620), (294, 20623), (297, 20632), (301, 20650), (324, 20710), (327, 20719), (330, 20731), (344, 20782), (345, 20785), (386, 20950), (400, 21007), (421, 21091), (426, 21109), (428, 21118), (439, 21181), (471, 21301), (486, 21346), (491, 21361), (497, 21379), (510, 21409), (541, 21499), (563, 21568), (570, 21601), (574, 21622), (580, 21658), (588, 21694), (598, 21739), (603, 21763), (605, 21769), (609, 21784), (612, 21802), (621, 21835), (636, 21889), (640, 21913), (645, 21949), (648, 21955), (657, 21979), (732, 22144), (735, 22153), (736, 22159),

Gene: BengiVuitton_32 Start: 23191, Stop: 25377, Start Num: 22
Candidate Starts for BengiVuitton_32:
(Start: 22 @23191 has 22 MA's), (28, 23212), (54, 23302), (65, 23332), (85, 23395), (94, 23431), (108, 23485), (145, 23581), (155, 23611), (195, 23743), (239, 23833), (245, 23848), (279, 23968), (293, 24001), (296, 24010), (413, 24205), (419, 24223), (475, 24451), (487, 24490), (509, 24547), (516, 24580), (521, 24601), (540, 24637), (560, 24697), (570, 24742), (574, 24763), (575, 24772), (599, 24883), (605, 24907), (609, 24922), (610, 24928), (642, 25060), (655, 25114), (681, 25162), (688, 25174), (708, 25213), (759, 25354), (762, 25363),

Gene: Benvolio_31 Start: 22854, Stop: 25181, Start Num: 21
Candidate Starts for Benvolio_31:
(Start: 21 @22854 has 31 MA's), (28, 22878), (57, 22977), (59, 22983), (68, 23010), (85, 23067), (94, 23103), (108, 23157), (120, 23184), (125, 23205), (136, 23229), (155, 23283), (239, 23394), (279,

23529), (293, 23562), (353, 23748), (413, 24000), (419, 24018), (426, 24042), (475, 24243), (487, 24282), (516, 24372), (540, 24429), (560, 24489), (570, 24534), (574, 24555), (599, 24675), (605, 24699), (613, 24744), (623, 24777), (669, 24933), (725, 25044), (744, 25104), (761, 25158), (764, 25167),

Gene: BetterKatz_25 Start: 20866, Stop: 23376, Start Num: 14
Candidate Starts for BetterKatz_25:
(Start: 14 @20866 has 14 MA's), (52, 20998), (55, 21013), (70, 21058), (75, 21076), (127, 21241), (148, 21295), (151, 21304), (172, 21382), (174, 21388), (228, 21553), (232, 21568), (247, 21604), (266, 21679), (268, 21691), (270, 21700), (271, 21706), (276, 21718), (280, 21730), (286, 21745), (293, 21763), (294, 21766), (303, 21802), (323, 21856), (361, 21961), (367, 21979), (384, 22033), (389, 22054), (390, 22063), (422, 22165), (435, 22225), (442, 22273), (447, 22285), (455, 22330), (483, 22417), (494, 22456), (515, 22525), (519, 22537), (522, 22549), (599, 22837), (606, 22867), (624, 22948), (630, 22969), (636, 22996), (640, 23020), (713, 23185), (729, 23230), (758, 23329), (768, 23368),

Gene: Biglebops_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Biglebops_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277), (586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673),

Gene: Bipper_27 Start: 23567, Stop: 26155, Start Num: 17
Candidate Starts for Bipper_27:
(Start: 17 @23567 has 5 MA's), (75, 23756), (83, 23777), (90, 23807), (109, 23870), (124, 23936), (125, 23939), (141, 23981), (158, 24032), (170, 24068), (180, 24107), (221, 24242), (244, 24320), (246, 24323), (266, 24404), (271, 24434), (284, 24470), (298, 24509), (301, 24521), (313, 24551), (316, 24557), (320, 24569), (324, 24578), (328, 24590), (335, 24614), (342, 24638), (369, 24731), (376, 24764), (381, 24767), (396, 24842), (399, 24854), (418, 24938), (472, 25184), (476, 25190), (493, 25247), (517, 25328), (535, 25376), (567, 25490), (580, 25556), (597, 25643), (605, 25673), (616, 25724), (636, 25796), (640, 25820), (642, 25826), (643, 25847), (649, 25865), (685, 25934), (723, 26009), (735, 26048), (736, 26054), (738, 26060), (761, 26138), (764, 26147),

Gene: Bobquesha_29 Start: 22017, Stop: 24326, Start Num: 40
Candidate Starts for Bobquesha_29:
(Start: 40 @22017 has 18 MA's), (47, 22047), (53, 22065), (78, 22128), (148, 22269), (169, 22335), (188, 22398), (207, 22449), (211, 22458), (225, 22491), (240, 22539), (260, 22596), (276, 22656), (281, 22668), (287, 22683), (288, 22689), (300, 22722), (319, 22770), (337, 22824), (365, 22896), (403, 23076), (429, 23157), (463, 23310), (478, 23352), (494, 23409), (498, 23421), (521, 23508), (526, 23526), (546, 23592), (550, 23607), (574, 23703), (605, 23856), (609, 23871), (610, 23877), (615, 23907), (617, 23913), (623, 23940), (628, 23952), (645, 24048), (672, 24102), (681, 24123), (727, 24210), (735, 24240), (764, 24318),

Gene: Bock_25 Start: 20616, Stop: 23126, Start Num: 14
Candidate Starts for Bock_25:
(Start: 14 @20616 has 14 MA's), (52, 20748), (55, 20763), (70, 20808), (75, 20826), (127, 20991), (148, 21045), (151, 21054), (172, 21132), (174, 21138), (228, 21303), (232, 21318), (247, 21354), (266, 21429), (268, 21441), (270, 21450), (271, 21456), (276, 21468), (280, 21480), (286, 21495),

(293, 21513), (294, 21516), (323, 21606), (361, 21711), (367, 21729), (384, 21783), (389, 21804),
(390, 21813), (422, 21915), (435, 21975), (442, 22023), (447, 22035), (455, 22080), (483, 22167),
(494, 22206), (515, 22275), (519, 22287), (522, 22299), (599, 22587), (606, 22617), (624, 22698),
(630, 22719), (636, 22746), (640, 22770), (713, 22935), (729, 22980), (758, 23079), (768, 23118),

Gene: Bonum_46 Start: 32908, Stop: 35466, Start Num: 45
Candidate Starts for Bonum_46:
(Start: 45 @32908 has 15 MA's), (87, 33037), (193, 33376), (194, 33379), (215, 33436), (266, 33589),
(286, 33655), (291, 33670), (322, 33760), (404, 34111), (494, 34489), (523, 34594), (528, 34612),
(539, 34645), (544, 34666), (559, 34720), (574, 34789), (580, 34825), (585, 34852), (586, 34858),
(604, 34948), (627, 35044), (629, 35047), (642, 35110), (647, 35143), (654, 35161), (655, 35164),
(674, 35200), (685, 35224), (702, 35245), (735, 35335), (738, 35347),

Gene: BoostSeason_23 Start: 18687, Stop: 21026, Start Num: 16
Candidate Starts for BoostSeason_23:
(Start: 16 @18687 has 55 MA's), (85, 18927), (145, 19035), (148, 19044), (155, 19065), (161, 19089),
(211, 19218), (219, 19230), (240, 19299), (285, 19434), (292, 19452), (300, 19479), (339, 19581),
(365, 19653), (371, 19695), (372, 19701), (375, 19710), (378, 19716), (399, 19797), (402, 19818),
(413, 19860), (420, 19881), (428, 19911), (444, 19998), (448, 20007), (457, 20043), (475, 20097),
(496, 20151), (499, 20163), (516, 20223), (541, 20283), (546, 20301), (556, 20328), (570, 20385),
(610, 20574), (619, 20604), (638, 20682), (642, 20703), (651, 20745), (666, 20778), (672, 20787),
(681, 20808), (704, 20835), (733, 20916), (741, 20940),

Gene: BourbonZero_20 Start: 19707, Stop: 22217, Start Num: 12
Candidate Starts for BourbonZero_20:
(Start: 12 @19707 has 19 MA's), (26, 19770), (60, 19890), (117, 20076), (160, 20202), (164, 20214),
(171, 20232), (183, 20271), (192, 20301), (226, 20388), (247, 20448), (249, 20454), (291, 20595),
(294, 20601), (297, 20610), (301, 20628), (324, 20688), (330, 20709), (344, 20760), (345, 20763),
(363, 20832), (400, 20985), (421, 21069), (426, 21087), (428, 21096), (453, 21207), (455, 21225),
(471, 21279), (486, 21324), (491, 21339), (510, 21387), (541, 21477), (546, 21495), (563, 21546),
(570, 21579), (573, 21597), (574, 21600), (580, 21636), (587, 21666), (588, 21672), (598, 21717),
(603, 21741), (605, 21747), (609, 21762), (612, 21780), (621, 21813), (622, 21816), (636, 21867),
(648, 21933), (657, 21957), (701, 22032), (716, 22068), (736, 22137),

Gene: Bryler_26 Start: 20070, Stop: 22406, Start Num: 16
Candidate Starts for Bryler_26:
(Start: 16 @20070 has 55 MA's), (27, 20118), (29, 20127), (62, 20241), (68, 20259), (87, 20310), (145,
20406), (148, 20415), (177, 20505), (181, 20517), (219, 20616), (222, 20625), (253, 20718), (276,
20799), (287, 20829), (292, 20841), (300, 20868), (304, 20883), (314, 20907), (339, 20967), (356,
21012), (365, 21039), (370, 21078), (375, 21096), (380, 21105), (399, 21174), (400, 21177), (402,
21195), (413, 21237), (420, 21258), (428, 21288), (444, 21375), (463, 21438), (471, 21471), (479,
21480), (499, 21543), (512, 21591), (516, 21603), (543, 21672), (553, 21696), (561, 21726), (570,
21765), (610, 21954), (631, 22029), (642, 22083), (672, 22167), (680, 22185), (727, 22272), (733,
22296), (747, 22338), (767, 22398),

Gene: Brylie_25 Start: 20607, Stop: 23117, Start Num: 14
Candidate Starts for Brylie_25:
(Start: 14 @20607 has 14 MA's), (52, 20739), (55, 20754), (70, 20799), (75, 20817), (127, 20982),
(148, 21036), (151, 21045), (172, 21123), (174, 21129), (228, 21294), (232, 21309), (247, 21345),
(266, 21420), (268, 21432), (270, 21441), (271, 21447), (276, 21459), (280, 21471), (286, 21486),
(293, 21504), (294, 21507), (303, 21543), (323, 21597), (367, 21720), (384, 21774), (389, 21795),
(390, 21804), (422, 21906), (435, 21966), (442, 22014), (447, 22026), (455, 22071), (483, 22158),
(494, 22197), (515, 22266), (519, 22278), (522, 22290), (599, 22578), (606, 22608), (624, 22689),

(630, 22710), (636, 22737), (640, 22761), (713, 22926), (729, 22971), (758, 23070), (768, 23109),

Gene: Buggaboo_44 Start: 33387, Stop: 35945, Start Num: 45
Candidate Starts for Buggaboo_44:
(13, 33258), (Start: 45 @33387 has 15 MA's), (87, 33516), (193, 33855), (194, 33858), (215, 33915),
(266, 34068), (286, 34134), (291, 34149), (404, 34590), (494, 34968), (523, 35073), (528, 35091),
(539, 35124), (544, 35145), (559, 35199), (565, 35223), (580, 35304), (585, 35331), (586, 35337),
(604, 35427), (627, 35523), (629, 35526), (642, 35589), (647, 35622), (654, 35640), (655, 35643),
(674, 35679), (685, 35703), (702, 35724), (735, 35814), (738, 35826), (768, 35937),

Gene: Bugsy_33 Start: 23267, Stop: 25489, Start Num: 21
Candidate Starts for Bugsy_33:
(Start: 21 @23267 has 31 MA's), (54, 23381), (57, 23390), (59, 23396), (85, 23480), (125, 23618),
(136, 23642), (155, 23696), (253, 23846), (279, 23942), (294, 23978), (297, 23987), (413, 24293),
(426, 24335), (487, 24575), (516, 24674), (521, 24695), (546, 24752), (560, 24791), (561, 24797),
(579, 24893), (580, 24896), (593, 24962), (613, 25046), (635, 25118), (667, 25238), (724, 25349),
(738, 25400), (744, 25412),

Gene: CRB1_31 Start: 22754, Stop: 24937, Start Num: 22
Candidate Starts for CRB1_31:
(Start: 22 @22754 has 22 MA's), (28, 22775), (54, 22865), (57, 22874), (65, 22895), (76, 22931), (85,
22958), (94, 22994), (125, 23096), (155, 23174), (239, 23285), (253, 23324), (279, 23420), (293,
23453), (413, 23774), (419, 23792), (420, 23795), (426, 23816), (475, 24017), (487, 24056), (495,
24077), (509, 24113), (516, 24146), (521, 24167), (540, 24203), (561, 24269), (570, 24308), (574,
24329), (593, 24434), (599, 24449), (622, 24542), (642, 24623), (650, 24665), (688, 24734), (708,
24773), (713, 24782), (759, 24914), (761, 24920),

Gene: CRB2_33 Start: 31730, Stop: 34225, Start Num: 32
Candidate Starts for CRB2_33:
(Start: 32 @31730 has 3 MA's), (60, 31832), (61, 31838), (64, 31850), (82, 31907), (89, 31937), (94,
31952), (119, 32057), (159, 32171), (203, 32324), (232, 32405), (233, 32408), (251, 32468), (257,
32495), (289, 32603), (305, 32651), (306, 32654), (314, 32675), (346, 32774), (350, 32789), (379,
32915), (387, 32939), (393, 32960), (413, 33047), (419, 33065), (454, 33224), (475, 33290), (486,
33326), (487, 33329), (491, 33341), (501, 33371), (512, 33407), (516, 33419), (561, 33542), (562,
33545), (563, 33548), (564, 33554), (582, 33656), (593, 33707), (599, 33722), (605, 33746), (618,
33797), (623, 33818), (642, 33899), (644, 33923), (672, 33977), (710, 34049), (727, 34091), (736,
34127), (744, 34145), (753, 34172), (761, 34202),

Gene: CactusJack_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for CactusJack_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385),
(142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700),
(242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892),
(294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135),
(376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558),
(494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951),
(580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302),
(670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: Cain_26 Start: 20058, Stop: 22394, Start Num: 16
Candidate Starts for Cain_26:
(Start: 16 @20058 has 55 MA's), (27, 20106), (29, 20115), (62, 20229), (68, 20247), (87, 20298), (145,
20394), (148, 20403), (177, 20493), (181, 20505), (219, 20604), (222, 20613), (253, 20706), (276,

20787), (287, 20817), (292, 20829), (300, 20856), (304, 20871), (314, 20895), (339, 20955), (356, 21000), (365, 21027), (370, 21066), (375, 21084), (380, 21093), (399, 21162), (400, 21165), (402, 21183), (413, 21225), (420, 21246), (428, 21276), (444, 21363), (463, 21426), (471, 21459), (479, 21468), (499, 21531), (512, 21579), (516, 21591), (543, 21660), (553, 21684), (561, 21714), (570, 21753), (610, 21942), (631, 22017), (642, 22071), (672, 22155), (680, 22173), (727, 22260), (733, 22284), (747, 22326), (767, 22386),

Gene: Centaur_33 Start: 23215, Stop: 25422, Start Num: 21
Candidate Starts for Centaur_33:
(Start: 21 @23215 has 31 MA's), (54, 23329), (57, 23338), (59, 23344), (65, 23365), (76, 23401), (99, 23476), (125, 23566), (130, 23578), (239, 23755), (253, 23794), (279, 23890), (377, 24103), (392, 24151), (413, 24241), (423, 24271), (426, 24283), (487, 24523), (516, 24622), (521, 24643), (558, 24733), (560, 24739), (561, 24745), (570, 24784), (574, 24805), (579, 24841), (580, 24844), (593, 24910), (644, 25126), (667, 25174), (706, 25237), (728, 25297), (744, 25345), (761, 25399),

Gene: Chancellor_28 Start: 22283, Stop: 24592, Start Num: 40
Candidate Starts for Chancellor_28:
(Start: 40 @22283 has 18 MA's), (78, 22394), (86, 22418), (148, 22535), (188, 22664), (207, 22715), (211, 22724), (225, 22757), (238, 22796), (240, 22805), (260, 22862), (263, 22871), (276, 22922), (281, 22934), (287, 22949), (288, 22955), (300, 22988), (319, 23036), (337, 23090), (365, 23162), (370, 23201), (373, 23213), (380, 23228), (391, 23273), (403, 23342), (429, 23423), (463, 23576), (494, 23675), (498, 23687), (526, 23792), (546, 23858), (550, 23873), (574, 23969), (605, 24122), (609, 24137), (610, 24143), (613, 24167), (623, 24206), (628, 24218), (645, 24314), (672, 24368), (681, 24389), (727, 24476), (735, 24506), (764, 24584),

Gene: Chavito_27 Start: 20243, Stop: 22753, Start Num: 16
Candidate Starts for Chavito_27:
(Start: 16 @20243 has 55 MA's), (27, 20291), (62, 20414), (84, 20465), (87, 20483), (131, 20549), (153, 20603), (177, 20681), (188, 20720), (209, 20777), (225, 20813), (241, 20864), (256, 20894), (261, 20909), (267, 20933), (275, 20963), (276, 20966), (281, 20978), (285, 20987), (287, 20993), (300, 21032), (348, 21185), (358, 21230), (375, 21302), (390, 21356), (394, 21377), (398, 21389), (421, 21497), (436, 21560), (445, 21614), (455, 21665), (461, 21686), (493, 21785), (516, 21863), (526, 21887), (527, 21893), (545, 21950), (572, 22052), (580, 22109), (586, 22142), (590, 22160), (597, 22199), (610, 22250), (645, 22415), (673, 22469), (680, 22484), (704, 22526), (725, 22583), (730, 22601), (739, 22631), (744, 22649),

Gene: Cheetobro_28 Start: 22280, Stop: 24589, Start Num: 40
Candidate Starts for Cheetobro_28:
(Start: 40 @22280 has 18 MA's), (78, 22391), (86, 22415), (148, 22532), (188, 22661), (207, 22712), (211, 22721), (225, 22754), (238, 22793), (240, 22802), (260, 22859), (263, 22868), (276, 22919), (281, 22931), (287, 22946), (288, 22952), (300, 22985), (319, 23033), (337, 23087), (365, 23159), (370, 23198), (373, 23210), (380, 23225), (391, 23270), (403, 23339), (429, 23420), (463, 23573), (494, 23672), (498, 23684), (526, 23789), (546, 23855), (550, 23870), (574, 23966), (605, 24119), (609, 24134), (610, 24140), (613, 24164), (623, 24203), (628, 24215), (645, 24311), (672, 24365), (681, 24386), (727, 24473), (735, 24503), (764, 24581),

Gene: ChipMunk_33 Start: 23177, Stop: 25654, Start Num: 22
Candidate Starts for ChipMunk_33:
(Start: 22 @23177 has 22 MA's), (28, 23198), (54, 23288), (85, 23387), (99, 23435), (131, 23567), (207, 23813), (217, 23840), (223, 23855), (243, 23930), (283, 24071), (308, 24143), (343, 24245), (366, 24287), (407, 24455), (420, 24497), (426, 24518), (449, 24629), (451, 24632), (467, 24689), (486, 24755), (487, 24758), (491, 24770), (504, 24812), (509, 24821), (516, 24854), (540, 24911), (570, 25016), (574, 25037), (580, 25076), (613, 25226), (618, 25232), (621, 25247), (623, 25253),

(633, 25286), (635, 25298), (637, 25307), (640, 25328), (663, 25397), (716, 25496), (726, 25523), (727, 25526), (744, 25580), (753, 25607),

Gene: Chop_25 Start: 21141, Stop: 23651, Start Num: 14
Candidate Starts for Chop_25:
(Start: 14 @21141 has 14 MA's), (52, 21273), (55, 21288), (70, 21333), (75, 21351), (127, 21516), (148, 21570), (151, 21579), (172, 21657), (174, 21663), (228, 21828), (232, 21843), (247, 21879), (266, 21954), (268, 21966), (270, 21975), (276, 21993), (280, 22005), (293, 22038), (294, 22041), (303, 22077), (323, 22131), (367, 22254), (384, 22308), (389, 22329), (390, 22338), (422, 22440), (435, 22500), (442, 22548), (447, 22560), (455, 22605), (483, 22692), (494, 22731), (515, 22800), (519, 22812), (522, 22824), (599, 23112), (606, 23142), (624, 23223), (630, 23244), (636, 23271), (640, 23295), (713, 23460), (729, 23505), (758, 23604), (768, 23643),

Gene: Clautastrophe_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for Clautastrophe_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74, 19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192, 20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294, 20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345, 20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471, 21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563, 21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605, 21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657, 21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: Cracklewink_27 Start: 23567, Stop: 26155, Start Num: 17
Candidate Starts for Cracklewink_27:
(Start: 17 @23567 has 5 MA's), (75, 23756), (83, 23777), (90, 23807), (109, 23870), (124, 23936), (125, 23939), (141, 23981), (158, 24032), (170, 24068), (180, 24107), (221, 24242), (244, 24320), (246, 24323), (266, 24404), (271, 24434), (284, 24470), (298, 24509), (301, 24521), (313, 24551), (316, 24557), (320, 24569), (324, 24578), (328, 24590), (335, 24614), (342, 24638), (369, 24731), (376, 24764), (381, 24767), (396, 24842), (399, 24854), (418, 24938), (472, 25184), (476, 25190), (493, 25247), (517, 25328), (535, 25376), (567, 25490), (580, 25556), (597, 25643), (605, 25673), (616, 25724), (636, 25796), (640, 25820), (642, 25826), (643, 25847), (649, 25865), (685, 25934), (723, 26009), (735, 26048), (736, 26054), (738, 26060), (761, 26138), (764, 26147),

Gene: Crucio_31 Start: 22638, Stop: 24842, Start Num: 22
Candidate Starts for Crucio_31:
(Start: 22 @22638 has 22 MA's), (28, 22659), (59, 22764), (85, 22848), (94, 22884), (125, 22986), (130, 22998), (239, 23175), (279, 23310), (301, 23373), (413, 23664), (419, 23682), (426, 23706), (455, 23844), (475, 23907), (487, 23946), (516, 24036), (540, 24093), (560, 24153), (570, 24198), (574, 24219), (599, 24339), (605, 24363), (613, 24408), (635, 24480), (644, 24540), (727, 24711), (744, 24765), (754, 24792), (761, 24819),

Gene: Curiosium_28 Start: 20582, Stop: 23062, Start Num: 42
Candidate Starts for Curiosium_28:
(Start: 42 @20582 has 1 MA's), (101, 20753), (114, 20810), (128, 20861), (157, 20945), (178, 21017), (194, 21077), (199, 21098), (210, 21125), (219, 21149), (230, 21185), (248, 21230), (249, 21233), (271, 21332), (273, 21335), (286, 21371), (302, 21422), (322, 21476), (332, 21509), (367, 21635), (368, 21644), (396, 21767), (399, 21779), (421, 21878), (438, 21947), (441, 21980), (474, 22109), (478, 22115), (494, 22172), (502, 22190), (532, 22304), (542, 22331), (545, 22343), (549, 22358), (557, 22385), (562, 22400), (570, 22436), (571, 22439), (591, 22556), (593, 22571), (625, 22712), (645, 22820), (678, 22859), (679, 22862), (693, 22886), (732, 22964), (746, 23009), (755, 23027),

Gene: Dalmatian_31 Start: 22845, Stop: 25049, Start Num: 22
Candidate Starts for Dalmatian_31:
(Start: 22 @22845 has 22 MA's), (28, 22866), (85, 23055), (94, 23091), (125, 23193), (130, 23205),
(206, 23316), (239, 23382), (279, 23517), (413, 23871), (426, 23913), (455, 24051), (475, 24114),
(487, 24153), (516, 24243), (540, 24300), (560, 24360), (570, 24405), (574, 24426), (599, 24546),
(605, 24570), (613, 24615), (635, 24687), (644, 24747), (727, 24918), (744, 24972), (754, 24999),
(761, 25026),

Gene: DarthP_26 Start: 21319, Stop: 23703, Start Num: 16
Candidate Starts for DarthP_26:
(Start: 16 @21319 has 55 MA's), (18, 21328), (27, 21367), (62, 21490), (85, 21547), (87, 21559), (131,
21625), (153, 21679), (177, 21757), (207, 21847), (225, 21889), (241, 21940), (260, 21982), (261,
21985), (266, 22006), (285, 22066), (287, 22072), (348, 22264), (375, 22381), (395, 22450), (402,
22489), (414, 22519), (450, 22663), (492, 22798), (493, 22801), (494, 22804), (508, 22843), (526,
22897), (566, 23038), (567, 23044), (572, 23059), (593, 23188), (596, 23194), (620, 23290), (623,
23299), (631, 23323), (635, 23344), (720, 23551), (725, 23566), (726, 23569), (762, 23677),

Gene: Dartin_27 Start: 20230, Stop: 22731, Start Num: 16
Candidate Starts for Dartin_27:
(Start: 16 @20230 has 55 MA's), (27, 20278), (41, 20329), (62, 20401), (84, 20452), (87, 20470), (99,
20503), (126, 20524), (131, 20536), (153, 20590), (177, 20668), (188, 20707), (209, 20764), (225,
20800), (241, 20851), (256, 20881), (261, 20896), (267, 20920), (276, 20953), (285, 20974), (287,
20980), (300, 21019), (348, 21172), (356, 21205), (358, 21217), (372, 21280), (394, 21364), (436,
21547), (445, 21601), (455, 21643), (513, 21835), (516, 21841), (526, 21865), (545, 21928), (556,
21967), (572, 22030), (580, 22087), (586, 22120), (590, 22138), (597, 22177), (608, 22216), (609,
22222), (621, 22279), (645, 22393), (673, 22447), (680, 22462), (699, 22492), (704, 22504), (725,
22561), (730, 22579), (739, 22609), (744, 22627), (763, 22708),

Gene: DeerParkTS_33 Start: 23331, Stop: 25694, Start Num: 22
Candidate Starts for DeerParkTS_33:
(Start: 22 @23331 has 22 MA's), (28, 23352), (54, 23442), (57, 23451), (136, 23700), (214, 23949),
(277, 24174), (330, 24318), (413, 24528), (419, 24546), (426, 24570), (475, 24771), (487, 24810),
(509, 24867), (516, 24900), (540, 24957), (573, 25080), (578, 25110), (599, 25203), (609, 25242),
(610, 25248), (622, 25296), (642, 25377), (650, 25419), (688, 25491), (725, 25572), (761, 25677),
(764, 25686),

Gene: DelRio_26 Start: 21615, Stop: 24125, Start Num: 14
Candidate Starts for DelRio_26:
(Start: 14 @21615 has 14 MA's), (52, 21747), (55, 21762), (70, 21807), (75, 21825), (127, 21990),
(148, 22044), (151, 22053), (172, 22131), (174, 22137), (228, 22302), (232, 22317), (247, 22353),
(266, 22428), (268, 22440), (270, 22449), (276, 22467), (280, 22479), (286, 22494), (293, 22512),
(294, 22515), (303, 22551), (323, 22605), (361, 22710), (367, 22728), (384, 22782), (390, 22812),
(422, 22914), (435, 22974), (442, 23022), (447, 23034), (455, 23079), (483, 23166), (494, 23205),
(515, 23274), (519, 23286), (585, 23520), (599, 23586), (606, 23616), (624, 23697), (640, 23769),
(713, 23934), (729, 23979), (758, 24078), (768, 24117),

Gene: Deloris_32 Start: 23191, Stop: 25377, Start Num: 22
Candidate Starts for Deloris_32:
(Start: 22 @23191 has 22 MA's), (28, 23212), (54, 23302), (65, 23332), (85, 23395), (94, 23431), (108,
23485), (145, 23581), (155, 23611), (195, 23743), (239, 23833), (245, 23848), (279, 23968), (293,
24001), (296, 24010), (413, 24205), (419, 24223), (475, 24451), (487, 24490), (509, 24547), (516,
24580), (521, 24601), (540, 24637), (560, 24697), (570, 24742), (574, 24763), (575, 24772), (599,

24883), (605, 24907), (609, 24922), (610, 24928), (642, 25060), (681, 25162), (688, 25174), (708, 25213), (759, 25354), (762, 25363),

Gene: Dignity_33 Start: 23212, Stop: 25416, Start Num: 21
Candidate Starts for Dignity_33:
(Start: 21 @23212 has 31 MA's), (54, 23326), (57, 23335), (59, 23341), (85, 23425), (125, 23563), (136, 23587), (155, 23641), (239, 23752), (279, 23887), (296, 23929), (321, 24001), (407, 24220), (413, 24241), (419, 24259), (426, 24283), (448, 24391), (475, 24484), (487, 24523), (516, 24613), (540, 24670), (541, 24673), (560, 24730), (561, 24736), (570, 24775), (574, 24796), (613, 24985), (623, 25012), (668, 25165), (680, 25189), (709, 25243), (711, 25246), (727, 25285), (728, 25291), (744, 25339),

Gene: DismalFunk_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for DismalFunk_23:
(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (75, 18874), (148, 19018), (158, 19051), (205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369), (276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (372, 19675), (375, 19684), (399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981), (475, 20071), (496, 20125), (499, 20137), (506, 20161), (546, 20275), (556, 20302), (570, 20359), (580, 20416), (610, 20548), (619, 20578), (632, 20629), (636, 20647), (642, 20677), (657, 20731), (672, 20761), (681, 20782), (741, 20914),

Gene: DismalStressor_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for DismalStressor_23:
(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (75, 18874), (148, 19018), (158, 19051), (205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369), (276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (372, 19675), (375, 19684), (399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981), (475, 20071), (496, 20125), (499, 20137), (506, 20161), (546, 20275), (556, 20302), (570, 20359), (580, 20416), (610, 20548), (619, 20578), (632, 20629), (636, 20647), (642, 20677), (657, 20731), (672, 20761), (681, 20782), (741, 20914),

Gene: Dogfish_28 Start: 23683, Stop: 26286, Start Num: 10
Candidate Starts for Dogfish_28:
(Start: 10 @23683 has 1 MA's), (Start: 34 @23797 has 1 MA's), (Start: 36 @23806 has 1 MA's), (118, 24109), (132, 24151), (172, 24283), (215, 24418), (228, 24454), (246, 24502), (252, 24520), (256, 24544), (266, 24580), (268, 24592), (280, 24631), (286, 24646), (293, 24664), (397, 24997), (494, 25360), (510, 25402), (515, 25423), (520, 25438), (527, 25465), (570, 25591), (572, 25597), (607, 25774), (624, 25855), (634, 25894), (640, 25927), (721, 26113), (728, 26134), (768, 26278),

Gene: Doughnut_23 Start: 18681, Stop: 21020, Start Num: 16
Candidate Starts for Doughnut_23:
(Start: 16 @18681 has 55 MA's), (85, 18921), (145, 19029), (148, 19038), (155, 19059), (161, 19083), (211, 19212), (219, 19224), (240, 19293), (285, 19428), (292, 19446), (300, 19473), (339, 19575), (365, 19647), (371, 19689), (372, 19695), (375, 19704), (378, 19710), (399, 19791), (402, 19812), (413, 19854), (420, 19875), (428, 19905), (444, 19992), (448, 20001), (457, 20037), (475, 20091), (496, 20145), (499, 20157), (516, 20217), (541, 20277), (546, 20295), (556, 20322), (570, 20379), (610, 20568), (619, 20598), (638, 20676), (642, 20697), (651, 20739), (666, 20772), (672, 20781), (681, 20802), (704, 20829), (733, 20910), (741, 20934),

Gene: Drake55_33 Start: 23226, Stop: 25310, Start Num: 21
Candidate Starts for Drake55_33:

(Start: 21 @23226 has 31 MA's), (54, 23340), (59, 23355), (65, 23376), (88, 23454), (125, 23577), (155, 23655), (239, 23766), (248, 23787), (279, 23901), (294, 23937), (413, 24138), (419, 24156), (426, 24180), (446, 24279), (475, 24381), (487, 24420), (491, 24432), (516, 24510), (560, 24627), (561, 24633), (574, 24693), (593, 24798), (599, 24813), (635, 24954), (636, 24957), (643, 25008), (648, 25023), (658, 25047), (684, 25101), (700, 25125), (736, 25230), (762, 25296),

Gene: Drake94_31 Start: 21398, Stop: 23680, Start Num: 19
Candidate Starts for Drake94_31:
(Start: 19 @21398 has 6 MA's), (25, 21431), (52, 21515), (71, 21581), (110, 21713), (153, 21827), (155, 21836), (179, 21920), (200, 21995), (239, 22073), (265, 22148), (306, 22238), (372, 22364), (413, 22511), (419, 22529), (426, 22553), (475, 22754), (487, 22793), (516, 22883), (540, 22940), (558, 22994), (570, 23045), (574, 23066), (575, 23075), (578, 23093), (580, 23105), (605, 23210), (609, 23225), (610, 23231), (618, 23264), (642, 23363), (643, 23384), (644, 23387), (671, 23444), (680, 23462), (681, 23465), (688, 23477), (708, 23516), (725, 23558), (726, 23561), (761, 23663),

Gene: DudeLittle_31 Start: 22847, Stop: 25045, Start Num: 22
Candidate Starts for DudeLittle_31:
(Start: 22 @22847 has 22 MA's), (28, 22868), (59, 22973), (85, 23057), (94, 23093), (125, 23195), (130, 23207), (206, 23318), (239, 23384), (279, 23519), (294, 23555), (301, 23582), (392, 23780), (413, 23867), (419, 23885), (426, 23909), (433, 23939), (475, 24110), (491, 24161), (516, 24239), (540, 24296), (570, 24401), (574, 24422), (577, 24434), (593, 24527), (599, 24542), (613, 24611), (623, 24638), (667, 24791), (680, 24815), (744, 24968), (756, 25007),

Gene: DuncansLeg_21 Start: 19709, Stop: 22222, Start Num: 12
Candidate Starts for DuncansLeg_21:
(Start: 12 @19709 has 19 MA's), (26, 19772), (44, 19841), (Start: 45 @19844 has 15 MA's), (96, 20012), (160, 20204), (171, 20234), (183, 20273), (192, 20303), (213, 20360), (226, 20390), (231, 20396), (247, 20450), (249, 20456), (293, 20603), (294, 20606), (297, 20615), (301, 20633), (324, 20693), (330, 20714), (344, 20765), (345, 20768), (352, 20795), (386, 20933), (400, 20990), (421, 21074), (426, 21092), (428, 21101), (439, 21164), (455, 21230), (471, 21284), (486, 21329), (491, 21344), (510, 21392), (541, 21482), (546, 21500), (561, 21545), (563, 21551), (570, 21584), (573, 21602), (580, 21641), (588, 21677), (598, 21722), (603, 21746), (609, 21767), (612, 21785), (621, 21818), (640, 21896), (645, 21932), (657, 21962), (701, 22037), (716, 22073), (735, 22136), (736, 22142),

Gene: Dynamo_21 Start: 19047, Stop: 21686, Start Num: 4
Candidate Starts for Dynamo_21:
(Start: 4 @19047 has 17 MA's), (6, 19056), (37, 19200), (121, 19473), (124, 19482), (125, 19485), (134, 19506), (138, 19518), (141, 19527), (150, 19551), (167, 19605), (185, 19683), (194, 19713), (204, 19749), (215, 19770), (219, 19785), (232, 19827), (246, 19860), (266, 19935), (270, 19959), (271, 19965), (276, 19977), (291, 20019), (294, 20025), (325, 20112), (366, 20244), (369, 20262), (376, 20295), (387, 20322), (396, 20373), (440, 20583), (454, 20649), (466, 20685), (496, 20784), (501, 20796), (517, 20859), (567, 21021), (572, 21036), (580, 21087), (605, 21204), (614, 21249), (628, 21291), (636, 21327), (644, 21381), (666, 21429), (733, 21573), (749, 21630), (761, 21669), (764, 21678),

Gene: Echild_31 Start: 22854, Stop: 25181, Start Num: 21
Candidate Starts for Echild_31:
(Start: 21 @22854 has 31 MA's), (28, 22878), (57, 22977), (59, 22983), (68, 23010), (85, 23067), (94, 23103), (108, 23157), (120, 23184), (125, 23205), (136, 23229), (155, 23283), (239, 23394), (279, 23529), (293, 23562), (353, 23748), (413, 24000), (419, 24018), (426, 24042), (475, 24243), (487, 24282), (516, 24372), (540, 24429), (560, 24489), (570, 24534), (574, 24555), (599, 24675), (605, 24699), (613, 24744), (623, 24777), (669, 24933), (725, 25044), (744, 25104), (761, 25158), (764,

25167),

Gene: Ekdilam_24 Start: 21084, Stop: 23462, Start Num: 16
Candidate Starts for Ekdilam_24:
(Start: 16 @21084 has 55 MA's), (18, 21093), (27, 21132), (62, 21255), (87, 21324), (153, 21444),
(207, 21612), (225, 21654), (241, 21705), (260, 21747), (261, 21750), (266, 21771), (287, 21837),
(320, 21933), (348, 22029), (359, 22077), (375, 22146), (395, 22215), (402, 22254), (414, 22284),
(450, 22428), (492, 22563), (493, 22566), (494, 22569), (508, 22608), (526, 22662), (546, 22725),
(566, 22803), (567, 22809), (572, 22824), (573, 22836), (578, 22866), (593, 22953), (596, 22959),
(623, 23064), (631, 23088), (635, 23109), (643, 23163), (654, 23193), (673, 23223), (718, 23304),
(725, 23325), (726, 23328), (762, 23436),

Gene: Ellie_24 Start: 21059, Stop: 23461, Start Num: 16
Candidate Starts for Ellie_24:
(Start: 16 @21059 has 55 MA's), (Start: 22 @21089 has 22 MA's), (27, 21107), (50, 21191), (131,
21365), (177, 21497), (207, 21587), (225, 21629), (241, 21680), (260, 21722), (261, 21725), (276,
21782), (285, 21806), (287, 21812), (300, 21851), (320, 21908), (348, 22004), (375, 22121), (395,
22190), (402, 22229), (414, 22259), (428, 22301), (450, 22403), (492, 22538), (493, 22541), (494,
22544), (508, 22583), (526, 22637), (566, 22775), (567, 22781), (572, 22796), (573, 22808), (578,
22838), (593, 22925), (596, 22931), (608, 22973), (635, 23081), (643, 23135), (681, 23231), (684,
23237), (698, 23255), (712, 23291), (713, 23294), (717, 23303), (725, 23327), (732, 23354),

Gene: Ellson_21 Start: 19717, Stop: 22227, Start Num: 12
Candidate Starts for Ellson_21:
(Start: 12 @19717 has 19 MA's), (26, 19780), (60, 19900), (117, 20086), (160, 20212), (164, 20224),
(171, 20242), (183, 20281), (192, 20311), (226, 20398), (247, 20458), (249, 20464), (291, 20605),
(294, 20611), (297, 20620), (301, 20638), (324, 20698), (330, 20719), (344, 20770), (345, 20773),
(363, 20842), (400, 20995), (421, 21079), (426, 21097), (428, 21106), (453, 21217), (455, 21235),
(471, 21289), (486, 21334), (491, 21349), (510, 21397), (541, 21487), (546, 21505), (563, 21556),
(570, 21589), (573, 21607), (580, 21646), (588, 21682), (598, 21727), (603, 21751), (609, 21772),
(612, 21790), (621, 21823), (622, 21826), (636, 21877), (648, 21943), (657, 21967), (701, 22042),
(716, 22078), (736, 22147),

Gene: Enkosi_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Enkosi_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720),
(177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035),
(256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233),
(314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620),
(437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118),
(546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277),
(586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574),
(648, 22589), (661, 22616), (694, 22673),

Gene: Ennea_49 Start: 34236, Stop: 36794, Start Num: 45
Candidate Starts for Ennea_49:
(5, 34038), (31, 34185), (Start: 45 @34236 has 15 MA's), (87, 34365), (124, 34485), (193, 34704),
(194, 34707), (237, 34836), (271, 34944), (286, 34983), (389, 35355), (404, 35439), (494, 35817),
(523, 35922), (528, 35940), (539, 35973), (544, 35994), (559, 36048), (580, 36153), (586, 36186),
(604, 36276), (627, 36372), (629, 36375), (642, 36438), (647, 36471), (654, 36489), (655, 36492),
(674, 36528), (685, 36552), (702, 36573), (735, 36663), (738, 36675),

Gene: Equemioh13_33 Start: 23218, Stop: 25425, Start Num: 21

Candidate Starts for Equemioh13_33:
(Start: 21 @23218 has 31 MA's), (54, 23332), (57, 23341), (59, 23347), (65, 23368), (99, 23479), (125, 23569), (130, 23581), (239, 23758), (253, 23797), (279, 23893), (392, 24154), (413, 24244), (423, 24274), (426, 24286), (473, 24484), (516, 24625), (521, 24646), (558, 24736), (560, 24742), (561, 24748), (570, 24787), (574, 24808), (579, 24844), (580, 24847), (593, 24913), (599, 24928), (600, 24931), (605, 24952), (612, 24985), (644, 25129), (667, 25177), (706, 25240), (728, 25300), (744, 25348), (761, 25402),

Gene: EvilGenius_33 Start: 23186, Stop: 25663, Start Num: 22
Candidate Starts for EvilGenius_33:
(Start: 22 @23186 has 22 MA's), (28, 23207), (54, 23297), (85, 23396), (99, 23444), (104, 23465), (131, 23576), (207, 23822), (217, 23849), (223, 23864), (243, 23939), (283, 24080), (308, 24152), (343, 24254), (407, 24464), (426, 24527), (449, 24638), (451, 24641), (467, 24698), (486, 24764), (487, 24767), (491, 24779), (504, 24821), (516, 24863), (540, 24920), (570, 25025), (574, 25046), (580, 25085), (613, 25235), (618, 25241), (633, 25295), (635, 25307), (637, 25316), (640, 25337), (663, 25406), (716, 25505), (726, 25532), (727, 25535), (744, 25589), (753, 25616),

Gene: FF47_24 Start: 19326, Stop: 21644, Start Num: 63
Candidate Starts for FF47_24:
(Start: 63 @19326 has 2 MA's), (125, 19527), (144, 19572), (149, 19584), (182, 19695), (201, 19761), (255, 19902), (297, 20034), (309, 20073), (315, 20085), (331, 20124), (334, 20142), (347, 20178), (360, 20238), (375, 20313), (385, 20340), (400, 20403), (412, 20460), (458, 20655), (484, 20724), (487, 20742), (488, 20748), (489, 20751), (491, 20754), (531, 20871), (534, 20877), (560, 20955), (571, 21003), (572, 21006), (585, 21084), (593, 21135), (599, 21150), (602, 21162), (618, 21225), (623, 21246), (630, 21267), (642, 21324), (643, 21345), (657, 21384), (680, 21426), (701, 21459), (705, 21465), (708, 21480), (736, 21564),

Gene: Faiyaz_27 Start: 23429, Stop: 26023, Start Num: 17
Candidate Starts for Faiyaz_27:
(Start: 17 @23429 has 5 MA's), (25, 23468), (Start: 45 @23543 has 15 MA's), (77, 23645), (79, 23654), (103, 23732), (121, 23813), (124, 23822), (141, 23867), (142, 23870), (146, 23879), (150, 23891), (152, 23894), (158, 23918), (167, 23945), (170, 23954), (185, 24017), (204, 24083), (219, 24119), (221, 24122), (246, 24194), (248, 24200), (266, 24269), (291, 24353), (320, 24434), (328, 24455), (376, 24629), (387, 24656), (396, 24707), (406, 24752), (418, 24803), (420, 24812), (438, 24890), (464, 25013), (465, 25016), (466, 25019), (501, 25130), (517, 25193), (535, 25241), (562, 25328), (567, 25355), (570, 25364), (572, 25370), (580, 25421), (605, 25538), (607, 25541), (628, 25625), (636, 25661), (642, 25691), (644, 25715), (666, 25766), (670, 25772), (674, 25778), (724, 25880), (735, 25916), (761, 26006), (764, 26015),

Gene: Fameo_31 Start: 22816, Stop: 25014, Start Num: 22
Candidate Starts for Fameo_31:
(Start: 22 @22816 has 22 MA's), (28, 22837), (57, 22936), (85, 23026), (94, 23062), (125, 23164), (130, 23176), (239, 23353), (279, 23488), (330, 23629), (413, 23842), (419, 23860), (426, 23884), (475, 24085), (516, 24214), (540, 24271), (560, 24331), (570, 24376), (574, 24397), (599, 24517), (622, 24607), (623, 24610), (644, 24715), (653, 24739), (672, 24769), (674, 24772), (744, 24937), (761, 24991),

Gene: Fefferhead_26 Start: 21226, Stop: 23613, Start Num: 16
Candidate Starts for Fefferhead_26:
(Start: 16 @21226 has 55 MA's), (Start: 22 @21256 has 22 MA's), (27, 21274), (50, 21358), (131, 21532), (177, 21664), (207, 21754), (225, 21796), (241, 21847), (260, 21889), (261, 21892), (276, 21949), (285, 21973), (287, 21979), (300, 22018), (320, 22075), (348, 22171), (375, 22288), (395, 22357), (402, 22396), (407, 22405), (414, 22426), (428, 22468), (450, 22570), (492, 22705), (493,

22708), (494, 22711), (508, 22750), (526, 22804), (573, 22978), (593, 23095), (596, 23101), (622, 23203), (644, 23308), (645, 23314), (664, 23362), (714, 23455), (725, 23479), (733, 23509), (762, 23587),

Gene: Findley_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for Findley_23:
(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (85, 18901), (148, 19018), (158, 19051), (205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369), (276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (372, 19675), (375, 19684), (399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981), (457, 20017), (475, 20071), (496, 20125), (499, 20137), (506, 20161), (541, 20257), (546, 20275), (556, 20302), (570, 20359), (580, 20416), (610, 20548), (619, 20578), (632, 20629), (636, 20647), (642, 20677), (657, 20731), (672, 20761), (681, 20782), (741, 20914),

Gene: Finnry_21 Start: 19728, Stop: 22241, Start Num: 12
Candidate Starts for Finnry_21:
(Start: 12 @19728 has 19 MA's), (26, 19791), (Start: 45 @19863 has 15 MA's), (72, 19953), (74, 19959), (96, 20031), (160, 20223), (164, 20235), (171, 20253), (183, 20292), (192, 20322), (213, 20379), (226, 20409), (231, 20415), (247, 20469), (249, 20475), (293, 20622), (294, 20625), (297, 20634), (301, 20652), (324, 20712), (327, 20721), (330, 20733), (344, 20784), (345, 20787), (386, 20952), (400, 21009), (421, 21093), (426, 21111), (428, 21120), (439, 21183), (471, 21303), (486, 21348), (491, 21363), (497, 21381), (510, 21411), (541, 21501), (563, 21570), (570, 21603), (574, 21624), (580, 21660), (588, 21696), (598, 21741), (603, 21765), (605, 21771), (609, 21786), (612, 21804), (621, 21837), (636, 21891), (640, 21915), (645, 21951), (648, 21957), (657, 21981), (732, 22146), (735, 22155), (736, 22161),

Gene: Fionnbharth_28 Start: 22273, Stop: 24582, Start Num: 40
Candidate Starts for Fionnbharth_28:
(Start: 40 @22273 has 18 MA's), (67, 22363), (78, 22384), (86, 22408), (148, 22525), (188, 22654), (211, 22714), (238, 22786), (240, 22795), (258, 22846), (260, 22852), (263, 22861), (276, 22912), (281, 22924), (287, 22939), (288, 22945), (300, 22978), (319, 23026), (337, 23080), (365, 23152), (370, 23191), (373, 23203), (380, 23218), (391, 23263), (403, 23332), (429, 23413), (463, 23566), (478, 23608), (513, 23737), (526, 23782), (546, 23848), (550, 23863), (574, 23959), (605, 24112), (609, 24127), (610, 24133), (613, 24157), (615, 24163), (617, 24169), (618, 24172), (623, 24196), (628, 24208), (645, 24304), (670, 24355), (672, 24358), (709, 24427), (726, 24463), (735, 24496), (756, 24550), (759, 24559), (764, 24574),

Gene: FiringLine_31 Start: 22638, Stop: 24839, Start Num: 22
Candidate Starts for FiringLine_31:
(Start: 22 @22638 has 22 MA's), (28, 22659), (57, 22758), (59, 22764), (68, 22791), (69, 22794), (85, 22848), (94, 22884), (125, 22986), (239, 23175), (277, 23307), (279, 23310), (413, 23664), (419, 23682), (426, 23706), (475, 23907), (487, 23946), (516, 24036), (540, 24093), (560, 24153), (570, 24198), (574, 24219), (593, 24324), (599, 24339), (605, 24363), (613, 24408), (623, 24435), (635, 24480), (653, 24564), (728, 24714), (744, 24762), (753, 24786),

Gene: First_0031 Start: 22858, Stop: 25263, Start Num: 22
Candidate Starts for First_0031:
(Start: 22 @22858 has 22 MA's), (28, 22879), (54, 22969), (57, 22978), (65, 22999), (85, 23062), (94, 23098), (120, 23179), (145, 23248), (153, 23269), (155, 23278), (195, 23410), (239, 23500), (245, 23515), (279, 23635), (293, 23668), (296, 23677), (330, 23776), (336, 23803), (392, 24016), (413, 24106), (419, 24124), (426, 24148), (475, 24349), (487, 24388), (495, 24409), (509, 24445), (516, 24478), (521, 24499), (540, 24535), (558, 24589), (570, 24640), (574, 24661), (593, 24766), (599, 24781), (642, 24949), (650, 24991), (688, 25060), (756, 25231), (759, 25240), (761, 25246),

Gene: Flapper_47 Start: 33951, Stop: 36509, Start Num: 45
Candidate Starts for Flapper_47:
(Start: 45 @33951 has 15 MA's), (193, 34419), (194, 34422), (215, 34479), (266, 34632), (270, 34653),
(286, 34698), (384, 35049), (404, 35154), (494, 35532), (523, 35637), (528, 35655), (539, 35688),
(544, 35709), (559, 35763), (580, 35868), (586, 35901), (604, 35991), (617, 36045), (618, 36048),
(627, 36087), (629, 36090), (642, 36153), (647, 36186), (654, 36204), (655, 36207), (674, 36243),
(675, 36246), (702, 36288), (735, 36378), (738, 36390), (765, 36480),

Gene: Flare16_31 Start: 22776, Stop: 24998, Start Num: 21
Candidate Starts for Flare16_31:
(Start: 21 @22776 has 31 MA's), (54, 22890), (59, 22905), (99, 23037), (136, 23151), (143, 23172),
(155, 23205), (239, 23316), (253, 23355), (279, 23451), (318, 23553), (413, 23802), (423, 23832),
(426, 23844), (467, 24015), (487, 24084), (516, 24183), (558, 24294), (560, 24300), (561, 24306),
(570, 24345), (579, 24402), (580, 24405), (593, 24471), (613, 24555), (635, 24627), (667, 24747),
(724, 24858), (738, 24909), (744, 24921),

Gene: Float294_45 Start: 33678, Stop: 36236, Start Num: 45
Candidate Starts for Float294_45:
(5, 33480), (31, 33627), (Start: 45 @33678 has 15 MA's), (87, 33807), (124, 33927), (193, 34146),
(194, 34149), (219, 34221), (237, 34278), (249, 34299), (271, 34386), (286, 34425), (389, 34797),
(404, 34881), (494, 35259), (523, 35364), (528, 35382), (539, 35415), (544, 35436), (559, 35490),
(585, 35622), (586, 35628), (604, 35718), (627, 35814), (629, 35817), (642, 35880), (647, 35913),
(654, 35931), (655, 35934), (674, 35970), (685, 35994), (702, 36015), (735, 36105), (738, 36117),

Gene: Francois_25 Start: 20630, Stop: 23140, Start Num: 14
Candidate Starts for Francois_25:
(Start: 14 @20630 has 14 MA's), (52, 20762), (55, 20777), (70, 20822), (75, 20840), (127, 21005),
(148, 21059), (151, 21068), (158, 21095), (172, 21146), (174, 21152), (228, 21317), (230, 21323),
(232, 21332), (248, 21371), (266, 21443), (268, 21455), (270, 21464), (271, 21470), (280, 21494),
(286, 21509), (293, 21527), (294, 21530), (303, 21566), (323, 21620), (355, 21698), (367, 21743),
(384, 21797), (386, 21806), (389, 21818), (390, 21827), (435, 21989), (442, 22037), (447, 22049),
(455, 22094), (483, 22181), (494, 22220), (515, 22289), (519, 22301), (590, 22559), (599, 22601),
(606, 22631), (624, 22712), (630, 22733), (636, 22760), (640, 22784), (713, 22949), (729, 22994),
(758, 23093), (768, 23132),

Gene: Fulbright_20 Start: 17553, Stop: 20198, Start Num: 4
Candidate Starts for Fulbright_20:
(1, 17541), (Start: 4 @17553 has 17 MA's), (7, 17565), (8, 17577), (Start: 17 @17631 has 5 MA's),
(Start: 36 @17700 has 1 MA's), (37, 17703), (39, 17712), (43, 17727), (101, 17904), (121, 17985),
(124, 17994), (187, 18198), (199, 18246), (204, 18261), (215, 18282), (221, 18300), (228, 18324),
(232, 18339), (234, 18348), (246, 18375), (248, 18381), (266, 18450), (270, 18471), (271, 18477),
(275, 18486), (284, 18513), (291, 18531), (325, 18624), (333, 18645), (366, 18756), (369, 18774),
(376, 18807), (396, 18885), (420, 18990), (432, 19032), (481, 19251), (493, 19290), (494, 19293),
(501, 19308), (517, 19371), (535, 19419), (567, 19533), (574, 19563), (578, 19590), (580, 19599),
(605, 19716), (614, 19761), (628, 19803), (642, 19869), (644, 19893), (666, 19941), (670, 19947),
(674, 19953), (680, 19968), (723, 20052), (735, 20091), (761, 20181), (764, 20190),

Gene: GTE5_34 Start: 26806, Stop: 29361, Start Num: 45
Candidate Starts for GTE5_34:
(20, 26713), (24, 26734), (Start: 45 @26806 has 15 MA's), (165, 27175), (193, 27274), (194, 27277),
(208, 27322), (215, 27334), (270, 27508), (286, 27553), (389, 27925), (404, 28009), (494, 28387),
(528, 28510), (544, 28564), (548, 28579), (560, 28621), (570, 28666), (579, 28720), (580, 28723),

(589, 28771), (606, 28849), (627, 28942), (629, 28945), (641, 29005), (642, 29008), (647, 29041), (656, 29065), (666, 29086), (668, 29089), (702, 29143), (738, 29245), (765, 29335),

Gene: Gail_31 Start: 22024, Stop: 24468, Start Num: 21
Candidate Starts for Gail_31:
(Start: 21 @22024 has 31 MA's), (86, 22237), (107, 22294), (113, 22315), (227, 22669), (250, 22747), (282, 22870), (283, 22873), (306, 22930), (308, 22936), (318, 22954), (327, 22981), (341, 23035), (343, 23038), (407, 23272), (417, 23302), (419, 23311), (448, 23443), (467, 23506), (473, 23533), (486, 23572), (516, 23674), (546, 23752), (560, 23791), (570, 23836), (573, 23854), (580, 23896), (593, 23962), (599, 23977), (609, 24016), (610, 24022), (650, 24193), (663, 24214), (677, 24241), (731, 24358), (740, 24388),

Gene: Gavriela_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for Gavriela_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385), (142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700), (242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892), (294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135), (376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558), (494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951), (580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302), (670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: Georgie2_32 Start: 22683, Stop: 24884, Start Num: 22
Candidate Starts for Georgie2_32:
(Start: 22 @22683 has 22 MA's), (28, 22704), (57, 22803), (59, 22809), (68, 22836), (69, 22839), (85, 22893), (94, 22929), (125, 23031), (239, 23220), (277, 23352), (279, 23355), (413, 23709), (419, 23727), (426, 23751), (475, 23952), (487, 23991), (516, 24081), (540, 24138), (560, 24198), (570, 24243), (574, 24264), (593, 24369), (599, 24384), (605, 24408), (613, 24453), (623, 24480), (635, 24525), (644, 24585), (653, 24609), (728, 24759), (744, 24807), (753, 24831),

Gene: Glaske_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for Glaske_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385), (142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700), (242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892), (294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135), (376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558), (494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951), (580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302), (670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: GrandSlam_25 Start: 21141, Stop: 23651, Start Num: 14
Candidate Starts for GrandSlam_25:
(Start: 14 @21141 has 14 MA's), (52, 21273), (55, 21288), (70, 21333), (75, 21351), (127, 21516), (148, 21570), (151, 21579), (172, 21657), (174, 21663), (228, 21828), (232, 21843), (247, 21879), (266, 21954), (268, 21966), (270, 21975), (276, 21993), (280, 22005), (293, 22038), (294, 22041), (303, 22077), (323, 22131), (367, 22254), (384, 22308), (389, 22329), (390, 22338), (422, 22440), (435, 22500), (442, 22548), (447, 22560), (455, 22605), (483, 22692), (494, 22731), (515, 22800), (519, 22812), (522, 22824), (599, 23112), (606, 23142), (624, 23223), (630, 23244), (636, 23271), (640, 23295), (713, 23460), (729, 23505), (758, 23604), (768, 23643),

Gene: Gratitude_32 Start: 23218, Stop: 25425, Start Num: 21

Candidate Starts for Gratitude_32:
(Start: 21 @23218 has 31 MA's), (54, 23332), (57, 23341), (59, 23347), (65, 23368), (99, 23479), (125, 23569), (130, 23581), (239, 23758), (253, 23797), (279, 23893), (392, 24154), (413, 24244), (423, 24274), (426, 24286), (473, 24484), (516, 24625), (521, 24646), (558, 24736), (560, 24742), (561, 24748), (570, 24787), (574, 24808), (579, 24844), (580, 24847), (593, 24913), (599, 24928), (600, 24931), (605, 24952), (612, 24985), (644, 25129), (667, 25177), (706, 25240), (728, 25300), (744, 25348), (761, 25402),

Gene: Hammy_26 Start: 21316, Stop: 23694, Start Num: 16
Candidate Starts for Hammy_26:
(Start: 16 @21316 has 55 MA's), (18, 21325), (27, 21364), (62, 21487), (85, 21544), (87, 21556), (131, 21622), (153, 21676), (177, 21754), (207, 21844), (225, 21886), (241, 21937), (260, 21979), (261, 21982), (266, 22003), (285, 22063), (287, 22069), (348, 22261), (375, 22378), (402, 22486), (411, 22504), (414, 22516), (450, 22660), (492, 22795), (493, 22798), (494, 22801), (505, 22834), (508, 22840), (526, 22894), (559, 23002), (566, 23035), (567, 23041), (572, 23056), (578, 23098), (593, 23185), (596, 23191), (631, 23320), (635, 23341), (718, 23536), (725, 23557), (726, 23560), (736, 23599), (762, 23668),

Gene: Hamood_25 Start: 21141, Stop: 23651, Start Num: 14
Candidate Starts for Hamood_25:
(Start: 14 @21141 has 14 MA's), (52, 21273), (55, 21288), (70, 21333), (75, 21351), (127, 21516), (148, 21570), (151, 21579), (172, 21657), (174, 21663), (228, 21828), (232, 21843), (247, 21879), (266, 21954), (268, 21966), (270, 21975), (276, 21993), (280, 22005), (293, 22038), (294, 22041), (303, 22077), (323, 22131), (367, 22254), (384, 22308), (389, 22329), (390, 22338), (422, 22440), (435, 22500), (442, 22548), (447, 22560), (455, 22605), (483, 22692), (494, 22731), (515, 22800), (519, 22812), (522, 22824), (599, 23112), (606, 23142), (624, 23223), (630, 23244), (636, 23271), (640, 23295), (713, 23460), (729, 23505), (758, 23604), (768, 23643),

Gene: HarryHoudini_33 Start: 23229, Stop: 25313, Start Num: 21
Candidate Starts for HarryHoudini_33:
(Start: 21 @23229 has 31 MA's), (54, 23343), (59, 23358), (125, 23580), (130, 23592), (239, 23769), (279, 23904), (294, 23940), (413, 24141), (419, 24159), (426, 24183), (475, 24384), (487, 24423), (491, 24435), (516, 24513), (540, 24570), (560, 24630), (561, 24636), (574, 24696), (593, 24801), (599, 24816), (607, 24843), (635, 24957), (636, 24960), (643, 25011), (645, 25020), (648, 25026), (658, 25050), (684, 25104), (700, 25128), (736, 25233), (762, 25299),

Gene: Hashim76_34 Start: 28773, Stop: 31235, Start Num: 34
Candidate Starts for Hashim76_34:
(Start: 34 @28773 has 1 MA's), (Start: 36 @28782 has 1 MA's), (64, 28887), (74, 28920), (84, 28947), (94, 28989), (129, 29103), (154, 29166), (161, 29193), (174, 29235), (237, 29442), (249, 29478), (257, 29511), (276, 29577), (306, 29664), (314, 29685), (327, 29718), (360, 29847), (372, 29913), (413, 30060), (419, 30078), (448, 30210), (454, 30237), (467, 30273), (487, 30342), (491, 30354), (501, 30384), (509, 30399), (512, 30420), (540, 30489), (543, 30501), (561, 30555), (563, 30561), (568, 30591), (573, 30612), (605, 30759), (613, 30804), (623, 30831), (726, 31101), (744, 31158), (752, 31179),

Gene: Hilltopfarm_27 Start: 23459, Stop: 26053, Start Num: 17
Candidate Starts for Hilltopfarm_27:
(Start: 17 @23459 has 5 MA's), (25, 23498), (Start: 45 @23573 has 15 MA's), (77, 23675), (79, 23684), (103, 23762), (121, 23843), (124, 23852), (141, 23897), (142, 23900), (146, 23909), (150, 23921), (152, 23924), (158, 23948), (167, 23975), (170, 23984), (185, 24047), (204, 24113), (219, 24149), (221, 24152), (246, 24224), (248, 24230), (266, 24299), (291, 24383), (320, 24464), (328, 24485), (366, 24608), (376, 24659), (387, 24686), (396, 24737), (406, 24782), (418, 24833), (420, 24842),

(429, 24875), (438, 24920), (464, 25043), (465, 25046), (466, 25049), (501, 25160), (517, 25223), (535, 25271), (562, 25358), (567, 25385), (570, 25394), (572, 25400), (578, 25442), (580, 25451), (605, 25568), (607, 25571), (628, 25655), (636, 25691), (644, 25745), (666, 25796), (670, 25802), (674, 25808), (697, 25850), (724, 25910), (735, 25946), (761, 26036), (764, 26045),

Gene: Hurricane_26 Start: 21315, Stop: 23663, Start Num: 16
Candidate Starts for Hurricane_26:
(Start: 16 @21315 has 55 MA's), (Start: 21 @21342 has 31 MA's), (30, 21375), (Start: 42 @21420 has 1 MA's), (59, 21480), (133, 21636), (153, 21681), (162, 21717), (169, 21735), (196, 21813), (219, 21861), (262, 21993), (276, 22047), (282, 22062), (320, 22170), (365, 22287), (371, 22329), (372, 22335), (375, 22344), (380, 22353), (400, 22434), (402, 22452), (405, 22455), (413, 22494), (420, 22515), (426, 22536), (428, 22545), (444, 22632), (470, 22725), (471, 22728), (499, 22800), (546, 22938), (561, 22983), (570, 23022), (573, 23040), (592, 23139), (596, 23157), (610, 23211), (619, 23241), (622, 23259), (631, 23286), (632, 23292), (642, 23340), (666, 23415), (672, 23424), (681, 23445), (686, 23454), (733, 23553), (747, 23595),

Gene: Impisi_21 Start: 17560, Stop: 20205, Start Num: 4
Candidate Starts for Impisi_21:
(1, 17548), (Start: 4 @17560 has 17 MA's), (7, 17572), (29, 17683), (Start: 36 @17707 has 1 MA's), (37, 17710), (39, 17719), (80, 17857), (95, 17899), (97, 17902), (121, 17992), (124, 18001), (125, 18004), (134, 18025), (138, 18037), (150, 18070), (167, 18124), (185, 18202), (194, 18232), (204, 18268), (228, 18331), (232, 18346), (246, 18379), (266, 18454), (270, 18478), (271, 18484), (276, 18496), (291, 18538), (294, 18544), (325, 18631), (333, 18652), (338, 18676), (361, 18742), (366, 18763), (369, 18781), (376, 18814), (386, 18838), (387, 18841), (396, 18892), (420, 18997), (432, 19039), (466, 19204), (494, 19300), (517, 19378), (524, 19390), (552, 19480), (567, 19540), (570, 19549), (578, 19597), (580, 19606), (605, 19723), (614, 19768), (628, 19810), (642, 19876), (644, 19900), (666, 19948), (670, 19954), (674, 19960), (723, 20059), (727, 20068), (735, 20098), (761, 20188), (764, 20197),

Gene: Indlovu_28 Start: 28755, Stop: 31250, Start Num: 33
Candidate Starts for Indlovu_28:
(Start: 33 @28755 has 1 MA's), (48, 28815), (116, 29073), (119, 29079), (129, 29112), (159, 29193), (198, 29331), (225, 29403), (233, 29430), (249, 29484), (257, 29517), (262, 29532), (276, 29592), (289, 29628), (294, 29637), (297, 29646), (305, 29676), (314, 29700), (327, 29733), (346, 29799), (350, 29814), (357, 29844), (358, 29853), (372, 29928), (387, 29964), (388, 29970), (393, 29985), (412, 30069), (413, 30072), (419, 30090), (446, 30213), (454, 30249), (475, 30315), (487, 30354), (491, 30366), (509, 30411), (512, 30432), (516, 30444), (561, 30567), (562, 30570), (563, 30573), (568, 30603), (570, 30606), (579, 30663), (582, 30681), (592, 30720), (600, 30750), (623, 30843), (640, 30918), (642, 30924), (710, 31074), (727, 31116), (736, 31152), (744, 31170), (753, 31197), (761, 31227),

Gene: Iwokeuplikedis_32 Start: 22493, Stop: 24805, Start Num: 21
Candidate Starts for Iwokeuplikedis_32:
(Start: 21 @22493 has 31 MA's), (57, 22616), (59, 22622), (68, 22649), (73, 22673), (136, 22868), (195, 23054), (239, 23144), (248, 23165), (257, 23201), (279, 23279), (293, 23312), (296, 23321), (407, 23612), (413, 23633), (419, 23651), (426, 23675), (448, 23783), (475, 23876), (487, 23915), (516, 24005), (560, 24122), (570, 24167), (574, 24188), (613, 24377), (622, 24398), (644, 24506), (653, 24530), (672, 24560), (727, 24674), (728, 24680), (744, 24728), (761, 24782),

Gene: JF1_28 Start: 22272, Stop: 24581, Start Num: 40
Candidate Starts for JF1_28:
(Start: 40 @22272 has 18 MA's), (67, 22362), (78, 22383), (86, 22407), (148, 22524), (188, 22653), (211, 22713), (238, 22785), (240, 22794), (258, 22845), (260, 22851), (263, 22860), (276, 22911),

(281, 22923), (287, 22938), (288, 22944), (300, 22977), (319, 23025), (337, 23079), (365, 23151),
(370, 23190), (373, 23202), (380, 23217), (391, 23262), (403, 23331), (429, 23412), (463, 23565),
(478, 23607), (513, 23736), (526, 23781), (546, 23847), (550, 23862), (574, 23958), (605, 24111),
(609, 24126), (610, 24132), (613, 24156), (615, 24162), (617, 24168), (618, 24171), (623, 24195),
(628, 24207), (645, 24303), (670, 24354), (672, 24357), (709, 24426), (726, 24462), (735, 24495),
(756, 24549), (759, 24558), (764, 24573),

Gene: Jerm_33 Start: 23204, Stop: 25408, Start Num: 21
Candidate Starts for Jerm_33:
(Start: 21 @23204 has 31 MA's), (54, 23318), (57, 23327), (68, 23360), (85, 23417), (125, 23555),
(239, 23744), (279, 23879), (296, 23921), (321, 23993), (413, 24233), (419, 24251), (426, 24275),
(448, 24383), (475, 24476), (487, 24515), (516, 24605), (540, 24662), (541, 24665), (560, 24722),
(561, 24728), (570, 24767), (574, 24788), (623, 25004), (635, 25049), (680, 25181), (703, 25217),
(711, 25238), (727, 25277), (744, 25331), (766, 25400),

Gene: Jobypre_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for Jobypre_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74,
19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192,
20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294,
20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345,
20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471,
21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563,
21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605,
21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657,
21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: JoshKayV_33 Start: 23180, Stop: 25381, Start Num: 22
Candidate Starts for JoshKayV_33:
(Start: 22 @23180 has 22 MA's), (28, 23201), (54, 23291), (57, 23300), (85, 23390), (125, 23528),
(136, 23552), (155, 23606), (239, 23717), (249, 23741), (279, 23852), (296, 23894), (413, 24206),
(419, 24224), (426, 24248), (448, 24356), (475, 24449), (487, 24488), (516, 24578), (560, 24695),
(561, 24701), (570, 24740), (574, 24761), (613, 24950), (623, 24977), (635, 25022), (703, 25190),
(711, 25211), (727, 25250), (744, 25304), (766, 25373),

Gene: Jubie_21 Start: 19725, Stop: 22238, Start Num: 12
Candidate Starts for Jubie_21:
(Start: 12 @19725 has 19 MA's), (26, 19788), (Start: 45 @19860 has 15 MA's), (72, 19950), (74,
19956), (96, 20028), (123, 20115), (160, 20220), (164, 20232), (171, 20250), (183, 20289), (192,
20319), (213, 20376), (226, 20406), (231, 20412), (247, 20466), (249, 20472), (293, 20619), (294,
20622), (297, 20631), (301, 20649), (324, 20709), (327, 20718), (330, 20730), (344, 20781), (345,
20784), (386, 20949), (400, 21006), (421, 21090), (426, 21108), (428, 21117), (439, 21180), (471,
21300), (480, 21324), (486, 21345), (491, 21360), (497, 21378), (510, 21408), (541, 21498), (563,
21567), (570, 21600), (574, 21621), (580, 21657), (588, 21693), (598, 21738), (603, 21762), (605,
21768), (609, 21783), (612, 21801), (636, 21888), (640, 21912), (645, 21948), (648, 21954), (657,
21978), (701, 22053), (703, 22056), (732, 22143), (735, 22152), (736, 22158),

Gene: Kabluna_46 Start: 32323, Stop: 34881, Start Num: 45
Candidate Starts for Kabluna_46:
(Start: 45 @32323 has 15 MA's), (87, 32452), (193, 32791), (194, 32794), (215, 32851), (266, 33004),
(286, 33070), (291, 33085), (404, 33526), (494, 33904), (523, 34009), (528, 34027), (539, 34060),
(544, 34081), (559, 34135), (580, 34240), (585, 34267), (586, 34273), (604, 34363), (627, 34459),
(629, 34462), (642, 34525), (647, 34558), (668, 34606), (685, 34639), (702, 34660), (734, 34747),

(738, 34762), (768, 34873),

Gene: Keshu_26 Start: 21307, Stop: 23655, Start Num: 16
Candidate Starts for Keshu_26:
(Start: 16 @21307 has 55 MA's), (Start: 21 @21334 has 31 MA's), (30, 21367), (Start: 42 @21412 has
1 MA's), (153, 21676), (154, 21682), (157, 21694), (219, 21856), (258, 21976), (262, 21988), (276,
22042), (282, 22057), (285, 22063), (300, 22108), (304, 22123), (314, 22150), (320, 22165), (365,
22282), (372, 22330), (375, 22339), (386, 22372), (392, 22384), (399, 22417), (400, 22420), (403,
22444), (413, 22486), (420, 22507), (426, 22528), (428, 22537), (471, 22723), (499, 22792), (516,
22852), (537, 22900), (563, 22981), (570, 23014), (593, 23143), (599, 23158), (610, 23203), (611,
23212), (619, 23233), (631, 23278), (632, 23284), (638, 23311), (642, 23332), (651, 23374), (672,
23416), (687, 23446), (733, 23545), (735, 23551), (747, 23587),

Gene: Keziacharles14_31 Start: 22419, Stop: 24875, Start Num: 21
Candidate Starts for Keziacharles14_31:
(Start: 21 @22419 has 31 MA's), (52, 22524), (107, 22692), (186, 22947), (202, 23004), (235, 23106),
(250, 23148), (308, 23337), (311, 23340), (318, 23355), (330, 23394), (343, 23439), (359, 23475),
(413, 23700), (419, 23718), (473, 23940), (477, 23946), (486, 23979), (516, 24081), (560, 24198),
(570, 24243), (580, 24303), (593, 24369), (599, 24384), (600, 24387), (605, 24408), (609, 24423),
(610, 24429), (645, 24588), (677, 24648), (740, 24795),

Gene: KilKor_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for KilKor_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385),
(142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700),
(242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892),
(294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135),
(376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558),
(494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951),
(580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302),
(670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: KingCyrus_33 Start: 23177, Stop: 25654, Start Num: 22
Candidate Starts for KingCyrus_33:
(Start: 22 @23177 has 22 MA's), (28, 23198), (54, 23288), (57, 23297), (85, 23387), (99, 23435), (131,
23567), (195, 23786), (207, 23813), (223, 23855), (243, 23930), (283, 24071), (289, 24086), (306,
24137), (308, 24143), (343, 24245), (366, 24287), (407, 24455), (420, 24497), (426, 24518), (449,
24629), (451, 24632), (467, 24689), (486, 24755), (487, 24758), (491, 24770), (504, 24812), (509,
24821), (516, 24854), (540, 24911), (574, 25037), (579, 25073), (580, 25076), (613, 25226), (618,
25232), (633, 25286), (635, 25298), (637, 25307), (640, 25328), (653, 25382), (716, 25496), (726,
25523), (727, 25526), (744, 25580), (753, 25607),

Gene: Kingsolomon_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for Kingsolomon_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74,
19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192,
20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294,
20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345,
20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471,
21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563,
21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605,
21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657,
21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: KirDoubleO7_19 Start: 19718, Stop: 22231, Start Num: 12
Candidate Starts for KirDoubleO7_19:
(Start: 12 @19718 has 19 MA's), (26, 19781), (Start: 45 @19853 has 15 MA's), (74, 19949), (96, 20021), (123, 20108), (160, 20213), (171, 20243), (183, 20282), (192, 20312), (213, 20369), (226, 20399), (231, 20405), (247, 20459), (249, 20465), (293, 20612), (294, 20615), (297, 20624), (301, 20642), (324, 20702), (330, 20723), (344, 20774), (345, 20777), (352, 20804), (386, 20942), (400, 20999), (421, 21083), (426, 21101), (428, 21110), (439, 21173), (455, 21239), (471, 21293), (486, 21338), (491, 21353), (510, 21401), (541, 21491), (546, 21509), (561, 21554), (563, 21560), (570, 21593), (573, 21611), (580, 21650), (588, 21686), (598, 21731), (603, 21755), (609, 21776), (612, 21794), (621, 21827), (640, 21905), (645, 21941), (657, 21971), (701, 22046), (716, 22082), (735, 22145), (736, 22151),

Gene: KittenMittens_31 Start: 21406, Stop: 23688, Start Num: 19
Candidate Starts for KittenMittens_31:
(Start: 19 @21406 has 6 MA's), (25, 21439), (52, 21523), (71, 21589), (153, 21835), (155, 21844), (179, 21928), (200, 22003), (239, 22081), (265, 22156), (306, 22246), (320, 22279), (372, 22372), (413, 22519), (419, 22537), (426, 22561), (475, 22762), (487, 22801), (516, 22891), (540, 22948), (574, 23074), (575, 23083), (578, 23101), (580, 23113), (605, 23218), (609, 23233), (610, 23239), (618, 23272), (642, 23371), (643, 23392), (644, 23395), (671, 23452), (680, 23470), (681, 23473), (688, 23485), (708, 23524), (725, 23566), (726, 23569), (761, 23671),

Gene: Kraw_28 Start: 22196, Stop: 24505, Start Num: 40
Candidate Starts for Kraw_28:
(Start: 40 @22196 has 18 MA's), (67, 22286), (78, 22307), (86, 22331), (148, 22448), (188, 22577), (211, 22637), (238, 22709), (240, 22718), (258, 22769), (260, 22775), (263, 22784), (276, 22835), (281, 22847), (287, 22862), (288, 22868), (300, 22901), (319, 22949), (337, 23003), (365, 23075), (370, 23114), (373, 23126), (380, 23141), (391, 23186), (403, 23255), (429, 23336), (463, 23489), (478, 23531), (513, 23660), (526, 23705), (546, 23771), (550, 23786), (574, 23882), (605, 24035), (609, 24050), (610, 24056), (613, 24080), (615, 24086), (617, 24092), (618, 24095), (623, 24119), (628, 24131), (645, 24227), (670, 24278), (672, 24281), (709, 24350), (726, 24386), (735, 24419), (759, 24482), (764, 24497),

Gene: Krueger_26 Start: 20014, Stop: 22350, Start Num: 16
Candidate Starts for Krueger_26:
(11, 19981), (Start: 16 @20014 has 55 MA's), (18, 20023), (29, 20071), (30, 20074), (68, 20203), (87, 20254), (145, 20350), (148, 20359), (177, 20449), (188, 20488), (219, 20560), (222, 20569), (253, 20662), (276, 20743), (287, 20773), (300, 20812), (304, 20827), (314, 20851), (339, 20911), (356, 20956), (365, 20983), (370, 21022), (375, 21040), (380, 21049), (399, 21118), (400, 21121), (402, 21139), (413, 21181), (420, 21202), (425, 21217), (428, 21232), (444, 21319), (470, 21412), (471, 21415), (499, 21487), (512, 21535), (543, 21616), (553, 21640), (560, 21664), (561, 21670), (570, 21709), (610, 21898), (631, 21973), (642, 22027), (672, 22111), (680, 22129), (727, 22216), (733, 22240), (747, 22282), (767, 22342),

Gene: Krypton555_21 Start: 19647, Stop: 22160, Start Num: 12
Candidate Starts for Krypton555_21:
(Start: 12 @19647 has 19 MA's), (26, 19710), (Start: 45 @19782 has 15 MA's), (105, 19980), (156, 20124), (160, 20142), (164, 20154), (171, 20172), (183, 20211), (185, 20226), (192, 20241), (213, 20298), (226, 20328), (231, 20334), (247, 20388), (249, 20394), (264, 20451), (293, 20541), (294, 20544), (297, 20553), (301, 20571), (324, 20631), (344, 20703), (345, 20706), (382, 20850), (386, 20871), (400, 20928), (421, 21012), (426, 21030), (428, 21039), (471, 21222), (486, 21267), (491, 21282), (497, 21300), (510, 21330), (530, 21390), (541, 21420), (563, 21489), (570, 21522), (574, 21543), (580, 21579), (587, 21609), (603, 21684), (605, 21690), (609, 21705), (612, 21723), (621,

21756), (635, 21807), (636, 21810), (641, 21837), (645, 21870), (657, 21900), (701, 21975), (716, 22011), (735, 22074), (736, 22080), (764, 22152),

Gene: LadyBird_31 Start: 22727, Stop: 25135, Start Num: 21
Candidate Starts for LadyBird_31:
(Start: 21 @22727 has 31 MA's), (54, 22841), (85, 22934), (94, 22970), (145, 23120), (153, 23141), (155, 23150), (195, 23282), (239, 23372), (279, 23507), (293, 23540), (296, 23549), (330, 23648), (392, 23888), (413, 23978), (419, 23996), (426, 24020), (475, 24221), (487, 24260), (495, 24281), (509, 24317), (516, 24350), (521, 24371), (540, 24407), (558, 24461), (570, 24512), (574, 24533), (593, 24638), (599, 24653), (642, 24821), (650, 24863), (688, 24932), (756, 25103), (759, 25112), (761, 25118),

Gene: Larenn_32 Start: 23024, Stop: 25237, Start Num: 21
Candidate Starts for Larenn_32:
(Start: 21 @23024 has 31 MA's), (54, 23138), (59, 23153), (88, 23252), (108, 23327), (125, 23375), (130, 23387), (239, 23564), (253, 23603), (279, 23699), (293, 23732), (296, 23741), (318, 23801), (336, 23867), (413, 24053), (423, 24083), (426, 24095), (467, 24266), (487, 24335), (516, 24434), (558, 24545), (560, 24551), (561, 24557), (570, 24596), (574, 24617), (579, 24653), (580, 24656), (593, 24722), (623, 24833), (644, 24938), (672, 24992), (728, 25112), (744, 25160), (753, 25184),

Gene: LastHope_27 Start: 20175, Stop: 22487, Start Num: 40
Candidate Starts for LastHope_27:
(Start: 40 @20175 has 18 MA's), (91, 20325), (100, 20346), (141, 20403), (146, 20415), (163, 20469), (179, 20514), (191, 20556), (195, 20568), (216, 20613), (254, 20724), (260, 20745), (271, 20796), (278, 20811), (285, 20826), (314, 20907), (326, 20937), (337, 20976), (349, 20991), (364, 21051), (384, 21135), (399, 21207), (473, 21510), (478, 21516), (493, 21570), (494, 21573), (498, 21585), (507, 21612), (511, 21630), (512, 21636), (546, 21753), (550, 21768), (605, 22017), (609, 22032), (613, 22062), (623, 22101), (628, 22113), (645, 22209), (659, 22239), (680, 22281), (692, 22302), (715, 22344), (726, 22368), (727, 22371), (733, 22395), (735, 22401), (759, 22464), (764, 22479),

Gene: Lavahound_25 Start: 20978, Stop: 23365, Start Num: 16
Candidate Starts for Lavahound_25:
(Start: 16 @20978 has 55 MA's), (Start: 22 @21008 has 22 MA's), (27, 21026), (50, 21110), (131, 21284), (177, 21416), (207, 21506), (225, 21548), (241, 21599), (260, 21641), (261, 21644), (276, 21701), (285, 21725), (287, 21731), (300, 21770), (320, 21827), (348, 21923), (375, 22040), (395, 22109), (402, 22148), (407, 22157), (414, 22178), (428, 22220), (492, 22457), (493, 22460), (494, 22463), (508, 22502), (526, 22556), (573, 22730), (578, 22760), (593, 22847), (596, 22853), (622, 22955), (644, 23060), (645, 23066), (664, 23114), (714, 23207), (725, 23231), (733, 23261), (762, 23339),

Gene: Lea83_26 Start: 21295, Stop: 23643, Start Num: 16
Candidate Starts for Lea83_26:
(Start: 16 @21295 has 55 MA's), (Start: 21 @21322 has 31 MA's), (30, 21355), (Start: 42 @21400 has 1 MA's), (135, 21619), (153, 21664), (162, 21700), (169, 21718), (196, 21796), (219, 21844), (262, 21976), (276, 22030), (282, 22045), (320, 22153), (365, 22270), (371, 22312), (372, 22318), (375, 22327), (380, 22336), (392, 22381), (400, 22417), (402, 22435), (413, 22477), (420, 22498), (426, 22519), (428, 22528), (444, 22615), (470, 22708), (471, 22711), (499, 22783), (561, 22966), (573, 23023), (592, 23122), (596, 23140), (610, 23194), (619, 23224), (621, 23239), (622, 23242), (626, 23251), (631, 23269), (632, 23275), (638, 23302), (642, 23323), (646, 23353), (666, 23398), (672, 23407), (733, 23536), (747, 23575), (750, 23578),

Gene: Lebo14_28 Start: 22289, Stop: 24595, Start Num: 40
Candidate Starts for Lebo14_28:

(Start: 40 @22289 has 18 MA's), (78, 22400), (86, 22424), (148, 22541), (188, 22670), (207, 22721), (211, 22730), (225, 22763), (238, 22802), (240, 22811), (260, 22868), (263, 22877), (276, 22928), (281, 22940), (287, 22955), (288, 22961), (300, 22994), (319, 23042), (337, 23096), (365, 23168), (370, 23207), (373, 23219), (380, 23234), (391, 23279), (403, 23348), (429, 23429), (463, 23582), (494, 23681), (498, 23693), (526, 23798), (546, 23864), (549, 23876), (550, 23879), (574, 23975), (605, 24128), (609, 24143), (610, 24149), (613, 24173), (623, 24212), (645, 24320), (672, 24374), (681, 24395), (690, 24410), (727, 24479), (735, 24509), (764, 24587),

Gene: Leviathan_33 Start: 23260, Stop: 25464, Start Num: 21
Candidate Starts for Leviathan_33:
(Start: 21 @23260 has 31 MA's), (54, 23374), (57, 23383), (59, 23389), (85, 23473), (125, 23611), (136, 23635), (155, 23689), (239, 23800), (279, 23935), (296, 23977), (321, 24049), (407, 24268), (413, 24289), (419, 24307), (426, 24331), (448, 24439), (475, 24532), (487, 24571), (516, 24661), (540, 24718), (541, 24721), (560, 24778), (561, 24784), (570, 24823), (574, 24844), (613, 25033), (621, 25054), (644, 25165), (716, 25303), (736, 25369), (744, 25387), (766, 25456),

Gene: LilPharaoh_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for LilPharaoh_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277), (586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673),

Gene: LilTurb_33 Start: 23263, Stop: 25467, Start Num: 21
Candidate Starts for LilTurb_33:
(Start: 21 @23263 has 31 MA's), (54, 23377), (57, 23386), (68, 23419), (85, 23476), (125, 23614), (239, 23803), (279, 23938), (296, 23980), (321, 24052), (413, 24292), (419, 24310), (426, 24334), (448, 24442), (475, 24535), (487, 24574), (516, 24664), (540, 24721), (541, 24724), (560, 24781), (561, 24787), (570, 24826), (574, 24847), (613, 25036), (623, 25063), (668, 25216), (680, 25240), (709, 25294), (711, 25297), (727, 25336), (728, 25342), (744, 25390),

Gene: LiyuLake_21 Start: 19709, Stop: 22219, Start Num: 12
Candidate Starts for LiyuLake_21:
(Start: 12 @19709 has 19 MA's), (26, 19772), (60, 19892), (117, 20078), (160, 20204), (164, 20216), (171, 20234), (183, 20273), (192, 20303), (226, 20390), (247, 20450), (249, 20456), (291, 20597), (294, 20603), (297, 20612), (301, 20630), (324, 20690), (330, 20711), (344, 20762), (345, 20765), (363, 20834), (400, 20987), (421, 21071), (426, 21089), (428, 21098), (453, 21209), (455, 21227), (471, 21281), (486, 21326), (491, 21341), (510, 21389), (541, 21479), (546, 21497), (563, 21548), (570, 21581), (573, 21599), (574, 21602), (580, 21638), (587, 21668), (588, 21674), (598, 21719), (603, 21743), (605, 21749), (609, 21764), (612, 21782), (621, 21815), (622, 21818), (636, 21869), (648, 21935), (657, 21959), (701, 22034), (716, 22070), (736, 22139),

Gene: Lollipop1437_48 Start: 34224, Stop: 36782, Start Num: 45
Candidate Starts for Lollipop1437_48:
(Start: 45 @34224 has 15 MA's), (124, 34473), (193, 34692), (194, 34695), (237, 34824), (271, 34932), (286, 34971), (389, 35343), (404, 35427), (494, 35805), (523, 35910), (528, 35928), (539, 35961), (544, 35982), (559, 36036), (580, 36141), (586, 36174), (604, 36264), (627, 36360), (629, 36363), (642, 36426), (647, 36459), (654, 36477), (655, 36480), (674, 36516), (685, 36540), (702, 36561), (735, 36651), (738, 36663),

Gene: Lolly9_21 Start: 19528, Stop: 22035, Start Num: 12
Candidate Starts for Lolly9_21:
(Start: 12 @19528 has 19 MA's), (26, 19591), (Start: 45 @19663 has 15 MA's), (60, 19711), (117, 19897), (160, 20023), (171, 20053), (183, 20092), (192, 20122), (226, 20209), (236, 20236), (247, 20269), (249, 20275), (264, 20326), (291, 20413), (294, 20419), (297, 20428), (301, 20446), (324, 20506), (330, 20527), (344, 20578), (345, 20581), (363, 20650), (400, 20803), (421, 20887), (426, 20905), (428, 20914), (471, 21097), (480, 21121), (486, 21142), (491, 21157), (510, 21205), (541, 21295), (543, 21304), (570, 21397), (573, 21415), (574, 21418), (588, 21490), (603, 21559), (605, 21565), (609, 21580), (612, 21598), (621, 21631), (622, 21634), (636, 21685), (640, 21709), (648, 21751), (657, 21775), (701, 21850), (703, 21853), (736, 21955),

Gene: LongHai_25 Start: 19700, Stop: 22018, Start Num: 63
Candidate Starts for LongHai_25:
(Start: 63 @19700 has 2 MA's), (125, 19901), (144, 19946), (149, 19958), (182, 20069), (201, 20135), (249, 20249), (255, 20276), (331, 20498), (334, 20516), (347, 20552), (360, 20612), (375, 20687), (385, 20714), (392, 20741), (400, 20777), (412, 20834), (458, 21029), (484, 21098), (487, 21116), (488, 21122), (489, 21125), (491, 21128), (531, 21245), (534, 21251), (560, 21329), (571, 21377), (572, 21380), (585, 21458), (593, 21509), (599, 21524), (602, 21536), (618, 21599), (623, 21620), (630, 21641), (642, 21698), (643, 21719), (657, 21758), (680, 21800), (701, 21833), (705, 21839), (708, 21854), (736, 21938),

Gene: Luchador_33 Start: 23273, Stop: 25723, Start Num: 21
Candidate Starts for Luchador_33:
(Start: 21 @23273 has 31 MA's), (23, 23279), (86, 23489), (107, 23546), (113, 23567), (186, 23798), (223, 23909), (269, 24083), (283, 24125), (306, 24182), (308, 24188), (318, 24206), (325, 24227), (327, 24233), (330, 24245), (407, 24524), (426, 24587), (451, 24701), (467, 24758), (486, 24824), (487, 24827), (491, 24839), (504, 24881), (516, 24923), (570, 25085), (574, 25106), (580, 25145), (607, 25253), (613, 25295), (621, 25316), (633, 25355), (640, 25397), (663, 25466), (716, 25565), (726, 25592), (727, 25595), (744, 25649), (753, 25676),

Gene: Lumos_21 Start: 19721, Stop: 22234, Start Num: 12
Candidate Starts for Lumos_21:
(Start: 12 @19721 has 19 MA's), (26, 19784), (Start: 45 @19856 has 15 MA's), (72, 19946), (74, 19952), (96, 20024), (123, 20111), (160, 20216), (164, 20228), (171, 20246), (183, 20285), (192, 20315), (213, 20372), (226, 20402), (231, 20408), (247, 20462), (249, 20468), (293, 20615), (294, 20618), (297, 20627), (301, 20645), (324, 20705), (327, 20714), (330, 20726), (344, 20777), (345, 20780), (386, 20945), (400, 21002), (421, 21086), (426, 21104), (428, 21113), (439, 21176), (471, 21296), (480, 21320), (486, 21341), (491, 21356), (497, 21374), (510, 21404), (541, 21494), (563, 21563), (570, 21596), (574, 21617), (580, 21653), (588, 21689), (598, 21734), (603, 21758), (605, 21764), (609, 21779), (612, 21797), (636, 21884), (640, 21908), (645, 21944), (648, 21950), (657, 21974), (701, 22049), (703, 22052), (732, 22139), (735, 22148), (736, 22154),

Gene: MacnCheese_27 Start: 21549, Stop: 24002, Start Num: 16
Candidate Starts for MacnCheese_27:
(Start: 16 @21549 has 55 MA's), (Start: 21 @21576 has 31 MA's), (30, 21609), (Start: 34 @21621 has 1 MA's), (59, 21714), (135, 21978), (153, 22023), (157, 22041), (162, 22059), (169, 22077), (189, 22137), (196, 22155), (211, 22191), (233, 22242), (276, 22389), (320, 22512), (365, 22629), (371, 22671), (372, 22677), (375, 22686), (384, 22710), (400, 22776), (402, 22794), (413, 22836), (420, 22857), (426, 22878), (428, 22887), (444, 22974), (470, 23067), (471, 23070), (499, 23142), (543, 23271), (546, 23280), (561, 23325), (563, 23331), (570, 23364), (573, 23382), (592, 23481), (596, 23499), (610, 23553), (621, 23598), (632, 23634), (642, 23682), (672, 23766), (733, 23895), (747, 23934),

Gene: Maco6_22 Start: 18657, Stop: 20975, Start Num: 63
Candidate Starts for Maco6_22:
(Start: 63 @18657 has 2 MA's), (125, 18858), (144, 18903), (149, 18915), (182, 19026), (201, 19092),
(255, 19233), (297, 19365), (309, 19404), (315, 19416), (331, 19455), (334, 19473), (347, 19509),
(360, 19569), (375, 19644), (385, 19671), (400, 19734), (412, 19791), (458, 19986), (462, 19989),
(484, 20055), (487, 20073), (488, 20079), (489, 20082), (491, 20085), (534, 20208), (551, 20256),
(560, 20286), (570, 20331), (572, 20337), (578, 20379), (585, 20415), (593, 20466), (599, 20481),
(603, 20499), (618, 20556), (623, 20577), (630, 20598), (642, 20655), (643, 20676), (657, 20715),
(680, 20757), (701, 20790), (705, 20796), (708, 20811), (736, 20895),

Gene: MalagasyRose_27 Start: 20187, Stop: 22691, Start Num: 36
Candidate Starts for MalagasyRose_27:
(Start: 36 @20187 has 1 MA's), (102, 20397), (106, 20412), (114, 20445), (128, 20496), (193, 20712),
(194, 20715), (199, 20736), (248, 20868), (249, 20871), (258, 20913), (259, 20916), (271, 20970),
(273, 20973), (274, 20976), (276, 20982), (286, 21009), (297, 21039), (310, 21084), (322, 21114),
(343, 21189), (367, 21270), (368, 21279), (374, 21315), (387, 21351), (396, 21402), (399, 21414),
(418, 21501), (420, 21510), (429, 21543), (438, 21582), (452, 21642), (478, 21750), (501, 21822),
(514, 21876), (532, 21939), (538, 21954), (545, 21978), (550, 21996), (555, 22014), (557, 22020),
(562, 22035), (570, 22071), (574, 22092), (575, 22101), (591, 22191), (623, 22335), (628, 22347),
(631, 22359), (640, 22407), (641, 22410), (642, 22413), (650, 22455), (670, 22476), (680, 22497),
(682, 22500), (689, 22512), (732, 22596), (764, 22683),

Gene: Malthus_29 Start: 22196, Stop: 24505, Start Num: 40
Candidate Starts for Malthus_29:
(Start: 40 @22196 has 18 MA's), (67, 22286), (78, 22307), (86, 22331), (148, 22448), (188, 22577),
(211, 22637), (238, 22709), (240, 22718), (258, 22769), (260, 22775), (263, 22784), (276, 22835),
(281, 22847), (287, 22862), (288, 22868), (300, 22901), (319, 22949), (337, 23003), (365, 23075),
(370, 23114), (373, 23126), (380, 23141), (391, 23186), (403, 23255), (429, 23336), (463, 23489),
(478, 23531), (513, 23660), (526, 23705), (546, 23771), (550, 23786), (574, 23882), (605, 24035),
(609, 24050), (610, 24056), (613, 24080), (615, 24086), (617, 24092), (618, 24095), (623, 24119),
(628, 24131), (645, 24227), (670, 24278), (672, 24281), (709, 24350), (726, 24386), (735, 24419),
(756, 24473), (759, 24482), (764, 24497),

Gene: Manilisa_30 Start: 24464, Stop: 27067, Start Num: 10
Candidate Starts for Manilisa_30:
(Start: 10 @24464 has 1 MA's), (Start: 34 @24578 has 1 MA's), (Start: 36 @24587 has 1 MA's), (118,
24890), (172, 25064), (215, 25199), (228, 25235), (247, 25286), (248, 25289), (266, 25361), (280,
25412), (286, 25427), (293, 25445), (299, 25469), (397, 25778), (404, 25799), (409, 25808), (410,
25811), (431, 25883), (459, 26030), (469, 26060), (494, 26141), (496, 26144), (510, 26183), (512,
26195), (527, 26246), (570, 26372), (607, 26555), (624, 26636), (652, 26759), (691, 26834), (719,
26888), (737, 26948), (743, 26960),

Gene: Marcoliusprime_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for Marcoliusprime_23:
(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (75, 18874), (148, 19018), (158, 19051),
(205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369),
(276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (372, 19675),
(375, 19684), (399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981),
(475, 20071), (496, 20125), (499, 20137), (506, 20161), (546, 20275), (556, 20302), (570, 20359),
(580, 20416), (610, 20548), (619, 20578), (632, 20629), (636, 20647), (642, 20677), (657, 20731),
(672, 20761), (681, 20782), (741, 20914),

Gene: McMater_27 Start: 20230, Stop: 22731, Start Num: 16
Candidate Starts for McMater_27:
(Start: 16 @20230 has 55 MA's), (27, 20278), (41, 20329), (62, 20401), (84, 20452), (87, 20470), (99, 20503), (126, 20524), (131, 20536), (153, 20590), (177, 20668), (188, 20707), (209, 20764), (225, 20800), (241, 20851), (256, 20881), (261, 20896), (267, 20920), (276, 20953), (285, 20974), (287, 20980), (300, 21019), (348, 21172), (356, 21205), (358, 21217), (372, 21280), (394, 21364), (436, 21547), (445, 21601), (455, 21643), (513, 21835), (516, 21841), (526, 21865), (545, 21928), (556, 21967), (572, 22030), (580, 22087), (586, 22120), (590, 22138), (597, 22177), (608, 22216), (609, 22222), (621, 22279), (645, 22393), (673, 22447), (680, 22462), (699, 22492), (704, 22504), (725, 22561), (730, 22579), (739, 22609), (744, 22627), (763, 22708),

Gene: Mdavu_23 Start: 20402, Stop: 22888, Start Num: 16
Candidate Starts for Mdavu_23:
(Start: 16 @20402 has 55 MA's), (27, 20450), (85, 20630), (86, 20633), (126, 20696), (131, 20708), (177, 20840), (188, 20879), (209, 20936), (222, 20960), (225, 20972), (240, 21020), (241, 21023), (256, 21056), (267, 21095), (276, 21128), (281, 21140), (285, 21149), (287, 21155), (307, 21221), (314, 21236), (348, 21347), (356, 21380), (375, 21464), (383, 21479), (394, 21539), (408, 21608), (437, 21728), (455, 21821), (490, 21935), (513, 22013), (516, 22019), (526, 22043), (545, 22106), (546, 22109), (549, 22121), (566, 22187), (567, 22193), (576, 22235), (578, 22256), (580, 22265), (586, 22298), (590, 22316), (605, 22385), (631, 22484), (632, 22490), (636, 22508), (643, 22562), (648, 22577), (661, 22604), (694, 22661),

Gene: Megiddo_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for Megiddo_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385), (142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700), (242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892), (294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135), (376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558), (494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951), (580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302), (670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: MerCougar_44 Start: 33507, Stop: 36065, Start Num: 45
Candidate Starts for MerCougar_44:
(Start: 45 @33507 has 15 MA's), (48, 33516), (87, 33636), (193, 33975), (194, 33978), (215, 34035), (266, 34188), (291, 34269), (322, 34359), (389, 34626), (404, 34710), (461, 34980), (494, 35088), (523, 35193), (528, 35211), (539, 35244), (541, 35253), (565, 35343), (574, 35388), (579, 35421), (580, 35424), (586, 35457), (611, 35577), (617, 35601), (618, 35604), (627, 35643), (629, 35646), (647, 35742), (695, 35838), (702, 35844), (730, 35916), (738, 35946), (747, 35973), (759, 36018), (765, 36036),

Gene: MiculUcigas_31 Start: 22775, Stop: 24997, Start Num: 21
Candidate Starts for MiculUcigas_31:
(Start: 21 @22775 has 31 MA's), (54, 22889), (59, 22904), (136, 23150), (155, 23204), (239, 23315), (253, 23354), (279, 23450), (318, 23552), (413, 23801), (423, 23831), (426, 23843), (467, 24014), (487, 24083), (516, 24182), (558, 24293), (560, 24299), (561, 24305), (570, 24344), (579, 24401), (580, 24404), (593, 24470), (613, 24554), (635, 24626), (667, 24746), (724, 24857), (738, 24908), (744, 24920),

Gene: Milly_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for Milly_23:

(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (75, 18874), (148, 19018), (158, 19051), (205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369), (276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (372, 19675), (375, 19684), (399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981), (457, 20017), (475, 20071), (496, 20125), (499, 20137), (506, 20161), (546, 20275), (556, 20302), (570, 20359), (610, 20548), (619, 20578), (632, 20629), (642, 20677), (657, 20731), (672, 20761), (681, 20782), (741, 20914),

Gene: MiniLon_21 Start: 19528, Stop: 22035, Start Num: 12
Candidate Starts for MiniLon_21:
(Start: 12 @19528 has 19 MA's), (26, 19591), (Start: 45 @19663 has 15 MA's), (60, 19711), (117, 19897), (160, 20023), (171, 20053), (183, 20092), (192, 20122), (226, 20209), (236, 20236), (247, 20269), (249, 20275), (264, 20326), (291, 20413), (294, 20419), (297, 20428), (301, 20446), (324, 20506), (330, 20527), (344, 20578), (345, 20581), (363, 20650), (400, 20803), (421, 20887), (426, 20905), (428, 20914), (471, 21097), (480, 21121), (486, 21142), (491, 21157), (510, 21205), (541, 21295), (543, 21304), (570, 21397), (573, 21415), (574, 21418), (588, 21490), (603, 21559), (605, 21565), (609, 21580), (612, 21598), (621, 21631), (622, 21634), (636, 21685), (640, 21709), (648, 21751), (657, 21775), (701, 21850), (703, 21853), (736, 21955),

Gene: MiniMac_21 Start: 19529, Stop: 22036, Start Num: 12
Candidate Starts for MiniMac_21:
(Start: 12 @19529 has 19 MA's), (26, 19592), (Start: 45 @19664 has 15 MA's), (60, 19712), (117, 19898), (160, 20024), (171, 20054), (183, 20093), (192, 20123), (226, 20210), (236, 20237), (247, 20270), (249, 20276), (264, 20327), (291, 20414), (294, 20420), (297, 20429), (301, 20447), (324, 20507), (330, 20528), (344, 20579), (345, 20582), (363, 20651), (400, 20804), (421, 20888), (426, 20906), (428, 20915), (471, 21098), (480, 21122), (486, 21143), (491, 21158), (510, 21206), (541, 21296), (543, 21305), (570, 21398), (573, 21416), (574, 21419), (588, 21491), (603, 21560), (605, 21566), (609, 21581), (612, 21599), (621, 21632), (622, 21635), (636, 21686), (640, 21710), (648, 21752), (657, 21776), (701, 21851), (703, 21854), (736, 21956),

Gene: MissDaisy_28 Start: 22035, Stop: 24344, Start Num: 40
Candidate Starts for MissDaisy_28:
(Start: 40 @22035 has 18 MA's), (53, 22083), (56, 22092), (78, 22146), (87, 22179), (148, 22287), (169, 22353), (188, 22416), (207, 22467), (211, 22476), (225, 22509), (240, 22557), (260, 22614), (276, 22674), (281, 22686), (287, 22701), (288, 22707), (300, 22740), (319, 22788), (337, 22842), (365, 22914), (403, 23094), (429, 23175), (463, 23328), (478, 23370), (498, 23439), (521, 23526), (526, 23544), (533, 23571), (546, 23610), (550, 23625), (574, 23721), (605, 23874), (609, 23889), (610, 23895), (615, 23925), (617, 23931), (623, 23958), (628, 23970), (645, 24066), (672, 24120), (681, 24141), (727, 24228), (735, 24258), (764, 24336),

Gene: Mitti_28 Start: 22196, Stop: 24505, Start Num: 40
Candidate Starts for Mitti_28:
(Start: 40 @22196 has 18 MA's), (78, 22307), (86, 22331), (148, 22448), (188, 22577), (211, 22637), (238, 22709), (240, 22718), (260, 22775), (263, 22784), (276, 22835), (281, 22847), (287, 22862), (288, 22868), (300, 22901), (319, 22949), (337, 23003), (365, 23075), (370, 23114), (373, 23126), (380, 23141), (391, 23186), (403, 23255), (429, 23336), (463, 23489), (478, 23531), (494, 23588), (498, 23600), (507, 23630), (526, 23705), (533, 23732), (546, 23771), (550, 23786), (574, 23882), (605, 24035), (609, 24050), (610, 24056), (615, 24086), (617, 24092), (623, 24119), (628, 24131), (645, 24227), (672, 24281), (681, 24302), (727, 24389), (735, 24419), (764, 24497),

Gene: Moostard_21 Start: 19727, Stop: 22240, Start Num: 12
Candidate Starts for Moostard_21:

(Start: 12 @19727 has 19 MA's), (26, 19790), (Start: 45 @19862 has 15 MA's), (72, 19952), (74, 19958), (96, 20030), (160, 20222), (164, 20234), (171, 20252), (183, 20291), (192, 20321), (213, 20378), (226, 20408), (231, 20414), (247, 20468), (249, 20474), (293, 20621), (294, 20624), (297, 20633), (301, 20651), (324, 20711), (327, 20720), (330, 20732), (344, 20783), (345, 20786), (386, 20951), (400, 21008), (421, 21092), (426, 21110), (428, 21119), (439, 21182), (471, 21302), (486, 21347), (491, 21362), (497, 21380), (510, 21410), (541, 21500), (563, 21569), (570, 21602), (574, 21623), (580, 21659), (588, 21695), (598, 21740), (603, 21764), (605, 21770), (609, 21785), (612, 21803), (621, 21836), (636, 21890), (640, 21914), (645, 21950), (648, 21956), (657, 21980), (732, 22145), (735, 22154), (736, 22160),

Gene: MsGreen_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for MsGreen_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74, 19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192, 20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294, 20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345, 20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471, 21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563, 21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605, 21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657, 21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: Muddy_24 Start: 19607, Stop: 21925, Start Num: 63
Candidate Starts for Muddy_24:
(Start: 63 @19607 has 2 MA's), (125, 19808), (144, 19853), (149, 19865), (170, 19931), (172, 19943), (182, 19976), (201, 20042), (255, 20183), (297, 20315), (315, 20366), (331, 20405), (334, 20423), (347, 20459), (360, 20519), (375, 20594), (385, 20621), (400, 20684), (412, 20741), (458, 20936), (484, 21005), (487, 21023), (488, 21029), (489, 21032), (491, 21035), (531, 21152), (534, 21158), (560, 21236), (571, 21284), (572, 21287), (585, 21365), (593, 21416), (599, 21431), (602, 21443), (618, 21506), (623, 21527), (630, 21548), (642, 21605), (643, 21626), (657, 21665), (680, 21707), (701, 21740), (705, 21746), (708, 21761), (736, 21845),

Gene: Mufasa_23 Start: 18681, Stop: 21020, Start Num: 16
Candidate Starts for Mufasa_23:
(Start: 16 @18681 has 55 MA's), (85, 18921), (145, 19029), (148, 19038), (155, 19059), (161, 19083), (211, 19212), (219, 19224), (240, 19293), (285, 19428), (292, 19446), (300, 19473), (339, 19575), (365, 19647), (371, 19689), (372, 19695), (375, 19704), (378, 19710), (399, 19791), (402, 19812), (413, 19854), (420, 19875), (428, 19905), (444, 19992), (448, 20001), (457, 20037), (475, 20091), (496, 20145), (499, 20157), (516, 20217), (541, 20277), (546, 20295), (556, 20322), (570, 20379), (610, 20568), (619, 20598), (638, 20676), (642, 20697), (651, 20739), (666, 20772), (672, 20781), (681, 20802), (704, 20829), (733, 20910), (741, 20934),

Gene: Mulch_25 Start: 20607, Stop: 23117, Start Num: 14
Candidate Starts for Mulch_25:
(Start: 14 @20607 has 14 MA's), (52, 20739), (55, 20754), (70, 20799), (75, 20817), (127, 20982), (148, 21036), (151, 21045), (172, 21123), (174, 21129), (228, 21294), (232, 21309), (247, 21345), (266, 21420), (268, 21432), (270, 21441), (271, 21447), (276, 21459), (280, 21471), (286, 21486), (293, 21504), (294, 21507), (303, 21543), (323, 21597), (367, 21720), (384, 21774), (389, 21795), (390, 21804), (422, 21906), (435, 21966), (442, 22014), (447, 22026), (455, 22071), (483, 22158), (494, 22197), (515, 22266), (519, 22278), (522, 22290), (599, 22578), (606, 22608), (624, 22689), (630, 22710), (636, 22737), (640, 22761), (713, 22926), (729, 22971), (758, 23070), (768, 23109),

Gene: NaSiaTalie_31 Start: 22773, Stop: 24995, Start Num: 21

Candidate Starts for NaSiaTalie_31:
(Start: 21 @22773 has 31 MA's), (54, 22887), (57, 22896), (59, 22902), (65, 22923), (76, 22959), (99, 23034), (125, 23124), (130, 23136), (239, 23313), (253, 23352), (279, 23448), (413, 23799), (423, 23829), (426, 23841), (467, 24012), (487, 24081), (516, 24180), (558, 24291), (560, 24297), (561, 24303), (570, 24342), (579, 24399), (580, 24402), (593, 24468), (613, 24552), (635, 24624), (672, 24750), (674, 24753), (724, 24855), (728, 24870), (744, 24918),

Gene: Nadeem_25 Start: 20607, Stop: 23117, Start Num: 14
Candidate Starts for Nadeem_25:
(Start: 14 @20607 has 14 MA's), (52, 20739), (55, 20754), (70, 20799), (75, 20817), (127, 20982), (148, 21036), (151, 21045), (172, 21123), (174, 21129), (228, 21294), (232, 21309), (247, 21345), (266, 21420), (268, 21432), (270, 21441), (271, 21447), (276, 21459), (280, 21471), (286, 21486), (293, 21504), (294, 21507), (303, 21543), (323, 21597), (367, 21720), (384, 21774), (389, 21795), (390, 21804), (422, 21906), (435, 21966), (442, 22014), (447, 22026), (455, 22071), (483, 22158), (494, 22197), (515, 22266), (519, 22278), (522, 22290), (599, 22578), (606, 22608), (624, 22689), (630, 22710), (636, 22737), (640, 22761), (713, 22926), (729, 22971), (758, 23070), (768, 23109),

Gene: NancyRae_25 Start: 20613, Stop: 23123, Start Num: 14
Candidate Starts for NancyRae_25:
(Start: 14 @20613 has 14 MA's), (52, 20745), (55, 20760), (70, 20805), (75, 20823), (127, 20988), (148, 21042), (151, 21051), (172, 21129), (174, 21135), (228, 21300), (232, 21315), (247, 21351), (266, 21426), (268, 21438), (270, 21447), (271, 21453), (276, 21465), (280, 21477), (286, 21492), (293, 21510), (294, 21513), (303, 21549), (323, 21603), (361, 21708), (367, 21726), (384, 21780), (389, 21801), (390, 21810), (422, 21912), (435, 21972), (442, 22020), (447, 22032), (455, 22077), (460, 22095), (483, 22164), (494, 22203), (515, 22272), (519, 22284), (522, 22296), (599, 22584), (606, 22614), (624, 22695), (640, 22767), (713, 22932), (729, 22977), (758, 23076), (768, 23115),

Gene: Nicholas_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for Nicholas_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74, 19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192, 20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294, 20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345, 20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471, 21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563, 21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605, 21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657, 21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: Nikao_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Nikao_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277), (586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673), (709, 22703),

Gene: Niklas_27 Start: 20233, Stop: 22734, Start Num: 16
Candidate Starts for Niklas_27:

(Start: 16 @20233 has 55 MA's), (27, 20281), (41, 20332), (62, 20404), (84, 20455), (87, 20473), (99, 20506), (126, 20527), (131, 20539), (153, 20593), (177, 20671), (188, 20710), (209, 20767), (225, 20803), (241, 20854), (256, 20884), (261, 20899), (267, 20923), (276, 20956), (285, 20977), (287, 20983), (300, 21022), (348, 21175), (356, 21208), (358, 21220), (372, 21283), (394, 21367), (436, 21550), (445, 21604), (455, 21646), (513, 21838), (516, 21844), (526, 21868), (545, 21931), (556, 21970), (572, 22033), (580, 22090), (586, 22123), (590, 22141), (597, 22180), (608, 22219), (609, 22225), (621, 22282), (645, 22396), (673, 22450), (680, 22465), (699, 22495), (704, 22507), (725, 22564), (730, 22582), (739, 22612), (744, 22630), (763, 22711),

Gene: NosilaM_46 Start: 33220, Stop: 35778, Start Num: 45
Candidate Starts for NosilaM_46:
(Start: 45 @33220 has 15 MA's), (87, 33349), (193, 33688), (194, 33691), (215, 33748), (266, 33901), (286, 33967), (291, 33982), (404, 34423), (494, 34801), (523, 34906), (528, 34924), (539, 34957), (544, 34978), (559, 35032), (580, 35137), (585, 35164), (586, 35170), (604, 35260), (627, 35356), (629, 35359), (642, 35422), (647, 35455), (668, 35503), (685, 35536), (702, 35557), (734, 35644), (738, 35659), (765, 35749), (768, 35770),

Gene: November_25 Start: 21214, Stop: 23631, Start Num: 16
Candidate Starts for November_25:
(Start: 16 @21214 has 55 MA's), (18, 21223), (27, 21262), (62, 21385), (85, 21442), (87, 21454), (122, 21496), (207, 21742), (241, 21835), (260, 21877), (261, 21880), (266, 21901), (285, 21961), (287, 21967), (320, 22063), (348, 22159), (375, 22276), (402, 22384), (411, 22402), (414, 22414), (450, 22558), (492, 22693), (493, 22696), (494, 22699), (508, 22738), (526, 22792), (536, 22825), (543, 22846), (566, 22933), (572, 22954), (573, 22966), (593, 23083), (596, 23089), (628, 23218), (631, 23230), (635, 23251), (643, 23305), (654, 23335), (663, 23356), (680, 23383), (683, 23389), (720, 23458), (748, 23563), (767, 23623),

Gene: Nutello_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Nutello_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277), (586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673),

Gene: OmniCritical_28 Start: 22181, Stop: 24490, Start Num: 40
Candidate Starts for OmniCritical_28:
(Start: 40 @22181 has 18 MA's), (78, 22292), (86, 22316), (148, 22433), (188, 22562), (207, 22613), (211, 22622), (238, 22694), (240, 22703), (260, 22760), (263, 22769), (276, 22820), (281, 22832), (287, 22847), (288, 22853), (300, 22886), (319, 22934), (337, 22988), (365, 23060), (370, 23099), (373, 23111), (380, 23126), (391, 23171), (403, 23240), (429, 23321), (463, 23474), (494, 23573), (498, 23585), (526, 23690), (546, 23756), (550, 23771), (574, 23867), (605, 24020), (609, 24035), (610, 24041), (613, 24065), (623, 24104), (645, 24212), (670, 24263), (672, 24266), (727, 24374), (735, 24404), (764, 24482),

Gene: Outis_44 Start: 33201, Stop: 35759, Start Num: 45
Candidate Starts for Outis_44:
(Start: 45 @33201 has 15 MA's), (48, 33210), (87, 33330), (193, 33669), (194, 33672), (215, 33729), (266, 33882), (291, 33963), (322, 34053), (389, 34320), (404, 34404), (461, 34674), (494, 34782), (523, 34887), (528, 34905), (539, 34938), (541, 34947), (565, 35037), (574, 35082), (579, 35115),

(580, 35118), (586, 35151), (611, 35271), (617, 35295), (618, 35298), (627, 35337), (629, 35340), (647, 35436), (695, 35532), (702, 35538), (730, 35610), (738, 35640), (747, 35667), (759, 35712), (765, 35730),

Gene: P3MA_22 Start: 17958, Stop: 20483, Start Num: 46
Candidate Starts for P3MA_22:
(Start: 46 @17958 has 1 MA's), (87, 18096), (98, 18129), (139, 18255), (153, 18291), (165, 18339), (173, 18366), (176, 18378), (187, 18417), (195, 18450), (196, 18453), (218, 18510), (220, 18513), (226, 18534), (297, 18771), (325, 18852), (332, 18873), (356, 18930), (373, 19011), (390, 19062), (394, 19086), (401, 19113), (407, 19155), (416, 19188), (427, 19230), (434, 19260), (471, 19434), (525, 19617), (569, 19773), (584, 19857), (601, 19932), (613, 19998), (623, 20034), (662, 20184), (665, 20190), (744, 20385), (757, 20442), (760, 20451),

Gene: Panchino_20 Start: 17533, Stop: 20178, Start Num: 4
Candidate Starts for Panchino_20:
(1, 17521), (Start: 4 @17533 has 17 MA's), (7, 17545), (29, 17656), (Start: 36 @17680 has 1 MA's), (37, 17683), (39, 17692), (52, 17740), (121, 17965), (125, 17977), (134, 17998), (150, 18043), (167, 18097), (185, 18175), (194, 18205), (204, 18241), (215, 18262), (219, 18277), (232, 18319), (246, 18352), (266, 18427), (270, 18451), (271, 18457), (276, 18469), (291, 18511), (294, 18517), (329, 18616), (366, 18736), (369, 18754), (376, 18787), (387, 18814), (396, 18865), (440, 19075), (454, 19141), (466, 19177), (501, 19288), (517, 19351), (567, 19513), (572, 19528), (580, 19579), (605, 19696), (614, 19741), (628, 19783), (636, 19819), (644, 19873), (666, 19921), (733, 20065), (749, 20122), (761, 20161), (764, 20170),

Gene: Parada_25 Start: 20607, Stop: 23117, Start Num: 14
Candidate Starts for Parada_25:
(Start: 14 @20607 has 14 MA's), (52, 20739), (55, 20754), (70, 20799), (75, 20817), (127, 20982), (148, 21036), (151, 21045), (172, 21123), (174, 21129), (228, 21294), (232, 21309), (247, 21345), (266, 21420), (268, 21432), (270, 21441), (271, 21447), (276, 21459), (280, 21471), (286, 21486), (293, 21504), (294, 21507), (303, 21543), (323, 21597), (367, 21720), (384, 21774), (389, 21795), (390, 21804), (422, 21906), (435, 21966), (442, 22014), (447, 22026), (455, 22071), (483, 22158), (494, 22197), (515, 22266), (519, 22278), (522, 22290), (599, 22578), (606, 22608), (624, 22689), (630, 22710), (636, 22737), (640, 22761), (713, 22926), (729, 22971), (758, 23070), (768, 23109),

Gene: Patio_46 Start: 33460, Stop: 36018, Start Num: 45
Candidate Starts for Patio_46:
(5, 33262), (31, 33409), (Start: 45 @33460 has 15 MA's), (87, 33589), (124, 33709), (193, 33928), (194, 33931), (219, 34003), (237, 34060), (249, 34081), (271, 34168), (286, 34207), (389, 34579), (404, 34663), (494, 35041), (523, 35146), (528, 35164), (539, 35197), (544, 35218), (559, 35272), (565, 35296), (580, 35377), (585, 35404), (586, 35410), (604, 35500), (627, 35596), (629, 35599), (642, 35662), (647, 35695), (654, 35713), (655, 35716), (674, 35752), (685, 35776), (702, 35797), (735, 35887), (738, 35899),

Gene: Patt_28 Start: 22014, Stop: 24320, Start Num: 40
Candidate Starts for Patt_28:
(Start: 40 @22014 has 18 MA's), (47, 22044), (53, 22062), (78, 22125), (148, 22266), (169, 22332), (188, 22395), (207, 22446), (211, 22455), (225, 22488), (240, 22536), (260, 22593), (276, 22653), (281, 22665), (287, 22680), (288, 22686), (300, 22719), (319, 22767), (337, 22821), (365, 22893), (403, 23073), (429, 23154), (463, 23307), (478, 23349), (494, 23406), (498, 23418), (521, 23505), (526, 23523), (546, 23589), (550, 23604), (605, 23853), (609, 23868), (610, 23874), (613, 23898), (623, 23937), (628, 23949), (645, 24045), (660, 24081), (670, 24096), (672, 24099), (681, 24120), (690, 24135), (727, 24204), (735, 24234), (764, 24312),

Gene: PeaceMeal1_31 Start: 21407, Stop: 23689, Start Num: 19
Candidate Starts for PeaceMeal1_31:
(Start: 19 @21407 has 6 MA's), (25, 21440), (52, 21524), (71, 21590), (110, 21722), (153, 21836),
(155, 21845), (179, 21929), (200, 22004), (239, 22082), (265, 22157), (306, 22247), (372, 22373),
(392, 22430), (413, 22520), (419, 22538), (426, 22562), (475, 22763), (487, 22802), (516, 22892),
(540, 22949), (570, 23054), (574, 23075), (575, 23084), (578, 23102), (580, 23114), (593, 23180),
(605, 23219), (609, 23234), (610, 23240), (618, 23273), (642, 23372), (643, 23393), (644, 23396),
(671, 23453), (680, 23471), (681, 23474), (688, 23486), (708, 23525), (725, 23567), (726, 23570),
(761, 23672),

Gene: Peanam_27 Start: 20230, Stop: 22731, Start Num: 16
Candidate Starts for Peanam_27:
(Start: 16 @20230 has 55 MA's), (27, 20278), (41, 20329), (62, 20401), (84, 20452), (87, 20470), (99,
20503), (126, 20524), (131, 20536), (153, 20590), (177, 20668), (188, 20707), (209, 20764), (225,
20800), (241, 20851), (256, 20881), (261, 20896), (267, 20920), (276, 20953), (285, 20974), (287,
20980), (300, 21019), (348, 21172), (356, 21205), (358, 21217), (372, 21280), (394, 21364), (436,
21547), (445, 21601), (455, 21643), (513, 21835), (516, 21841), (526, 21865), (545, 21928), (556,
21967), (572, 22030), (580, 22087), (586, 22120), (590, 22138), (597, 22177), (608, 22216), (609,
22222), (621, 22279), (645, 22393), (673, 22447), (680, 22462), (699, 22492), (704, 22504), (725,
22561), (730, 22579), (739, 22609), (744, 22627), (763, 22708),

Gene: PenguinLover67_32 Start: 30945, Stop: 33434, Start Num: 32
Candidate Starts for PenguinLover67_32:
(3, 30792), (Start: 32 @30945 has 3 MA's), (60, 31044), (61, 31050), (64, 31062), (82, 31119), (119,
31266), (137, 31317), (140, 31326), (159, 31380), (203, 31533), (232, 31614), (233, 31617), (251,
31677), (257, 31704), (305, 31860), (306, 31863), (314, 31884), (350, 31998), (360, 32046), (379,
32124), (387, 32148), (393, 32169), (412, 32253), (413, 32256), (419, 32274), (456, 32439), (467,
32469), (475, 32499), (487, 32538), (491, 32550), (501, 32580), (512, 32616), (516, 32628), (561,
32751), (562, 32754), (563, 32757), (564, 32763), (568, 32787), (579, 32847), (582, 32865), (599,
32931), (600, 32934), (605, 32955), (618, 33006), (623, 33027), (644, 33132), (710, 33258), (727,
33300), (736, 33336), (744, 33354), (753, 33381),

Gene: Phalm_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for Phalm_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385),
(142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700),
(242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892),
(294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135),
(376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558),
(494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951),
(580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302),
(670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: Pharb_26 Start: 21154, Stop: 23529, Start Num: 16
Candidate Starts for Pharb_26:
(Start: 16 @21154 has 55 MA's), (Start: 21 @21181 has 31 MA's), (30, 21214), (Start: 45 @21274 has
15 MA's), (50, 21289), (84, 21379), (87, 21397), (153, 21523), (154, 21529), (158, 21544), (169,
21577), (186, 21634), (188, 21637), (196, 21655), (219, 21703), (240, 21772), (258, 21823), (285,
21910), (300, 21955), (320, 22012), (344, 22057), (356, 22102), (365, 22129), (371, 22171), (372,
22177), (375, 22186), (414, 22324), (438, 22414), (494, 22609), (566, 22840), (567, 22846), (570,
22855), (572, 22861), (578, 22903), (583, 22933), (593, 22990), (596, 22996), (623, 23101), (635,
23146), (643, 23200), (645, 23209), (659, 23239), (730, 23389), (744, 23431), (751, 23464), (764,
23509),

Gene: PhelpsODU_26 Start: 20093, Stop: 22432, Start Num: 16
Candidate Starts for PhelpsODU_26:
(Start: 16 @20093 has 55 MA's), (29, 20150), (62, 20264), (68, 20282), (87, 20333), (93, 20354), (145, 20432), (177, 20531), (181, 20543), (219, 20642), (222, 20651), (253, 20744), (276, 20825), (287, 20855), (292, 20867), (295, 20876), (300, 20894), (304, 20909), (314, 20933), (339, 20993), (356, 21038), (365, 21065), (375, 21122), (380, 21131), (399, 21200), (400, 21203), (402, 21221), (413, 21263), (420, 21284), (428, 21314), (444, 21401), (463, 21464), (471, 21497), (499, 21569), (512, 21617), (516, 21629), (543, 21698), (553, 21722), (570, 21791), (610, 21980), (631, 22055), (636, 22079), (666, 22184), (672, 22193), (680, 22211), (727, 22298), (733, 22322), (747, 22364), (767, 22424),

Gene: Phineas_21 Start: 19035, Stop: 21668, Start Num: 4
Candidate Starts for Phineas_21:
(Start: 4 @19035 has 17 MA's), (6, 19044), (37, 19188), (121, 19461), (125, 19473), (134, 19494), (142, 19518), (167, 19593), (185, 19665), (194, 19695), (204, 19731), (228, 19794), (232, 19809), (246, 19842), (266, 19917), (270, 19941), (271, 19947), (276, 19959), (291, 20001), (294, 20007), (325, 20094), (333, 20115), (338, 20139), (361, 20205), (366, 20226), (369, 20244), (376, 20277), (386, 20301), (387, 20304), (396, 20355), (420, 20460), (432, 20502), (466, 20667), (494, 20763), (517, 20841), (524, 20853), (552, 20943), (567, 21003), (570, 21012), (578, 21060), (580, 21069), (605, 21186), (614, 21231), (628, 21273), (642, 21339), (644, 21363), (666, 21411), (670, 21417), (674, 21423), (723, 21522), (727, 21531), (735, 21561), (761, 21651), (764, 21660),

Gene: Phloss_20 Start: 17556, Stop: 20201, Start Num: 4
Candidate Starts for Phloss_20:
(1, 17544), (Start: 4 @17556 has 17 MA's), (7, 17568), (8, 17580), (Start: 17 @17634 has 5 MA's), (Start: 36 @17703 has 1 MA's), (37, 17706), (39, 17715), (43, 17730), (101, 17907), (121, 17988), (124, 17997), (146, 18054), (152, 18069), (187, 18201), (199, 18249), (204, 18264), (215, 18285), (228, 18327), (232, 18342), (234, 18351), (246, 18378), (248, 18384), (266, 18453), (270, 18474), (271, 18480), (275, 18489), (284, 18516), (306, 18582), (312, 18594), (325, 18627), (329, 18639), (366, 18759), (369, 18777), (376, 18810), (396, 18888), (420, 18993), (432, 19035), (481, 19254), (493, 19293), (494, 19296), (501, 19311), (517, 19374), (535, 19422), (567, 19536), (574, 19566), (578, 19593), (580, 19602), (605, 19719), (614, 19764), (628, 19806), (642, 19872), (644, 19896), (666, 19944), (670, 19950), (674, 19956), (680, 19971), (723, 20055), (735, 20094), (761, 20184), (764, 20193),

Gene: Phrank_26 Start: 20046, Stop: 22382, Start Num: 16
Candidate Starts for Phrank_26:
(Start: 16 @20046 has 55 MA's), (27, 20094), (29, 20103), (62, 20217), (68, 20235), (87, 20286), (145, 20382), (148, 20391), (177, 20481), (181, 20493), (219, 20592), (222, 20601), (253, 20694), (276, 20775), (287, 20805), (292, 20817), (300, 20844), (304, 20859), (314, 20883), (339, 20943), (356, 20988), (365, 21015), (370, 21054), (375, 21072), (380, 21081), (399, 21150), (400, 21153), (402, 21171), (413, 21213), (420, 21234), (428, 21264), (444, 21351), (463, 21414), (471, 21447), (479, 21456), (499, 21519), (512, 21567), (516, 21579), (543, 21648), (553, 21672), (561, 21702), (570, 21741), (610, 21930), (631, 22005), (642, 22059), (672, 22143), (680, 22161), (727, 22248), (733, 22272), (747, 22314), (767, 22374),

Gene: Piro94_32 Start: 23234, Stop: 25318, Start Num: 21
Candidate Starts for Piro94_32:
(Start: 21 @23234 has 31 MA's), (54, 23348), (59, 23363), (88, 23462), (125, 23585), (130, 23597), (143, 23630), (239, 23774), (248, 23795), (279, 23909), (294, 23945), (413, 24146), (419, 24164), (426, 24188), (446, 24287), (475, 24389), (487, 24428), (491, 24440), (516, 24518), (560, 24635), (561, 24641), (574, 24701), (593, 24806), (599, 24821), (635, 24962), (636, 24965), (643, 25016),

(648, 25031), (658, 25055), (684, 25109), (700, 25133), (736, 25238), (762, 25304),

Gene: Pixie_26 Start: 21086, Stop: 23437, Start Num: 16
Candidate Starts for Pixie_26:
(Start: 16 @21086 has 55 MA's), (Start: 21 @21113 has 31 MA's), (30, 21146), (59, 21251), (135, 21410), (153, 21455), (162, 21491), (169, 21509), (196, 21587), (219, 21635), (262, 21767), (276, 21821), (282, 21836), (320, 21944), (365, 22061), (371, 22103), (372, 22109), (375, 22118), (380, 22127), (400, 22208), (402, 22226), (413, 22268), (420, 22289), (426, 22310), (428, 22319), (444, 22406), (470, 22499), (471, 22502), (499, 22574), (545, 22709), (546, 22712), (561, 22757), (570, 22796), (573, 22814), (592, 22913), (596, 22931), (610, 22985), (619, 23015), (622, 23033), (631, 23060), (632, 23066), (642, 23114), (666, 23189), (672, 23198), (681, 23219), (686, 23228), (733, 23327), (747, 23369),

Gene: Poompha_31 Start: 21405, Stop: 23687, Start Num: 19
Candidate Starts for Poompha_31:
(Start: 19 @21405 has 6 MA's), (25, 21438), (52, 21522), (71, 21588), (99, 21675), (110, 21720), (153, 21834), (155, 21843), (179, 21927), (200, 22002), (239, 22080), (265, 22155), (372, 22371), (392, 22428), (413, 22518), (419, 22536), (426, 22560), (428, 22569), (475, 22761), (487, 22800), (516, 22890), (540, 22947), (570, 23052), (575, 23082), (578, 23100), (580, 23112), (605, 23217), (609, 23232), (610, 23238), (618, 23271), (642, 23370), (643, 23391), (644, 23394), (671, 23451), (680, 23469), (681, 23472), (688, 23484), (708, 23523), (725, 23565), (726, 23568), (761, 23670),

Gene: Power_31 Start: 22692, Stop: 24893, Start Num: 22
Candidate Starts for Power_31:
(Start: 22 @22692 has 22 MA's), (28, 22713), (57, 22812), (59, 22818), (68, 22845), (69, 22848), (85, 22902), (94, 22938), (125, 23040), (239, 23229), (277, 23361), (279, 23364), (306, 23442), (413, 23718), (419, 23736), (426, 23760), (475, 23961), (487, 24000), (516, 24090), (540, 24147), (560, 24207), (570, 24252), (574, 24273), (593, 24378), (599, 24393), (605, 24417), (613, 24462), (623, 24489), (635, 24534), (644, 24594), (653, 24618), (728, 24768), (744, 24816), (753, 24840),

Gene: Qhanda_29 Start: 22292, Stop: 24601, Start Num: 40
Candidate Starts for Qhanda_29:
(Start: 40 @22292 has 18 MA's), (78, 22403), (86, 22427), (148, 22544), (188, 22673), (207, 22724), (211, 22733), (225, 22766), (238, 22805), (240, 22814), (260, 22871), (263, 22880), (276, 22931), (281, 22943), (287, 22958), (288, 22964), (300, 22997), (319, 23045), (337, 23099), (365, 23171), (370, 23210), (373, 23222), (380, 23237), (391, 23282), (403, 23351), (429, 23432), (463, 23585), (494, 23684), (498, 23696), (526, 23801), (546, 23867), (550, 23882), (574, 23978), (605, 24131), (609, 24146), (610, 24152), (613, 24176), (623, 24215), (628, 24227), (645, 24323), (672, 24377), (681, 24398), (727, 24485), (735, 24515), (764, 24593),

Gene: QueenB2_31 Start: 22756, Stop: 24954, Start Num: 22
Candidate Starts for QueenB2_31:
(Start: 22 @22756 has 22 MA's), (28, 22777), (57, 22876), (85, 22966), (94, 23002), (125, 23104), (130, 23116), (239, 23293), (279, 23428), (330, 23569), (413, 23782), (419, 23800), (426, 23824), (475, 24025), (516, 24154), (540, 24211), (560, 24271), (570, 24316), (574, 24337), (599, 24457), (622, 24547), (623, 24550), (644, 24655), (653, 24679), (672, 24709), (674, 24712), (744, 24877), (761, 24931),

Gene: QueenBeesly_31 Start: 22638, Stop: 24839, Start Num: 22
Candidate Starts for QueenBeesly_31:
(Start: 22 @22638 has 22 MA's), (28, 22659), (57, 22758), (59, 22764), (68, 22791), (69, 22794), (85, 22848), (94, 22884), (125, 22986), (239, 23175), (277, 23307), (279, 23310), (413, 23664), (419, 23682), (426, 23706), (475, 23907), (487, 23946), (516, 24036), (540, 24093), (560, 24153), (570,

24198), (574, 24219), (593, 24324), (599, 24339), (605, 24363), (613, 24408), (623, 24435), (635, 24480), (653, 24564), (728, 24714), (744, 24762), (753, 24786),

Gene: Red305_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for Red305_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74, 19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192, 20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294, 20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345, 20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471, 21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563, 21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605, 21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657, 21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: RedRaider_50 Start: 35482, Stop: 38040, Start Num: 45
Candidate Starts for RedRaider_50:
(Start: 45 @35482 has 15 MA's), (87, 35611), (193, 35950), (194, 35953), (237, 36082), (271, 36190), (286, 36229), (323, 36337), (363, 36493), (389, 36601), (415, 36733), (494, 37063), (523, 37168), (528, 37186), (539, 37219), (559, 37294), (574, 37363), (580, 37399), (586, 37432), (604, 37522), (617, 37576), (618, 37579), (627, 37618), (629, 37621), (647, 37717), (685, 37798), (695, 37813), (702, 37819), (730, 37891), (738, 37921), (747, 37948), (765, 38011),

Gene: Reptar3000_28 Start: 22013, Stop: 24316, Start Num: 40
Candidate Starts for Reptar3000_28:
(Start: 40 @22013 has 18 MA's), (53, 22061), (56, 22070), (78, 22124), (87, 22157), (148, 22265), (188, 22394), (207, 22445), (211, 22454), (240, 22535), (260, 22592), (276, 22652), (281, 22664), (287, 22679), (288, 22685), (300, 22718), (319, 22766), (337, 22820), (365, 22892), (403, 23072), (429, 23153), (463, 23303), (478, 23345), (494, 23402), (498, 23414), (526, 23519), (546, 23585), (550, 23600), (574, 23696), (605, 23849), (609, 23864), (610, 23870), (613, 23894), (623, 23933), (628, 23945), (645, 24041), (660, 24077), (670, 24092), (672, 24095), (681, 24116), (690, 24131), (727, 24200), (735, 24230), (764, 24308),

Gene: Retro23_31 Start: 22846, Stop: 25044, Start Num: 22
Candidate Starts for Retro23_31:
(Start: 22 @22846 has 22 MA's), (28, 22867), (57, 22966), (85, 23056), (94, 23092), (125, 23194), (130, 23206), (206, 23317), (239, 23383), (277, 23515), (279, 23518), (301, 23581), (413, 23872), (419, 23890), (426, 23914), (475, 24115), (487, 24154), (516, 24244), (540, 24301), (560, 24361), (570, 24406), (574, 24427), (599, 24547), (622, 24637), (623, 24640), (644, 24745), (672, 24799), (744, 24967), (761, 25021),

Gene: Richo_27 Start: 20230, Stop: 22731, Start Num: 16
Candidate Starts for Richo_27:
(Start: 16 @20230 has 55 MA's), (27, 20278), (41, 20329), (62, 20401), (84, 20452), (87, 20470), (99, 20503), (126, 20524), (131, 20536), (153, 20590), (177, 20668), (188, 20707), (209, 20764), (225, 20800), (241, 20851), (256, 20881), (261, 20896), (267, 20920), (276, 20953), (285, 20974), (287, 20980), (300, 21019), (348, 21172), (356, 21205), (358, 21217), (372, 21280), (394, 21364), (436, 21547), (445, 21601), (455, 21643), (513, 21835), (516, 21841), (526, 21865), (545, 21928), (556, 21967), (572, 22030), (580, 22087), (586, 22120), (590, 22138), (597, 22177), (608, 22216), (609, 22222), (621, 22279), (645, 22393), (673, 22447), (680, 22462), (699, 22492), (704, 22504), (725, 22561), (730, 22579), (739, 22609), (744, 22627), (763, 22708),

Gene: Saguaro_31 Start: 30959, Stop: 33436, Start Num: 32

Candidate Starts for Saguaro_31:
(Start: 32 @30959 has 3 MA's), (37, 30971), (60, 31055), (61, 31061), (64, 31073), (82, 31130), (96, 31181), (129, 31301), (147, 31346), (159, 31382), (167, 31406), (198, 31520), (203, 31535), (233, 31619), (249, 31673), (257, 31706), (262, 31721), (276, 31781), (281, 31793), (283, 31799), (298, 31838), (306, 31865), (314, 31886), (321, 31904), (327, 31919), (346, 31985), (350, 32000), (360, 32048), (372, 32114), (387, 32153), (400, 32207), (413, 32261), (419, 32279), (428, 32312), (454, 32438), (467, 32474), (487, 32543), (491, 32555), (501, 32585), (510, 32609), (516, 32633), (540, 32690), (560, 32750), (561, 32756), (563, 32762), (564, 32768), (566, 32780), (568, 32792), (570, 32795), (573, 32813), (580, 32855), (599, 32936), (600, 32939), (605, 32960), (621, 33026), (623, 33032), (642, 33113), (644, 33137), (710, 33263), (726, 33302), (727, 33305), (728, 33311), (733, 33329), (744, 33359), (752, 33380), (761, 33416),

Gene: Salvus_25 Start: 19700, Stop: 22018, Start Num: 63
Candidate Starts for Salvus_25:
(Start: 63 @19700 has 2 MA's), (125, 19901), (144, 19946), (149, 19958), (182, 20069), (201, 20135), (249, 20249), (255, 20276), (331, 20498), (334, 20516), (347, 20552), (360, 20612), (375, 20687), (385, 20714), (392, 20741), (400, 20777), (412, 20834), (458, 21029), (484, 21098), (487, 21116), (488, 21122), (489, 21125), (491, 21128), (531, 21245), (534, 21251), (560, 21329), (571, 21377), (572, 21380), (585, 21458), (593, 21509), (599, 21524), (602, 21536), (618, 21599), (623, 21620), (630, 21641), (642, 21698), (643, 21719), (657, 21758), (680, 21800), (701, 21833), (705, 21839), (708, 21854), (736, 21938),

Gene: Samty_21 Start: 19727, Stop: 22240, Start Num: 12
Candidate Starts for Samty_21:
(Start: 12 @19727 has 19 MA's), (26, 19790), (Start: 45 @19862 has 15 MA's), (72, 19952), (74, 19958), (96, 20030), (160, 20222), (164, 20234), (171, 20252), (183, 20291), (192, 20321), (213, 20378), (226, 20408), (231, 20414), (247, 20468), (249, 20474), (293, 20621), (294, 20624), (297, 20633), (301, 20651), (324, 20711), (327, 20720), (330, 20732), (344, 20783), (345, 20786), (386, 20951), (400, 21008), (421, 21092), (426, 21110), (428, 21119), (439, 21182), (471, 21302), (486, 21347), (491, 21362), (497, 21380), (510, 21410), (541, 21500), (563, 21569), (570, 21602), (574, 21623), (580, 21659), (588, 21695), (598, 21740), (603, 21764), (605, 21770), (609, 21785), (612, 21803), (621, 21836), (636, 21890), (640, 21914), (645, 21950), (648, 21956), (657, 21980), (732, 22145), (735, 22154), (736, 22160),

Gene: Scitech_20 Start: 17553, Stop: 20192, Start Num: 4
Candidate Starts for Scitech_20:
(1, 17541), (Start: 4 @17553 has 17 MA's), (7, 17565), (29, 17676), (Start: 36 @17700 has 1 MA's), (37, 17703), (39, 17712), (80, 17850), (95, 17892), (97, 17895), (121, 17985), (124, 17994), (125, 17997), (134, 18018), (138, 18030), (150, 18063), (167, 18117), (185, 18189), (194, 18219), (204, 18255), (228, 18318), (232, 18333), (242, 18360), (246, 18366), (266, 18441), (270, 18465), (271, 18471), (276, 18483), (291, 18525), (294, 18531), (325, 18618), (366, 18750), (369, 18768), (376, 18801), (387, 18828), (396, 18879), (440, 19089), (454, 19155), (466, 19191), (496, 19290), (501, 19302), (517, 19365), (567, 19527), (572, 19542), (580, 19593), (605, 19710), (614, 19755), (628, 19797), (636, 19833), (644, 19887), (666, 19935), (733, 20079), (749, 20136), (761, 20175), (764, 20184),

Gene: SemperFi_33 Start: 23055, Stop: 25259, Start Num: 22
Candidate Starts for SemperFi_33:
(Start: 22 @23055 has 22 MA's), (28, 23076), (57, 23175), (85, 23265), (94, 23301), (125, 23403), (239, 23592), (279, 23727), (301, 23790), (330, 23868), (413, 24081), (419, 24099), (426, 24123), (475, 24324), (487, 24363), (516, 24453), (540, 24510), (560, 24570), (570, 24615), (574, 24636), (599, 24756), (605, 24780), (623, 24855), (644, 24960), (653, 24984), (672, 25014), (707, 25074), (728, 25134), (744, 25182), (753, 25206), (754, 25209), (761, 25236),

Gene: Severus_31 Start: 21405, Stop: 23687, Start Num: 19
Candidate Starts for Severus_31:
(Start: 19 @21405 has 6 MA's), (25, 21438), (52, 21522), (71, 21588), (110, 21720), (126, 21765),
(136, 21789), (143, 21810), (145, 21813), (155, 21843), (161, 21867), (168, 21885), (183, 21942),
(200, 22002), (239, 22080), (265, 22155), (306, 22245), (329, 22305), (372, 22371), (413, 22518),
(419, 22536), (426, 22560), (457, 22704), (475, 22761), (487, 22800), (495, 22821), (516, 22890),
(560, 23007), (570, 23052), (575, 23082), (578, 23100), (580, 23112), (593, 23178), (605, 23217),
(609, 23232), (610, 23238), (618, 23271), (622, 23289), (643, 23391), (644, 23394), (671, 23451),
(680, 23469), (681, 23472), (688, 23484), (708, 23523), (725, 23565), (726, 23568), (761, 23670),

Gene: SgtBeansprout_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for SgtBeansprout_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720),
(177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035),
(256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233),
(314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620),
(437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118),
(546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277),
(586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574),
(648, 22589), (661, 22616), (694, 22673),

Gene: Shadow1_25 Start: 19919, Stop: 22255, Start Num: 16
Candidate Starts for Shadow1_25:
(11, 19886), (Start: 16 @19919 has 55 MA's), (18, 19928), (29, 19976), (30, 19979), (75, 20120), (87,
20159), (145, 20255), (148, 20264), (177, 20354), (219, 20465), (253, 20567), (276, 20648), (287,
20678), (292, 20690), (300, 20717), (304, 20732), (314, 20756), (339, 20816), (365, 20888), (380,
20954), (402, 21044), (413, 21086), (420, 21107), (424, 21119), (428, 21137), (444, 21224), (463,
21287), (471, 21320), (499, 21392), (543, 21521), (570, 21614), (573, 21632), (631, 21878), (638,
21911), (672, 22016), (680, 22034), (727, 22121), (733, 22145), (747, 22187), (767, 22247),

Gene: Shaobing_27 Start: 20230, Stop: 22731, Start Num: 16
Candidate Starts for Shaobing_27:
(Start: 16 @20230 has 55 MA's), (27, 20278), (41, 20329), (62, 20401), (84, 20452), (87, 20470), (99,
20503), (126, 20524), (131, 20536), (153, 20590), (177, 20668), (188, 20707), (209, 20764), (225,
20800), (241, 20851), (256, 20881), (261, 20896), (267, 20920), (276, 20953), (285, 20974), (287,
20980), (300, 21019), (348, 21172), (356, 21205), (358, 21217), (372, 21280), (394, 21364), (436,
21547), (445, 21601), (455, 21643), (513, 21835), (516, 21841), (526, 21865), (545, 21928), (546,
21931), (556, 21967), (572, 22030), (580, 22087), (586, 22120), (590, 22138), (597, 22177), (608,
22216), (609, 22222), (621, 22279), (645, 22393), (673, 22447), (680, 22462), (699, 22492), (704,
22504), (725, 22561), (730, 22579), (739, 22609), (744, 22627), (763, 22708),

Gene: ShedlockHolmes_26 Start: 21295, Stop: 23643, Start Num: 16
Candidate Starts for ShedlockHolmes_26:
(Start: 16 @21295 has 55 MA's), (Start: 21 @21322 has 31 MA's), (30, 21355), (Start: 42 @21400 has
1 MA's), (135, 21619), (153, 21664), (162, 21700), (169, 21718), (196, 21796), (219, 21844), (262,
21976), (276, 22030), (282, 22045), (320, 22153), (365, 22270), (371, 22312), (372, 22318), (375,
22327), (380, 22336), (392, 22381), (400, 22417), (402, 22435), (413, 22477), (420, 22498), (426,
22519), (428, 22528), (444, 22615), (470, 22708), (471, 22711), (499, 22783), (561, 22966), (573,
23023), (592, 23122), (596, 23140), (610, 23194), (619, 23224), (621, 23239), (622, 23242), (626,
23251), (631, 23269), (632, 23275), (638, 23302), (642, 23323), (646, 23353), (666, 23398), (672,
23407), (733, 23536), (747, 23575), (750, 23578),

Gene: Shweta_20 Start: 17560, Stop: 20199, Start Num: 4
Candidate Starts for Shweta_20:
(1, 17548), (Start: 4 @17560 has 17 MA's), (7, 17572), (29, 17683), (Start: 36 @17707 has 1 MA's), (37, 17710), (39, 17719), (80, 17857), (95, 17899), (97, 17902), (121, 17992), (124, 18001), (125, 18004), (134, 18025), (138, 18037), (150, 18070), (167, 18124), (185, 18196), (194, 18226), (204, 18262), (228, 18325), (232, 18340), (242, 18367), (246, 18373), (266, 18448), (270, 18472), (271, 18478), (276, 18490), (291, 18532), (294, 18538), (329, 18637), (366, 18757), (369, 18775), (376, 18808), (387, 18835), (396, 18886), (440, 19096), (454, 19162), (466, 19198), (496, 19297), (501, 19309), (517, 19372), (567, 19534), (572, 19549), (580, 19600), (605, 19717), (614, 19762), (628, 19804), (636, 19840), (644, 19894), (666, 19942), (733, 20086), (749, 20143), (761, 20182), (764, 20191),

Gene: SkinnyPete_20 Start: 17557, Stop: 20202, Start Num: 4
Candidate Starts for SkinnyPete_20:
(1, 17545), (Start: 4 @17557 has 17 MA's), (7, 17569), (29, 17680), (Start: 36 @17704 has 1 MA's), (37, 17707), (39, 17716), (52, 17764), (121, 17989), (125, 18001), (134, 18022), (150, 18067), (167, 18121), (185, 18199), (194, 18229), (204, 18265), (215, 18286), (219, 18301), (232, 18343), (246, 18376), (266, 18451), (270, 18475), (271, 18481), (276, 18493), (291, 18535), (294, 18541), (329, 18640), (366, 18760), (369, 18778), (376, 18811), (387, 18838), (396, 18889), (440, 19099), (454, 19165), (466, 19201), (501, 19312), (517, 19375), (567, 19537), (572, 19552), (580, 19603), (605, 19720), (614, 19765), (628, 19807), (636, 19843), (644, 19897), (666, 19945), (733, 20089), (749, 20146), (761, 20185), (764, 20194),

Gene: Sknot_31 Start: 22776, Stop: 24998, Start Num: 21
Candidate Starts for Sknot_31:
(Start: 21 @22776 has 31 MA's), (54, 22890), (59, 22905), (99, 23037), (136, 23151), (143, 23172), (155, 23205), (239, 23316), (253, 23355), (279, 23451), (318, 23553), (413, 23802), (423, 23832), (426, 23844), (467, 24015), (487, 24084), (516, 24183), (558, 24294), (560, 24300), (561, 24306), (570, 24345), (579, 24402), (580, 24405), (593, 24471), (613, 24555), (635, 24627), (667, 24747), (724, 24858), (738, 24909), (744, 24921),

Gene: Skysand_45 Start: 33680, Stop: 36238, Start Num: 45
Candidate Starts for Skysand_45:
(Start: 45 @33680 has 15 MA's), (124, 33929), (193, 34148), (194, 34151), (219, 34223), (237, 34280), (249, 34301), (271, 34388), (286, 34427), (389, 34799), (404, 34883), (494, 35261), (523, 35366), (528, 35384), (539, 35417), (544, 35438), (559, 35492), (565, 35516), (574, 35561), (580, 35597), (581, 35606), (586, 35630), (604, 35720), (629, 35819), (642, 35882), (647, 35915), (654, 35933), (655, 35936), (674, 35972), (685, 35996), (702, 36017), (735, 36107), (738, 36119),

Gene: Slarp_28 Start: 22283, Stop: 24592, Start Num: 40
Candidate Starts for Slarp_28:
(Start: 40 @22283 has 18 MA's), (78, 22394), (86, 22418), (148, 22535), (188, 22664), (207, 22715), (211, 22724), (225, 22757), (238, 22796), (240, 22805), (260, 22862), (263, 22871), (276, 22922), (281, 22934), (287, 22949), (288, 22955), (300, 22988), (319, 23036), (337, 23090), (365, 23162), (370, 23201), (373, 23213), (380, 23228), (391, 23273), (403, 23342), (429, 23423), (463, 23576), (494, 23675), (498, 23687), (526, 23792), (546, 23858), (550, 23873), (574, 23969), (605, 24122), (609, 24137), (610, 24143), (613, 24167), (623, 24206), (628, 24218), (645, 24314), (672, 24368), (681, 24389), (727, 24476), (735, 24506), (764, 24584),

Gene: Smeagan_33 Start: 23263, Stop: 25350, Start Num: 21
Candidate Starts for Smeagan_33:
(Start: 21 @23263 has 31 MA's), (54, 23377), (57, 23386), (59, 23392), (68, 23419), (85, 23476), (125, 23614), (239, 23803), (279, 23938), (296, 23980), (318, 24040), (407, 24154), (413, 24175), (419,

24193), (426, 24217), (448, 24325), (475, 24418), (482, 24439), (487, 24457), (516, 24547), (540, 24604), (541, 24607), (560, 24664), (561, 24670), (570, 24709), (574, 24730), (613, 24919), (621, 24940), (644, 25051), (716, 25189), (736, 25255), (744, 25273), (766, 25342),

Gene: SnapTap_31 Start: 22698, Stop: 24902, Start Num: 22
Candidate Starts for SnapTap_31:
(Start: 22 @22698 has 22 MA's), (28, 22719), (59, 22824), (85, 22908), (94, 22944), (125, 23046), (130, 23058), (239, 23235), (279, 23370), (301, 23433), (413, 23724), (419, 23742), (426, 23766), (455, 23904), (475, 23967), (487, 24006), (516, 24096), (540, 24153), (560, 24213), (570, 24258), (574, 24279), (599, 24399), (605, 24423), (613, 24468), (635, 24540), (644, 24600), (727, 24771), (744, 24825), (754, 24852), (761, 24879),

Gene: Snenia_21 Start: 19725, Stop: 22238, Start Num: 12
Candidate Starts for Snenia_21:
(Start: 12 @19725 has 19 MA's), (26, 19788), (Start: 45 @19860 has 15 MA's), (72, 19950), (74, 19956), (96, 20028), (123, 20115), (160, 20220), (164, 20232), (171, 20250), (183, 20289), (192, 20319), (213, 20376), (226, 20406), (231, 20412), (247, 20466), (249, 20472), (293, 20619), (294, 20622), (297, 20631), (301, 20649), (324, 20709), (327, 20718), (330, 20730), (344, 20781), (345, 20784), (386, 20949), (400, 21006), (421, 21090), (426, 21108), (428, 21117), (439, 21180), (471, 21300), (480, 21324), (486, 21345), (491, 21360), (497, 21378), (510, 21408), (541, 21498), (563, 21567), (570, 21600), (574, 21621), (580, 21657), (588, 21693), (598, 21738), (603, 21762), (605, 21768), (609, 21783), (612, 21801), (636, 21888), (640, 21912), (645, 21948), (648, 21954), (657, 21978), (701, 22053), (703, 22056), (732, 22143), (735, 22152), (736, 22158),

Gene: SororFago_31 Start: 21994, Stop: 24447, Start Num: 21
Candidate Starts for SororFago_31:
(Start: 21 @21994 has 31 MA's), (86, 22210), (107, 22267), (113, 22288), (169, 22453), (207, 22588), (282, 22843), (283, 22846), (308, 22909), (318, 22927), (327, 22954), (330, 22966), (341, 23008), (343, 23011), (407, 23245), (417, 23275), (419, 23284), (448, 23416), (467, 23479), (486, 23545), (487, 23548), (516, 23647), (546, 23725), (560, 23764), (570, 23809), (580, 23869), (593, 23935), (599, 23950), (621, 24040), (623, 24046), (640, 24121), (663, 24190), (736, 24355), (744, 24373), (753, 24400),

Gene: Squirty_19 Start: 17305, Stop: 19920, Start Num: 2
Candidate Starts for Squirty_19:
(Start: 2 @17305 has 1 MA's), (7, 17326), (9, 17347), (15, 17386), (Start: 34 @17455 has 1 MA's), (Start: 36 @17464 has 1 MA's), (37, 17467), (41, 17485), (52, 17518), (58, 17533), (103, 17635), (118, 17692), (124, 17716), (146, 17773), (170, 17848), (187, 17920), (204, 17983), (212, 17998), (221, 18022), (228, 18046), (232, 18061), (234, 18070), (246, 18097), (248, 18103), (260, 18148), (266, 18172), (270, 18193), (271, 18199), (275, 18208), (284, 18235), (306, 18301), (312, 18313), (325, 18346), (329, 18358), (366, 18478), (369, 18496), (376, 18529), (396, 18607), (420, 18712), (432, 18754), (481, 18973), (493, 19012), (494, 19015), (501, 19030), (517, 19093), (535, 19141), (567, 19255), (574, 19285), (578, 19312), (580, 19321), (605, 19438), (614, 19483), (628, 19525), (642, 19591), (644, 19615), (666, 19663), (670, 19669), (674, 19675), (680, 19690), (723, 19774), (735, 19813), (761, 19903), (764, 19912),

Gene: StarStruck_44 Start: 33201, Stop: 35759, Start Num: 45
Candidate Starts for StarStruck_44:
(Start: 45 @33201 has 15 MA's), (48, 33210), (87, 33330), (193, 33669), (194, 33672), (215, 33729), (266, 33882), (291, 33963), (322, 34053), (389, 34320), (404, 34404), (461, 34674), (494, 34782), (523, 34887), (528, 34905), (539, 34938), (541, 34947), (565, 35037), (574, 35082), (579, 35115), (580, 35118), (586, 35151), (611, 35271), (617, 35295), (618, 35298), (627, 35337), (629, 35340), (647, 35436), (695, 35532), (702, 35538), (730, 35610), (738, 35640), (747, 35667), (759, 35712),

(765, 35730),

Gene: StressBall_21 Start: 18926, Stop: 21559, Start Num: 4
Candidate Starts for StressBall_21:
(Start: 4 @18926 has 17 MA's), (6, 18935), (37, 19079), (121, 19352), (125, 19364), (134, 19385),
(142, 19409), (167, 19484), (185, 19556), (194, 19586), (204, 19622), (228, 19685), (232, 19700),
(242, 19727), (246, 19733), (266, 19808), (270, 19832), (271, 19838), (276, 19850), (291, 19892),
(294, 19898), (325, 19985), (333, 20006), (338, 20030), (361, 20096), (366, 20117), (369, 20135),
(376, 20168), (386, 20192), (387, 20195), (396, 20246), (420, 20351), (432, 20393), (466, 20558),
(494, 20654), (517, 20732), (524, 20744), (552, 20834), (567, 20894), (570, 20903), (578, 20951),
(580, 20960), (605, 21077), (614, 21122), (628, 21164), (642, 21230), (644, 21254), (666, 21302),
(670, 21308), (674, 21314), (723, 21413), (727, 21422), (735, 21452), (761, 21542), (764, 21551),

Gene: Strobilo_23 Start: 18661, Stop: 21000, Start Num: 16
Candidate Starts for Strobilo_23:
(Start: 16 @18661 has 55 MA's), (62, 18832), (68, 18850), (85, 18901), (148, 19018), (158, 19051),
(205, 19180), (209, 19189), (219, 19204), (223, 19216), (225, 19225), (240, 19273), (269, 19369),
(276, 19387), (285, 19408), (300, 19453), (339, 19555), (365, 19627), (371, 19669), (375, 19684),
(399, 19771), (402, 19792), (413, 19834), (420, 19855), (444, 19972), (448, 19981), (457, 20017),
(471, 20068), (475, 20071), (496, 20125), (499, 20137), (506, 20161), (541, 20257), (546, 20275),
(556, 20302), (570, 20359), (610, 20548), (619, 20578), (632, 20629), (636, 20647), (642, 20677),
(657, 20731), (672, 20761), (681, 20782), (741, 20914),

Gene: Sunflower1121_25 Start: 19931, Stop: 22267, Start Num: 16
Candidate Starts for Sunflower1121_25:
(11, 19898), (Start: 16 @19931 has 55 MA's), (18, 19940), (29, 19988), (30, 19991), (75, 20132), (87,
20171), (145, 20267), (177, 20366), (219, 20477), (253, 20579), (276, 20660), (287, 20690), (292,
20702), (300, 20729), (304, 20744), (314, 20768), (339, 20828), (365, 20900), (380, 20966), (402,
21056), (413, 21098), (420, 21119), (428, 21149), (444, 21236), (463, 21299), (471, 21332), (499,
21404), (543, 21533), (570, 21626), (573, 21644), (631, 21890), (638, 21923), (672, 22028), (680,
22046), (727, 22133), (733, 22157), (747, 22199), (767, 22259),

Gene: SuperSulley_44 Start: 33387, Stop: 35945, Start Num: 45
Candidate Starts for SuperSulley_44:
(13, 33258), (Start: 45 @33387 has 15 MA's), (87, 33516), (193, 33855), (194, 33858), (215, 33915),
(266, 34068), (286, 34134), (291, 34149), (404, 34590), (494, 34968), (523, 35073), (528, 35091),
(539, 35124), (544, 35145), (559, 35199), (565, 35223), (580, 35304), (585, 35331), (586, 35337),
(604, 35427), (627, 35523), (629, 35526), (642, 35589), (647, 35622), (654, 35640), (655, 35643),
(674, 35679), (685, 35703), (702, 35724), (735, 35814), (738, 35826), (768, 35937),

Gene: SweetiePie_31 Start: 22698, Stop: 24902, Start Num: 22
Candidate Starts for SweetiePie_31:
(Start: 22 @22698 has 22 MA's), (28, 22719), (59, 22824), (85, 22908), (94, 22944), (125, 23046),
(130, 23058), (239, 23235), (279, 23370), (413, 23724), (419, 23742), (426, 23766), (455, 23904),
(475, 23967), (487, 24006), (516, 24096), (540, 24153), (560, 24213), (570, 24258), (574, 24279),
(599, 24399), (605, 24423), (613, 24468), (635, 24540), (644, 24600), (727, 24771), (744, 24825),
(754, 24852), (761, 24879),

Gene: Syra333_26 Start: 20027, Stop: 22357, Start Num: 16
Candidate Starts for Syra333_26:
(Start: 16 @20027 has 55 MA's), (30, 20087), (68, 20216), (75, 20228), (87, 20267), (145, 20363),
(148, 20372), (177, 20462), (188, 20501), (205, 20549), (219, 20573), (222, 20582), (253, 20675),
(257, 20690), (276, 20756), (287, 20786), (292, 20798), (300, 20825), (304, 20840), (314, 20864),

(339, 20924), (356, 20969), (365, 20996), (370, 21035), (375, 21053), (380, 21062), (399, 21131), (400, 21134), (402, 21152), (413, 21194), (420, 21215), (426, 21236), (428, 21245), (436, 21281), (444, 21332), (471, 21428), (499, 21497), (516, 21557), (543, 21626), (546, 21635), (561, 21680), (570, 21719), (573, 21737), (578, 21767), (610, 21908), (621, 21953), (631, 21983), (636, 22007), (638, 22016), (642, 22037), (646, 22067), (733, 22250), (745, 22277), (747, 22289), (767, 22349),

Gene: TBond007_26 Start: 21085, Stop: 23436, Start Num: 16
Candidate Starts for TBond007_26:
(Start: 16 @21085 has 55 MA's), (Start: 21 @21112 has 31 MA's), (30, 21145), (59, 21250), (135, 21409), (153, 21454), (162, 21490), (169, 21508), (196, 21586), (219, 21634), (262, 21766), (276, 21820), (282, 21835), (320, 21943), (365, 22060), (371, 22102), (372, 22108), (375, 22117), (380, 22126), (400, 22207), (402, 22225), (413, 22267), (420, 22288), (426, 22309), (428, 22318), (444, 22405), (470, 22498), (471, 22501), (499, 22573), (545, 22708), (546, 22711), (561, 22756), (570, 22795), (573, 22813), (592, 22912), (596, 22930), (610, 22984), (619, 23014), (622, 23032), (631, 23059), (632, 23065), (642, 23113), (666, 23188), (672, 23197), (681, 23218), (686, 23227), (733, 23326), (747, 23368),

Gene: TClif_26 Start: 20078, Stop: 22420, Start Num: 16
Candidate Starts for TClif_26:
(Start: 16 @20078 has 55 MA's), (27, 20126), (41, 20177), (62, 20249), (69, 20270), (145, 20417), (148, 20426), (161, 20471), (219, 20627), (222, 20636), (253, 20729), (257, 20744), (269, 20792), (276, 20810), (281, 20825), (287, 20840), (300, 20879), (304, 20894), (314, 20918), (339, 20978), (358, 21035), (365, 21050), (375, 21107), (399, 21188), (402, 21209), (413, 21251), (420, 21272), (426, 21293), (440, 21377), (444, 21389), (463, 21452), (471, 21485), (485, 21509), (490, 21533), (499, 21557), (516, 21617), (537, 21665), (561, 21740), (570, 21779), (573, 21797), (596, 21914), (610, 21968), (631, 22043), (642, 22097), (666, 22172), (681, 22202), (710, 22247), (767, 22412),

Gene: TM4_23 Start: 18727, Stop: 21081, Start Num: 16
Candidate Starts for TM4_23:
(Start: 16 @18727 has 55 MA's), (50, 18859), (148, 19084), (161, 19129), (219, 19270), (225, 19291), (240, 19339), (285, 19474), (292, 19492), (300, 19519), (304, 19534), (339, 19621), (365, 19693), (371, 19735), (372, 19741), (378, 19756), (380, 19759), (392, 19795), (420, 19912), (426, 19933), (468, 20104), (471, 20125), (503, 20221), (510, 20242), (518, 20275), (546, 20350), (547, 20356), (561, 20395), (564, 20407), (570, 20434), (573, 20452), (594, 20566), (603, 20596), (605, 20602), (617, 20647), (621, 20668), (635, 20719), (645, 20782), (676, 20848), (687, 20869), (706, 20890), (722, 20926), (767, 21073),

Gene: TarsusIV_31 Start: 22846, Stop: 25041, Start Num: 22
Candidate Starts for TarsusIV_31:
(Start: 22 @22846 has 22 MA's), (28, 22867), (54, 22957), (57, 22966), (73, 23023), (124, 23191), (125, 23194), (136, 23218), (155, 23272), (239, 23383), (253, 23422), (279, 23518), (294, 23554), (330, 23659), (413, 23869), (419, 23887), (475, 24112), (491, 24163), (516, 24241), (540, 24298), (570, 24403), (574, 24424), (579, 24460), (593, 24529), (605, 24568), (613, 24613), (623, 24640), (640, 24715), (644, 24745), (653, 24769), (728, 24919), (737, 24952), (744, 24967),

Gene: Teejan_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Teejan_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720), (177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035), (256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233), (314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620), (437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118), (546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277),

(586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574), (648, 22589), (661, 22616), (694, 22673),

Gene: Terrific_35 Start: 23230, Stop: 25437, Start Num: 21
Candidate Starts for Terrific_35:
(Start: 21 @23230 has 31 MA's), (54, 23344), (59, 23359), (65, 23380), (99, 23491), (125, 23581), (130, 23593), (239, 23770), (253, 23809), (279, 23905), (392, 24166), (413, 24256), (423, 24286), (426, 24298), (473, 24496), (516, 24637), (521, 24658), (558, 24748), (560, 24754), (561, 24760), (570, 24799), (574, 24820), (579, 24856), (580, 24859), (593, 24925), (599, 24940), (600, 24943), (605, 24964), (612, 24997), (644, 25141), (667, 25189), (674, 25198), (706, 25252), (728, 25312), (744, 25360), (761, 25414),

Gene: Thonko_29 Start: 27164, Stop: 29614, Start Num: 35
Candidate Starts for Thonko_29:
(Start: 35 @27164 has 1 MA's), (52, 27230), (60, 27257), (66, 27278), (143, 27530), (174, 27626), (176, 27635), (198, 27713), (203, 27728), (225, 27785), (233, 27812), (247, 27857), (249, 27863), (257, 27896), (276, 27956), (283, 27977), (294, 28001), (314, 28064), (340, 28151), (350, 28178), (372, 28292), (413, 28439), (419, 28457), (461, 28640), (467, 28652), (487, 28721), (491, 28733), (509, 28778), (562, 28937), (563, 28940), (568, 28970), (600, 29117), (605, 29138), (613, 29183), (623, 29210), (672, 29369), (680, 29387), (712, 29444), (727, 29483), (738, 29525), (744, 29537), (752, 29558), (759, 29588), (761, 29594),

Gene: Tierra_26 Start: 20767, Stop: 23103, Start Num: 16
Candidate Starts for Tierra_26:
(Start: 16 @20767 has 55 MA's), (27, 20815), (29, 20824), (62, 20938), (68, 20956), (87, 21007), (145, 21103), (148, 21112), (177, 21202), (181, 21214), (219, 21313), (222, 21322), (253, 21415), (276, 21496), (287, 21526), (292, 21538), (300, 21565), (304, 21580), (314, 21604), (339, 21664), (356, 21709), (365, 21736), (370, 21775), (375, 21793), (380, 21802), (399, 21871), (400, 21874), (402, 21892), (413, 21934), (420, 21955), (428, 21985), (463, 22135), (471, 22168), (479, 22177), (499, 22240), (512, 22288), (516, 22300), (543, 22369), (553, 22393), (561, 22423), (570, 22462), (610, 22651), (631, 22726), (642, 22780), (672, 22864), (680, 22882), (727, 22969), (733, 22993), (747, 23035), (767, 23095),

Gene: Tigress9_27 Start: 20023, Stop: 22350, Start Num: 18
Candidate Starts for Tigress9_27:
(11, 19981), (Start: 16 @20014 has 55 MA's), (18, 20023), (29, 20071), (30, 20074), (68, 20203), (87, 20254), (145, 20350), (148, 20359), (177, 20449), (188, 20488), (219, 20560), (222, 20569), (253, 20662), (276, 20743), (287, 20773), (300, 20812), (304, 20827), (314, 20851), (339, 20911), (356, 20956), (365, 20983), (370, 21022), (375, 21040), (380, 21049), (399, 21118), (400, 21121), (402, 21139), (413, 21181), (420, 21202), (425, 21217), (428, 21232), (444, 21319), (470, 21412), (471, 21415), (499, 21487), (512, 21535), (543, 21616), (553, 21640), (560, 21664), (561, 21670), (570, 21709), (610, 21898), (631, 21973), (642, 22027), (672, 22111), (680, 22129), (727, 22216), (733, 22240), (747, 22282), (767, 22342),

Gene: TingHuaYa_27 Start: 20178, Stop: 22490, Start Num: 40
Candidate Starts for TingHuaYa_27:
(Start: 40 @20178 has 18 MA's), (91, 20328), (100, 20349), (141, 20406), (163, 20472), (179, 20517), (191, 20559), (195, 20571), (216, 20616), (254, 20727), (260, 20748), (278, 20814), (285, 20829), (314, 20910), (326, 20940), (337, 20979), (349, 20994), (364, 21054), (384, 21138), (399, 21210), (478, 21519), (493, 21573), (494, 21576), (498, 21588), (507, 21615), (511, 21633), (512, 21639), (550, 21771), (605, 22020), (609, 22035), (613, 22065), (623, 22104), (645, 22212), (659, 22242), (680, 22284), (692, 22305), (715, 22347), (726, 22371), (727, 22374), (733, 22398), (735, 22404), (759, 22467), (764, 22482),

Gene: Torres_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Torres_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720),
(177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035),
(256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233),
(314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620),
(437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118),
(546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277),
(586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574),
(648, 22589), (661, 22616), (694, 22673),

Gene: TriFive_21 Start: 19724, Stop: 22237, Start Num: 12
Candidate Starts for TriFive_21:
(Start: 12 @19724 has 19 MA's), (26, 19787), (Start: 45 @19859 has 15 MA's), (72, 19949), (74,
19955), (96, 20027), (123, 20114), (160, 20219), (164, 20231), (171, 20249), (183, 20288), (192,
20318), (213, 20375), (226, 20405), (231, 20411), (247, 20465), (249, 20471), (293, 20618), (294,
20621), (297, 20630), (301, 20648), (324, 20708), (327, 20717), (330, 20729), (344, 20780), (345,
20783), (386, 20948), (400, 21005), (421, 21089), (426, 21107), (428, 21116), (439, 21179), (471,
21299), (480, 21323), (486, 21344), (491, 21359), (497, 21377), (510, 21407), (541, 21497), (563,
21566), (570, 21599), (574, 21620), (580, 21656), (588, 21692), (598, 21737), (603, 21761), (605,
21767), (609, 21782), (612, 21800), (636, 21887), (640, 21911), (645, 21947), (648, 21953), (657,
21977), (701, 22052), (703, 22055), (732, 22142), (735, 22151), (736, 22157),

Gene: TribleTrouble_25 Start: 21122, Stop: 23572, Start Num: 16
Candidate Starts for TribleTrouble_25:
(Start: 16 @21122 has 55 MA's), (Start: 21 @21149 has 31 MA's), (27, 21170), (30, 21182), (Start: 42
@21227 has 1 MA's), (50, 21257), (59, 21287), (111, 21449), (112, 21470), (135, 21548), (153,
21593), (162, 21629), (169, 21647), (196, 21725), (211, 21761), (276, 21959), (282, 21974), (300,
22025), (320, 22082), (365, 22199), (371, 22241), (375, 22256), (380, 22265), (400, 22346), (402,
22364), (413, 22406), (420, 22427), (426, 22448), (428, 22457), (444, 22544), (471, 22640), (496,
22700), (499, 22712), (511, 22754), (543, 22841), (561, 22895), (570, 22934), (573, 22952), (592,
23051), (596, 23069), (610, 23123), (621, 23168), (626, 23180), (632, 23204), (638, 23231), (666,
23327), (672, 23336), (733, 23465), (742, 23492), (747, 23504),

Gene: Trice_23 Start: 20414, Stop: 22900, Start Num: 16
Candidate Starts for Trice_23:
(Start: 16 @20414 has 55 MA's), (27, 20462), (85, 20642), (86, 20645), (126, 20708), (131, 20720),
(177, 20852), (188, 20891), (209, 20948), (222, 20972), (225, 20984), (240, 21032), (241, 21035),
(256, 21068), (267, 21107), (276, 21140), (281, 21152), (285, 21161), (287, 21167), (307, 21233),
(314, 21248), (348, 21359), (356, 21392), (375, 21476), (383, 21491), (394, 21551), (408, 21620),
(437, 21740), (455, 21833), (490, 21947), (513, 22025), (516, 22031), (526, 22055), (545, 22118),
(546, 22121), (549, 22133), (566, 22199), (567, 22205), (576, 22247), (578, 22268), (580, 22277),
(586, 22310), (590, 22328), (605, 22397), (631, 22496), (632, 22502), (636, 22520), (643, 22574),
(648, 22589), (661, 22616), (694, 22673),

Gene: Trike_30 Start: 21413, Stop: 23695, Start Num: 19
Candidate Starts for Trike_30:
(Start: 19 @21413 has 6 MA's), (25, 21446), (52, 21530), (71, 21596), (110, 21728), (153, 21842),
(155, 21851), (179, 21935), (200, 22010), (239, 22088), (265, 22163), (293, 22208), (372, 22379),
(413, 22526), (417, 22535), (419, 22544), (426, 22568), (475, 22769), (487, 22808), (516, 22898),
(540, 22955), (554, 22997), (558, 23009), (570, 23060), (575, 23090), (578, 23108), (580, 23120),
(609, 23240), (610, 23246), (642, 23378), (643, 23399), (644, 23402), (671, 23459), (684, 23486),

(688, 23492), (725, 23573), (726, 23576), (761, 23678), (762, 23681),

Gene: Trooper_31 Start: 22613, Stop: 24916, Start Num: 22
Candidate Starts for Trooper_31:
(Start: 22 @22613 has 22 MA's), (28, 22634), (54, 22724), (73, 22790), (125, 22961), (174, 23105),
(184, 23141), (195, 23171), (239, 23261), (260, 23327), (279, 23396), (392, 23657), (413, 23744),
(419, 23762), (426, 23786), (433, 23816), (475, 23987), (491, 24038), (516, 24116), (540, 24173),
(570, 24278), (574, 24299), (577, 24311), (593, 24404), (599, 24419), (605, 24443), (613, 24488),
(622, 24509), (623, 24512), (639, 24575), (644, 24617), (656, 24650), (672, 24671), (710, 24743),
(728, 24791), (744, 24839), (761, 24893),

Gene: Turbido_33 Start: 23266, Stop: 25470, Start Num: 21
Candidate Starts for Turbido_33:
(Start: 21 @23266 has 31 MA's), (54, 23380), (57, 23389), (68, 23422), (85, 23479), (125, 23617),
(239, 23806), (279, 23941), (296, 23983), (321, 24055), (413, 24295), (419, 24313), (426, 24337),
(448, 24445), (475, 24538), (487, 24577), (516, 24667), (540, 24724), (541, 24727), (560, 24784),
(561, 24790), (570, 24829), (574, 24850), (613, 25039), (623, 25066), (668, 25219), (680, 25243),
(709, 25297), (711, 25300), (727, 25339), (728, 25345), (744, 25393),

Gene: Typha_27 Start: 23429, Stop: 26023, Start Num: 17
Candidate Starts for Typha_27:
(Start: 17 @23429 has 5 MA's), (25, 23468), (Start: 45 @23543 has 15 MA's), (77, 23645), (79, 23654),
(103, 23732), (121, 23813), (124, 23822), (141, 23867), (142, 23870), (146, 23879), (150, 23891),
(152, 23894), (158, 23918), (167, 23945), (170, 23954), (185, 24017), (204, 24083), (219, 24119),
(221, 24122), (246, 24194), (248, 24200), (266, 24269), (291, 24353), (320, 24434), (328, 24455),
(376, 24629), (387, 24656), (396, 24707), (406, 24752), (418, 24803), (420, 24812), (438, 24890),
(464, 25013), (465, 25016), (466, 25019), (501, 25130), (517, 25193), (535, 25241), (562, 25328),
(567, 25355), (570, 25364), (572, 25370), (580, 25421), (605, 25538), (607, 25541), (628, 25625),
(636, 25661), (642, 25691), (644, 25715), (666, 25766), (670, 25772), (674, 25778), (724, 25880),
(735, 25916), (761, 26006), (764, 26015),

Gene: Unicorn_26 Start: 20093, Stop: 22432, Start Num: 16
Candidate Starts for Unicorn_26:
(Start: 16 @20093 has 55 MA's), (29, 20150), (62, 20264), (68, 20282), (87, 20333), (93, 20354), (145,
20432), (177, 20531), (181, 20543), (219, 20642), (222, 20651), (253, 20744), (276, 20825), (287,
20855), (292, 20867), (295, 20876), (300, 20894), (304, 20909), (314, 20933), (339, 20993), (356,
21038), (365, 21065), (375, 21122), (380, 21131), (399, 21200), (400, 21203), (402, 21221), (413,
21263), (420, 21284), (428, 21314), (444, 21401), (463, 21464), (471, 21497), (499, 21569), (512,
21617), (516, 21629), (543, 21698), (553, 21722), (570, 21791), (610, 21980), (631, 22055), (636,
22079), (666, 22184), (672, 22193), (680, 22211), (727, 22298), (733, 22322), (747, 22364), (767,
22424),

Gene: Updawg_33 Start: 23218, Stop: 25425, Start Num: 21
Candidate Starts for Updawg_33:
(Start: 21 @23218 has 31 MA's), (54, 23332), (57, 23341), (59, 23347), (65, 23368), (99, 23479), (125,
23569), (130, 23581), (239, 23758), (253, 23797), (279, 23893), (392, 24154), (413, 24244), (423,
24274), (426, 24286), (473, 24484), (516, 24625), (521, 24646), (558, 24736), (560, 24742), (561,
24748), (570, 24787), (574, 24808), (579, 24844), (580, 24847), (593, 24913), (599, 24928), (600,
24931), (605, 24952), (612, 24985), (644, 25129), (667, 25177), (706, 25240), (728, 25300), (744,
25348), (761, 25402),

Gene: Validus_27 Start: 20168, Stop: 22669, Start Num: 16
Candidate Starts for Validus_27:

(Start: 16 @20168 has 55 MA's), (41, 20267), (Start: 45 @20285 has 15 MA's), (62, 20339), (84, 20390), (87, 20408), (131, 20474), (153, 20528), (177, 20606), (188, 20645), (209, 20702), (225, 20738), (241, 20789), (261, 20834), (275, 20888), (276, 20891), (285, 20912), (287, 20918), (300, 20957), (348, 21110), (358, 21155), (375, 21227), (390, 21281), (394, 21302), (398, 21314), (417, 21407), (421, 21422), (436, 21485), (455, 21581), (513, 21773), (516, 21779), (526, 21803), (545, 21866), (567, 21953), (580, 22025), (586, 22058), (590, 22076), (597, 22115), (645, 22331), (704, 22442), (725, 22499), (730, 22517), (739, 22547),

Gene: Vanisoa_30 Start: 22263, Stop: 24611, Start Num: 51
Candidate Starts for Vanisoa_30:
(49, 22257), (Start: 51 @22263 has 2 MA's), (81, 22362), (92, 22395), (136, 22530), (166, 22620), (197, 22722), (208, 22749), (224, 22785), (249, 22854), (251, 22860), (317, 23070), (330, 23112), (354, 23202), (362, 23229), (393, 23343), (400, 23376), (420, 23457), (428, 23487), (430, 23493), (453, 23595), (471, 23673), (491, 23733), (510, 23781), (512, 23793), (564, 23946), (570, 23973), (573, 23991), (580, 24030), (587, 24060), (605, 24141), (607, 24144), (640, 24285), (657, 24351), (681, 24396), (696, 24417), (701, 24426), (736, 24531), (755, 24576), (759, 24588),

Gene: Vordorf_29 Start: 24001, Stop: 26601, Start Num: 10
Candidate Starts for Vordorf_29:
(Start: 10 @24001 has 1 MA's), (Start: 34 @24115 has 1 MA's), (Start: 36 @24124 has 1 MA's), (172, 24601), (215, 24736), (228, 24772), (247, 24823), (248, 24826), (266, 24898), (280, 24949), (286, 24964), (293, 24982), (299, 25006), (404, 25336), (410, 25348), (431, 25420), (459, 25567), (469, 25597), (494, 25678), (510, 25720), (527, 25783), (570, 25909), (607, 26092), (624, 26173), (652, 26296), (691, 26371), (719, 26425), (737, 26485), (743, 26497),

Gene: Whabigail7_33 Start: 23254, Stop: 25458, Start Num: 21
Candidate Starts for Whabigail7_33:
(Start: 21 @23254 has 31 MA's), (54, 23368), (57, 23377), (68, 23410), (85, 23467), (125, 23605), (239, 23794), (279, 23929), (296, 23971), (321, 24043), (413, 24283), (419, 24301), (426, 24325), (448, 24433), (475, 24526), (487, 24565), (516, 24655), (540, 24712), (541, 24715), (560, 24772), (561, 24778), (570, 24817), (574, 24838), (613, 25027), (623, 25054), (668, 25207), (680, 25231), (709, 25285), (711, 25288), (727, 25327), (728, 25333), (744, 25381),

Gene: WheatThin_25 Start: 20607, Stop: 23117, Start Num: 14
Candidate Starts for WheatThin_25:
(Start: 14 @20607 has 14 MA's), (52, 20739), (55, 20754), (70, 20799), (75, 20817), (127, 20982), (148, 21036), (151, 21045), (172, 21123), (174, 21129), (228, 21294), (232, 21309), (247, 21345), (266, 21420), (268, 21432), (270, 21441), (271, 21447), (276, 21459), (280, 21471), (286, 21486), (293, 21504), (294, 21507), (303, 21543), (323, 21597), (367, 21720), (384, 21774), (389, 21795), (390, 21804), (422, 21906), (435, 21966), (442, 22014), (447, 22026), (455, 22071), (483, 22158), (494, 22197), (515, 22266), (519, 22278), (522, 22290), (599, 22578), (606, 22608), (624, 22689), (630, 22710), (636, 22737), (640, 22761), (713, 22926), (729, 22971), (758, 23070), (768, 23109),

Gene: Whirlwind_22 Start: 19481, Stop: 21994, Start Num: 12
Candidate Starts for Whirlwind_22:
(Start: 12 @19481 has 19 MA's), (26, 19544), (Start: 45 @19616 has 15 MA's), (105, 19814), (156, 19958), (160, 19976), (164, 19988), (171, 20006), (183, 20045), (185, 20060), (192, 20075), (213, 20132), (226, 20162), (231, 20168), (247, 20222), (249, 20228), (264, 20285), (293, 20375), (294, 20378), (297, 20387), (301, 20405), (324, 20465), (344, 20537), (345, 20540), (382, 20684), (386, 20705), (400, 20762), (421, 20846), (426, 20864), (428, 20873), (471, 21056), (486, 21101), (491, 21116), (497, 21134), (510, 21164), (530, 21224), (541, 21254), (563, 21323), (570, 21356), (574, 21377), (580, 21413), (587, 21443), (603, 21518), (605, 21524), (609, 21539), (612, 21557), (621, 21590), (635, 21641), (636, 21644), (641, 21671), (645, 21704), (657, 21734), (701, 21809), (716,

21845), (735, 21908), (736, 21914), (764, 21986),

Gene: WideWale_33 Start: 23218, Stop: 25425, Start Num: 21
Candidate Starts for WideWale_33:
(Start: 21 @23218 has 31 MA's), (54, 23332), (57, 23341), (59, 23347), (65, 23368), (99, 23479), (125, 23569), (130, 23581), (239, 23758), (253, 23797), (279, 23893), (392, 24154), (413, 24244), (423, 24274), (426, 24286), (473, 24484), (516, 24625), (521, 24646), (558, 24736), (560, 24742), (561, 24748), (570, 24787), (574, 24808), (579, 24844), (580, 24847), (593, 24913), (599, 24928), (600, 24931), (605, 24952), (612, 24985), (644, 25129), (667, 25177), (706, 25240), (728, 25300), (744, 25348), (761, 25402),

Gene: Willsammy_21 Start: 18930, Stop: 21569, Start Num: 4
Candidate Starts for Willsammy_21:
(Start: 4 @18930 has 17 MA's), (6, 18939), (37, 19083), (121, 19356), (124, 19365), (125, 19368), (134, 19389), (138, 19401), (141, 19410), (150, 19434), (167, 19488), (185, 19566), (194, 19596), (204, 19632), (215, 19653), (219, 19668), (232, 19710), (246, 19743), (266, 19818), (270, 19842), (271, 19848), (276, 19860), (291, 19902), (294, 19908), (325, 19995), (366, 20127), (369, 20145), (376, 20178), (387, 20205), (396, 20256), (440, 20466), (454, 20532), (466, 20568), (496, 20667), (501, 20679), (517, 20742), (567, 20904), (572, 20919), (580, 20970), (605, 21087), (614, 21132), (628, 21174), (636, 21210), (644, 21264), (666, 21312), (733, 21456), (749, 21513), (761, 21552), (764, 21561),

Gene: Wintermute_28 Start: 22272, Stop: 24581, Start Num: 40
Candidate Starts for Wintermute_28:
(Start: 40 @22272 has 18 MA's), (67, 22362), (78, 22383), (86, 22407), (148, 22524), (188, 22653), (211, 22713), (238, 22785), (240, 22794), (258, 22845), (260, 22851), (263, 22860), (276, 22911), (281, 22923), (287, 22938), (288, 22944), (300, 22977), (319, 23025), (337, 23079), (365, 23151), (370, 23190), (373, 23202), (380, 23217), (391, 23262), (403, 23331), (429, 23412), (463, 23565), (478, 23607), (513, 23736), (526, 23781), (546, 23847), (550, 23862), (574, 23958), (605, 24111), (609, 24126), (610, 24132), (613, 24156), (615, 24162), (617, 24168), (618, 24171), (623, 24195), (628, 24207), (645, 24303), (670, 24354), (672, 24357), (709, 24426), (726, 24462), (735, 24495), (756, 24549), (759, 24558), (764, 24573),

Gene: Xeno_20 Start: 17553, Stop: 20198, Start Num: 4
Candidate Starts for Xeno_20:
(1, 17541), (Start: 4 @17553 has 17 MA's), (7, 17565), (8, 17577), (Start: 17 @17631 has 5 MA's), (Start: 36 @17700 has 1 MA's), (37, 17703), (39, 17712), (43, 17727), (101, 17904), (121, 17985), (124, 17994), (146, 18051), (152, 18066), (187, 18198), (199, 18246), (204, 18261), (215, 18282), (228, 18324), (232, 18339), (234, 18348), (246, 18375), (248, 18381), (266, 18450), (270, 18471), (271, 18477), (275, 18486), (284, 18513), (325, 18624), (333, 18645), (338, 18669), (361, 18735), (366, 18756), (369, 18774), (376, 18807), (386, 18831), (387, 18834), (396, 18885), (420, 18990), (432, 19032), (466, 19197), (494, 19293), (517, 19371), (524, 19383), (552, 19473), (567, 19533), (570, 19542), (578, 19590), (580, 19599), (605, 19716), (614, 19761), (628, 19803), (642, 19869), (644, 19893), (666, 19941), (670, 19947), (674, 19953), (723, 20052), (727, 20061), (735, 20091), (761, 20181), (764, 20190),

Gene: Ximenita_27 Start: 20205, Stop: 22535, Start Num: 16
Candidate Starts for Ximenita_27:
(Start: 16 @20205 has 55 MA's), (30, 20265), (68, 20394), (75, 20406), (87, 20445), (145, 20541), (148, 20550), (177, 20640), (188, 20679), (205, 20727), (219, 20751), (222, 20760), (253, 20853), (257, 20868), (276, 20934), (287, 20964), (292, 20976), (300, 21003), (304, 21018), (314, 21042), (339, 21102), (356, 21147), (365, 21174), (370, 21213), (375, 21231), (380, 21240), (399, 21309), (400, 21312), (402, 21330), (413, 21372), (420, 21393), (426, 21414), (428, 21423), (436, 21459),

(444, 21510), (499, 21675), (529, 21765), (543, 21804), (546, 21813), (561, 21858), (566, 21882),
(570, 21897), (573, 21915), (578, 21945), (610, 22086), (621, 22131), (631, 22161), (636, 22185),
(638, 22194), (642, 22215), (646, 22245), (733, 22428), (745, 22455), (747, 22467), (767, 22527),

Gene: Y10_28 Start: 22272, Stop: 24581, Start Num: 40
Candidate Starts for Y10_28:
(Start: 40 @22272 has 18 MA's), (67, 22362), (78, 22383), (86, 22407), (148, 22524), (188, 22653),
(211, 22713), (238, 22785), (240, 22794), (258, 22845), (260, 22851), (263, 22860), (276, 22911),
(281, 22923), (287, 22938), (288, 22944), (300, 22977), (319, 23025), (337, 23079), (365, 23151),
(370, 23190), (373, 23202), (380, 23217), (391, 23262), (403, 23331), (429, 23412), (463, 23565),
(478, 23607), (513, 23736), (526, 23781), (546, 23847), (550, 23862), (574, 23958), (605, 24111),
(609, 24126), (610, 24132), (613, 24156), (615, 24162), (617, 24168), (618, 24171), (623, 24195),
(628, 24207), (645, 24303), (670, 24354), (672, 24357), (709, 24426), (726, 24462), (735, 24495),
(756, 24549), (759, 24558), (764, 24573),

Gene: Y2_28 Start: 22272, Stop: 24581, Start Num: 40
Candidate Starts for Y2_28:
(Start: 40 @22272 has 18 MA's), (67, 22362), (78, 22383), (86, 22407), (148, 22524), (188, 22653),
(211, 22713), (238, 22785), (240, 22794), (258, 22845), (260, 22851), (263, 22860), (276, 22911),
(281, 22923), (287, 22938), (288, 22944), (300, 22977), (319, 23025), (337, 23079), (365, 23151),
(370, 23190), (373, 23202), (380, 23217), (391, 23262), (403, 23331), (429, 23412), (463, 23565),
(478, 23607), (513, 23736), (526, 23781), (546, 23847), (550, 23862), (574, 23958), (605, 24111),
(609, 24126), (610, 24132), (613, 24156), (615, 24162), (617, 24168), (618, 24171), (623, 24195),
(628, 24207), (645, 24303), (670, 24354), (672, 24357), (709, 24426), (726, 24462), (735, 24495),
(756, 24549), (759, 24558), (764, 24573),

Gene: YasnayaPolyana_28 Start: 22273, Stop: 24582, Start Num: 40
Candidate Starts for YasnayaPolyana_28:
(Start: 40 @22273 has 18 MA's), (67, 22363), (78, 22384), (86, 22408), (148, 22525), (188, 22654),
(211, 22714), (238, 22786), (240, 22795), (258, 22846), (260, 22852), (263, 22861), (276, 22912),
(281, 22924), (287, 22939), (288, 22945), (300, 22978), (319, 23026), (337, 23080), (365, 23152),
(370, 23191), (373, 23203), (380, 23218), (391, 23263), (403, 23332), (429, 23413), (463, 23566),
(478, 23608), (513, 23737), (526, 23782), (546, 23848), (550, 23863), (574, 23959), (605, 24112),
(609, 24127), (610, 24133), (613, 24157), (615, 24163), (617, 24169), (618, 24172), (623, 24196),
(628, 24208), (645, 24304), (670, 24355), (672, 24358), (709, 24427), (726, 24463), (735, 24496),
(756, 24550), (759, 24559), (764, 24574),

Gene: Yuna_28 Start: 20819, Stop: 23209, Start Num: 16
Candidate Starts for Yuna_28:
(Start: 16 @20819 has 55 MA's), (27, 20867), (38, 20906), (41, 20918), (87, 21059), (126, 21113),
(131, 21125), (153, 21179), (158, 21200), (175, 21251), (177, 21257), (207, 21347), (209, 21353),
(241, 21440), (260, 21482), (261, 21485), (272, 21533), (276, 21542), (287, 21569), (290, 21578),
(300, 21608), (320, 21665), (348, 21761), (351, 21773), (375, 21878), (395, 21947), (402, 21986),
(414, 22016), (443, 22139), (450, 22160), (475, 22244), (492, 22295), (493, 22298), (494, 22301),
(508, 22340), (526, 22394), (544, 22451), (572, 22553), (573, 22565), (593, 22682), (596, 22688),
(608, 22730), (635, 22838), (645, 22901), (725, 23054), (726, 23057), (762, 23183),

Gene: ZoeJ_23 Start: 18602, Stop: 20941, Start Num: 16
Candidate Starts for ZoeJ_23:
(Start: 16 @18602 has 55 MA's), (145, 18953), (148, 18962), (161, 19007), (219, 19151), (229, 19175),
(276, 19334), (285, 19358), (287, 19364), (292, 19376), (300, 19403), (339, 19502), (365, 19574),
(371, 19616), (372, 19622), (375, 19631), (399, 19712), (402, 19733), (413, 19775), (428, 19826),
(444, 19913), (448, 19922), (475, 20012), (496, 20066), (499, 20078), (516, 20138), (541, 20198),

(546, 20216), (570, 20300), (578, 20348), (592, 20417), (594, 20432), (610, 20489), (617, 20513), (622, 20537), (626, 20546), (636, 20588), (638, 20597), (662, 20684), (672, 20702), (727, 20807), (733, 20831),