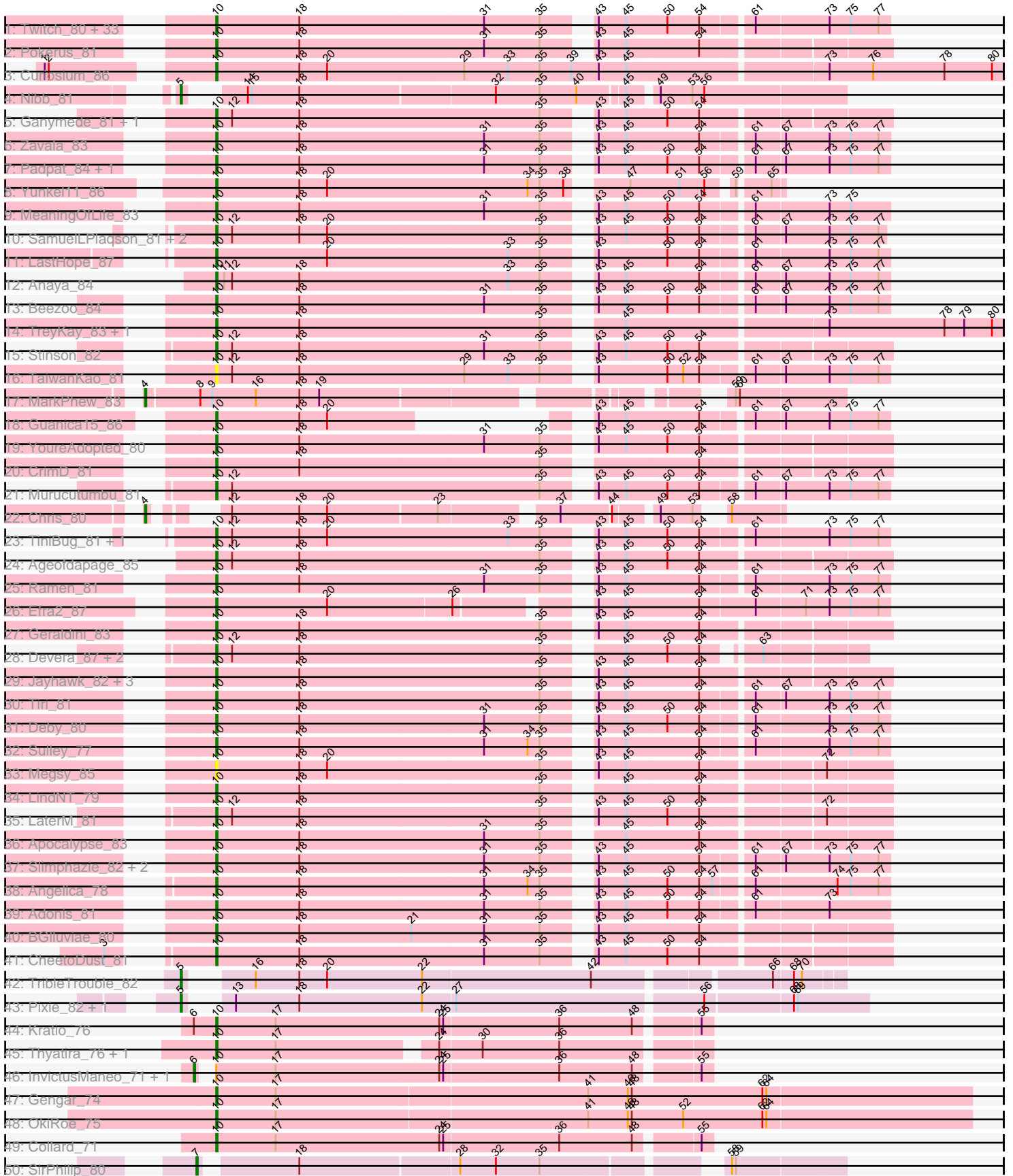



Pham 157758



51: Yuna_83



A series of horizontal lines, with the rightmost edge being a dashed line, providing a template for writing.

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 157758 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157758 has 100 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Twitch_80, Jeckyll_80, HedwigODU_80, Zabiza_76, BaghaKamala_79, Llorens_79, ShiaSurprise_81, Jarvi_80, Rosmarinus_80, Blizzard_80, Lunahalos_80, Durfee_80, Boiiii_80, Adephagia_79, Hyperbowlee_79, Atiba_81, Homura_79, Spock_80, ActinUp_81, CaseJules_82, Padfoot_80, BEEST_80, Dalmuri_80, TruffulaTree_82, Inky_80, Capricorn_80, Asayake_80, Joy99_81, Peel_80, Piatt_79, Belladonna_80, CREW_79, Topper_80, Tachez_80
- Track 2 : Pokerus_81
- Track 3 : Curiosium_86
- Track 4 : Nibb_81
- Track 5 : Ganymede_81, QuincyRose_79
- Track 6 : Zavala_83
- Track 7 : Padpat_84, Emerson_83
- Track 8 : Yunkel11_86
- Track 9 : MeaningOfLife_83
- Track 10 : SamuelLPlagson_81, DrHayes_81, Urkel_81
- Track 11 : LastHope_87
- Track 12 : Anaya_84
- Track 13 : Beezoo_84
- Track 14 : TreyKay_83, Prithvi_83
- Track 15 : Stinson_82
- Track 16 : TaiwanKao_81
- Track 17 : MarkPhew_83
- Track 18 : Guanica15_86
- Track 19 : YoureAdopted_80
- Track 20 : CrimD_81
- Track 21 : Murucutumbu_81
- Track 22 : Chris_80
- Track 23 : TiniBug_81, Bella96_82
- Track 24 : Ageofdapage_85
- Track 25 : Ramen_81
- Track 26 : Efra2_87
- Track 27 : Geraldini_83
- Track 28 : Devera_87, Dole_84, Illumine_85
- Track 29 : Jayhawk_82, Rapunzel97_83, BarrelRoll_81, Mynx_82
- Track 30 : Tiri_81
- Track 31 : Deby_80
- Track 32 : Sulley_77

- Track 33 : Megsy_85
- Track 34 : LindNT_79
- Track 35 : LaterM_81
- Track 36 : Apocalypse_83
- Track 37 : Slimphazie_82, JAWS_79, Veliki_81
- Track 38 : Angelica_78
- Track 39 : Adonis_81
- Track 40 : BGlluviae_80
- Track 41 : CheetoDust_81
- Track 42 : TribbleTrouble_82
- Track 43 : Pixie_82, TBond007_79
- Track 44 : Kratio_76
- Track 45 : Thyatira_76, Waterfoul_75
- Track 46 : InvictusManeo_71, Agent47_71
- Track 47 : Gengar_74
- Track 48 : OkiRoe_75
- Track 49 : Collard_71
- Track 50 : SirPhilip_80
- Track 51 : Yuna_83

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

The start number called the most often in the published annotations is 10, it was called in 85 of the 94 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_81, Adephegia_79, Adonis_81, Ageofdapage_85, Anaya_84, Angelica_78, Apocalypse_83, Asayake_80, Atiba_81, BEEST_80, BGlluviae_80, BaghaKamala_79, BarrelRoll_81, Beezoo_84, Bella96_82, Belladonna_80, Blizzard_80, Boiiii_80, CREW_79, Capricorn_80, CaseJules_82, CheetoDust_81, Collard_71, CrimD_81, Curiosium_86, Dalmuri_80, Deby_80, Devera_87, Dole_84, DrHayes_81, Durfee_80, Efra2_87, Emerson_83, Ganymede_81, Gengar_74, Geraldini_83, Guanica15_86, HedwigODU_80, Homura_79, Hyperbowlee_79, Illumine_85, Inky_80, JAWS_79, Jarvi_80, Jayhawk_82, Jeckyll_80, Joy99_81, Kratio_76, LastHope_87, LaterM_81, LindNT_79, Llorens_79, Lunahalos_80, MeaningOfLife_83, Megsy_85, Murucutumbu_81, Mynx_82, OkiRoe_75, Padfoot_80, Padpat_84, Peel_80, Piatt_79, Pokerus_81, Prithvi_83, QuincyRose_79, Ramen_81, Rapunzel97_83, Rosmarinus_80, SamuelLPlaqson_81, ShiaSurprise_81, Slimphazie_82, Spock_80, Stinson_82, Sulley_77, Tachez_80, TaiwanKao_81, Thyatira_76, TiniBug_81, Tiri_81, Topper_80, TreyKay_83, TruffulaTree_82, Twitch_80, Urkel_81, Veliki_81, Waterfoul_75, YoureAdopted_80, Yunkel11_86, Zabiza_76, Zavala_83,

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

- Agent47_71, InvictusManeo_71,

Genes that do not have the "Most Annotated" start:

- Chris_80, MarkPhew_83, Nibb_81, Pixie_82, SirPhilip_80, TBond007_79, TribbleTrouble_82, Yuna_83,

Summary by start number:

Start 4:

- Found in 3 of 100 (3.0%) of genes in pham
- Manual Annotations of this start: 3 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chris_80 (K1), MarkPhew_83 (K1), Yuna_83 (K6),

Start 5:

- Found in 4 of 100 (4.0%) of genes in pham
- Manual Annotations of this start: 4 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nibb_81 (K1), Pixie_82 (K3), TBond007_79 (K3), TripleTrouble_82 (K3),

Start 6:

- Found in 3 of 100 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Agent47_71 (K5), InvictusManeo_71 (K5),

Start 7:

- Found in 1 of 100 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SirPhilip_80 (K6),

Start 10:

- Found in 92 of 100 (92.0%) of genes in pham
- Manual Annotations of this start: 85 of 94
- Called 97.8% of time when present
- Phage (with cluster) where this start called: ActinUp_81 (K1), Adephegia_79 (K1), Adonis_81 (K1), Ageofdapage_85 (K1), Anaya_84 (K1), Angelica_78 (K1), Apocalypse_83 (K1), Asayake_80 (K1), Atiba_81 (K1), BEEST_80 (K1), BGIlluvia_80 (K1), BaghaKamala_79 (K1), BarrelRoll_81 (K1), Beezoo_84 (K1), Bella96_82 (K1), Belladonna_80 (K1), Blizzard_80 (K1), Boiiii_80 (K1), CREW_79 (K1), Capricorn_80 (K1), CaseJules_82 (K1), CheetoDust_81 (K1), Collard_71 (K5), CrimD_81 (K1), Curiosium_86 (K1), Dalmuri_80 (K1), Deby_80 (K1), Devera_87 (K1), Dole_84 (K1), DrHayes_81 (K1), Durfee_80 (K1), Efra2_87 (K1), Emerson_83 (K1), Ganymede_81 (K1), Gengar_74 (K5), Geraldini_83 (K1), Guanica15_86 (K1), HedwigODU_80 (K1), Homura_79 (K1), Hyperbowlee_79 (K1), Illumine_85 (K1), Inky_80 (K1), JAWS_79 (K1), Jarvi_80 (K1), Jayhawk_82 (K1), Jeckyll_80 (K1), Joy99_81 (K1), Kratio_76 (K5), LastHope_87 (K1), LaterM_81 (K1), LindNT_79 (K1), Llorens_79 (K1), Lunahalos_80 (K1), MeaningOfLife_83 (K1), Megsy_85 (K1), Murucutumbu_81 (K1), Mynx_82 (K1), OkiRoe_75 (K5), Padfoot_80 (K1), Padpat_84 (K1), Peel_80 (K1), Piatt_79 (K1), Pokerus_81 (K1), Prithvi_83 (K1), QuincyRose_79 (K1), Ramen_81 (K1), Rapunzel97_83 (K1), Rosmarinus_80 (K1), SamuelLPlaqson_81 (K1), ShiaSurprise_81 (K1), Slimphazie_82 (K1), Spock_80 (K1), Stinson_82 (K1), Sulley_77 (K1), Tachez_80 (K1), TaiwanKao_81 (K1), Thyatira_76 (K5), TiniBug_81 (K1), Tiri_81 (K1), Topper_80 (K1), TreyKay_83 (K1), TruffulaTree_82 (K1), Twitch_80 (K1), Urkel_81 (K1), Veliki_81 (K1), Waterfoul_75

(K5), YoureAdopted_80 (K1), Yunkel11_86 (K1), Zabiza_76 (K1), Zavala_83 (K1),

Summary by clusters:

There are 4 clusters represented in this pham: K3, K1, K6, K5,

Info for manual annotations of cluster K1:

- Start number 4 was manually annotated 2 times for cluster K1.
- Start number 5 was manually annotated 1 time for cluster K1.
- Start number 10 was manually annotated 79 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 5 was manually annotated 3 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 6 was manually annotated 1 time for cluster K5.
- Start number 10 was manually annotated 6 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 4 was manually annotated 1 time for cluster K6.
- Start number 7 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ActinUp_81 Start: 52478, Stop: 52954, Start Num: 10

Candidate Starts for ActinUp_81:

(Start: 10 @52478 has 85 MA's), (18, 52541), (31, 52679), (35, 52721), (43, 52748), (45, 52769), (50, 52799), (54, 52823), (61, 52856), (73, 52910), (75, 52925), (77, 52946),

Gene: Adephagia_79 Start: 52315, Stop: 52791, Start Num: 10

Candidate Starts for Adephagia_79:

(Start: 10 @52315 has 85 MA's), (18, 52378), (31, 52516), (35, 52558), (43, 52585), (45, 52606), (50, 52636), (54, 52660), (61, 52693), (73, 52747), (75, 52762), (77, 52783),

Gene: Adonis_81 Start: 52782, Stop: 53258, Start Num: 10

Candidate Starts for Adonis_81:

(Start: 10 @52782 has 85 MA's), (18, 52845), (31, 52983), (35, 53025), (43, 53052), (45, 53073), (50, 53103), (54, 53127), (61, 53160), (73, 53214),

Gene: Agent47_71 Start: 49173, Stop: 49535, Start Num: 6

Candidate Starts for Agent47_71:

(Start: 6 @49173 has 1 MA's), (Start: 10 @49176 has 85 MA's), (17, 49221), (24, 49344), (25, 49347), (36, 49431), (48, 49485), (55, 49527),

Gene: Ageofdapage_85 Start: 53683, Stop: 54159, Start Num: 10

Candidate Starts for Ageofdapage_85:

(Start: 10 @53683 has 85 MA's), (12, 53695), (18, 53746), (35, 53926), (43, 53953), (45, 53974), (50, 54004), (54, 54028),

Gene: Anaya_84 Start: 53360, Stop: 53836, Start Num: 10

Candidate Starts for Anaya_84:

(Start: 10 @53360 has 85 MA's), (11, 53366), (12, 53372), (18, 53423), (33, 53579), (35, 53603), (43, 53630), (45, 53651), (54, 53705), (61, 53738), (67, 53759), (73, 53792), (75, 53807), (77, 53828),

Gene: Angelica_78 Start: 51899, Stop: 52375, Start Num: 10

Candidate Starts for Angelica_78:

(Start: 10 @51899 has 85 MA's), (18, 51962), (31, 52100), (34, 52133), (35, 52142), (43, 52169), (45, 52190), (50, 52220), (54, 52244), (57, 52253), (61, 52277), (74, 52337), (75, 52346), (77, 52367),

Gene: Apocalypse_83 Start: 53113, Stop: 53589, Start Num: 10

Candidate Starts for Apocalypse_83:

(Start: 10 @53113 has 85 MA's), (18, 53176), (31, 53314), (35, 53356), (45, 53404), (54, 53458),

Gene: Asayake_80 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Asayake_80:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Atiba_81 Start: 52278, Stop: 52754, Start Num: 10

Candidate Starts for Atiba_81:

(Start: 10 @52278 has 85 MA's), (18, 52341), (31, 52479), (35, 52521), (43, 52548), (45, 52569), (50, 52599), (54, 52623), (61, 52656), (73, 52710), (75, 52725), (77, 52746),

Gene: BEEST_80 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for BEEST_80:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: BGlluviae_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for BGlluviae_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (21, 52580), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (54, 52778),

Gene: BaghaKamala_79 Start: 51864, Stop: 52340, Start Num: 10

Candidate Starts for BaghaKamala_79:

(Start: 10 @51864 has 85 MA's), (18, 51927), (31, 52065), (35, 52107), (43, 52134), (45, 52155), (50, 52185), (54, 52209), (61, 52242), (73, 52296), (75, 52311), (77, 52332),

Gene: BarrelRoll_81 Start: 52830, Stop: 53306, Start Num: 10

Candidate Starts for BarrelRoll_81:

(Start: 10 @52830 has 85 MA's), (18, 52893), (35, 53073), (43, 53100), (45, 53121), (54, 53175),

Gene: Beezoo_84 Start: 53443, Stop: 53919, Start Num: 10

Candidate Starts for Beezoo_84:

(Start: 10 @53443 has 85 MA's), (18, 53506), (31, 53644), (35, 53686), (43, 53713), (45, 53734), (50, 53764), (54, 53788), (61, 53821), (67, 53842), (73, 53875), (75, 53890), (77, 53911),

Gene: Bella96_82 Start: 52804, Stop: 53280, Start Num: 10

Candidate Starts for Bella96_82:

(Start: 10 @52804 has 85 MA's), (12, 52816), (18, 52867), (20, 52888), (33, 53023), (35, 53047), (43, 53074), (45, 53095), (50, 53125), (54, 53149), (61, 53182), (73, 53236), (75, 53251), (77, 53272),

Gene: Belladonna_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Belladonna_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Blizzard_80 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Blizzard_80:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Boiiii_80 Start: 52632, Stop: 53108, Start Num: 10

Candidate Starts for Boiiii_80:

(Start: 10 @52632 has 85 MA's), (18, 52695), (31, 52833), (35, 52875), (43, 52902), (45, 52923), (50, 52953), (54, 52977), (61, 53010), (73, 53064), (75, 53079), (77, 53100),

Gene: CREW_79 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for CREW_79:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Capricorn_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Capricorn_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: CaseJules_82 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for CaseJules_82:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: CheetoDust_81 Start: 52251, Stop: 52727, Start Num: 10

Candidate Starts for CheetoDust_81:

(3, 52212), (Start: 10 @52251 has 85 MA's), (18, 52314), (31, 52452), (35, 52494), (43, 52521), (45, 52542), (50, 52572), (54, 52596),

Gene: Chris_80 Start: 52508, Stop: 52897, Start Num: 4

Candidate Starts for Chris_80:

(Start: 4 @52508 has 3 MA's), (12, 52535), (18, 52586), (20, 52607), (23, 52688), (37, 52763), (44, 52799), (49, 52826), (53, 52850), (58, 52859),

Gene: Collard_71 Start: 49137, Stop: 49496, Start Num: 10

Candidate Starts for Collard_71:

(Start: 10 @49137 has 85 MA's), (17, 49182), (24, 49305), (25, 49308), (36, 49392), (48, 49446), (55, 49488),

Gene: CrimD_81 Start: 52883, Stop: 53359, Start Num: 10

Candidate Starts for CrimD_81:

(Start: 10 @52883 has 85 MA's), (18, 52946), (35, 53126), (54, 53228),

Gene: Curiosium_86 Start: 52181, Stop: 52765, Start Num: 10

Candidate Starts for Curiosium_86:

(1, 52091), (2, 52094), (Start: 10 @52181 has 85 MA's), (18, 52244), (20, 52265), (29, 52367), (33, 52400), (35, 52424), (39, 52448), (43, 52469), (45, 52490), (73, 52634), (76, 52667), (78, 52721), (80, 52757),

Gene: Dalmuri_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Dalmuri_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Deby_80 Start: 52797, Stop: 53273, Start Num: 10

Candidate Starts for Deby_80:

(Start: 10 @52797 has 85 MA's), (18, 52860), (31, 52998), (35, 53040), (43, 53067), (45, 53088), (50, 53118), (54, 53142), (61, 53175), (73, 53229), (75, 53244), (77, 53265),

Gene: Devera_87 Start: 53666, Stop: 54112, Start Num: 10

Candidate Starts for Devera_87:

(Start: 10 @53666 has 85 MA's), (12, 53678), (18, 53729), (35, 53909), (45, 53957), (50, 53987), (54, 54011), (63, 54041),

Gene: Dole_84 Start: 53669, Stop: 54115, Start Num: 10

Candidate Starts for Dole_84:

(Start: 10 @53669 has 85 MA's), (12, 53681), (18, 53732), (35, 53912), (45, 53960), (50, 53990), (54, 54014), (63, 54044),

Gene: DrHayes_81 Start: 52928, Stop: 53401, Start Num: 10

Candidate Starts for DrHayes_81:

(Start: 10 @52928 has 85 MA's), (12, 52940), (18, 52991), (20, 53012), (35, 53171), (43, 53198), (45, 53219), (50, 53249), (54, 53273), (61, 53306), (67, 53327), (73, 53360), (75, 53375), (77, 53396),

Gene: Durfee_80 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Durfee_80:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Efra2_87 Start: 53234, Stop: 53698, Start Num: 10

Candidate Starts for Efra2_87:

(Start: 10 @53234 has 85 MA's), (20, 53318), (26, 53408), (43, 53486), (45, 53507), (54, 53561), (61, 53600), (71, 53636), (73, 53654), (75, 53669), (77, 53690),

Gene: Emerson_83 Start: 52849, Stop: 53325, Start Num: 10

Candidate Starts for Emerson_83:

(Start: 10 @52849 has 85 MA's), (18, 52912), (31, 53050), (35, 53092), (43, 53119), (45, 53140), (50, 53170), (54, 53194), (61, 53227), (67, 53248), (73, 53281), (75, 53296), (77, 53317),

Gene: Ganymede_81 Start: 52871, Stop: 53347, Start Num: 10

Candidate Starts for Ganymede_81:

(Start: 10 @52871 has 85 MA's), (12, 52883), (18, 52934), (35, 53114), (43, 53141), (45, 53162), (50, 53192), (54, 53216),

Gene: Gengar_74 Start: 51188, Stop: 51751, Start Num: 10

Candidate Starts for Gengar_74:

(Start: 10 @51188 has 85 MA's), (17, 51233), (41, 51464), (46, 51494), (48, 51497), (62, 51596), (64, 51599),

Gene: Geraldini_83 Start: 52891, Stop: 53367, Start Num: 10

Candidate Starts for Geraldini_83:

(Start: 10 @52891 has 85 MA's), (18, 52954), (35, 53134), (43, 53161), (45, 53182), (54, 53236),

Gene: Guanica15_86 Start: 53021, Stop: 53395, Start Num: 10

Candidate Starts for Guanica15_86:

(Start: 10 @53021 has 85 MA's), (18, 53084), (20, 53105), (43, 53189), (45, 53210), (54, 53264), (61, 53297), (67, 53318), (73, 53351), (75, 53366), (77, 53387),

Gene: HedwigODU_80 Start: 52478, Stop: 52954, Start Num: 10

Candidate Starts for HedwigODU_80:

(Start: 10 @52478 has 85 MA's), (18, 52541), (31, 52679), (35, 52721), (43, 52748), (45, 52769), (50, 52799), (54, 52823), (61, 52856), (73, 52910), (75, 52925), (77, 52946),

Gene: Homura_79 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Homura_79:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Hyperbowlee_79 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Hyperbowlee_79:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Illumine_85 Start: 53668, Stop: 54114, Start Num: 10

Candidate Starts for Illumine_85:

(Start: 10 @53668 has 85 MA's), (12, 53680), (18, 53731), (35, 53911), (45, 53959), (50, 53989), (54, 54013), (63, 54043),

Gene: Inky_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Inky_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: InvictusManeo_71 Start: 49177, Stop: 49539, Start Num: 6

Candidate Starts for InvictusManeo_71:

(Start: 6 @49177 has 1 MA's), (Start: 10 @49180 has 85 MA's), (17, 49225), (24, 49348), (25, 49351), (36, 49435), (48, 49489), (55, 49531),

Gene: JAWS_79 Start: 52395, Stop: 52871, Start Num: 10

Candidate Starts for JAWS_79:

(Start: 10 @52395 has 85 MA's), (18, 52458), (31, 52596), (35, 52638), (43, 52665), (45, 52686), (54, 52740), (61, 52773), (67, 52794), (73, 52827), (75, 52842), (77, 52863),

Gene: Jarvi_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Jarvi_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Jayhawk_82 Start: 52890, Stop: 53366, Start Num: 10

Candidate Starts for Jayhawk_82:

(Start: 10 @52890 has 85 MA's), (18, 52953), (35, 53133), (43, 53160), (45, 53181), (54, 53235),

Gene: Jeckyll_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Jeckyll_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Joy99_81 Start: 52562, Stop: 53038, Start Num: 10

Candidate Starts for Joy99_81:

(Start: 10 @52562 has 85 MA's), (18, 52625), (31, 52763), (35, 52805), (43, 52832), (45, 52853), (50, 52883), (54, 52907), (61, 52940), (73, 52994), (75, 53009), (77, 53030),

Gene: Kratio_76 Start: 50738, Stop: 51097, Start Num: 10

Candidate Starts for Kratio_76:

(Start: 6 @50735 has 1 MA's), (Start: 10 @50738 has 85 MA's), (17, 50783), (24, 50906), (25, 50909), (36, 50993), (48, 51047), (55, 51089),

Gene: LastHope_87 Start: 53015, Stop: 53491, Start Num: 10

Candidate Starts for LastHope_87:

(Start: 10 @53015 has 85 MA's), (20, 53099), (33, 53234), (35, 53258), (43, 53285), (50, 53336), (54, 53360), (61, 53393), (73, 53447), (75, 53462), (77, 53483),

Gene: LaterM_81 Start: 53110, Stop: 53586, Start Num: 10

Candidate Starts for LaterM_81:

(Start: 10 @53110 has 85 MA's), (12, 53122), (18, 53173), (35, 53353), (43, 53380), (45, 53401), (50, 53431), (54, 53455), (72, 53539),

Gene: LindNT_79 Start: 52889, Stop: 53365, Start Num: 10

Candidate Starts for LindNT_79:

(Start: 10 @52889 has 85 MA's), (18, 52952), (35, 53132), (45, 53180), (54, 53234),

Gene: Llorens_79 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Llorens_79:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: Lunahalos_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Lunahalos_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: MarkPhew_83 Start: 52994, Stop: 53452, Start Num: 4

Candidate Starts for MarkPhew_83:

(Start: 4 @52994 has 3 MA's), (8, 53033), (9, 53042), (16, 53075), (18, 53108), (19, 53123), (59, 53372), (60, 53375),

Gene: MeaningOfLife_83 Start: 53420, Stop: 53896, Start Num: 10

Candidate Starts for MeaningOfLife_83:

(Start: 10 @53420 has 85 MA's), (18, 53483), (31, 53621), (35, 53663), (43, 53690), (45, 53711), (50, 53741), (54, 53765), (61, 53798), (73, 53852), (75, 53867),

Gene: Megsy_85 Start: 53058, Stop: 53534, Start Num: 10

Candidate Starts for Megsy_85:

(Start: 10 @53058 has 85 MA's), (18, 53121), (20, 53142), (35, 53301), (43, 53328), (45, 53349), (54, 53403), (72, 53487),

Gene: Murucutumbu_81 Start: 53654, Stop: 54130, Start Num: 10

Candidate Starts for Murucutumbu_81:

(Start: 10 @53654 has 85 MA's), (12, 53666), (35, 53897), (43, 53924), (45, 53945), (50, 53975), (54, 53999), (61, 54032), (67, 54053), (73, 54086), (75, 54101), (77, 54122),

Gene: Mynx_82 Start: 53173, Stop: 53649, Start Num: 10

Candidate Starts for Mynx_82:

(Start: 10 @53173 has 85 MA's), (18, 53236), (35, 53416), (43, 53443), (45, 53464), (54, 53518),

Gene: Nibb_81 Start: 52309, Stop: 52764, Start Num: 5

Candidate Starts for Nibb_81:

(Start: 5 @52309 has 4 MA's), (14, 52333), (15, 52336), (18, 52372), (32, 52516), (35, 52549), (40, 52576), (45, 52609), (49, 52627), (53, 52651), (56, 52660),

Gene: OkiRoe_75 Start: 51530, Stop: 52093, Start Num: 10

Candidate Starts for OkiRoe_75:

(Start: 10 @51530 has 85 MA's), (17, 51575), (41, 51806), (46, 51836), (48, 51839), (52, 51878), (62, 51938), (64, 51941),

Gene: Padfoot_80 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Padfoot_80:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Padpat_84 Start: 52849, Stop: 53325, Start Num: 10

Candidate Starts for Padpat_84:

(Start: 10 @52849 has 85 MA's), (18, 52912), (31, 53050), (35, 53092), (43, 53119), (45, 53140), (50, 53170), (54, 53194), (61, 53227), (67, 53248), (73, 53281), (75, 53296), (77, 53317),

Gene: Peel_80 Start: 52435, Stop: 52911, Start Num: 10

Candidate Starts for Peel_80:

(Start: 10 @52435 has 85 MA's), (18, 52498), (31, 52636), (35, 52678), (43, 52705), (45, 52726), (50, 52756), (54, 52780), (61, 52813), (73, 52867), (75, 52882), (77, 52903),

Gene: Piatt_79 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for Piatt_79:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: Pixie_82 Start: 53179, Stop: 53658, Start Num: 5

Candidate Starts for Pixie_82:

(Start: 5 @53179 has 4 MA's), (13, 53194), (18, 53242), (22, 53335), (27, 53359), (56, 53539), (68, 53602), (69, 53605),

Gene: Pokerus_81 Start: 52873, Stop: 53349, Start Num: 10

Candidate Starts for Pokerus_81:

(Start: 10 @52873 has 85 MA's), (18, 52936), (31, 53074), (35, 53116), (43, 53143), (45, 53164), (54, 53218),

Gene: Prithvi_83 Start: 52889, Stop: 53455, Start Num: 10

Candidate Starts for Prithvi_83:

(Start: 10 @52889 has 85 MA's), (18, 52952), (35, 53132), (45, 53180), (73, 53324), (78, 53411), (79, 53426), (80, 53447),

Gene: QuincyRose_79 Start: 52871, Stop: 53347, Start Num: 10

Candidate Starts for QuincyRose_79:

(Start: 10 @52871 has 85 MA's), (12, 52883), (18, 52934), (35, 53114), (43, 53141), (45, 53162), (50, 53192), (54, 53216),

Gene: Ramen_81 Start: 52203, Stop: 52679, Start Num: 10

Candidate Starts for Ramen_81:

(Start: 10 @52203 has 85 MA's), (18, 52266), (31, 52404), (35, 52446), (43, 52473), (45, 52494), (54, 52548), (61, 52581), (73, 52635), (75, 52650), (77, 52671),

Gene: Rapunzel97_83 Start: 52845, Stop: 53321, Start Num: 10

Candidate Starts for Rapunzel97_83:

(Start: 10 @52845 has 85 MA's), (18, 52908), (35, 53088), (43, 53115), (45, 53136), (54, 53190),

Gene: Rosmarinus_80 Start: 52421, Stop: 52897, Start Num: 10

Candidate Starts for Rosmarinus_80:

(Start: 10 @52421 has 85 MA's), (18, 52484), (31, 52622), (35, 52664), (43, 52691), (45, 52712), (50, 52742), (54, 52766), (61, 52799), (73, 52853), (75, 52868), (77, 52889),

Gene: SamuelLPlaqson_81 Start: 52928, Stop: 53401, Start Num: 10

Candidate Starts for SamuelLPlaqson_81:

(Start: 10 @52928 has 85 MA's), (12, 52940), (18, 52991), (20, 53012), (35, 53171), (43, 53198), (45, 53219), (50, 53249), (54, 53273), (61, 53306), (67, 53327), (73, 53360), (75, 53375), (77, 53396),

Gene: ShiaSurprise_81 Start: 52630, Stop: 53106, Start Num: 10

Candidate Starts for ShiaSurprise_81:

(Start: 10 @52630 has 85 MA's), (18, 52693), (31, 52831), (35, 52873), (43, 52900), (45, 52921), (50, 52951), (54, 52975), (61, 53008), (73, 53062), (75, 53077), (77, 53098),

Gene: SirPhilip_80 Start: 52804, Stop: 53241, Start Num: 7

Candidate Starts for SirPhilip_80:

(Start: 7 @52804 has 1 MA's), (18, 52867), (28, 52984), (32, 53011), (35, 53044), (58, 53158), (59, 53161),

Gene: Slimphazie_82 Start: 52845, Stop: 53321, Start Num: 10

Candidate Starts for Slimphazie_82:

(Start: 10 @52845 has 85 MA's), (18, 52908), (31, 53046), (35, 53088), (43, 53115), (45, 53136), (54, 53190), (61, 53223), (67, 53244), (73, 53277), (75, 53292), (77, 53313),

Gene: Spock_80 Start: 52434, Stop: 52910, Start Num: 10

Candidate Starts for Spock_80:

(Start: 10 @52434 has 85 MA's), (18, 52497), (31, 52635), (35, 52677), (43, 52704), (45, 52725), (50, 52755), (54, 52779), (61, 52812), (73, 52866), (75, 52881), (77, 52902),

Gene: Stinson_82 Start: 53036, Stop: 53512, Start Num: 10

Candidate Starts for Stinson_82:

(Start: 10 @53036 has 85 MA's), (12, 53048), (18, 53099), (31, 53237), (35, 53279), (43, 53306), (45, 53327), (50, 53357), (54, 53381),

Gene: Sulley_77 Start: 51894, Stop: 52370, Start Num: 10

Candidate Starts for Sulley_77:

(Start: 10 @51894 has 85 MA's), (18, 51957), (31, 52095), (34, 52128), (35, 52137), (43, 52164), (45, 52185), (54, 52239), (61, 52272), (73, 52326), (75, 52341), (77, 52362),

Gene: TBond007_79 Start: 53177, Stop: 53656, Start Num: 5

Candidate Starts for TBond007_79:

(Start: 5 @53177 has 4 MA's), (13, 53192), (18, 53240), (22, 53333), (27, 53357), (56, 53537), (68, 53600), (69, 53603),

Gene: Tachez_80 Start: 52278, Stop: 52754, Start Num: 10

Candidate Starts for Tachez_80:

(Start: 10 @52278 has 85 MA's), (18, 52341), (31, 52479), (35, 52521), (43, 52548), (45, 52569), (50, 52599), (54, 52623), (61, 52656), (73, 52710), (75, 52725), (77, 52746),

Gene: TaiwanKao_81 Start: 52410, Stop: 52886, Start Num: 10

Candidate Starts for TaiwanKao_81:

(Start: 10 @52410 has 85 MA's), (12, 52422), (18, 52473), (29, 52596), (33, 52629), (35, 52653), (43, 52680), (50, 52731), (52, 52743), (54, 52755), (61, 52788), (67, 52809), (73, 52842), (75, 52857), (77, 52878),

Gene: Thyatira_76 Start: 53221, Stop: 53565, Start Num: 10

Candidate Starts for Thyatira_76:

(Start: 10 @53221 has 85 MA's), (17, 53266), (24, 53374), (30, 53404), (36, 53461),

Gene: TiniBug_81 Start: 52936, Stop: 53412, Start Num: 10

Candidate Starts for TiniBug_81:

(Start: 10 @52936 has 85 MA's), (12, 52948), (18, 52999), (20, 53020), (33, 53155), (35, 53179), (43, 53206), (45, 53227), (50, 53257), (54, 53281), (61, 53314), (73, 53368), (75, 53383), (77, 53404),

Gene: Tiri_81 Start: 52363, Stop: 52839, Start Num: 10

Candidate Starts for Tiri_81:

(Start: 10 @52363 has 85 MA's), (18, 52426), (35, 52606), (43, 52633), (45, 52654), (54, 52708), (61, 52741), (67, 52762), (73, 52795), (75, 52810), (77, 52831),

Gene: Topper_80 Start: 52433, Stop: 52909, Start Num: 10

Candidate Starts for Topper_80:

(Start: 10 @52433 has 85 MA's), (18, 52496), (31, 52634), (35, 52676), (43, 52703), (45, 52724), (50, 52754), (54, 52778), (61, 52811), (73, 52865), (75, 52880), (77, 52901),

Gene: TreyKay_83 Start: 52889, Stop: 53455, Start Num: 10

Candidate Starts for TreyKay_83:

(Start: 10 @52889 has 85 MA's), (18, 52952), (35, 53132), (45, 53180), (73, 53324), (78, 53411), (79, 53426), (80, 53447),

Gene: TribbleTrouble_82 Start: 53396, Stop: 53845, Start Num: 5

Candidate Starts for TribbleTrouble_82:

(Start: 5 @53396 has 4 MA's), (16, 53426), (18, 53459), (20, 53480), (22, 53552), (42, 53678), (66, 53798), (68, 53810), (70, 53816),

Gene: TruffulaTree_82 Start: 52841, Stop: 53317, Start Num: 10

Candidate Starts for TruffulaTree_82:

(Start: 10 @52841 has 85 MA's), (18, 52904), (31, 53042), (35, 53084), (43, 53111), (45, 53132), (50, 53162), (54, 53186), (61, 53219), (73, 53273), (75, 53288), (77, 53309),

Gene: Twitch_80 Start: 52435, Stop: 52911, Start Num: 10

Candidate Starts for Twitch_80:

(Start: 10 @52435 has 85 MA's), (18, 52498), (31, 52636), (35, 52678), (43, 52705), (45, 52726), (50, 52756), (54, 52780), (61, 52813), (73, 52867), (75, 52882), (77, 52903),

Gene: Urkel_81 Start: 52928, Stop: 53401, Start Num: 10

Candidate Starts for Urkel_81:

(Start: 10 @52928 has 85 MA's), (12, 52940), (18, 52991), (20, 53012), (35, 53171), (43, 53198), (45, 53219), (50, 53249), (54, 53273), (61, 53306), (67, 53327), (73, 53360), (75, 53375), (77, 53396),

Gene: Veliki_81 Start: 52386, Stop: 52856, Start Num: 10

Candidate Starts for Veliki_81:

(Start: 10 @52386 has 85 MA's), (18, 52449), (31, 52581), (35, 52623), (43, 52650), (45, 52671), (54, 52725), (61, 52758), (67, 52779), (73, 52812), (75, 52827), (77, 52848),

Gene: Waterfoul_75 Start: 51291, Stop: 51635, Start Num: 10

Candidate Starts for Waterfoul_75:

(Start: 10 @51291 has 85 MA's), (17, 51336), (24, 51444), (30, 51474), (36, 51531),

Gene: YoureAdopted_80 Start: 52656, Stop: 53132, Start Num: 10

Candidate Starts for YoureAdopted_80:

(Start: 10 @52656 has 85 MA's), (18, 52719), (31, 52857), (35, 52899), (43, 52926), (45, 52947), (50, 52977), (54, 53001),

Gene: Yuna_83 Start: 54192, Stop: 54572, Start Num: 4

Candidate Starts for Yuna_83:

(Start: 4 @54192 has 3 MA's), (8, 54234), (9, 54243), (18, 54309),

Gene: Yunkel11_86 Start: 52988, Stop: 53380, Start Num: 10

Candidate Starts for Yunkel11_86:

(Start: 10 @52988 has 85 MA's), (18, 53051), (20, 53072), (34, 53222), (35, 53231), (38, 53249), (47, 53282), (51, 53318), (56, 53336), (59, 53351), (65, 53372),

Gene: Zabiza_76 Start: 48783, Stop: 49259, Start Num: 10

Candidate Starts for Zabiza_76:

(Start: 10 @48783 has 85 MA's), (18, 48846), (31, 48984), (35, 49026), (43, 49053), (45, 49074), (50, 49104), (54, 49128), (61, 49161), (73, 49215), (75, 49230), (77, 49251),

Gene: Zavala_83 Start: 52919, Stop: 53395, Start Num: 10

Candidate Starts for Zavala_83:

(Start: 10 @52919 has 85 MA's), (18, 52982), (31, 53120), (35, 53162), (43, 53189), (45, 53210), (54, 53264), (61, 53297), (67, 53318), (73, 53351), (75, 53366), (77, 53387),