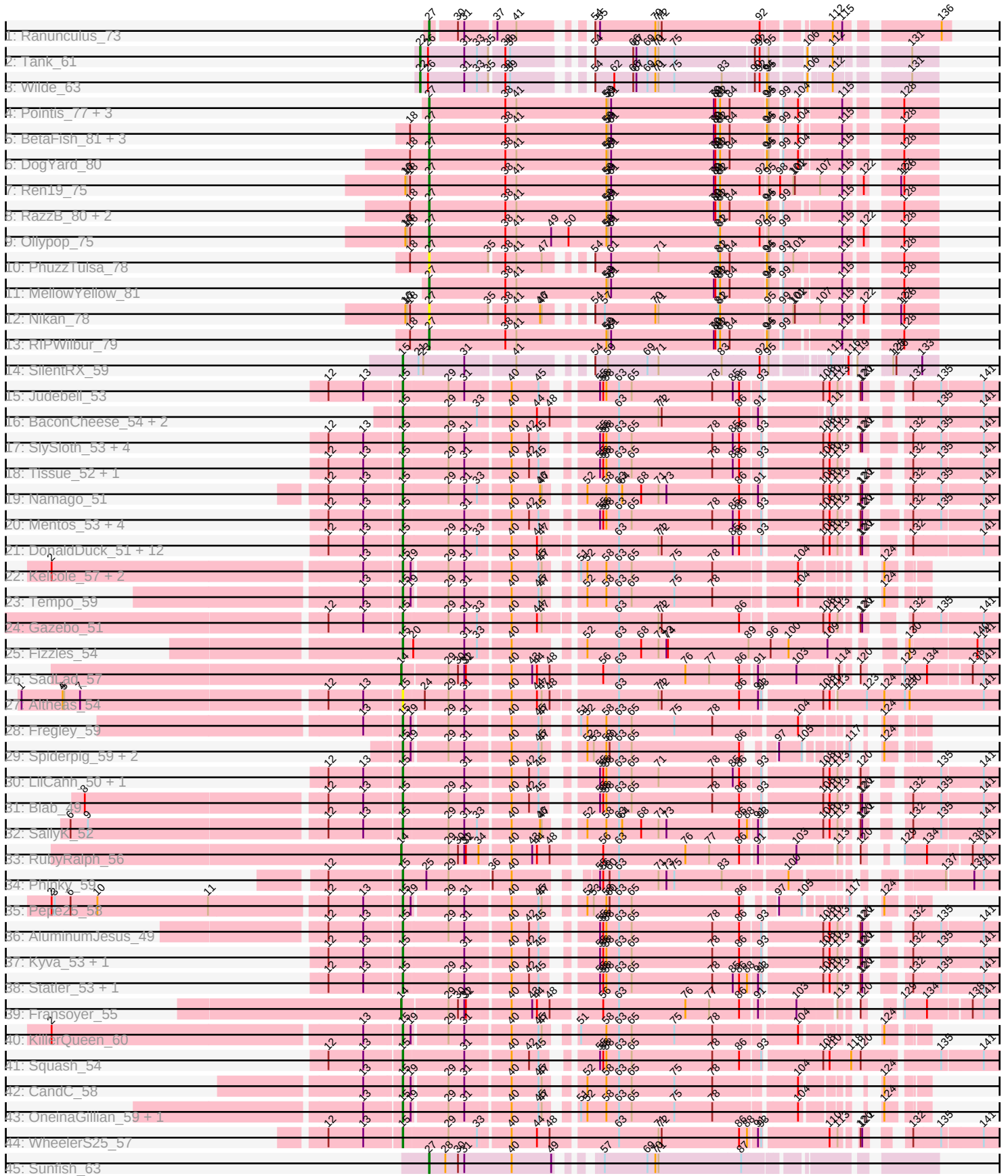


Pham 330740



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 330740 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330740 has 84 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus_73
- Track 2 : Tank_61
- Track 3 : Wilde_63
- Track 4 : Pointis_77, Pureglobe5_79, Hive_76, Kubulix_80
- Track 5 : BetaFish_81, Popstraw_76, Beagle_81, Odyssey395_81
- Track 6 : DogYard_80
- Track 7 : Ren19_75
- Track 8 : RazzB_80, Forrestell_80, NyleyClemson_79
- Track 9 : Ollypop_75
- Track 10 : PhuzzTulsa_78
- Track 11 : MellowYellow_81
- Track 12 : Nikan_78
- Track 13 : RIPWilbur_79
- Track 14 : SilentRX_59
- Track 15 : Judebell_53
- Track 16 : BaconCheese_54, MorillMayhem_52, Mila11_54
- Track 17 : SlySloth_53, Mashley_50, Hyperion_51, Lonelysoil_50, Nike_52
- Track 18 : Tissue_52, Grassboy_53
- Track 19 : Namago_51
- Track 20 : Mentos_53, Zagie_51, FrankDeliGuy_48, Rowlf_48, ZestyBestie_49
- Track 21 : DonaldDuck_51, Sillytadpoles_52, Viceroy_50, Wheelie_51, Phabia_51, Casend_52, Wayne3_53, Jehoshaphat_53, Quammi_49, Rudy_49, Llemily_51, Teehee_52, Zhafia_54
- Track 22 : Kelcole_57, Romm_61, RobinRose_61
- Track 23 : Tempo_59
- Track 24 : Gazebo_51
- Track 25 : Fizzles_54
- Track 26 : SadLad_57
- Track 27 : Altheas_54
- Track 28 : Fregley_59
- Track 29 : Spiderpig_59, BirdInFrench_59, Wilca_59
- Track 30 : LilCahh_50, EverythinBagel_50
- Track 31 : Blab_49
- Track 32 : SallyK_52
- Track 33 : RubyRalph_56
- Track 34 : Phinky_59
- Track 35 : Pepe25_58

- Track 36 : AluminumJesus_49
- Track 37 : Kyva_53, StrawberryJamm_54
- Track 38 : Statler_53, BabyDotz_51
- Track 39 : Fransoyer_55
- Track 40 : KillerQueen_60
- Track 41 : Squash_54
- Track 42 : CandC_58
- Track 43 : OneinaGillian_59, Marcie_64
- Track 44 : WheelerS25_57
- Track 45 : Sunfish_63

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

The start number called the most often in the published annotations is 15, it was called in 54 of the 75 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Altheas_54, AluminumJesus_49, BabyDotz_51, BaconCheese_54, BirdInFrench_59, Blab_49, CandC_58, Casend_52, DonaldDuck_51, EverythinBagel_50, Fizzles_54, FrankDeliGuy_48, Fregley_59, Gazebo_51, Grassboy_53, Hyperion_51, Jehoshaphat_53, Judebell_53, Kelcole_57, KillerQueen_60, Kyva_53, LilCahh_50, Llemily_51, Lonelysoil_50, Marcie_64, Mashley_50, Mentos_53, Mila11_54, MorillMayhem_52, Namago_51, Nike_52, OneinaGillian_59, Pepe25_58, Phabia_51, Phinky_59, Quammi_49, RobinRose_61, Romm_61, Rowlf_48, Rudy_49, SallyK_52, SilentRX_59, Sillytadpoles_52, SlySloth_53, Spiderpig_59, Squash_54, Statler_53, StrawberryJamm_54, Teehee_52, Tempo_59, Tissue_52, Viceroy_50, Wayne3_53, WheelerS25_57, Wheelie_51, Wilca_59, Zagie_51, ZestyBestie_49, Zhafia_54,

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

•

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

- Beagle_81, BetaFish_81, DogYard_80, Forrestell_80, Fransoyer_55, Hive_76, Kubulix_80, MellowYellow_81, Nikan_78, NyleyClemson_79, Odyssey395_81, Ollypop_75, PhuzzTulsa_78, Pointis_77, Popstraw_76, Pureglobe5_79, RIPWilbur_79, Ranunculus_73, RazzB_80, Ren19_75, RubyRalph_56, SadLad_57, Sunfish_63, Tank_61, Wilde_63,

Summary by start number:

Start 14:

- Found in 3 of 84 (3.6%) of genes in pham
- Manual Annotations of this start: 3 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fransoyer_55 (EG), RubyRalph_56 (EG), SadLad_57 (EG),

Start 15:

- Found in 59 of 84 (70.2%) of genes in pham

- Manual Annotations of this start: 54 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altheas_54 (EG), AluminumJesus_49 (EG), BabyDotz_51 (EG), BaconCheese_54 (EG), BirdInFrench_59 (EG), Blab_49 (EG), CandC_58 (EG), Casend_52 (EG), DonaldDuck_51 (EG), EverythinBage1_50 (EG), Fizzles_54 (EG), FrankDeliGuy_48 (EG), Fregley_59 (EG), Gazebo_51 (EG), Grassboy_53 (EG), Hyperion_51 (EG), Jehoshaphat_53 (EG), Judebell_53 (EG), Kelcole_57 (EG), KillerQueen_60 (EG), Kyva_53 (EG), LilCahh_50 (EG), Llemily_51 (EG), Lonelysoil_50 (EG), Marcie_64 (EG), Mashley_50 (EG), Mentos_53 (EG), Mila11_54 (EG), MorillMayhem_52 (EG), Namago_51 (EG), Nike_52 (EG), OneinaGillian_59 (EG), Pepe25_58 (EG), Phabia_51 (EG), Phinky_59 (EG), Quammi_49 (EG), RobinRose_61 (EG), Romm_61 (EG), Rowlf_48 (EG), Rudy_49 (EG), SallyK_52 (EG), SilentRX_59 (AP4), Sillytadpoles_52 (EG), SlySloth_53 (EG), Spiderpig_59 (EG), Squash_54 (EG), Statler_53 (EG), StrawberryJamm_54 (EG), Teehee_52 (EG), Tempo_59 (EG), Tissue_52 (EG), Viceroy_50 (EG), Wayne3_53 (EG), WheelersS25_57 (EG), Wheelie_51 (EG), Wilca_59 (EG), Zagie_51 (EG), ZestyBestie_49 (EG), Zhafia_54 (EG),

Start 22:

- Found in 2 of 84 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tank_61 (AP1), Wilde_63 (AP1),

Start 27:

- Found in 20 of 84 (23.8%) of genes in pham
- Manual Annotations of this start: 16 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beagle_81 (AP2), BetaFish_81 (AP2), DogYard_80 (AP2), Forrestell_80 (AP2), Hive_76 (AP2), Kubulix_80 (AP2), MellowYellow_81 (AP2), Nikan_78 (AP2), NyleyClemson_79 (AP2), Odyssey395_81 (AP2), Ollypop_75 (AP2), PhuzzTulsa_78 (AP2), Pointis_77 (AP2), Popstraw_76 (AP2), Pureglobe5_79 (AP2), RIPWilbur_79 (AP2), Ranunculus_73 (AP), RazzB_80 (AP2), Ren19_75 (AP2), Sunfish_63 (singleton),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, AP2, EG, AP1, AP4, AP,

Info for manual annotations of cluster AP:

- Start number 27 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 22 was manually annotated 2 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 27 was manually annotated 14 times for cluster AP2.

Info for manual annotations of cluster AP4:

- Start number 15 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster EG:

- Start number 14 was manually annotated 3 times for cluster EG.

- Start number 15 was manually annotated 53 times for cluster EG.

Gene Information:

Gene: Altheas_54 Start: 41052, Stop: 39964, Start Num: 15

Candidate Starts for Altheas_54:

(1, 41742), (4, 41664), (5, 41661), (7, 41631), (12, 41181), (13, 41118), (Start: 15 @41052 has 54 MA's), (24, 41016), (29, 40971), (31, 40941), (40, 40863), (44, 40815), (47, 40806), (48, 40791), (63, 40680), (71, 40605), (72, 40599), (86, 40455), (91, 40425), (93, 40419), (108, 40314), (110, 40302), (113, 40293), (123, 40239), (124, 40206), (129, 40167), (130, 40158), (141, 40020),

Gene: AluminumJesus_49 Start: 40027, Stop: 39011, Start Num: 15

Candidate Starts for AluminumJesus_49:

(12, 40156), (13, 40093), (Start: 15 @40027 has 54 MA's), (29, 39946), (31, 39916), (40, 39838), (42, 39805), (45, 39787), (55, 39718), (56, 39712), (58, 39706), (63, 39682), (65, 39658), (78, 39508), (86, 39457), (93, 39427), (108, 39322), (110, 39310), (113, 39295), (120, 39274), (121, 39271), (132, 39226), (135, 39178), (141, 39103),

Gene: BabyDotz_51 Start: 41041, Stop: 40022, Start Num: 15

Candidate Starts for BabyDotz_51:

(12, 41170), (13, 41107), (Start: 15 @41041 has 54 MA's), (29, 40960), (31, 40930), (40, 40852), (42, 40819), (45, 40801), (55, 40732), (56, 40726), (58, 40720), (63, 40696), (65, 40672), (78, 40522), (85, 40483), (86, 40471), (88, 40459), (91, 40447), (93, 40441), (108, 40336), (110, 40324), (113, 40309), (120, 40288), (121, 40285), (132, 40231), (135, 40183), (141, 40108),

Gene: BaconCheese_54 Start: 41934, Stop: 40948, Start Num: 15

Candidate Starts for BaconCheese_54:

(Start: 15 @41934 has 54 MA's), (29, 41853), (33, 41799), (40, 41745), (44, 41697), (48, 41673), (63, 41556), (71, 41481), (72, 41475), (86, 41331), (91, 41307), (111, 41193), (135, 41079), (141, 41004),

Gene: Beagle_81 Start: 48714, Stop: 47827, Start Num: 27

Candidate Starts for Beagle_81:

(18, 48750), (Start: 27 @48714 has 16 MA's), (38, 48573), (41, 48552), (58, 48381), (59, 48378), (61, 48372), (79, 48180), (80, 48177), (81, 48171), (82, 48168), (84, 48150), (94, 48087), (95, 48084), (99, 48066), (104, 48039), (115, 47970), (128, 47889),

Gene: BetaFish_81 Start: 49443, Stop: 48556, Start Num: 27

Candidate Starts for BetaFish_81:

(18, 49479), (Start: 27 @49443 has 16 MA's), (38, 49302), (41, 49281), (58, 49110), (59, 49107), (61, 49101), (79, 48909), (80, 48906), (81, 48900), (82, 48897), (84, 48879), (94, 48816), (95, 48813), (99, 48795), (104, 48768), (115, 48699), (128, 48618),

Gene: BirdInFrench_59 Start: 41149, Stop: 40379, Start Num: 15

Candidate Starts for BirdInFrench_59:

(Start: 15 @41149 has 54 MA's), (19, 41137), (29, 41074), (31, 41044), (40, 40966), (45, 40915), (47, 40909), (52, 40864), (53, 40852), (58, 40828), (60, 40822), (63, 40804), (65, 40780), (86, 40579), (97, 40549), (105, 40507), (117, 40453), (124, 40441),

Gene: Blab_49 Start: 39874, Stop: 38894, Start Num: 15

Candidate Starts for Blab_49:

(8, 40444), (12, 40003), (13, 39940), (Start: 15 @39874 has 54 MA's), (29, 39793), (31, 39763), (40, 39685), (42, 39652), (45, 39634), (55, 39565), (56, 39559), (58, 39553), (63, 39529), (65, 39505), (78, 39355), (86, 39304), (93, 39274), (108, 39169), (110, 39157), (113, 39142), (120, 39121), (121, 39118), (132, 39073), (135, 39025), (141, 38950),

Gene: CandC_58 Start: 40798, Stop: 39998, Start Num: 15

Candidate Starts for CandC_58:

(13, 40861), (Start: 15 @40798 has 54 MA's), (19, 40786), (29, 40723), (31, 40693), (40, 40615), (45, 40564), (47, 40558), (52, 40513), (58, 40477), (63, 40453), (65, 40429), (75, 40348), (78, 40279), (104, 40138), (124, 40060),

Gene: Casend_52 Start: 40845, Stop: 39802, Start Num: 15

Candidate Starts for Casend_52:

(12, 40974), (13, 40911), (Start: 15 @40845 has 54 MA's), (29, 40764), (31, 40734), (33, 40710), (40, 40656), (44, 40608), (47, 40599), (63, 40473), (71, 40398), (72, 40392), (85, 40260), (86, 40248), (93, 40218), (108, 40113), (110, 40101), (113, 40086), (120, 40065), (121, 40062), (132, 40011), (141, 39888),

Gene: DogYard_80 Start: 48930, Stop: 48043, Start Num: 27

Candidate Starts for DogYard_80:

(18, 48966), (Start: 27 @48930 has 16 MA's), (38, 48789), (41, 48768), (58, 48597), (59, 48594), (61, 48588), (79, 48396), (80, 48393), (81, 48387), (82, 48384), (84, 48366), (94, 48303), (95, 48300), (99, 48282), (104, 48255), (115, 48186), (128, 48105),

Gene: DonaldDuck_51 Start: 40194, Stop: 39151, Start Num: 15

Candidate Starts for DonaldDuck_51:

(12, 40323), (13, 40260), (Start: 15 @40194 has 54 MA's), (29, 40113), (31, 40083), (33, 40059), (40, 40005), (44, 39957), (47, 39948), (63, 39822), (71, 39747), (72, 39741), (85, 39609), (86, 39597), (93, 39567), (108, 39462), (110, 39450), (113, 39435), (120, 39414), (121, 39411), (132, 39360), (141, 39237),

Gene: EverythinBagel_50 Start: 40555, Stop: 39539, Start Num: 15

Candidate Starts for EverythinBagel_50:

(12, 40684), (13, 40621), (Start: 15 @40555 has 54 MA's), (31, 40444), (40, 40366), (42, 40333), (45, 40315), (55, 40246), (56, 40240), (58, 40234), (63, 40210), (65, 40186), (71, 40135), (78, 40036), (85, 39997), (86, 39985), (93, 39955), (108, 39850), (110, 39838), (113, 39823), (120, 39802), (135, 39700), (141, 39625),

Gene: Fizzles_54 Start: 41170, Stop: 40166, Start Num: 15

Candidate Starts for Fizzles_54:

(Start: 15 @41170 has 54 MA's), (20, 41152), (31, 41056), (33, 41032), (40, 40978), (52, 40876), (63, 40816), (68, 40774), (71, 40741), (73, 40726), (74, 40723), (89, 40573), (96, 40531), (100, 40498), (109, 40426), (130, 40336), (140, 40222), (141, 40210),

Gene: Forrestell_80 Start: 48173, Stop: 47286, Start Num: 27

Candidate Starts for Forrestell_80:

(18, 48209), (Start: 27 @48173 has 16 MA's), (38, 48032), (41, 48011), (58, 47840), (59, 47837), (61, 47831), (79, 47639), (80, 47636), (81, 47630), (82, 47627), (84, 47609), (94, 47546), (95, 47543), (99, 47525), (115, 47429), (128, 47348),

Gene: FrankDeliGuy_48 Start: 40175, Stop: 39162, Start Num: 15

Candidate Starts for FrankDeliGuy_48:

(12, 40304), (13, 40241), (Start: 15 @40175 has 54 MA's), (31, 40064), (40, 39986), (42, 39953), (45, 39935), (55, 39866), (56, 39860), (58, 39854), (63, 39830), (65, 39806), (78, 39656), (85, 39617), (86, 39605), (93, 39575), (108, 39470), (110, 39458), (113, 39443), (120, 39422), (121, 39419), (132, 39371), (135, 39323), (141, 39248),

Gene: Fransoyer_55 Start: 42743, Stop: 41748, Start Num: 14

Candidate Starts for Fransoyer_55:

(Start: 14 @42743 has 3 MA's), (29, 42659), (30, 42641), (31, 42629), (32, 42626), (40, 42551), (43, 42512), (44, 42503), (48, 42479), (56, 42392), (63, 42362), (76, 42236), (77, 42194), (86, 42137), (91, 42113), (103, 42047), (113, 41984), (120, 41966), (129, 41930), (134, 41891), (138, 41816), (141, 41795),

Gene: Fregley_59 Start: 41063, Stop: 40263, Start Num: 15

Candidate Starts for Fregley_59:

(13, 41126), (Start: 15 @41063 has 54 MA's), (19, 41051), (29, 40988), (31, 40958), (40, 40880), (45, 40829), (47, 40823), (51, 40787), (52, 40778), (58, 40742), (63, 40718), (65, 40694), (75, 40613), (78, 40544), (104, 40403), (124, 40325),

Gene: Gazebo_51 Start: 40725, Stop: 39682, Start Num: 15

Candidate Starts for Gazebo_51:

(12, 40854), (13, 40791), (Start: 15 @40725 has 54 MA's), (29, 40644), (31, 40614), (33, 40590), (40, 40536), (44, 40488), (47, 40479), (63, 40353), (71, 40278), (72, 40272), (86, 40128), (108, 39993), (110, 39981), (113, 39966), (120, 39945), (121, 39942), (132, 39897), (135, 39849), (141, 39774),

Gene: Grassboy_53 Start: 40665, Stop: 39706, Start Num: 15

Candidate Starts for Grassboy_53:

(12, 40794), (13, 40731), (Start: 15 @40665 has 54 MA's), (29, 40584), (31, 40554), (40, 40476), (42, 40443), (45, 40425), (55, 40356), (56, 40350), (58, 40344), (63, 40320), (65, 40296), (78, 40146), (85, 40107), (86, 40095), (93, 40065), (108, 39960), (110, 39948), (113, 39933), (132, 39885), (135, 39837), (141, 39762),

Gene: Hive_76 Start: 48710, Stop: 47823, Start Num: 27

Candidate Starts for Hive_76:

(Start: 27 @48710 has 16 MA's), (38, 48569), (41, 48548), (58, 48377), (59, 48374), (61, 48368), (79, 48176), (80, 48173), (81, 48167), (82, 48164), (84, 48146), (94, 48083), (95, 48080), (99, 48062), (104, 48035), (115, 47966), (128, 47885),

Gene: Hyperion_51 Start: 40502, Stop: 39486, Start Num: 15

Candidate Starts for Hyperion_51:

(12, 40631), (13, 40568), (Start: 15 @40502 has 54 MA's), (29, 40421), (31, 40391), (40, 40313), (42, 40280), (45, 40262), (55, 40193), (56, 40187), (58, 40181), (63, 40157), (65, 40133), (78, 39983), (85, 39944), (86, 39932), (93, 39902), (108, 39797), (110, 39785), (113, 39770), (120, 39749), (121, 39746), (132, 39701), (135, 39653), (141, 39578),

Gene: Jehoshaphat_53 Start: 41113, Stop: 40070, Start Num: 15

Candidate Starts for Jehoshaphat_53:

(12, 41242), (13, 41179), (Start: 15 @41113 has 54 MA's), (29, 41032), (31, 41002), (33, 40978), (40, 40924), (44, 40876), (47, 40867), (63, 40741), (71, 40666), (72, 40660), (85, 40528), (86, 40516), (93, 40486), (108, 40381), (110, 40369), (113, 40354), (120, 40333), (121, 40330), (132, 40279), (141, 40156),

Gene: Judebell_53 Start: 40565, Stop: 39579, Start Num: 15

Candidate Starts for Judebell_53:

(12, 40694), (13, 40631), (Start: 15 @40565 has 54 MA's), (29, 40484), (31, 40454), (40, 40376), (45, 40325), (55, 40256), (56, 40250), (58, 40244), (63, 40220), (65, 40196), (78, 40046), (85, 40007), (86, 39995), (93, 39965), (108, 39860), (110, 39848), (113, 39833), (120, 39812), (121, 39809), (132, 39758), (135, 39710), (141, 39635),

Gene: Kelcole_57 Start: 41026, Stop: 40226, Start Num: 15

Candidate Starts for Kelcole_57:

(2, 41662), (13, 41089), (Start: 15 @41026 has 54 MA's), (19, 41014), (29, 40951), (31, 40921), (40, 40843), (45, 40792), (47, 40786), (51, 40750), (52, 40741), (58, 40705), (63, 40681), (65, 40657), (75, 40576), (78, 40507), (104, 40366), (124, 40288),

Gene: KillerQueen_60 Start: 41276, Stop: 40476, Start Num: 15

Candidate Starts for KillerQueen_60:

(2, 41912), (13, 41339), (Start: 15 @41276 has 54 MA's), (19, 41264), (29, 41201), (31, 41171), (40, 41093), (45, 41042), (47, 41036), (51, 41000), (58, 40955), (63, 40931), (65, 40907), (75, 40826), (78, 40757), (104, 40616), (124, 40538),

Gene: Kubulix_80 Start: 48600, Stop: 47713, Start Num: 27

Candidate Starts for Kubulix_80:

(Start: 27 @48600 has 16 MA's), (38, 48459), (41, 48438), (58, 48267), (59, 48264), (61, 48258), (79, 48066), (80, 48063), (81, 48057), (82, 48054), (84, 48036), (94, 47973), (95, 47970), (99, 47952), (104, 47925), (115, 47856), (128, 47775),

Gene: Kyva_53 Start: 40722, Stop: 39730, Start Num: 15

Candidate Starts for Kyva_53:

(12, 40851), (13, 40788), (Start: 15 @40722 has 54 MA's), (31, 40611), (40, 40533), (42, 40500), (45, 40482), (55, 40413), (56, 40407), (58, 40401), (63, 40377), (65, 40353), (78, 40203), (86, 40152), (93, 40122), (108, 40017), (110, 40005), (113, 39990), (120, 39969), (121, 39966), (132, 39909), (135, 39861), (141, 39786),

Gene: LilCahh_50 Start: 40183, Stop: 39167, Start Num: 15

Candidate Starts for LilCahh_50:

(12, 40312), (13, 40249), (Start: 15 @40183 has 54 MA's), (31, 40072), (40, 39994), (42, 39961), (45, 39943), (55, 39874), (56, 39868), (58, 39862), (63, 39838), (65, 39814), (71, 39763), (78, 39664), (85, 39625), (86, 39613), (93, 39583), (108, 39478), (110, 39466), (113, 39451), (120, 39430), (135, 39328), (141, 39253),

Gene: Llemily_51 Start: 39889, Stop: 38846, Start Num: 15

Candidate Starts for Llemily_51:

(12, 40018), (13, 39955), (Start: 15 @39889 has 54 MA's), (29, 39808), (31, 39778), (33, 39754), (40, 39700), (44, 39652), (47, 39643), (63, 39517), (71, 39442), (72, 39436), (85, 39304), (86, 39292), (93, 39262), (108, 39157), (110, 39145), (113, 39130), (120, 39109), (121, 39106), (132, 39055), (141, 38932),

Gene: Lonelysoil_50 Start: 40098, Stop: 39088, Start Num: 15

Candidate Starts for Lonelysoil_50:

(12, 40227), (13, 40164), (Start: 15 @40098 has 54 MA's), (29, 40017), (31, 39987), (40, 39909), (42, 39876), (45, 39858), (55, 39789), (56, 39783), (58, 39777), (63, 39753), (65, 39729), (78, 39579), (85, 39540), (86, 39528), (93, 39498), (108, 39393), (110, 39381), (113, 39366), (120, 39345), (121, 39342), (132, 39297), (135, 39249), (141, 39174),

Gene: Marcie_64 Start: 41925, Stop: 41125, Start Num: 15

Candidate Starts for Marcie_64:

(13, 41988), (Start: 15 @41925 has 54 MA's), (19, 41913), (29, 41850), (31, 41820), (40, 41742), (45, 41691), (47, 41685), (51, 41649), (52, 41640), (58, 41604), (63, 41580), (65, 41556), (75, 41475), (78, 41406), (104, 41265), (124, 41187),

Gene: Mashley_50 Start: 40281, Stop: 39265, Start Num: 15

Candidate Starts for Mashley_50:

(12, 40410), (13, 40347), (Start: 15 @40281 has 54 MA's), (29, 40200), (31, 40170), (40, 40092), (42, 40059), (45, 40041), (55, 39972), (56, 39966), (58, 39960), (63, 39936), (65, 39912), (78, 39762), (85, 39723), (86, 39711), (93, 39681), (108, 39576), (110, 39564), (113, 39549), (120, 39528), (121, 39525), (132, 39480), (135, 39432), (141, 39357),

Gene: MellowYellow_81 Start: 48842, Stop: 47955, Start Num: 27

Candidate Starts for MellowYellow_81:

(Start: 27 @48842 has 16 MA's), (38, 48701), (41, 48680), (58, 48509), (59, 48506), (61, 48500), (79, 48308), (80, 48305), (81, 48299), (82, 48296), (84, 48278), (94, 48215), (95, 48212), (99, 48194), (115, 48098), (128, 48017),

Gene: Mentos_53 Start: 41473, Stop: 40448, Start Num: 15

Candidate Starts for Mentos_53:

(12, 41602), (13, 41539), (Start: 15 @41473 has 54 MA's), (31, 41362), (40, 41284), (42, 41251), (45, 41233), (55, 41164), (56, 41158), (58, 41152), (63, 41128), (65, 41104), (78, 40954), (85, 40915), (86, 40903), (93, 40873), (108, 40768), (110, 40756), (113, 40741), (120, 40720), (121, 40717), (132, 40657), (135, 40609), (141, 40534),

Gene: Mila11_54 Start: 41749, Stop: 40763, Start Num: 15

Candidate Starts for Mila11_54:

(Start: 15 @41749 has 54 MA's), (29, 41668), (33, 41614), (40, 41560), (44, 41512), (48, 41488), (63, 41371), (71, 41296), (72, 41290), (86, 41146), (91, 41122), (111, 41008), (135, 40894), (141, 40819),

Gene: MorillMayhem_52 Start: 40626, Stop: 39640, Start Num: 15

Candidate Starts for MorillMayhem_52:

(Start: 15 @40626 has 54 MA's), (29, 40545), (33, 40491), (40, 40437), (44, 40389), (48, 40365), (63, 40248), (71, 40173), (72, 40167), (86, 40023), (91, 39999), (111, 39885), (135, 39771), (141, 39696),

Gene: Namago_51 Start: 39843, Stop: 38860, Start Num: 15

Candidate Starts for Namago_51:

(12, 39972), (13, 39909), (Start: 15 @39843 has 54 MA's), (29, 39762), (31, 39732), (33, 39708), (40, 39654), (46, 39600), (47, 39597), (52, 39552), (58, 39516), (63, 39492), (64, 39486), (68, 39450), (71, 39417), (73, 39402), (86, 39267), (91, 39243), (108, 39132), (110, 39120), (113, 39105), (120, 39084), (121, 39081), (132, 39039), (135, 38991), (141, 38916),

Gene: Nikan_78 Start: 48689, Stop: 47850, Start Num: 27

Candidate Starts for Nikan_78:

(16, 48731), (17, 48728), (18, 48725), (Start: 27 @48689 has 16 MA's), (35, 48584), (38, 48560), (41, 48539), (46, 48494), (47, 48491), (54, 48449), (57, 48431), (70, 48335), (71, 48329), (81, 48218), (82, 48215), (95, 48131), (99, 48104), (101, 48086), (102, 48083), (107, 48035), (115, 47993), (122, 47963), (127, 47918), (128, 47912),

Gene: Nike_52 Start: 40816, Stop: 39824, Start Num: 15

Candidate Starts for Nike_52:

(12, 40945), (13, 40882), (Start: 15 @40816 has 54 MA's), (29, 40735), (31, 40705), (40, 40627), (42, 40594), (45, 40576), (55, 40507), (56, 40501), (58, 40495), (63, 40471), (65, 40447), (78, 40297), (85, 40258), (86, 40246), (93, 40216), (108, 40111), (110, 40099), (113, 40084), (120, 40063), (121,

40060), (132, 40003), (135, 39955), (141, 39880),

Gene: NyleyClemson_79 Start: 48457, Stop: 47570, Start Num: 27

Candidate Starts for NyleyClemson_79:

(18, 48493), (Start: 27 @48457 has 16 MA's), (38, 48316), (41, 48295), (58, 48124), (59, 48121), (61, 48115), (79, 47923), (80, 47920), (81, 47914), (82, 47911), (84, 47893), (94, 47830), (95, 47827), (99, 47809), (115, 47713), (128, 47632),

Gene: Odyssey395_81 Start: 48951, Stop: 48064, Start Num: 27

Candidate Starts for Odyssey395_81:

(18, 48987), (Start: 27 @48951 has 16 MA's), (38, 48810), (41, 48789), (58, 48618), (59, 48615), (61, 48609), (79, 48417), (80, 48414), (81, 48408), (82, 48405), (84, 48387), (94, 48324), (95, 48321), (99, 48303), (104, 48276), (115, 48207), (128, 48126),

Gene: Ollypop_75 Start: 48994, Stop: 48086, Start Num: 27

Candidate Starts for Ollypop_75:

(16, 49036), (17, 49033), (18, 49030), (Start: 27 @48994 has 16 MA's), (38, 48853), (41, 48832), (49, 48766), (50, 48733), (58, 48661), (59, 48658), (61, 48652), (81, 48451), (82, 48448), (92, 48376), (95, 48364), (99, 48337), (115, 48229), (122, 48199), (128, 48148),

Gene: OneinaGillian_59 Start: 40928, Stop: 40128, Start Num: 15

Candidate Starts for OneinaGillian_59:

(13, 40991), (Start: 15 @40928 has 54 MA's), (19, 40916), (29, 40853), (31, 40823), (40, 40745), (45, 40694), (47, 40688), (51, 40652), (52, 40643), (58, 40607), (63, 40583), (65, 40559), (75, 40478), (78, 40409), (104, 40268), (124, 40190),

Gene: Pepe25_58 Start: 40459, Stop: 39689, Start Num: 15

Candidate Starts for Pepe25_58:

(2, 41095), (3, 41089), (6, 41059), (10, 41008), (11, 40798), (12, 40585), (13, 40522), (Start: 15 @40459 has 54 MA's), (19, 40447), (29, 40384), (31, 40354), (40, 40276), (45, 40225), (47, 40219), (52, 40174), (53, 40162), (58, 40138), (60, 40132), (63, 40114), (65, 40090), (86, 39889), (97, 39859), (105, 39817), (117, 39763), (124, 39751),

Gene: Phabia_51 Start: 40304, Stop: 39261, Start Num: 15

Candidate Starts for Phabia_51:

(12, 40433), (13, 40370), (Start: 15 @40304 has 54 MA's), (29, 40223), (31, 40193), (33, 40169), (40, 40115), (44, 40067), (47, 40058), (63, 39932), (71, 39857), (72, 39851), (85, 39719), (86, 39707), (93, 39677), (108, 39572), (110, 39560), (113, 39545), (120, 39524), (121, 39521), (132, 39470), (141, 39347),

Gene: Phinky_59 Start: 42437, Stop: 41463, Start Num: 15

Candidate Starts for Phinky_59:

(12, 42569), (Start: 15 @42437 has 54 MA's), (25, 42395), (29, 42353), (36, 42278), (40, 42242), (55, 42131), (56, 42125), (60, 42113), (63, 42095), (71, 42020), (73, 42005), (75, 41990), (83, 41903), (100, 41795), (137, 41588), (139, 41540), (141, 41522),

Gene: PhuzzTulsa_78 Start: 49079, Stop: 48258, Start Num: 27

Candidate Starts for PhuzzTulsa_78:

(18, 49115), (Start: 27 @49079 has 16 MA's), (35, 48974), (38, 48950), (41, 48929), (47, 48881), (54, 48839), (61, 48809), (71, 48719), (81, 48608), (82, 48605), (84, 48587), (94, 48524), (95, 48521), (99, 48503), (101, 48485), (115, 48401), (128, 48320),

Gene: Pointis_77 Start: 48527, Stop: 47640, Start Num: 27

Candidate Starts for Pointis_77:

(Start: 27 @48527 has 16 MA's), (38, 48386), (41, 48365), (58, 48194), (59, 48191), (61, 48185), (79, 47993), (80, 47990), (81, 47984), (82, 47981), (84, 47963), (94, 47900), (95, 47897), (99, 47879), (104, 47852), (115, 47783), (128, 47702),

Gene: Popstraw_76 Start: 48689, Stop: 47802, Start Num: 27

Candidate Starts for Popstraw_76:

(18, 48725), (Start: 27 @48689 has 16 MA's), (38, 48548), (41, 48527), (58, 48356), (59, 48353), (61, 48347), (79, 48155), (80, 48152), (81, 48146), (82, 48143), (84, 48125), (94, 48062), (95, 48059), (99, 48041), (104, 48014), (115, 47945), (128, 47864),

Gene: Pureglobe5_79 Start: 48971, Stop: 48084, Start Num: 27

Candidate Starts for Pureglobe5_79:

(Start: 27 @48971 has 16 MA's), (38, 48830), (41, 48809), (58, 48638), (59, 48635), (61, 48629), (79, 48437), (80, 48434), (81, 48428), (82, 48425), (84, 48407), (94, 48344), (95, 48341), (99, 48323), (104, 48296), (115, 48227), (128, 48146),

Gene: Quammi_49 Start: 40004, Stop: 38961, Start Num: 15

Candidate Starts for Quammi_49:

(12, 40133), (13, 40070), (Start: 15 @40004 has 54 MA's), (29, 39923), (31, 39893), (33, 39869), (40, 39815), (44, 39767), (47, 39758), (63, 39632), (71, 39557), (72, 39551), (85, 39419), (86, 39407), (93, 39377), (108, 39272), (110, 39260), (113, 39245), (120, 39224), (121, 39221), (132, 39170), (141, 39047),

Gene: RIPWilbur_79 Start: 48491, Stop: 47604, Start Num: 27

Candidate Starts for RIPWilbur_79:

(18, 48527), (Start: 27 @48491 has 16 MA's), (38, 48350), (41, 48329), (58, 48158), (59, 48155), (61, 48149), (79, 47957), (80, 47954), (81, 47948), (82, 47945), (84, 47927), (94, 47864), (95, 47861), (99, 47843), (115, 47747), (128, 47666),

Gene: Ranunculus_73 Start: 51059, Stop: 50235, Start Num: 27

Candidate Starts for Ranunculus_73:

(Start: 27 @51059 has 16 MA's), (30, 51017), (31, 51005), (37, 50954), (41, 50918), (54, 50828), (55, 50819), (70, 50714), (71, 50708), (72, 50702), (92, 50522), (112, 50417), (115, 50399), (136, 50252),

Gene: RazzB_80 Start: 48583, Stop: 47696, Start Num: 27

Candidate Starts for RazzB_80:

(18, 48619), (Start: 27 @48583 has 16 MA's), (38, 48442), (41, 48421), (58, 48250), (59, 48247), (61, 48241), (79, 48049), (80, 48046), (81, 48040), (82, 48037), (84, 48019), (94, 47956), (95, 47953), (99, 47935), (115, 47839), (128, 47758),

Gene: Ren19_75 Start: 48354, Stop: 47446, Start Num: 27

Candidate Starts for Ren19_75:

(16, 48396), (17, 48393), (18, 48390), (Start: 27 @48354 has 16 MA's), (38, 48213), (41, 48192), (58, 48021), (59, 48018), (61, 48012), (79, 47820), (80, 47817), (81, 47811), (82, 47808), (92, 47736), (95, 47724), (98, 47706), (101, 47682), (102, 47679), (107, 47631), (115, 47589), (122, 47559), (127, 47514), (128, 47508),

Gene: RobinRose_61 Start: 41440, Stop: 40640, Start Num: 15

Candidate Starts for RobinRose_61:

(2, 42076), (13, 41503), (Start: 15 @41440 has 54 MA's), (19, 41428), (29, 41365), (31, 41335), (40, 41257), (45, 41206), (47, 41200), (51, 41164), (52, 41155), (58, 41119), (63, 41095), (65, 41071), (75, 40990), (78, 40921), (104, 40780), (124, 40702),

Gene: Romm_61 Start: 41437, Stop: 40637, Start Num: 15

Candidate Starts for Romm_61:

(2, 42073), (13, 41500), (Start: 15 @41437 has 54 MA's), (19, 41425), (29, 41362), (31, 41332), (40, 41254), (45, 41203), (47, 41197), (51, 41161), (52, 41152), (58, 41116), (63, 41092), (65, 41068), (75, 40987), (78, 40918), (104, 40777), (124, 40699),

Gene: Rowlf_48 Start: 39958, Stop: 38966, Start Num: 15

Candidate Starts for Rowlf_48:

(12, 40087), (13, 40024), (Start: 15 @39958 has 54 MA's), (31, 39847), (40, 39769), (42, 39736), (45, 39718), (55, 39649), (56, 39643), (58, 39637), (63, 39613), (65, 39589), (78, 39439), (85, 39400), (86, 39388), (93, 39358), (108, 39253), (110, 39241), (113, 39226), (120, 39205), (121, 39202), (132, 39145), (135, 39097), (141, 39022),

Gene: RubyRalph_56 Start: 42890, Stop: 41904, Start Num: 14

Candidate Starts for RubyRalph_56:

(Start: 14 @42890 has 3 MA's), (29, 42800), (30, 42782), (31, 42770), (32, 42767), (34, 42743), (40, 42692), (43, 42653), (44, 42644), (48, 42620), (56, 42533), (63, 42503), (76, 42377), (77, 42335), (86, 42278), (91, 42254), (103, 42188), (113, 42125), (120, 42107), (129, 42086), (134, 42047), (138, 41972), (141, 41951),

Gene: Rudy_49 Start: 40040, Stop: 38994, Start Num: 15

Candidate Starts for Rudy_49:

(12, 40169), (13, 40106), (Start: 15 @40040 has 54 MA's), (29, 39959), (31, 39929), (33, 39905), (40, 39851), (44, 39803), (47, 39794), (63, 39668), (71, 39593), (72, 39587), (85, 39455), (86, 39443), (93, 39413), (108, 39308), (110, 39296), (113, 39281), (120, 39260), (121, 39257), (132, 39203), (141, 39080),

Gene: SadLad_57 Start: 43744, Stop: 42740, Start Num: 14

Candidate Starts for SadLad_57:

(Start: 14 @43744 has 3 MA's), (29, 43660), (30, 43642), (31, 43630), (32, 43627), (40, 43552), (43, 43513), (44, 43504), (48, 43480), (56, 43393), (63, 43363), (76, 43237), (77, 43195), (86, 43138), (91, 43114), (103, 43048), (114, 42982), (120, 42967), (129, 42922), (134, 42883), (138, 42808), (141, 42787),

Gene: SallyK_52 Start: 40959, Stop: 39973, Start Num: 15

Candidate Starts for SallyK_52:

(6, 41556), (9, 41523), (12, 41088), (13, 41025), (Start: 15 @40959 has 54 MA's), (29, 40878), (31, 40848), (33, 40824), (40, 40770), (46, 40716), (47, 40713), (52, 40668), (58, 40632), (63, 40608), (64, 40602), (68, 40566), (71, 40533), (73, 40518), (86, 40383), (88, 40371), (91, 40359), (93, 40353), (108, 40248), (110, 40236), (113, 40221), (120, 40200), (121, 40197), (132, 40152), (135, 40104), (141, 40029),

Gene: SilentRX_59 Start: 44240, Stop: 43395, Start Num: 15

Candidate Starts for SilentRX_59:

(Start: 15 @44240 has 54 MA's), (21, 44213), (23, 44204), (31, 44129), (41, 44042), (54, 43952), (59, 43928), (69, 43853), (71, 43832), (83, 43715), (92, 43646), (95, 43634), (111, 43547), (116, 43520), (119, 43514), (125, 43475), (126, 43469), (133, 43424),

Gene: Sillytadpoles_52 Start: 39877, Stop: 38834, Start Num: 15

Candidate Starts for Sillytadpoles_52:

(12, 40006), (13, 39943), (Start: 15 @39877 has 54 MA's), (29, 39796), (31, 39766), (33, 39742), (40, 39688), (44, 39640), (47, 39631), (63, 39505), (71, 39430), (72, 39424), (85, 39292), (86, 39280), (93,

39250), (108, 39145), (110, 39133), (113, 39118), (120, 39097), (121, 39094), (132, 39043), (141, 38920),

Gene: SlySloth_53 Start: 40602, Stop: 39580, Start Num: 15

Candidate Starts for SlySloth_53:

(12, 40731), (13, 40668), (Start: 15 @40602 has 54 MA's), (29, 40521), (31, 40491), (40, 40413), (42, 40380), (45, 40362), (55, 40293), (56, 40287), (58, 40281), (63, 40257), (65, 40233), (78, 40083), (85, 40044), (86, 40032), (93, 40002), (108, 39897), (110, 39885), (113, 39870), (120, 39849), (121, 39846), (132, 39789), (135, 39741), (141, 39666),

Gene: Spiderpig_59 Start: 41138, Stop: 40368, Start Num: 15

Candidate Starts for Spiderpig_59:

(Start: 15 @41138 has 54 MA's), (19, 41126), (29, 41063), (31, 41033), (40, 40955), (45, 40904), (47, 40898), (52, 40853), (53, 40841), (58, 40817), (60, 40811), (63, 40793), (65, 40769), (86, 40568), (97, 40538), (105, 40496), (117, 40442), (124, 40430),

Gene: Squash_54 Start: 40675, Stop: 39638, Start Num: 15

Candidate Starts for Squash_54:

(12, 40804), (13, 40741), (Start: 15 @40675 has 54 MA's), (31, 40564), (40, 40486), (42, 40453), (45, 40435), (55, 40366), (56, 40360), (58, 40354), (63, 40330), (65, 40306), (78, 40156), (86, 40105), (93, 40075), (108, 39970), (110, 39958), (118, 39919), (120, 39901), (135, 39769), (141, 39694),

Gene: Statler_53 Start: 40677, Stop: 39664, Start Num: 15

Candidate Starts for Statler_53:

(12, 40806), (13, 40743), (Start: 15 @40677 has 54 MA's), (29, 40596), (31, 40566), (40, 40488), (42, 40455), (45, 40437), (55, 40368), (56, 40362), (58, 40356), (63, 40332), (65, 40308), (78, 40158), (85, 40119), (86, 40107), (88, 40095), (91, 40083), (93, 40077), (108, 39972), (110, 39960), (113, 39945), (120, 39924), (121, 39921), (132, 39867), (135, 39819), (141, 39744),

Gene: StrawberryJamm_54 Start: 40137, Stop: 39109, Start Num: 15

Candidate Starts for StrawberryJamm_54:

(12, 40266), (13, 40203), (Start: 15 @40137 has 54 MA's), (31, 40026), (40, 39948), (42, 39915), (45, 39897), (55, 39828), (56, 39822), (58, 39816), (63, 39792), (65, 39768), (78, 39618), (86, 39567), (93, 39537), (108, 39432), (110, 39420), (113, 39405), (120, 39384), (121, 39381), (132, 39318), (135, 39270), (141, 39195),

Gene: Sunfish_63 Start: 42090, Stop: 41269, Start Num: 27

Candidate Starts for Sunfish_63:

(Start: 27 @42090 has 16 MA's), (28, 42063), (30, 42039), (31, 42027), (40, 41937), (49, 41862), (57, 41820), (69, 41739), (70, 41724), (71, 41718), (87, 41565),

Gene: Tank_61 Start: 45214, Stop: 44408, Start Num: 22

Candidate Starts for Tank_61:

(Start: 22 @45214 has 2 MA's), (26, 45199), (31, 45133), (33, 45109), (35, 45091), (38, 45067), (39, 45058), (54, 44956), (66, 44884), (67, 44878), (69, 44857), (70, 44842), (71, 44836), (75, 44806), (90, 44668), (92, 44659), (95, 44647), (106, 44596), (112, 44560), (131, 44455),

Gene: Teehee_52 Start: 41110, Stop: 40067, Start Num: 15

Candidate Starts for Teehee_52:

(12, 41239), (13, 41176), (Start: 15 @41110 has 54 MA's), (29, 41029), (31, 40999), (33, 40975), (40, 40921), (44, 40873), (47, 40864), (63, 40738), (71, 40663), (72, 40657), (85, 40525), (86, 40513), (93, 40483), (108, 40378), (110, 40366), (113, 40351), (120, 40330), (121, 40327), (132, 40276), (141, 40153),

Gene: Tempo_59 Start: 41305, Stop: 40505, Start Num: 15

Candidate Starts for Tempo_59:

(13, 41368), (Start: 15 @41305 has 54 MA's), (19, 41293), (29, 41230), (31, 41200), (40, 41122), (45, 41071), (47, 41065), (52, 41020), (58, 40984), (63, 40960), (65, 40936), (75, 40855), (78, 40786), (104, 40645), (124, 40567),

Gene: Tissue_52 Start: 40561, Stop: 39602, Start Num: 15

Candidate Starts for Tissue_52:

(12, 40690), (13, 40627), (Start: 15 @40561 has 54 MA's), (29, 40480), (31, 40450), (40, 40372), (42, 40339), (45, 40321), (55, 40252), (56, 40246), (58, 40240), (63, 40216), (65, 40192), (78, 40042), (85, 40003), (86, 39991), (93, 39961), (108, 39856), (110, 39844), (113, 39829), (132, 39781), (135, 39733), (141, 39658),

Gene: Viceroy_50 Start: 40010, Stop: 38964, Start Num: 15

Candidate Starts for Viceroy_50:

(12, 40139), (13, 40076), (Start: 15 @40010 has 54 MA's), (29, 39929), (31, 39899), (33, 39875), (40, 39821), (44, 39773), (47, 39764), (63, 39638), (71, 39563), (72, 39557), (85, 39425), (86, 39413), (93, 39383), (108, 39278), (110, 39266), (113, 39251), (120, 39230), (121, 39227), (132, 39173), (141, 39050),

Gene: Wayne3_53 Start: 40873, Stop: 39830, Start Num: 15

Candidate Starts for Wayne3_53:

(12, 41002), (13, 40939), (Start: 15 @40873 has 54 MA's), (29, 40792), (31, 40762), (33, 40738), (40, 40684), (44, 40636), (47, 40627), (63, 40501), (71, 40426), (72, 40420), (85, 40288), (86, 40276), (93, 40246), (108, 40141), (110, 40129), (113, 40114), (120, 40093), (121, 40090), (132, 40039), (141, 39916),

Gene: WheelerS25_57 Start: 41451, Stop: 40438, Start Num: 15

Candidate Starts for WheelerS25_57:

(12, 41580), (13, 41517), (Start: 15 @41451 has 54 MA's), (29, 41370), (33, 41316), (40, 41262), (44, 41214), (48, 41190), (63, 41073), (71, 40998), (72, 40992), (86, 40848), (88, 40836), (91, 40824), (93, 40818), (110, 40701), (113, 40686), (120, 40665), (121, 40662), (132, 40617), (135, 40569), (141, 40494),

Gene: Wheelie_51 Start: 40194, Stop: 39151, Start Num: 15

Candidate Starts for Wheelie_51:

(12, 40323), (13, 40260), (Start: 15 @40194 has 54 MA's), (29, 40113), (31, 40083), (33, 40059), (40, 40005), (44, 39957), (47, 39948), (63, 39822), (71, 39747), (72, 39741), (85, 39609), (86, 39597), (93, 39567), (108, 39462), (110, 39450), (113, 39435), (120, 39414), (121, 39411), (132, 39360), (141, 39237),

Gene: Wilca_59 Start: 41149, Stop: 40379, Start Num: 15

Candidate Starts for Wilca_59:

(Start: 15 @41149 has 54 MA's), (19, 41137), (29, 41074), (31, 41044), (40, 40966), (45, 40915), (47, 40909), (52, 40864), (53, 40852), (58, 40828), (60, 40822), (63, 40804), (65, 40780), (86, 40579), (97, 40549), (105, 40507), (117, 40453), (124, 40441),

Gene: Wilde_63 Start: 45513, Stop: 44707, Start Num: 22

Candidate Starts for Wilde_63:

(Start: 22 @45513 has 2 MA's), (26, 45498), (31, 45432), (33, 45408), (35, 45390), (38, 45366), (39, 45357), (54, 45255), (62, 45219), (66, 45183), (67, 45177), (69, 45156), (70, 45141), (71, 45135), (75, 45105), (83, 45018), (90, 44967), (92, 44958), (94, 44949), (95, 44946), (106, 44895), (112, 44859),

(131, 44754),

Gene: Zagie_51 Start: 40343, Stop: 39306, Start Num: 15

Candidate Starts for Zagie_51:

(12, 40472), (13, 40409), (Start: 15 @40343 has 54 MA's), (31, 40232), (40, 40154), (42, 40121), (45, 40103), (55, 40034), (56, 40028), (58, 40022), (63, 39998), (65, 39974), (78, 39824), (85, 39785), (86, 39773), (93, 39743), (108, 39638), (110, 39626), (113, 39611), (120, 39590), (121, 39587), (132, 39515), (135, 39467), (141, 39392),

Gene: ZestyBestie_49 Start: 40170, Stop: 39157, Start Num: 15

Candidate Starts for ZestyBestie_49:

(12, 40299), (13, 40236), (Start: 15 @40170 has 54 MA's), (31, 40059), (40, 39981), (42, 39948), (45, 39930), (55, 39861), (56, 39855), (58, 39849), (63, 39825), (65, 39801), (78, 39651), (85, 39612), (86, 39600), (93, 39570), (108, 39465), (110, 39453), (113, 39438), (120, 39417), (121, 39414), (132, 39366), (135, 39318), (141, 39243),

Gene: Zhafia_54 Start: 40674, Stop: 39631, Start Num: 15

Candidate Starts for Zhafia_54:

(12, 40803), (13, 40740), (Start: 15 @40674 has 54 MA's), (29, 40593), (31, 40563), (33, 40539), (40, 40485), (44, 40437), (47, 40428), (63, 40302), (71, 40227), (72, 40221), (85, 40089), (86, 40077), (93, 40047), (108, 39942), (110, 39930), (113, 39915), (120, 39894), (121, 39891), (132, 39840), (141, 39717),