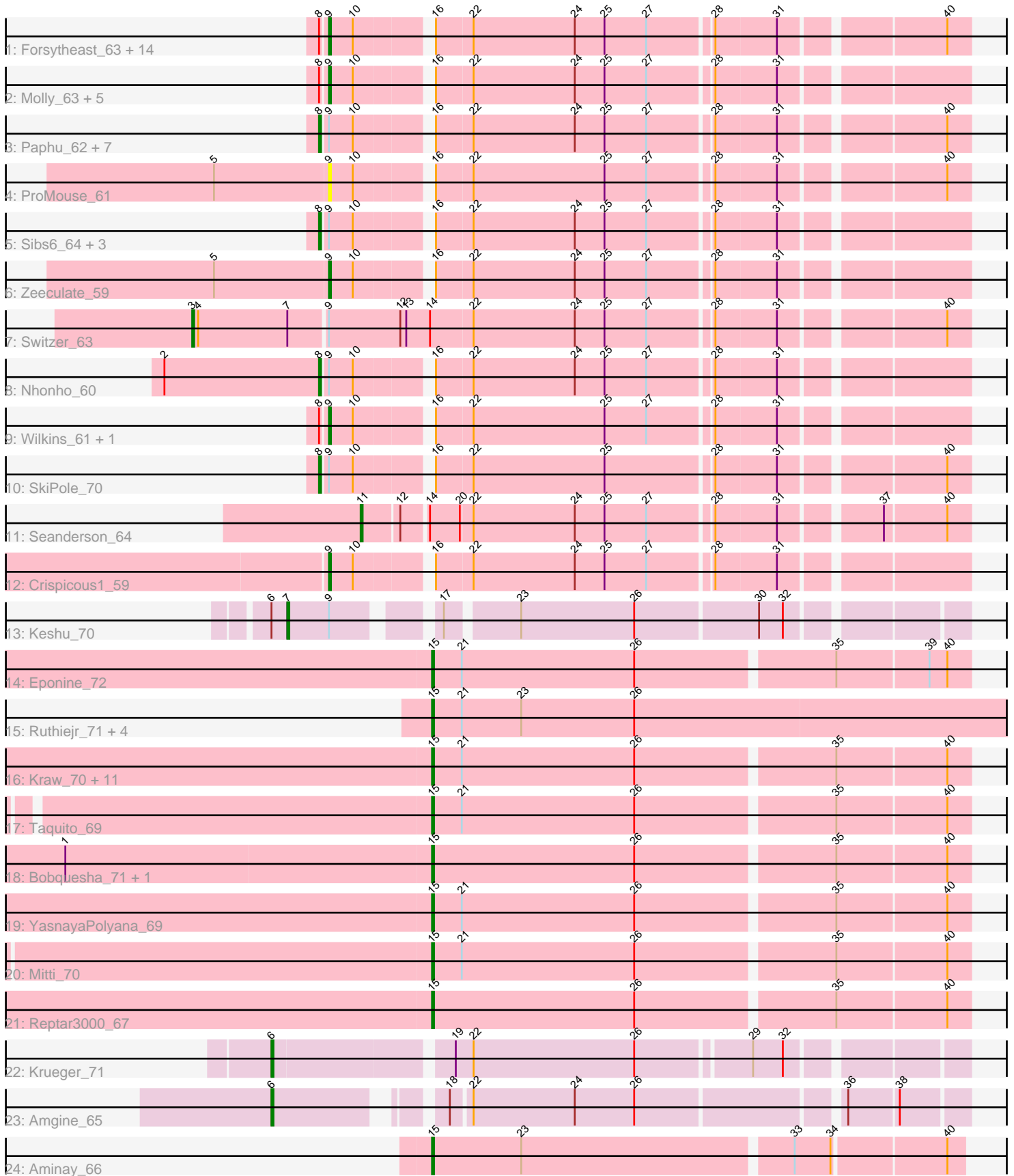


Pham 311560



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 311560 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311560 has 70 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Forsytheast_63, Adahisdi_62, Kykar_63, HermioneGrange_64, Moose_63, Bones_61, Cueyllyss_62, U2_60, IgnatiusPatJac_62, BigMau_64, Parliament_64, Bob3_63, Bruns_63, SwissCheese_65, Arlo_60
- Track 2 : Molly_63, Killigrew_61, GMonster_59, Briton15_66, McGuire_63, Zephyr_63
- Track 3 : Paphu_62, Rohr_64, Petp2012_65, Museum_64, Tasp14_66, BluSpix_60, DreamCatcher_65, MPlant7149_62
- Track 4 : ProMouse_61
- Track 5 : Sibs6_64, Seabiscuit_65, Watermelon_62, HanShotFirst_63
- Track 6 : Zeeculate_59
- Track 7 : Switzer_63
- Track 8 : Nhonho_60
- Track 9 : Wilkins_61, Topgun_60
- Track 10 : SkiPole_70
- Track 11 : Seanderson_64
- Track 12 : Crispicous1_59
- Track 13 : Keshu_70
- Track 14 : Eponine_72
- Track 15 : Ruthiejr_71, OmniCritical_69, Y10_67, Y2_67, JF1_70
- Track 16 : Kraw_70, Qhanda_72, Cheetobro_70, Lebo14_69, Chancellor_70, Juliette_72, Malthus_71, Fionnbharth_70, SamScheppers_68, Slarp_70, DanSyl44_73, Wintermute_70
- Track 17 : Taquito_69
- Track 18 : Bobquesha_71, Patt_66
- Track 19 : YasnayaPolyana_69
- Track 20 : Mitti_70
- Track 21 : Reptar3000_67
- Track 22 : Krueger_71
- Track 23 : Amgine_65
- Track 24 : Aminay_66

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

The start number called the most often in the published annotations is 9, it was called in 25 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adahisdi_62, Arlo_60, BigMau_64, Bob3_63, Bones_61, Briton15_66, Bruns_63, Crispicous1_59, Cueylyss_62, Forsytheast_63, GMonster_59, HermioneGrange_64, IgnatiusPatJac_62, Killigrew_61, Kykar_63, McGuire_63, Molly_63, Moose_63, Parliament_64, ProMouse_61, SwissCheese_65, Topgun_60, U2_60, Wilkins_61, Zeeculate_59, Zephyr_63,

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

- BluSpix_60, DreamCatcher_65, HanShotFirst_63, Keshu_70, MPlant7149_62, Museum_64, Nhonho_60, Paphu_62, Petp2012_65, Rohr_64, Seabiscuit_65, Sibs6_64, SkiPole_70, Switzer_63, Tasp14_66, Watermelon_62,

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

- Amgine_65, Aminay_66, Bobquesha_71, Chancellor_70, Cheetobro_70, DanSyl44_73, Eponine_72, Fionnbharth_70, JF1_70, Juliette_72, Kraw_70, Krueger_71, Lebo14_69, Malthus_71, Mitti_70, OmniCritical_69, Patt_66, Qhanda_72, Reptar3000_67, Ruthiejr_71, SamScheppers_68, Seanderson_64, Slarp_70, Taquito_69, Wintermute_70, Y10_67, Y2_67, YasnayaPolyana_69,

Summary by start number:

Start 3:

- Found in 1 of 70 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Switzer_63 (A1),

Start 6:

- Found in 3 of 70 (4.3%) of genes in pham
- Manual Annotations of this start: 2 of 66
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Amgine_65 (K6), Krueger_71 (K6),

Start 7:

- Found in 2 of 70 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Keshu_70 (K3),

Start 8:

- Found in 37 of 70 (52.9%) of genes in pham
- Manual Annotations of this start: 14 of 66
- Called 37.8% of time when present
- Phage (with cluster) where this start called: BluSpix_60 (A1), DreamCatcher_65 (A1), HanShotFirst_63 (A1), MPlant7149_62 (A1), Museum_64 (A1), Nhonho_60 (A1), Paphu_62 (A1), Petp2012_65 (A1), Rohr_64 (A1), Seabiscuit_65 (A1), Sibs6_64 (A1), SkiPole_70 (A1), Tasp14_66 (A1), Watermelon_62 (A1),

Start 9:

- Found in 42 of 70 (60.0%) of genes in pham

- Manual Annotations of this start: 25 of 66
- Called 61.9% of time when present
- Phage (with cluster) where this start called: Adahisdi_62 (A1), Arlo_60 (A1), BigMau_64 (A1), Bob3_63 (A1), Bones_61 (A1), Briton15_66 (A1), Bruns_63 (A1), Crispicous1_59 (A1), Cueylyss_62 (A1), Forsytheast_63 (A1), GMonster_59 (A1), HermioneGrange_64 (A1), IgnatiusPatJac_62 (A1), Killigrew_61 (A1), Kykar_63 (A1), McGuire_63 (A1), Molly_63 (A1), Moose_63 (A1), Parliament_64 (A1), ProMouse_61 (A1), SwissCheese_65 (A1), Topgun_60 (A1), U2_60 (A1), Wilkins_61 (A1), Zeeculate_59 (A1), Zephyr_63 (A1),

Start 11:

- Found in 1 of 70 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Seanderson_64 (A1),

Start 15:

- Found in 25 of 70 (35.7%) of genes in pham
- Manual Annotations of this start: 22 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_66 (K7), Bobquesha_71 (K4), Chancellor_70 (K4), Cheetobro_70 (K4), DanSyl44_73 (K4), Eponine_72 (K4), Fionnbharth_70 (K4), JF1_70 (K4), Juliette_72 (K4), Kraw_70 (K4), Lebo14_69 (K4), Malthus_71 (K4), Mitti_70 (K4), OmniCritical_69 (K4), Patt_66 (K4), Qhanda_72 (K4), Reptar3000_67 (K4), Ruthiejr_71 (K4), SamScheppers_68 (K4), Slarp_70 (K4), Taquito_69 (K4), Wintermute_70 (K4), Y10_67 (K4), Y2_67 (K4), YasnayaPolyana_69 (K4),

Summary by clusters:

There are 5 clusters represented in this pham: A1, K3, K7, K6, K4,

Info for manual annotations of cluster A1:

- Start number 3 was manually annotated 1 time for cluster A1.
- Start number 8 was manually annotated 14 times for cluster A1.
- Start number 9 was manually annotated 25 times for cluster A1.
- Start number 11 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster K3:

- Start number 7 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K4:

- Start number 15 was manually annotated 21 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 6 was manually annotated 2 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 15 was manually annotated 1 time for cluster K7.

Gene Information:

Gene: Adahisdi_62 Start: 42536, Stop: 42240, Start Num: 9

Candidate Starts for Adahisdi_62:

(Start: 8 @42539 has 14 MA's), (Start: 9 @42536 has 25 MA's), (10, 42524), (16, 42491), (22, 42473), (24, 42422), (25, 42407), (27, 42386), (28, 42356), (31, 42326), (40, 42251),

Gene: Amgine_65 Start: 44496, Stop: 44807, Start Num: 6

Candidate Starts for Amgine_65:

(Start: 6 @44496 has 2 MA's), (18, 44565), (22, 44574), (24, 44625), (26, 44655), (36, 44751), (38, 44775),

Gene: Aminay_66 Start: 43144, Stop: 43401, Start Num: 15

Candidate Starts for Aminay_66:

(Start: 15 @43144 has 22 MA's), (23, 43189), (33, 43321), (34, 43339), (40, 43393),

Gene: Arlo_60 Start: 40881, Stop: 40585, Start Num: 9

Candidate Starts for Arlo_60:

(Start: 8 @40884 has 14 MA's), (Start: 9 @40881 has 25 MA's), (10, 40869), (16, 40836), (22, 40818), (24, 40767), (25, 40752), (27, 40731), (28, 40701), (31, 40671), (40, 40596),

Gene: BigMau_64 Start: 41801, Stop: 41505, Start Num: 9

Candidate Starts for BigMau_64:

(Start: 8 @41804 has 14 MA's), (Start: 9 @41801 has 25 MA's), (10, 41789), (16, 41756), (22, 41738), (24, 41687), (25, 41672), (27, 41651), (28, 41621), (31, 41591), (40, 41516),

Gene: BluSpix_60 Start: 37016, Stop: 36717, Start Num: 8

Candidate Starts for BluSpix_60:

(Start: 8 @37016 has 14 MA's), (Start: 9 @37013 has 25 MA's), (10, 37001), (16, 36968), (22, 36950), (24, 36899), (25, 36884), (27, 36863), (28, 36833), (31, 36803), (40, 36728),

Gene: Bob3_63 Start: 41074, Stop: 40778, Start Num: 9

Candidate Starts for Bob3_63:

(Start: 8 @41077 has 14 MA's), (Start: 9 @41074 has 25 MA's), (10, 41062), (16, 41029), (22, 41011), (24, 40960), (25, 40945), (27, 40924), (28, 40894), (31, 40864), (40, 40789),

Gene: Bobquesha_71 Start: 42269, Stop: 42532, Start Num: 15

Candidate Starts for Bobquesha_71:

(1, 42086), (Start: 15 @42269 has 22 MA's), (26, 42371), (35, 42467), (40, 42521),

Gene: Bones_61 Start: 42258, Stop: 41962, Start Num: 9

Candidate Starts for Bones_61:

(Start: 8 @42261 has 14 MA's), (Start: 9 @42258 has 25 MA's), (10, 42246), (16, 42213), (22, 42195), (24, 42144), (25, 42129), (27, 42108), (28, 42078), (31, 42048), (40, 41973),

Gene: Briton15_66 Start: 42878, Stop: 42582, Start Num: 9

Candidate Starts for Briton15_66:

(Start: 8 @42881 has 14 MA's), (Start: 9 @42878 has 25 MA's), (10, 42866), (16, 42833), (22, 42815), (24, 42764), (25, 42749), (27, 42728), (28, 42698), (31, 42668),

Gene: Bruns_63 Start: 40455, Stop: 40159, Start Num: 9

Candidate Starts for Bruns_63:

(Start: 8 @40458 has 14 MA's), (Start: 9 @40455 has 25 MA's), (10, 40443), (16, 40410), (22, 40392), (24, 40341), (25, 40326), (27, 40305), (28, 40275), (31, 40245), (40, 40170),

Gene: Chancellor_70 Start: 43377, Stop: 43640, Start Num: 15

Candidate Starts for Chancellor_70:

(Start: 15 @43377 has 22 MA's), (21, 43392), (26, 43479), (35, 43575), (40, 43629),

Gene: Cheetobro_70 Start: 43374, Stop: 43637, Start Num: 15

Candidate Starts for Cheetobro_70:

(Start: 15 @43374 has 22 MA's), (21, 43389), (26, 43476), (35, 43572), (40, 43626),

Gene: Crispicious1_59 Start: 39995, Stop: 39699, Start Num: 9

Candidate Starts for Crispicious1_59:

(Start: 9 @39995 has 25 MA's), (10, 39983), (16, 39950), (22, 39932), (24, 39881), (25, 39866), (27, 39845), (28, 39815), (31, 39785),

Gene: Cueyllyss_62 Start: 42458, Stop: 42162, Start Num: 9

Candidate Starts for Cueyllyss_62:

(Start: 8 @42461 has 14 MA's), (Start: 9 @42458 has 25 MA's), (10, 42446), (16, 42413), (22, 42395), (24, 42344), (25, 42329), (27, 42308), (28, 42278), (31, 42248), (40, 42173),

Gene: DanSyl44_73 Start: 44568, Stop: 44831, Start Num: 15

Candidate Starts for DanSyl44_73:

(Start: 15 @44568 has 22 MA's), (21, 44583), (26, 44670), (35, 44766), (40, 44820),

Gene: DreamCatcher_65 Start: 41754, Stop: 41455, Start Num: 8

Candidate Starts for DreamCatcher_65:

(Start: 8 @41754 has 14 MA's), (Start: 9 @41751 has 25 MA's), (10, 41739), (16, 41706), (22, 41688), (24, 41637), (25, 41622), (27, 41601), (28, 41571), (31, 41541), (40, 41466),

Gene: Eponine_72 Start: 44220, Stop: 44483, Start Num: 15

Candidate Starts for Eponine_72:

(Start: 15 @44220 has 22 MA's), (21, 44235), (26, 44322), (35, 44418), (39, 44463), (40, 44472),

Gene: Fionnbharth_70 Start: 43618, Stop: 43881, Start Num: 15

Candidate Starts for Fionnbharth_70:

(Start: 15 @43618 has 22 MA's), (21, 43633), (26, 43720), (35, 43816), (40, 43870),

Gene: Forsytheast_63 Start: 40623, Stop: 40327, Start Num: 9

Candidate Starts for Forsytheast_63:

(Start: 8 @40626 has 14 MA's), (Start: 9 @40623 has 25 MA's), (10, 40611), (16, 40578), (22, 40560), (24, 40509), (25, 40494), (27, 40473), (28, 40443), (31, 40413), (40, 40338),

Gene: GMonster_59 Start: 40681, Stop: 40385, Start Num: 9

Candidate Starts for GMonster_59:

(Start: 8 @40684 has 14 MA's), (Start: 9 @40681 has 25 MA's), (10, 40669), (16, 40636), (22, 40618), (24, 40567), (25, 40552), (27, 40531), (28, 40501), (31, 40471),

Gene: HanShotFirst_63 Start: 42830, Stop: 42531, Start Num: 8

Candidate Starts for HanShotFirst_63:

(Start: 8 @42830 has 14 MA's), (Start: 9 @42827 has 25 MA's), (10, 42815), (16, 42782), (22, 42764), (24, 42713), (25, 42698), (27, 42677), (28, 42647), (31, 42617),

Gene: HermioneGrange_64 Start: 42295, Stop: 41999, Start Num: 9

Candidate Starts for HermioneGrange_64:

(Start: 8 @42298 has 14 MA's), (Start: 9 @42295 has 25 MA's), (10, 42283), (16, 42250), (22, 42232), (24, 42181), (25, 42166), (27, 42145), (28, 42115), (31, 42085), (40, 42010),

Gene: IgnatiusPatJac_62 Start: 40958, Stop: 40662, Start Num: 9

Candidate Starts for IgnatiusPatJac_62:

(Start: 8 @40961 has 14 MA's), (Start: 9 @40958 has 25 MA's), (10, 40946), (16, 40913), (22, 40895), (24, 40844), (25, 40829), (27, 40808), (28, 40778), (31, 40748), (40, 40673),

Gene: JF1_70 Start: 43533, Stop: 43847, Start Num: 15

Candidate Starts for JF1_70:

(Start: 15 @43533 has 22 MA's), (21, 43548), (23, 43578), (26, 43635),

Gene: Juliette_72 Start: 43682, Stop: 43945, Start Num: 15

Candidate Starts for Juliette_72:

(Start: 15 @43682 has 22 MA's), (21, 43697), (26, 43784), (35, 43880), (40, 43934),

Gene: Keshu_70 Start: 44135, Stop: 44440, Start Num: 7

Candidate Starts for Keshu_70:

(Start: 6 @44129 has 2 MA's), (Start: 7 @44135 has 1 MA's), (Start: 9 @44156 has 25 MA's), (17, 44198), (23, 44231), (26, 44288), (30, 44348), (32, 44360),

Gene: Killigrew_61 Start: 41393, Stop: 41097, Start Num: 9

Candidate Starts for Killigrew_61:

(Start: 8 @41396 has 14 MA's), (Start: 9 @41393 has 25 MA's), (10, 41381), (16, 41348), (22, 41330), (24, 41279), (25, 41264), (27, 41243), (28, 41213), (31, 41183),

Gene: Kraw_70 Start: 43370, Stop: 43633, Start Num: 15

Candidate Starts for Kraw_70:

(Start: 15 @43370 has 22 MA's), (21, 43385), (26, 43472), (35, 43568), (40, 43622),

Gene: Krueger_71 Start: 43668, Stop: 43991, Start Num: 6

Candidate Starts for Krueger_71:

(Start: 6 @43668 has 2 MA's), (19, 43752), (22, 43761), (26, 43842), (29, 43896), (32, 43911),

Gene: Kykar_63 Start: 41758, Stop: 41462, Start Num: 9

Candidate Starts for Kykar_63:

(Start: 8 @41761 has 14 MA's), (Start: 9 @41758 has 25 MA's), (10, 41746), (16, 41713), (22, 41695), (24, 41644), (25, 41629), (27, 41608), (28, 41578), (31, 41548), (40, 41473),

Gene: Lebo14_69 Start: 43703, Stop: 43966, Start Num: 15

Candidate Starts for Lebo14_69:

(Start: 15 @43703 has 22 MA's), (21, 43718), (26, 43805), (35, 43901), (40, 43955),

Gene: MPlant7149_62 Start: 40186, Stop: 39887, Start Num: 8

Candidate Starts for MPlant7149_62:

(Start: 8 @40186 has 14 MA's), (Start: 9 @40183 has 25 MA's), (10, 40171), (16, 40138), (22, 40120), (24, 40069), (25, 40054), (27, 40033), (28, 40003), (31, 39973), (40, 39898),

Gene: Malthus_71 Start: 43370, Stop: 43633, Start Num: 15

Candidate Starts for Malthus_71:

(Start: 15 @43370 has 22 MA's), (21, 43385), (26, 43472), (35, 43568), (40, 43622),

Gene: McGuire_63 Start: 40458, Stop: 40162, Start Num: 9

Candidate Starts for McGuire_63:

(Start: 8 @40461 has 14 MA's), (Start: 9 @40458 has 25 MA's), (10, 40446), (16, 40413), (22, 40395), (24, 40344), (25, 40329), (27, 40308), (28, 40278), (31, 40248),

Gene: Mitti_70 Start: 43525, Stop: 43788, Start Num: 15

Candidate Starts for Mitti_70:

(Start: 15 @43525 has 22 MA's), (21, 43540), (26, 43627), (35, 43723), (40, 43777),

Gene: Molly_63 Start: 41563, Stop: 41267, Start Num: 9

Candidate Starts for Molly_63:

(Start: 8 @41566 has 14 MA's), (Start: 9 @41563 has 25 MA's), (10, 41551), (16, 41518), (22, 41500), (24, 41449), (25, 41434), (27, 41413), (28, 41383), (31, 41353),

Gene: Moose_63 Start: 40623, Stop: 40327, Start Num: 9

Candidate Starts for Moose_63:

(Start: 8 @40626 has 14 MA's), (Start: 9 @40623 has 25 MA's), (10, 40611), (16, 40578), (22, 40560), (24, 40509), (25, 40494), (27, 40473), (28, 40443), (31, 40413), (40, 40338),

Gene: Museum_64 Start: 42785, Stop: 42486, Start Num: 8

Candidate Starts for Museum_64:

(Start: 8 @42785 has 14 MA's), (Start: 9 @42782 has 25 MA's), (10, 42770), (16, 42737), (22, 42719), (24, 42668), (25, 42653), (27, 42632), (28, 42602), (31, 42572), (40, 42497),

Gene: Nhonho_60 Start: 41685, Stop: 41386, Start Num: 8

Candidate Starts for Nhonho_60:

(2, 41763), (Start: 8 @41685 has 14 MA's), (Start: 9 @41682 has 25 MA's), (10, 41670), (16, 41637), (22, 41619), (24, 41568), (25, 41553), (27, 41532), (28, 41502), (31, 41472),

Gene: OmniCritical_69 Start: 43407, Stop: 43721, Start Num: 15

Candidate Starts for OmniCritical_69:

(Start: 15 @43407 has 22 MA's), (21, 43422), (23, 43452), (26, 43509),

Gene: Paphu_62 Start: 41937, Stop: 41638, Start Num: 8

Candidate Starts for Paphu_62:

(Start: 8 @41937 has 14 MA's), (Start: 9 @41934 has 25 MA's), (10, 41922), (16, 41889), (22, 41871), (24, 41820), (25, 41805), (27, 41784), (28, 41754), (31, 41724), (40, 41649),

Gene: Parliament_64 Start: 43726, Stop: 43430, Start Num: 9

Candidate Starts for Parliament_64:

(Start: 8 @43729 has 14 MA's), (Start: 9 @43726 has 25 MA's), (10, 43714), (16, 43681), (22, 43663), (24, 43612), (25, 43597), (27, 43576), (28, 43546), (31, 43516), (40, 43441),

Gene: Patt_66 Start: 42008, Stop: 42271, Start Num: 15

Candidate Starts for Patt_66:

(1, 41825), (Start: 15 @42008 has 22 MA's), (26, 42110), (35, 42206), (40, 42260),

Gene: Petp2012_65 Start: 43269, Stop: 42970, Start Num: 8

Candidate Starts for Petp2012_65:

(Start: 8 @43269 has 14 MA's), (Start: 9 @43266 has 25 MA's), (10, 43254), (16, 43221), (22, 43203), (24, 43152), (25, 43137), (27, 43116), (28, 43086), (31, 43056), (40, 42981),

Gene: ProMouse_61 Start: 41373, Stop: 41077, Start Num: 9

Candidate Starts for ProMouse_61:

(5, 41430), (Start: 9 @41373 has 25 MA's), (10, 41361), (16, 41328), (22, 41310), (25, 41244), (27, 41223), (28, 41193), (31, 41163), (40, 41088),

Gene: Qhanda_72 Start: 43386, Stop: 43649, Start Num: 15

Candidate Starts for Qhanda_72:

(Start: 15 @43386 has 22 MA's), (21, 43401), (26, 43488), (35, 43584), (40, 43638),

Gene: Reptar3000_67 Start: 41997, Stop: 42260, Start Num: 15

Candidate Starts for Reptar3000_67:

(Start: 15 @41997 has 22 MA's), (26, 42099), (35, 42195), (40, 42249),

Gene: Rohr_64 Start: 42615, Stop: 42316, Start Num: 8

Candidate Starts for Rohr_64:

(Start: 8 @42615 has 14 MA's), (Start: 9 @42612 has 25 MA's), (10, 42600), (16, 42567), (22, 42549), (24, 42498), (25, 42483), (27, 42462), (28, 42432), (31, 42402), (40, 42327),

Gene: Ruthiejr_71 Start: 43418, Stop: 43732, Start Num: 15

Candidate Starts for Ruthiejr_71:

(Start: 15 @43418 has 22 MA's), (21, 43433), (23, 43463), (26, 43520),

Gene: SamScheppers_68 Start: 43849, Stop: 44112, Start Num: 15

Candidate Starts for SamScheppers_68:

(Start: 15 @43849 has 22 MA's), (21, 43864), (26, 43951), (35, 44047), (40, 44101),

Gene: Seabiscuit_65 Start: 40723, Stop: 40424, Start Num: 8

Candidate Starts for Seabiscuit_65:

(Start: 8 @40723 has 14 MA's), (Start: 9 @40720 has 25 MA's), (10, 40708), (16, 40675), (22, 40657), (24, 40606), (25, 40591), (27, 40570), (28, 40540), (31, 40510),

Gene: Seanderson_64 Start: 43120, Stop: 42836, Start Num: 11

Candidate Starts for Seanderson_64:

(Start: 11 @43120 has 1 MA's), (12, 43102), (14, 43090), (20, 43075), (22, 43069), (24, 43018), (25, 43003), (27, 42982), (28, 42952), (31, 42922), (37, 42877), (40, 42847),

Gene: Sibs6_64 Start: 39832, Stop: 39533, Start Num: 8

Candidate Starts for Sibs6_64:

(Start: 8 @39832 has 14 MA's), (Start: 9 @39829 has 25 MA's), (10, 39817), (16, 39784), (22, 39766), (24, 39715), (25, 39700), (27, 39679), (28, 39649), (31, 39619),

Gene: SkiPole_70 Start: 42720, Stop: 42421, Start Num: 8

Candidate Starts for SkiPole_70:

(Start: 8 @42720 has 14 MA's), (Start: 9 @42717 has 25 MA's), (10, 42705), (16, 42672), (22, 42654), (25, 42588), (28, 42537), (31, 42507), (40, 42432),

Gene: Slarp_70 Start: 43377, Stop: 43640, Start Num: 15

Candidate Starts for Slarp_70:

(Start: 15 @43377 has 22 MA's), (21, 43392), (26, 43479), (35, 43575), (40, 43629),

Gene: SwissCheese_65 Start: 41123, Stop: 40827, Start Num: 9

Candidate Starts for SwissCheese_65:

(Start: 8 @41126 has 14 MA's), (Start: 9 @41123 has 25 MA's), (10, 41111), (16, 41078), (22, 41060), (24, 41009), (25, 40994), (27, 40973), (28, 40943), (31, 40913), (40, 40838),

Gene: Switzer_63 Start: 42783, Stop: 42412, Start Num: 3

Candidate Starts for Switzer_63:

(Start: 3 @42783 has 1 MA's), (4, 42780), (Start: 7 @42735 has 1 MA's), (Start: 9 @42717 has 25 MA's), (12, 42681), (13, 42678), (14, 42666), (22, 42645), (24, 42594), (25, 42579), (27, 42558), (28, 42528), (31, 42498), (40, 42423),

Gene: Taquito_69 Start: 43582, Stop: 43845, Start Num: 15

Candidate Starts for Taquito_69:

(Start: 15 @43582 has 22 MA's), (21, 43597), (26, 43684), (35, 43780), (40, 43834),

Gene: Tasp14_66 Start: 43218, Stop: 42919, Start Num: 8

Candidate Starts for Tasp14_66:

(Start: 8 @43218 has 14 MA's), (Start: 9 @43215 has 25 MA's), (10, 43203), (16, 43170), (22, 43152), (24, 43101), (25, 43086), (27, 43065), (28, 43035), (31, 43005), (40, 42930),

Gene: Topgun_60 Start: 40325, Stop: 40029, Start Num: 9

Candidate Starts for Topgun_60:

(Start: 8 @40328 has 14 MA's), (Start: 9 @40325 has 25 MA's), (10, 40313), (16, 40280), (22, 40262), (25, 40196), (27, 40175), (28, 40145), (31, 40115),

Gene: U2_60 Start: 41888, Stop: 41592, Start Num: 9

Candidate Starts for U2_60:

(Start: 8 @41891 has 14 MA's), (Start: 9 @41888 has 25 MA's), (10, 41876), (16, 41843), (22, 41825), (24, 41774), (25, 41759), (27, 41738), (28, 41708), (31, 41678), (40, 41603),

Gene: Watermelon_62 Start: 40661, Stop: 40362, Start Num: 8

Candidate Starts for Watermelon_62:

(Start: 8 @40661 has 14 MA's), (Start: 9 @40658 has 25 MA's), (10, 40646), (16, 40613), (22, 40595), (24, 40544), (25, 40529), (27, 40508), (28, 40478), (31, 40448),

Gene: Wilkins_61 Start: 40255, Stop: 39959, Start Num: 9

Candidate Starts for Wilkins_61:

(Start: 8 @40258 has 14 MA's), (Start: 9 @40255 has 25 MA's), (10, 40243), (16, 40210), (22, 40192), (25, 40126), (27, 40105), (28, 40075), (31, 40045),

Gene: Wintermute_70 Start: 43607, Stop: 43870, Start Num: 15

Candidate Starts for Wintermute_70:

(Start: 15 @43607 has 22 MA's), (21, 43622), (26, 43709), (35, 43805), (40, 43859),

Gene: Y10_67 Start: 43533, Stop: 43847, Start Num: 15

Candidate Starts for Y10_67:

(Start: 15 @43533 has 22 MA's), (21, 43548), (23, 43578), (26, 43635),

Gene: Y2_67 Start: 43533, Stop: 43847, Start Num: 15

Candidate Starts for Y2_67:

(Start: 15 @43533 has 22 MA's), (21, 43548), (23, 43578), (26, 43635),

Gene: YasnayaPolyana_69 Start: 43433, Stop: 43696, Start Num: 15

Candidate Starts for YasnayaPolyana_69:

(Start: 15 @43433 has 22 MA's), (21, 43448), (26, 43535), (35, 43631), (40, 43685),

Gene: Zeeculate_59 Start: 41408, Stop: 41112, Start Num: 9

Candidate Starts for Zeeculate_59:

(5, 41465), (Start: 9 @41408 has 25 MA's), (10, 41396), (16, 41363), (22, 41345), (24, 41294), (25, 41279), (27, 41258), (28, 41228), (31, 41198),

Gene: Zephyr_63 Start: 40825, Stop: 40529, Start Num: 9

Candidate Starts for Zephyr_63:

(Start: 8 @40828 has 14 MA's), (Start: 9 @40825 has 25 MA's), (10, 40813), (16, 40780), (22, 40762), (24, 40711), (25, 40696), (27, 40675), (28, 40645), (31, 40615),