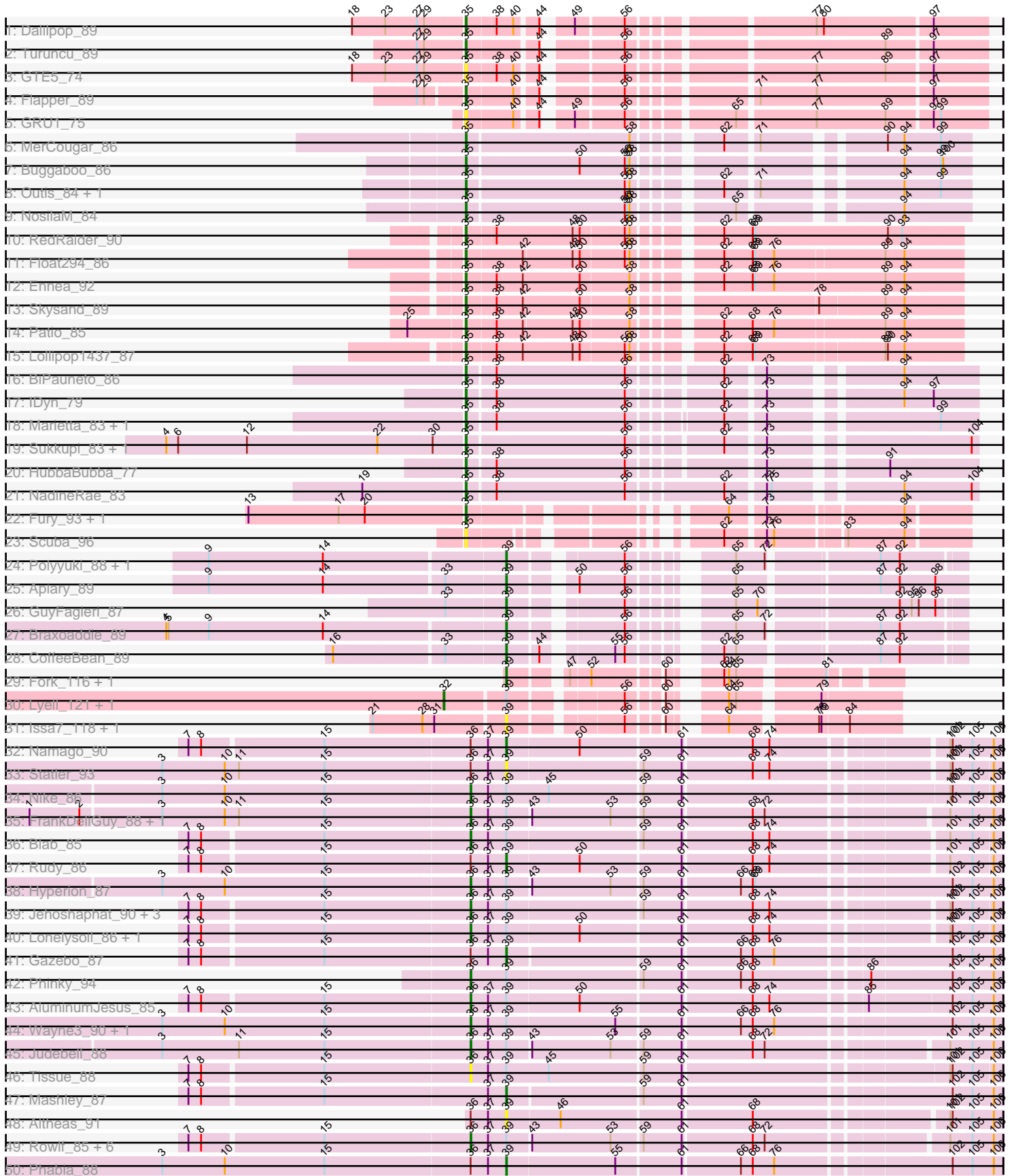
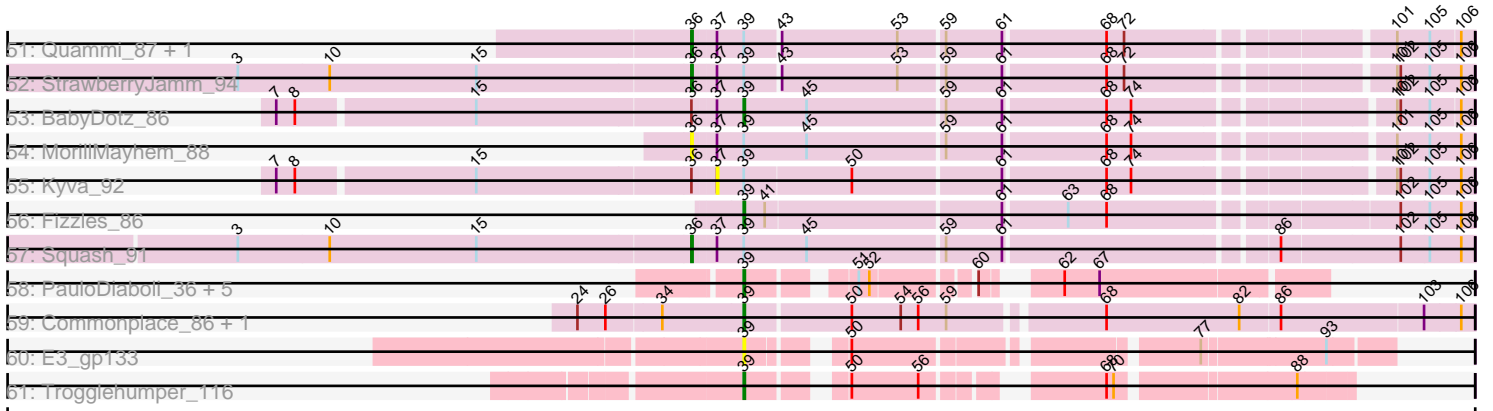


Pham 221332



Pham 221332



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 221332 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221332 has 88 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop_89
- Track 2 : Turuncu_89
- Track 3 : GTE5_74
- Track 4 : Flapper_89
- Track 5 : GRU1_75
- Track 6 : MerCougar_86
- Track 7 : Buggaboo_86
- Track 8 : Outis_84, StarStruck_84
- Track 9 : NosilaM_84
- Track 10 : RedRaider_90
- Track 11 : Float294_86
- Track 12 : Ennea_92
- Track 13 : Skysand_89
- Track 14 : Patio_85
- Track 15 : Lollipop1437_87
- Track 16 : BiPauneto_86
- Track 17 : IDyn_79
- Track 18 : Marietta_83, WhoseManz_83
- Track 19 : Sukkupi_83, Yndexa_83
- Track 20 : HubbaBubba_77
- Track 21 : NadineRae_83
- Track 22 : Fury_93, Pleakley_93
- Track 23 : Scuba_96
- Track 24 : Polyuyuki_88, Maselop_89
- Track 25 : Apiary_89
- Track 26 : GuyFagieri_87
- Track 27 : Braxoaddie_89
- Track 28 : CoffeeBean_89
- Track 29 : Fork_116, Fork_4
- Track 30 : Lyell_121, Lyell_6
- Track 31 : Issa7_118, Issa7_4
- Track 32 : Namago_90
- Track 33 : Statler_93
- Track 34 : Nike_86
- Track 35 : FrankDeliGuy_88, Casend_89
- Track 36 : Blab_85
- Track 37 : Rudy_86

- Track 38 : Hyperion_87
- Track 39 : Jehoshaphat_90, Teehee_89, Mentos_92, SallyK_90
- Track 40 : Lonelysoil_86, Grassboy_93
- Track 41 : Gazebo_87
- Track 42 : Phinky_94
- Track 43 : AluminumJesus_85
- Track 44 : Wayne3_90, Wheelie_88
- Track 45 : Judebell_88
- Track 46 : Tissue_88
- Track 47 : Mashley_87
- Track 48 : Altheas_91
- Track 49 : Rowlf_85, Sillytadpoles_91, EverythinBagel_88, Llemily_90, DonaldDuck_90, Zagie_90, Zhafia_94
- Track 50 : Phabia_88
- Track 51 : Quammi_87, Viceroy_86
- Track 52 : StrawberryJamm_94
- Track 53 : BabyDotz_86
- Track 54 : MorillMayhem_88
- Track 55 : Kyva_92
- Track 56 : Fizzles_86
- Track 57 : Squash_91
- Track 58 : PauloDiaboli_36, PauloDiaboli_391, Dodo_387, A3Wally_389, A3Wally_36, Dodo_37
- Track 59 : Commonplace_86, Nonagon_84
- Track 60 : E3_gp133
- Track 61 : Trogglehumper_116

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

The start number called the most often in the published annotations is 35, it was called in 24 of the 68 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BiPauneto_86, Buggaboo_86, Dalilpop_89, Ennea_92, Flapper_89, Float294_86, Fury_93, GRU1_75, GTE5_74, HubbaBubba_77, IDyn_79, Lollipop1437_87, Marietta_83, MerCougar_86, NadineRae_83, NosilaM_84, Outis_84, Patio_85, Pleakley_93, RedRaider_90, Scuba_96, Skysand_89, StarStruck_84, Sukkupi_83, Turuncu_89, WhoseManz_83, Yndexa_83,

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

-

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

- A3Wally_36, A3Wally_389, Altheas_91, AluminumJesus_85, Apiary_89, BabyDotz_86, Blab_85, Braxoaddie_89, Casend_89, CoffeeBean_89, Commonplace_86, Dodo_37, Dodo_387, DonaldDuck_90, E3_gp133, EverythinBagel_88, Fizzles_86, Fork_116, Fork_4, FrankDeliGuy_88, Gazebo_87, Grassboy_93, GuyFagieri_87, Hyperion_87, Issa7_118, Issa7_4, Jehoshaphat_90, Judebell_88, Kyva_92, Llemily_90, Lonelysoil_86, Lyell_121, Lyell_6, Maselop_89, Mashley_87, Mentos_92, MorillMayhem_88, Namago_90, Nike_86, Nonagon_84,

PauloDiaboli_36, PauloDiaboli_391, Phabia_88, Phinky_94, Polyyuki_88, Quammi_87, Rowlf_85, Rudy_86, SallyK_90, Sillytadpoles_91, Squash_91, Statler_93, StrawberryJamm_94, Teehee_89, Tissue_88, Trogglehumper_116, Viceroy_86, Wayne3_90, Wheelie_88, Zagie_90, Zhafia_94,

Summary by start number:

Start 32:

- Found in 2 of 88 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lyell_121 (ED2), Lyell_6 (ED2),

Start 35:

- Found in 27 of 88 (30.7%) of genes in pham
- Manual Annotations of this start: 24 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiPauneto_86 (CR4), Buggaboo_86 (CR2), Dalilpop_89 (CR1), Ennea_92 (CR3), Flapper_89 (CR1), Float294_86 (CR3), Fury_93 (CR5), GRU1_75 (CR1), GTE5_74 (CR1), HubbaBubba_77 (CR4), IDyn_79 (CR4), Lollipop1437_87 (CR3), Marietta_83 (CR4), MerCougar_86 (CR2), NadineRae_83 (CR4), NosilaM_84 (CR2), Outis_84 (CR2), Patio_85 (CR3), Pleakley_93 (CR5), RedRaider_90 (CR3), Scuba_96 (CR5), Skysand_89 (CR3), StarStruck_84 (CR2), Sukkupi_83 (CR4), Turuncu_89 (CR1), WhoseManz_83 (CR4), Yndexa_83 (CR4),

Start 36:

- Found in 37 of 88 (42.0%) of genes in pham
- Manual Annotations of this start: 20 of 68
- Called 78.4% of time when present
- Phage (with cluster) where this start called: AluminumJesus_85 (EG), Blab_85 (EG), Casend_89 (EG), DonaldDuck_90 (EG), EverythinBagel_88 (EG), FrankDeliGuy_88 (EG), Grassboy_93 (EG), Hyperion_87 (EG), Jehoshaphat_90 (EG), Judebell_88 (EG), Llemily_90 (EG), Lonelysoil_86 (EG), Mentos_92 (EG), MorillMayhem_88 (EG), Nike_86 (EG), Phinky_94 (EG), Quammi_87 (EG), Rowlf_85 (EG), SallyK_90 (EG), Sillytadpoles_91 (EG), Squash_91 (EG), StrawberryJamm_94 (EG), Teehee_89 (EG), Tissue_88 (EG), Viceroy_86 (EG), Wayne3_90 (EG), Wheelie_88 (EG), Zagie_90 (EG), Zhafia_94 (EG),

Start 37:

- Found in 37 of 88 (42.0%) of genes in pham
- No Manual Annotations of this start.
- Called 2.7% of time when present
- Phage (with cluster) where this start called: Kyva_92 (EG),

Start 39:

- Found in 61 of 88 (69.3%) of genes in pham
- Manual Annotations of this start: 22 of 68
- Called 47.5% of time when present
- Phage (with cluster) where this start called: A3Wally_36 (GD1), A3Wally_389 (GD1), Altheas_91 (EG), Apiary_89 (CR6), BabyDotz_86 (EG), Braxoaddie_89 (CR6), CoffeeBean_89 (CR6), Commonplace_86 (JD), Dodo_37 (GD1), Dodo_387 (GD1), E3_gp133 (singleton), Fizzles_86 (EG), Fork_116 (ED2), Fork_4 (ED2), Gazebo_87

(EG), GuyFagieri_87 (CR6), Issa7_118 (ED2), Issa7_4 (ED2), Maselop_89 (CR6), Mashley_87 (EG), Namago_90 (EG), Nonagon_84 (JD), PauloDiaboli_36 (GD1), PauloDiaboli_391 (GD1), Phabia_88 (EG), Polyuyuki_88 (CR6), Rudy_86 (EG), Statler_93 (EG), Trogglehumper_116 (singleton),

Summary by clusters:

There are 11 clusters represented in this pham: CR2, CR3, singleton, CR1, CR6, CR4, CR5, EG, ED2, JD, GD1,

Info for manual annotations of cluster CR1:

- Start number 35 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 35 was manually annotated 5 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 35 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 35 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 35 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 39 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster ED2:

- Start number 32 was manually annotated 2 times for cluster ED2.
- Start number 39 was manually annotated 2 times for cluster ED2.

Info for manual annotations of cluster EG:

- Start number 36 was manually annotated 20 times for cluster EG.
- Start number 39 was manually annotated 7 times for cluster EG.

Info for manual annotations of cluster GD1:

- Start number 39 was manually annotated 4 times for cluster GD1.

Info for manual annotations of cluster JD:

- Start number 39 was manually annotated 2 times for cluster JD.

Gene Information:

Gene: A3Wally_389 Start: 191584, Stop: 191994, Start Num: 39

Candidate Starts for A3Wally_389:

(Start: 39 @191584 has 22 MA's), (51, 191656), (52, 191665), (60, 191737), (62, 191779), (67, 191809),

Gene: A3Wally_36 Start: 12363, Stop: 12773, Start Num: 39

Candidate Starts for A3Wally_36:

(Start: 39 @12363 has 22 MA's), (51, 12435), (52, 12444), (60, 12516), (62, 12558), (67, 12588),

Gene: Altheas_91 Start: 56315, Stop: 55734, Start Num: 39

Candidate Starts for Altheas_91:

(Start: 36 @56354 has 20 MA's), (37, 56336), (Start: 39 @56315 has 22 MA's), (46, 56249), (61, 56102), (68, 56018), (101, 55799), (102, 55796), (105, 55772), (106, 55745),

Gene: AluminumJesus_85 Start: 55033, Stop: 54407, Start Num: 36

Candidate Starts for AluminumJesus_85:

(7, 55375), (8, 55360), (15, 55213), (Start: 36 @55033 has 20 MA's), (37, 55015), (Start: 39 @54994 has 22 MA's), (50, 54904), (61, 54781), (68, 54697), (74, 54676), (85, 54568), (102, 54469), (105, 54445), (106, 54418),

Gene: Apiary_89 Start: 62187, Stop: 62666, Start Num: 39

Candidate Starts for Apiary_89:

(9, 61830), (14, 61974), (33, 62118), (Start: 39 @62187 has 22 MA's), (50, 62250), (56, 62307), (65, 62397), (87, 62556), (92, 62580), (98, 62625),

Gene: BabyDotz_86 Start: 56723, Stop: 56142, Start Num: 39

Candidate Starts for BabyDotz_86:

(7, 57104), (8, 57089), (15, 56942), (Start: 36 @56762 has 20 MA's), (37, 56744), (Start: 39 @56723 has 22 MA's), (45, 56669), (59, 56555), (61, 56507), (68, 56423), (74, 56402), (101, 56204), (102, 56201), (105, 56177), (106, 56153),

Gene: BiPauneto_86 Start: 61366, Stop: 61935, Start Num: 35

Candidate Starts for BiPauneto_86:

(Start: 35 @61366 has 24 MA's), (38, 61399), (56, 61561), (62, 61660), (73, 61702), (94, 61843),

Gene: Blab_85 Start: 55687, Stop: 55070, Start Num: 36

Candidate Starts for Blab_85:

(7, 56029), (8, 56014), (15, 55867), (Start: 36 @55687 has 20 MA's), (37, 55669), (Start: 39 @55648 has 22 MA's), (59, 55483), (61, 55435), (68, 55351), (74, 55330), (101, 55132), (105, 55105), (106, 55081),

Gene: Braxoaddie_89 Start: 62185, Stop: 62655, Start Num: 39

Candidate Starts for Braxoaddie_89:

(4, 61774), (5, 61777), (9, 61828), (14, 61972), (Start: 39 @62185 has 22 MA's), (56, 62305), (65, 62395), (72, 62431), (87, 62554), (92, 62578),

Gene: Buggaboo_86 Start: 63771, Stop: 64322, Start Num: 35

Candidate Starts for Buggaboo_86:

(Start: 35 @63771 has 24 MA's), (50, 63909), (56, 63966), (57, 63969), (58, 63972), (94, 64239), (99, 64284), (100, 64287),

Gene: Casend_89 Start: 56289, Stop: 55672, Start Num: 36

Candidate Starts for Casend_89:

(1, 56835), (2, 56772), (3, 56673), (10, 56595), (11, 56577), (15, 56469), (Start: 36 @56289 has 20 MA's), (37, 56271), (Start: 39 @56250 has 22 MA's), (43, 56223), (53, 56124), (59, 56088), (61, 56040), (68, 55956), (72, 55941), (101, 55737), (105, 55710), (106, 55683),

Gene: CoffeeBean_89 Start: 62131, Stop: 62601, Start Num: 39

Candidate Starts for CoffeeBean_89:

(16, 61930), (33, 62062), (Start: 39 @62131 has 22 MA's), (44, 62167), (55, 62239), (56, 62251), (62, 62326), (65, 62341), (87, 62500), (92, 62524),

Gene: Commonplace_86 Start: 50075, Stop: 49479, Start Num: 39

Candidate Starts for Commonplace_86:

(24, 50213), (26, 50189), (34, 50144), (Start: 39 @50075 has 22 MA's), (50, 49988), (54, 49946), (56, 49931), (59, 49907), (68, 49787), (82, 49673), (86, 49640), (103, 49520), (106, 49490),

Gene: Dalilpop_89 Start: 63669, Stop: 64238, Start Num: 35

Candidate Starts for Dalilpop_89:

(18, 63531), (23, 63573), (27, 63612), (29, 63621), (Start: 35 @63669 has 24 MA's), (38, 63705), (40, 63726), (44, 63750), (49, 63774), (56, 63831), (77, 64032), (80, 64041), (97, 64170),

Gene: Dodo_387 Start: 190410, Stop: 190820, Start Num: 39

Candidate Starts for Dodo_387:

(Start: 39 @190410 has 22 MA's), (51, 190482), (52, 190491), (60, 190563), (62, 190605), (67, 190635),

Gene: Dodo_37 Start: 12210, Stop: 12620, Start Num: 39

Candidate Starts for Dodo_37:

(Start: 39 @12210 has 22 MA's), (51, 12282), (52, 12291), (60, 12363), (62, 12405), (67, 12435),

Gene: DonaldDuck_90 Start: 55641, Stop: 55024, Start Num: 36

Candidate Starts for DonaldDuck_90:

(7, 55983), (8, 55968), (15, 55821), (Start: 36 @55641 has 20 MA's), (37, 55623), (Start: 39 @55602 has 22 MA's), (43, 55575), (53, 55476), (59, 55440), (61, 55392), (68, 55308), (72, 55293), (101, 55089), (105, 55062), (106, 55035),

Gene: E3_gp133 Start: 88048, Stop: 88518, Start Num: 39

Candidate Starts for E3_gp133:

(Start: 39 @88048 has 22 MA's), (50, 88108), (77, 88366), (93, 88465),

Gene: Ennea_92 Start: 63889, Stop: 64464, Start Num: 35

Candidate Starts for Ennea_92:

(Start: 35 @63889 has 24 MA's), (38, 63925), (42, 63958), (50, 64030), (58, 64090), (62, 64174), (68, 64210), (69, 64213), (76, 64237), (89, 64369), (94, 64393),

Gene: EverythinBagel_88 Start: 55436, Stop: 54819, Start Num: 36

Candidate Starts for EverythinBagel_88:

(7, 55778), (8, 55763), (15, 55616), (Start: 36 @55436 has 20 MA's), (37, 55418), (Start: 39 @55397 has 22 MA's), (43, 55370), (53, 55271), (59, 55235), (61, 55187), (68, 55103), (72, 55088), (101, 54884), (105, 54857), (106, 54830),

Gene: Fizzles_86 Start: 55139, Stop: 54552, Start Num: 39

Candidate Starts for Fizzles_86:

(Start: 39 @55139 has 22 MA's), (41, 55121), (61, 54926), (63, 54875), (68, 54842), (102, 54614), (105, 54590), (106, 54563),

Gene: Flapper_89 Start: 63538, Stop: 64107, Start Num: 35

Candidate Starts for Flapper_89:

(27, 63490), (29, 63499), (Start: 35 @63538 has 24 MA's), (40, 63595), (44, 63619), (56, 63700), (71, 63832), (77, 63901), (97, 64039),

Gene: Float294_86 Start: 63789, Stop: 64358, Start Num: 35

Candidate Starts for Float294_86:

(Start: 35 @63789 has 24 MA's), (42, 63858), (48, 63918), (50, 63927), (56, 63981), (58, 63987), (62, 64071), (68, 64107), (69, 64110), (76, 64134), (89, 64263), (94, 64287),

Gene: Fork_116 Start: 60897, Stop: 60511, Start Num: 39

Candidate Starts for Fork_116:

(Start: 39 @60897 has 22 MA's), (47, 60840), (52, 60816), (60, 60741), (62, 60699), (64, 60693), (65, 60684), (81, 60588),

Gene: Fork_4 Start: 1906, Stop: 1520, Start Num: 39

Candidate Starts for Fork_4:

(Start: 39 @1906 has 22 MA's), (47, 1849), (52, 1825), (60, 1750), (62, 1708), (64, 1702), (65, 1693), (81, 1597),

Gene: FrankDeliGuy_88 Start: 55967, Stop: 55350, Start Num: 36

Candidate Starts for FrankDeliGuy_88:

(1, 56513), (2, 56450), (3, 56351), (10, 56273), (11, 56255), (15, 56147), (Start: 36 @55967 has 20 MA's), (37, 55949), (Start: 39 @55928 has 22 MA's), (43, 55901), (53, 55802), (59, 55766), (61, 55718), (68, 55634), (72, 55619), (101, 55415), (105, 55388), (106, 55361),

Gene: Fury_93 Start: 61531, Stop: 62052, Start Num: 35

Candidate Starts for Fury_93:

(13, 61261), (17, 61375), (20, 61408), (Start: 35 @61531 has 24 MA's), (64, 61783), (73, 61819), (94, 61975),

Gene: GRU1_75 Start: 55116, Stop: 55685, Start Num: 35

Candidate Starts for GRU1_75:

(Start: 35 @55116 has 24 MA's), (40, 55173), (44, 55197), (49, 55221), (56, 55278), (65, 55389), (77, 55479), (89, 55563), (97, 55617), (99, 55626),

Gene: GTE5_74 Start: 56009, Stop: 56578, Start Num: 35

Candidate Starts for GTE5_74:

(18, 55871), (23, 55913), (27, 55952), (29, 55961), (Start: 35 @56009 has 24 MA's), (38, 56045), (40, 56066), (44, 56090), (56, 56171), (77, 56372), (89, 56456), (97, 56510),

Gene: Gazebo_87 Start: 55572, Stop: 54985, Start Num: 39

Candidate Starts for Gazebo_87:

(7, 55953), (8, 55938), (15, 55791), (Start: 36 @55611 has 20 MA's), (37, 55593), (Start: 39 @55572 has 22 MA's), (61, 55362), (66, 55293), (68, 55278), (76, 55251), (102, 55047), (105, 55023), (106, 54996),

Gene: Grassboy_93 Start: 56536, Stop: 55916, Start Num: 36

Candidate Starts for Grassboy_93:

(7, 56878), (8, 56863), (15, 56716), (Start: 36 @56536 has 20 MA's), (37, 56518), (Start: 39 @56497 has 22 MA's), (50, 56407), (61, 56284), (68, 56200), (74, 56179), (101, 55981), (102, 55978), (105, 55954), (106, 55927),

Gene: GuyFagieri_87 Start: 61764, Stop: 62234, Start Num: 39

Candidate Starts for GuyFagieri_87:

(33, 61695), (Start: 39 @61764 has 22 MA's), (56, 61884), (65, 61974), (70, 62001), (92, 62157), (95, 62172), (96, 62181), (98, 62202),

Gene: HubbaBubba_77 Start: 57693, Stop: 58262, Start Num: 35
Candidate Starts for HubbaBubba_77:
(Start: 35 @57693 has 24 MA's), (38, 57726), (56, 57888), (73, 58029), (91, 58152),

Gene: Hyperion_87 Start: 55730, Stop: 55104, Start Num: 36
Candidate Starts for Hyperion_87:
(3, 56114), (10, 56036), (15, 55910), (Start: 36 @55730 has 20 MA's), (37, 55712), (Start: 39 @55691 has 22 MA's), (43, 55664), (53, 55565), (59, 55529), (61, 55481), (66, 55412), (68, 55397), (69, 55394), (102, 55166), (105, 55142), (106, 55115),

Gene: IDyn_79 Start: 58347, Stop: 58916, Start Num: 35
Candidate Starts for IDyn_79:
(Start: 35 @58347 has 24 MA's), (38, 58380), (56, 58542), (62, 58641), (73, 58683), (94, 58824), (97, 58860),

Gene: Issa7_118 Start: 61084, Stop: 60686, Start Num: 39
Candidate Starts for Issa7_118:
(21, 61243), (28, 61180), (31, 61165), (Start: 39 @61084 has 22 MA's), (56, 60961), (60, 60928), (64, 60880), (78, 60784), (79, 60781), (84, 60748),

Gene: Issa7_4 Start: 1926, Stop: 1528, Start Num: 39
Candidate Starts for Issa7_4:
(21, 2085), (28, 2022), (31, 2007), (Start: 39 @1926 has 22 MA's), (56, 1803), (60, 1770), (64, 1722), (78, 1626), (79, 1623), (84, 1590),

Gene: Jehoshaphat_90 Start: 56275, Stop: 55658, Start Num: 36
Candidate Starts for Jehoshaphat_90:
(7, 56617), (8, 56602), (15, 56455), (Start: 36 @56275 has 20 MA's), (37, 56257), (Start: 39 @56236 has 22 MA's), (59, 56071), (61, 56023), (68, 55939), (74, 55918), (101, 55720), (102, 55717), (105, 55693), (106, 55669),

Gene: Judebell_88 Start: 55721, Stop: 55104, Start Num: 36
Candidate Starts for Judebell_88:
(3, 56105), (11, 56009), (15, 55901), (Start: 36 @55721 has 20 MA's), (37, 55703), (Start: 39 @55682 has 22 MA's), (43, 55655), (53, 55556), (59, 55520), (61, 55472), (68, 55388), (72, 55373), (101, 55169), (105, 55142), (106, 55115),

Gene: Kyva_92 Start: 56542, Stop: 55940, Start Num: 37
Candidate Starts for Kyva_92:
(7, 56902), (8, 56887), (15, 56740), (Start: 36 @56560 has 20 MA's), (37, 56542), (Start: 39 @56521 has 22 MA's), (50, 56431), (61, 56308), (68, 56224), (74, 56203), (101, 56005), (102, 56002), (105, 55978), (106, 55951),

Gene: Llemily_90 Start: 55336, Stop: 54719, Start Num: 36
Candidate Starts for Llemily_90:
(7, 55678), (8, 55663), (15, 55516), (Start: 36 @55336 has 20 MA's), (37, 55318), (Start: 39 @55297 has 22 MA's), (43, 55270), (53, 55171), (59, 55135), (61, 55087), (68, 55003), (72, 54988), (101, 54784), (105, 54757), (106, 54730),

Gene: Lollipop1437_87 Start: 63571, Stop: 64140, Start Num: 35
Candidate Starts for Lollipop1437_87:
(Start: 35 @63571 has 24 MA's), (38, 63607), (42, 63640), (48, 63703), (50, 63712), (56, 63766), (58, 63772), (62, 63856), (68, 63892), (69, 63895), (89, 64045), (90, 64048), (94, 64069),

Gene: Lonelysoil_86 Start: 55090, Stop: 54473, Start Num: 36

Candidate Starts for Lonelysoil_86:

(7, 55432), (8, 55417), (15, 55270), (Start: 36 @55090 has 20 MA's), (37, 55072), (Start: 39 @55051 has 22 MA's), (50, 54961), (61, 54838), (68, 54754), (74, 54733), (101, 54535), (102, 54532), (105, 54508), (106, 54484),

Gene: Lyell_121 Start: 61268, Stop: 60801, Start Num: 32

Candidate Starts for Lyell_121:

(Start: 32 @61268 has 2 MA's), (Start: 39 @61199 has 22 MA's), (56, 61076), (60, 61043), (64, 60995), (65, 60986), (79, 60896),

Gene: Lyell_6 Start: 2101, Stop: 1634, Start Num: 32

Candidate Starts for Lyell_6:

(Start: 32 @2101 has 2 MA's), (Start: 39 @2032 has 22 MA's), (56, 1909), (60, 1876), (64, 1828), (65, 1819), (79, 1729),

Gene: Marietta_83 Start: 59020, Stop: 59589, Start Num: 35

Candidate Starts for Marietta_83:

(Start: 35 @59020 has 24 MA's), (38, 59053), (56, 59215), (62, 59314), (73, 59356), (99, 59542),

Gene: Maselop_89 Start: 62196, Stop: 62666, Start Num: 39

Candidate Starts for Maselop_89:

(9, 61839), (14, 61983), (Start: 39 @62196 has 22 MA's), (56, 62316), (65, 62406), (72, 62442), (87, 62565), (92, 62589),

Gene: Mashley_87 Start: 55723, Stop: 55136, Start Num: 39

Candidate Starts for Mashley_87:

(7, 56104), (8, 56089), (15, 55942), (37, 55744), (Start: 39 @55723 has 22 MA's), (59, 55561), (61, 55513), (102, 55198), (105, 55174), (106, 55147),

Gene: Mentos_92 Start: 56730, Stop: 56113, Start Num: 36

Candidate Starts for Mentos_92:

(7, 57072), (8, 57057), (15, 56910), (Start: 36 @56730 has 20 MA's), (37, 56712), (Start: 39 @56691 has 22 MA's), (59, 56526), (61, 56478), (68, 56394), (74, 56373), (101, 56175), (102, 56172), (105, 56148), (106, 56124),

Gene: MerCougar_86 Start: 63955, Stop: 64506, Start Num: 35

Candidate Starts for MerCougar_86:

(Start: 35 @63955 has 24 MA's), (58, 64156), (62, 64240), (71, 64276), (90, 64402), (94, 64423), (99, 64468),

Gene: MorillMayhem_88 Start: 56170, Stop: 55547, Start Num: 36

Candidate Starts for MorillMayhem_88:

(Start: 36 @56170 has 20 MA's), (37, 56152), (Start: 39 @56131 has 22 MA's), (45, 56077), (59, 55963), (61, 55915), (68, 55831), (74, 55810), (101, 55612), (105, 55585), (106, 55558),

Gene: NadineRae_83 Start: 58857, Stop: 59435, Start Num: 35

Candidate Starts for NadineRae_83:

(19, 58734), (Start: 35 @58857 has 24 MA's), (38, 58890), (56, 59052), (62, 59160), (73, 59202), (75, 59208), (94, 59343), (104, 59427),

Gene: Namago_90 Start: 55783, Stop: 55202, Start Num: 39

Candidate Starts for Namago_90:

(7, 56164), (8, 56149), (15, 56002), (Start: 36 @55822 has 20 MA's), (37, 55804), (Start: 39 @55783 has 22 MA's), (50, 55693), (61, 55570), (68, 55486), (74, 55465), (101, 55267), (102, 55264), (105, 55240), (106, 55213),

Gene: Nike_86 Start: 55945, Stop: 55319, Start Num: 36

Candidate Starts for Nike_86:

(3, 56329), (10, 56251), (15, 56125), (Start: 36 @55945 has 20 MA's), (37, 55927), (Start: 39 @55906 has 22 MA's), (45, 55852), (59, 55738), (61, 55690), (101, 55381), (102, 55378), (105, 55354), (106, 55330),

Gene: Nonagon_84 Start: 49574, Stop: 48978, Start Num: 39

Candidate Starts for Nonagon_84:

(24, 49712), (26, 49688), (34, 49643), (Start: 39 @49574 has 22 MA's), (50, 49487), (54, 49445), (56, 49430), (59, 49406), (68, 49286), (82, 49172), (86, 49139), (103, 49019), (106, 48989),

Gene: NosilaM_84 Start: 62812, Stop: 63363, Start Num: 35

Candidate Starts for NosilaM_84:

(Start: 35 @62812 has 24 MA's), (56, 63007), (57, 63010), (58, 63013), (65, 63112), (94, 63280),

Gene: Outis_84 Start: 63228, Stop: 63779, Start Num: 35

Candidate Starts for Outis_84:

(Start: 35 @63228 has 24 MA's), (56, 63423), (58, 63429), (62, 63513), (71, 63549), (94, 63696), (99, 63741),

Gene: Patio_85 Start: 62788, Stop: 63357, Start Num: 35

Candidate Starts for Patio_85:

(25, 62725), (Start: 35 @62788 has 24 MA's), (38, 62824), (42, 62857), (48, 62917), (50, 62926), (58, 62986), (62, 63070), (68, 63106), (76, 63133), (89, 63262), (94, 63286),

Gene: PauloDiaboli_36 Start: 12203, Stop: 12613, Start Num: 39

Candidate Starts for PauloDiaboli_36:

(Start: 39 @12203 has 22 MA's), (51, 12275), (52, 12284), (60, 12356), (62, 12398), (67, 12428),

Gene: PauloDiaboli_391 Start: 188832, Stop: 189242, Start Num: 39

Candidate Starts for PauloDiaboli_391:

(Start: 39 @188832 has 22 MA's), (51, 188904), (52, 188913), (60, 188985), (62, 189027), (67, 189057),

Gene: Phabia_88 Start: 55664, Stop: 55074, Start Num: 39

Candidate Starts for Phabia_88:

(3, 56087), (10, 56009), (15, 55883), (Start: 36 @55703 has 20 MA's), (37, 55685), (Start: 39 @55664 has 22 MA's), (55, 55529), (61, 55451), (66, 55382), (68, 55367), (76, 55340), (102, 55136), (105, 55112), (106, 55085),

Gene: Phinky_94 Start: 57591, Stop: 56962, Start Num: 36

Candidate Starts for Phinky_94:

(Start: 36 @57591 has 20 MA's), (Start: 39 @57552 has 22 MA's), (59, 57387), (61, 57339), (66, 57270), (68, 57255), (86, 57123), (102, 57024), (105, 57000), (106, 56973),

Gene: Pleakley_93 Start: 61532, Stop: 62053, Start Num: 35

Candidate Starts for Pleakley_93:

(13, 61262), (17, 61376), (20, 61409), (Start: 35 @61532 has 24 MA's), (64, 61784), (73, 61820), (94, 61976),

Gene: Polyuyki_88 Start: 62206, Stop: 62676, Start Num: 39

Candidate Starts for Polyuyki_88:

(9, 61849), (14, 61993), (Start: 39 @62206 has 22 MA's), (56, 62326), (65, 62416), (72, 62452), (87, 62575), (92, 62599),

Gene: Quammi_87 Start: 55442, Stop: 54828, Start Num: 36

Candidate Starts for Quammi_87:

(Start: 36 @55442 has 20 MA's), (37, 55424), (Start: 39 @55403 has 22 MA's), (43, 55376), (53, 55277), (59, 55241), (61, 55193), (68, 55109), (72, 55094), (101, 54890), (105, 54863), (106, 54839),

Gene: RedRaider_90 Start: 64988, Stop: 65569, Start Num: 35

Candidate Starts for RedRaider_90:

(Start: 35 @64988 has 24 MA's), (38, 65024), (48, 65120), (50, 65129), (56, 65183), (58, 65189), (62, 65273), (68, 65309), (69, 65312), (90, 65477), (93, 65495),

Gene: Rowlf_85 Start: 55483, Stop: 54866, Start Num: 36

Candidate Starts for Rowlf_85:

(7, 55825), (8, 55810), (15, 55663), (Start: 36 @55483 has 20 MA's), (37, 55465), (Start: 39 @55444 has 22 MA's), (43, 55417), (53, 55318), (59, 55282), (61, 55234), (68, 55150), (72, 55135), (101, 54931), (105, 54904), (106, 54877),

Gene: Rudy_86 Start: 55442, Stop: 54864, Start Num: 39

Candidate Starts for Rudy_86:

(7, 55823), (8, 55808), (15, 55661), (Start: 36 @55481 has 20 MA's), (37, 55463), (Start: 39 @55442 has 22 MA's), (50, 55352), (61, 55229), (68, 55145), (74, 55124), (101, 54926), (105, 54899), (106, 54875),

Gene: SallyK_90 Start: 56639, Stop: 56022, Start Num: 36

Candidate Starts for SallyK_90:

(7, 56981), (8, 56966), (15, 56819), (Start: 36 @56639 has 20 MA's), (37, 56621), (Start: 39 @56600 has 22 MA's), (59, 56435), (61, 56387), (68, 56303), (74, 56282), (101, 56084), (102, 56081), (105, 56057), (106, 56033),

Gene: Scuba_96 Start: 61876, Stop: 62385, Start Num: 35

Candidate Starts for Scuba_96:

(Start: 35 @61876 has 24 MA's), (62, 62110), (73, 62152), (76, 62161), (83, 62239), (94, 62308),

Gene: Sillytadpoles_91 Start: 55324, Stop: 54707, Start Num: 36

Candidate Starts for Sillytadpoles_91:

(7, 55666), (8, 55651), (15, 55504), (Start: 36 @55324 has 20 MA's), (37, 55306), (Start: 39 @55285 has 22 MA's), (43, 55258), (53, 55159), (59, 55123), (61, 55075), (68, 54991), (72, 54976), (101, 54772), (105, 54745), (106, 54718),

Gene: Skysand_89 Start: 63735, Stop: 64307, Start Num: 35

Candidate Starts for Skysand_89:

(Start: 35 @63735 has 24 MA's), (38, 63771), (42, 63804), (50, 63876), (58, 63936), (78, 64137), (89, 64212), (94, 64236),

Gene: Squash_91 Start: 56332, Stop: 55700, Start Num: 36

Candidate Starts for Squash_91:

(3, 56716), (10, 56638), (15, 56512), (Start: 36 @56332 has 20 MA's), (37, 56314), (Start: 39 @56293 has 22 MA's), (45, 56239), (59, 56125), (61, 56077), (86, 55861), (102, 55762), (105, 55738), (106, 55711),

Gene: StarStruck_84 Start: 63228, Stop: 63779, Start Num: 35

Candidate Starts for StarStruck_84:

(Start: 35 @63228 has 24 MA's), (56, 63423), (58, 63429), (62, 63513), (71, 63549), (94, 63696), (99, 63741),

Gene: Statler_93 Start: 56052, Stop: 55474, Start Num: 39

Candidate Starts for Statler_93:

(3, 56475), (10, 56397), (11, 56379), (15, 56271), (Start: 36 @56091 has 20 MA's), (37, 56073), (Start: 39 @56052 has 22 MA's), (59, 55887), (61, 55839), (68, 55755), (74, 55734), (101, 55536), (102, 55533), (105, 55509), (106, 55485),

Gene: StrawberryJamm_94 Start: 55626, Stop: 55009, Start Num: 36

Candidate Starts for StrawberryJamm_94:

(3, 56010), (10, 55932), (15, 55806), (Start: 36 @55626 has 20 MA's), (37, 55608), (Start: 39 @55587 has 22 MA's), (43, 55560), (53, 55461), (59, 55425), (61, 55377), (68, 55293), (72, 55278), (101, 55074), (102, 55071), (105, 55047), (106, 55020),

Gene: Sukkupi_83 Start: 60734, Stop: 61303, Start Num: 35

Candidate Starts for Sukkupi_83:

(4, 60362), (6, 60377), (12, 60464), (22, 60629), (30, 60698), (Start: 35 @60734 has 24 MA's), (56, 60929), (62, 61028), (73, 61070), (104, 61295),

Gene: Teehee_89 Start: 56272, Stop: 55655, Start Num: 36

Candidate Starts for Teehee_89:

(7, 56614), (8, 56599), (15, 56452), (Start: 36 @56272 has 20 MA's), (37, 56254), (Start: 39 @56233 has 22 MA's), (59, 56068), (61, 56020), (68, 55936), (74, 55915), (101, 55717), (102, 55714), (105, 55690), (106, 55666),

Gene: Tissue_88 Start: 55980, Stop: 55354, Start Num: 36

Candidate Starts for Tissue_88:

(7, 56322), (8, 56307), (15, 56160), (Start: 36 @55980 has 20 MA's), (37, 55962), (Start: 39 @55941 has 22 MA's), (45, 55887), (59, 55773), (61, 55725), (101, 55416), (102, 55413), (105, 55389), (106, 55365),

Gene: Trogglehumper_116 Start: 78341, Stop: 77916, Start Num: 39

Candidate Starts for Trogglehumper_116:

(Start: 39 @78341 has 22 MA's), (50, 78278), (56, 78221), (68, 78104), (70, 78098), (88, 77960),

Gene: Turuncu_89 Start: 63164, Stop: 63733, Start Num: 35

Candidate Starts for Turuncu_89:

(27, 63107), (29, 63116), (Start: 35 @63164 has 24 MA's), (44, 63245), (56, 63326), (89, 63611), (97, 63665),

Gene: Viceroy_86 Start: 55263, Stop: 54649, Start Num: 36

Candidate Starts for Viceroy_86:

(Start: 36 @55263 has 20 MA's), (37, 55245), (Start: 39 @55224 has 22 MA's), (43, 55197), (53, 55098), (59, 55062), (61, 55014), (68, 54930), (72, 54915), (101, 54711), (105, 54684), (106, 54660),

Gene: Wayne3_90 Start: 56272, Stop: 55643, Start Num: 36

Candidate Starts for Wayne3_90:

(3, 56656), (10, 56578), (15, 56452), (Start: 36 @56272 has 20 MA's), (37, 56254), (Start: 39 @56233 has 22 MA's), (55, 56098), (61, 56020), (66, 55951), (68, 55936), (76, 55909), (102, 55705), (105, 55681), (106, 55654),

Gene: Wheelie_88 Start: 55593, Stop: 54964, Start Num: 36

Candidate Starts for Wheelie_88:

(3, 55977), (10, 55899), (15, 55773), (Start: 36 @55593 has 20 MA's), (37, 55575), (Start: 39 @55554 has 22 MA's), (55, 55419), (61, 55341), (66, 55272), (68, 55257), (76, 55230), (102, 55026), (105, 55002), (106, 54975),

Gene: WhoseManz_83 Start: 58680, Stop: 59249, Start Num: 35

Candidate Starts for WhoseManz_83:

(Start: 35 @58680 has 24 MA's), (38, 58713), (56, 58875), (62, 58974), (73, 59016), (99, 59202),

Gene: Yndexa_83 Start: 60734, Stop: 61303, Start Num: 35

Candidate Starts for Yndexa_83:

(4, 60362), (6, 60377), (12, 60464), (22, 60629), (30, 60698), (Start: 35 @60734 has 24 MA's), (56, 60929), (62, 61028), (73, 61070), (104, 61295),

Gene: Zagie_90 Start: 56084, Stop: 55467, Start Num: 36

Candidate Starts for Zagie_90:

(7, 56426), (8, 56411), (15, 56264), (Start: 36 @56084 has 20 MA's), (37, 56066), (Start: 39 @56045 has 22 MA's), (43, 56018), (53, 55919), (59, 55883), (61, 55835), (68, 55751), (72, 55736), (101, 55532), (105, 55505), (106, 55478),

Gene: Zhafia_94 Start: 56118, Stop: 55501, Start Num: 36

Candidate Starts for Zhafia_94:

(7, 56460), (8, 56445), (15, 56298), (Start: 36 @56118 has 20 MA's), (37, 56100), (Start: 39 @56079 has 22 MA's), (43, 56052), (53, 55953), (59, 55917), (61, 55869), (68, 55785), (72, 55770), (101, 55566), (105, 55539), (106, 55512),