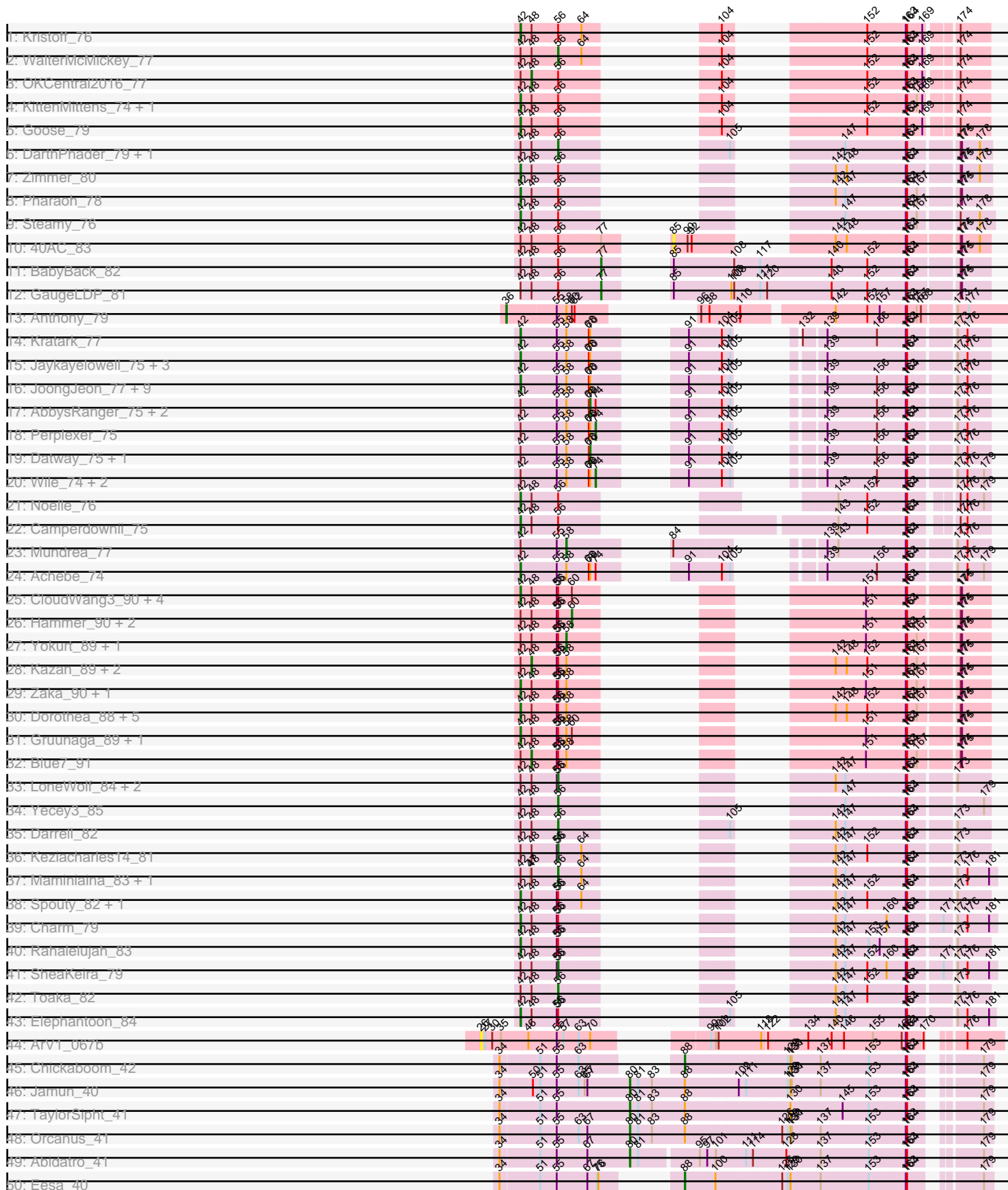
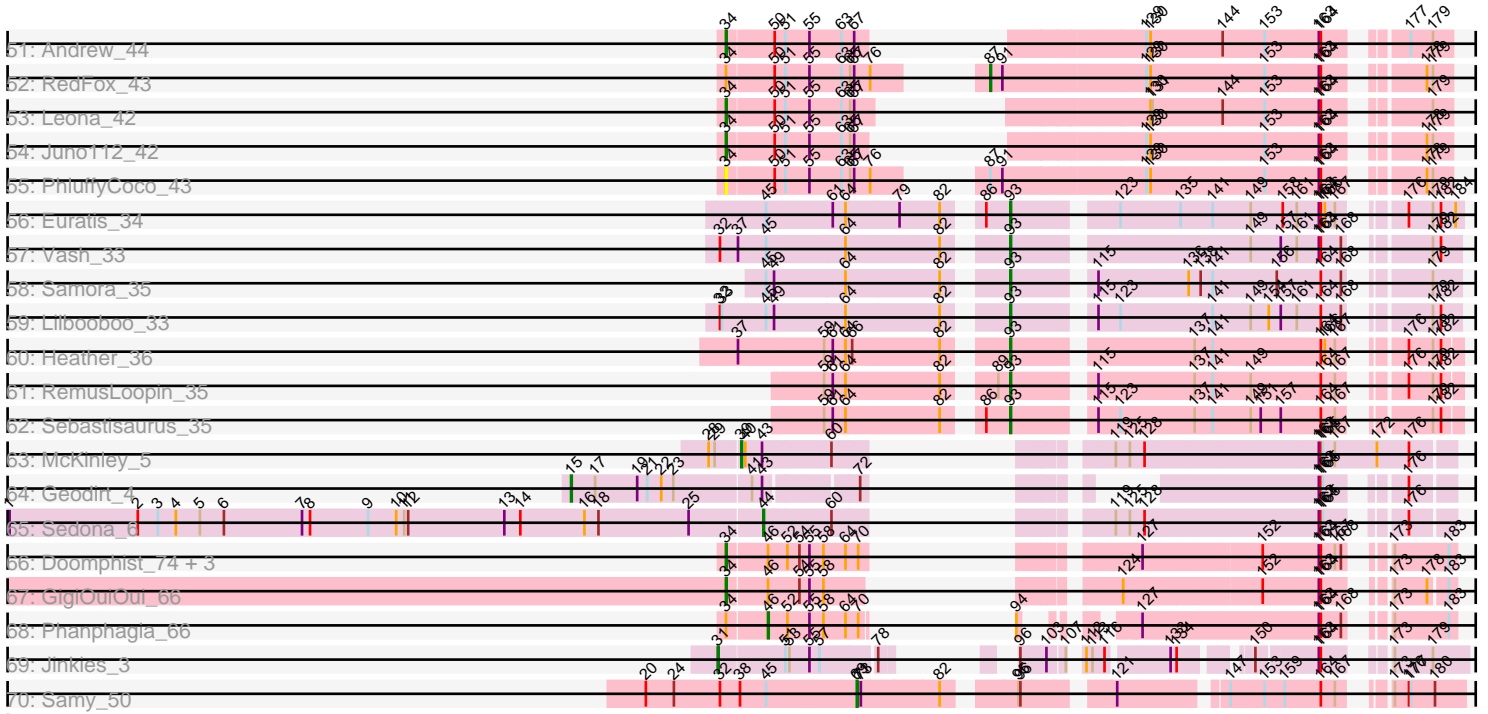


Pham 192447



Pham 192447



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 192447 Report

This analysis was run 11/02/24 on database version 579.

Pham number 192447 has 112 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Kristoff_76
- Track 2 : WalterMcMickey_77
- Track 3 : OKCentral2016_77
- Track 4 : KittenMittens_74, Drake94_75
- Track 5 : Goose_79
- Track 6 : DarthPhader_79, Refuge_81
- Track 7 : Zimmer_80
- Track 8 : Pharaoh_78
- Track 9 : Steamy_76
- Track 10 : 40AC_83
- Track 11 : BabyBack_82
- Track 12 : GaugeLDP_81
- Track 13 : Anthony_79
- Track 14 : Kratak_77
- Track 15 : Jaykayelowell_75, Florean_78, Bruiser_77, TinaFeyge_76
- Track 16 : JoongJeon_77, Clarenza_77, BubbleTrouble_77, KFPoly_77, Palestino_77, Albee_78, Thanksgivukkah_77, LittleB_78, Eris_77, Funston_77
- Track 17 : AbbysRanger_75, PetiteSangsue_75, Backyardigan_73
- Track 18 : Perplexer_75
- Track 19 : Datway_75, Xena_74
- Track 20 : Wile_74, Wizard007_75, Katalie136_75
- Track 21 : Noelle_76
- Track 22 : Camperdownii_75
- Track 23 : Mundrea_77
- Track 24 : Achebe_74
- Track 25 : CloudWang3_90, Roksolana_90, Hexamo_89, Rifter_90, Artemis2UCLA_89
- Track 26 : Hammer_90, ToneTone_87, Tucker_90
- Track 27 : Yokurt_89, Koko_91
- Track 28 : Kazan_89, SmellyB_88, Cookiedough_88
- Track 29 : Zaka_90, Wiks_89
- Track 30 : Dorothea_88, Hoot_83, Jordennis_86, Isiphiwo_84, BABullseye_81, JewelBug_80
- Track 31 : Gruunaga_89, Gladiator_86
- Track 32 : Blue7_91
- Track 33 : LoneWolf_84, Vanisoa_79, Arissanae_79
- Track 34 : Yecey3_85

- Track 35 : Darrell_82
- Track 36 : Keziacharles14_81
- Track 37 : Maminiaina_83, BogosyJay_83
- Track 38 : Spouty_82, Priya_82
- Track 39 : Charm_79
- Track 40 : Rahalelujah_83
- Track 41 : SheaKeira_79
- Track 42 : Toaka_82
- Track 43 : Elephantoon_84
- Track 44 : ArV1_067b
- Track 45 : Chickaboom_42
- Track 46 : Jamun_40
- Track 47 : TaylorSipht_41
- Track 48 : Orcanus_41
- Track 49 : Abidatro_41
- Track 50 : Eesa_40
- Track 51 : Andrew_44
- Track 52 : RedFox_43
- Track 53 : Leona_42
- Track 54 : Juno112_42
- Track 55 : PhluffyCoco_43
- Track 56 : Euratis_34
- Track 57 : Vash_33
- Track 58 : Samora_35
- Track 59 : Lilbooboo_33
- Track 60 : Heather_36
- Track 61 : RemusLoopin_35
- Track 62 : Sebastisaurus_35
- Track 63 : McKinley_5
- Track 64 : Geodirt_4
- Track 65 : Sedona_6
- Track 66 : Doomphist_74, Poenanya_74, RedBird_72, Empress_69
- Track 67 : GigiOuiOui_66
- Track 68 : Phanphagia_66
- Track 69 : Jinkies_3
- Track 70 : Samy_50

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

The start number called the most often in the published annotations is 42, it was called in 45 of the 109 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Achebe_74, Albee_78, Artemis2UCLA_89, BABullseye_81, Bruiser_77, BubbleTrouble_77, Camperdownii_75, Charm_79, Clarenza_77, CloudWang3_90, Dorothea_88, Drake94_75, Elephantoon_84, Eris_77, Florean_78, Funston_77, Gladiator_86, Goose_79, Gruunaga_89, Hexamo_89, Hoot_83, Isiphiwo_84, Jaykayelowell_75, JewelBug_80, JoongJeon_77, Jordennis_86, KFPoly_77, KittenMittens_74, Kratark_77, Kristoff_76, LittleB_78, Noelle_76, Palestino_77, Pharaoh_78, Priya_82, Rahalelujah_83, Rifter_90, Roksolana_90, Spouty_82,

Steamy_76, Thanksgivukkah_77, TinaFeyge_76, Wiks_89, Zaka_90, Zimmer_80,

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

- 40AC_83, AbbysRanger_75, Arissanae_79, BabyBack_82, Backyardigan_73, Blue7_91, BogosyJay_83, Cookiedough_88, Darrell_82, DarthPhader_79, Datway_75, GaugeLDP_81, Hammer_90, Katalie136_75, Kazan_89, Keziacharles14_81, Koko_91, LoneWolf_84, Maminiaina_83, Mundrea_77, OKCentral2016_77, Perplexer_75, PetiteSangsue_75, Refuge_81, SheaKeira_79, SmellyB_88, Toaka_82, ToneTone_87, Tucker_90, Vanisoa_79, WalterMcMickey_77, Wile_74, Wizard007_75, Xena_74, Yecey3_85, Yokurt_89,

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

- Abidatro_41, Andrew_44, Anthony_79, ArV1_067b, Chickaboom_42, Doomphist_74, Eesa_40, Empress_69, Euratis_34, Geodirt_4, GigiOuiOui_66, Heather_36, Jamun_40, Jinkies_3, Juno112_42, Leona_42, Lilbooboo_33, McKinley_5, Orcanus_41, Phanphagia_66, PhluffyCoco_43, Poenanya_74, RedBird_72, RedFox_43, RemusLoopin_35, Samora_35, Samy_50, Sebastisaurus_35, Sedona_6, TaylorSipht_41, Vash_33,

Summary by start number:

Start 15:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Geodirt_4 (DE1),

Start 26:

- Found in 1 of 112 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV1_067b (AR),

Start 31:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jinkies_3 (FL),

Start 34:

- Found in 17 of 112 (15.2%) of genes in pham
- Manual Annotations of this start: 8 of 109
- Called 52.9% of time when present
- Phage (with cluster) where this start called: Andrew_44 (AS3), Doomphist_74 (F1), Empress_69 (F1), GigiOuiOui_66 (F1), Juno112_42 (AS3), Leona_42 (AS3), PhluffyCoco_43 (AS3), Poenanya_74 (F1), RedBird_72 (F1),

Start 36:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony_79 (A20),

Start 39:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: McKinley_5 (DE1),

Start 42:

- Found in 81 of 112 (72.3%) of genes in pham
- Manual Annotations of this start: 45 of 109
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Achebe_74 (A4), Albee_78 (A4), Artemis2UCLA_89 (A6), BABullseye_81 (A6), Bruiser_77 (A4), BubbleTrouble_77 (A4), Camperdownii_75 (A4), Charm_79 (A9), Clarenza_77 (A4), CloudWang3_90 (A6), Dorothea_88 (A6), Drake94_75 (A10), Elephantoon_84 (A9), Eris_77 (A4), Florean_78 (A4), Funston_77 (A4), Gladiator_86 (A6), Goose_79 (A10), Gruunaga_89 (A6), Hexamo_89 (A6), Hoot_83 (A6), Isiphiwo_84 (A6), Jaykayelowell_75 (A4), JewelBug_80 (A6), JoongJeon_77 (A4), Jordennis_86 (A6), KFPoly_77 (A4), KittenMittens_74 (A10), Kratak_77 (A4), Kristoff_76 (A10), LittleB_78 (A4), Noelle_76 (A4), Palestino_77 (A4), Pharaoh_78 (A12), Priya_82 (A9), Rahalelujah_83 (A9), Rifter_90 (A6), Roksolana_90 (A6), Spouty_82 (A9), Steamy_76 (A12), Thanksgivukkah_77 (A4), TinaFeyge_76 (A4), Wiks_89 (A6), Zaka_90 (A6), Zimmer_80 (A12),

Start 44:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sedona_6 (DE1),

Start 46:

- Found in 7 of 112 (6.2%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Phanphagia_66 (F1),

Start 48:

- Found in 55 of 112 (49.1%) of genes in pham
- Manual Annotations of this start: 5 of 109
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Blue7_91 (A6), Cookiedough_88 (A6), Kazan_89 (A6), OKCentral2016_77 (A10), SmellyB_88 (A6),

Start 56:

- Found in 55 of 112 (49.1%) of genes in pham
- Manual Annotations of this start: 13 of 109
- Called 23.6% of time when present
- Phage (with cluster) where this start called: Arissanae_79 (A9), BogosyJay_83 (A9), Darrell_82 (A9), DarthPhader_79 (A12), Keziacharles14_81 (A9), LoneWolf_84 (A9), Maminiaina_83 (A9), Refuge_81 (A12), SheaKeira_79 (A9), Toaka_82 (A9), Vanisoa_79 (A9), WalterMcMickey_77 (A10), Yecy3_85 (A9),

Start 58:

- Found in 49 of 112 (43.8%) of genes in pham

- Manual Annotations of this start: 3 of 109
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Koko_91 (A6), Mundrea_77 (A4), Yokurt_89 (A6),

Start 60:

- Found in 13 of 112 (11.6%) of genes in pham
- Manual Annotations of this start: 3 of 109
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Hammer_90 (A6), ToneTone_87 (A6), Tucker_90 (A6),

Start 69:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samy_50 (singleton),

Start 70:

- Found in 31 of 112 (27.7%) of genes in pham
- Manual Annotations of this start: 5 of 109
- Called 16.1% of time when present
- Phage (with cluster) where this start called: AbbysRanger_75 (A4), Backyardigan_73 (A4), Datway_75 (A4), PetiteSangsue_75 (A4), Xena_74 (A4),

Start 74:

- Found in 8 of 112 (7.1%) of genes in pham
- Manual Annotations of this start: 4 of 109
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Katalie136_75 (A4), Perplexer_75 (A4), Wile_74 (A4), Wizard007_75 (A4),

Start 77:

- Found in 3 of 112 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 109
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BabyBack_82 (A2), GaugeLDP_81 (A2),

Start 80:

- Found in 4 of 112 (3.6%) of genes in pham
- Manual Annotations of this start: 4 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_41 (AS1), Jamun_40 (AS1), Orcanus_41 (AS1), TaylorSipht_41 (AS1),

Start 85:

- Found in 3 of 112 (2.7%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: 40AC_83 (A17),

Start 87:

- Found in 2 of 112 (1.8%) of genes in pham

- Manual Annotations of this start: 1 of 109
- Called 50.0% of time when present
- Phage (with cluster) where this start called: RedFox_43 (AS3),

Start 88:

- Found in 5 of 112 (4.5%) of genes in pham
- Manual Annotations of this start: 2 of 109
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Chickaboom_42 (AS1), Eesa_40 (AS1),

Start 93:

- Found in 7 of 112 (6.2%) of genes in pham
- Manual Annotations of this start: 7 of 109
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Euratis_34 (BB1), Heather_36 (BB2), Lilbooboo_33 (BB1), RemusLoopin_35 (BB2), Samora_35 (BB1), Sebastisaurus_35 (BB2), Vash_33 (BB1),

Summary by clusters:

There are 17 clusters represented in this pham: AS3, F1, A17, AR, A10, A12, DE1, AS1, A20, A2, A4, A6, A9, singleton, FL, BB2, BB1,

Info for manual annotations of cluster A10:

- Start number 42 was manually annotated 4 times for cluster A10.
- Start number 48 was manually annotated 1 time for cluster A10.
- Start number 56 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A12:

- Start number 42 was manually annotated 3 times for cluster A12.
- Start number 56 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A2:

- Start number 77 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 36 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 42 was manually annotated 18 times for cluster A4.
- Start number 58 was manually annotated 1 time for cluster A4.
- Start number 70 was manually annotated 5 times for cluster A4.
- Start number 74 was manually annotated 4 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 42 was manually annotated 15 times for cluster A6.
- Start number 48 was manually annotated 4 times for cluster A6.
- Start number 58 was manually annotated 2 times for cluster A6.
- Start number 60 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 42 was manually annotated 5 times for cluster A9.

- Start number 56 was manually annotated 10 times for cluster A9.

Info for manual annotations of cluster AS1:

- Start number 80 was manually annotated 4 times for cluster AS1.
- Start number 88 was manually annotated 2 times for cluster AS1.

Info for manual annotations of cluster AS3:

- Start number 34 was manually annotated 3 times for cluster AS3.
- Start number 87 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster BB1:

- Start number 93 was manually annotated 4 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 93 was manually annotated 3 times for cluster BB2.

Info for manual annotations of cluster DE1:

- Start number 15 was manually annotated 1 time for cluster DE1.
- Start number 39 was manually annotated 1 time for cluster DE1.
- Start number 44 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster F1:

- Start number 34 was manually annotated 5 times for cluster F1.
- Start number 46 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FL:

- Start number 31 was manually annotated 1 time for cluster FL.

Gene Information:

Gene: 40AC_83 Start: 49035, Stop: 48499, Start Num: 85

Candidate Starts for 40AC_83:

(Start: 42 @49257 has 45 MA's), (Start: 48 @49233 has 5 MA's), (Start: 56 @49176 has 13 MA's), (Start: 77 @49083 has 2 MA's), (85, 49035), (90, 49005), (92, 48996), (142, 48810), (148, 48786), (163, 48663), (164, 48660), (174, 48564), (175, 48561), (178, 48522),

Gene: AbbysRanger_75 Start: 46560, Stop: 45976, Start Num: 70

Candidate Starts for AbbysRanger_75:

(Start: 42 @46710 has 45 MA's), (55, 46632), (Start: 58 @46611 has 3 MA's), (68, 46563), (Start: 70 @46560 has 5 MA's), (Start: 74 @46548 has 4 MA's), (91, 46455), (104, 46383), (105, 46365), (139, 46299), (156, 46194), (163, 46134), (164, 46131), (173, 46044), (176, 46023),

Gene: Abidatro_41 Start: 27763, Stop: 28476, Start Num: 80

Candidate Starts for Abidatro_41:

(Start: 34 @27487 has 8 MA's), (51, 27568), (55, 27604), (67, 27670), (Start: 80 @27763 has 4 MA's), (81, 27781), (95, 27901), (97, 27916), (101, 27934), (111, 28000), (114, 28015), (128, 28087), (137, 28162), (153, 28264), (163, 28339), (164, 28342), (179, 28459),

Gene: Achebe_74 Start: 46689, Stop: 45955, Start Num: 42

Candidate Starts for Achebe_74:

(Start: 42 @46689 has 45 MA's), (55, 46611), (Start: 58 @46590 has 3 MA's), (68, 46542), (Start: 70 @46539 has 5 MA's), (Start: 74 @46527 has 4 MA's), (91, 46434), (104, 46362), (105, 46344), (139, 46278), (156, 46173), (163, 46113), (164, 46110), (173, 46023), (176, 46002), (179, 45966),

Gene: Albee_78 Start: 46898, Stop: 46164, Start Num: 42

Candidate Starts for Albee_78:

(Start: 42 @46898 has 45 MA's), (55, 46820), (Start: 58 @46799 has 3 MA's), (68, 46751), (Start: 70 @46748 has 5 MA's), (91, 46643), (104, 46571), (105, 46553), (139, 46487), (156, 46382), (163, 46322), (164, 46319), (173, 46232), (176, 46211),

Gene: Andrew_44 Start: 27053, Stop: 27850, Start Num: 34

Candidate Starts for Andrew_44:

(Start: 34 @27053 has 8 MA's), (50, 27119), (51, 27134), (55, 27170), (63, 27218), (67, 27236), (129, 27452), (130, 27458), (144, 27563), (153, 27626), (163, 27701), (164, 27704), (177, 27788), (179, 27821),

Gene: Anthony_79 Start: 47520, Stop: 46663, Start Num: 36

Candidate Starts for Anthony_79:

(Start: 36 @47520 has 1 MA's), (55, 47415), (Start: 58 @47394 has 3 MA's), (Start: 60 @47382 has 3 MA's), (62, 47376), (96, 47298), (98, 47280), (110, 47214), (142, 47034), (152, 46965), (157, 46941), (163, 46887), (164, 46884), (167, 46863), (168, 46854), (173, 46791), (177, 46767),

Gene: ArV1_067b Start: 51785, Stop: 52711, Start Num: 26

Candidate Starts for ArV1_067b:

(26, 51785), (27, 51794), (30, 51809), (35, 51827), (Start: 46 @51887 has 1 MA's), (55, 51944), (57, 51959), (63, 51992), (Start: 70 @52016 has 5 MA's), (99, 52154), (101, 52163), (102, 52169), (118, 52256), (122, 52265), (134, 52352), (140, 52400), (146, 52424), (155, 52484), (162, 52547), (163, 52556), (164, 52559), (170, 52589), (176, 52634),

Gene: Arissanae_79 Start: 46740, Stop: 46174, Start Num: 56

Candidate Starts for Arissanae_79:

(Start: 42 @46821 has 45 MA's), (Start: 48 @46797 has 5 MA's), (55, 46743), (Start: 56 @46740 has 13 MA's), (142, 46482), (147, 46461), (163, 46335), (164, 46332), (173, 46245),

Gene: Artemis2UCLA_89 Start: 47205, Stop: 46558, Start Num: 42

Candidate Starts for Artemis2UCLA_89:

(Start: 42 @47205 has 45 MA's), (Start: 48 @47181 has 5 MA's), (55, 47127), (Start: 56 @47124 has 13 MA's), (Start: 60 @47094 has 3 MA's), (151, 46800), (163, 46719), (164, 46716), (174, 46623), (175, 46620),

Gene: BABullseye_81 Start: 45537, Stop: 44887, Start Num: 42

Candidate Starts for BABullseye_81:

(Start: 42 @45537 has 45 MA's), (Start: 48 @45513 has 5 MA's), (55, 45459), (Start: 56 @45456 has 13 MA's), (Start: 58 @45438 has 3 MA's), (142, 45198), (148, 45174), (152, 45129), (163, 45051), (164, 45048), (167, 45027), (174, 44952), (175, 44949),

Gene: BabyBack_82 Start: 48998, Stop: 48291, Start Num: 77

Candidate Starts for BabyBack_82:

(Start: 42 @49172 has 45 MA's), (Start: 48 @49148 has 5 MA's), (Start: 56 @49091 has 13 MA's), (Start: 77 @48998 has 2 MA's), (85, 48950), (108, 48821), (117, 48764), (140, 48611), (152, 48533), (163, 48455), (164, 48452), (174, 48356), (175, 48353),

Gene: Backyardigan_73 Start: 46576, Stop: 45992, Start Num: 70

Candidate Starts for Backyardigan_73:

(Start: 42 @46726 has 45 MA's), (55, 46648), (Start: 58 @46627 has 3 MA's), (68, 46579), (Start: 70 @46576 has 5 MA's), (Start: 74 @46564 has 4 MA's), (91, 46471), (104, 46399), (105, 46381), (139, 46315), (156, 46210), (163, 46150), (164, 46147), (173, 46060), (176, 46039),

Gene: Blue7_91 Start: 47412, Stop: 46786, Start Num: 48

Candidate Starts for Blue7_91:

(Start: 42 @47436 has 45 MA's), (Start: 48 @47412 has 5 MA's), (55, 47358), (Start: 56 @47355 has 13 MA's), (Start: 58 @47337 has 3 MA's), (151, 47031), (163, 46950), (164, 46947), (167, 46926), (174, 46851), (175, 46848),

Gene: BogosyJay_83 Start: 46896, Stop: 46318, Start Num: 56

Candidate Starts for BogosyJay_83:

(Start: 42 @46977 has 45 MA's), (47, 46956), (Start: 48 @46953 has 5 MA's), (Start: 56 @46896 has 13 MA's), (64, 46845), (142, 46638), (147, 46617), (163, 46491), (164, 46488), (173, 46401), (176, 46380), (181, 46335),

Gene: Bruiser_77 Start: 46898, Stop: 46164, Start Num: 42

Candidate Starts for Bruiser_77:

(Start: 42 @46898 has 45 MA's), (55, 46820), (Start: 58 @46799 has 3 MA's), (68, 46751), (Start: 70 @46748 has 5 MA's), (91, 46643), (104, 46571), (105, 46553), (139, 46487), (163, 46322), (164, 46319), (173, 46232), (176, 46211),

Gene: BubbleTrouble_77 Start: 46925, Stop: 46191, Start Num: 42

Candidate Starts for BubbleTrouble_77:

(Start: 42 @46925 has 45 MA's), (55, 46847), (Start: 58 @46826 has 3 MA's), (68, 46778), (Start: 70 @46775 has 5 MA's), (91, 46670), (104, 46598), (105, 46580), (139, 46514), (156, 46409), (163, 46349), (164, 46346), (173, 46259), (176, 46238),

Gene: Camperdownii_75 Start: 46323, Stop: 45583, Start Num: 42

Candidate Starts for Camperdownii_75:

(Start: 42 @46323 has 45 MA's), (Start: 48 @46299 has 5 MA's), (Start: 56 @46242 has 13 MA's), (143, 45870), (152, 45807), (163, 45729), (164, 45726), (174, 45645), (176, 45630),

Gene: Charm_79 Start: 46368, Stop: 45709, Start Num: 42

Candidate Starts for Charm_79:

(Start: 42 @46368 has 45 MA's), (Start: 48 @46344 has 5 MA's), (55, 46290), (Start: 56 @46287 has 13 MA's), (142, 46029), (147, 46008), (160, 45921), (163, 45882), (164, 45879), (171, 45813), (173, 45792), (176, 45771), (181, 45726),

Gene: Chickaboom_42 Start: 27783, Stop: 28385, Start Num: 88

Candidate Starts for Chickaboom_42:

(Start: 34 @27504 has 8 MA's), (51, 27585), (55, 27621), (63, 27669), (Start: 88 @27783 has 2 MA's), (129, 27996), (130, 28002), (131, 28005), (137, 28068), (153, 28170), (163, 28245), (164, 28248), (179, 28365),

Gene: Clarenza_77 Start: 46895, Stop: 46161, Start Num: 42

Candidate Starts for Clarenza_77:

(Start: 42 @46895 has 45 MA's), (55, 46817), (Start: 58 @46796 has 3 MA's), (68, 46748), (Start: 70 @46745 has 5 MA's), (91, 46640), (104, 46568), (105, 46550), (139, 46484), (156, 46379), (163, 46319), (164, 46316), (173, 46229), (176, 46208),

Gene: CloudWang3_90 Start: 47734, Stop: 47087, Start Num: 42

Candidate Starts for CloudWang3_90:

(Start: 42 @47734 has 45 MA's), (Start: 48 @47710 has 5 MA's), (55, 47656), (Start: 56 @47653 has 13 MA's), (Start: 60 @47623 has 3 MA's), (151, 47329), (163, 47248), (164, 47245), (174, 47152), (175, 47149),

Gene: Cookiedough_88 Start: 47826, Stop: 47200, Start Num: 48

Candidate Starts for Cookiedough_88:

(Start: 42 @47850 has 45 MA's), (Start: 48 @47826 has 5 MA's), (55, 47772), (Start: 56 @47769 has 13 MA's), (Start: 58 @47751 has 3 MA's), (142, 47511), (148, 47487), (152, 47442), (163, 47364), (164, 47361), (167, 47340), (174, 47265), (175, 47262),

Gene: Darrell_82 Start: 46051, Stop: 45485, Start Num: 56

Candidate Starts for Darrell_82:

(Start: 42 @46132 has 45 MA's), (Start: 48 @46108 has 5 MA's), (Start: 56 @46051 has 13 MA's), (105, 45898), (142, 45793), (147, 45772), (163, 45646), (164, 45643), (173, 45556),

Gene: DARTHPhader_79 Start: 47620, Stop: 47048, Start Num: 56

Candidate Starts for DARTHPhader_79:

(Start: 42 @47701 has 45 MA's), (Start: 48 @47677 has 5 MA's), (Start: 56 @47620 has 13 MA's), (105, 47464), (147, 47338), (163, 47212), (164, 47209), (174, 47116), (175, 47113), (178, 47074),

Gene: Datway_75 Start: 46559, Stop: 45975, Start Num: 70

Candidate Starts for Datway_75:

(Start: 42 @46709 has 45 MA's), (55, 46631), (Start: 58 @46610 has 3 MA's), (68, 46562), (Start: 70 @46559 has 5 MA's), (91, 46454), (104, 46382), (105, 46364), (139, 46298), (156, 46193), (163, 46133), (164, 46130), (173, 46043), (176, 46022),

Gene: Doomphist_74 Start: 45998, Stop: 46735, Start Num: 34

Candidate Starts for Doomphist_74:

(Start: 34 @45998 has 8 MA's), (Start: 46 @46055 has 1 MA's), (52, 46079), (54, 46097), (55, 46112), (Start: 58 @46133 has 3 MA's), (64, 46166), (Start: 70 @46184 has 5 MA's), (127, 46343), (152, 46505), (163, 46583), (164, 46586), (167, 46607), (168, 46616), (173, 46643), (183, 46724),

Gene: Dorothea_88 Start: 47842, Stop: 47192, Start Num: 42

Candidate Starts for Dorothea_88:

(Start: 42 @47842 has 45 MA's), (Start: 48 @47818 has 5 MA's), (55, 47764), (Start: 56 @47761 has 13 MA's), (Start: 58 @47743 has 3 MA's), (142, 47503), (148, 47479), (152, 47434), (163, 47356), (164, 47353), (167, 47332), (174, 47257), (175, 47254),

Gene: Drake94_75 Start: 45844, Stop: 45209, Start Num: 42

Candidate Starts for Drake94_75:

(Start: 42 @45844 has 45 MA's), (Start: 48 @45820 has 5 MA's), (Start: 56 @45763 has 13 MA's), (104, 45628), (152, 45439), (163, 45361), (164, 45358), (167, 45337), (169, 45325), (174, 45271),

Gene: Eesa_40 Start: 28668, Stop: 29270, Start Num: 88

Candidate Starts for Eesa_40:

(Start: 34 @28389 has 8 MA's), (51, 28470), (55, 28506), (67, 28572), (75, 28593), (76, 28596), (Start: 88 @28668 has 2 MA's), (100, 28734), (126, 28869), (129, 28881), (130, 28887), (137, 28953), (153, 29055), (163, 29130), (164, 29133), (179, 29250),

Gene: Elephantoon_84 Start: 46848, Stop: 46192, Start Num: 42

Candidate Starts for Elephantoon_84:

(Start: 42 @46848 has 45 MA's), (Start: 48 @46824 has 5 MA's), (55, 46770), (Start: 56 @46767 has 13 MA's), (105, 46614), (142, 46509), (147, 46488), (163, 46362), (164, 46359), (173, 46272), (176, 46251), (181, 46206),

Gene: Empress_69 Start: 44809, Stop: 45546, Start Num: 34

Candidate Starts for Empress_69:

(Start: 34 @44809 has 8 MA's), (Start: 46 @44866 has 1 MA's), (52, 44890), (54, 44908), (55, 44923), (Start: 58 @44944 has 3 MA's), (64, 44977), (Start: 70 @44995 has 5 MA's), (127, 45154), (152, 45316), (163, 45394), (164, 45397), (167, 45418), (168, 45427), (173, 45454), (183, 45535),

Gene: Eris_77 Start: 46910, Stop: 46176, Start Num: 42

Candidate Starts for Eris_77:

(Start: 42 @46910 has 45 MA's), (55, 46832), (Start: 58 @46811 has 3 MA's), (68, 46763), (Start: 70 @46760 has 5 MA's), (91, 46655), (104, 46583), (105, 46565), (139, 46499), (156, 46394), (163, 46334), (164, 46331), (173, 46244), (176, 46223),

Gene: Euratis_34 Start: 26257, Stop: 26847, Start Num: 93

Candidate Starts for Euratis_34:

(45, 25936), (61, 26032), (64, 26047), (79, 26125), (82, 26185), (86, 26221), (Start: 93 @26257 has 7 MA's), (123, 26392), (135, 26482), (141, 26530), (149, 26587), (158, 26635), (161, 26656), (163, 26686), (164, 26689), (166, 26695), (167, 26710), (176, 26767), (179, 26803), (182, 26815), (184, 26836),

Gene: Florean_78 Start: 46897, Stop: 46163, Start Num: 42

Candidate Starts for Florean_78:

(Start: 42 @46897 has 45 MA's), (55, 46819), (Start: 58 @46798 has 3 MA's), (68, 46750), (Start: 70 @46747 has 5 MA's), (91, 46642), (104, 46570), (105, 46552), (139, 46486), (163, 46321), (164, 46318), (173, 46231), (176, 46210),

Gene: Funston_77 Start: 46895, Stop: 46161, Start Num: 42

Candidate Starts for Funston_77:

(Start: 42 @46895 has 45 MA's), (55, 46817), (Start: 58 @46796 has 3 MA's), (68, 46748), (Start: 70 @46745 has 5 MA's), (91, 46640), (104, 46568), (105, 46550), (139, 46484), (156, 46379), (163, 46319), (164, 46316), (173, 46229), (176, 46208),

Gene: GaugeLDP_81 Start: 48551, Stop: 47844, Start Num: 77

Candidate Starts for GaugeLDP_81:

(Start: 42 @48725 has 45 MA's), (Start: 48 @48701 has 5 MA's), (Start: 56 @48644 has 13 MA's), (Start: 77 @48551 has 2 MA's), (85, 48503), (106, 48380), (108, 48374), (117, 48317), (120, 48302), (140, 48164), (152, 48086), (163, 48008), (164, 48005), (174, 47909), (175, 47906),

Gene: Geodirt_4 Start: 2785, Stop: 3651, Start Num: 15

Candidate Starts for Geodirt_4:

(Start: 15 @2785 has 1 MA's), (17, 2821), (19, 2884), (21, 2899), (22, 2920), (23, 2938), (41, 3049), (43, 3064), (72, 3181), (163, 3505), (164, 3508), (165, 3511), (176, 3589),

Gene: GigiOuiOui_66 Start: 44414, Stop: 45145, Start Num: 34

Candidate Starts for GigiOuiOui_66:

(Start: 34 @44414 has 8 MA's), (Start: 46 @44471 has 1 MA's), (54, 44513), (55, 44528), (Start: 58 @44549 has 3 MA's), (124, 44729), (152, 44921), (163, 45002), (164, 45005), (173, 45062), (178, 45110), (183, 45134),

Gene: Gladiator_86 Start: 47390, Stop: 46743, Start Num: 42

Candidate Starts for Gladiator_86:

(Start: 42 @47390 has 45 MA's), (Start: 48 @47366 has 5 MA's), (55, 47312), (Start: 56 @47309 has 13 MA's), (Start: 58 @47291 has 3 MA's), (Start: 60 @47279 has 3 MA's), (151, 46985), (163, 46904), (164, 46901), (174, 46808), (175, 46805),

Gene: Goose_79 Start: 46498, Stop: 45863, Start Num: 42

Candidate Starts for Goose_79:

(Start: 42 @46498 has 45 MA's), (Start: 48 @46474 has 5 MA's), (Start: 56 @46417 has 13 MA's), (104, 46282), (152, 46093), (163, 46015), (164, 46012), (169, 45979), (174, 45925),

Gene: Gruunaga_89 Start: 47345, Stop: 46698, Start Num: 42

Candidate Starts for Gruunaga_89:

(Start: 42 @47345 has 45 MA's), (Start: 48 @47321 has 5 MA's), (55, 47267), (Start: 56 @47264 has 13 MA's), (Start: 58 @47246 has 3 MA's), (Start: 60 @47234 has 3 MA's), (151, 46940), (163, 46859), (164, 46856), (174, 46763), (175, 46760),

Gene: Hammer_90 Start: 46941, Stop: 46405, Start Num: 60

Candidate Starts for Hammer_90:

(Start: 42 @47052 has 45 MA's), (Start: 48 @47028 has 5 MA's), (55, 46974), (Start: 56 @46971 has 13 MA's), (Start: 60 @46941 has 3 MA's), (151, 46647), (163, 46566), (164, 46563), (174, 46470), (175, 46467),

Gene: Heather_36 Start: 27272, Stop: 27856, Start Num: 93

Candidate Starts for Heather_36:

(37, 26909), (59, 27035), (61, 27047), (64, 27062), (66, 27071), (82, 27200), (Start: 93 @27272 has 7 MA's), (137, 27518), (141, 27545), (164, 27704), (166, 27710), (167, 27725), (176, 27782), (179, 27818), (182, 27830),

Gene: Hexamo_89 Start: 47220, Stop: 46573, Start Num: 42

Candidate Starts for Hexamo_89:

(Start: 42 @47220 has 45 MA's), (Start: 48 @47196 has 5 MA's), (55, 47142), (Start: 56 @47139 has 13 MA's), (Start: 60 @47109 has 3 MA's), (151, 46815), (163, 46734), (164, 46731), (174, 46638), (175, 46635),

Gene: Hoot_83 Start: 45056, Stop: 44406, Start Num: 42

Candidate Starts for Hoot_83:

(Start: 42 @45056 has 45 MA's), (Start: 48 @45032 has 5 MA's), (55, 44978), (Start: 56 @44975 has 13 MA's), (Start: 58 @44957 has 3 MA's), (142, 44717), (148, 44693), (152, 44648), (163, 44570), (164, 44567), (167, 44546), (174, 44471), (175, 44468),

Gene: Isiphiwo_84 Start: 46767, Stop: 46117, Start Num: 42

Candidate Starts for Isiphiwo_84:

(Start: 42 @46767 has 45 MA's), (Start: 48 @46743 has 5 MA's), (55, 46689), (Start: 56 @46686 has 13 MA's), (Start: 58 @46668 has 3 MA's), (142, 46428), (148, 46404), (152, 46359), (163, 46281), (164, 46278), (167, 46257), (174, 46182), (175, 46179),

Gene: Jamun_40 Start: 27823, Stop: 28545, Start Num: 80

Candidate Starts for Jamun_40:

(Start: 34 @27547 has 8 MA's), (50, 27613), (51, 27628), (55, 27664), (63, 27712), (65, 27724), (67, 27730), (Start: 80 @27823 has 4 MA's), (81, 27841), (83, 27871), (Start: 88 @27943 has 2 MA's), (109, 28057), (111, 28069), (129, 28156), (130, 28162), (131, 28165), (137, 28228), (153, 28330), (163, 28405), (164, 28408), (179, 28525),

Gene: Jaykayelowell_75 Start: 46891, Stop: 46157, Start Num: 42

Candidate Starts for Jaykayelowell_75:

(Start: 42 @46891 has 45 MA's), (55, 46813), (Start: 58 @46792 has 3 MA's), (68, 46744), (Start: 70 @46741 has 5 MA's), (91, 46636), (104, 46564), (105, 46546), (139, 46480), (163, 46315), (164, 46312), (173, 46225), (176, 46204),

Gene: JewelBug_80 Start: 45535, Stop: 44885, Start Num: 42

Candidate Starts for JewelBug_80:

(Start: 42 @45535 has 45 MA's), (Start: 48 @45511 has 5 MA's), (55, 45457), (Start: 56 @45454 has 13 MA's), (Start: 58 @45436 has 3 MA's), (142, 45196), (148, 45172), (152, 45127), (163, 45049), (164, 45046), (167, 45025), (174, 44950), (175, 44947),

Gene: Jinkies_3 Start: 2349, Stop: 3125, Start Num: 31

Candidate Starts for Jinkies_3:

(Start: 31 @2349 has 1 MA's), (51, 2442), (53, 2448), (55, 2478), (57, 2493), (78, 2571), (96, 2616), (103, 2649), (107, 2670), (112, 2676), (113, 2685), (116, 2700), (133, 2784), (134, 2793), (150, 2871), (163, 2952), (164, 2955), (173, 3015), (179, 3072),

Gene: JoongJeon_77 Start: 46892, Stop: 46158, Start Num: 42

Candidate Starts for JoongJeon_77:

(Start: 42 @46892 has 45 MA's), (55, 46814), (Start: 58 @46793 has 3 MA's), (68, 46745), (Start: 70 @46742 has 5 MA's), (91, 46637), (104, 46565), (105, 46547), (139, 46481), (156, 46376), (163, 46316), (164, 46313), (173, 46226), (176, 46205),

Gene: Jordennis_86 Start: 47439, Stop: 46789, Start Num: 42

Candidate Starts for Jordennis_86:

(Start: 42 @47439 has 45 MA's), (Start: 48 @47415 has 5 MA's), (55, 47361), (Start: 56 @47358 has 13 MA's), (Start: 58 @47340 has 3 MA's), (142, 47100), (148, 47076), (152, 47031), (163, 46953), (164, 46950), (167, 46929), (174, 46854), (175, 46851),

Gene: Juno112_42 Start: 27172, Stop: 27969, Start Num: 34

Candidate Starts for Juno112_42:

(Start: 34 @27172 has 8 MA's), (50, 27238), (51, 27253), (55, 27289), (63, 27337), (65, 27349), (67, 27355), (129, 27571), (130, 27577), (153, 27745), (163, 27820), (164, 27823), (178, 27931), (179, 27940),

Gene: KFPoly_77 Start: 46892, Stop: 46158, Start Num: 42

Candidate Starts for KFPoly_77:

(Start: 42 @46892 has 45 MA's), (55, 46814), (Start: 58 @46793 has 3 MA's), (68, 46745), (Start: 70 @46742 has 5 MA's), (91, 46637), (104, 46565), (105, 46547), (139, 46481), (156, 46376), (163, 46316), (164, 46313), (173, 46226), (176, 46205),

Gene: Katalie136_75 Start: 46530, Stop: 45958, Start Num: 74

Candidate Starts for Katalie136_75:

(Start: 42 @46692 has 45 MA's), (55, 46614), (Start: 58 @46593 has 3 MA's), (68, 46545), (Start: 70 @46542 has 5 MA's), (Start: 74 @46530 has 4 MA's), (91, 46437), (104, 46365), (105, 46347), (139, 46281), (156, 46176), (163, 46116), (164, 46113), (173, 46026), (176, 46005), (179, 45969),

Gene: Kazan_89 Start: 47187, Stop: 46561, Start Num: 48

Candidate Starts for Kazan_89:

(Start: 42 @47211 has 45 MA's), (Start: 48 @47187 has 5 MA's), (55, 47133), (Start: 56 @47130 has 13 MA's), (Start: 58 @47112 has 3 MA's), (142, 46872), (148, 46848), (152, 46803), (163, 46725), (164, 46722), (167, 46701), (174, 46626), (175, 46623),

Gene: Keziacharles14_81 Start: 47447, Stop: 46881, Start Num: 56

Candidate Starts for Keziacharles14_81:

(Start: 42 @47528 has 45 MA's), (Start: 48 @47504 has 5 MA's), (55, 47450), (Start: 56 @47447 has 13 MA's), (64, 47396), (142, 47189), (147, 47168), (152, 47120), (163, 47042), (164, 47039), (173, 46952),

Gene: KittenMittens_74 Start: 45854, Stop: 45219, Start Num: 42

Candidate Starts for KittenMittens_74:

(Start: 42 @45854 has 45 MA's), (Start: 48 @45830 has 5 MA's), (Start: 56 @45773 has 13 MA's), (104, 45638), (152, 45449), (163, 45371), (164, 45368), (167, 45347), (169, 45335), (174, 45281),

Gene: Koko_91 Start: 47970, Stop: 47419, Start Num: 58

Candidate Starts for Koko_91:

(Start: 42 @48069 has 45 MA's), (Start: 48 @48045 has 5 MA's), (55, 47991), (Start: 56 @47988 has 13 MA's), (Start: 58 @47970 has 3 MA's), (151, 47664), (163, 47583), (164, 47580), (167, 47559), (174, 47484), (175, 47481),

Gene: Kratark_77 Start: 46932, Stop: 46198, Start Num: 42

Candidate Starts for Kratark_77:

(Start: 42 @46932 has 45 MA's), (55, 46854), (Start: 58 @46833 has 3 MA's), (68, 46785), (Start: 70 @46782 has 5 MA's), (91, 46677), (104, 46605), (105, 46587), (132, 46566), (139, 46521), (156, 46416), (163, 46356), (164, 46353), (173, 46266), (176, 46245),

Gene: Kristoff_76 Start: 47122, Stop: 46487, Start Num: 42

Candidate Starts for Kristoff_76:

(Start: 42 @47122 has 45 MA's), (Start: 48 @47098 has 5 MA's), (Start: 56 @47041 has 13 MA's), (64, 46990), (104, 46906), (152, 46717), (163, 46639), (164, 46636), (169, 46603), (174, 46549),

Gene: Leona_42 Start: 27237, Stop: 28046, Start Num: 34

Candidate Starts for Leona_42:

(Start: 34 @27237 has 8 MA's), (50, 27303), (51, 27318), (55, 27354), (63, 27402), (65, 27414), (67, 27420), (130, 27654), (131, 27657), (144, 27759), (153, 27822), (163, 27897), (164, 27900), (179, 28017),

Gene: Lilbooboo_33 Start: 26272, Stop: 26859, Start Num: 93

Candidate Starts for Lilbooboo_33:

(32, 25882), (33, 25885), (45, 25951), (49, 25963), (64, 26062), (82, 26200), (Start: 93 @26272 has 7 MA's), (115, 26374), (123, 26407), (141, 26545), (149, 26602), (154, 26629), (157, 26647), (161, 26671), (164, 26704), (168, 26734), (179, 26818), (182, 26830),

Gene: LittleB_78 Start: 46899, Stop: 46165, Start Num: 42

Candidate Starts for LittleB_78:

(Start: 42 @46899 has 45 MA's), (55, 46821), (Start: 58 @46800 has 3 MA's), (68, 46752), (Start: 70 @46749 has 5 MA's), (91, 46644), (104, 46572), (105, 46554), (139, 46488), (156, 46383), (163, 46323), (164, 46320), (173, 46233), (176, 46212),

Gene: LoneWolf_84 Start: 46963, Stop: 46397, Start Num: 56

Candidate Starts for LoneWolf_84:

(Start: 42 @47044 has 45 MA's), (Start: 48 @47020 has 5 MA's), (55, 46966), (Start: 56 @46963 has 13 MA's), (142, 46705), (147, 46684), (163, 46558), (164, 46555), (173, 46468),

Gene: Maminiaina_83 Start: 46878, Stop: 46300, Start Num: 56

Candidate Starts for Maminaiaina_83:

(Start: 42 @46959 has 45 MA's), (47, 46938), (Start: 48 @46935 has 5 MA's), (Start: 56 @46878 has 13 MA's), (64, 46827), (142, 46620), (147, 46599), (163, 46473), (164, 46470), (173, 46383), (176, 46362), (181, 46317),

Gene: McKinley_5 Start: 3198, Stop: 3983, Start Num: 39

Candidate Starts for McKinley_5:

(28, 3156), (29, 3165), (Start: 39 @3198 has 1 MA's), (40, 3204), (43, 3228), (Start: 60 @3327 has 3 MA's), (119, 3495), (125, 3516), (128, 3537), (163, 3786), (164, 3789), (165, 3792), (167, 3810), (172, 3873), (176, 3921),

Gene: Mundrea_77 Start: 46850, Stop: 46224, Start Num: 58

Candidate Starts for Mundrea_77:

(Start: 42 @46949 has 45 MA's), (55, 46871), (Start: 58 @46850 has 3 MA's), (84, 46730), (139, 46547), (143, 46526), (163, 46382), (164, 46379), (173, 46292), (176, 46271),

Gene: Noelle_76 Start: 46925, Stop: 46305, Start Num: 42

Candidate Starts for Noelle_76:

(Start: 42 @46925 has 45 MA's), (Start: 48 @46901 has 5 MA's), (Start: 56 @46844 has 13 MA's), (143, 46592), (152, 46529), (163, 46451), (164, 46448), (174, 46367), (176, 46352), (179, 46316),

Gene: OKCentral2016_77 Start: 45901, Stop: 45290, Start Num: 48

Candidate Starts for OKCentral2016_77:

(Start: 42 @45925 has 45 MA's), (Start: 48 @45901 has 5 MA's), (Start: 56 @45844 has 13 MA's), (104, 45709), (152, 45520), (163, 45442), (164, 45439), (169, 45406), (174, 45352),

Gene: Orcanus_41 Start: 28182, Stop: 28904, Start Num: 80

Candidate Starts for Orcanus_41:

(Start: 34 @27906 has 8 MA's), (51, 27987), (55, 28023), (63, 28071), (67, 28089), (Start: 80 @28182 has 4 MA's), (81, 28200), (83, 28230), (Start: 88 @28302 has 2 MA's), (126, 28503), (129, 28515), (130, 28521), (131, 28524), (137, 28587), (153, 28689), (163, 28764), (164, 28767), (179, 28884),

Gene: Palestino_77 Start: 46895, Stop: 46161, Start Num: 42

Candidate Starts for Palestino_77:

(Start: 42 @46895 has 45 MA's), (55, 46817), (Start: 58 @46796 has 3 MA's), (68, 46748), (Start: 70 @46745 has 5 MA's), (91, 46640), (104, 46568), (105, 46550), (139, 46484), (156, 46379), (163, 46319), (164, 46316), (173, 46229), (176, 46208),

Gene: Perplexer_75 Start: 46531, Stop: 45959, Start Num: 74

Candidate Starts for Perplexer_75:

(Start: 42 @46693 has 45 MA's), (55, 46615), (Start: 58 @46594 has 3 MA's), (68, 46546), (Start: 70 @46543 has 5 MA's), (Start: 74 @46531 has 4 MA's), (91, 46438), (104, 46366), (105, 46348), (139, 46282), (156, 46177), (163, 46117), (164, 46114), (173, 46027), (176, 46006),

Gene: PetiteSangsue_75 Start: 46546, Stop: 45962, Start Num: 70

Candidate Starts for PetiteSangsue_75:

(Start: 42 @46696 has 45 MA's), (55, 46618), (Start: 58 @46597 has 3 MA's), (68, 46549), (Start: 70 @46546 has 5 MA's), (Start: 74 @46534 has 4 MA's), (91, 46441), (104, 46369), (105, 46351), (139, 46285), (156, 46180), (163, 46120), (164, 46117), (173, 46030), (176, 46009),

Gene: Phanphagia_66 Start: 43660, Stop: 44277, Start Num: 46

Candidate Starts for Phanphagia_66:

(Start: 34 @43603 has 8 MA's), (Start: 46 @43660 has 1 MA's), (52, 43684), (55, 43717), (Start: 58 @43738 has 3 MA's), (64, 43771), (Start: 70 @43789 has 5 MA's), (94, 43798), (127, 43876), (163, 44125), (164, 44128), (168, 44158), (173, 44185), (183, 44266),

Gene: Pharaoh_78 Start: 47942, Stop: 47292, Start Num: 42

Candidate Starts for Pharaoh_78:

(Start: 42 @47942 has 45 MA's), (Start: 48 @47918 has 5 MA's), (Start: 56 @47861 has 13 MA's), (142, 47600), (147, 47579), (163, 47456), (164, 47453), (167, 47432), (174, 47360), (175, 47357),

Gene: PhluffyCoco_43 Start: 27168, Stop: 28064, Start Num: 34

Candidate Starts for PhluffyCoco_43:

(Start: 34 @27168 has 8 MA's), (50, 27234), (51, 27249), (55, 27285), (63, 27333), (65, 27345), (67, 27351), (76, 27375), (Start: 87 @27444 has 1 MA's), (91, 27462), (129, 27666), (130, 27672), (153, 27840), (163, 27915), (164, 27918), (178, 28026), (179, 28035),

Gene: Poenanya_74 Start: 45998, Stop: 46735, Start Num: 34

Candidate Starts for Poenanya_74:

(Start: 34 @45998 has 8 MA's), (Start: 46 @46055 has 1 MA's), (52, 46079), (54, 46097), (55, 46112), (Start: 58 @46133 has 3 MA's), (64, 46166), (Start: 70 @46184 has 5 MA's), (127, 46343), (152, 46505), (163, 46583), (164, 46586), (167, 46607), (168, 46616), (173, 46643), (183, 46724),

Gene: Priya_82 Start: 46693, Stop: 46046, Start Num: 42

Candidate Starts for Priya_82:

(Start: 42 @46693 has 45 MA's), (Start: 48 @46669 has 5 MA's), (55, 46615), (Start: 56 @46612 has 13 MA's), (64, 46561), (142, 46354), (147, 46333), (152, 46285), (163, 46207), (164, 46204), (173, 46117),

Gene: Rahalelujah_83 Start: 46456, Stop: 45809, Start Num: 42

Candidate Starts for Rahalelujah_83:

(Start: 42 @46456 has 45 MA's), (Start: 48 @46432 has 5 MA's), (55, 46378), (Start: 56 @46375 has 13 MA's), (142, 46117), (147, 46096), (153, 46045), (157, 46024), (163, 45970), (164, 45967), (173, 45880),

Gene: RedBird_72 Start: 44502, Stop: 45227, Start Num: 34

Candidate Starts for RedBird_72:

(Start: 34 @44502 has 8 MA's), (Start: 46 @44559 has 1 MA's), (52, 44583), (54, 44589), (55, 44604), (Start: 58 @44625 has 3 MA's), (64, 44658), (Start: 70 @44676 has 5 MA's), (127, 44835), (152, 44997), (163, 45075), (164, 45078), (167, 45099), (168, 45108), (173, 45135), (183, 45216),

Gene: RedFox_43 Start: 27443, Stop: 28063, Start Num: 87

Candidate Starts for RedFox_43:

(Start: 34 @27167 has 8 MA's), (50, 27233), (51, 27248), (55, 27284), (63, 27332), (65, 27344), (67, 27350), (76, 27374), (Start: 87 @27443 has 1 MA's), (91, 27461), (129, 27665), (130, 27671), (153, 27839), (163, 27914), (164, 27917), (178, 28025), (179, 28034),

Gene: Refuge_81 Start: 48475, Stop: 47903, Start Num: 56

Candidate Starts for Refuge_81:

(Start: 42 @48556 has 45 MA's), (Start: 48 @48532 has 5 MA's), (Start: 56 @48475 has 13 MA's), (105, 48319), (147, 48193), (163, 48067), (164, 48064), (174, 47971), (175, 47968), (178, 47929),

Gene: RemusLoopin_35 Start: 27467, Stop: 28051, Start Num: 93

Candidate Starts for RemusLoopin_35:

(59, 27230), (61, 27242), (64, 27257), (82, 27395), (89, 27449), (Start: 93 @27467 has 7 MA's), (115, 27569), (137, 27713), (141, 27740), (149, 27797), (164, 27899), (167, 27920), (176, 27977), (179, 28013), (182, 28025),

Gene: Rifter_90 Start: 46847, Stop: 46200, Start Num: 42

Candidate Starts for Rifter_90:

(Start: 42 @46847 has 45 MA's), (Start: 48 @46823 has 5 MA's), (55, 46769), (Start: 56 @46766 has 13 MA's), (Start: 60 @46736 has 3 MA's), (151, 46442), (163, 46361), (164, 46358), (174, 46265), (175, 46262),

Gene: Roksolana_90 Start: 47563, Stop: 46916, Start Num: 42

Candidate Starts for Roksolana_90:

(Start: 42 @47563 has 45 MA's), (Start: 48 @47539 has 5 MA's), (55, 47485), (Start: 56 @47482 has 13 MA's), (Start: 60 @47452 has 3 MA's), (151, 47158), (163, 47077), (164, 47074), (174, 46981), (175, 46978),

Gene: Samora_35 Start: 26872, Stop: 27459, Start Num: 93

Candidate Starts for Samora_35:

(45, 26551), (49, 26563), (64, 26662), (82, 26800), (Start: 93 @26872 has 7 MA's), (115, 26974), (136, 27109), (138, 27127), (141, 27145), (156, 27241), (164, 27304), (168, 27334), (179, 27418),

Gene: Samy_50 Start: 33615, Stop: 34364, Start Num: 69

Candidate Starts for Samy_50:

(20, 33303), (24, 33345), (32, 33414), (38, 33444), (45, 33483), (Start: 69 @33615 has 1 MA's), (71, 33618), (73, 33621), (82, 33735), (95, 33819), (96, 33822), (121, 33933), (147, 34071), (153, 34122), (159, 34152), (164, 34203), (167, 34224), (173, 34260), (176, 34281), (177, 34284), (180, 34320),

Gene: Sebastisaurus_35 Start: 27189, Stop: 27773, Start Num: 93

Candidate Starts for Sebastisaurus_35:

(59, 26952), (61, 26964), (64, 26979), (82, 27117), (86, 27153), (Start: 93 @27189 has 7 MA's), (115, 27291), (123, 27324), (137, 27435), (141, 27462), (149, 27519), (151, 27534), (157, 27564), (164, 27621), (167, 27642), (179, 27735), (182, 27747),

Gene: Sedona_6 Start: 4350, Stop: 5051, Start Num: 44

Candidate Starts for Sedona_6:

(1, 3228), (2, 3420), (3, 3450), (4, 3477), (5, 3513), (6, 3549), (7, 3666), (8, 3678), (9, 3765), (10, 3807), (11, 3819), (12, 3825), (13, 3969), (14, 3993), (16, 4089), (18, 4110), (25, 4245), (Start: 44 @4350 has 1 MA's), (Start: 60 @4446 has 3 MA's), (119, 4614), (125, 4635), (128, 4656), (163, 4905), (164, 4908), (165, 4911), (176, 4989),

Gene: SheaKeira_79 Start: 46163, Stop: 45585, Start Num: 56

Candidate Starts for SheaKeira_79:

(Start: 42 @46244 has 45 MA's), (Start: 48 @46220 has 5 MA's), (55, 46166), (Start: 56 @46163 has 13 MA's), (142, 45905), (147, 45884), (152, 45836), (160, 45797), (163, 45758), (164, 45755), (171, 45689), (173, 45668), (176, 45647), (181, 45602),

Gene: SmellyB_88 Start: 47181, Stop: 46555, Start Num: 48

Candidate Starts for SmellyB_88:

(Start: 42 @47205 has 45 MA's), (Start: 48 @47181 has 5 MA's), (55, 47127), (Start: 56 @47124 has 13 MA's), (Start: 58 @47106 has 3 MA's), (142, 46866), (148, 46842), (152, 46797), (163, 46719), (164, 46716), (167, 46695), (174, 46620), (175, 46617),

Gene: Spouty_82 Start: 46692, Stop: 46045, Start Num: 42

Candidate Starts for Spouty_82:

(Start: 42 @46692 has 45 MA's), (Start: 48 @46668 has 5 MA's), (55, 46614), (Start: 56 @46611 has 13 MA's), (64, 46560), (142, 46353), (147, 46332), (152, 46284), (163, 46206), (164, 46203), (173, 46116),

Gene: Steamy_76 Start: 47037, Stop: 46378, Start Num: 42

Candidate Starts for Steamy_76:

(Start: 42 @47037 has 45 MA's), (Start: 48 @47013 has 5 MA's), (Start: 56 @46956 has 13 MA's), (147, 46674), (163, 46548), (164, 46545), (167, 46524), (174, 46452), (178, 46410),

Gene: TaylorSipht_41 Start: 27587, Stop: 28306, Start Num: 80

Candidate Starts for TaylorSipht_41:

(Start: 34 @27311 has 8 MA's), (51, 27392), (55, 27428), (Start: 80 @27587 has 4 MA's), (81, 27605), (83, 27635), (Start: 88 @27707 has 2 MA's), (130, 27923), (145, 28034), (153, 28091), (163, 28166), (164, 28169), (179, 28286),

Gene: Thanksgivukkah_77 Start: 46896, Stop: 46162, Start Num: 42

Candidate Starts for Thanksgivukkah_77:

(Start: 42 @46896 has 45 MA's), (55, 46818), (Start: 58 @46797 has 3 MA's), (68, 46749), (Start: 70 @46746 has 5 MA's), (91, 46641), (104, 46569), (105, 46551), (139, 46485), (156, 46380), (163, 46320), (164, 46317), (173, 46230), (176, 46209),

Gene: TinaFeyge_76 Start: 46893, Stop: 46159, Start Num: 42

Candidate Starts for TinaFeyge_76:

(Start: 42 @46893 has 45 MA's), (55, 46815), (Start: 58 @46794 has 3 MA's), (68, 46746), (Start: 70 @46743 has 5 MA's), (91, 46638), (104, 46566), (105, 46548), (139, 46482), (163, 46317), (164, 46314), (173, 46227), (176, 46206),

Gene: Toaka_82 Start: 46732, Stop: 46166, Start Num: 56

Candidate Starts for Toaka_82:

(Start: 42 @46813 has 45 MA's), (Start: 48 @46789 has 5 MA's), (Start: 56 @46732 has 13 MA's), (142, 46474), (147, 46453), (152, 46405), (163, 46327), (164, 46324), (173, 46237),

Gene: ToneTone_87 Start: 47116, Stop: 46580, Start Num: 60

Candidate Starts for ToneTone_87:

(Start: 42 @47227 has 45 MA's), (Start: 48 @47203 has 5 MA's), (55, 47149), (Start: 56 @47146 has 13 MA's), (Start: 60 @47116 has 3 MA's), (151, 46822), (163, 46741), (164, 46738), (174, 46645), (175, 46642),

Gene: Tucker_90 Start: 47319, Stop: 46783, Start Num: 60

Candidate Starts for Tucker_90:

(Start: 42 @47430 has 45 MA's), (Start: 48 @47406 has 5 MA's), (55, 47352), (Start: 56 @47349 has 13 MA's), (Start: 60 @47319 has 3 MA's), (151, 47025), (163, 46944), (164, 46941), (174, 46848), (175, 46845),

Gene: Vanisoa_79 Start: 47062, Stop: 46496, Start Num: 56

Candidate Starts for Vanisoa_79:

(Start: 42 @47143 has 45 MA's), (Start: 48 @47119 has 5 MA's), (55, 47065), (Start: 56 @47062 has 13 MA's), (142, 46804), (147, 46783), (163, 46657), (164, 46654), (173, 46567),

Gene: Vash_33 Start: 26115, Stop: 26702, Start Num: 93

Candidate Starts for Vash_33:

(32, 25725), (37, 25752), (45, 25794), (64, 25905), (82, 26043), (Start: 93 @26115 has 7 MA's), (149, 26445), (157, 26490), (161, 26514), (163, 26544), (164, 26547), (168, 26577), (179, 26661), (182, 26673),

Gene: WalterMcMickey_77 Start: 46600, Stop: 46046, Start Num: 56

Candidate Starts for WalterMcMickey_77:

(Start: 42 @46681 has 45 MA's), (Start: 48 @46657 has 5 MA's), (Start: 56 @46600 has 13 MA's), (64, 46549), (104, 46465), (152, 46276), (163, 46198), (164, 46195), (169, 46162), (174, 46108),

Gene: Wiks_89 Start: 47310, Stop: 46660, Start Num: 42

Candidate Starts for Wiks_89:

(Start: 42 @47310 has 45 MA's), (Start: 48 @47286 has 5 MA's), (55, 47232), (Start: 56 @47229 has 13 MA's), (Start: 58 @47211 has 3 MA's), (151, 46905), (163, 46824), (164, 46821), (167, 46800), (174, 46725), (175, 46722),

Gene: Wile_74 Start: 46560, Stop: 45988, Start Num: 74

Candidate Starts for Wile_74:

(Start: 42 @46722 has 45 MA's), (55, 46644), (Start: 58 @46623 has 3 MA's), (68, 46575), (Start: 70 @46572 has 5 MA's), (Start: 74 @46560 has 4 MA's), (91, 46467), (104, 46395), (105, 46377), (139, 46311), (156, 46206), (163, 46146), (164, 46143), (173, 46056), (176, 46035), (179, 45999),

Gene: Wizard007_75 Start: 46286, Stop: 45714, Start Num: 74

Candidate Starts for Wizard007_75:

(Start: 42 @46448 has 45 MA's), (55, 46370), (Start: 58 @46349 has 3 MA's), (68, 46301), (Start: 70 @46298 has 5 MA's), (Start: 74 @46286 has 4 MA's), (91, 46193), (104, 46121), (105, 46103), (139, 46037), (156, 45932), (163, 45872), (164, 45869), (173, 45782), (176, 45761), (179, 45725),

Gene: Xena_74 Start: 46567, Stop: 45983, Start Num: 70

Candidate Starts for Xena_74:

(Start: 42 @46717 has 45 MA's), (55, 46639), (Start: 58 @46618 has 3 MA's), (68, 46570), (Start: 70 @46567 has 5 MA's), (91, 46462), (104, 46390), (105, 46372), (139, 46306), (156, 46201), (163, 46141), (164, 46138), (173, 46051), (176, 46030),

Gene: Yecey3_85 Start: 46628, Stop: 46062, Start Num: 56

Candidate Starts for Yecey3_85:

(Start: 42 @46709 has 45 MA's), (Start: 48 @46685 has 5 MA's), (Start: 56 @46628 has 13 MA's), (147, 46349), (163, 46223), (164, 46220), (179, 46076),

Gene: Yokurt_89 Start: 47211, Stop: 46660, Start Num: 58

Candidate Starts for Yokurt_89:

(Start: 42 @47310 has 45 MA's), (Start: 48 @47286 has 5 MA's), (55, 47232), (Start: 56 @47229 has 13 MA's), (Start: 58 @47211 has 3 MA's), (151, 46905), (163, 46824), (164, 46821), (167, 46800), (174, 46725), (175, 46722),

Gene: Zaka_90 Start: 47310, Stop: 46660, Start Num: 42

Candidate Starts for Zaka_90:

(Start: 42 @47310 has 45 MA's), (Start: 48 @47286 has 5 MA's), (55, 47232), (Start: 56 @47229 has 13 MA's), (Start: 58 @47211 has 3 MA's), (151, 46905), (163, 46824), (164, 46821), (167, 46800), (174, 46725), (175, 46722),

Gene: Zimmer_80 Start: 47793, Stop: 47140, Start Num: 42

Candidate Starts for Zimmer_80:

(Start: 42 @47793 has 45 MA's), (Start: 48 @47769 has 5 MA's), (Start: 56 @47712 has 13 MA's),
(142, 47451), (148, 47427), (163, 47304), (164, 47301), (174, 47208), (175, 47205), (178, 47166),