

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 216104 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216104 has 77 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Soondubu_60
- Track 2 : Exile_58
- Track 3 : Community_63, Tuck_63, Phives_64
- Track 4 : Mudpuppy_62
- Track 5 : IttyBittyPiggy_64
- Track 6 : Tutumahutu_65, Warda_64, Asa16_63, Eraser_63, Tbone_63, Powerpuff_65, London_63, YesChef_63, Niobe_63, AGrandiflora_65
- Track 7 : Simpson_69, Joemato_65
- Track 8 : Ascela_65, Iter_64
- Track 9 : DrSierra_60
- Track 10 : Kaylissa_65, Lego_63
- Track 11 : MissSwiss_64
- Track 12 : Adumb2043_62, AEgle_61, Subaru_63, Turab_62, Jstan_64, Elezi_62
- Track 13 : Janeemi_62
- Track 14 : Berrie_63
- Track 15 : DrManhattan_66, Adolin_65
- Track 16 : ObiToo_68, Crewmate_68
- Track 17 : Wildwest_59
- Track 18 : Lizalica_63
- Track 19 : Tallboi_63, JohnDoe_64
- Track 20 : Cyan_64
- Track 21 : VResidence_64
- Track 22 : Nitro_64
- Track 23 : Sue2_61
- Track 24 : Tweety19_64, Snek_63
- Track 25 : Dubu_29
- Track 26 : Nesbitt_47
- Track 27 : PHTowN_61, Lizz_61, ShakeNBake_61
- Track 28 : Wentworth_61
- Track 29 : Yara_56
- Track 30 : Dryad_65
- Track 31 : Rooney_61, Gibson_61
- Track 32 : Greenbelt_89
- Track 33 : Wilkos_63
- Track 34 : GuyFagieri_74
- Track 35 : Polyuyuki_76
- Track 36 : Maselop_76, CoffeeBean_76, Braxoaddie_76

- Track 37 : Apiary_76
- Track 38 : Jacko_98
- Track 39 : ASegato_101, Fork_99, Erenyeager_103, Necrophoxinus_105, StevieWelch_103, Welcome_105, HollowPurple_103, Issa7_102
- Track 40 : AnnabelLee_58
- Track 41 : TPA2_52
- Track 42 : Lukepolites_35

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

The start number called the most often in the published annotations is 19, it was called in 29 of the 62 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle_61, AGrandiflora_65, Adumb2043_62, Asa16_63, Ascela_65, Community_63, Crewmate_68, DrSierra_60, Elezi_62, Eraser_63, Iter_64, IttyBittyPiggy_64, Jacko_98, Janeemi_62, Joemato_65, JohnDoe_64, Jstan_64, Kaylissa_65, Lego_63, Lizalica_63, London_63, Mudpuppy_62, Niobe_63, Nitro_64, ObiToo_68, Phives_64, Powerpuff_65, Simpson_69, Subaru_63, Tallboi_63, Tbone_63, Tuck_63, Turab_62, Tutumahutu_65, Warda_64, YesChef_63,

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

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

- ASegato_101, Adolin_65, AnnabelLee_58, Apiary_76, Berrie_63, Braxoaddie_76, CoffeeBean_76, Cyan_64, DrManhattan_66, Dryad_65, Dubu_29, Erenyeager_103, Exile_58, Fork_99, Gibson_61, Greenbelt_89, GuyFagieri_74, HollowPurple_103, Issa7_102, Lizz_61, Lukepolites_35, Maselop_76, MissSwiss_64, Necrophoxinus_105, Nesbitt_47, PHTowN_61, Polyuyuki_76, Rooney_61, ShakeNBake_61, Snek_63, Soondubu_60, StevieWelch_103, Sue2_61, TPA2_52, Tweety19_64, VResidence_64, Welcome_105, Wentworth_61, Wildwest_59, Wilkos_63, Yara_56,

Summary by start number:

Start 14:

- Found in 1 of 77 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_58 (FR),

Start 15:

- Found in 1 of 77 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2_52 (singleton),

Start 16:

- Found in 8 of 77 (10.4%) of genes in pham

- Manual Annotations of this start: 8 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin_65 (AZ1), Berrie_63 (AZ1), Cyan_64 (AZ1), DrManhattan_66 (AZ1), MissSwiss_64 (AZ1), Sue2_61 (AZ1), VResidence_64 (AZ1), Wildwest_59 (AZ1),

Start 18:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Snek_63 (AZ3), Tweety19_64 (AZ3),

Start 19:

- Found in 36 of 77 (46.8%) of genes in pham
- Manual Annotations of this start: 29 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_61 (AZ1), AGrandiflora_65 (AZ1), Adumb2043_62 (AZ1), Asa16_63 (AZ1), Ascela_65 (AZ1), Community_63 (AZ1), Crewmate_68 (AZ1), DrSierra_60 (AZ1), Elezi_62 (AZ1), Eraser_63 (AZ1), Iter_64 (AZ1), IttyBittyPiggy_64 (AZ1), Jacko_98 (ED1), Janeemi_62 (AZ1), Joemato_65 (AZ1), JohnDoe_64 (AZ1), Jstan_64 (AZ1), Kaylissa_65 (AZ1), Lego_63 (AZ1), Lizalica_63 (AZ1), London_63 (AZ1), Mudpuppy_62 (AZ1), Niobe_63 (AZ1), Nitro_64 (AZ1), ObiToo_68 (AZ1), Phives_64 (AZ1), Powerpuff_65 (AZ1), Simpson_69 (AZ1), Subaru_63 (AZ), Tallboi_63 (AZ1), Tbone_63 (AZ1), Tuck_63 (AZ1), Turab_62 (AZ1), Tutumahutu_65 (AZ1), Warda_64 (AZ1), YesChef_63 (AZ1),

Start 20:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Exile_58 (AZ), Soondubu_60 (AZ),

Start 21:

- Found in 1 of 77 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nesbitt_47 (BL),

Start 22:

- Found in 8 of 77 (10.4%) of genes in pham
- Manual Annotations of this start: 6 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato_101 (ED2), Erenyeager_103 (ED2), Fork_99 (ED2), HollowPurple_103 (ED2), Issa7_102 (ED2), Necrophoxinus_105 (ED2), StevieWelch_103 (ED2), Welcome_105 (ED2),

Start 25:

- Found in 6 of 77 (7.8%) of genes in pham
- Manual Annotations of this start: 6 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary_76 (CR), Braxoaddie_76 (CR), CoffeeBean_76 (CR), GuyFagieri_74 (CR), Maselop_76 (CR), Polyuyuki_76 (CR),

Start 26:

- Found in 1 of 77 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lukepolites_35 (singleton),

Start 31:

- Found in 1 of 77 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dubu_29 (BJ),

Start 33:

- Found in 9 of 77 (11.7%) of genes in pham
- Manual Annotations of this start: 7 of 62
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Dryad_65 (BN), Gibson_61 (BN), Greenbelt_89 (BN), Lizz_61 (BN), PHTowN_61 (BN), Rooney_61 (BN), ShakeNBake_61 (BN), Yara_56 (BN),

Start 35:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wentworth_61 (BN), Wilkos_63 (BN),

Summary by clusters:

There are 11 clusters represented in this pham: singleton, AZ3, BL, BN, FR, BJ, ED2, ED1, AZ1, CR, AZ,

Info for manual annotations of cluster AZ:

- Start number 20 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 16 was manually annotated 8 times for cluster AZ1.
- Start number 19 was manually annotated 28 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 18 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster BJ:

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

Info for manual annotations of cluster BL:

- Start number 21 was manually annotated 1 time for cluster BL.

Info for manual annotations of cluster BN:

- Start number 33 was manually annotated 7 times for cluster BN.
- Start number 35 was manually annotated 1 time for cluster BN.

Info for manual annotations of cluster CR:

- Start number 25 was manually annotated 6 times for cluster CR.

Info for manual annotations of cluster ED1:

- Start number 19 was manually annotated 1 time for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 22 was manually annotated 6 times for cluster ED2.

Gene Information:

Gene: AEgle_61 Start: 41138, Stop: 41494, Start Num: 19

Candidate Starts for AEgle_61:

(Start: 19 @41138 has 29 MA's), (41, 41288), (68, 41441), (75, 41480),

Gene: AGrandiflora_65 Start: 42034, Stop: 42390, Start Num: 19

Candidate Starts for AGrandiflora_65:

(Start: 19 @42034 has 29 MA's), (68, 42337), (75, 42376),

Gene: ASegato_101 Start: 54171, Stop: 53848, Start Num: 22

Candidate Starts for ASegato_101:

(Start: 22 @54171 has 6 MA's), (27, 54156), (37, 54102), (42, 54030), (46, 54009), (55, 53952), (61, 53931), (66, 53916), (71, 53886), (72, 53874), (73, 53868), (75, 53862),

Gene: Adolin_65 Start: 40925, Stop: 41284, Start Num: 16

Candidate Starts for Adolin_65:

(Start: 16 @40925 has 8 MA's), (34, 40982), (68, 41231), (75, 41270),

Gene: Adumb2043_62 Start: 41162, Stop: 41518, Start Num: 19

Candidate Starts for Adumb2043_62:

(Start: 19 @41162 has 29 MA's), (41, 41312), (68, 41465), (75, 41504),

Gene: AnnabelLee_58 Start: 35355, Stop: 34978, Start Num: 14

Candidate Starts for AnnabelLee_58:

(14, 35355), (54, 35091), (63, 35058),

Gene: Apiary_76 Start: 55270, Stop: 54890, Start Num: 25

Candidate Starts for Apiary_76:

(2, 55618), (3, 55567), (4, 55504), (6, 55444), (8, 55408), (13, 55306), (Start: 25 @55270 has 6 MA's), (42, 55120),

Gene: Asa16_63 Start: 41723, Stop: 42079, Start Num: 19

Candidate Starts for Asa16_63:

(Start: 19 @41723 has 29 MA's), (68, 42026), (75, 42065),

Gene: Ascela_65 Start: 42214, Stop: 42570, Start Num: 19

Candidate Starts for Ascela_65:

(Start: 19 @42214 has 29 MA's), (41, 42364), (75, 42556),

Gene: Berrie_63 Start: 41818, Stop: 42174, Start Num: 16

Candidate Starts for Berrie_63:

(Start: 16 @41818 has 8 MA's), (54, 42064), (75, 42160),

Gene: Braxoaddie_76 Start: 55255, Stop: 54875, Start Num: 25
Candidate Starts for Braxoaddie_76:
(3, 55552), (4, 55489), (6, 55429), (8, 55393), (13, 55291), (Start: 25 @55255 has 6 MA's), (42, 55105),

Gene: CoffeeBean_76 Start: 55213, Stop: 54833, Start Num: 25
Candidate Starts for CoffeeBean_76:
(3, 55510), (4, 55447), (6, 55387), (8, 55351), (13, 55249), (Start: 25 @55213 has 6 MA's), (42, 55063),

Gene: Community_63 Start: 42094, Stop: 42450, Start Num: 19
Candidate Starts for Community_63:
(Start: 19 @42094 has 29 MA's), (23, 42106), (57, 42349), (75, 42436),

Gene: Crewmate_68 Start: 42445, Stop: 42801, Start Num: 19
Candidate Starts for Crewmate_68:
(Start: 19 @42445 has 29 MA's), (41, 42595), (54, 42691), (70, 42754), (75, 42787),

Gene: Cyan_64 Start: 41775, Stop: 42134, Start Num: 16
Candidate Starts for Cyan_64:
(Start: 16 @41775 has 8 MA's), (68, 42081), (75, 42120),

Gene: DrManhattan_66 Start: 40479, Stop: 40838, Start Num: 16
Candidate Starts for DrManhattan_66:
(Start: 16 @40479 has 8 MA's), (34, 40536), (68, 40785), (75, 40824),

Gene: DrSierra_60 Start: 40611, Stop: 40967, Start Num: 19
Candidate Starts for DrSierra_60:
(Start: 19 @40611 has 29 MA's), (37, 40704), (75, 40953),

Gene: Dryad_65 Start: 44270, Stop: 43926, Start Num: 33
Candidate Starts for Dryad_65:
(12, 44351), (Start: 33 @44270 has 7 MA's), (39, 44198), (40, 44177), (43, 44153), (59, 44033), (64, 44006), (67, 43988), (75, 43946),

Gene: Dubu_29 Start: 22724, Stop: 23071, Start Num: 31
Candidate Starts for Dubu_29:
(7, 22547), (10, 22595), (11, 22625), (24, 22697), (Start: 31 @22724 has 1 MA's), (32, 22727), (48, 22922), (49, 22925),

Gene: Elezi_62 Start: 41480, Stop: 41836, Start Num: 19
Candidate Starts for Elezi_62:
(Start: 19 @41480 has 29 MA's), (41, 41630), (68, 41783), (75, 41822),

Gene: Eraser_63 Start: 41730, Stop: 42086, Start Num: 19
Candidate Starts for Eraser_63:
(Start: 19 @41730 has 29 MA's), (68, 42033), (75, 42072),

Gene: Erenyeager_103 Start: 54096, Stop: 53773, Start Num: 22
Candidate Starts for Erenyeager_103:
(Start: 22 @54096 has 6 MA's), (27, 54081), (37, 54027), (42, 53955), (46, 53934), (55, 53877), (61, 53856), (66, 53841), (71, 53811), (72, 53799), (73, 53793), (75, 53787),

Gene: Exile_58 Start: 42771, Stop: 43118, Start Num: 20

Candidate Starts for Exile_58:

(Start: 20 @42771 has 1 MA's), (34, 42819), (65, 43050), (73, 43101),

Gene: Fork_99 Start: 54049, Stop: 53726, Start Num: 22

Candidate Starts for Fork_99:

(Start: 22 @54049 has 6 MA's), (27, 54034), (37, 53980), (42, 53908), (46, 53887), (55, 53830), (61, 53809), (66, 53794), (71, 53764), (72, 53752), (73, 53746), (75, 53740),

Gene: Gibson_61 Start: 43510, Stop: 43169, Start Num: 33

Candidate Starts for Gibson_61:

(Start: 33 @43510 has 7 MA's), (39, 43438), (40, 43417), (67, 43228), (75, 43186),

Gene: Greenbelt_89 Start: 39592, Stop: 39260, Start Num: 33

Candidate Starts for Greenbelt_89:

(Start: 33 @39592 has 7 MA's), (50, 39394), (69, 39307), (73, 39277), (75, 39271),

Gene: GuyFagieri_74 Start: 55043, Stop: 54696, Start Num: 25

Candidate Starts for GuyFagieri_74:

(Start: 25 @55043 has 6 MA's), (42, 54893), (63, 54776), (67, 54752),

Gene: HollowPurple_103 Start: 54710, Stop: 54387, Start Num: 22

Candidate Starts for HollowPurple_103:

(Start: 22 @54710 has 6 MA's), (27, 54695), (37, 54641), (42, 54569), (46, 54548), (55, 54491), (61, 54470), (66, 54455), (71, 54425), (72, 54413), (73, 54407), (75, 54401),

Gene: Issa7_102 Start: 54064, Stop: 53741, Start Num: 22

Candidate Starts for Issa7_102:

(Start: 22 @54064 has 6 MA's), (27, 54049), (37, 53995), (42, 53923), (46, 53902), (55, 53845), (61, 53824), (66, 53809), (71, 53779), (72, 53767), (73, 53761), (75, 53755),

Gene: Iter_64 Start: 41985, Stop: 42341, Start Num: 19

Candidate Starts for Iter_64:

(Start: 19 @41985 has 29 MA's), (41, 42135), (75, 42327),

Gene: IttyBittyPiggy_64 Start: 40207, Stop: 40560, Start Num: 19

Candidate Starts for IttyBittyPiggy_64:

(Start: 19 @40207 has 29 MA's), (54, 40450), (68, 40507), (75, 40546),

Gene: Jacko_98 Start: 53745, Stop: 53389, Start Num: 19

Candidate Starts for Jacko_98:

(Start: 19 @53745 has 29 MA's), (28, 53721), (36, 53685), (38, 53631), (39, 53622), (42, 53583), (44, 53571), (46, 53559), (52, 53505), (55, 53499), (62, 53472), (74, 53406),

Gene: Janeemi_62 Start: 41595, Stop: 41951, Start Num: 19

Candidate Starts for Janeemi_62:

(Start: 19 @41595 has 29 MA's), (23, 41607), (75, 41937),

Gene: Joemato_65 Start: 41955, Stop: 42311, Start Num: 19

Candidate Starts for Joemato_65:

(Start: 19 @41955 has 29 MA's), (54, 42201), (68, 42258), (75, 42297),

Gene: JohnDoe_64 Start: 41872, Stop: 42228, Start Num: 19

Candidate Starts for JohnDoe_64:

(Start: 19 @41872 has 29 MA's), (54, 42118), (68, 42175), (75, 42214),

Gene: Jstan_64 Start: 41484, Stop: 41840, Start Num: 19

Candidate Starts for Jstan_64:

(Start: 19 @41484 has 29 MA's), (41, 41634), (68, 41787), (75, 41826),

Gene: Kaylissa_65 Start: 42234, Stop: 42590, Start Num: 19

Candidate Starts for Kaylissa_65:

(Start: 19 @42234 has 29 MA's), (29, 42264), (68, 42537), (75, 42576),

Gene: Lego_63 Start: 41553, Stop: 41909, Start Num: 19

Candidate Starts for Lego_63:

(Start: 19 @41553 has 29 MA's), (29, 41583), (68, 41856), (75, 41895),

Gene: Lizalica_63 Start: 41149, Stop: 41505, Start Num: 19

Candidate Starts for Lizalica_63:

(Start: 19 @41149 has 29 MA's), (68, 41452), (75, 41491),

Gene: Lizz_61 Start: 43350, Stop: 43009, Start Num: 33

Candidate Starts for Lizz_61:

(12, 43431), (Start: 33 @43350 has 7 MA's), (39, 43278), (40, 43257), (59, 43113), (67, 43068), (75, 43026),

Gene: London_63 Start: 41721, Stop: 42077, Start Num: 19

Candidate Starts for London_63:

(Start: 19 @41721 has 29 MA's), (68, 42024), (75, 42063),

Gene: Lukepolites_35 Start: 27976, Stop: 28326, Start Num: 26

Candidate Starts for Lukepolites_35:

(1, 27541), (5, 27766), (9, 27841), (17, 27958), (26, 27976), (32, 28003), (39, 28087), (58, 28225), (60, 28231),

Gene: Maselop_76 Start: 55289, Stop: 54909, Start Num: 25

Candidate Starts for Maselop_76:

(3, 55586), (4, 55523), (6, 55463), (8, 55427), (13, 55325), (Start: 25 @55289 has 6 MA's), (42, 55139),

Gene: MissSwiss_64 Start: 40483, Stop: 40842, Start Num: 16

Candidate Starts for MissSwiss_64:

(Start: 16 @40483 has 8 MA's), (75, 40828),

Gene: Mudpuppy_62 Start: 41921, Stop: 42277, Start Num: 19

Candidate Starts for Mudpuppy_62:

(Start: 19 @41921 has 29 MA's), (68, 42224), (75, 42263),

Gene: Necrophoxinus_105 Start: 54949, Stop: 54626, Start Num: 22

Candidate Starts for Necrophoxinus_105:

(Start: 22 @54949 has 6 MA's), (27, 54934), (37, 54880), (42, 54808), (46, 54787), (55, 54730), (61, 54709), (66, 54694), (71, 54664), (72, 54652), (73, 54646), (75, 54640),

Gene: Nesbitt_47 Start: 34330, Stop: 34704, Start Num: 21

Candidate Starts for Nesbitt_47:

(Start: 21 @34330 has 1 MA's), (45, 34498), (56, 34594), (59, 34603), (64, 34627),

Gene: Niobe_63 Start: 41724, Stop: 42080, Start Num: 19
Candidate Starts for Niobe_63:
(Start: 19 @41724 has 29 MA's), (68, 42027), (75, 42066),

Gene: Nitro_64 Start: 42421, Stop: 42777, Start Num: 19
Candidate Starts for Nitro_64:
(Start: 19 @42421 has 29 MA's), (54, 42667), (68, 42724), (75, 42763),

Gene: ObiToo_68 Start: 42061, Stop: 42417, Start Num: 19
Candidate Starts for ObiToo_68:
(Start: 19 @42061 has 29 MA's), (41, 42211), (54, 42307), (70, 42370), (75, 42403),

Gene: PHTowN_61 Start: 43348, Stop: 43007, Start Num: 33
Candidate Starts for PHTowN_61:
(12, 43429), (Start: 33 @43348 has 7 MA's), (39, 43276), (40, 43255), (59, 43111), (67, 43066), (75, 43024),

Gene: Phives_64 Start: 42209, Stop: 42565, Start Num: 19
Candidate Starts for Phives_64:
(Start: 19 @42209 has 29 MA's), (23, 42221), (57, 42464), (75, 42551),

Gene: Polygyuki_76 Start: 55281, Stop: 54901, Start Num: 25
Candidate Starts for Polygyuki_76:
(Start: 25 @55281 has 6 MA's), (42, 55131),

Gene: Powerpuff_65 Start: 42757, Stop: 43113, Start Num: 19
Candidate Starts for Powerpuff_65:
(Start: 19 @42757 has 29 MA's), (68, 43060), (75, 43099),

Gene: Rooney_61 Start: 43507, Stop: 43166, Start Num: 33
Candidate Starts for Rooney_61:
(Start: 33 @43507 has 7 MA's), (39, 43435), (40, 43414), (67, 43225), (75, 43183),

Gene: ShakeNBake_61 Start: 43366, Stop: 43025, Start Num: 33
Candidate Starts for ShakeNBake_61:
(12, 43447), (Start: 33 @43366 has 7 MA's), (39, 43294), (40, 43273), (59, 43129), (67, 43084), (75, 43042),

Gene: Simpson_69 Start: 41959, Stop: 42315, Start Num: 19
Candidate Starts for Simpson_69:
(Start: 19 @41959 has 29 MA's), (54, 42205), (68, 42262), (75, 42301),

Gene: Snek_63 Start: 39170, Stop: 39511, Start Num: 18
Candidate Starts for Snek_63:
(Start: 18 @39170 has 2 MA's), (71, 39473),

Gene: Soondubu_60 Start: 43780, Stop: 44127, Start Num: 20
Candidate Starts for Soondubu_60:
(Start: 20 @43780 has 1 MA's), (65, 44059), (73, 44110),

Gene: StevieWelch_103 Start: 54233, Stop: 53910, Start Num: 22
Candidate Starts for StevieWelch_103:

(Start: 22 @54233 has 6 MA's), (27, 54218), (37, 54164), (42, 54092), (46, 54071), (55, 54014), (61, 53993), (66, 53978), (71, 53948), (72, 53936), (73, 53930), (75, 53924),

Gene: Subaru_63 Start: 41480, Stop: 41836, Start Num: 19

Candidate Starts for Subaru_63:

(Start: 19 @41480 has 29 MA's), (41, 41630), (68, 41783), (75, 41822),

Gene: Sue2_61 Start: 40180, Stop: 40542, Start Num: 16

Candidate Starts for Sue2_61:

(Start: 16 @40180 has 8 MA's), (29, 40213), (54, 40429), (64, 40465),

Gene: TPA2_52 Start: 39328, Stop: 38936, Start Num: 15

Candidate Starts for TPA2_52:

(15, 39328), (41, 39178), (47, 39118), (53, 39067), (64, 39013),

Gene: Tallboi_63 Start: 41726, Stop: 42082, Start Num: 19

Candidate Starts for Tallboi_63:

(Start: 19 @41726 has 29 MA's), (54, 41972), (68, 42029), (75, 42068),

Gene: Tbone_63 Start: 42208, Stop: 42564, Start Num: 19

Candidate Starts for Tbone_63:

(Start: 19 @42208 has 29 MA's), (68, 42511), (75, 42550),

Gene: Tuck_63 Start: 41997, Stop: 42353, Start Num: 19

Candidate Starts for Tuck_63:

(Start: 19 @41997 has 29 MA's), (23, 42009), (57, 42252), (75, 42339),

Gene: Turab_62 Start: 41182, Stop: 41538, Start Num: 19

Candidate Starts for Turab_62:

(Start: 19 @41182 has 29 MA's), (41, 41332), (68, 41485), (75, 41524),

Gene: Tutumahutu_65 Start: 41800, Stop: 42156, Start Num: 19

Candidate Starts for Tutumahutu_65:

(Start: 19 @41800 has 29 MA's), (68, 42103), (75, 42142),

Gene: Tweety19_64 Start: 39171, Stop: 39512, Start Num: 18

Candidate Starts for Tweety19_64:

(Start: 18 @39171 has 2 MA's), (71, 39474),

Gene: VResidence_64 Start: 39888, Stop: 40247, Start Num: 16

Candidate Starts for VResidence_64:

(Start: 16 @39888 has 8 MA's), (41, 40041),

Gene: Warda_64 Start: 41934, Stop: 42290, Start Num: 19

Candidate Starts for Warda_64:

(Start: 19 @41934 has 29 MA's), (68, 42237), (75, 42276),

Gene: Welcome_105 Start: 54864, Stop: 54541, Start Num: 22

Candidate Starts for Welcome_105:

(Start: 22 @54864 has 6 MA's), (27, 54849), (37, 54795), (42, 54723), (46, 54702), (55, 54645), (61, 54624), (66, 54609), (71, 54579), (72, 54567), (73, 54561), (75, 54555),

Gene: Wentworth_61 Start: 43514, Stop: 43179, Start Num: 35

Candidate Starts for Wentworth_61:

(30, 43529), (Start: 33 @43520 has 7 MA's), (Start: 35 @43514 has 1 MA's), (40, 43427), (43, 43403), (59, 43283), (64, 43256), (67, 43238), (75, 43196),

Gene: Wildwest_59 Start: 41597, Stop: 41956, Start Num: 16

Candidate Starts for Wildwest_59:

(Start: 16 @41597 has 8 MA's), (29, 41630), (68, 41903), (75, 41942),

Gene: Wilkos_63 Start: 43658, Stop: 43323, Start Num: 35

Candidate Starts for Wilkos_63:

(Start: 35 @43658 has 1 MA's), (38, 43601), (39, 43592), (40, 43571), (43, 43547), (51, 43463), (59, 43427), (64, 43400), (69, 43376), (75, 43340),

Gene: Yara_56 Start: 41985, Stop: 41650, Start Num: 33

Candidate Starts for Yara_56:

(Start: 33 @41985 has 7 MA's), (50, 41787), (59, 41751), (62, 41733), (75, 41664),

Gene: YesChef_63 Start: 41616, Stop: 41972, Start Num: 19

Candidate Starts for YesChef_63:

(Start: 19 @41616 has 29 MA's), (68, 41919), (75, 41958),