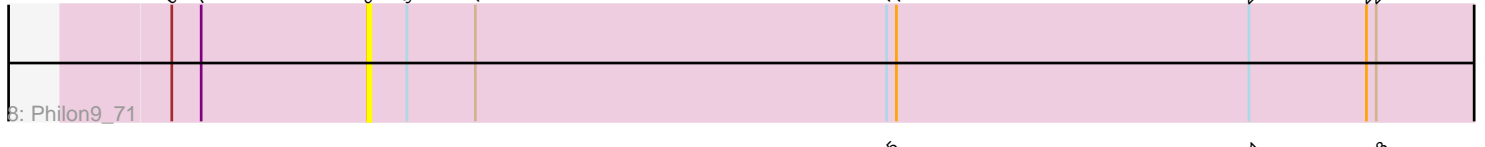
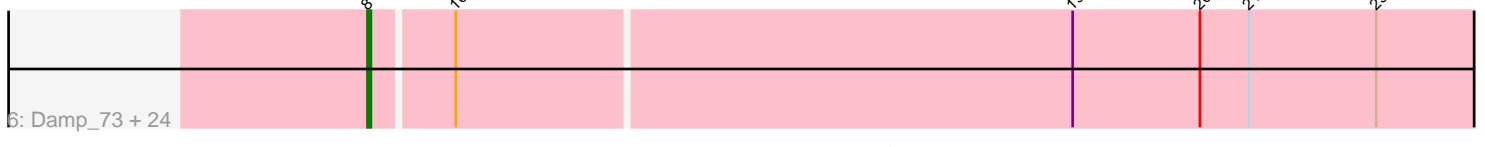
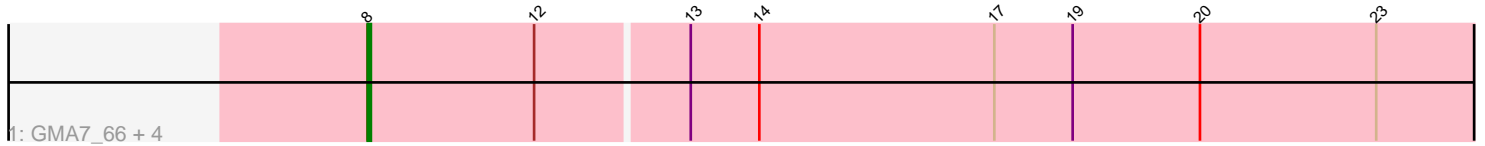


Pham 171413



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 171413 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171413 has 77 members, 13 are drafts.

Phages represented in each track:

- Track 1 : GMA7_66, HayZem_77, Austin_76, Amore2_77, GTE7_65
- Track 2 : Monty_77
- Track 3 : BigShaq_78, Eggsie_76, Chelms_78, PierreThree_77, Diabla_83, Dakiti_79, Linetti_78, RoyalG_78, BenoitCattle_79, SteveFrench_77
- Track 4 : Poland_83, CathyBurgh_77, Hotorobo_78, FelixAlejandro_82, Squibbles_77, Flakey_77, Exiguo_77, RemRem_79, Barbochs_77, Breezic_78, Sam12_77, Beaver_81, Adgers_81, GourdThymes_78, Gorko_77, Sombrero_79, Ekhein_78, Boneham_81, Jellybones_79, John316_81, Lizzo_78, BirksAndSocks_82, Butterball_80, Msay19_82
- Track 5 : PokyPuppy_75
- Track 6 : Damp_73, GalacticEye_76, Teal_75, Berries_76, Hello_75, Charianelly_76, Hail2Pitt_74, Harambe_75, Guillaume_75, Luker_77, Anamika_75, Jams_76, Lahirium_75, Kaseim_75, Newt_77, Lidong_76, MrWormie_76, Woes_75, Neevie_75, Jormungandr_75, Bianmat_76, Minos_77, Nimi13_75, Shelley_76, Sticker17_76
- Track 7 : Benczkowski14_75, Kvothe_74, Teatealatte_76, Niagara_75, Teech_73, Hollow_76, Tredge_75
- Track 8 : Philon9_71
- Track 9 : Katyusha_74
- Track 10 : ASerpRocky_70
- Track 11 : Demosthenes_70

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

The start number called the most often in the published annotations is 8, it was called in 63 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASerpRocky_70, Adgers_81, Amore2_77, Anamika_75, Austin_76, Barbochs_77, Beaver_81, Benczkowski14_75, BenoitCattle_79, Berries_76, Bianmat_76, BigShaq_78, BirksAndSocks_82, Boneham_81, Breezic_78, Butterball_80, CathyBurgh_77, Charianelly_76, Chelms_78, Dakiti_79, Damp_73, Demosthenes_70, Diabla_83, Eggsie_76, Ekhein_78, Exiguo_77, FelixAlejandro_82, Flakey_77, GMA7_66, GTE7_65, GalacticEye_76, Gorko_77, GourdThymes_78,

Guillaume_75, Hail2Pitt_74, Harambe_75, HayZem_77, Hello_75, Hollow_76, Hotorobo_78, Jams_76, Jellybones_79, John316_81, Jormungandr_75, Kaseim_75, Kvothe_74, Lahirium_75, Lidong_76, Linetti_78, Lizzo_78, Luker_77, Minos_77, Monty_77, MrWormie_76, Msay19_82, Neoevie_75, Newt_77, Niagara_75, Nimi13_75, Philon9_71, PierreThree_77, PokyPuppy_75, Poland_83, RemRem_79, RoyalG_78, Sam12_77, Shelley_76, Sombrero_79, Squibbles_77, SteveFrench_77, Sticker17_76, Teal_75, Teatealatte_76, Teech_73, Tredge_75, Woes_75,

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

- Katyusha_74,

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

-

Summary by start number:

Start 3:

- Found in 8 of 77 (10.4%) of genes in pham
- Manual Annotations of this start: 1 of 64
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Katyusha_74 (CS4),

Start 8:

- Found in 77 of 77 (100.0%) of genes in pham
- Manual Annotations of this start: 63 of 64
- Called 98.7% of time when present
- Phage (with cluster) where this start called: ASerpRocky_70 (CS4), Adgers_81 (CS2), Amore2_77 (CS1), Anamika_75 (CS3), Austin_76 (CS1), Barbochs_77 (CS2), Beaver_81 (CS2), Benczkowski14_75 (CS4), BenoitCattle_79 (CS2), Berries_76 (CS3), Bianmat_76 (CS3), BigShaq_78 (CS2), BirksAndSocks_82 (CS2), Boneham_81 (CS2), Breezic_78 (CS2), Butterball_80 (CS2), CathyBurgh_77 (CS2), Charianelly_76 (CS3), Chelms_78 (CS2), Dakiti_79 (CS2), Damp_73 (CS3), Demosthenes_70 (CS4), Diabla_83 (CS2), Eggsie_76 (CS2), Ekhein_78 (CS2), Exiguo_77 (CS2), FelixAlejandro_82 (CS2), Flakey_77 (CS2), GMA7_66 (CS1), GTE7_65 (CS1), GalacticEye_76 (CS3), Gorko_77 (CS2), GourdThymes_78 (CS2), Guillaume_75 (CS3), Hail2Pitt_74 (CS3), Harambe_75 (CS3), HayZem_77 (CS1), Hello_75 (CS3), Hollow_76 (CS4), Hotorobo_78 (CS2), Jams_76 (CS3), Jellybones_79 (CS2), John316_81 (CS2), Jormungandr_75 (CS3), Kaseim_75 (CS3), Kvothe_74 (CS4), Lahirium_75 (CS3), Lidong_76 (CS3), Linetti_78 (CS2), Lizzo_78 (CS2), Luker_77 (CS3), Minos_77 (CS3), Monty_77 (CS2), MrWormie_76 (CS3), Msay19_82 (CS2), Neoevie_75 (CS3), Newt_77 (CS3), Niagara_75 (CS4), Nimi13_75 (CS3), Philon9_71 (CS4), PierreThree_77 (CS2), PokyPuppy_75 (CS2), Poland_83 (CS2), RemRem_79 (CS2), RoyalG_78 (CS2), Sam12_77 (CS2), Shelley_76 (CS3), Sombrero_79 (CS2), Squibbles_77 (CS2), SteveFrench_77 (CS2), Sticker17_76 (CS3), Teal_75 (CS3), Teatealatte_76 (CS4), Teech_73 (CS4), Tredge_75 (CS4), Woes_75 (CS3),

Summary by clusters:

There are 4 clusters represented in this pham: CS4, CS1, CS3, CS2,

Info for manual annotations of cluster CS1:

- Start number 8 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 8 was manually annotated 29 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 8 was manually annotated 23 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 3 was manually annotated 1 time for cluster CS4.
- Start number 8 was manually annotated 8 times for cluster CS4.

Gene Information:

Gene: ASerpRocky_70 Start: 60439, Stop: 59993, Start Num: 8

Candidate Starts for ASerpRocky_70:

(1, 60514), (5, 60496), (Start: 8 @60439 has 63 MA's), (15, 60280), (21, 60169), (23, 60130),

Gene: Adgers_81 Start: 61172, Stop: 60744, Start Num: 8

Candidate Starts for Adgers_81:

(Start: 8 @61172 has 63 MA's), (16, 61016), (18, 60968), (19, 60962), (21, 60908), (23, 60869),

Gene: Amore2_77 Start: 60184, Stop: 59762, Start Num: 8

Candidate Starts for Amore2_77:

(Start: 8 @60184 has 63 MA's), (12, 60133), (13, 60088), (14, 60067), (17, 59995), (19, 59971), (20, 59932), (23, 59878),

Gene: Anamika_75 Start: 61442, Stop: 61017, Start Num: 8

Candidate Starts for Anamika_75:

(Start: 8 @61442 has 63 MA's), (10, 61418), (19, 61232), (20, 61193), (21, 61178), (23, 61139),

Gene: Austin_76 Start: 60182, Stop: 59760, Start Num: 8

Candidate Starts for Austin_76:

(Start: 8 @60182 has 63 MA's), (12, 60131), (13, 60086), (14, 60065), (17, 59993), (19, 59969), (20, 59930), (23, 59876),

Gene: Barbochs_77 Start: 60548, Stop: 60120, Start Num: 8

Candidate Starts for Barbochs_77:

(Start: 8 @60548 has 63 MA's), (16, 60392), (18, 60344), (19, 60338), (21, 60284), (23, 60245),

Gene: Beaver_81 Start: 62492, Stop: 62064, Start Num: 8

Candidate Starts for Beaver_81:

(Start: 8 @62492 has 63 MA's), (16, 62336), (18, 62288), (19, 62282), (21, 62228), (23, 62189),

Gene: Benczkowski14_75 Start: 61637, Stop: 61191, Start Num: 8

Candidate Starts for Benczkowski14_75:

(Start: 3 @61700 has 1 MA's), (6, 61691), (Start: 8 @61637 has 63 MA's), (15, 61478), (21, 61367), (23, 61328),

Gene: BenoitCattle_79 Start: 61210, Stop: 60782, Start Num: 8

Candidate Starts for BenoitCattle_79:

(Start: 8 @61210 has 63 MA's), (16, 61054), (19, 61000), (20, 60961), (21, 60946), (23, 60907),

Gene: Berries_76 Start: 61414, Stop: 60989, Start Num: 8
Candidate Starts for Berries_76:
(Start: 8 @61414 has 63 MA's), (10, 61390), (19, 61204), (20, 61165), (21, 61150), (23, 61111),

Gene: Bianmat_76 Start: 61454, Stop: 61029, Start Num: 8
Candidate Starts for Bianmat_76:
(Start: 8 @61454 has 63 MA's), (10, 61430), (19, 61244), (20, 61205), (21, 61190), (23, 61151),

Gene: BigShaq_78 Start: 61382, Stop: 60954, Start Num: 8
Candidate Starts for BigShaq_78:
(Start: 8 @61382 has 63 MA's), (16, 61226), (19, 61172), (20, 61133), (21, 61118), (23, 61079),

Gene: BirksAndSocks_82 Start: 62615, Stop: 62187, Start Num: 8
Candidate Starts for BirksAndSocks_82:
(Start: 8 @62615 has 63 MA's), (16, 62459), (18, 62411), (19, 62405), (21, 62351), (23, 62312),

Gene: Boneham_81 Start: 62540, Stop: 62112, Start Num: 8
Candidate Starts for Boneham_81:
(Start: 8 @62540 has 63 MA's), (16, 62384), (18, 62336), (19, 62330), (21, 62276), (23, 62237),

Gene: Breezic_78 Start: 60759, Stop: 60331, Start Num: 8
Candidate Starts for Breezic_78:
(Start: 8 @60759 has 63 MA's), (16, 60603), (18, 60555), (19, 60549), (21, 60495), (23, 60456),

Gene: Butterball_80 Start: 62545, Stop: 62117, Start Num: 8
Candidate Starts for Butterball_80:
(Start: 8 @62545 has 63 MA's), (16, 62389), (18, 62341), (19, 62335), (21, 62281), (23, 62242),

Gene: CathyBurgh_77 Start: 61279, Stop: 60851, Start Num: 8
Candidate Starts for CathyBurgh_77:
(Start: 8 @61279 has 63 MA's), (16, 61123), (18, 61075), (19, 61069), (21, 61015), (23, 60976),

Gene: Charianelly_76 Start: 61164, Stop: 60739, Start Num: 8
Candidate Starts for Charianelly_76:
(Start: 8 @61164 has 63 MA's), (10, 61140), (19, 60954), (20, 60915), (21, 60900), (23, 60861),

Gene: Chelms_78 Start: 61312, Stop: 60884, Start Num: 8
Candidate Starts for Chelms_78:
(Start: 8 @61312 has 63 MA's), (16, 61156), (19, 61102), (20, 61063), (21, 61048), (23, 61009),

Gene: Dakiti_79 Start: 62110, Stop: 61682, Start Num: 8
Candidate Starts for Dakiti_79:
(Start: 8 @62110 has 63 MA's), (16, 61954), (19, 61900), (20, 61861), (21, 61846), (23, 61807),

Gene: Damp_73 Start: 60328, Stop: 59903, Start Num: 8
Candidate Starts for Damp_73:
(Start: 8 @60328 has 63 MA's), (10, 60304), (19, 60118), (20, 60079), (21, 60064), (23, 60025),

Gene: Demosthenes_70 Start: 60413, Stop: 59967, Start Num: 8
Candidate Starts for Demosthenes_70:
(1, 60488), (5, 60470), (Start: 8 @60413 has 63 MA's), (15, 60254), (21, 60143), (23, 60104),

Gene: Diabla_83 Start: 62578, Stop: 62159, Start Num: 8
Candidate Starts for Diabla_83:
(Start: 8 @62578 has 63 MA's), (16, 62422), (19, 62368), (20, 62329), (21, 62314), (23, 62275),

Gene: Eggsie_76 Start: 60045, Stop: 59626, Start Num: 8
Candidate Starts for Eggsie_76:
(Start: 8 @60045 has 63 MA's), (16, 59889), (19, 59835), (20, 59796), (21, 59781), (23, 59742),

Gene: Ekhein_78 Start: 60449, Stop: 60021, Start Num: 8
Candidate Starts for Ekhein_78:
(Start: 8 @60449 has 63 MA's), (16, 60293), (18, 60245), (19, 60239), (21, 60185), (23, 60146),

Gene: Exiguo_77 Start: 60456, Stop: 60028, Start Num: 8
Candidate Starts for Exiguo_77:
(Start: 8 @60456 has 63 MA's), (16, 60300), (18, 60252), (19, 60246), (21, 60192), (23, 60153),

Gene: FelixAlejandro_82 Start: 62970, Stop: 62542, Start Num: 8
Candidate Starts for FelixAlejandro_82:
(Start: 8 @62970 has 63 MA's), (16, 62814), (18, 62766), (19, 62760), (21, 62706), (23, 62667),

Gene: Flakey_77 Start: 61265, Stop: 60837, Start Num: 8
Candidate Starts for Flakey_77:
(Start: 8 @61265 has 63 MA's), (16, 61109), (18, 61061), (19, 61055), (21, 61001), (23, 60962),

Gene: GMA7_66 Start: 54399, Stop: 53977, Start Num: 8
Candidate Starts for GMA7_66:
(Start: 8 @54399 has 63 MA's), (12, 54348), (13, 54303), (14, 54282), (17, 54210), (19, 54186), (20, 54147), (23, 54093),

Gene: GTE7_65 Start: 54429, Stop: 54007, Start Num: 8
Candidate Starts for GTE7_65:
(Start: 8 @54429 has 63 MA's), (12, 54378), (13, 54333), (14, 54312), (17, 54240), (19, 54216), (20, 54177), (23, 54123),

Gene: GalacticEye_76 Start: 61125, Stop: 60700, Start Num: 8
Candidate Starts for GalacticEye_76:
(Start: 8 @61125 has 63 MA's), (10, 61101), (19, 60915), (20, 60876), (21, 60861), (23, 60822),

Gene: Gorko_77 Start: 60366, Stop: 59938, Start Num: 8
Candidate Starts for Gorko_77:
(Start: 8 @60366 has 63 MA's), (16, 60210), (18, 60162), (19, 60156), (21, 60102), (23, 60063),

Gene: GourdThymes_78 Start: 61306, Stop: 60878, Start Num: 8
Candidate Starts for GourdThymes_78:
(Start: 8 @61306 has 63 MA's), (16, 61150), (18, 61102), (19, 61096), (21, 61042), (23, 61003),

Gene: Guillaume_75 Start: 61175, Stop: 60750, Start Num: 8
Candidate Starts for Guillaume_75:
(Start: 8 @61175 has 63 MA's), (10, 61151), (19, 60965), (20, 60926), (21, 60911), (23, 60872),

Gene: Hail2Pitt_74 Start: 61651, Stop: 61226, Start Num: 8
Candidate Starts for Hail2Pitt_74:
(Start: 8 @61651 has 63 MA's), (10, 61627), (19, 61441), (20, 61402), (21, 61387), (23, 61348),

Gene: Harambe_75 Start: 61442, Stop: 61017, Start Num: 8
Candidate Starts for Harambe_75:
(Start: 8 @61442 has 63 MA's), (10, 61418), (19, 61232), (20, 61193), (21, 61178), (23, 61139),

Gene: HayZem_77 Start: 60182, Stop: 59760, Start Num: 8
Candidate Starts for HayZem_77:
(Start: 8 @60182 has 63 MA's), (12, 60131), (13, 60086), (14, 60065), (17, 59993), (19, 59969), (20, 59930), (23, 59876),

Gene: Hello_75 Start: 61404, Stop: 60979, Start Num: 8
Candidate Starts for Hello_75:
(Start: 8 @61404 has 63 MA's), (10, 61380), (19, 61194), (20, 61155), (21, 61140), (23, 61101),

Gene: Hollow_76 Start: 61806, Stop: 61360, Start Num: 8
Candidate Starts for Hollow_76:
(Start: 3 @61869 has 1 MA's), (6, 61860), (Start: 8 @61806 has 63 MA's), (15, 61647), (21, 61536), (23, 61497),

Gene: Hotorobo_78 Start: 61329, Stop: 60901, Start Num: 8
Candidate Starts for Hotorobo_78:
(Start: 8 @61329 has 63 MA's), (16, 61173), (18, 61125), (19, 61119), (21, 61065), (23, 61026),

Gene: Jams_76 Start: 60614, Stop: 60189, Start Num: 8
Candidate Starts for Jams_76:
(Start: 8 @60614 has 63 MA's), (10, 60590), (19, 60404), (20, 60365), (21, 60350), (23, 60311),

Gene: Jellybones_79 Start: 62254, Stop: 61826, Start Num: 8
Candidate Starts for Jellybones_79:
(Start: 8 @62254 has 63 MA's), (16, 62098), (18, 62050), (19, 62044), (21, 61990), (23, 61951),

Gene: John316_81 Start: 62417, Stop: 61989, Start Num: 8
Candidate Starts for John316_81:
(Start: 8 @62417 has 63 MA's), (16, 62261), (18, 62213), (19, 62207), (21, 62153), (23, 62114),

Gene: Jormungandr_75 Start: 61157, Stop: 60732, Start Num: 8
Candidate Starts for Jormungandr_75:
(Start: 8 @61157 has 63 MA's), (10, 61133), (19, 60947), (20, 60908), (21, 60893), (23, 60854),

Gene: Kaseim_75 Start: 60599, Stop: 60174, Start Num: 8
Candidate Starts for Kaseim_75:
(Start: 8 @60599 has 63 MA's), (10, 60575), (19, 60389), (20, 60350), (21, 60335), (23, 60296),

Gene: Katyusha_74 Start: 61700, Stop: 61191, Start Num: 3
Candidate Starts for Katyusha_74:
(Start: 3 @61700 has 1 MA's), (6, 61691), (Start: 8 @61637 has 63 MA's), (15, 61478), (21, 61367), (23, 61328),

Gene: Kvothe_74 Start: 61479, Stop: 61033, Start Num: 8
Candidate Starts for Kvothe_74:
(Start: 3 @61542 has 1 MA's), (6, 61533), (Start: 8 @61479 has 63 MA's), (15, 61320), (21, 61209), (23, 61170),

Gene: Lahirium_75 Start: 61679, Stop: 61254, Start Num: 8
Candidate Starts for Lahirium_75:
(Start: 8 @61679 has 63 MA's), (10, 61655), (19, 61469), (20, 61430), (21, 61415), (23, 61376),

Gene: Lidong_76 Start: 61414, Stop: 60989, Start Num: 8
Candidate Starts for Lidong_76:
(Start: 8 @61414 has 63 MA's), (10, 61390), (19, 61204), (20, 61165), (21, 61150), (23, 61111),

Gene: Linetti_78 Start: 62334, Stop: 61906, Start Num: 8
Candidate Starts for Linetti_78:
(Start: 8 @62334 has 63 MA's), (16, 62178), (19, 62124), (20, 62085), (21, 62070), (23, 62031),

Gene: Lizzo_78 Start: 61279, Stop: 60851, Start Num: 8
Candidate Starts for Lizzo_78:
(Start: 8 @61279 has 63 MA's), (16, 61123), (18, 61075), (19, 61069), (21, 61015), (23, 60976),

Gene: Luker_77 Start: 61632, Stop: 61207, Start Num: 8
Candidate Starts for Luker_77:
(Start: 8 @61632 has 63 MA's), (10, 61608), (19, 61422), (20, 61383), (21, 61368), (23, 61329),

Gene: Minos_77 Start: 61156, Stop: 60731, Start Num: 8
Candidate Starts for Minos_77:
(Start: 8 @61156 has 63 MA's), (10, 61132), (19, 60946), (20, 60907), (21, 60892), (23, 60853),

Gene: Monty_77 Start: 60492, Stop: 60064, Start Num: 8
Candidate Starts for Monty_77:
(Start: 8 @60492 has 63 MA's), (16, 60336), (18, 60288), (19, 60282), (21, 60228), (23, 60189),

Gene: MrWormie_76 Start: 60317, Stop: 59892, Start Num: 8
Candidate Starts for MrWormie_76:
(Start: 8 @60317 has 63 MA's), (10, 60293), (19, 60107), (20, 60068), (21, 60053), (23, 60014),

Gene: Msay19_82 Start: 62856, Stop: 62428, Start Num: 8
Candidate Starts for Msay19_82:
(Start: 8 @62856 has 63 MA's), (16, 62700), (18, 62652), (19, 62646), (21, 62592), (23, 62553),

Gene: Neoevie_75 Start: 61418, Stop: 60993, Start Num: 8
Candidate Starts for Neoevie_75:
(Start: 8 @61418 has 63 MA's), (10, 61394), (19, 61208), (20, 61169), (21, 61154), (23, 61115),

Gene: Newt_77 Start: 61646, Stop: 61221, Start Num: 8
Candidate Starts for Newt_77:
(Start: 8 @61646 has 63 MA's), (10, 61622), (19, 61436), (20, 61397), (21, 61382), (23, 61343),

Gene: Niagara_75 Start: 61570, Stop: 61124, Start Num: 8
Candidate Starts for Niagara_75:
(Start: 3 @61633 has 1 MA's), (6, 61624), (Start: 8 @61570 has 63 MA's), (15, 61411), (21, 61300),
(23, 61261),

Gene: Nimi13_75 Start: 61165, Stop: 60740, Start Num: 8
Candidate Starts for Nimi13_75:
(Start: 8 @61165 has 63 MA's), (10, 61141), (19, 60955), (20, 60916), (21, 60901), (23, 60862),

Gene: Philon9_71 Start: 62080, Stop: 61646, Start Num: 8

Candidate Starts for Philon9_71:

(6, 62140), (7, 62131), (Start: 8 @62080 has 63 MA's), (9, 62068), (11, 62047), (15, 61921), (16, 61918), (21, 61810), (22, 61774), (23, 61771),

Gene: PierreThree_77 Start: 61741, Stop: 61313, Start Num: 8

Candidate Starts for PierreThree_77:

(Start: 8 @61741 has 63 MA's), (16, 61585), (19, 61531), (20, 61492), (21, 61477), (23, 61438),

Gene: PokyPuppy_75 Start: 61009, Stop: 60587, Start Num: 8

Candidate Starts for PokyPuppy_75:

(2, 61081), (4, 61075), (Start: 8 @61009 has 63 MA's), (19, 60799), (21, 60745), (23, 60706),

Gene: Poland_83 Start: 62835, Stop: 62407, Start Num: 8

Candidate Starts for Poland_83:

(Start: 8 @62835 has 63 MA's), (16, 62679), (18, 62631), (19, 62625), (21, 62571), (23, 62532),

Gene: RemRem_79 Start: 60432, Stop: 60004, Start Num: 8

Candidate Starts for RemRem_79:

(Start: 8 @60432 has 63 MA's), (16, 60276), (18, 60228), (19, 60222), (21, 60168), (23, 60129),

Gene: RoyalG_78 Start: 61019, Stop: 60600, Start Num: 8

Candidate Starts for RoyalG_78:

(Start: 8 @61019 has 63 MA's), (16, 60863), (19, 60809), (20, 60770), (21, 60755), (23, 60716),

Gene: Sam12_77 Start: 60456, Stop: 60028, Start Num: 8

Candidate Starts for Sam12_77:

(Start: 8 @60456 has 63 MA's), (16, 60300), (18, 60252), (19, 60246), (21, 60192), (23, 60153),

Gene: Shelley_76 Start: 60641, Stop: 60216, Start Num: 8

Candidate Starts for Shelley_76:

(Start: 8 @60641 has 63 MA's), (10, 60617), (19, 60431), (20, 60392), (21, 60377), (23, 60338),

Gene: Sombrero_79 Start: 61046, Stop: 60618, Start Num: 8

Candidate Starts for Sombrero_79:

(Start: 8 @61046 has 63 MA's), (16, 60890), (18, 60842), (19, 60836), (21, 60782), (23, 60743),

Gene: Squibbles_77 Start: 61309, Stop: 60881, Start Num: 8

Candidate Starts for Squibbles_77:

(Start: 8 @61309 has 63 MA's), (16, 61153), (18, 61105), (19, 61099), (21, 61045), (23, 61006),

Gene: SteveFrench_77 Start: 61259, Stop: 60840, Start Num: 8

Candidate Starts for SteveFrench_77:

(Start: 8 @61259 has 63 MA's), (16, 61103), (19, 61049), (20, 61010), (21, 60995), (23, 60956),

Gene: Sticker17_76 Start: 61129, Stop: 60704, Start Num: 8

Candidate Starts for Sticker17_76:

(Start: 8 @61129 has 63 MA's), (10, 61105), (19, 60919), (20, 60880), (21, 60865), (23, 60826),

Gene: Teal_75 Start: 61623, Stop: 61198, Start Num: 8

Candidate Starts for Teal_75:

(Start: 8 @61623 has 63 MA's), (10, 61599), (19, 61413), (20, 61374), (21, 61359), (23, 61320),

Gene: Teatealatte_76 Start: 61467, Stop: 61021, Start Num: 8

Candidate Starts for Teatealatte_76:

(Start: 3 @61530 has 1 MA's), (6, 61521), (Start: 8 @61467 has 63 MA's), (15, 61308), (21, 61197), (23, 61158),

Gene: Teech_73 Start: 61286, Stop: 60837, Start Num: 8

Candidate Starts for Teech_73:

(Start: 3 @61349 has 1 MA's), (6, 61340), (Start: 8 @61286 has 63 MA's), (15, 61127), (21, 61016), (23, 60977),

Gene: Tredge_75 Start: 61467, Stop: 61021, Start Num: 8

Candidate Starts for Tredge_75:

(Start: 3 @61530 has 1 MA's), (6, 61521), (Start: 8 @61467 has 63 MA's), (15, 61308), (21, 61197), (23, 61158),

Gene: Woes_75 Start: 61674, Stop: 61249, Start Num: 8

Candidate Starts for Woes_75:

(Start: 8 @61674 has 63 MA's), (10, 61650), (19, 61464), (20, 61425), (21, 61410), (23, 61371),