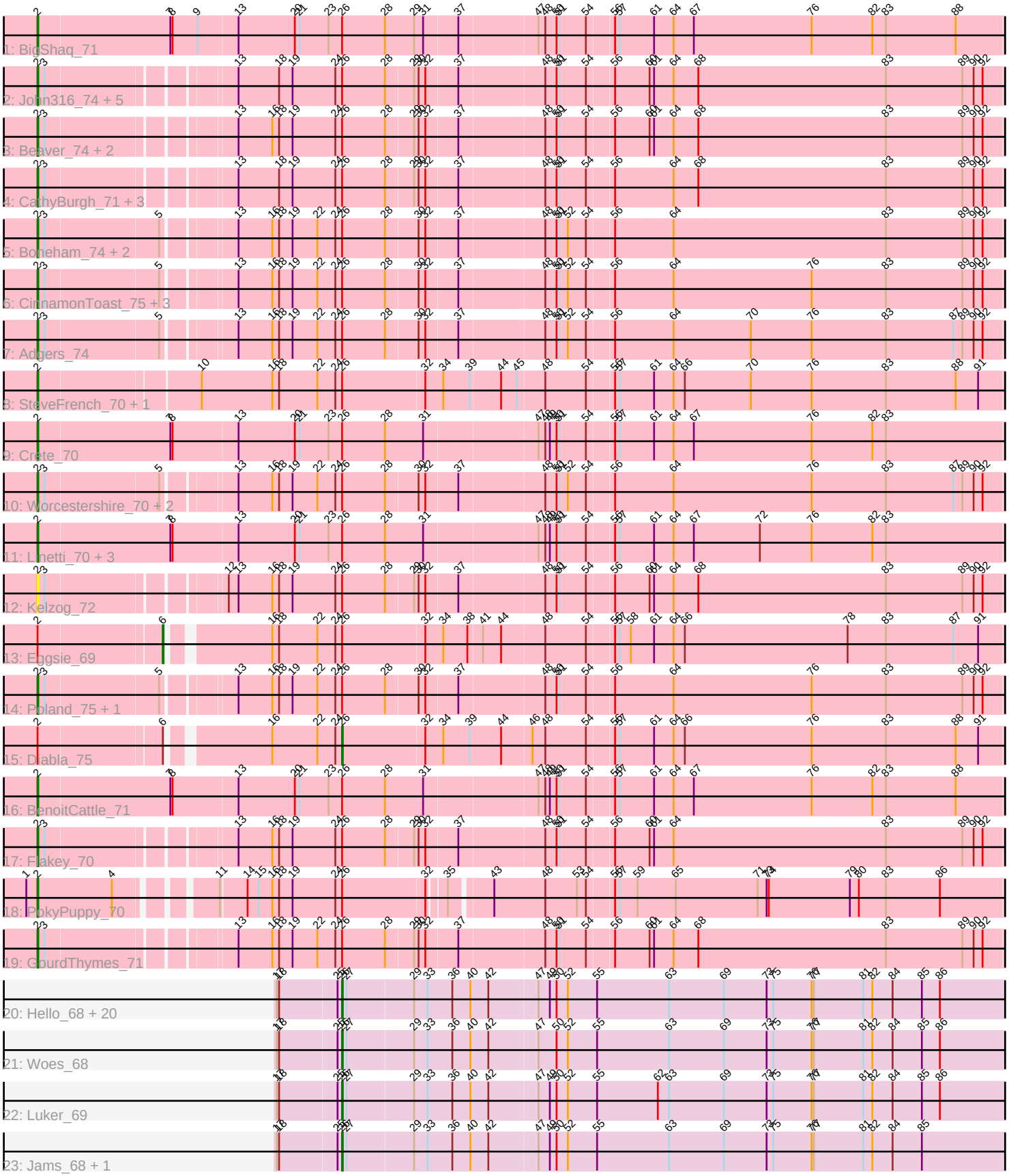
Pham 342138


1: BigShaq_71
2: John316_74 + 5
3: Beaver_74 + 2
4: CathyBurgh_71 + 3
5: Boneham_74 + 2
6: CinnamonToast_75 + 3
7: Adgers_74
8: SteveFrench_70 + 1
9: Crete_70
10: Worcestershire_70 + 2
11: Linetti_70 + 3
12: Kelzog_72
13: Eggsie_69
14: Poland_75 + 1
15: Diabla_75
16: BenoitCattle_71
17: Flakey_70
18: PokyPuppy_70
19: GourdThymes_71
20: Hello_68 + 20
21: Woes_68
22: Luker_69
23: Jams_68 + 1

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 342138 Report

This analysis was run 11/14/26 on database version 672.

Pham number 342138 has 66 members, 3 are drafts.

Phages represented in each track:
• Track 1 : BigShaq_71
• Track 2 : John316_74, Ekhein_71, Sam12_70, Monty_70, Exiguo_70, Hotorobo_71
• Track 3 : Beaver_74, Gorko_70, Squibbles_70
• Track 4 : CathyBurgh_71, RemRem_72, Breezic_71, Lizzo_71
• Track 5 : Boneham_74, FelixAlejandro_75, Butterball_73
• Track 6 : CinnamonToast_75, BillyBobJr_75, Sombrero_72, Barbochs_68
• Track 7 : Adgers_74
• Track 8 : SteveFrench_70, RoyalG_71
• Track 9 : Crete_70
• Track 10 : Worcestershire_70, Jellybones_72, BirksAndSocks_75
• Track 11 : Linetti_70, Chelms_70, PierreThree_69, Dakiti_71
• Track 12 : Kelzog_72
• Track 13 : Eggsie_69
• Track 14 : Poland_75, Msay19_75
• Track 15 : Diabla_75
• Track 16 : BenoitCattle_71
• Track 17 : Flakey_70
• Track 18 : PokyPuppy_70
• Track 19 : GourdThymes_71
• Track 20 : Hello_68, Anamika_68, Lahirium_68, Hail2Pitt_67, Neoevie_68, Berries_68, Minos_69, Charianelly_68, Nimi13_68, Lidong_68, Bianmat_68, Jormungandr_68, Damp_68, Guillaume_68, GalacticEye_68, Teal_68, Sticker17_68, Kaseim_68, MrWormie_68, Shelley_68, Newt_69
• Track 21 : Woes_68
• Track 22 : Luker_69
• Track 23 : Jams_68, Harambe_68

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

The start number called the most often in the published annotations is 2, it was called in 36 of the 63 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Adgers_74, Barbochs_68, Beaver_74, BenoitCattle_71, BigShaq_71, BillyBobJr_75, BirksAndSocks_75, Boneham_74, Breezic_71, Butterball_73, CathyBurgh_71, Chelms_70, CinnamonToast_75, Crete_70, Dakiti_71, Ekhein_71, Exiguo_70, FelixAlejandro_75, Flakey_70, Gorko_70, GourdThymes_71, Hotorobo_71, Jellybones_72, John316_74, Kelzog_72, Linetti_70, Lizzo_71, Monty_70, Msay19_75, PierreThree_69, PokyPuppy_70, Poland_75, RemRem_72, RoyalG_71, Sam12_70, Sombrero_72, Squibbles_70, SteveFrench_70, Worcestershire_70,

Genes that have the "Most Annotated" start but do not call it:
• Diabla_75, Eggsie_69,

Genes that do not have the "Most Annotated" start:
• Anamika_68, Berries_68, Bianmat_68, Charianelly_68, Damp_68, GalacticEye_68, Guillaume_68, Hail2Pitt_67, Harambe_68, Hello_68, Jams_68, Jormungandr_68, Kaseim_68, Lahirium_68, Lidong_68, Luker_69, Minos_69, MrWormie_68, Neoevie_68, Newt_69, Nimi13_68, Shelley_68, Sticker17_68, Teal_68, Woes_68,

Summary by start number:

Start 2:
• Found in 41 of 66 (62.1%) of genes in pham
• Manual Annotations of this start: 36 of 63
• Called 95.1% of time when present
• Phage (with cluster) where this start called: Adgers_74 (CS2), Barbochs_68 (CS2), Beaver_74 (CS2), BenoitCattle_71 (CS2), BigShaq_71 (CS2), BillyBobJr_75 (CS2), BirksAndSocks_75 (CS2), Boneham_74 (CS2), Breezic_71 (CS2), Butterball_73 (CS2), CathyBurgh_71 (CS2), Chelms_70 (CS2), CinnamonToast_75 (CS2), Crete_70 (CS2), Dakiti_71 (CS2), Ekhein_71 (CS2), Exiguo_70 (CS2), FelixAlejandro_75 (CS2), Flakey_70 (CS2), Gorko_70 (CS2), GourdThymes_71 (CS2), Hotorobo_71 (CS2), Jellybones_72 (CS2), John316_74 (CS2), Kelzog_72 (CS2), Linetti_70 (CS2), Lizzo_71 (CS2), Monty_70 (CS2), Msay19_75 (CS2), PierreThree_69 (CS2), PokyPuppy_70 (CS2), Poland_75 (CS2), RemRem_72 (CS2), RoyalG_71 (CS2), Sam12_70 (CS2), Sombrero_72 (CS2), Squibbles_70 (CS2), SteveFrench_70 (CS2), Worcestershire_70 (CS2),

Start 6:
• Found in 2 of 66 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 63
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Eggsie_69 (CS2),

Start 26:
• Found in 66 of 66 (100.0%) of genes in pham
• Manual Annotations of this start: 26 of 63
• Called 39.4% of time when present
• Phage (with cluster) where this start called: Anamika_68 (CS3), Berries_68 (CS3), Bianmat_68 (CS3), Charianelly_68 (CS3), Damp_68 (CS3), Diabla_75 (CS2), GalacticEye_68 (CS3), Guillaume_68 (CS3), Hail2Pitt_67 (CS3), Harambe_68 (CS3), Hello_68 (CS3), Jams_68 (CS3), Jormungandr_68 (CS3), Kaseim_68 (CS3), Lahirium_68 (CS3), Lidong_68 (CS3), Luker_69 (CS3), Minos_69 (CS3), MrWormie_68 (CS3), Neoevie_68 (CS3), Newt_69 (CS3), Nimi13_68 (CS3), Shelley_68 (CS3), Sticker17_68 (CS3), Teal_68 (CS3), Woes_68 (CS3),

Summary by clusters:

There are 2 clusters represented in this pham: CS3, CS2,

Info for manual annotations of cluster CS2:
•Start number 2 was manually annotated 36 times for cluster CS2.
•Start number 6 was manually annotated 1 time for cluster CS2.
•Start number 26 was manually annotated 1 time for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 26 was manually annotated 25 times for cluster CS3.

Gene Information:

Gene: Adgers_74 Start: 58397, Stop: 57150, Start Num: 2
Candidate Starts for Adgers_74:
(Start: 2 @58397 has 36 MA's), (3, 58388), (5, 58241), (13, 58160), (16, 58115), (18, 58106), (19, 58088), (22, 58055), (24, 58031), (Start: 26 @58022 has 26 MA's), (28, 57965), (30, 57923), (32, 57914), (37, 57875), (48, 57767), (50, 57752), (51, 57749), (52, 57737), (54, 57713), (56, 57680), (64, 57605), (70, 57503), (76, 57422), (83, 57323), (87, 57233), (89, 57221), (90, 57206), (92, 57194),

Gene: Anamika_68 Start: 58220, Stop: 57327, Start Num: 26
Candidate Starts for Anamika_68:
(17, 58304), (18, 58301), (25, 58226), (Start: 26 @58220 has 26 MA's), (27, 58214), (29, 58127), (33, 58109), (36, 58076), (40, 58052), (42, 58028), (47, 57965), (49, 57950), (50, 57941), (52, 57926), (55, 57887), (63, 57791), (69, 57719), (73, 57662), (75, 57653), (76, 57602), (77, 57599), (81, 57533), (82, 57521), (84, 57494), (85, 57455), (86, 57431),

Gene: Barbochs_68 Start: 57771, Stop: 56524, Start Num: 2
Candidate Starts for Barbochs_68:
(Start: 2 @57771 has 36 MA's), (3, 57762), (5, 57615), (13, 57534), (16, 57489), (18, 57480), (19, 57462), (22, 57429), (24, 57405), (Start: 26 @57396 has 26 MA's), (28, 57339), (30, 57297), (32, 57288), (37, 57249), (48, 57141), (50, 57126), (51, 57123), (52, 57111), (54, 57087), (56, 57054), (64, 56979), (76, 56796), (83, 56697), (89, 56595), (90, 56580), (92, 56568),

Gene: Beaver_74 Start: 59709, Stop: 58468, Start Num: 2
Candidate Starts for Beaver_74:
(Start: 2 @59709 has 36 MA's), (3, 59700), (13, 59478), (16, 59433), (18, 59424), (19, 59406), (24, 59349), (Start: 26 @59340 has 26 MA's), (28, 59283), (29, 59247), (30, 59241), (32, 59232), (37, 59193), (48, 59085), (50, 59070), (51, 59067), (54, 59031), (56, 58998), (60, 58953), (61, 58947), (64, 58923), (68, 58890), (83, 58641), (89, 58539), (90, 58524), (92, 58512),

Gene: BenoitCattle_71 Start: 58376, Stop: 57102, Start Num: 2
Candidate Starts for BenoitCattle_71:
(Start: 2 @58376 has 36 MA's), (7, 58202), (8, 58199), (13, 58115), (20, 58040), (21, 58034), (23, 57995), (Start: 26 @57977 has 26 MA's), (28, 57920), (31, 57869), (47, 57728), (48, 57719), (49, 57713), (50, 57704), (51, 57701), (54, 57665), (56, 57632), (57, 57626), (61, 57581), (64, 57557), (67, 57530), (76, 57374), (82, 57293), (83, 57275), (88, 57182),

Gene: Berries_68 Start: 58192, Stop: 57299, Start Num: 26
Candidate Starts for Berries_68:

(17, 58276), (18, 58273), (25, 58198), (Start: 26 @58192 has 26 MA's), (27, 58186), (29, 58099), (33, 58081), (36, 58048), (40, 58024), (42, 58000), (47, 57937), (49, 57922), (50, 57913), (52, 57898), (55, 57859), (63, 57763), (69, 57691), (73, 57634), (75, 57625), (76, 57574), (77, 57571), (81, 57505), (82, 57493), (84, 57466), (85, 57427), (86, 57403),

Gene: Bianmat_68 Start: 58232, Stop: 57339, Start Num: 26
Candidate Starts for Bianmat_68:
(17, 58316), (18, 58313), (25, 58238), (Start: 26 @58232 has 26 MA's), (27, 58226), (29, 58139), (33, 58121), (36, 58088), (40, 58064), (42, 58040), (47, 57977), (49, 57962), (50, 57953), (52, 57938), (55, 57899), (63, 57803), (69, 57731), (73, 57674), (75, 57665), (76, 57614), (77, 57611), (81, 57545), (82, 57533), (84, 57506), (85, 57467), (86, 57443),

Gene: BigShaq_71 Start: 58381, Stop: 57107, Start Num: 2
Candidate Starts for BigShaq_71:
(Start: 2 @58381 has 36 MA's), (7, 58207), (8, 58204), (9, 58171), (13, 58120), (20, 58045), (21, 58039), (23, 58000), (Start: 26 @57982 has 26 MA's), (28, 57925), (29, 57886), (31, 57874), (37, 57832), (47, 57733), (48, 57724), (50, 57709), (51, 57706), (54, 57670), (56, 57637), (57, 57631), (61, 57586), (64, 57562), (67, 57535), (76, 57379), (82, 57298), (83, 57280), (88, 57187),

Gene: BillyBobJr_75 Start: 59851, Stop: 58604, Start Num: 2
Candidate Starts for BillyBobJr_75:
(Start: 2 @59851 has 36 MA's), (3, 59842), (5, 59695), (13, 59614), (16, 59569), (18, 59560), (19, 59542), (22, 59509), (24, 59485), (Start: 26 @59476 has 26 MA's), (28, 59419), (30, 59377), (32, 59368), (37, 59329), (48, 59221), (50, 59206), (51, 59203), (52, 59191), (54, 59167), (56, 59134), (64, 59059), (76, 58876), (83, 58777), (89, 58675), (90, 58660), (92, 58648),

Gene: BirksAndSocks_75 Start: 59855, Stop: 58608, Start Num: 2
Candidate Starts for BirksAndSocks_75:
(Start: 2 @59855 has 36 MA's), (3, 59846), (5, 59699), (13, 59618), (16, 59573), (18, 59564), (19, 59546), (22, 59513), (24, 59489), (Start: 26 @59480 has 26 MA's), (28, 59423), (30, 59381), (32, 59372), (37, 59333), (48, 59225), (50, 59210), (51, 59207), (52, 59195), (54, 59171), (56, 59138), (64, 59063), (76, 58880), (83, 58781), (87, 58691), (89, 58679), (90, 58664), (92, 58652),

Gene: Boneham_74 Start: 59780, Stop: 58533, Start Num: 2
Candidate Starts for Boneham_74:
(Start: 2 @59780 has 36 MA's), (3, 59771), (5, 59624), (13, 59543), (16, 59498), (18, 59489), (19, 59471), (22, 59438), (24, 59414), (Start: 26 @59405 has 26 MA's), (28, 59348), (30, 59306), (32, 59297), (37, 59258), (48, 59150), (50, 59135), (51, 59132), (52, 59120), (54, 59096), (56, 59063), (64, 58988), (83, 58706), (89, 58604), (90, 58589), (92, 58577),

Gene: Breezic_71 Start: 57952, Stop: 56705, Start Num: 2
Candidate Starts for Breezic_71:
(Start: 2 @57952 has 36 MA's), (3, 57943), (13, 57715), (18, 57661), (19, 57643), (24, 57586), (Start: 26 @57577 has 26 MA's), (28, 57520), (29, 57484), (30, 57478), (32, 57469), (37, 57430), (48, 57322), (50, 57307), (51, 57304), (54, 57268), (56, 57235), (64, 57160), (68, 57127), (83, 56878), (89, 56776), (90, 56761), (92, 56749),

Gene: Butterball_73 Start: 59785, Stop: 58538, Start Num: 2
Candidate Starts for Butterball_73:
(Start: 2 @59785 has 36 MA's), (3, 59776), (5, 59629), (13, 59548), (16, 59503), (18, 59494), (19, 59476), (22, 59443), (24, 59419), (Start: 26 @59410 has 26 MA's), (28, 59353), (30, 59311), (32, 59302), (37, 59263), (48, 59155), (50, 59140), (51, 59137), (52, 59125), (54, 59101), (56, 59068), (64, 58993), (83, 58711), (89, 58609), (90, 58594), (92, 58582),

Gene: CathyBurgh_71 Start: 58460, Stop: 57219, Start Num: 2
Candidate Starts for CathyBurgh_71:
(Start: 2 @58460 has 36 MA's), (3, 58451), (13, 58229), (18, 58175), (19, 58157), (24, 58100), (Start: 26 @58091 has 26 MA's), (28, 58034), (29, 57998), (30, 57992), (32, 57983), (37, 57944), (48, 57836), (50, 57821), (51, 57818), (54, 57782), (56, 57749), (64, 57674), (68, 57641), (83, 57392), (89, 57290), (90, 57275), (92, 57263),

Gene: Charianelly_68 Start: 57942, Stop: 57049, Start Num: 26
Candidate Starts for Charianelly_68:
(17, 58026), (18, 58023), (25, 57948), (Start: 26 @57942 has 26 MA's), (27, 57936), (29, 57849), (33, 57831), (36, 57798), (40, 57774), (42, 57750), (47, 57687), (49, 57672), (50, 57663), (52, 57648), (55, 57609), (63, 57513), (69, 57441), (73, 57384), (75, 57375), (76, 57324), (77, 57321), (81, 57255), (82, 57243), (84, 57216), (85, 57177), (86, 57153),

Gene: Chelms_70 Start: 58320, Stop: 57046, Start Num: 2
Candidate Starts for Chelms_70:
(Start: 2 @58320 has 36 MA's), (7, 58146), (8, 58143), (13, 58059), (20, 57984), (21, 57978), (23, 57939), (Start: 26 @57921 has 26 MA's), (28, 57864), (31, 57813), (47, 57672), (48, 57663), (49, 57657), (50, 57648), (51, 57645), (54, 57609), (56, 57576), (57, 57570), (61, 57525), (64, 57501), (67, 57474), (72, 57387), (76, 57318), (82, 57237), (83, 57219),

Gene: CinnamonToast_75 Start: 59851, Stop: 58604, Start Num: 2
Candidate Starts for CinnamonToast_75:
(Start: 2 @59851 has 36 MA's), (3, 59842), (5, 59695), (13, 59614), (16, 59569), (18, 59560), (19, 59542), (22, 59509), (24, 59485), (Start: 26 @59476 has 26 MA's), (28, 59419), (30, 59377), (32, 59368), (37, 59329), (48, 59221), (50, 59206), (51, 59203), (52, 59191), (54, 59167), (56, 59134), (64, 59059), (76, 58876), (83, 58777), (89, 58675), (90, 58660), (92, 58648),

Gene: Crete_70 Start: 58439, Stop: 57165, Start Num: 2
Candidate Starts for Crete_70:
(Start: 2 @58439 has 36 MA's), (7, 58265), (8, 58262), (13, 58178), (20, 58103), (21, 58097), (23, 58058), (Start: 26 @58040 has 26 MA's), (28, 57983), (31, 57932), (47, 57791), (48, 57782), (49, 57776), (50, 57767), (51, 57764), (54, 57728), (56, 57695), (57, 57689), (61, 57644), (64, 57620), (67, 57593), (76, 57437), (82, 57356), (83, 57338),

Gene: Dakiti_71 Start: 59188, Stop: 57914, Start Num: 2
Candidate Starts for Dakiti_71:
(Start: 2 @59188 has 36 MA's), (7, 59014), (8, 59011), (13, 58927), (20, 58852), (21, 58846), (23, 58807), (Start: 26 @58789 has 26 MA's), (28, 58732), (31, 58681), (47, 58540), (48, 58531), (49, 58525), (50, 58516), (51, 58513), (54, 58477), (56, 58444), (57, 58438), (61, 58393), (64, 58369), (67, 58342), (72, 58255), (76, 58186), (82, 58105), (83, 58087),

Gene: Damp_68 Start: 57106, Stop: 56213, Start Num: 26
Candidate Starts for Damp_68:
(17, 57190), (18, 57187), (25, 57112), (Start: 26 @57106 has 26 MA's), (27, 57100), (29, 57013), (33, 56995), (36, 56962), (40, 56938), (42, 56914), (47, 56851), (49, 56836), (50, 56827), (52, 56812), (55, 56773), (63, 56677), (69, 56605), (73, 56548), (75, 56539), (76, 56488), (77, 56485), (81, 56419), (82, 56407), (84, 56380), (85, 56341), (86, 56317),

Gene: Diabla_75 Start: 59496, Stop: 58618, Start Num: 26
Candidate Starts for Diabla_75:

(Start: 2 @59862 has 36 MA's), (Start: 6 @59706 has 1 MA's), (16, 59589), (22, 59529), (24, 59505), (Start: 26 @59496 has 26 MA's), (32, 59388), (34, 59364), (39, 59331), (44, 59289), (46, 59250), (48, 59235), (54, 59181), (56, 59148), (57, 59142), (61, 59097), (64, 59073), (66, 59058), (76, 58890), (83, 58791), (88, 58698), (91, 58668),

Gene: Eggsie_69 Start: 57507, Stop: 56422, Start Num: 6
Candidate Starts for Eggsie_69:
(Start: 2 @57663 has 36 MA's), (Start: 6 @57507 has 1 MA's), (16, 57390), (18, 57381), (22, 57330), (24, 57306), (Start: 26 @57297 has 26 MA's), (32, 57189), (34, 57165), (38, 57135), (41, 57117), (44, 57093), (48, 57039), (54, 56985), (56, 56952), (57, 56946), (58, 56931), (61, 56901), (64, 56877), (66, 56862), (78, 56646), (83, 56595), (87, 56505), (91, 56472),

Gene: Ekhein_71 Start: 57651, Stop: 56410, Start Num: 2
Candidate Starts for Ekhein_71:
(Start: 2 @57651 has 36 MA's), (3, 57642), (13, 57420), (18, 57366), (19, 57348), (24, 57291), (Start: 26 @57282 has 26 MA's), (28, 57225), (29, 57189), (30, 57183), (32, 57174), (37, 57135), (48, 57027), (50, 57012), (51, 57009), (54, 56973), (56, 56940), (60, 56895), (61, 56889), (64, 56865), (68, 56832), (83, 56583), (89, 56481), (90, 56466), (92, 56454),

Gene: Exiguo_70 Start: 57687, Stop: 56446, Start Num: 2
Candidate Starts for Exiguo_70:
(Start: 2 @57687 has 36 MA's), (3, 57678), (13, 57456), (18, 57402), (19, 57384), (24, 57327), (Start: 26 @57318 has 26 MA's), (28, 57261), (29, 57225), (30, 57219), (32, 57210), (37, 57171), (48, 57063), (50, 57048), (51, 57045), (54, 57009), (56, 56976), (60, 56931), (61, 56925), (64, 56901), (68, 56868), (83, 56619), (89, 56517), (90, 56502), (92, 56490),

Gene: FelixAlejandro_75 Start: 60183, Stop: 58936, Start Num: 2
Candidate Starts for FelixAlejandro_75:
(Start: 2 @60183 has 36 MA's), (3, 60174), (5, 60027), (13, 59946), (16, 59901), (18, 59892), (19, 59874), (22, 59841), (24, 59817), (Start: 26 @59808 has 26 MA's), (28, 59751), (30, 59709), (32, 59700), (37, 59661), (48, 59553), (50, 59538), (51, 59535), (52, 59523), (54, 59499), (56, 59466), (64, 59391), (83, 59109), (89, 59007), (90, 58992), (92, 58980),

Gene: Flakey_70 Start: 58446, Stop: 57205, Start Num: 2
Candidate Starts for Flakey_70:
(Start: 2 @58446 has 36 MA's), (3, 58437), (13, 58215), (16, 58170), (18, 58161), (19, 58143), (24, 58086), (Start: 26 @58077 has 26 MA's), (28, 58020), (29, 57984), (30, 57978), (32, 57969), (37, 57930), (48, 57822), (50, 57807), (51, 57804), (54, 57768), (56, 57735), (60, 57690), (61, 57684), (64, 57660), (83, 57378), (89, 57276), (90, 57261), (92, 57249),

Gene: GalacticEye_68 Start: 57903, Stop: 57010, Start Num: 26
Candidate Starts for GalacticEye_68:
(17, 57987), (18, 57984), (25, 57909), (Start: 26 @57903 has 26 MA's), (27, 57897), (29, 57810), (33, 57792), (36, 57759), (40, 57735), (42, 57711), (47, 57648), (49, 57633), (50, 57624), (52, 57609), (55, 57570), (63, 57474), (69, 57402), (73, 57345), (75, 57336), (76, 57285), (77, 57282), (81, 57216), (82, 57204), (84, 57177), (85, 57138), (86, 57114),

Gene: Gorko_70 Start: 57592, Stop: 56351, Start Num: 2
Candidate Starts for Gorko_70:
(Start: 2 @57592 has 36 MA's), (3, 57583), (13, 57361), (16, 57316), (18, 57307), (19, 57289), (24, 57232), (Start: 26 @57223 has 26 MA's), (28, 57166), (29, 57130), (30, 57124), (32, 57115), (37, 57076), (48, 56968), (50, 56953), (51, 56950), (54, 56914), (56, 56881), (60, 56836), (61, 56830), (64, 56806), (68, 56773), (83, 56524), (89, 56422), (90, 56407), (92, 56395),

Gene: GourdThymes_71 Start: 58547, Stop: 57306, Start Num: 2
Candidate Starts for GourdThymes_71:
(Start: 2 @58547 has 36 MA's), (3, 58538), (13, 58316), (16, 58271), (18, 58262), (19, 58244), (22, 58211), (24, 58187), (Start: 26 @58178 has 26 MA's), (28, 58121), (29, 58085), (30, 58079), (32, 58070), (37, 58031), (48, 57923), (50, 57908), (51, 57905), (54, 57869), (56, 57836), (60, 57791), (61, 57785), (64, 57761), (68, 57728), (83, 57479), (89, 57377), (90, 57362), (92, 57350),

Gene: Guillaume_68 Start: 57953, Stop: 57060, Start Num: 26
Candidate Starts for Guillaume_68:
(17, 58037), (18, 58034), (25, 57959), (Start: 26 @57953 has 26 MA's), (27, 57947), (29, 57860), (33, 57842), (36, 57809), (40, 57785), (42, 57761), (47, 57698), (49, 57683), (50, 57674), (52, 57659), (55, 57620), (63, 57524), (69, 57452), (73, 57395), (75, 57386), (76, 57335), (77, 57332), (81, 57266), (82, 57254), (84, 57227), (85, 57188), (86, 57164),

Gene: Hail2Pitt_67 Start: 58429, Stop: 57536, Start Num: 26
Candidate Starts for Hail2Pitt_67:
(17, 58513), (18, 58510), (25, 58435), (Start: 26 @58429 has 26 MA's), (27, 58423), (29, 58336), (33, 58318), (36, 58285), (40, 58261), (42, 58237), (47, 58174), (49, 58159), (50, 58150), (52, 58135), (55, 58096), (63, 58000), (69, 57928), (73, 57871), (75, 57862), (76, 57811), (77, 57808), (81, 57742), (82, 57730), (84, 57703), (85, 57664), (86, 57640),

Gene: Harambe_68 Start: 58220, Stop: 57327, Start Num: 26
Candidate Starts for Harambe_68:
(17, 58304), (18, 58301), (25, 58226), (Start: 26 @58220 has 26 MA's), (27, 58214), (29, 58127), (33, 58109), (36, 58076), (40, 58052), (42, 58028), (47, 57965), (49, 57950), (50, 57941), (52, 57926), (55, 57887), (63, 57791), (69, 57719), (73, 57662), (75, 57653), (76, 57602), (77, 57599), (81, 57533), (82, 57521), (84, 57494), (85, 57455),

Gene: Hello_68 Start: 58182, Stop: 57289, Start Num: 26
Candidate Starts for Hello_68:
(17, 58266), (18, 58263), (25, 58188), (Start: 26 @58182 has 26 MA's), (27, 58176), (29, 58089), (33, 58071), (36, 58038), (40, 58014), (42, 57990), (47, 57927), (49, 57912), (50, 57903), (52, 57888), (55, 57849), (63, 57753), (69, 57681), (73, 57624), (75, 57615), (76, 57564), (77, 57561), (81, 57495), (82, 57483), (84, 57456), (85, 57417), (86, 57393),

Gene: Hotorobo_71 Start: 58534, Stop: 57293, Start Num: 2
Candidate Starts for Hotorobo_71:
(Start: 2 @58534 has 36 MA's), (3, 58525), (13, 58303), (18, 58249), (19, 58231), (24, 58174), (Start: 26 @58165 has 26 MA's), (28, 58108), (29, 58072), (30, 58066), (32, 58057), (37, 58018), (48, 57910), (50, 57895), (51, 57892), (54, 57856), (56, 57823), (60, 57778), (61, 57772), (64, 57748), (68, 57715), (83, 57466), (89, 57364), (90, 57349), (92, 57337),

Gene: Jams_68 Start: 57392, Stop: 56499, Start Num: 26
Candidate Starts for Jams_68:
(17, 57476), (18, 57473), (25, 57398), (Start: 26 @57392 has 26 MA's), (27, 57386), (29, 57299), (33, 57281), (36, 57248), (40, 57224), (42, 57200), (47, 57137), (49, 57122), (50, 57113), (52, 57098), (55, 57059), (63, 56963), (69, 56891), (73, 56834), (75, 56825), (76, 56774), (77, 56771), (81, 56705), (82, 56693), (84, 56666), (85, 56627),

Gene: Jellybones_72 Start: 59468, Stop: 58221, Start Num: 2
Candidate Starts for Jellybones_72:

(Start: 2 @59468 has 36 MA's), (3, 59459), (5, 59312), (13, 59231), (16, 59186), (18, 59177), (19, 59159), (22, 59126), (24, 59102), (Start: 26 @59093 has 26 MA's), (28, 59036), (30, 58994), (32, 58985), (37, 58946), (48, 58838), (50, 58823), (51, 58820), (52, 58808), (54, 58784), (56, 58751), (64, 58676), (76, 58493), (83, 58394), (87, 58304), (89, 58292), (90, 58277), (92, 58265),

Gene: John316_74 Start: 59611, Stop: 58370, Start Num: 2
Candidate Starts for John316_74:
(Start: 2 @59611 has 36 MA's), (3, 59602), (13, 59380), (18, 59326), (19, 59308), (24, 59251), (Start: 26 @59242 has 26 MA's), (28, 59185), (29, 59149), (30, 59143), (32, 59134), (37, 59095), (48, 58987), (50, 58972), (51, 58969), (54, 58933), (56, 58900), (60, 58855), (61, 58849), (64, 58825), (68, 58792), (83, 58543), (89, 58441), (90, 58426), (92, 58414),

Gene: Jormungandr_68 Start: 57935, Stop: 57042, Start Num: 26
Candidate Starts for Jormungandr_68:
(17, 58019), (18, 58016), (25, 57941), (Start: 26 @57935 has 26 MA's), (27, 57929), (29, 57842), (33, 57824), (36, 57791), (40, 57767), (42, 57743), (47, 57680), (49, 57665), (50, 57656), (52, 57641), (55, 57602), (63, 57506), (69, 57434), (73, 57377), (75, 57368), (76, 57317), (77, 57314), (81, 57248), (82, 57236), (84, 57209), (85, 57170), (86, 57146),

Gene: Kaseim_68 Start: 57377, Stop: 56484, Start Num: 26
Candidate Starts for Kaseim_68:
(17, 57461), (18, 57458), (25, 57383), (Start: 26 @57377 has 26 MA's), (27, 57371), (29, 57284), (33, 57266), (36, 57233), (40, 57209), (42, 57185), (47, 57122), (49, 57107), (50, 57098), (52, 57083), (55, 57044), (63, 56948), (69, 56876), (73, 56819), (75, 56810), (76, 56759), (77, 56756), (81, 56690), (82, 56678), (84, 56651), (85, 56612), (86, 56588),

Gene: Kelzog_72 Start: 58423, Stop: 57182, Start Num: 2
Candidate Starts for Kelzog_72:
(Start: 2 @58423 has 36 MA's), (3, 58414), (12, 58204), (13, 58192), (16, 58147), (18, 58138), (19, 58120), (24, 58063), (Start: 26 @58054 has 26 MA's), (28, 57997), (29, 57961), (30, 57955), (32, 57946), (37, 57907), (48, 57799), (50, 57784), (51, 57781), (54, 57745), (56, 57712), (60, 57667), (61, 57661), (64, 57637), (68, 57604), (83, 57355), (89, 57253), (90, 57238), (92, 57226),

Gene: Lahirium_68 Start: 58457, Stop: 57564, Start Num: 26
Candidate Starts for Lahirium_68:
(17, 58541), (18, 58538), (25, 58463), (Start: 26 @58457 has 26 MA's), (27, 58451), (29, 58364), (33, 58346), (36, 58313), (40, 58289), (42, 58265), (47, 58202), (49, 58187), (50, 58178), (52, 58163), (55, 58124), (63, 58028), (69, 57956), (73, 57899), (75, 57890), (76, 57839), (77, 57836), (81, 57770), (82, 57758), (84, 57731), (85, 57692), (86, 57668),

Gene: Lidong_68 Start: 58192, Stop: 57299, Start Num: 26
Candidate Starts for Lidong_68:
(17, 58276), (18, 58273), (25, 58198), (Start: 26 @58192 has 26 MA's), (27, 58186), (29, 58099), (33, 58081), (36, 58048), (40, 58024), (42, 58000), (47, 57937), (49, 57922), (50, 57913), (52, 57898), (55, 57859), (63, 57763), (69, 57691), (73, 57634), (75, 57625), (76, 57574), (77, 57571), (81, 57505), (82, 57493), (84, 57466), (85, 57427), (86, 57403),

Gene: Linetti_70 Start: 59342, Stop: 58068, Start Num: 2
Candidate Starts for Linetti_70:
(Start: 2 @59342 has 36 MA's), (7, 59168), (8, 59165), (13, 59081), (20, 59006), (21, 59000), (23, 58961), (Start: 26 @58943 has 26 MA's), (28, 58886), (31, 58835), (47, 58694), (48, 58685), (49, 58679), (50, 58670), (51, 58667), (54, 58631), (56, 58598), (57, 58592), (61, 58547), (64, 58523), (67, 58496), (72, 58409), (76, 58340), (82, 58259), (83, 58241),

Gene: Lizzo_71 Start: 58460, Stop: 57219, Start Num: 2
Candidate Starts for Lizzo_71:
(Start: 2 @58460 has 36 MA's), (3, 58451), (13, 58229), (18, 58175), (19, 58157), (24, 58100), (Start: 26 @58091 has 26 MA's), (28, 58034), (29, 57998), (30, 57992), (32, 57983), (37, 57944), (48, 57836), (50, 57821), (51, 57818), (54, 57782), (56, 57749), (64, 57674), (68, 57641), (83, 57392), (89, 57290), (90, 57275), (92, 57263),

Gene: Luker_69 Start: 58410, Stop: 57517, Start Num: 26
Candidate Starts for Luker_69:
(17, 58494), (18, 58491), (25, 58416), (Start: 26 @58410 has 26 MA's), (27, 58404), (29, 58317), (33, 58299), (36, 58266), (40, 58242), (42, 58218), (47, 58155), (49, 58140), (50, 58131), (52, 58116), (55, 58077), (62, 57996), (63, 57981), (69, 57909), (73, 57852), (75, 57843), (76, 57792), (77, 57789), (81, 57723), (82, 57711), (84, 57684), (85, 57645), (86, 57621),

Gene: Minos_69 Start: 57934, Stop: 57041, Start Num: 26
Candidate Starts for Minos_69:
(17, 58018), (18, 58015), (25, 57940), (Start: 26 @57934 has 26 MA's), (27, 57928), (29, 57841), (33, 57823), (36, 57790), (40, 57766), (42, 57742), (47, 57679), (49, 57664), (50, 57655), (52, 57640), (55, 57601), (63, 57505), (69, 57433), (73, 57376), (75, 57367), (76, 57316), (77, 57313), (81, 57247), (82, 57235), (84, 57208), (85, 57169), (86, 57145),

Gene: Monty_70 Start: 57673, Stop: 56432, Start Num: 2
Candidate Starts for Monty_70:
(Start: 2 @57673 has 36 MA's), (3, 57664), (13, 57442), (18, 57388), (19, 57370), (24, 57313), (Start: 26 @57304 has 26 MA's), (28, 57247), (29, 57211), (30, 57205), (32, 57196), (37, 57157), (48, 57049), (50, 57034), (51, 57031), (54, 56995), (56, 56962), (60, 56917), (61, 56911), (64, 56887), (68, 56854), (83, 56605), (89, 56503), (90, 56488), (92, 56476),

Gene: MrWormie_68 Start: 57095, Stop: 56202, Start Num: 26
Candidate Starts for MrWormie_68:
(17, 57179), (18, 57176), (25, 57101), (Start: 26 @57095 has 26 MA's), (27, 57089), (29, 57002), (33, 56984), (36, 56951), (40, 56927), (42, 56903), (47, 56840), (49, 56825), (50, 56816), (52, 56801), (55, 56762), (63, 56666), (69, 56594), (73, 56537), (75, 56528), (76, 56477), (77, 56474), (81, 56408), (82, 56396), (84, 56369), (85, 56330), (86, 56306),

Gene: Msay19_75 Start: 60069, Stop: 58822, Start Num: 2
Candidate Starts for Msay19_75:
(Start: 2 @60069 has 36 MA's), (3, 60060), (5, 59913), (13, 59832), (16, 59787), (18, 59778), (19, 59760), (22, 59727), (24, 59703), (Start: 26 @59694 has 26 MA's), (28, 59637), (30, 59595), (32, 59586), (37, 59547), (48, 59439), (50, 59424), (51, 59421), (54, 59385), (56, 59352), (64, 59277), (76, 59094), (83, 58995), (89, 58893), (90, 58878), (92, 58866),

Gene: Neoevie_68 Start: 58196, Stop: 57303, Start Num: 26
Candidate Starts for Neoevie_68:
(17, 58280), (18, 58277), (25, 58202), (Start: 26 @58196 has 26 MA's), (27, 58190), (29, 58103), (33, 58085), (36, 58052), (40, 58028), (42, 58004), (47, 57941), (49, 57926), (50, 57917), (52, 57902), (55, 57863), (63, 57767), (69, 57695), (73, 57638), (75, 57629), (76, 57578), (77, 57575), (81, 57509), (82, 57497), (84, 57470), (85, 57431), (86, 57407),

Gene: Newt_69 Start: 58424, Stop: 57531, Start Num: 26
Candidate Starts for Newt_69:

(17, 58508), (18, 58505), (25, 58430), (Start: 26 @58424 has 26 MA's), (27, 58418), (29, 58331), (33, 58313), (36, 58280), (40, 58256), (42, 58232), (47, 58169), (49, 58154), (50, 58145), (52, 58130), (55, 58091), (63, 57995), (69, 57923), (73, 57866), (75, 57857), (76, 57806), (77, 57803), (81, 57737), (82, 57725), (84, 57698), (85, 57659), (86, 57635),

Gene: Nimi13_68 Start: 57943, Stop: 57050, Start Num: 26
Candidate Starts for Nimi13_68:
(17, 58027), (18, 58024), (25, 57949), (Start: 26 @57943 has 26 MA's), (27, 57937), (29, 57850), (33, 57832), (36, 57799), (40, 57775), (42, 57751), (47, 57688), (49, 57673), (50, 57664), (52, 57649), (55, 57610), (63, 57514), (69, 57442), (73, 57385), (75, 57376), (76, 57325), (77, 57322), (81, 57256), (82, 57244), (84, 57217), (85, 57178), (86, 57154),

Gene: PierreThree_69 Start: 58819, Stop: 57545, Start Num: 2
Candidate Starts for PierreThree_69:
(Start: 2 @58819 has 36 MA's), (7, 58645), (8, 58642), (13, 58558), (20, 58483), (21, 58477), (23, 58438), (Start: 26 @58420 has 26 MA's), (28, 58363), (31, 58312), (47, 58171), (48, 58162), (49, 58156), (50, 58147), (51, 58144), (54, 58108), (56, 58075), (57, 58069), (61, 58024), (64, 58000), (67, 57973), (72, 57886), (76, 57817), (82, 57736), (83, 57718),

Gene: PokyPuppy_70 Start: 58809, Stop: 57583, Start Num: 2
Candidate Starts for PokyPuppy_70:
(1, 58824), (Start: 2 @58809 has 36 MA's), (4, 58710), (11, 58602), (14, 58569), (15, 58554), (16, 58536), (18, 58527), (19, 58509), (24, 58452), (Start: 26 @58443 has 26 MA's), (32, 58335), (35, 58314), (43, 58266), (48, 58200), (53, 58158), (54, 58146), (56, 58113), (57, 58107), (59, 58083), (65, 58035), (71, 57927), (73, 57915), (74, 57912), (79, 57804), (80, 57792), (83, 57756), (86, 57684),

Gene: Poland_75 Start: 60048, Stop: 58801, Start Num: 2
Candidate Starts for Poland_75:
(Start: 2 @60048 has 36 MA's), (3, 60039), (5, 59892), (13, 59811), (16, 59766), (18, 59757), (19, 59739), (22, 59706), (24, 59682), (Start: 26 @59673 has 26 MA's), (28, 59616), (30, 59574), (32, 59565), (37, 59526), (48, 59418), (50, 59403), (51, 59400), (54, 59364), (56, 59331), (64, 59256), (76, 59073), (83, 58974), (89, 58872), (90, 58857), (92, 58845),

Gene: RemRem_72 Start: 57663, Stop: 56422, Start Num: 2
Candidate Starts for RemRem_72:
(Start: 2 @57663 has 36 MA's), (3, 57654), (13, 57432), (18, 57378), (19, 57360), (24, 57303), (Start: 26 @57294 has 26 MA's), (28, 57237), (29, 57201), (30, 57195), (32, 57186), (37, 57147), (48, 57039), (50, 57024), (51, 57021), (54, 56985), (56, 56952), (64, 56877), (68, 56844), (83, 56595), (89, 56493), (90, 56478), (92, 56466),

Gene: RoyalG_71 Start: 58320, Stop: 57055, Start Num: 2
Candidate Starts for RoyalG_71:
(Start: 2 @58320 has 36 MA's), (10, 58116), (16, 58023), (18, 58014), (22, 57963), (24, 57939), (Start: 26 @57930 has 26 MA's), (32, 57822), (34, 57798), (39, 57765), (44, 57726), (45, 57705), (48, 57672), (54, 57618), (56, 57585), (57, 57579), (61, 57534), (64, 57510), (66, 57495), (70, 57408), (76, 57327), (83, 57228), (88, 57135), (91, 57105),

Gene: Sam12_70 Start: 57687, Stop: 56446, Start Num: 2
Candidate Starts for Sam12_70:
(Start: 2 @57687 has 36 MA's), (3, 57678), (13, 57456), (18, 57402), (19, 57384), (24, 57327), (Start: 26 @57318 has 26 MA's), (28, 57261), (29, 57225), (30, 57219), (32, 57210), (37, 57171), (48, 57063), (50, 57048), (51, 57045), (54, 57009), (56, 56976), (60, 56931), (61, 56925), (64, 56901), (68, 56868), (83, 56619), (89, 56517), (90, 56502), (92, 56490),

Gene: Shelley_68 Start: 57419, Stop: 56526, Start Num: 26
Candidate Starts for Shelley_68:
(17, 57503), (18, 57500), (25, 57425), (Start: 26 @57419 has 26 MA's), (27, 57413), (29, 57326), (33, 57308), (36, 57275), (40, 57251), (42, 57227), (47, 57164), (49, 57149), (50, 57140), (52, 57125), (55, 57086), (63, 56990), (69, 56918), (73, 56861), (75, 56852), (76, 56801), (77, 56798), (81, 56732), (82, 56720), (84, 56693), (85, 56654), (86, 56630),

Gene: Sombrero_72 Start: 58260, Stop: 57013, Start Num: 2
Candidate Starts for Sombrero_72:
(Start: 2 @58260 has 36 MA's), (3, 58251), (5, 58104), (13, 58023), (16, 57978), (18, 57969), (19, 57951), (22, 57918), (24, 57894), (Start: 26 @57885 has 26 MA's), (28, 57828), (30, 57786), (32, 57777), (37, 57738), (48, 57630), (50, 57615), (51, 57612), (52, 57600), (54, 57576), (56, 57543), (64, 57468), (76, 57285), (83, 57186), (89, 57084), (90, 57069), (92, 57057),

Gene: Squibbles_70 Start: 58526, Stop: 57285, Start Num: 2
Candidate Starts for Squibbles_70:
(Start: 2 @58526 has 36 MA's), (3, 58517), (13, 58295), (16, 58250), (18, 58241), (19, 58223), (24, 58166), (Start: 26 @58157 has 26 MA's), (28, 58100), (29, 58064), (30, 58058), (32, 58049), (37, 58010), (48, 57902), (50, 57887), (51, 57884), (54, 57848), (56, 57815), (60, 57770), (61, 57764), (64, 57740), (68, 57707), (83, 57458), (89, 57356), (90, 57341), (92, 57329),

Gene: SteveFrench_70 Start: 58560, Stop: 57295, Start Num: 2
Candidate Starts for SteveFrench_70:
(Start: 2 @58560 has 36 MA's), (10, 58356), (16, 58263), (18, 58254), (22, 58203), (24, 58179), (Start: 26 @58170 has 26 MA's), (32, 58062), (34, 58038), (39, 58005), (44, 57966), (45, 57945), (48, 57912), (54, 57858), (56, 57825), (57, 57819), (61, 57774), (64, 57750), (66, 57735), (70, 57648), (76, 57567), (83, 57468), (88, 57375), (91, 57345),

Gene: Sticker17_68 Start: 57907, Stop: 57014, Start Num: 26
Candidate Starts for Sticker17_68:
(17, 57991), (18, 57988), (25, 57913), (Start: 26 @57907 has 26 MA's), (27, 57901), (29, 57814), (33, 57796), (36, 57763), (40, 57739), (42, 57715), (47, 57652), (49, 57637), (50, 57628), (52, 57613), (55, 57574), (63, 57478), (69, 57406), (73, 57349), (75, 57340), (76, 57289), (77, 57286), (81, 57220), (82, 57208), (84, 57181), (85, 57142), (86, 57118),

Gene: Teal_68 Start: 58401, Stop: 57508, Start Num: 26
Candidate Starts for Teal_68:
(17, 58485), (18, 58482), (25, 58407), (Start: 26 @58401 has 26 MA's), (27, 58395), (29, 58308), (33, 58290), (36, 58257), (40, 58233), (42, 58209), (47, 58146), (49, 58131), (50, 58122), (52, 58107), (55, 58068), (63, 57972), (69, 57900), (73, 57843), (75, 57834), (76, 57783), (77, 57780), (81, 57714), (82, 57702), (84, 57675), (85, 57636), (86, 57612),

Gene: Woes_68 Start: 58452, Stop: 57559, Start Num: 26
Candidate Starts for Woes_68:
(17, 58536), (18, 58533), (25, 58458), (Start: 26 @58452 has 26 MA's), (27, 58446), (29, 58359), (33, 58341), (36, 58308), (40, 58284), (42, 58260), (47, 58197), (50, 58173), (52, 58158), (55, 58119), (63, 58023), (69, 57951), (73, 57894), (75, 57885), (76, 57834), (77, 57831), (81, 57765), (82, 57753), (84, 57726), (85, 57687), (86, 57663),

Gene: Worcestershire_70 Start: 57671, Stop: 56424, Start Num: 2
Candidate Starts for Worcestershire_70:

(Start: 2 @57671 has 36 MA's), (3, 57662), (5, 57515), (13, 57434), (16, 57389), (18, 57380), (19, 57362), (22, 57329), (24, 57305), (Start: 26 @57296 has 26 MA's), (28, 57239), (30, 57197), (32, 57188), (37, 57149), (48, 57041), (50, 57026), (51, 57023), (52, 57011), (54, 56987), (56, 56954), (64, 56879), (76, 56696), (83, 56597), (87, 56507), (89, 56495), (90, 56480), (92, 56468),