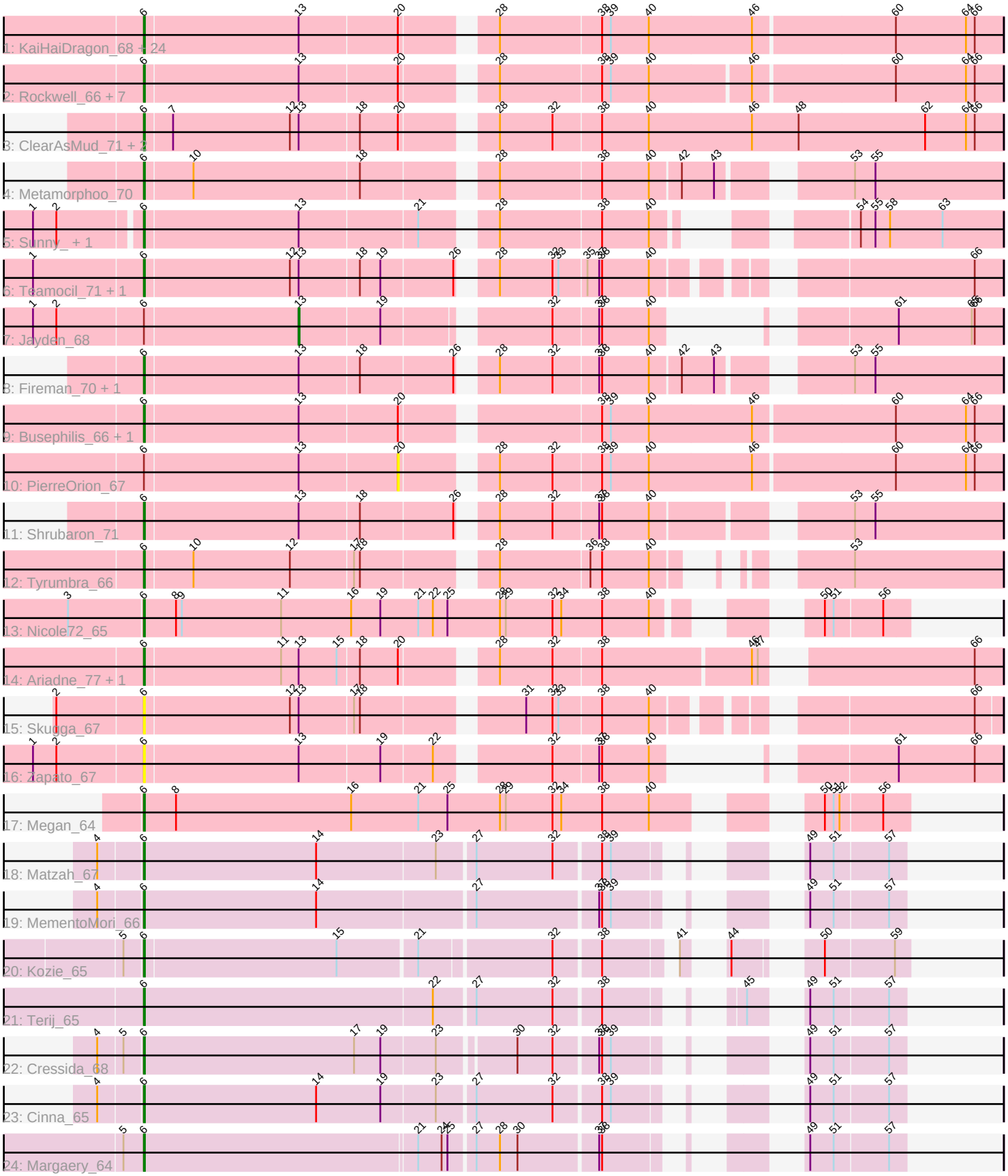
Pham 336760


1: KaiHaiDragon_68 + 24
2: Rockwell_66 + 7
3: ClearAsMud_71 + 2
4: Metamorphoo_70
5: Sunny_ + 1
6: Teamocil_71 + 1
7: Jayden_68
8: Fireman_70 + 1
9: Busephilis_66 + 1
10: PierreOrion_67
11: Shrubaron_71
12: Tyrumbra_66
13: Nicole72_65
14: Ariadne_77 + 1
15: Skugga_67
16: Zapato_67
17: Megan_64
18: Matzah_67
19: MementoMori_66
20: Kozie_65
21: Terij_65
22: Cressida_68
23: Cinna_65
24: Margaery_64

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 336760 Report

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

Pham number 336760 has 62 members, 6 are drafts.

Phages represented in each track:
• Track 1 : KaiHaiDragon_68, EarickHC_68, Hermeonysus_67, Shotgun_67, Cranjis_68, PhedwardCullen_66, Germa_69, Honeyfin_68, Quhwah_71, Jefe_67, Phorgeous_67, Savannah_66, Ganandorf_66, Piperis_68, Selwyn23_68, Scumberland_69, BeagleBug_66, CrazyRich_66, Crisis_68, Pulchra_69, Glorp_68, Yeti_69, LittleFortune_69, Antares_67, Phrancesco_67
• Track 2 : Rockwell_66, Paschalis_67, BrazzalePHS_66, Onika_66, Jollipop_68, Ramiel05_66, Kowalski_66, PiperSansNom_68
• Track 3 : ClearAsMud_71, NoodlelyBoi_68, SirFrank_67
• Track 4 : Metamorphoo_70
• Track 5 : Sunny_, Merry_
• Track 6 : Teamocil_71, Gina_71
• Track 7 : Jayden_68
• Track 8 : Fireman_70, RobsFeet_71
• Track 9 : Busephilis_66, Lucretia_67
• Track 10 : PierreOrion_67
• Track 11 : Shrubaron_71
• Track 12 : Tyrumbra_66
• Track 13 : Nicole72_65
• Track 14 : Ariadne_77, Smarties_77
• Track 15 : Skugga_67
• Track 16 : Zapato_67
• Track 17 : Megan_64
• Track 18 : Matzah_67
• Track 19 : MementoMori_66
• Track 20 : Kozie_65
• Track 21 : Terij_65
• Track 22 : Cressida_68
• Track 23 : Cinna_65
• Track 24 : Margaery_64

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

The start number called the most often in the published annotations is 6, it was called in 55 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Antares_67, Ariadne_77, BeagleBug_66, BrazzalePHS_66, Busephilis_66, Cinna_65, ClearAsMud_71, Cranjis_68, CrazyRich_66, Cressida_68, Crisis_68, EarickHC_68, Fireman_70, Ganandorf_66, Germa_69, Gina_71, Glorp_68, Hermeonysus_67, Honeyfin_68, Jefe_67, Jollipop_68, KaiHaiDragon_68, Kowalski_66, Kozie_65, LittleFortune_69, Lucretia_67, Margaery_64, Matzah_67, Megan_64, MementoMori_66, Merry_, Metamorphoo_70, Nicole72_65, NoodlelyBoi_68, Onika_66, Paschalis_67, PhedwardCullen_66, Phorgeous_67, Phrancesco_67, PiperSansNom_68, Piperis_68, Pulchra_69, Quhwah_71, Ramiel05_66, RobsFeet_71, Rockwell_66, Savannah_66, Scumberland_69, Selwyn23_68, Shotgun_67, Shrubaron_71, SirFrank_67, Skugga_67, Smarties_77, Sunny_, Teamocil_71, Terij_65, Tyrumbra_66, Yeti_69, Zapato_67,

Genes that have the "Most Annotated" start but do not call it:
• Jayden_68, PierreOrion_67,

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

Summary by start number:

Start 6:
• Found in 62 of 62 (100.0%) of genes in pham
• Manual Annotations of this start: 55 of 56
• Called 96.8% of time when present
• Phage (with cluster) where this start called: Antares_67 (EC), Ariadne_77 (EC), BeagleBug_66 (EC), BrazzalePHS_66 (EC), Busephilis_66 (EC), Cinna_65 (EI), ClearAsMud_71 (EC), Cranjis_68 (EC), CrazyRich_66 (EC), Cressida_68 (EI), Crisis_68 (EC), EarickHC_68 (EC), Fireman_70 (EC), Ganandorf_66 (EC), Germa_69 (EC), Gina_71 (EC), Glorp_68 (EC), Hermeonysus_67 (EC), Honeyfin_68 (EC), Jefe_67 (EC), Jollipop_68 (EC), KaiHaiDragon_68 (EC), Kowalski_66 (EC), Kozie_65 (EI), LittleFortune_69 (EC), Lucretia_67 (EC), Margaery_64 (EI), Matzah_67 (EI), Megan_64 (EC), MementoMori_66 (EI), Merry_ (EC), Metamorphoo_70 (EC), Nicole72_65 (EC), NoodlelyBoi_68 (EC), Onika_66 (EC), Paschalis_67 (EC), PhedwardCullen_66 (EC), Phorgeous_67 (EC), Phrancesco_67 (EC), PiperSansNom_68 (EC), Piperis_68 (EC), Pulchra_69 (EC), Quhwah_71 (EC), Ramiel05_66 (EC), RobsFeet_71 (EC), Rockwell_66 (EC), Savannah_66 (EC), Scumberland_69 (EC), Selwyn23_68 (EC), Shotgun_67 (EC), Shrubaron_71 (EC), SirFrank_67 (EC), Skugga_67 (EC), Smarties_77 (EC), Sunny_ (EC), Teamocil_71 (EC), Terij_65 (EI), Tyrumbra_66 (EC), Yeti_69 (EC), Zapato_67 (EC),

Start 13:
• Found in 51 of 62 (82.3%) of genes in pham
• Manual Annotations of this start: 1 of 56
• Called 2.0% of time when present
• Phage (with cluster) where this start called: Jayden_68 (EC),

Start 20:
• Found in 41 of 62 (66.1%) of genes in pham
• No Manual Annotations of this start.
• Called 2.4% of time when present
• Phage (with cluster) where this start called: PierreOrion_67 (EC),

Summary by clusters:

There are 2 clusters represented in this pham: EI, EC,

Info for manual annotations of cluster EC:
•Start number 6 was manually annotated 48 times for cluster EC.
•Start number 13 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EI:
•Start number 6 was manually annotated 7 times for cluster EI.

Gene Information:

Gene: Antares_67 Start: 41921, Stop: 42760, Start Num: 6
Candidate Starts for Antares_67:
(Start: 6 @41921 has 55 MA's), (Start: 13 @42077 has 1 MA's), (20, 42176), (28, 42254), (38, 42356), (39, 42365), (40, 42404), (46, 42509), (60, 42650), (64, 42722), (66, 42731),

Gene: Ariadne_77 Start: 43541, Stop: 44338, Start Num: 6
Candidate Starts for Ariadne_77:
(Start: 6 @43541 has 55 MA's), (11, 43679), (Start: 13 @43697 has 1 MA's), (15, 43736), (18, 43757), (20, 43796), (28, 43874), (32, 43928), (38, 43976), (46, 44123), (47, 44129), (66, 44309),

Gene: BeagleBug_66 Start: 41701, Stop: 42540, Start Num: 6
Candidate Starts for BeagleBug_66:
(Start: 6 @41701 has 55 MA's), (Start: 13 @41857 has 1 MA's), (20, 41956), (28, 42034), (38, 42136), (39, 42145), (40, 42184), (46, 42289), (60, 42430), (64, 42502), (66, 42511),

Gene: BrazzalePHS_66 Start: 41689, Stop: 42528, Start Num: 6
Candidate Starts for BrazzalePHS_66:
(Start: 6 @41689 has 55 MA's), (Start: 13 @41845 has 1 MA's), (20, 41944), (28, 42022), (38, 42124), (39, 42133), (40, 42172), (46, 42277), (60, 42418), (64, 42490), (66, 42499),

Gene: Busephilis_66 Start: 41628, Stop: 42467, Start Num: 6
Candidate Starts for Busephilis_66:
(Start: 6 @41628 has 55 MA's), (Start: 13 @41784 has 1 MA's), (20, 41883), (38, 42063), (39, 42072), (40, 42111), (46, 42216), (60, 42357), (64, 42429), (66, 42438),

Gene: Cinna_65 Start: 43270, Stop: 43929, Start Num: 6
Candidate Starts for Cinna_65:
(4, 43228), (Start: 6 @43270 has 55 MA's), (14, 43447), (19, 43513), (23, 43567), (27, 43603), (32, 43681), (38, 43726), (39, 43735), (49, 43834), (51, 43858), (57, 43912),

Gene: ClearAsMud_71 Start: 42203, Stop: 43048, Start Num: 6
Candidate Starts for ClearAsMud_71:
(Start: 6 @42203 has 55 MA's), (7, 42230), (12, 42350), (Start: 13 @42359 has 1 MA's), (18, 42419), (20, 42458), (28, 42536), (32, 42590), (38, 42638), (40, 42686), (46, 42791), (48, 42839), (62, 42968), (64, 43010), (66, 43019),

Gene: Cranjis_68 Start: 41876, Stop: 42715, Start Num: 6

Candidate Starts for Cranjis_68:
(Start: 6 @41876 has 55 MA's), (Start: 13 @42032 has 1 MA's), (20, 42131), (28, 42209), (38, 42311), (39, 42320), (40, 42359), (46, 42464), (60, 42605), (64, 42677), (66, 42686),

Gene: CrazyRich_66 Start: 41682, Stop: 42521, Start Num: 6
Candidate Starts for CrazyRich_66:
(Start: 6 @41682 has 55 MA's), (Start: 13 @41838 has 1 MA's), (20, 41937), (28, 42015), (38, 42117), (39, 42126), (40, 42165), (46, 42270), (60, 42411), (64, 42483), (66, 42492),

Gene: Cressida_68 Start: 42876, Stop: 43529, Start Num: 6
Candidate Starts for Cressida_68:
(4, 42834), (5, 42858), (Start: 6 @42876 has 55 MA's), (17, 43092), (19, 43119), (23, 43173), (30, 43245), (32, 43281), (37, 43323), (38, 43326), (39, 43335), (49, 43434), (51, 43458), (57, 43512),

Gene: Crisis_68 Start: 41691, Stop: 42530, Start Num: 6
Candidate Starts for Crisis_68:
(Start: 6 @41691 has 55 MA's), (Start: 13 @41847 has 1 MA's), (20, 41946), (28, 42024), (38, 42126), (39, 42135), (40, 42174), (46, 42279), (60, 42420), (64, 42492), (66, 42501),

Gene: EarickHC_68 Start: 41613, Stop: 42452, Start Num: 6
Candidate Starts for EarickHC_68:
(Start: 6 @41613 has 55 MA's), (Start: 13 @41769 has 1 MA's), (20, 41868), (28, 41946), (38, 42048), (39, 42057), (40, 42096), (46, 42201), (60, 42342), (64, 42414), (66, 42423),

Gene: Fireman_70 Start: 43653, Stop: 44456, Start Num: 6
Candidate Starts for Fireman_70:
(Start: 6 @43653 has 55 MA's), (Start: 13 @43809 has 1 MA's), (18, 43869), (26, 43962), (28, 43986), (32, 44040), (37, 44085), (38, 44088), (40, 44136), (42, 44166), (43, 44199), (53, 44304), (55, 44325),

Gene: Ganandorf_66 Start: 41709, Stop: 42548, Start Num: 6
Candidate Starts for Ganandorf_66:
(Start: 6 @41709 has 55 MA's), (Start: 13 @41865 has 1 MA's), (20, 41964), (28, 42042), (38, 42144), (39, 42153), (40, 42192), (46, 42297), (60, 42438), (64, 42510), (66, 42519),

Gene: Germa_69 Start: 41539, Stop: 42378, Start Num: 6
Candidate Starts for Germa_69:
(Start: 6 @41539 has 55 MA's), (Start: 13 @41695 has 1 MA's), (20, 41794), (28, 41872), (38, 41974), (39, 41983), (40, 42022), (46, 42127), (60, 42268), (64, 42340), (66, 42349),

Gene: Gina_71 Start: 41770, Stop: 42552, Start Num: 6
Candidate Starts for Gina_71:
(1, 41659), (Start: 6 @41770 has 55 MA's), (12, 41917), (Start: 13 @41926 has 1 MA's), (18, 41986), (19, 42007), (26, 42079), (28, 42103), (32, 42157), (33, 42163), (35, 42190), (37, 42202), (38, 42205), (40, 42253), (66, 42523),

Gene: Glorp_68 Start: 41673, Stop: 42512, Start Num: 6
Candidate Starts for Glorp_68:
(Start: 6 @41673 has 55 MA's), (Start: 13 @41829 has 1 MA's), (20, 41928), (28, 42006), (38, 42108), (39, 42117), (40, 42156), (46, 42261), (60, 42402), (64, 42474), (66, 42483),

Gene: Hermeonysus_67 Start: 41604, Stop: 42437, Start Num: 6
Candidate Starts for Hermeonysus_67:

(Start: 6 @41604 has 55 MA's), (Start: 13 @41760 has 1 MA's), (20, 41859), (28, 41937), (38, 42039), (39, 42048), (40, 42087), (46, 42186), (60, 42327), (64, 42399), (66, 42408),

Gene: Honeyfin_68 Start: 41864, Stop: 42697, Start Num: 6
Candidate Starts for Honeyfin_68:
(Start: 6 @41864 has 55 MA's), (Start: 13 @42020 has 1 MA's), (20, 42119), (28, 42197), (38, 42299), (39, 42308), (40, 42347), (46, 42446), (60, 42587), (64, 42659), (66, 42668),

Gene: Jayden_68 Start: 42363, Stop: 42914, Start Num: 13
Candidate Starts for Jayden_68:
(1, 42096), (2, 42120), (Start: 6 @42207 has 55 MA's), (Start: 13 @42363 has 1 MA's), (19, 42444), (32, 42591), (37, 42636), (38, 42639), (40, 42687), (61, 42807), (65, 42882), (66, 42885),

Gene: Jefe_67 Start: 41659, Stop: 42498, Start Num: 6
Candidate Starts for Jefe_67:
(Start: 6 @41659 has 55 MA's), (Start: 13 @41815 has 1 MA's), (20, 41914), (28, 41992), (38, 42094), (39, 42103), (40, 42142), (46, 42247), (60, 42388), (64, 42460), (66, 42469),

Gene: Jollipop_68 Start: 42047, Stop: 42886, Start Num: 6
Candidate Starts for Jollipop_68:
(Start: 6 @42047 has 55 MA's), (Start: 13 @42203 has 1 MA's), (20, 42302), (28, 42380), (38, 42482), (39, 42491), (40, 42530), (46, 42635), (60, 42776), (64, 42848), (66, 42857),

Gene: KaiHaiDragon_68 Start: 41613, Stop: 42452, Start Num: 6
Candidate Starts for KaiHaiDragon_68:
(Start: 6 @41613 has 55 MA's), (Start: 13 @41769 has 1 MA's), (20, 41868), (28, 41946), (38, 42048), (39, 42057), (40, 42096), (46, 42201), (60, 42342), (64, 42414), (66, 42423),

Gene: Kowalski_66 Start: 41684, Stop: 42523, Start Num: 6
Candidate Starts for Kowalski_66:
(Start: 6 @41684 has 55 MA's), (Start: 13 @41840 has 1 MA's), (20, 41939), (28, 42017), (38, 42119), (39, 42128), (40, 42167), (46, 42272), (60, 42413), (64, 42485), (66, 42494),

Gene: Kozie_65 Start: 42511, Stop: 43170, Start Num: 6
Candidate Starts for Kozie_65:
(5, 42493), (Start: 6 @42511 has 55 MA's), (15, 42706), (21, 42784), (32, 42913), (38, 42958), (41, 43018), (44, 43033), (50, 43087), (59, 43156),

Gene: LittleFortune_69 Start: 41969, Stop: 42808, Start Num: 6
Candidate Starts for LittleFortune_69:
(Start: 6 @41969 has 55 MA's), (Start: 13 @42125 has 1 MA's), (20, 42224), (28, 42302), (38, 42404), (39, 42413), (40, 42452), (46, 42557), (60, 42698), (64, 42770), (66, 42779),

Gene: Lucretia_67 Start: 41591, Stop: 42430, Start Num: 6
Candidate Starts for Lucretia_67:
(Start: 6 @41591 has 55 MA's), (Start: 13 @41747 has 1 MA's), (20, 41846), (38, 42026), (39, 42035), (40, 42074), (46, 42179), (60, 42320), (64, 42392), (66, 42401),

Gene: Margaery_64 Start: 42479, Stop: 43135, Start Num: 6
Candidate Starts for Margaery_64:
(5, 42458), (Start: 6 @42479 has 55 MA's), (21, 42755), (24, 42779), (25, 42785), (27, 42809), (28, 42833), (30, 42851), (37, 42929), (38, 42932), (49, 43040), (51, 43064), (57, 43118),

Gene: Matzah_67 Start: 43337, Stop: 43996, Start Num: 6
Candidate Starts for Matzah_67:
(4, 43295), (Start: 6 @43337 has 55 MA's), (14, 43514), (23, 43634), (27, 43670), (32, 43748), (38, 43793), (39, 43802), (49, 43901), (51, 43925), (57, 43979),

Gene: Megan_64 Start: 45834, Stop: 46541, Start Num: 6
Candidate Starts for Megan_64:
(Start: 6 @45834 has 55 MA's), (8, 45867), (16, 46047), (21, 46116), (25, 46146), (28, 46200), (29, 46206), (32, 46254), (34, 46263), (38, 46305), (40, 46353), (50, 46458), (51, 46467), (52, 46473), (56, 46515),

Gene: MementoMori_66 Start: 42932, Stop: 43591, Start Num: 6
Candidate Starts for MementoMori_66:
(4, 42890), (Start: 6 @42932 has 55 MA's), (14, 43109), (27, 43265), (37, 43385), (38, 43388), (39, 43397), (49, 43496), (51, 43520), (57, 43574),

Gene: Merry_ Start: 43851, Stop: 44606, Start Num: 6
Candidate Starts for Merry_:
(1, 43749), (2, 43773), (Start: 6 @43851 has 55 MA's), (Start: 13 @44007 has 1 MA's), (21, 44124), (28, 44184), (38, 44286), (40, 44334), (54, 44460), (55, 44475), (58, 44490), (63, 44544),

Gene: Metamorphoo_70 Start: 42947, Stop: 43750, Start Num: 6
Candidate Starts for Metamorphoo_70:
(Start: 6 @42947 has 55 MA's), (10, 42995), (18, 43163), (28, 43280), (38, 43382), (40, 43430), (42, 43460), (43, 43493), (53, 43598), (55, 43619),

Gene: Nicole72_65 Start: 46341, Stop: 47039, Start Num: 6
Candidate Starts for Nicole72_65:
(3, 46266), (Start: 6 @46341 has 55 MA's), (8, 46374), (9, 46380), (11, 46482), (16, 46554), (19, 46584), (21, 46623), (22, 46638), (25, 46653), (28, 46707), (29, 46713), (32, 46761), (34, 46770), (38, 46812), (40, 46860), (50, 46956), (51, 46965), (56, 47013),

Gene: NoodlelyBoi_68 Start: 42452, Stop: 43297, Start Num: 6
Candidate Starts for NoodlelyBoi_68:
(Start: 6 @42452 has 55 MA's), (7, 42479), (12, 42599), (Start: 13 @42608 has 1 MA's), (18, 42668), (20, 42707), (28, 42785), (32, 42839), (38, 42887), (40, 42935), (46, 43040), (48, 43088), (62, 43217), (64, 43259), (66, 43268),

Gene: Onika_66 Start: 41693, Stop: 42526, Start Num: 6
Candidate Starts for Onika_66:
(Start: 6 @41693 has 55 MA's), (Start: 13 @41849 has 1 MA's), (20, 41948), (28, 42026), (38, 42128), (39, 42137), (40, 42176), (46, 42275), (60, 42416), (64, 42488), (66, 42497),

Gene: Paschalis_67 Start: 41712, Stop: 42551, Start Num: 6
Candidate Starts for Paschalis_67:
(Start: 6 @41712 has 55 MA's), (Start: 13 @41868 has 1 MA's), (20, 41967), (28, 42045), (38, 42147), (39, 42156), (40, 42195), (46, 42300), (60, 42441), (64, 42513), (66, 42522),

Gene: PhedwardCullen_66 Start: 41429, Stop: 42268, Start Num: 6
Candidate Starts for PhedwardCullen_66:
(Start: 6 @41429 has 55 MA's), (Start: 13 @41585 has 1 MA's), (20, 41684), (28, 41762), (38, 41864), (39, 41873), (40, 41912), (46, 42017), (60, 42158), (64, 42230), (66, 42239),

Gene: Phorgeous_67 Start: 41495, Stop: 42334, Start Num: 6
Candidate Starts for Phorgeous_67:
(Start: 6 @41495 has 55 MA's), (Start: 13 @41651 has 1 MA's), (20, 41750), (28, 41828), (38, 41930), (39, 41939), (40, 41978), (46, 42083), (60, 42224), (64, 42296), (66, 42305),

Gene: Phrancesco_67 Start: 41818, Stop: 42657, Start Num: 6
Candidate Starts for Phrancesco_67:
(Start: 6 @41818 has 55 MA's), (Start: 13 @41974 has 1 MA's), (20, 42073), (28, 42151), (38, 42253), (39, 42262), (40, 42301), (46, 42406), (60, 42547), (64, 42619), (66, 42628),

Gene: PierreOrion_67 Start: 42179, Stop: 42763, Start Num: 20
Candidate Starts for PierreOrion_67:
(Start: 6 @41924 has 55 MA's), (Start: 13 @42080 has 1 MA's), (20, 42179), (28, 42257), (32, 42311), (38, 42359), (39, 42368), (40, 42407), (46, 42512), (60, 42653), (64, 42725), (66, 42734),

Gene: PiperSansNom_68 Start: 42003, Stop: 42836, Start Num: 6
Candidate Starts for PiperSansNom_68:
(Start: 6 @42003 has 55 MA's), (Start: 13 @42159 has 1 MA's), (20, 42258), (28, 42336), (38, 42438), (39, 42447), (40, 42486), (46, 42585), (60, 42726), (64, 42798), (66, 42807),

Gene: Piperis_68 Start: 41620, Stop: 42459, Start Num: 6
Candidate Starts for Piperis_68:
(Start: 6 @41620 has 55 MA's), (Start: 13 @41776 has 1 MA's), (20, 41875), (28, 41953), (38, 42055), (39, 42064), (40, 42103), (46, 42208), (60, 42349), (64, 42421), (66, 42430),

Gene: Pulchra_69 Start: 42016, Stop: 42855, Start Num: 6
Candidate Starts for Pulchra_69:
(Start: 6 @42016 has 55 MA's), (Start: 13 @42172 has 1 MA's), (20, 42271), (28, 42349), (38, 42451), (39, 42460), (40, 42499), (46, 42604), (60, 42745), (64, 42817), (66, 42826),

Gene: Quhwah_71 Start: 42305, Stop: 43144, Start Num: 6
Candidate Starts for Quhwah_71:
(Start: 6 @42305 has 55 MA's), (Start: 13 @42461 has 1 MA's), (20, 42560), (28, 42638), (38, 42740), (39, 42749), (40, 42788), (46, 42893), (60, 43034), (64, 43106), (66, 43115),

Gene: Ramiel05_66 Start: 41684, Stop: 42523, Start Num: 6
Candidate Starts for Ramiel05_66:
(Start: 6 @41684 has 55 MA's), (Start: 13 @41840 has 1 MA's), (20, 41939), (28, 42017), (38, 42119), (39, 42128), (40, 42167), (46, 42272), (60, 42413), (64, 42485), (66, 42494),

Gene: RobsFeet_71 Start: 43233, Stop: 44036, Start Num: 6
Candidate Starts for RobsFeet_71:
(Start: 6 @43233 has 55 MA's), (Start: 13 @43389 has 1 MA's), (18, 43449), (26, 43542), (28, 43566), (32, 43620), (37, 43665), (38, 43668), (40, 43716), (42, 43746), (43, 43779), (53, 43884), (55, 43905),

Gene: Rockwell_66 Start: 41714, Stop: 42547, Start Num: 6
Candidate Starts for Rockwell_66:
(Start: 6 @41714 has 55 MA's), (Start: 13 @41870 has 1 MA's), (20, 41969), (28, 42047), (38, 42149), (39, 42158), (40, 42197), (46, 42296), (60, 42437), (64, 42509), (66, 42518),

Gene: Savannah_66 Start: 41735, Stop: 42574, Start Num: 6
Candidate Starts for Savannah_66:

(Start: 6 @41735 has 55 MA's), (Start: 13 @41891 has 1 MA's), (20, 41990), (28, 42068), (38, 42170), (39, 42179), (40, 42218), (46, 42323), (60, 42464), (64, 42536), (66, 42545),

Gene: Scumberland_69 Start: 41930, Stop: 42769, Start Num: 6
Candidate Starts for Scumberland_69:
(Start: 6 @41930 has 55 MA's), (Start: 13 @42086 has 1 MA's), (20, 42185), (28, 42263), (38, 42365), (39, 42374), (40, 42413), (46, 42518), (60, 42659), (64, 42731), (66, 42740),

Gene: Selwyn23_68 Start: 41847, Stop: 42686, Start Num: 6
Candidate Starts for Selwyn23_68:
(Start: 6 @41847 has 55 MA's), (Start: 13 @42003 has 1 MA's), (20, 42102), (28, 42180), (38, 42282), (39, 42291), (40, 42330), (46, 42435), (60, 42576), (64, 42648), (66, 42657),

Gene: Shotgun_67 Start: 41614, Stop: 42453, Start Num: 6
Candidate Starts for Shotgun_67:
(Start: 6 @41614 has 55 MA's), (Start: 13 @41770 has 1 MA's), (20, 41869), (28, 41947), (38, 42049), (39, 42058), (40, 42097), (46, 42202), (60, 42343), (64, 42415), (66, 42424),

Gene: Shrubaron_71 Start: 42828, Stop: 43631, Start Num: 6
Candidate Starts for Shrubaron_71:
(Start: 6 @42828 has 55 MA's), (Start: 13 @42984 has 1 MA's), (18, 43044), (26, 43137), (28, 43161), (32, 43215), (37, 43260), (38, 43263), (40, 43311), (53, 43479), (55, 43500),

Gene: SirFrank_67 Start: 41898, Stop: 42743, Start Num: 6
Candidate Starts for SirFrank_67:
(Start: 6 @41898 has 55 MA's), (7, 41925), (12, 42045), (Start: 13 @42054 has 1 MA's), (18, 42114), (20, 42153), (28, 42231), (32, 42285), (38, 42333), (40, 42381), (46, 42486), (48, 42534), (62, 42663), (64, 42705), (66, 42714),

Gene: Skugga_67 Start: 42162, Stop: 42941, Start Num: 6
Candidate Starts for Skugga_67:
(2, 42075), (Start: 6 @42162 has 55 MA's), (12, 42309), (Start: 13 @42318 has 1 MA's), (17, 42372), (18, 42378), (31, 42522), (32, 42549), (33, 42555), (38, 42597), (40, 42645), (66, 42915),

Gene: Smarties_77 Start: 43541, Stop: 44338, Start Num: 6
Candidate Starts for Smarties_77:
(Start: 6 @43541 has 55 MA's), (11, 43679), (Start: 13 @43697 has 1 MA's), (15, 43736), (18, 43757), (20, 43796), (28, 43874), (32, 43928), (38, 43976), (46, 44123), (47, 44129), (66, 44309),

Gene: Sunny_ Start: 43853, Stop: 44608, Start Num: 6
Candidate Starts for Sunny_:
(1, 43751), (2, 43775), (Start: 6 @43853 has 55 MA's), (Start: 13 @44009 has 1 MA's), (21, 44126), (28, 44186), (38, 44288), (40, 44336), (54, 44462), (55, 44477), (58, 44492), (63, 44546),

Gene: Teamocil_71 Start: 41863, Stop: 42645, Start Num: 6
Candidate Starts for Teamocil_71:
(1, 41752), (Start: 6 @41863 has 55 MA's), (12, 42010), (Start: 13 @42019 has 1 MA's), (18, 42079), (19, 42100), (26, 42172), (28, 42196), (32, 42250), (33, 42256), (35, 42283), (37, 42295), (38, 42298), (40, 42346), (66, 42616),

Gene: Terij_65 Start: 41714, Stop: 42370, Start Num: 6
Candidate Starts for Terij_65:

(Start: 6 @41714 has 55 MA's), (22, 42008), (27, 42047), (32, 42125), (38, 42170), (45, 42248), (49, 42275), (51, 42299), (57, 42353),

Gene: Tyrumbra_66 Start: 42515, Stop: 43261, Start Num: 6
Candidate Starts for Tyrumbra_66:
(Start: 6 @42515 has 55 MA's), (10, 42563), (12, 42662), (17, 42725), (18, 42731), (28, 42848), (36, 42938), (38, 42950), (40, 42998), (53, 43109),

Gene: Yeti_69 Start: 41652, Stop: 42485, Start Num: 6
Candidate Starts for Yeti_69:
(Start: 6 @41652 has 55 MA's), (Start: 13 @41808 has 1 MA's), (20, 41907), (28, 41985), (38, 42087), (39, 42096), (40, 42135), (46, 42234), (60, 42375), (64, 42447), (66, 42456),

Gene: Zapato_67 Start: 42506, Stop: 43216, Start Num: 6
Candidate Starts for Zapato_67:
(1, 42395), (2, 42419), (Start: 6 @42506 has 55 MA's), (Start: 13 @42662 has 1 MA's), (19, 42743), (22, 42794), (32, 42893), (37, 42938), (38, 42941), (40, 42989), (61, 43109), (66, 43187),