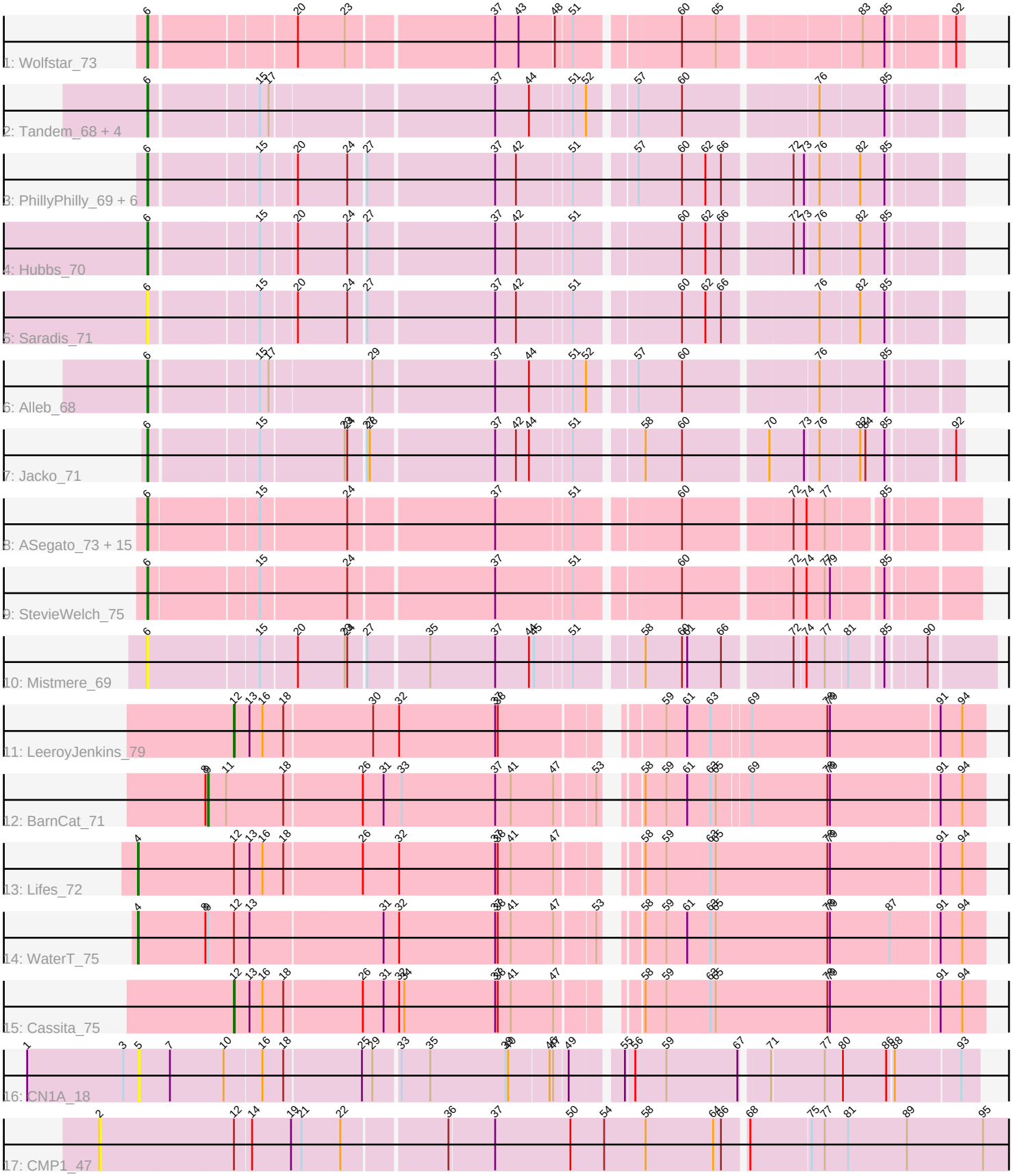
Pham 296705


1: Wolfstar_73
2: Tandem_68 + 4
3: PhillyPhilly_69 + 6
4: Hubbs_70
5: Saradis_71
6: Alleb_68
7: Jacko_71
8: ASegato_73 + 15
9: StevieWelch_75
10: Mistmere_69
11: LeeroyJenkins_79
12: BarnCat_71
13: Lifes_72
14: WaterT_75
15: Cassita_75
16: CN1A_18
17: CMP1_47

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 296705 Report

This analysis was run 04/25/26 on database version 644.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 296705 has 42 members, 10 are drafts.

Phages represented in each track:
• Track 1 : Wolfstar_73
• Track 2 : Tandem_68, Platte_68, Hortus1_68, OlinDD_68, Pioneer3_68
• Track 3 : PhillyPhilly_69, Roman_72, Solimine_70, Uterion_73, Lupine_68, DejaVu_71, Pavlo_69
• Track 4 : Hubbs_70
• Track 5 : Saradis_71
• Track 6 : Alleb_68
• Track 7 : Jacko_71
• Track 8 : ASegato_73, Lyell_74, SteakFry_73, Erenyeager_75, Shroomer_77, Fork_70, Musetta_74, Necrophoxinus_76, Yuma_73, DustyDino_78, Welcome_76, Casablancas_75, Issa7_73, HollowPurple_75, RunningBrook_76, Deschain_75
• Track 9 : StevieWelch_75
• Track 10 : Mistmere_69
• Track 11 : LeeroyJenkins_79
• Track 12 : BarnCat_71
• Track 13 : Lifes_72
• Track 14 : WaterT_75
• Track 15 : Cassita_75
• Track 16 : CN1A_18
• Track 17 : CMP1_47

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 27 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASegato_73, Alleb_68, Casablancas_75, DejaVu_71, Deschain_75, DustyDino_78, Erenyeager_75, Fork_70, HollowPurple_75, Hortus1_68, Hubbs_70, Issa7_73, Jacko_71, Lupine_68, Lyell_74, Mistmere_69, Musetta_74, Necrophoxinus_76,

OlinDD_68, Pavlo_69, PhillyPhilly_69, Pioneer3_68, Platte_68, Roman_72, RunningBrook_76, Saradis_71, Shroomer_77, Solimine_70, SteakFry_73, StevieWelch_75, Tandem_68, Uterion_73, Welcome_76, Wolfstar_73, Yuma_73,

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

Genes that do not have the "Most Annotated" start:
• BarnCat_71, CMP1_47, CN1A_18, Cassita_75, LeeroyJenkins_79, Lifes_72, WaterT_75,

Summary by start number:

Start 2:
• Found in 1 of 42 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CMP1_47 (singleton),

Start 4:
• Found in 2 of 42 (4.8%) of genes in pham
• Manual Annotations of this start: 2 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lifes_72 (GB), WaterT_75 (GB),

Start 5:
• Found in 1 of 42 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CN1A_18 (singleton),

Start 6:
• Found in 35 of 42 (83.3%) of genes in pham
• Manual Annotations of this start: 27 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ASegato_73 (ED2), Alleb_68 (ED1), Casablancas_75 (ED2), DejaVu_71 (ED1), Deschain_75 (ED2), DustyDino_78 (ED2), Erenyeager_75 (ED2), Fork_70 (ED2), HollowPurple_75 (ED2), Hortus1_68 (ED1), Hubbs_70 (ED1), Issa7_73 (ED2), Jacko_71 (ED1), Lupine_68 (ED1), Lyell_74 (ED2), Mistmere_69 (ED3), Musetta_74 (ED2), Necrophoxinus_76 (ED2), OlinDD_68 (ED1), Pavlo_69 (ED1), PhillyPhilly_69 (ED1), Pioneer3_68 (ED1), Platte_68 (ED1), Roman_72 (ED1), RunningBrook_76 (ED2), Saradis_71 (ED1), Shroomer_77 (ED2), Solimine_70 (ED1), SteakFry_73 (ED2), StevieWelch_75 (ED2), Tandem_68 (ED1), Uterion_73 (ED1), Welcome_76 (ED2), Wolfstar_73 (ED), Yuma_73 (ED2),

Start 9:
• Found in 2 of 42 (4.8%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BarnCat_71 (GB),

Start 12:
• Found in 5 of 42 (11.9%) of genes in pham

• Manual Annotations of this start: 2 of 32
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Cassita_75 (GB), LeeroyJenkins_79 (GB),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, ED, ED2, ED3, ED1, GB,

Info for manual annotations of cluster ED:
•Start number 6 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:
•Start number 6 was manually annotated 13 times for cluster ED1.

Info for manual annotations of cluster ED2:
•Start number 6 was manually annotated 13 times for cluster ED2.

Info for manual annotations of cluster GB:
•Start number 4 was manually annotated 2 times for cluster GB.
•Start number 9 was manually annotated 1 time for cluster GB.
•Start number 12 was manually annotated 2 times for cluster GB.

Gene Information:

Gene: ASegato_73 Start: 42743, Stop: 41883, Start Num: 6
Candidate Starts for ASegato_73:
(Start: 6 @42743 has 27 MA's), (15, 42626), (24, 42530), (37, 42374), (51, 42290), (60, 42182), (72, 42071), (74, 42056), (77, 42035), (85, 41978),

Gene: Alleb_68 Start: 42903, Stop: 42067, Start Num: 6
Candidate Starts for Alleb_68:
(Start: 6 @42903 has 27 MA's), (15, 42789), (17, 42780), (29, 42672), (37, 42540), (44, 42501), (51, 42456), (52, 42441), (57, 42396), (60, 42348), (76, 42210), (85, 42141),

Gene: BarnCat_71 Start: 43640, Stop: 42804, Start Num: 9
Candidate Starts for BarnCat_71:
(8, 43643), (Start: 9 @43640 has 1 MA's), (11, 43619), (18, 43553), (26, 43466), (31, 43442), (33, 43421), (37, 43316), (41, 43298), (47, 43250), (53, 43208), (58, 43184), (59, 43160), (61, 43136), (63, 43109), (65, 43103), (69, 43067), (78, 42980), (79, 42977), (91, 42854), (94, 42830),

Gene: CMP1_47 Start: 45048, Stop: 44038, Start Num: 2
Candidate Starts for CMP1_47:
(2, 45048), (Start: 12 @44898 has 2 MA's), (14, 44880), (19, 44835), (21, 44823), (22, 44781), (36, 44670), (37, 44619), (50, 44532), (54, 44493), (58, 44445), (64, 44367), (66, 44358), (68, 44334), (75, 44268), (77, 44253), (81, 44226), (89, 44160), (95, 44073),

Gene: CN1A_18 Start: 10315, Stop: 11211, Start Num: 5
Candidate Starts for CN1A_18:

(1, 10186), (3, 10297), (5, 10315), (7, 10351), (10, 10411), (16, 10453), (18, 10477), (25, 10564), (29, 10576), (33, 10603), (35, 10636), (39, 10720), (40, 10723), (46, 10768), (47, 10771), (49, 10786), (55, 10837), (56, 10846), (59, 10882), (67, 10963), (71, 10990), (77, 11047), (80, 11065), (86, 11113), (88, 11119), (93, 11191),

Gene: Casablancas_75 Start: 42483, Stop: 41623, Start Num: 6
Candidate Starts for Casablancas_75:
(Start: 6 @42483 has 27 MA's), (15, 42366), (24, 42270), (37, 42114), (51, 42030), (60, 41922), (72, 41811), (74, 41796), (77, 41775), (85, 41718),

Gene: Cassita_75 Start: 44392, Stop: 43580, Start Num: 12
Candidate Starts for Cassita_75:
(Start: 12 @44392 has 2 MA's), (13, 44374), (16, 44359), (18, 44335), (26, 44248), (31, 44224), (32, 44206), (34, 44200), (37, 44098), (38, 44095), (41, 44080), (47, 44032), (58, 43966), (59, 43942), (63, 43891), (65, 43885), (78, 43756), (79, 43753), (91, 43630), (94, 43606),

Gene: DejaVu_71 Start: 42873, Stop: 42037, Start Num: 6
Candidate Starts for DejaVu_71:
(Start: 6 @42873 has 27 MA's), (15, 42759), (20, 42723), (24, 42666), (27, 42648), (37, 42510), (42, 42486), (51, 42426), (57, 42366), (60, 42318), (62, 42291), (66, 42273), (72, 42207), (73, 42195), (76, 42180), (82, 42138), (85, 42111),

Gene: Deschain_75 Start: 43147, Stop: 42287, Start Num: 6
Candidate Starts for Deschain_75:
(Start: 6 @43147 has 27 MA's), (15, 43030), (24, 42934), (37, 42778), (51, 42694), (60, 42586), (72, 42475), (74, 42460), (77, 42439), (85, 42382),

Gene: DustyDino_78 Start: 43706, Stop: 42846, Start Num: 6
Candidate Starts for DustyDino_78:
(Start: 6 @43706 has 27 MA's), (15, 43589), (24, 43493), (37, 43337), (51, 43253), (60, 43145), (72, 43034), (74, 43019), (77, 42998), (85, 42941),

Gene: Erenyeager_75 Start: 42798, Stop: 41938, Start Num: 6
Candidate Starts for Erenyeager_75:
(Start: 6 @42798 has 27 MA's), (15, 42681), (24, 42585), (37, 42429), (51, 42345), (60, 42237), (72, 42126), (74, 42111), (77, 42090), (85, 42033),

Gene: Fork_70 Start: 42453, Stop: 41593, Start Num: 6
Candidate Starts for Fork_70:
(Start: 6 @42453 has 27 MA's), (15, 42336), (24, 42240), (37, 42084), (51, 42000), (60, 41892), (72, 41781), (74, 41766), (77, 41745), (85, 41688),

Gene: HollowPurple_75 Start: 43009, Stop: 42149, Start Num: 6
Candidate Starts for HollowPurple_75:
(Start: 6 @43009 has 27 MA's), (15, 42892), (24, 42796), (37, 42640), (51, 42556), (60, 42448), (72, 42337), (74, 42322), (77, 42301), (85, 42244),

Gene: Hortus1_68 Start: 43079, Stop: 42243, Start Num: 6
Candidate Starts for Hortus1_68:
(Start: 6 @43079 has 27 MA's), (15, 42965), (17, 42956), (37, 42716), (44, 42677), (51, 42632), (52, 42617), (57, 42572), (60, 42524), (76, 42386), (85, 42317),

Gene: Hubbs_70 Start: 43101, Stop: 42265, Start Num: 6

Candidate Starts for Hubbs_70:
(Start: 6 @43101 has 27 MA's), (15, 42987), (20, 42951), (24, 42894), (27, 42876), (37, 42738), (42, 42714), (51, 42654), (60, 42546), (62, 42519), (66, 42501), (72, 42435), (73, 42423), (76, 42408), (82, 42366), (85, 42339),

Gene: Issa7_73 Start: 42460, Stop: 41600, Start Num: 6
Candidate Starts for Issa7_73:
(Start: 6 @42460 has 27 MA's), (15, 42343), (24, 42247), (37, 42091), (51, 42007), (60, 41899), (72, 41788), (74, 41773), (77, 41752), (85, 41695),

Gene: Jacko_71 Start: 42128, Stop: 41289, Start Num: 6
Candidate Starts for Jacko_71:
(Start: 6 @42128 has 27 MA's), (15, 42014), (23, 41921), (24, 41918), (27, 41900), (28, 41897), (37, 41762), (42, 41738), (44, 41723), (51, 41678), (58, 41612), (60, 41570), (70, 41483), (73, 41447), (76, 41432), (82, 41390), (84, 41384), (85, 41363), (92, 41297),

Gene: LeeroyJenkins_79 Start: 45485, Stop: 44679, Start Num: 12
Candidate Starts for LeeroyJenkins_79:
(Start: 12 @45485 has 2 MA's), (13, 45467), (16, 45452), (18, 45428), (30, 45329), (32, 45299), (37, 45191), (38, 45188), (59, 45035), (61, 45011), (63, 44984), (69, 44942), (78, 44855), (79, 44852), (91, 44729), (94, 44705),

Gene: Lifes_72 Start: 42506, Stop: 41583, Start Num: 4
Candidate Starts for Lifes_72:
(Start: 4 @42506 has 2 MA's), (Start: 12 @42395 has 2 MA's), (13, 42377), (16, 42362), (18, 42338), (26, 42251), (32, 42209), (37, 42101), (38, 42098), (41, 42083), (47, 42035), (58, 41969), (59, 41945), (63, 41894), (65, 41888), (78, 41759), (79, 41756), (91, 41633), (94, 41609),

Gene: Lupine_68 Start: 42287, Stop: 41451, Start Num: 6
Candidate Starts for Lupine_68:
(Start: 6 @42287 has 27 MA's), (15, 42173), (20, 42137), (24, 42080), (27, 42062), (37, 41924), (42, 41900), (51, 41840), (57, 41780), (60, 41732), (62, 41705), (66, 41687), (72, 41621), (73, 41609), (76, 41594), (82, 41552), (85, 41525),

Gene: Lyell_74 Start: 42652, Stop: 41792, Start Num: 6
Candidate Starts for Lyell_74:
(Start: 6 @42652 has 27 MA's), (15, 42535), (24, 42439), (37, 42283), (51, 42199), (60, 42091), (72, 41980), (74, 41965), (77, 41944), (85, 41887),

Gene: Mistmere_69 Start: 41662, Stop: 40784, Start Num: 6
Candidate Starts for Mistmere_69:
(Start: 6 @41662 has 27 MA's), (15, 41542), (20, 41503), (23, 41449), (24, 41446), (27, 41428), (35, 41362), (37, 41290), (44, 41251), (45, 41245), (51, 41206), (58, 41140), (60, 41098), (61, 41092), (66, 41053), (72, 40987), (74, 40975), (77, 40954), (81, 40930), (85, 40897), (90, 40855),

Gene: Musetta_74 Start: 43173, Stop: 42313, Start Num: 6
Candidate Starts for Musetta_74:
(Start: 6 @43173 has 27 MA's), (15, 43056), (24, 42960), (37, 42804), (51, 42720), (60, 42612), (72, 42501), (74, 42486), (77, 42465), (85, 42408),

Gene: Necrophoxinus_76 Start: 43347, Stop: 42487, Start Num: 6
Candidate Starts for Necrophoxinus_76:

(Start: 6 @43347 has 27 MA's), (15, 43230), (24, 43134), (37, 42978), (51, 42894), (60, 42786), (72, 42675), (74, 42660), (77, 42639), (85, 42582),

Gene: OlinDD_68 Start: 43078, Stop: 42242, Start Num: 6
Candidate Starts for OlinDD_68:
(Start: 6 @43078 has 27 MA's), (15, 42964), (17, 42955), (37, 42715), (44, 42676), (51, 42631), (52, 42616), (57, 42571), (60, 42523), (76, 42385), (85, 42316),

Gene: Pavlo_69 Start: 42932, Stop: 42096, Start Num: 6
Candidate Starts for Pavlo_69:
(Start: 6 @42932 has 27 MA's), (15, 42818), (20, 42782), (24, 42725), (27, 42707), (37, 42569), (42, 42545), (51, 42485), (57, 42425), (60, 42377), (62, 42350), (66, 42332), (72, 42266), (73, 42254), (76, 42239), (82, 42197), (85, 42170),

Gene: PhillyPhilly_69 Start: 42466, Stop: 41630, Start Num: 6
Candidate Starts for PhillyPhilly_69:
(Start: 6 @42466 has 27 MA's), (15, 42352), (20, 42316), (24, 42259), (27, 42241), (37, 42103), (42, 42079), (51, 42019), (57, 41959), (60, 41911), (62, 41884), (66, 41866), (72, 41800), (73, 41788), (76, 41773), (82, 41731), (85, 41704),

Gene: Pioneer3_68 Start: 42900, Stop: 42064, Start Num: 6
Candidate Starts for Pioneer3_68:
(Start: 6 @42900 has 27 MA's), (15, 42786), (17, 42777), (37, 42537), (44, 42498), (51, 42453), (52, 42438), (57, 42393), (60, 42345), (76, 42207), (85, 42138),

Gene: Platte_68 Start: 42871, Stop: 42035, Start Num: 6
Candidate Starts for Platte_68:
(Start: 6 @42871 has 27 MA's), (15, 42757), (17, 42748), (37, 42508), (44, 42469), (51, 42424), (52, 42409), (57, 42364), (60, 42316), (76, 42178), (85, 42109),

Gene: Roman_72 Start: 43587, Stop: 42751, Start Num: 6
Candidate Starts for Roman_72:
(Start: 6 @43587 has 27 MA's), (15, 43473), (20, 43437), (24, 43380), (27, 43362), (37, 43224), (42, 43200), (51, 43140), (57, 43080), (60, 43032), (62, 43005), (66, 42987), (72, 42921), (73, 42909), (76, 42894), (82, 42852), (85, 42825),

Gene: RunningBrook_76 Start: 43706, Stop: 42846, Start Num: 6
Candidate Starts for RunningBrook_76:
(Start: 6 @43706 has 27 MA's), (15, 43589), (24, 43493), (37, 43337), (51, 43253), (60, 43145), (72, 43034), (74, 43019), (77, 42998), (85, 42941),

Gene: Saradis_71 Start: 42548, Stop: 41709, Start Num: 6
Candidate Starts for Saradis_71:
(Start: 6 @42548 has 27 MA's), (15, 42434), (20, 42398), (24, 42341), (27, 42323), (37, 42185), (42, 42161), (51, 42101), (60, 41993), (62, 41966), (66, 41948), (76, 41852), (82, 41810), (85, 41783),

Gene: Shroomer_77 Start: 42943, Stop: 42083, Start Num: 6
Candidate Starts for Shroomer_77:
(Start: 6 @42943 has 27 MA's), (15, 42826), (24, 42730), (37, 42574), (51, 42490), (60, 42382), (72, 42271), (74, 42256), (77, 42235), (85, 42178),

Gene: Solimine_70 Start: 42901, Stop: 42065, Start Num: 6
Candidate Starts for Solimine_70:

(Start: 6 @42901 has 27 MA's), (15, 42787), (20, 42751), (24, 42694), (27, 42676), (37, 42538), (42, 42514), (51, 42454), (57, 42394), (60, 42346), (62, 42319), (66, 42301), (72, 42235), (73, 42223), (76, 42208), (82, 42166), (85, 42139),

Gene: SteakFry_73 Start: 43009, Stop: 42149, Start Num: 6
Candidate Starts for SteakFry_73:
(Start: 6 @43009 has 27 MA's), (15, 42892), (24, 42796), (37, 42640), (51, 42556), (60, 42448), (72, 42337), (74, 42322), (77, 42301), (85, 42244),

Gene: StevieWelch_75 Start: 42798, Stop: 41938, Start Num: 6
Candidate Starts for StevieWelch_75:
(Start: 6 @42798 has 27 MA's), (15, 42681), (24, 42585), (37, 42429), (51, 42345), (60, 42237), (72, 42126), (74, 42111), (77, 42090), (79, 42084), (85, 42033),

Gene: Tandem_68 Start: 42998, Stop: 42162, Start Num: 6
Candidate Starts for Tandem_68:
(Start: 6 @42998 has 27 MA's), (15, 42884), (17, 42875), (37, 42635), (44, 42596), (51, 42551), (52, 42536), (57, 42491), (60, 42443), (76, 42305), (85, 42236),

Gene: Uterion_73 Start: 43034, Stop: 42198, Start Num: 6
Candidate Starts for Uterion_73:
(Start: 6 @43034 has 27 MA's), (15, 42920), (20, 42884), (24, 42827), (27, 42809), (37, 42671), (42, 42647), (51, 42587), (57, 42527), (60, 42479), (62, 42452), (66, 42434), (72, 42368), (73, 42356), (76, 42341), (82, 42299), (85, 42272),

Gene: WaterT_75 Start: 44346, Stop: 43423, Start Num: 4
Candidate Starts for WaterT_75:
(Start: 4 @44346 has 2 MA's), (8, 44268), (Start: 9 @44265 has 1 MA's), (Start: 12 @44235 has 2 MA's), (13, 44217), (31, 44067), (32, 44049), (37, 43941), (38, 43938), (41, 43923), (47, 43875), (53, 43833), (58, 43809), (59, 43785), (61, 43761), (63, 43734), (65, 43728), (78, 43599), (79, 43596), (87, 43527), (91, 43473), (94, 43449),

Gene: Welcome_76 Start: 43158, Stop: 42298, Start Num: 6
Candidate Starts for Welcome_76:
(Start: 6 @43158 has 27 MA's), (15, 43041), (24, 42945), (37, 42789), (51, 42705), (60, 42597), (72, 42486), (74, 42471), (77, 42450), (85, 42393),

Gene: Wolfstar_73 Start: 44392, Stop: 43553, Start Num: 6
Candidate Starts for Wolfstar_73:
(Start: 6 @44392 has 27 MA's), (20, 44239), (23, 44185), (37, 44026), (43, 43999), (48, 43960), (51, 43942), (60, 43834), (65, 43795), (83, 43651), (85, 43627), (92, 43561),

Gene: Yuma_73 Start: 42667, Stop: 41807, Start Num: 6
Candidate Starts for Yuma_73:
(Start: 6 @42667 has 27 MA's), (15, 42550), (24, 42454), (37, 42298), (51, 42214), (60, 42106), (72, 41995), (74, 41980), (77, 41959), (85, 41902),