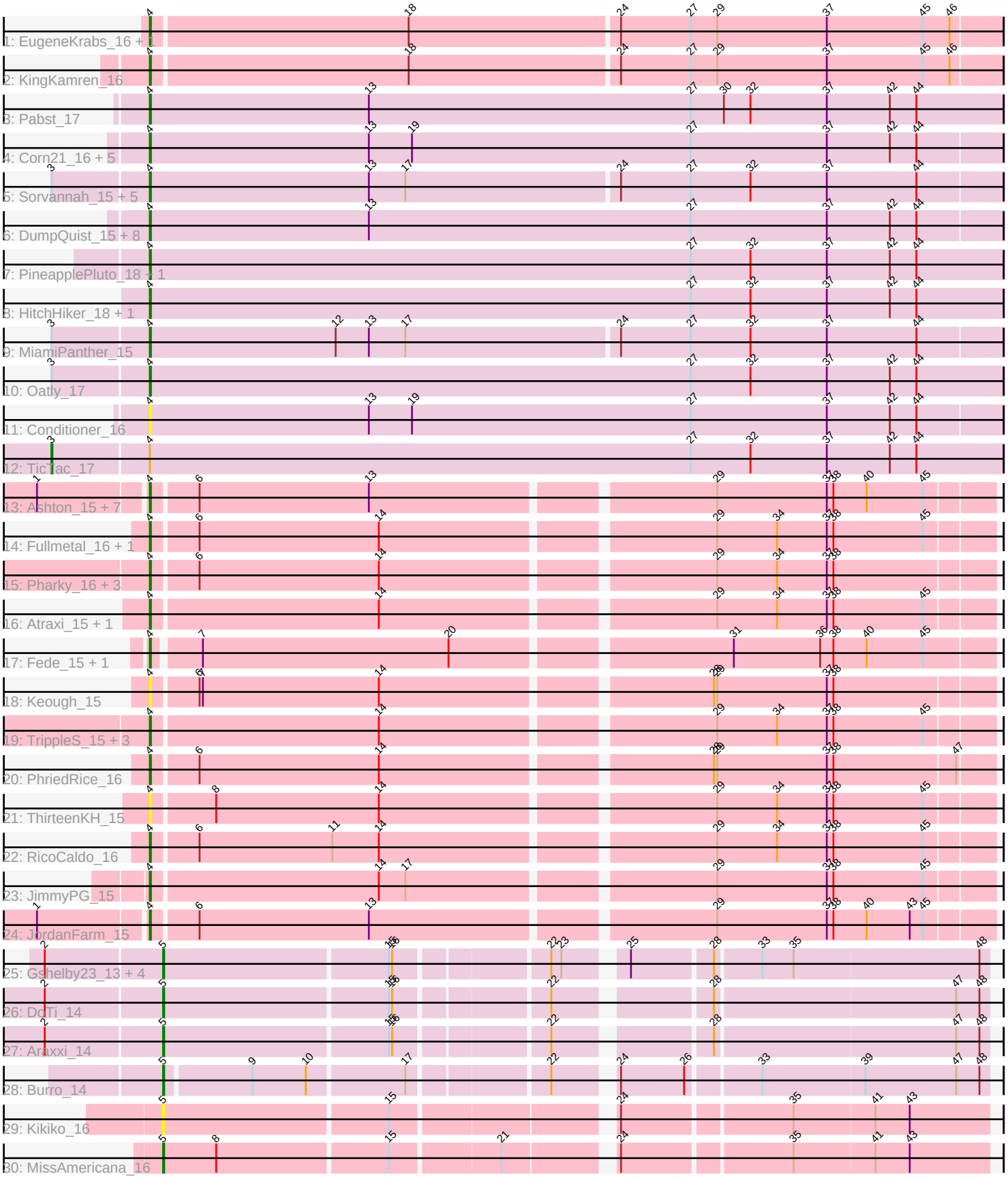
Pham 345698


1: EugeneKrabs_16 + 1
2: KingKamren_16
3: Pabst_17
4: Corn21_16 + 5
5: Sorvannah_15 + 5
6: DumpQuist_15 + 8
7: PineapplePluto_18 + 1
8: HitchHiker_18 + 1
9: MiamiPanther_15
10: Oatly_17
11: Conditioner_16
12: TicTac_17
13: Ashton_15 + 7
14: Fullmetal_16 + 1
15: Pharky_16 + 3
16: Atraxi_15 + 1
17: Fede_15 + 1
18: Keough_15
19: TrippleS_15 + 3
20: PhriedRice_16
21: ThirteenKH_15
22: RicoCaldo_16
23: JimmyPG_15
24: JordanFarm_15
25: Gshelby23_13 + 4
26: DoTi_14
27: Araxxi_14
28: Burro_14
29: Kikiko_16
30: MissAmericana_16

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 345698 Report

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

Pham number 345698 has 71 members, 10 are drafts.

Phages represented in each track:
• Track 1 : EugeneKrabs_16, Zhengyi_16
• Track 2 : KingKamren_16
• Track 3 : Pabst_17
• Track 4 : Corn21_16, BlueRugrat_15, LesNorah_15, Stormbreaker_15, TownLake_15, Xitlalli_15
• Track 5 : Sorvannah_15, YellowPanda_15, Salvatore2000_15, JessellCookie_15, Wesak_15, TinyTimothy_15
• Track 6 : DumpQuist_15, Phogo_16, Dashyla_15, Birdfeeder_15, SwissCheezer_15, Unphazed_16, ArMaWen_15, LilyLou_16, Alex44_16
• Track 7 : PineapplePluto_18, CrunchyBoi_18
• Track 8 : HitchHiker_18, Biozilla_17
• Track 9 : MiamiPanther_15
• Track 10 : Oatly_17
• Track 11 : Conditioner_16
• Track 12 : TicTac_17
• Track 13 : Ashton_15, Barroma_15, SoilSleuth_15, ShyRosie_15, Akoni_15, Truong_15, AloeVera_15, Waterlily_15
• Track 14 : Fullmetal_16, Mazun_16
• Track 15 : Pharky_16, Phedro_16, StagePhright_16, Phractured_16
• Track 16 : Atraxi_15, Yafa_15
• Track 17 : Fede_15, Kosier_15
• Track 18 : Keough_15
• Track 19 : TrippleS_15, Moleficent_16, Morrill_15, Astartes_16
• Track 20 : PhriedRice_16
• Track 21 : ThirteenKH_15
• Track 22 : RicoCaldo_16
• Track 23 : JimmyPG_15
• Track 24 : JordanFarm_15
• Track 25 : Gshelby23_13, Scruffy_14, Arete_15, Casino_13, Hannabella_14
• Track 26 : DoTi_14
• Track 27 : Araxxi_14
• Track 28 : Burro_14
• Track 29 : Kikiko_16
• Track 30 : MissAmericana_16

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

The start number called the most often in the published annotations is 4, it was called in 52 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akoni_15, Alex44_16, AloeVera_15, ArMaWen_15, Ashton_15, Astartes_16, Atraxi_15, Barroma_15, Biozilla_17, Birdfeeder_15, BlueRugrat_15, Conditioner_16, Corn21_16, CrunchyBoi_18, Dashyla_15, DumpQuist_15, EugeneKrabs_16, Fede_15, Fullmetal_16, HitchHiker_18, JessellCookie_15, JimmyPG_15, JordanFarm_15, Keough_15, KingKamren_16, Kosier_15, LesNorah_15, LilyLou_16, Mazun_16, MiamiPanther_15, Moleficent_16, Morrill_15, Oatly_17, Pabst_17, Pharky_16, Phedro_16, Phogo_16, Phractured_16, PhriedRice_16, PineapplePluto_18, RicoCaldo_16, Salvatore2000_15, ShyRosie_15, SoilSleuth_15, Sorvannah_15, StagePhright_16, Stormbreaker_15, SwissCheezer_15, ThirteenKH_15, TinyTimothy_15, TownLake_15, TrippleS_15, Truong_15, Unphazed_16, Waterlily_15, Wesak_15, Xitlalli_15, Yafa_15, YellowPanda_15, Zhengyi_16,

Genes that have the "Most Annotated" start but do not call it:
• TicTac_17,

Genes that do not have the "Most Annotated" start:
• Araxxi_14, Arete_15, Burro_14, Casino_13, DoTi_14, Gshelby23_13, Hannabella_14, Kikiko_16, MissAmericana_16, Scruffy_14,

Summary by start number:

Start 3:
• Found in 9 of 71 (12.7%) of genes in pham
• Manual Annotations of this start: 1 of 61
• Called 11.1% of time when present
• Phage (with cluster) where this start called: TicTac_17 (EK1),

Start 4:
• Found in 61 of 71 (85.9%) of genes in pham
• Manual Annotations of this start: 52 of 61
• Called 98.4% of time when present
• Phage (with cluster) where this start called: Akoni_15 (EK2), Alex44_16 (EK1), AloeVera_15 (EK2), ArMaWen_15 (EK1), Ashton_15 (EK2), Astartes_16 (EK2), Atraxi_15 (EK2), Barroma_15 (EK2), Biozilla_17 (EK1), Birdfeeder_15 (EK1), BlueRugrat_15 (EK1), Conditioner_16 (EK1), Corn21_16 (EK1), CrunchyBoi_18 (EK1), Dashyla_15 (EK1), DumpQuist_15 (EK1), EugeneKrabs_16 (EK), Fede_15 (EK2), Fullmetal_16 (EK2), HitchHiker_18 (EK1), JessellCookie_15 (EK1), JimmyPG_15 (EK2), JordanFarm_15 (EK2), Keough_15 (EK2), KingKamren_16 (EK), Kosier_15 (EK2), LesNorah_15 (EK1), LilyLou_16 (EK1), Mazun_16 (EK2), MiamiPanther_15 (EK1), Moleficent_16 (EK2), Morrill_15 (EK2), Oatly_17 (EK1), Pabst_17 (EK1), Pharky_16 (EK2), Phedro_16 (EK2), Phogo_16 (EK1), Phractured_16 (EK2), PhriedRice_16 (EK2), PineapplePluto_18 (EK1), RicoCaldo_16 (EK2), Salvatore2000_15 (EK1), ShyRosie_15 (EK2), SoilSleuth_15 (EK2), Sorvannah_15 (EK1), StagePhright_16 (EK2), Stormbreaker_15 (EK1), SwissCheezer_15 (EK1), ThirteenKH_15 (EK2), TinyTimothy_15 (EK1),

TownLake_15 (EK1), TrippleS_15 (EK2), Truong_15 (EK2), Unphazed_16 (EK1), Waterlily_15 (EK2), Wesak_15 (EK1), Xitlalli_15 (EK1), Yafa_15 (EK2), YellowPanda_15 (EK1), Zhengyi_16 (EK),

Start 5:
• Found in 10 of 71 (14.1%) of genes in pham
• Manual Annotations of this start: 8 of 61
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Araxxi_14 (EM1), Arete_15 (EM1), Burro_14 (EM1), Casino_13 (EM1), DoTi_14 (EM1), Gshelby23_13 (EM1), Hannabella_14 (EM1), Kikiko_16 (EM2), MissAmericana_16 (EM2), Scruffy_14 (EM1),

Summary by clusters:

There are 5 clusters represented in this pham: EM2, EM1, EK, EK1, EK2,

Info for manual annotations of cluster EK:
•Start number 4 was manually annotated 3 times for cluster EK.

Info for manual annotations of cluster EK1:
•Start number 3 was manually annotated 1 time for cluster EK1.
•Start number 4 was manually annotated 26 times for cluster EK1.

Info for manual annotations of cluster EK2:
•Start number 4 was manually annotated 23 times for cluster EK2.

Info for manual annotations of cluster EM1:
•Start number 5 was manually annotated 7 times for cluster EM1.

Info for manual annotations of cluster EM2:
•Start number 5 was manually annotated 1 time for cluster EM2.

Gene Information:

Gene: Akoni_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for Akoni_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: Alex44_16 Start: 11249, Stop: 10482, Start Num: 4
Candidate Starts for Alex44_16:
(Start: 4 @11249 has 52 MA's), (13, 11051), (27, 10760), (37, 10637), (42, 10580), (44, 10556),

Gene: AloeVera_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for AloeVera_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: ArMaWen_15 Start: 11049, Stop: 10282, Start Num: 4
Candidate Starts for ArMaWen_15:

(Start: 4 @11049 has 52 MA's), (13, 10851), (27, 10560), (37, 10437), (42, 10380), (44, 10356),

Gene: Araxxi_14 Start: 10738, Stop: 10049, Start Num: 5
Candidate Starts for Araxxi_14:
(2, 10837), (Start: 5 @10738 has 8 MA's), (15, 10540), (16, 10537), (22, 10411), (28, 10288), (47, 10078), (48, 10057),

Gene: Arete_15 Start: 10667, Stop: 9978, Start Num: 5
Candidate Starts for Arete_15:
(2, 10766), (Start: 5 @10667 has 8 MA's), (15, 10469), (16, 10466), (22, 10340), (23, 10331), (25, 10286), (28, 10217), (33, 10178), (35, 10151), (48, 9986),

Gene: Ashton_15 Start: 10957, Stop: 10226, Start Num: 4
Candidate Starts for Ashton_15:
(1, 11050), (Start: 4 @10957 has 52 MA's), (6, 10918), (13, 10765), (29, 10471), (37, 10372), (38, 10366), (40, 10336), (45, 10285),

Gene: Astartes_16 Start: 11221, Stop: 10490, Start Num: 4
Candidate Starts for Astartes_16:
(Start: 4 @11221 has 52 MA's), (14, 11020), (29, 10735), (34, 10681), (37, 10636), (38, 10630), (45, 10549),

Gene: Atraxi_15 Start: 10979, Stop: 10248, Start Num: 4
Candidate Starts for Atraxi_15:
(Start: 4 @10979 has 52 MA's), (14, 10778), (29, 10493), (34, 10439), (37, 10394), (38, 10388), (45, 10307),

Gene: Barroma_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for Barroma_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: Biozilla_17 Start: 11522, Stop: 10752, Start Num: 4
Candidate Starts for Biozilla_17:
(Start: 4 @11522 has 52 MA's), (27, 11033), (32, 10979), (37, 10910), (42, 10853), (44, 10829),

Gene: Birdfeeder_15 Start: 11409, Stop: 10642, Start Num: 4
Candidate Starts for Birdfeeder_15:
(Start: 4 @11409 has 52 MA's), (13, 11211), (27, 10920), (37, 10797), (42, 10740), (44, 10716),

Gene: BlueRugrat_15 Start: 11483, Stop: 10716, Start Num: 4
Candidate Starts for BlueRugrat_15:
(Start: 4 @11483 has 52 MA's), (13, 11285), (19, 11246), (27, 10994), (37, 10871), (42, 10814), (44, 10790),

Gene: Burro_14 Start: 9958, Stop: 9275, Start Num: 5
Candidate Starts for Burro_14:
(Start: 5 @9958 has 8 MA's), (9, 9883), (10, 9835), (17, 9751), (22, 9637), (24, 9592), (26, 9535), (33, 9475), (39, 9385), (47, 9304), (48, 9283),

Gene: Casino_13 Start: 10495, Stop: 9806, Start Num: 5
Candidate Starts for Casino_13:

(2, 10594), (Start: 5 @10495 has 8 MA's), (15, 10297), (16, 10294), (22, 10168), (23, 10159), (25, 10114), (28, 10045), (33, 10006), (35, 9979), (48, 9814),

Gene: Conditioner_16 Start: 11759, Stop: 10992, Start Num: 4
Candidate Starts for Conditioner_16:
(Start: 4 @11759 has 52 MA's), (13, 11561), (19, 11522), (27, 11270), (37, 11147), (42, 11090), (44, 11066),

Gene: Corn21_16 Start: 11788, Stop: 11021, Start Num: 4
Candidate Starts for Corn21_16:
(Start: 4 @11788 has 52 MA's), (13, 11590), (19, 11551), (27, 11299), (37, 11176), (42, 11119), (44, 11095),

Gene: CrunchyBoi_18 Start: 11657, Stop: 10887, Start Num: 4
Candidate Starts for CrunchyBoi_18:
(Start: 4 @11657 has 52 MA's), (27, 11168), (32, 11114), (37, 11045), (42, 10988), (44, 10964),

Gene: Dashyla_15 Start: 11062, Stop: 10295, Start Num: 4
Candidate Starts for Dashyla_15:
(Start: 4 @11062 has 52 MA's), (13, 10864), (27, 10573), (37, 10450), (42, 10393), (44, 10369),

Gene: DoTi_14 Start: 10732, Stop: 10043, Start Num: 5
Candidate Starts for DoTi_14:
(2, 10831), (Start: 5 @10732 has 8 MA's), (15, 10534), (16, 10531), (22, 10405), (28, 10282), (47, 10072), (48, 10051),

Gene: DumpQuist_15 Start: 11052, Stop: 10285, Start Num: 4
Candidate Starts for DumpQuist_15:
(Start: 4 @11052 has 52 MA's), (13, 10854), (27, 10563), (37, 10440), (42, 10383), (44, 10359),

Gene: EugeneKrabs_16 Start: 11398, Stop: 10643, Start Num: 4
Candidate Starts for EugeneKrabs_16:
(Start: 4 @11398 has 52 MA's), (18, 11170), (24, 10984), (27, 10921), (29, 10897), (37, 10798), (45, 10711), (46, 10687),

Gene: Fede_15 Start: 11220, Stop: 10489, Start Num: 4
Candidate Starts for Fede_15:
(Start: 4 @11220 has 52 MA's), (7, 11181), (20, 10959), (31, 10722), (36, 10644), (38, 10632), (40, 10602), (45, 10551),

Gene: Fullmetal_16 Start: 11218, Stop: 10487, Start Num: 4
Candidate Starts for Fullmetal_16:
(Start: 4 @11218 has 52 MA's), (6, 11179), (14, 11017), (29, 10732), (34, 10678), (37, 10633), (38, 10627), (45, 10546),

Gene: Gshelby23_13 Start: 10613, Stop: 9924, Start Num: 5
Candidate Starts for Gshelby23_13:
(2, 10712), (Start: 5 @10613 has 8 MA's), (15, 10415), (16, 10412), (22, 10286), (23, 10277), (25, 10232), (28, 10163), (33, 10124), (35, 10097), (48, 9932),

Gene: Hannabella_14 Start: 10493, Stop: 9804, Start Num: 5
Candidate Starts for Hannabella_14:

(2, 10592), (Start: 5 @10493 has 8 MA's), (15, 10295), (16, 10292), (22, 10166), (23, 10157), (25, 10112), (28, 10043), (33, 10004), (35, 9977), (48, 9812),

Gene: HitchHiker_18 Start: 11522, Stop: 10752, Start Num: 4
Candidate Starts for HitchHiker_18:
(Start: 4 @11522 has 52 MA's), (27, 11033), (32, 10979), (37, 10910), (42, 10853), (44, 10829),

Gene: JessellCookie_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for JessellCookie_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: JimmyPG_15 Start: 11173, Stop: 10442, Start Num: 4
Candidate Starts for JimmyPG_15:
(Start: 4 @11173 has 52 MA's), (14, 10972), (17, 10948), (29, 10687), (37, 10588), (38, 10582), (45, 10501),

Gene: JordanFarm_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for JordanFarm_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (43, 10293), (45, 10281),

Gene: Keough_15 Start: 10946, Stop: 10215, Start Num: 4
Candidate Starts for Keough_15:
(Start: 4 @10946 has 52 MA's), (6, 10907), (7, 10904), (14, 10745), (28, 10463), (29, 10460), (37, 10361), (38, 10355),

Gene: Kikiko_16 Start: 11336, Stop: 10641, Start Num: 5
Candidate Starts for Kikiko_16:
(Start: 5 @11336 has 8 MA's), (15, 11138), (24, 10958), (35, 10814), (41, 10742), (43, 10712),

Gene: KingKamren_16 Start: 11433, Stop: 10678, Start Num: 4
Candidate Starts for KingKamren_16:
(Start: 4 @11433 has 52 MA's), (18, 11205), (24, 11019), (27, 10956), (29, 10932), (37, 10833), (45, 10746), (46, 10722),

Gene: Kosier_15 Start: 11220, Stop: 10489, Start Num: 4
Candidate Starts for Kosier_15:
(Start: 4 @11220 has 52 MA's), (7, 11181), (20, 10959), (31, 10722), (36, 10644), (38, 10632), (40, 10602), (45, 10551),

Gene: LesNorah_15 Start: 11576, Stop: 10809, Start Num: 4
Candidate Starts for LesNorah_15:
(Start: 4 @11576 has 52 MA's), (13, 11378), (19, 11339), (27, 11087), (37, 10964), (42, 10907), (44, 10883),

Gene: LilyLou_16 Start: 11426, Stop: 10659, Start Num: 4
Candidate Starts for LilyLou_16:
(Start: 4 @11426 has 52 MA's), (13, 11228), (27, 10937), (37, 10814), (42, 10757), (44, 10733),

Gene: Mazun_16 Start: 11219, Stop: 10488, Start Num: 4
Candidate Starts for Mazun_16:

(Start: 4 @11219 has 52 MA's), (6, 11180), (14, 11018), (29, 10733), (34, 10679), (37, 10634), (38, 10628), (45, 10547),

Gene: MiamiPanther_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for MiamiPanther_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (12, 10694), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: MissAmericana_16 Start: 11108, Stop: 10413, Start Num: 5
Candidate Starts for MissAmericana_16:
(Start: 5 @11108 has 8 MA's), (8, 11060), (15, 10910), (21, 10817), (24, 10730), (35, 10586), (41, 10514), (43, 10484),

Gene: Moleficent_16 Start: 11215, Stop: 10484, Start Num: 4
Candidate Starts for Moleficent_16:
(Start: 4 @11215 has 52 MA's), (14, 11014), (29, 10729), (34, 10675), (37, 10630), (38, 10624), (45, 10543),

Gene: Morrill_15 Start: 10957, Stop: 10226, Start Num: 4
Candidate Starts for Morrill_15:
(Start: 4 @10957 has 52 MA's), (14, 10756), (29, 10471), (34, 10417), (37, 10372), (38, 10366), (45, 10285),

Gene: Oatly_17 Start: 11522, Stop: 10752, Start Num: 4
Candidate Starts for Oatly_17:
(Start: 3 @11606 has 1 MA's), (Start: 4 @11522 has 52 MA's), (27, 11033), (32, 10979), (37, 10910), (42, 10853), (44, 10829),

Gene: Pabst_17 Start: 11392, Stop: 10622, Start Num: 4
Candidate Starts for Pabst_17:
(Start: 4 @11392 has 52 MA's), (13, 11194), (27, 10903), (30, 10873), (32, 10849), (37, 10780), (42, 10723), (44, 10699),

Gene: Pharky_16 Start: 11179, Stop: 10448, Start Num: 4
Candidate Starts for Pharky_16:
(Start: 4 @11179 has 52 MA's), (6, 11140), (14, 10978), (29, 10693), (34, 10639), (37, 10594), (38, 10588),

Gene: Phedro_16 Start: 11179, Stop: 10448, Start Num: 4
Candidate Starts for Phedro_16:
(Start: 4 @11179 has 52 MA's), (6, 11140), (14, 10978), (29, 10693), (34, 10639), (37, 10594), (38, 10588),

Gene: Phogo_16 Start: 11258, Stop: 10491, Start Num: 4
Candidate Starts for Phogo_16:
(Start: 4 @11258 has 52 MA's), (13, 11060), (27, 10769), (37, 10646), (42, 10589), (44, 10565),

Gene: Phractured_16 Start: 11179, Stop: 10448, Start Num: 4
Candidate Starts for Phractured_16:
(Start: 4 @11179 has 52 MA's), (6, 11140), (14, 10978), (29, 10693), (34, 10639), (37, 10594), (38, 10588),

Gene: PhriedRice_16 Start: 11179, Stop: 10448, Start Num: 4

Candidate Starts for PhriedRice_16:
(Start: 4 @11179 has 52 MA's), (6, 11140), (14, 10978), (28, 10696), (29, 10693), (37, 10594), (38, 10588), (47, 10480),

Gene: PineapplePluto_18 Start: 11666, Stop: 10896, Start Num: 4
Candidate Starts for PineapplePluto_18:
(Start: 4 @11666 has 52 MA's), (27, 11177), (32, 11123), (37, 11054), (42, 10997), (44, 10973),

Gene: RicoCaldo_16 Start: 11210, Stop: 10479, Start Num: 4
Candidate Starts for RicoCaldo_16:
(Start: 4 @11210 has 52 MA's), (6, 11171), (11, 11051), (14, 11009), (29, 10724), (34, 10670), (37, 10625), (38, 10619), (45, 10538),

Gene: Salvatore2000_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for Salvatore2000_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: Scruffy_14 Start: 10892, Stop: 10203, Start Num: 5
Candidate Starts for Scruffy_14:
(2, 10991), (Start: 5 @10892 has 8 MA's), (15, 10694), (16, 10691), (22, 10565), (23, 10556), (25, 10511), (28, 10442), (33, 10403), (35, 10376), (48, 10211),

Gene: ShyRosie_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for ShyRosie_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: SoilSleuth_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for SoilSleuth_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: Sorvannah_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for Sorvannah_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: StagePhright_16 Start: 11179, Stop: 10448, Start Num: 4
Candidate Starts for StagePhright_16:
(Start: 4 @11179 has 52 MA's), (6, 11140), (14, 10978), (29, 10693), (34, 10639), (37, 10594), (38, 10588),

Gene: Stormbreaker_15 Start: 11388, Stop: 10621, Start Num: 4
Candidate Starts for Stormbreaker_15:
(Start: 4 @11388 has 52 MA's), (13, 11190), (19, 11151), (27, 10899), (37, 10776), (42, 10719), (44, 10695),

Gene: SwissCheezer_15 Start: 11025, Stop: 10258, Start Num: 4
Candidate Starts for SwissCheezer_15:
(Start: 4 @11025 has 52 MA's), (13, 10827), (27, 10536), (37, 10413), (42, 10356), (44, 10332),

Gene: ThirteenKH_15 Start: 10957, Stop: 10226, Start Num: 4

Candidate Starts for ThirteenKH_15:
(Start: 4 @10957 has 52 MA's), (8, 10903), (14, 10756), (29, 10471), (34, 10417), (37, 10372), (38, 10366), (45, 10285),

Gene: TicTac_17 Start: 11615, Stop: 10761, Start Num: 3
Candidate Starts for TicTac_17:
(Start: 3 @11615 has 1 MA's), (Start: 4 @11531 has 52 MA's), (27, 11042), (32, 10988), (37, 10919), (42, 10862), (44, 10838),

Gene: TinyTimothy_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for TinyTimothy_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: TownLake_15 Start: 11318, Stop: 10551, Start Num: 4
Candidate Starts for TownLake_15:
(Start: 4 @11318 has 52 MA's), (13, 11120), (19, 11081), (27, 10829), (37, 10706), (42, 10649), (44, 10625),

Gene: TrippleS_15 Start: 10963, Stop: 10232, Start Num: 4
Candidate Starts for TrippleS_15:
(Start: 4 @10963 has 52 MA's), (14, 10762), (29, 10477), (34, 10423), (37, 10378), (38, 10372), (45, 10291),

Gene: Truong_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for Truong_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: Unphazed_16 Start: 11285, Stop: 10518, Start Num: 4
Candidate Starts for Unphazed_16:
(Start: 4 @11285 has 52 MA's), (13, 11087), (27, 10796), (37, 10673), (42, 10616), (44, 10592),

Gene: Waterlily_15 Start: 10953, Stop: 10222, Start Num: 4
Candidate Starts for Waterlily_15:
(1, 11046), (Start: 4 @10953 has 52 MA's), (6, 10914), (13, 10761), (29, 10467), (37, 10368), (38, 10362), (40, 10332), (45, 10281),

Gene: Wesak_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for Wesak_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: Xitlalli_15 Start: 11391, Stop: 10624, Start Num: 4
Candidate Starts for Xitlalli_15:
(Start: 4 @11391 has 52 MA's), (13, 11193), (19, 11154), (27, 10902), (37, 10779), (42, 10722), (44, 10698),

Gene: Yafa_15 Start: 10980, Stop: 10249, Start Num: 4
Candidate Starts for Yafa_15:
(Start: 4 @10980 has 52 MA's), (14, 10779), (29, 10494), (34, 10440), (37, 10395), (38, 10389), (45, 10308),

Gene: YellowPanda_15 Start: 10862, Stop: 10101, Start Num: 4
Candidate Starts for YellowPanda_15:
(Start: 3 @10946 has 1 MA's), (Start: 4 @10862 has 52 MA's), (13, 10664), (17, 10631), (24, 10442), (27, 10379), (32, 10325), (37, 10256), (44, 10175),

Gene: Zhengyi_16 Start: 11417, Stop: 10662, Start Num: 4
Candidate Starts for Zhengyi_16:
(Start: 4 @11417 has 52 MA's), (18, 11189), (24, 11003), (27, 10940), (29, 10916), (37, 10817), (45, 10730), (46, 10706),