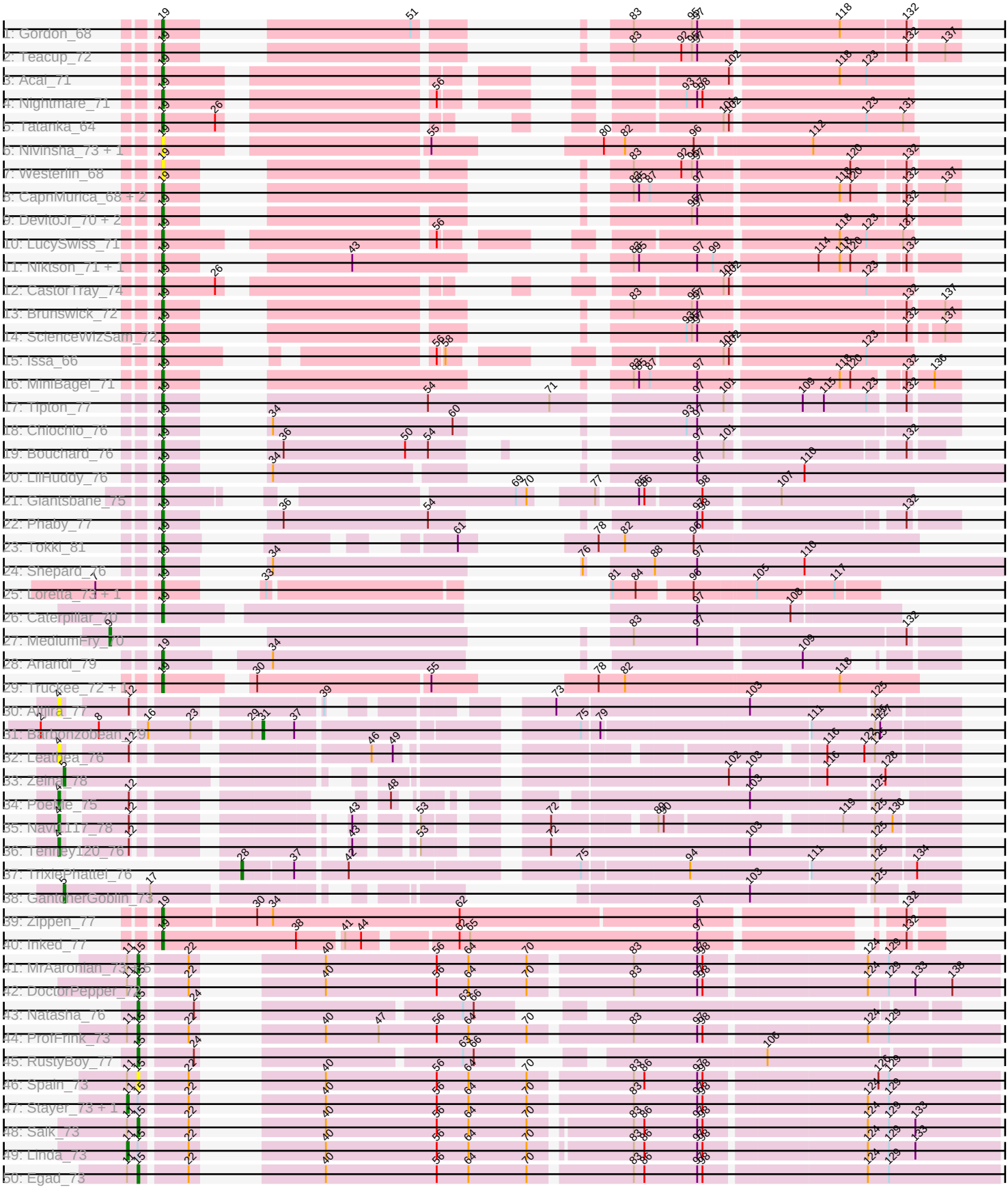
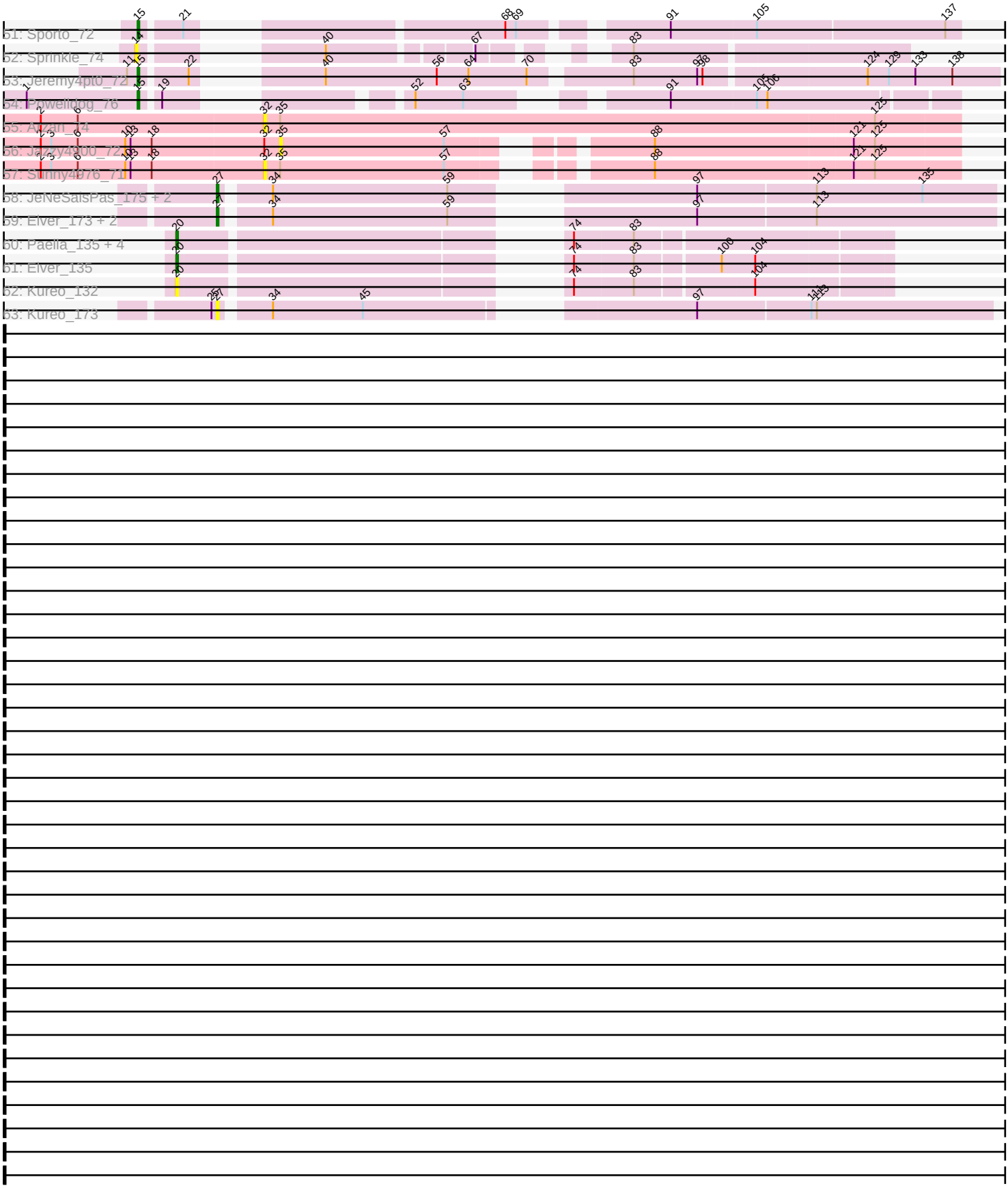
Pham 343899


1: Gordon_68
2: Teacup_72
3: Acai_71
4: Nightmare_71
5: Tatanka_64
6: Nivinsha_73 + 1
7: Westerlin_68
8: CapnMurica_68 + 2
9: DevitoJr_70 + 2
10: LucySwiss_71
11: Niktson_71 + 1
12: CastorTray_74
13: Brunswick_72
14: ScienceWizSam_72
15: Issa_66
16: MiniBagel_71
17: Tipton_77
18: Chochlo_76
19: Bouchard_76
20: LilHuddy_76
21: Giantsbane_75
22: Phaby_77
23: Tokki_81
24: Shepard_76
25: Loretta_73 + 1
26: Caterpillar_70
27: MediumFly_76
28: Anandi_79
29: Truckee_72 + 1
30: Alpha_77
31: Bartonzobean_79
32: Leadpea_76
33: Zelma_78
34: Poetic_75
35: Navy1117_78
36: Tenney120_76
37: TrixiePhattel_76
38: GantcherGoblin_73
39: Zippen_77
40: Inked_77
41: MrAaronian_73 + 6
42: DoctorPepper_72
43: Natasha_76
44: ProfFrink_73
45: RustyBoy_77
46: Spain_73
47: Stayer_73 + 1
48: Salk_73
49: Linda_73
50: Egad_73

Pham 343899


51: Sporto_72
52: Sprinkle_74
53: Jeremy4pt0_72
54: Powell0g_76
55: Azzan_74
56: Jazzy4000_72
57: Sunny4876_71
58: JeNeSaisPas_175 + 2
59: Elver_173 + 2
60: Paella_135 + 4
61: Elver_135
62: Kureo_132
63: Kureo_173

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 343899 Report

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

Pham number 343899 has 85 members, 17 are drafts.

Phages represented in each track:
- Track 1 : Gordon_68
- Track 2 : Teacup_72
- Track 3 : Acai_71
- Track 4 : Nightmare_71
- Track 5 : Tatanka_64
- Track 6 : Nivinsha_73, AreFloNak_76
- Track 7 : Westerlin_68
- Track 8 : CapnMurica_68, Dinallo_66, Tenno_70
- Track 9 : DevitoJr_70, Darby_68, Trustiboi_69
- Track 10 : LucySwiss_71
- Track 11 : Niktson_71, ElephantMan_71
- Track 12 : CastorTray_74
- Track 13 : Brunswick_72
- Track 14 : ScienceWizSam_72
- Track 15 : Issa_66
- Track 16 : MiniBagel_71
- Track 17 : Tipton_77
- Track 18 : Chlochlo_76
- Track 19 : Bouchard_76
- Track 20 : LilHuddy_76
- Track 21 : Giantsbane_75
- Track 22 : Phaby_77
- Track 23 : Tokki_81
- Track 24 : Shepard_76
- Track 25 : Loretta_73, Ingrid_77
- Track 26 : Caterpillar_70
- Track 27 : MediumFry_70
- Track 28 : Anandi_79
- Track 29 : Truckee_72, Makai_74
- Track 30 : Altjira_77
- Track 31 : Barbonzobean_79
- Track 32 : Leathea_76
- Track 33 : Zeina_78
- Track 34 : PoeMe_75
- Track 35 : Navi1117_78
- Track 36 : Tenney120_76
- Track 37 : TrixiePhattel_76

• Track 38 : GantcherGoblin_73
• Track 39 : Zippen_77
• Track 40 : Inked_77
• Track 41 : MrAaronian_73, Boog_72, Djungelskog_72, Sloopyjoe_73, BronxBay_73, StarLord_73
• Track 42 : DoctorPepper_72
• Track 43 : Natasha_76
• Track 44 : ProfFrink_73
• Track 45 : RustyBoy_77
• Track 46 : Spain_73
• Track 47 : Stayer_73, Michelle_73
• Track 48 : Salk_73
• Track 49 : Linda_73
• Track 50 : Egad_73
• Track 51 : Sporto_72
• Track 52 : Sprinkle_74
• Track 53 : Jeremy4pt0_72
• Track 54 : Powelldog_76
• Track 55 : Arzan_74
• Track 56 : Jazzy4900_72
• Track 57 : Sunny4976_71
• Track 58 : JeNeSaisPas_175, Paella_174, Qui_174
• Track 59 : Elver_173, Marianna39_171, Gandionco_171
• Track 60 : Paella_135, Qui_135, Gandionco_131, JeNeSaisPas_132, Marianna39_132
• Track 61 : Elver_135
• Track 62 : Kureo_132
• Track 63 : Kureo_173

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

The start number called the most often in the published annotations is 19, it was called in 34 of the 68 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acai_71, Anandi_79, AreFloNak_76, Bouchard_76, Brunswick_72, CapnMurica_68, CastorTray_74, Caterpillar_70, Chlochlo_76, Darby_68, DevitoJr_70, Dinallo_66, ElephantMan_71, Giantsbane_75, Gordon_68, Ingrid_77, Inked_77, Issa_66, LilHuddy_76, Loretta_73, LucySwiss_71, Makai_74, MiniBagel_71, Nightmare_71, Niktson_71, Nivinsha_73, Phaby_77, ScienceWizSam_72, Shepard_76, Tatanka_64, Teacup_72, Tenno_70, Tipton_77, Tokki_81, Truckee_72, Trustiboi_69, Westerlin_68, Zippen_77,

Genes that have the "Most Annotated" start but do not call it:
• Powelldog_76,

Genes that do not have the "Most Annotated" start:
• Altjira_77, Arzan_74, Barbonzobean_79, Boog_72, BronxBay_73, Djungelskog_72, DoctorPepper_72, Egad_73, Elver_135, Elver_173, Gandionco_131, Gandionco_171, GantcherGoblin_73, Jazzy4900_72, JeNeSaisPas_132, JeNeSaisPas_175,

Jeremy4pt0_72, Kureo_132, Kureo_173, Leathea_76, Linda_73, Marianna39_132, Marianna39_171, MediumFry_70, Michelle_73, MrAaronian_73, Natasha_76, Navi1117_78, Paella_135, Paella_174, PoeMe_75, ProfFrink_73, Qui_135, Qui_174, RustyBoy_77, Salk_73, Sloopyjoe_73, Spain_73, Sporto_72, Sprinkle_74, StarLord_73, Stayer_73, Sunny4976_71, Tenney120_76, TrixiePhattel_76, Zeina_78,

Summary by start number:

Start 4:
• Found in 5 of 85 (5.9%) of genes in pham
• Manual Annotations of this start: 3 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Altjira_77 (AU6), Leathea_76 (AU6), Navi1117_78 (AU6), PoeMe_75 (AU6), Tenney120_76 (AU6),

Start 5:
• Found in 2 of 85 (2.4%) of genes in pham
• Manual Annotations of this start: 2 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GantcherGoblin_73 (AU6), Zeina_78 (AU6),

Start 9:
• Found in 1 of 85 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MediumFry_70 (AU4),

Start 11:
• Found in 15 of 85 (17.6%) of genes in pham
• Manual Annotations of this start: 3 of 68
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Linda_73 (AW), Michelle_73 (AW), Stayer_73 (AW),

Start 14:
• Found in 1 of 85 (1.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sprinkle_74 (AW),

Start 15:
• Found in 19 of 85 (22.4%) of genes in pham
• Manual Annotations of this start: 15 of 68
• Called 84.2% of time when present
• Phage (with cluster) where this start called: Boog_72 (AW), BronxBay_73 (AW), Djungelskog_72 (AW), DoctorPepper_72 (AW), Egad_73 (AW), Jeremy4pt0_72 (AW), MrAaronian_73 (AW), Natasha_76 (AW), Powelldog_76 (AW), ProfFrink_73 (AW), RustyBoy_77 (AW), Salk_73 (AW), Sloopyjoe_73 (AW), Spain_73 (AW), Sporto_72 (AW), StarLord_73 (AW),

Start 19:
• Found in 39 of 85 (45.9%) of genes in pham

• Manual Annotations of this start: 34 of 68
• Called 97.4% of time when present
• Phage (with cluster) where this start called: Acai_71 (AU1), Anandi_79 (AU4), AreFloNak_76 (AU1), Bouchard_76 (AU2), Brunswick_72 (AU1), CapnMurica_68 (AU1), CastorTray_74 (AU1), Caterpillar_70 (AU4), Chlochlo_76 (AU2), Darby_68 (AU1), DevitoJr_70 (AU1), Dinallo_66 (AU1), ElephantMan_71 (AU1), Giantsbane_75 (AU2), Gordon_68 (AU1), Ingrid_77 (AU3), Inked_77 (AU7), Issa_66 (AU1), LilHuddy_76 (AU2), Loretta_73 (AU3), LucySwiss_71 (AU1), Makai_74 (AU5), MiniBagel_71 (AU1), Nightmare_71 (AU1), Niktson_71 (AU1), Nivinsha_73 (AU1), Phaby_77 (AU2), ScienceWizSam_72 (AU1), Shepard_76 (AU2), Tatanka_64 (AU1), Teacup_72 (AU1), Tenno_70 (AU1), Tipton_77 (AU2), Tokki_81 (AU2), Truckee_72 (AU5), Trustiboi_69 (AU1), Westerlin_68 (AU1), Zippen_77 (AU7),

Start 20:
• Found in 7 of 85 (8.2%) of genes in pham
• Manual Annotations of this start: 4 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Elver_135 (FK), Gandionco_131 (FK), JeNeSaisPas_132 (FK), Kureo_132 (FK), Marianna39_132 (FK), Paella_135 (FK), Qui_135 (FK),

Start 27:
• Found in 7 of 85 (8.2%) of genes in pham
• Manual Annotations of this start: 4 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Elver_173 (FK), Gandionco_171 (FK), JeNeSaisPas_175 (FK), Kureo_173 (FK), Marianna39_171 (FK), Paella_174 (FK), Qui_174 (FK),

Start 28:
• Found in 1 of 85 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TrixiePhattel_76 (AU6),

Start 31:
• Found in 1 of 85 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barbonzobean_79 (AU6),

Start 32:
• Found in 3 of 85 (3.5%) of genes in pham
• No Manual Annotations of this start.
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Arzan_74 (FI), Sunny4976_71 (FI),

Start 35:
• Found in 3 of 85 (3.5%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Jazzy4900_72 (FI),

Summary by clusters:

There are 10 clusters represented in this pham: AU7, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK,

Info for manual annotations of cluster AU1:
•Start number 19 was manually annotated 18 times for cluster AU1.

Info for manual annotations of cluster AU2:
•Start number 19 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:
•Start number 19 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:
•Start number 9 was manually annotated 1 time for cluster AU4.
•Start number 19 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:
•Start number 19 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:
•Start number 4 was manually annotated 3 times for cluster AU6.
•Start number 5 was manually annotated 2 times for cluster AU6.
•Start number 28 was manually annotated 1 time for cluster AU6.
•Start number 31 was manually annotated 1 time for cluster AU6.

Info for manual annotations of cluster AU7:
•Start number 19 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:
•Start number 11 was manually annotated 3 times for cluster AW.
•Start number 15 was manually annotated 15 times for cluster AW.

Info for manual annotations of cluster FK:
•Start number 20 was manually annotated 4 times for cluster FK.
•Start number 27 was manually annotated 4 times for cluster FK.

Gene Information:

Gene: Acai_71 Start: 47383, Stop: 47733, Start Num: 19
Candidate Starts for Acai_71:
(Start: 19 @47383 has 34 MA's), (102, 47635), (118, 47692), (123, 47707),

Gene: Altjira_77 Start: 46533, Stop: 46949, Start Num: 4
Candidate Starts for Altjira_77:
(Start: 4 @46533 has 3 MA's), (12, 46563), (39, 46647), (73, 46734), (103, 46839), (125, 46905),

Gene: Anandi_79 Start: 48145, Stop: 48471, Start Num: 19
Candidate Starts for Anandi_79:

(Start: 19 @48145 has 34 MA's), (34, 48193), (109, 48406),

Gene: AreFloNak_76 Start: 47429, Stop: 47785, Start Num: 19
Candidate Starts for AreFloNak_76:
(Start: 19 @47429 has 34 MA's), (55, 47564), (80, 47612), (82, 47624), (96, 47663), (112, 47726),

Gene: Arzan_74 Start: 46947, Stop: 47339, Start Num: 32
Candidate Starts for Arzan_74:
(2, 46821), (6, 46842), (32, 46947), (35, 46956), (125, 47292),

Gene: Barbonzobean_79 Start: 47363, Stop: 47725, Start Num: 31
Candidate Starts for Barbonzobean_79:
(2, 47246), (8, 47279), (16, 47303), (23, 47327), (29, 47357), (Start: 31 @47363 has 1 MA's), (37, 47381), (75, 47522), (79, 47531), (111, 47645), (125, 47681), (127, 47684),

Gene: Boog_72 Start: 45439, Stop: 45873, Start Num: 15
Candidate Starts for Boog_72:
(Start: 11 @45433 has 3 MA's), (Start: 15 @45439 has 15 MA's), (22, 45463), (40, 45505), (56, 45568), (64, 45586), (70, 45619), (83, 45673), (97, 45709), (98, 45712), (124, 45799), (129, 45811),

Gene: Bouchard_76 Start: 48019, Stop: 48327, Start Num: 19
Candidate Starts for Bouchard_76:
(Start: 19 @48019 has 34 MA's), (36, 48049), (50, 48118), (54, 48130), (97, 48205), (101, 48220), (132, 48310),

Gene: BronxBay_73 Start: 45711, Stop: 46145, Start Num: 15
Candidate Starts for BronxBay_73:
(Start: 11 @45705 has 3 MA's), (Start: 15 @45711 has 15 MA's), (22, 45735), (40, 45777), (56, 45840), (64, 45858), (70, 45891), (83, 45945), (97, 45981), (98, 45984), (124, 46071), (129, 46083),

Gene: Brunswick_72 Start: 47263, Stop: 47580, Start Num: 19
Candidate Starts for Brunswick_72:
(Start: 19 @47263 has 34 MA's), (83, 47407), (95, 47440), (97, 47443), (132, 47554), (137, 47572),

Gene: CapnMurica_68 Start: 47980, Stop: 48297, Start Num: 19
Candidate Starts for CapnMurica_68:
(Start: 19 @47980 has 34 MA's), (83, 48130), (85, 48133), (87, 48139), (97, 48166), (118, 48241), (120, 48247), (132, 48271), (137, 48289),

Gene: CastorTray_74 Start: 48014, Stop: 48340, Start Num: 19
Candidate Starts for CastorTray_74:
(Start: 19 @48014 has 34 MA's), (26, 48044), (101, 48239), (102, 48242), (123, 48314),

Gene: Caterpillar_70 Start: 46858, Stop: 47175, Start Num: 19
Candidate Starts for Caterpillar_70:
(Start: 19 @46858 has 34 MA's), (97, 47065), (108, 47116),

Gene: Chlochlo_76 Start: 47546, Stop: 47869, Start Num: 19
Candidate Starts for Chlochlo_76:
(Start: 19 @47546 has 34 MA's), (34, 47570), (60, 47672), (93, 47726), (97, 47732),

Gene: Darby_68 Start: 47007, Stop: 47324, Start Num: 19
Candidate Starts for Darby_68:

(Start: 19 @47007 has 34 MA's), (95, 47184), (97, 47187), (132, 47298),

Gene: DevitoJr_70 Start: 47392, Stop: 47709, Start Num: 19
Candidate Starts for DevitoJr_70:
(Start: 19 @47392 has 34 MA's), (95, 47569), (97, 47572), (132, 47683),

Gene: Dinallo_66 Start: 48272, Stop: 48589, Start Num: 19
Candidate Starts for Dinallo_66:
(Start: 19 @48272 has 34 MA's), (83, 48422), (85, 48425), (87, 48431), (97, 48458), (118, 48533), (120, 48539), (132, 48563), (137, 48581),

Gene: Djungelskog_72 Start: 45713, Stop: 46147, Start Num: 15
Candidate Starts for Djungelskog_72:
(Start: 11 @45707 has 3 MA's), (Start: 15 @45713 has 15 MA's), (22, 45737), (40, 45779), (56, 45842), (64, 45860), (70, 45893), (83, 45947), (97, 45983), (98, 45986), (124, 46073), (129, 46085),

Gene: DoctorPepper_72 Start: 45415, Stop: 45849, Start Num: 15
Candidate Starts for DoctorPepper_72:
(Start: 11 @45409 has 3 MA's), (Start: 15 @45415 has 15 MA's), (22, 45439), (40, 45481), (56, 45544), (64, 45562), (70, 45595), (83, 45649), (97, 45685), (98, 45688), (124, 45775), (129, 45787), (133, 45802), (138, 45823),

Gene: Egad_73 Start: 45689, Stop: 46123, Start Num: 15
Candidate Starts for Egad_73:
(Start: 11 @45683 has 3 MA's), (Start: 15 @45689 has 15 MA's), (22, 45713), (40, 45755), (56, 45818), (64, 45836), (70, 45869), (83, 45923), (86, 45929), (97, 45959), (98, 45962), (124, 46049), (129, 46061),

Gene: ElephantMan_71 Start: 47893, Stop: 48210, Start Num: 19
Candidate Starts for ElephantMan_71:
(Start: 19 @47893 has 34 MA's), (43, 47962), (83, 48043), (85, 48046), (97, 48079), (99, 48088), (114, 48142), (118, 48154), (120, 48160), (132, 48184),

Gene: Elver_173 Start: 85588, Stop: 85980, Start Num: 27
Candidate Starts for Elver_173:
(Start: 27 @85588 has 4 MA's), (34, 85612), (59, 85711), (97, 85813), (113, 85879),

Gene: Elver_135 Start: 71797, Stop: 72144, Start Num: 20
Candidate Starts for Elver_135:
(Start: 20 @71797 has 4 MA's), (74, 71974), (83, 72007), (100, 72052), (104, 72070),

Gene: Gandionco_131 Start: 70615, Stop: 70962, Start Num: 20
Candidate Starts for Gandionco_131:
(Start: 20 @70615 has 4 MA's), (74, 70792), (83, 70825),

Gene: Gandionco_171 Start: 84981, Stop: 85373, Start Num: 27
Candidate Starts for Gandionco_171:
(Start: 27 @84981 has 4 MA's), (34, 85005), (59, 85104), (97, 85206), (113, 85272),

Gene: GantcherGoblin_73 Start: 45315, Stop: 45701, Start Num: 5
Candidate Starts for GantcherGoblin_73:
(Start: 5 @45315 has 2 MA's), (17, 45360), (103, 45594), (125, 45660),

Gene: Giantsbane_75 Start: 46546, Stop: 46899, Start Num: 19
Candidate Starts for Giantsbane_75:
(Start: 19 @46546 has 34 MA's), (69, 46702), (70, 46708), (77, 46732), (85, 46753), (86, 46756), (98, 46786), (107, 46825),

Gene: Gordon_68 Start: 47880, Stop: 48197, Start Num: 19
Candidate Starts for Gordon_68:
(Start: 19 @47880 has 34 MA's), (51, 47982), (83, 48024), (95, 48057), (97, 48060), (118, 48135), (132, 48171),

Gene: Ingrid_77 Start: 47844, Stop: 48110, Start Num: 19
Candidate Starts for Ingrid_77:
(7, 47814), (Start: 19 @47844 has 34 MA's), (33, 47868), (81, 47973), (84, 47985), (96, 48012), (105, 48045), (117, 48087),

Gene: Inked_77 Start: 48470, Stop: 48871, Start Num: 19
Candidate Starts for Inked_77:
(Start: 19 @48470 has 34 MA's), (38, 48545), (41, 48569), (44, 48578), (62, 48623), (65, 48629), (97, 48758), (132, 48854),

Gene: Issa_66 Start: 47054, Stop: 47380, Start Num: 19
Candidate Starts for Issa_66:
(Start: 19 @47054 has 34 MA's), (56, 47165), (58, 47168), (101, 47279), (102, 47282), (123, 47354),

Gene: Jazzy4900_72 Start: 47820, Stop: 48170, Start Num: 35
Candidate Starts for Jazzy4900_72:
(2, 47685), (3, 47691), (6, 47706), (10, 47733), (13, 47736), (18, 47748), (32, 47811), (35, 47820), (57, 47913), (88, 48000), (121, 48111), (125, 48123),

Gene: JeNeSaisPas_175 Start: 85709, Stop: 86101, Start Num: 27
Candidate Starts for JeNeSaisPas_175:
(Start: 27 @85709 has 4 MA's), (34, 85733), (59, 85832), (97, 85934), (113, 86000), (135, 86060),

Gene: JeNeSaisPas_132 Start: 71211, Stop: 71558, Start Num: 20
Candidate Starts for JeNeSaisPas_132:
(Start: 20 @71211 has 4 MA's), (74, 71388), (83, 71421),

Gene: Jeremy4pt0_72 Start: 45410, Stop: 45841, Start Num: 15
Candidate Starts for Jeremy4pt0_72:
(Start: 11 @45404 has 3 MA's), (Start: 15 @45410 has 15 MA's), (22, 45434), (40, 45476), (56, 45539), (64, 45557), (70, 45590), (83, 45641), (97, 45677), (98, 45680), (124, 45767), (129, 45779), (133, 45794), (138, 45815),

Gene: Kureo_132 Start: 70811, Stop: 71158, Start Num: 20
Candidate Starts for Kureo_132:
(Start: 20 @70811 has 4 MA's), (74, 70988), (83, 71021), (104, 71084),

Gene: Kureo_173 Start: 85163, Stop: 85549, Start Num: 27
Candidate Starts for Kureo_173:
(25, 85160), (Start: 27 @85163 has 4 MA's), (34, 85187), (45, 85238), (97, 85385), (111, 85448), (113, 85451),

Gene: Leathea_76 Start: 45220, Stop: 45642, Start Num: 4

Candidate Starts for Leathea_76:
(Start: 4 @45220 has 3 MA's), (12, 45250), (46, 45361), (49, 45373), (116, 45574), (122, 45595), (125, 45601),

Gene: LilHuddy_76 Start: 47672, Stop: 48037, Start Num: 19
Candidate Starts for LilHuddy_76:
(Start: 19 @47672 has 34 MA's), (34, 47696), (97, 47852), (110, 47912),

Gene: Linda_73 Start: 45702, Stop: 46139, Start Num: 11
Candidate Starts for Linda_73:
(Start: 11 @45702 has 3 MA's), (Start: 15 @45708 has 15 MA's), (22, 45732), (40, 45774), (56, 45837), (64, 45855), (70, 45888), (83, 45939), (86, 45945), (97, 45975), (98, 45978), (124, 46065), (129, 46077), (133, 46092),

Gene: Loretta_73 Start: 47844, Stop: 48110, Start Num: 19
Candidate Starts for Loretta_73:
(7, 47814), (Start: 19 @47844 has 34 MA's), (33, 47868), (81, 47973), (84, 47985), (96, 48012), (105, 48045), (117, 48087),

Gene: LucySwiss_71 Start: 46999, Stop: 47349, Start Num: 19
Candidate Starts for LucySwiss_71:
(Start: 19 @46999 has 34 MA's), (56, 47134), (118, 47308), (123, 47323), (131, 47344),

Gene: Makai_74 Start: 47957, Stop: 48316, Start Num: 19
Candidate Starts for Makai_74:
(Start: 19 @47957 has 34 MA's), (30, 47996), (55, 48092), (78, 48137), (82, 48152), (118, 48272),

Gene: Marianna39_171 Start: 85586, Stop: 85978, Start Num: 27
Candidate Starts for Marianna39_171:
(Start: 27 @85586 has 4 MA's), (34, 85610), (59, 85709), (97, 85811), (113, 85877),

Gene: Marianna39_132 Start: 71220, Stop: 71567, Start Num: 20
Candidate Starts for Marianna39_132:
(Start: 20 @71220 has 4 MA's), (74, 71397), (83, 71430),

Gene: MediumFry_70 Start: 47193, Stop: 47540, Start Num: 9
Candidate Starts for MediumFry_70:
(Start: 9 @47193 has 1 MA's), (83, 47367), (97, 47403), (132, 47514),

Gene: Michelle_73 Start: 45704, Stop: 46144, Start Num: 11
Candidate Starts for Michelle_73:
(Start: 11 @45704 has 3 MA's), (Start: 15 @45710 has 15 MA's), (22, 45734), (40, 45776), (56, 45839), (64, 45857), (70, 45890), (83, 45944), (97, 45980), (98, 45983), (124, 46070), (129, 46082),

Gene: MiniBagel_71 Start: 47984, Stop: 48301, Start Num: 19
Candidate Starts for MiniBagel_71:
(Start: 19 @47984 has 34 MA's), (83, 48134), (85, 48137), (87, 48143), (97, 48170), (118, 48245), (120, 48251), (132, 48275), (136, 48287),

Gene: MrAaronian_73 Start: 45710, Stop: 46144, Start Num: 15
Candidate Starts for MrAaronian_73:
(Start: 11 @45704 has 3 MA's), (Start: 15 @45710 has 15 MA's), (22, 45734), (40, 45776), (56, 45839), (64, 45857), (70, 45890), (83, 45944), (97, 45980), (98, 45983), (124, 46070), (129, 46082),

Gene: Natasha_76 Start: 46021, Stop: 46392, Start Num: 15
Candidate Starts for Natasha_76:
(Start: 15 @46021 has 15 MA's), (24, 46048), (63, 46159), (66, 46165),

Gene: Navi1117_78 Start: 46395, Stop: 46790, Start Num: 4
Candidate Starts for Navi1117_78:
(Start: 4 @46395 has 3 MA's), (12, 46425), (43, 46512), (53, 46536), (72, 46587), (89, 46638), (90, 46641), (119, 46728), (125, 46746), (130, 46755),

Gene: Nightmare_71 Start: 48297, Stop: 48647, Start Num: 19
Candidate Starts for Nightmare_71:
(Start: 19 @48297 has 34 MA's), (56, 48432), (93, 48525), (97, 48531), (98, 48534),

Gene: Niktson_71 Start: 47893, Stop: 48210, Start Num: 19
Candidate Starts for Niktson_71:
(Start: 19 @47893 has 34 MA's), (43, 47962), (83, 48043), (85, 48046), (97, 48079), (99, 48088), (114, 48142), (118, 48154), (120, 48160), (132, 48184),

Gene: Nivinsha_73 Start: 47429, Stop: 47785, Start Num: 19
Candidate Starts for Nivinsha_73:
(Start: 19 @47429 has 34 MA's), (55, 47564), (80, 47612), (82, 47624), (96, 47663), (112, 47726),

Gene: Paella_174 Start: 86462, Stop: 86854, Start Num: 27
Candidate Starts for Paella_174:
(Start: 27 @86462 has 4 MA's), (34, 86486), (59, 86585), (97, 86687), (113, 86753), (135, 86813),

Gene: Paella_135 Start: 72360, Stop: 72707, Start Num: 20
Candidate Starts for Paella_135:
(Start: 20 @72360 has 4 MA's), (74, 72537), (83, 72570),

Gene: Phaby_77 Start: 48203, Stop: 48517, Start Num: 19
Candidate Starts for Phaby_77:
(Start: 19 @48203 has 34 MA's), (36, 48233), (54, 48314), (97, 48386), (98, 48389), (132, 48491),

Gene: PoeMe_75 Start: 45927, Stop: 46310, Start Num: 4
Candidate Starts for PoeMe_75:
(Start: 4 @45927 has 3 MA's), (12, 45957), (48, 46050), (103, 46203), (125, 46269),

Gene: Powelldog_76 Start: 46429, Stop: 46794, Start Num: 15
Candidate Starts for Powelldog_76:
(1, 46366), (Start: 15 @46429 has 15 MA's), (Start: 19 @46438 has 34 MA's), (52, 46531), (63, 46558), (91, 46639), (105, 46687), (106, 46693),

Gene: ProfFrink_73 Start: 45688, Stop: 46122, Start Num: 15
Candidate Starts for ProfFrink_73:
(Start: 11 @45682 has 3 MA's), (Start: 15 @45688 has 15 MA's), (22, 45712), (40, 45754), (47, 45784), (56, 45817), (64, 45835), (70, 45868), (83, 45922), (97, 45958), (98, 45961), (124, 46048), (129, 46060),

Gene: Qui_174 Start: 86460, Stop: 86852, Start Num: 27
Candidate Starts for Qui_174:
(Start: 27 @86460 has 4 MA's), (34, 86484), (59, 86583), (97, 86685), (113, 86751), (135, 86811),

Gene: Qui_135 Start: 72360, Stop: 72707, Start Num: 20
Candidate Starts for Qui_135:
(Start: 20 @72360 has 4 MA's), (74, 72537), (83, 72570),

Gene: RustyBoy_77 Start: 46220, Stop: 46591, Start Num: 15
Candidate Starts for RustyBoy_77:
(Start: 15 @46220 has 15 MA's), (24, 46247), (63, 46358), (66, 46364), (106, 46490),

Gene: Salk_73 Start: 45708, Stop: 46139, Start Num: 15
Candidate Starts for Salk_73:
(Start: 11 @45702 has 3 MA's), (Start: 15 @45708 has 15 MA's), (22, 45732), (40, 45774), (56, 45837), (64, 45855), (70, 45888), (83, 45939), (86, 45945), (97, 45975), (98, 45978), (124, 46065), (129, 46077), (133, 46092),

Gene: ScienceWizSam_72 Start: 47594, Stop: 47908, Start Num: 19
Candidate Starts for ScienceWizSam_72:
(Start: 19 @47594 has 34 MA's), (93, 47768), (95, 47771), (97, 47774), (132, 47885), (137, 47900),

Gene: Shepard_76 Start: 47525, Stop: 47896, Start Num: 19
Candidate Starts for Shepard_76:
(Start: 19 @47525 has 34 MA's), (34, 47549), (76, 47660), (88, 47687), (97, 47711), (110, 47771),

Gene: Sloopyjoe_73 Start: 45712, Stop: 46146, Start Num: 15
Candidate Starts for Sloopyjoe_73:
(Start: 11 @45706 has 3 MA's), (Start: 15 @45712 has 15 MA's), (22, 45736), (40, 45778), (56, 45841), (64, 45859), (70, 45892), (83, 45946), (97, 45982), (98, 45985), (124, 46072), (129, 46084),

Gene: Spain_73 Start: 45710, Stop: 46144, Start Num: 15
Candidate Starts for Spain_73:
(Start: 11 @45704 has 3 MA's), (Start: 15 @45710 has 15 MA's), (22, 45734), (40, 45776), (56, 45839), (64, 45857), (70, 45890), (83, 45944), (86, 45950), (97, 45980), (98, 45983), (126, 46076), (129, 46082),

Gene: Sporto_72 Start: 46794, Stop: 47192, Start Num: 15
Candidate Starts for Sporto_72:
(Start: 15 @46794 has 15 MA's), (21, 46815), (68, 46956), (69, 46962), (91, 47031), (105, 47079), (137, 47184),

Gene: Sprinkle_74 Start: 46402, Stop: 46740, Start Num: 14
Candidate Starts for Sprinkle_74:
(14, 46402), (40, 46468), (67, 46540), (83, 46591),

Gene: StarLord_73 Start: 45705, Stop: 46139, Start Num: 15
Candidate Starts for StarLord_73:
(Start: 11 @45699 has 3 MA's), (Start: 15 @45705 has 15 MA's), (22, 45729), (40, 45771), (56, 45834), (64, 45852), (70, 45885), (83, 45939), (97, 45975), (98, 45978), (124, 46065), (129, 46077),

Gene: Stayer_73 Start: 45702, Stop: 46142, Start Num: 11
Candidate Starts for Stayer_73:
(Start: 11 @45702 has 3 MA's), (Start: 15 @45708 has 15 MA's), (22, 45732), (40, 45774), (56, 45837), (64, 45855), (70, 45888), (83, 45942), (97, 45978), (98, 45981), (124, 46068), (129, 46080),

Gene: Sunny4976_71 Start: 47811, Stop: 48170, Start Num: 32
Candidate Starts for Sunny4976_71:
(2, 47685), (3, 47691), (6, 47706), (10, 47733), (13, 47736), (18, 47748), (32, 47811), (35, 47820), (57, 47913), (88, 48000), (121, 48111), (125, 48123),

Gene: Tatanka_64 Start: 47501, Stop: 47827, Start Num: 19
Candidate Starts for Tatanka_64:
(Start: 19 @47501 has 34 MA's), (26, 47531), (101, 47726), (102, 47729), (123, 47801), (131, 47822),

Gene: Teacup_72 Start: 47933, Stop: 48250, Start Num: 19
Candidate Starts for Teacup_72:
(Start: 19 @47933 has 34 MA's), (83, 48077), (92, 48104), (95, 48110), (97, 48113), (132, 48224), (137, 48242),

Gene: Tenney120_76 Start: 45975, Stop: 46385, Start Num: 4
Candidate Starts for Tenney120_76:
(Start: 4 @45975 has 3 MA's), (12, 46005), (43, 46092), (53, 46116), (72, 46167), (103, 46275), (125, 46341),

Gene: Tenno_70 Start: 48017, Stop: 48334, Start Num: 19
Candidate Starts for Tenno_70:
(Start: 19 @48017 has 34 MA's), (83, 48167), (85, 48170), (87, 48176), (97, 48203), (118, 48278), (120, 48284), (132, 48308), (137, 48326),

Gene: Tipton_77 Start: 48040, Stop: 48423, Start Num: 19
Candidate Starts for Tipton_77:
(Start: 19 @48040 has 34 MA's), (54, 48151), (71, 48220), (97, 48289), (101, 48304), (109, 48343), (115, 48355), (123, 48379), (132, 48397),

Gene: Tokki_81 Start: 48071, Stop: 48379, Start Num: 19
Candidate Starts for Tokki_81:
(Start: 19 @48071 has 34 MA's), (61, 48170), (78, 48200), (82, 48215), (96, 48254),

Gene: TrixiePhattel_76 Start: 45610, Stop: 45984, Start Num: 28
Candidate Starts for TrixiePhattel_76:
(Start: 28 @45610 has 1 MA's), (37, 45637), (42, 45664), (75, 45781), (94, 45838), (111, 45904), (125, 45940), (134, 45961),

Gene: Truckee_72 Start: 47742, Stop: 48101, Start Num: 19
Candidate Starts for Truckee_72:
(Start: 19 @47742 has 34 MA's), (30, 47781), (55, 47877), (78, 47922), (82, 47937), (118, 48057),

Gene: Trustiboi_69 Start: 47616, Stop: 47933, Start Num: 19
Candidate Starts for Trustiboi_69:
(Start: 19 @47616 has 34 MA's), (95, 47793), (97, 47796), (132, 47907),

Gene: Westerlin_68 Start: 48703, Stop: 49020, Start Num: 19
Candidate Starts for Westerlin_68:
(Start: 19 @48703 has 34 MA's), (83, 48847), (92, 48874), (95, 48880), (97, 48883), (120, 48964), (132, 48994),

Gene: Zeina_78 Start: 46274, Stop: 46717, Start Num: 5
Candidate Starts for Zeina_78:

(Start: 5 @46274 has 2 MA's), (102, 46592), (103, 46604), (116, 46646), (128, 46676),

Gene: Zippen_77 Start: 48335, Stop: 48745, Start Num: 19
Candidate Starts for Zippen_77:
(Start: 19 @48335 has 34 MA's), (30, 48386), (34, 48395), (62, 48500), (97, 48632), (132, 48728),