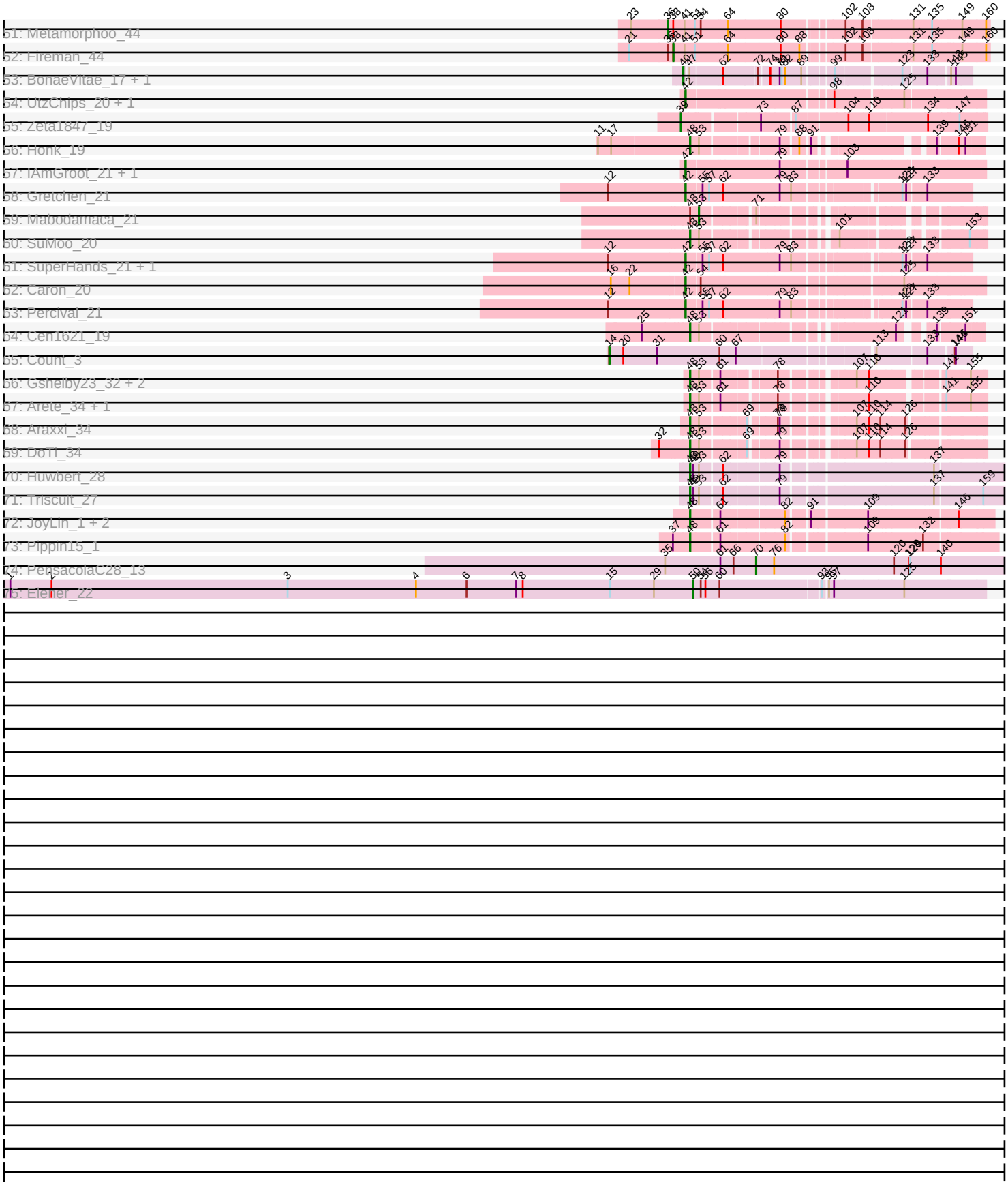
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1: Oats_24 + 37
2: Ena_24 + 7
3: Lovelyunicorn_24 + 21
4: Schnapsidee_24 + 1
5: Aleyra_25 + 1
6: Balsa_24 + 3
7: Renzie_24 + 32
8: Nattles_24 + 2
9: McGalleon_25
10: Endor_25
11: KingJulien_24 + 4
12: PuppyEggo_24 + 5
13: Robinson_24
14: Amiorac_24
15: CarisSwetlik_26
16: HavenFinLeoSun_25
17: GoneGirl_25 + 1
18: JasonD_26
19: Acosta_25
20: Jenos_26
21: Leafus_24 + 1
22: FarmerDoug_24
23: MonCholx_23
24: ParleG_24 + 1
25: MiniViolent_23
26: Fabyndrax_23 + 1
27: Mandalorian_23 + 3
28: Juanyo_23
29: YuuY_23
30: HairyMan_22
31: Andromedas_23 + 10
32: MCubed_23 + 3
33: Nebulous_23
34: Alakazam_24
35: Neferthena_23
36: Clock_23
37: WilliamStrong_22
38: Clayda5_20 + 1
39: Eden_20
40: Coltrane_20 + 1
41: CliffHanger_24
42: Skylord_20
43: Buldak_23
44: Bernstein_20 + 2
45: Ollecat_23 + 1
46: Franklin22_21
47: Gack_20
48: RobsFeet_45
49: Shrubaron_44
50: Tyrumbra_42

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51: Metamorphoo_44
52: Fireman_44
53: BonaeVitae_17 + 1
54: UtzChips_20 + 1
55: Zeta1847_19
56: Honk_19
57: IAmGroot_21 + 1
58: Gretchen_21
59: Mabodamaca_21
60: SuMoo_20
61: SuperHands_21 + 1
62: Caron_20
63: Percival_21
64: Cen1621_19
65: Count_3
66: Gshelby23_32 + 2
67: Arete_34 + 1
68: Araxxi_34
69: DoYi_34
70: Huwbert_28
71: Triscuit_27
72: JoyLin_1 + 2
73: Pippin15_1
74: PensacolaC28_13
75: Elemer_22

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 347249 Report

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

Pham number 347249 has 222 members, 13 are drafts.

Phages represented in each track:
• Track 1 : Oats_24, Clancy_24, Espinosa_24, JasperRussell_24, StirfryIV_24, Exploradora_24, Jerbirus_25, Duocatuli_24, Ilzat_24, Asta_24, HanSolo_24, KannH_24, CoraRita_24, Aubergine_24, HankSprout_25, Rog141_24, KellyGreen_25, Janus167_24, Symere_24, JeriBeth_24, Tenda_24, Papafritta_24, Winzigespinne_24, Chako_24, Pocket_24, Gubbabump_24, RosieMae_24, Kouch_24, Gershwin_24, AranulaLuti_24, Kale_24, HungryHenry_24, Christoph_24, ManRay_24, Sedgewig_24, TeddyBear_24, Benjalauren_25, StingRay_24
• Track 2 : Erla_24, Garey24_24, Chamuel_24, Baines_24, Bonino_24, Gelo_24, Klimt_24, Etta_24
• Track 3 : Lovelyunicorn_24, BonesMcCoy_24, SoilGremlin_24, Oxtober96_24, Velene_24, Delphidian_24, MillyPhilly_24, GoingMerry_24, Phriends_24, Convict_24, Blage_24, WildNOut_24, Den3_24, Knox_24, Greys_24, Merida02_25, Strathdee_24, OldNelly_24, Ioannes_24, BigRedClifford_24, Thompsone_24, Raptor_24
• Track 4 : Schnapsidee_24, Etna_24
• Track 5 : Aleyra_25, Agente005_25
• Track 6 : Balsa_24, Hamlet_24, Peppino_24, Redfield_24
• Track 7 : Renzie_24, Peep_24, TinSulphur_24, Inventa_24, Riyhil_24, Teagan_24, Gargoyle_24, Alyxandracam_24, Kurt1_24, Rapheph_24, Nagem_24, TatarkaPM_24, Ludgate_24, Antoinette_24, SJay_24, Superfresh_24, Byron23_24, Pherferi_24, SolidSnake_25, Shee_24, Dave_24, Stanktossa_24, Phireproof_24, PhredFlintston_24, MaeLinda_24, NickSell_24, Martin_25, Dothraki_24, Bandik_24, Figueroism_24, Zada_24, BeautPeep30_24, Phiderman_24
• Track 8 : Nattles_24, Calix_24, SonOfLevi_24
• Track 9 : McGalleon_25
• Track 10 : Endor_25
• Track 11 : KingJulien_24, Raccoon_24, BeeBee8_25, Soror1_24, Stormbreaker8_24
• Track 12 : PuppyEggo_24, AlexAdler_24, Vispistious_24, AxiPup_24, ShaiHulud_24, Thorongil_24
• Track 13 : Robinson_24
• Track 14 : Anilorac_24
• Track 15 : CarisSwetlik_26
• Track 16 : HavenFinLeoSun_25
• Track 17 : GoneGirl_25, GardenB_24
• Track 18 : JasonD_26
• Track 19 : Acosta_25
• Track 20 : Jenos_26

• Track 21 : Leafus_24, PhillyPhantom_24
• Track 22 : FarmerDoug_24
• Track 23 : MonChoix_23
• Track 24 : ParleG_24, MrWorldwide_24
• Track 25 : MiniVolent_23
• Track 26 : Fabyndrax_23, Cidela_23
• Track 27 : Mandalorian_23, Quartz_23, Nucci_23, Carostasia_23
• Track 28 : Juanyo_23
• Track 29 : YuuY_23
• Track 30 : HairyMan_22
• Track 31 : Andromedas_23, Orpington_23, ChikPic_23, Xebius_23, Eleri_23, Glamour_22, PSirce_23, Zenitsu_23, ColaCorta_23, Saratos_23, Shamu_23
• Track 32 : MCubed_23, Finny_23, Phanita_23, Sansa_22
• Track 33 : Nebulous_23
• Track 34 : Alakazam_24
• Track 35 : Neferthena_23
• Track 36 : Clock_23
• Track 37 : WilliamStrong_22
• Track 38 : Clayda5_20, Armstrong_20
• Track 39 : Eden_20
• Track 40 : Coltrane_20, Brahms_20
• Track 41 : CliffHanger_24
• Track 42 : Skylord_20
• Track 43 : Buldak_23
• Track 44 : Bernstein_20, Vitas_20, Rollins_20
• Track 45 : Olliecat_23, Squircle_23
• Track 46 : Franklin22_21
• Track 47 : Gack_20
• Track 48 : RobsFeet_45
• Track 49 : Shrubaron_44
• Track 50 : Tyrumbra_42
• Track 51 : Metamorphoo_44
• Track 52 : Fireman_44
• Track 53 : BonaeVitae_17, Naby_17
• Track 54 : UtzChips_20, Barnstormer_20
• Track 55 : Zeta1847_19
• Track 56 : Honk_19
• Track 57 : IAmGroot_21, GardenState_21
• Track 58 : Gretchen_21
• Track 59 : Mabodamaca_21
• Track 60 : SuMoo_20
• Track 61 : SuperHands_21, Forester_21
• Track 62 : Caron_20
• Track 63 : Percival_21
• Track 64 : Cen1621_19
• Track 65 : Count_3
• Track 66 : Gshelby23_32, Hannabella_34, Casino_33
• Track 67 : Arete_34, Scruffy_34
• Track 68 : Araxxi_34
• Track 69 : DoTi_34
• Track 70 : Huwbert_28
• Track 71 : Triscuit_27
• Track 72 : JoyLin_1, Yotsuba_1, Eevee_1

• Track 73 : Pippin15_1
• Track 74 : PensacolaC28_13
• Track 75 : Elener_22

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

The start number called the most often in the published annotations is 48, it was called in 146 of the 209 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alakazam_24, AlexAdler_24, Alyxandracam_24, Andromedas_23, Antoinette_24, AranulaLuti_24, Araxxi_34, Arete_34, Asta_24, Aubergine_24, AxiPup_24, Baines_24, Bandik_24, BeautPeep30_24, Benjalauren_25, BigRedClifford_24, Blage_24, BonesMcCoy_24, Bonino_24, Byron23_24, Carostasia_23, Casino_33, Cen1621_19, Chako_24, Chamuel_24, ChikPic_23, Christoph_24, Cidela_23, Clancy_24, Clock_23, ColaCorta_23, Convict_24, CoraRita_24, Dave_24, Delphidian_24, Den3_24, DoTi_34, Dothraki_24, Duocatuli_24, Eevee_1, Eleri_23, Erla_24, Espinosa_24, Etta_24, Exploradora_24, Fabyndrax_23, Figueroism_24, Finny_23, Garey24_24, Gargoyle_24, Gelo_24, Gershwin_24, Glamour_22, GoingMerry_24, Greys_24, Gshelby23_32, Gubbabump_24, HairyMan_22, HanSolo_24, HankSprout_25, Hannabella_34, Honk_19, HungryHenry_24, Huwbert_28, Ilzat_24, Inventa_24, Ioannes_24, Janus167_24, JasperRussell_24, Jerbirus_25, JeriBeth_24, JoyLin_1, Juanyo_23, Kale_24, KannH_24, KellyGreen_25, Klimt_24, Knox_24, Kouch_24, Kurt1_24, Lovelyunicorn_24, Ludgate_24, MCubed_23, MaeLinda_24, ManRay_24, Mandalorian_23, Martin_25, Merida02_25, MillyPhilly_24, MiniVolent_23, MrWorldwide_24, Nagem_24, Nebulous_23, Neferthena_23, NickSell_24, Nucci_23, Oats_24, OldNelly_24, Orpington_23, Oxtober96_24, PSirce_23, Papafritta_24, ParleG_24, Peep_24, Phanita_23, Pherferi_24, Phiderman_24, Phireproof_24, PhredFlintston_24, Phriends_24, Pippin15_1, Pocket_24, PuppyEggo_24, Quartz_23, Rapheph_24, Raptor_24, Renzie_24, Riyhil_24, Robinson_24, Rog141_24, RosieMae_24, SJay_24, Sansa_22, Saratos_23, Scruffy_34, Sedgewig_24, ShaiHulud_24, Shamu_23, Shee_24, SoilGremlin_24, SolidSnake_25, Stanktossa_24, StingRay_24, StirfryIV_24, Strathdee_24, SuMoo_20, Superfresh_24, Symere_24, TatarkaPM_24, Teagan_24, TeddyBear_24, Tenda_24, Thompsone_24, Thorongil_24, TinSulphur_24, Triscuit_27, Velene_24, Vispistious_24, WildNOut_24, Winzigespinne_24, Xebius_23, Yotsuba_1, YuuY_23, Zada_24, Zenitsu_23,

Genes that have the "Most Annotated" start but do not call it:
• Calix_24, Mabodamaca_21, Nattles_24, SonOfLevi_24,

Genes that do not have the "Most Annotated" start:
• Acosta_25, Agente005_25, Aleyra_25, Anilorac_24, Armstrong_20, Balsa_24, Barnstormer_20, BeeBee8_25, Bernstein_20, BonaeVitae_17, Brahms_20, Buldak_23, CarisSwetlik_26, Caron_20, Clayda5_20, CliffHanger_24, Coltrane_20, Count_3, Eden_20, Elener_22, Endor_25, Etna_24, FarmerDoug_24, Fireman_44, Forester_21, Franklin22_21, Gack_20, GardenB_24, GardenState_21, GoneGirl_25, Gretchen_21, Hamlet_24, HavenFinLeoSun_25, IAmGroot_21, JasonD_26, Jenos_26, KingJulien_24, Leafus_24, McGalleon_25, Metamorphoo_44, MonChoix_23, Naby_17, Olliecat_23, PensacolaC28_13, Peppino_24, Percival_21,

PhillyPhantom_24, Raccoon_24, Redfield_24, RobsFeet_45, Rollins_20, Schnapsidee_24, Shrubaron_44, Skylord_20, Soror1_24, Squircle_23, Stormbreaker8_24, SuperHands_21, Tyrumbra_42, UtzChips_20, Vitas_20, WilliamStrong_22, Zeta1847_19,

Summary by start number:

Start 14:
• Found in 1 of 222 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Count_3 (EL),

Start 36:
• Found in 6 of 222 (2.7%) of genes in pham
• Manual Annotations of this start: 5 of 209
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Metamorphoo_44 (EC), RobsFeet_45 (EC), Shrubaron_44 (EC), Tyrumbra_42 (EC), WilliamStrong_22 (EA6),

Start 38:
• Found in 5 of 222 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Fireman_44 (EC),

Start 39:
• Found in 1 of 222 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Zeta1847_19 (EH),

Start 40:
• Found in 2 of 222 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BonaeVitae_17 (EE), Naby_17 (EE),

Start 42:
• Found in 9 of 222 (4.1%) of genes in pham
• Manual Annotations of this start: 9 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barnstormer_20 (EH), Caron_20 (EH), Forester_21 (EH), GardenState_21 (EH), Gretchen_21 (EH), IAmGroot_21 (EH), Percival_21 (EH), SuperHands_21 (EH), UtzChips_20 (EH),

Start 43:
• Found in 16 of 222 (7.2%) of genes in pham
• Manual Annotations of this start: 3 of 209
• Called 18.8% of time when present
• Phage (with cluster) where this start called: Calix_24 (EA1), Nattles_24 (EA1), SonOfLevi_24 (EA1),

Start 44:
• Found in 8 of 222 (3.6%) of genes in pham
• Manual Annotations of this start: 6 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agente005_25 (EA1), Aleyra_25 (EA1), Anilorac_24 (EA1), Endor_25 (EA1), FarmerDoug_24 (EA1), GardenB_24 (EA1), GoneGirl_25 (EA1), MonChoix_23 (EA1),

Start 45:
• Found in 24 of 222 (10.8%) of genes in pham
• Manual Annotations of this start: 23 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Armstrong_20 (EB), Balsa_24 (EA1), BeeBee8_25 (EA1), Bernstein_20 (EB), Brahms_20 (EB), Clayda5_20 (EB), Coltrane_20 (EB), Eden_20 (EB), Etna_24 (EA1), Franklin22_21 (EB), Gack_20 (EB), Hamlet_24 (EA1), KingJulien_24 (EA1), Leafus_24 (EA1), Peppino_24 (EA1), PhillyPhantom_24 (EA1), Raccoon_24 (EA1), Redfield_24 (EA1), Rollins_20 (EB), Schnapsidee_24 (EA1), Skylord_20 (EB), Soror1_24 (EA1), Stormbreaker8_24 (EA1), Vitas_20 (EB),

Start 46:
• Found in 6 of 222 (2.7%) of genes in pham
• Manual Annotations of this start: 5 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acosta_25 (EA1), CarisSwetlik_26 (EA1), HavenFinLeoSun_25 (EA1), JasonD_26 (EA1), Jenos_26 (EA1), McGalleon_25 (EA1),

Start 48:
• Found in 159 of 222 (71.6%) of genes in pham
• Manual Annotations of this start: 146 of 209
• Called 97.5% of time when present
• Phage (with cluster) where this start called: Alakazam_24 (EA5), AlexAdler_24 (EA1), Alyxandracam_24 (EA1), Andromedas_23 (EA2), Antoinette_24 (EA1), AranulaLuti_24 (EA1), Araxxi_34 (EM1), Arete_34 (EM1), Asta_24 (EA1), Aubergine_24 (EA1), AxiPup_24 (EA1), Baines_24 (EA1), Bandik_24 (EA1), BeautPeep30_24 (EA1), Benjalauren_25 (EA1), BigRedClifford_24 (EA1), Blage_24 (EA1), BonesMcCoy_24 (EA1), Bonino_24 (EA1), Byron23_24 (EA1), Carostasia_23 (EA10), Casino_33 (EM1), Cen1621_19 (EH), Chako_24 (EA1), Chamuel_24 (EA1), ChikPic_23 (EA2), Christoph_24 (EA1), Cidela_23 (EA10), Clancy_24 (EA1), Clock_23 (EA5), ColaCorta_23 (EA2), Convict_24 (EA1), CoraRita_24 (EA1), Dave_24 (EA1), Delphidian_24 (EA1), Den3_24 (EA1), DoTi_34 (EM1), Dothraki_24 (EA1), Duocatuli_24 (EA1), Eevee_1 (JA), Eleri_23 (EA2), Erla_24 (EA1), Espinosa_24 (EA1), Etta_24 (EA1), Exploradora_24 (EA1), Fabyndrax_23 (EA10), Figueroism_24 (EA1), Finny_23 (EA2), Garey24_24 (EA1), Gargoyle_24 (EA1), Gelo_24 (EA1), Gershwin_24 (EA1), Glamour_22 (EA2), GoingMerry_24 (EA1), Greys_24 (EA1), Gshelby23_32 (EM1), Gubbabump_24 (EA1), HairyMan_22 (EA10), HanSolo_24 (EA1), HankSprout_25 (EA1), Hannabella_34 (EM1), Honk_19 (EH), HungryHenry_24 (EA1), Huwbert_28 (GG), Ilzat_24 (EA1), Inventa_24 (EA1), Ioannes_24 (EA1), Janus167_24 (EA1), JasperRussell_24 (EA1), Jerbirus_25 (EA1), JeriBeth_24 (EA1), JoyLin_1 (JA), Juanyo_23 (EA10), Kale_24 (EA1), KannH_24 (EA1), KellyGreen_25 (EA1), Klimt_24 (EA1), Knox_24 (EA1), Kouch_24 (EA1), Kurt1_24 (EA1), Lovelyunicorn_24 (EA1), Ludgate_24 (EA1), MCubed_23 (EA2),

MaeLinda_24 (EA1), ManRay_24 (EA1), Mandalorian_23 (EA10), Martin_25 (EA1), Merida02_25 (EA1), MillyPhilly_24 (EA1), MiniVolent_23 (EA10), MrWorldwide_24 (EA1), Nagem_24 (EA1), Nebulous_23 (EA5), Neferthena_23 (EA5), NickSell_24 (EA1), Nucci_23 (EA10), Oats_24 (EA1), OldNelly_24 (EA1), Orpington_23 (EA2), Oxtober96_24 (EA1), PSirce_23 (EA2), Papafritta_24 (EA1), ParleG_24 (EA1), Peep_24 (EA1), Phanita_23 (EA2), Pherferi_24 (EA1), Phiderman_24 (EA1), Phireproof_24 (EA1), PhredFlintston_24 (EA1), Phriends_24 (EA1), Pippin15_1 (JA), Pocket_24 (EA1), PuppyEggo_24 (EA1), Quartz_23 (EA10), Rapheph_24 (EA1), Raptor_24 (EA1), Renzie_24 (EA1), Riyhil_24 (EA1), Robinson_24 (EA1), Rog141_24 (EA1), RosieMae_24 (EA1), SJay_24 (EA1), Sansa_22 (EA2), Saratos_23 (EA2), Scruffy_34 (EM1), Sedgewig_24 (EA1), ShaiHulud_24 (EA1), Shamu_23 (EA2), Shee_24 (EA1), SoilGremlin_24 (EA1), SolidSnake_25 (EA1), Stanktossa_24 (EA1), StingRay_24 (EA1), StirfryIV_24 (EA1), Strathdee_24 (EA1), SuMoo_20 (EH), Superfresh_24 (EA1), Symere_24 (EA1), TatarkaPM_24 (EA1), Teagan_24 (EA1), TeddyBear_24 (EA1), Tenda_24 (EA1), Thompsone_24 (EA1), Thorongil_24 (EA1), TinSulphur_24 (EA1), Triscuit_27 (GG), Velene_24 (EA1), Vispistious_24 (EA1), WildNOut_24 (EA1), Winzigespinne_24 (EA1), Xebius_23 (EA2), Yotsuba_1 (JA), YuuY_23 (EA10), Zada_24 (EA1), Zenitsu_23 (EA2),

Start 50:
• Found in 5 of 222 (2.3%) of genes in pham
• Manual Annotations of this start: 5 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Buldak_23 (EB), CliffHanger_24 (EB), Elener_22 (singleton), Olliecat_23 (EB), Squircle_23 (EB),

Start 53:
• Found in 43 of 222 (19.4%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 2.3% of time when present
• Phage (with cluster) where this start called: Mabodamaca_21 (EH),

Start 70:
• Found in 1 of 222 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PensacolaC28_13 (singleton),

Summary by clusters:

There are 14 clusters represented in this pham: EL, singleton, EH, EA6, EE, EC, EB, GG, EM1, EA1, EA2, EA5, JA, EA10,

Info for manual annotations of cluster EA1:
•Start number 43 was manually annotated 3 times for cluster EA1.
•Start number 44 was manually annotated 6 times for cluster EA1.
•Start number 45 was manually annotated 12 times for cluster EA1.
•Start number 46 was manually annotated 5 times for cluster EA1.
•Start number 48 was manually annotated 106 times for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 48 was manually annotated 7 times for cluster EA10.

Info for manual annotations of cluster EA2:
•Start number 48 was manually annotated 14 times for cluster EA2.

Info for manual annotations of cluster EA5:
•Start number 48 was manually annotated 4 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 36 was manually annotated 1 time for cluster EA6.

Info for manual annotations of cluster EB:
•Start number 45 was manually annotated 11 times for cluster EB.
•Start number 50 was manually annotated 4 times for cluster EB.

Info for manual annotations of cluster EC:
•Start number 36 was manually annotated 4 times for cluster EC.
•Start number 38 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EE:
•Start number 40 was manually annotated 2 times for cluster EE.

Info for manual annotations of cluster EH:
•Start number 39 was manually annotated 1 time for cluster EH.
•Start number 42 was manually annotated 9 times for cluster EH.
•Start number 48 was manually annotated 3 times for cluster EH.
•Start number 53 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster EL:
•Start number 14 was manually annotated 1 time for cluster EL.

Info for manual annotations of cluster EM1:
•Start number 48 was manually annotated 6 times for cluster EM1.

Info for manual annotations of cluster GG:
•Start number 48 was manually annotated 2 times for cluster GG.

Info for manual annotations of cluster JA:
•Start number 48 was manually annotated 4 times for cluster JA.

Gene Information:

Gene: Acosta_25 Start: 18509, Stop: 19330, Start Num: 46
Candidate Starts for Acosta_25:
(Start: 46 @18509 has 5 MA's), (Start: 53 @18542 has 1 MA's), (61, 18599), (79, 18761), (104, 18938), (112, 19019), (118, 19052), (155, 19280),

Gene: Agente005_25 Start: 18800, Stop: 19540, Start Num: 44
Candidate Starts for Agente005_25:
(Start: 44 @18800 has 6 MA's), (Start: 53 @18833 has 1 MA's), (61, 18890), (79, 19040), (102, 19187), (143, 19433),

Gene: Alakazam_24 Start: 18140, Stop: 18949, Start Num: 48

Candidate Starts for Alakazam_24:
(Start: 48 @18140 has 146 MA's), (58, 18206), (86, 18416), (104, 18563), (112, 18644), (124, 18734), (138, 18806),

Gene: AlexAdler_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for AlexAdler_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937), (143, 18946),

Gene: Aleyra_25 Start: 18805, Stop: 19545, Start Num: 44
Candidate Starts for Aleyra_25:
(Start: 44 @18805 has 6 MA's), (Start: 53 @18838 has 1 MA's), (61, 18895), (79, 19045), (102, 19192), (143, 19438),

Gene: Alyxandracam_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Alyxandracam_24:
(18, 18037), (26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Andromedas_23 Start: 18467, Stop: 19249, Start Num: 48
Candidate Starts for Andromedas_23:
(Start: 48 @18467 has 146 MA's), (77, 18701), (94, 18818), (110, 18944), (146, 19166), (153, 19199),

Gene: Anilorac_24 Start: 18645, Stop: 19385, Start Num: 44
Candidate Starts for Anilorac_24:
(Start: 44 @18645 has 6 MA's), (Start: 53 @18678 has 1 MA's), (61, 18735), (74, 18858), (79, 18885), (91, 18957), (102, 19032), (143, 19278),

Gene: Antoinette_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for Antoinette_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937),

Gene: AranulaLuti_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for AranulaLuti_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Araxxi_34 Start: 41327, Stop: 42091, Start Num: 48
Candidate Starts for Araxxi_34:
(Start: 48 @41327 has 146 MA's), (Start: 53 @41354 has 1 MA's), (69, 41483), (78, 41552), (79, 41558), (107, 41732), (110, 41765), (114, 41798), (126, 41876),

Gene: Arete_34 Start: 41089, Stop: 41835, Start Num: 48
Candidate Starts for Arete_34:
(Start: 48 @41089 has 146 MA's), (Start: 53 @41116 has 1 MA's), (61, 41173), (78, 41314), (110, 41527), (141, 41716), (155, 41788),

Gene: Armstrong_20 Start: 15862, Stop: 16719, Start Num: 45
Candidate Starts for Armstrong_20:
(5, 15130), (27, 15745), (Start: 45 @15862 has 23 MA's), (54, 15898), (79, 16144), (96, 16294), (97, 16306), (155, 16672),

Gene: Asta_24 Start: 18556, Stop: 19362, Start Num: 48

Candidate Starts for Asta_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: Aubergine_24 Start: 18556, Stop: 19362, Start Num: 48
Candidate Starts for Aubergine_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: AxiPup_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for AxiPup_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946), (143, 18955),

Gene: Baines_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Baines_24:
(18, 18321), (26, 18402), (27, 18426), (Start: 43 @18537 has 3 MA's), (Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Balsa_24 Start: 18648, Stop: 19388, Start Num: 45
Candidate Starts for Balsa_24:
(Start: 45 @18648 has 23 MA's), (Start: 53 @18681 has 1 MA's), (61, 18738), (79, 18888), (91, 18960), (102, 19035), (106, 19065), (143, 19281),

Gene: Bandik_24 Start: 18255, Stop: 19061, Start Num: 48
Candidate Starts for Bandik_24:
(18, 18033), (26, 18114), (27, 18138), (Start: 48 @18255 has 146 MA's), (90, 18570), (104, 18675), (112, 18756), (142, 18945),

Gene: Barnstormer_20 Start: 17742, Stop: 18602, Start Num: 42
Candidate Starts for Barnstormer_20:
(Start: 42 @17742 has 9 MA's), (98, 18162), (125, 18360),

Gene: BeautPeep30_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for BeautPeep30_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: BeeBee8_25 Start: 18813, Stop: 19553, Start Num: 45
Candidate Starts for BeeBee8_25:
(26, 18672), (Start: 45 @18813 has 23 MA's), (Start: 53 @18846 has 1 MA's), (61, 18903), (79, 19053), (91, 19125), (102, 19200), (143, 19446),

Gene: Benjalauren_25 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for Benjalauren_25:
(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: Bernstein_20 Start: 15893, Stop: 16774, Start Num: 45
Candidate Starts for Bernstein_20:
(24, 15716), (Start: 45 @15893 has 23 MA's), (54, 15929), (79, 16175), (104, 16388), (112, 16469), (155, 16727),

Gene: BigRedClifford_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for BigRedClifford_24:

(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Blage_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Blage_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: BonaeVitae_17 Start: 12824, Stop: 13576, Start Num: 40
Candidate Starts for BonaeVitae_17:
(Start: 40 @12824 has 2 MA's), (47, 12833), (62, 12929), (72, 13031), (74, 13052), (79, 13079), (81, 13085), (82, 13097), (89, 13148), (99, 13211), (123, 13385), (133, 13454), (143, 13511), (145, 13526),

Gene: BonesMcCoy_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for BonesMcCoy_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Bonino_24 Start: 18532, Stop: 19338, Start Num: 48
Candidate Starts for Bonino_24:
(18, 18310), (26, 18391), (27, 18415), (Start: 43 @18526 has 3 MA's), (Start: 48 @18532 has 146 MA's), (90, 18847), (104, 18952), (112, 19033), (142, 19222), (143, 19231),

Gene: Brahms_20 Start: 15838, Stop: 16722, Start Num: 45
Candidate Starts for Brahms_20:
(24, 15661), (Start: 45 @15838 has 23 MA's), (54, 15874), (79, 16120), (104, 16336), (112, 16417), (117, 16453),

Gene: Buldak_23 Start: 18630, Stop: 19475, Start Num: 50
Candidate Starts for Buldak_23:
(Start: 50 @18630 has 5 MA's), (56, 18669), (59, 18708), (84, 18933), (99, 19032), (105, 19074), (111, 19125), (122, 19212), (147, 19398), (148, 19401), (158, 19443),

Gene: Byron23_24 Start: 18264, Stop: 19070, Start Num: 48
Candidate Starts for Byron23_24:
(18, 18042), (26, 18123), (27, 18147), (Start: 48 @18264 has 146 MA's), (90, 18579), (104, 18684), (112, 18765), (142, 18954),

Gene: Calix_24 Start: 18530, Stop: 19342, Start Num: 43
Candidate Starts for Calix_24:
(18, 18314), (26, 18395), (27, 18419), (Start: 43 @18530 has 3 MA's), (Start: 48 @18536 has 146 MA's), (90, 18851), (104, 18956), (112, 19037), (142, 19226), (143, 19235),

Gene: CarisSwetlik_26 Start: 19006, Stop: 19827, Start Num: 46
Candidate Starts for CarisSwetlik_26:
(28, 18895), (Start: 46 @19006 has 5 MA's), (Start: 53 @19039 has 1 MA's), (79, 19258), (104, 19435), (112, 19516), (118, 19549), (155, 19777),

Gene: Caron_20 Start: 17127, Stop: 17996, Start Num: 42
Candidate Starts for Caron_20:
(16, 16896), (22, 16956), (Start: 42 @17127 has 9 MA's), (54, 17169), (125, 17745),

Gene: Carostasia_23 Start: 18678, Stop: 19541, Start Num: 48

Candidate Starts for Carostasia_23:
(19, 18459), (Start: 48 @18678 has 146 MA's), (77, 18912), (78, 18918), (94, 19029), (110, 19155), (152, 19404), (154, 19416), (156, 19419), (163, 19491),

Gene: Casino_33 Start: 41061, Stop: 41807, Start Num: 48
Candidate Starts for Casino_33:
(Start: 48 @41061 has 146 MA's), (Start: 53 @41088 has 1 MA's), (61, 41145), (78, 41286), (107, 41466), (110, 41499), (141, 41688), (155, 41760),

Gene: Cen1621_19 Start: 16339, Stop: 17049, Start Num: 48
Candidate Starts for Cen1621_19:
(25, 16189), (Start: 48 @16339 has 146 MA's), (Start: 53 @16366 has 1 MA's), (121, 16858), (139, 16927), (151, 16999),

Gene: Chako_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Chako_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Chamuel_24 Start: 18538, Stop: 19344, Start Num: 48
Candidate Starts for Chamuel_24:
(18, 18316), (26, 18397), (27, 18421), (Start: 43 @18532 has 3 MA's), (Start: 48 @18538 has 146 MA's), (90, 18853), (104, 18958), (112, 19039), (142, 19228), (143, 19237),

Gene: ChikPic_23 Start: 18483, Stop: 19265, Start Num: 48
Candidate Starts for ChikPic_23:
(Start: 48 @18483 has 146 MA's), (77, 18717), (94, 18834), (110, 18960), (146, 19182), (153, 19215),

Gene: Christoph_24 Start: 18554, Stop: 19360, Start Num: 48
Candidate Starts for Christoph_24:
(Start: 48 @18554 has 146 MA's), (90, 18869), (104, 18974), (112, 19055), (142, 19244), (143, 19253),

Gene: Cidela_23 Start: 19301, Stop: 20083, Start Num: 48
Candidate Starts for Cidela_23:
(Start: 43 @19295 has 3 MA's), (Start: 48 @19301 has 146 MA's), (77, 19535), (110, 19778), (146, 20000), (153, 20033),

Gene: Clancy_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Clancy_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Clayda5_20 Start: 15868, Stop: 16725, Start Num: 45
Candidate Starts for Clayda5_20:
(5, 15136), (27, 15751), (Start: 45 @15868 has 23 MA's), (54, 15904), (79, 16150), (96, 16300), (97, 16312), (155, 16678),

Gene: CliffHanger_24 Start: 18299, Stop: 19144, Start Num: 50
Candidate Starts for CliffHanger_24:
(33, 18215), (Start: 50 @18299 has 5 MA's), (56, 18338), (99, 18701), (100, 18704), (158, 19112),

Gene: Clock_23 Start: 18689, Stop: 19501, Start Num: 48
Candidate Starts for Clock_23:
(Start: 48 @18689 has 146 MA's), (Start: 53 @18716 has 1 MA's), (54, 18722), (75, 18911), (86, 18965), (104, 19112), (112, 19193), (142, 19385), (143, 19394),

Gene: ColaCorta_23 Start: 18467, Stop: 19249, Start Num: 48
Candidate Starts for ColaCorta_23:
(Start: 48 @18467 has 146 MA's), (77, 18701), (94, 18818), (110, 18944), (146, 19166), (153, 19199),

Gene: Coltrane_20 Start: 15838, Stop: 16722, Start Num: 45
Candidate Starts for Coltrane_20:
(24, 15661), (Start: 45 @15838 has 23 MA's), (54, 15874), (79, 16120), (104, 16336), (112, 16417), (117, 16453),

Gene: Convict_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Convict_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: CoraRita_24 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for CoraRita_24:
(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: Count_3 Start: 493, Stop: 1518, Start Num: 14
Candidate Starts for Count_3:
(Start: 14 @493 has 1 MA's), (20, 538), (31, 646), (60, 841), (67, 892), (113, 1252), (133, 1396), (144, 1465), (145, 1468),

Gene: Dave_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for Dave_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937),

Gene: Delphidian_24 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for Delphidian_24:
(26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: Den3_24 Start: 18263, Stop: 19069, Start Num: 48
Candidate Starts for Den3_24:
(26, 18122), (27, 18146), (Start: 48 @18263 has 146 MA's), (90, 18578), (104, 18683), (112, 18764), (142, 18953),

Gene: DoTi_34 Start: 41431, Stop: 42195, Start Num: 48
Candidate Starts for DoTi_34:
(32, 41338), (Start: 48 @41431 has 146 MA's), (Start: 53 @41458 has 1 MA's), (69, 41587), (79, 41662), (107, 41836), (110, 41869), (114, 41902), (126, 41980),

Gene: Dothraki_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Dothraki_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Duocatuli_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Duocatuli_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Eden_20 Start: 16231, Stop: 17001, Start Num: 45
Candidate Starts for Eden_20:
(Start: 45 @16231 has 23 MA's), (63, 16324), (79, 16468), (85, 16498), (91, 16540), (106, 16636), (155, 16954),

Gene: Eevee_1 Start: 116, Stop: 946, Start Num: 48
Candidate Starts for Eevee_1:
(Start: 48 @116 has 146 MA's), (61, 200), (82, 380), (91, 434), (109, 590), (146, 839),

Gene: Elener_22 Start: 19028, Stop: 19921, Start Num: 50
Candidate Starts for Elener_22:
(1, 16841), (2, 16973), (3, 17729), (4, 18140), (6, 18302), (7, 18461), (8, 18482), (15, 18761), (29, 18902), (Start: 50 @19028 has 5 MA's), (54, 19052), (56, 19067), (60, 19112), (93, 19418), (95, 19430), (97, 19445), (125, 19664),

Gene: Eleri_23 Start: 18480, Stop: 19262, Start Num: 48
Candidate Starts for Eleri_23:
(Start: 48 @18480 has 146 MA's), (77, 18714), (94, 18831), (110, 18957), (146, 19179), (153, 19212),

Gene: Endor_25 Start: 18780, Stop: 19520, Start Num: 44
Candidate Starts for Endor_25:
(Start: 44 @18780 has 6 MA's), (Start: 53 @18813 has 1 MA's), (61, 18870), (79, 19020), (91, 19092), (102, 19167), (143, 19413), (155, 19473), (158, 19485),

Gene: Erla_24 Start: 18536, Stop: 19342, Start Num: 48
Candidate Starts for Erla_24:
(18, 18314), (26, 18395), (27, 18419), (Start: 43 @18530 has 3 MA's), (Start: 48 @18536 has 146 MA's), (90, 18851), (104, 18956), (112, 19037), (142, 19226), (143, 19235),

Gene: Espinosa_24 Start: 18554, Stop: 19360, Start Num: 48
Candidate Starts for Espinosa_24:
(Start: 48 @18554 has 146 MA's), (90, 18869), (104, 18974), (112, 19055), (142, 19244), (143, 19253),

Gene: Etna_24 Start: 18641, Stop: 19381, Start Num: 45
Candidate Starts for Etna_24:
(26, 18500), (Start: 45 @18641 has 23 MA's), (Start: 53 @18674 has 1 MA's), (61, 18731), (79, 18881), (91, 18953), (102, 19028), (106, 19058), (143, 19274),

Gene: Etta_24 Start: 18540, Stop: 19346, Start Num: 48
Candidate Starts for Etta_24:
(18, 18318), (26, 18399), (27, 18423), (Start: 43 @18534 has 3 MA's), (Start: 48 @18540 has 146 MA's), (90, 18855), (104, 18960), (112, 19041), (142, 19230), (143, 19239),

Gene: Exploradora_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Exploradora_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Fabyndrax_23 Start: 19301, Stop: 20083, Start Num: 48
Candidate Starts for Fabyndrax_23:
(Start: 43 @19295 has 3 MA's), (Start: 48 @19301 has 146 MA's), (77, 19535), (110, 19778), (146, 20000), (153, 20033),

Gene: FarmerDoug_24 Start: 18356, Stop: 19096, Start Num: 44

Candidate Starts for FarmerDoug_24:
(Start: 44 @18356 has 6 MA's), (Start: 53 @18389 has 1 MA's), (61, 18446), (79, 18596), (91, 18668), (102, 18743), (117, 18842), (122, 18878), (138, 18956), (143, 18989),

Gene: Figueroism_24 Start: 18243, Stop: 19049, Start Num: 48
Candidate Starts for Figueroism_24:
(18, 18021), (26, 18102), (27, 18126), (Start: 48 @18243 has 146 MA's), (90, 18558), (104, 18663), (112, 18744), (142, 18933),

Gene: Finny_23 Start: 18466, Stop: 19248, Start Num: 48
Candidate Starts for Finny_23:
(Start: 48 @18466 has 146 MA's), (77, 18700), (94, 18817), (110, 18943), (146, 19165), (153, 19198),

Gene: Fireman_44 Start: 31484, Stop: 32410, Start Num: 38
Candidate Starts for Fireman_44:
(21, 31346), (Start: 36 @31469 has 5 MA's), (Start: 38 @31484 has 1 MA's), (41, 31517), (51, 31550), (64, 31652), (80, 31814), (88, 31874), (102, 31982), (108, 32036), (131, 32180), (135, 32240), (149, 32324), (160, 32399),

Gene: Forester_21 Start: 19652, Stop: 20449, Start Num: 42
Candidate Starts for Forester_21:
(12, 19412), (Start: 42 @19652 has 9 MA's), (55, 19700), (57, 19721), (62, 19763), (79, 19934), (83, 19970), (123, 20252), (127, 20264), (133, 20321),

Gene: Franklin22_21 Start: 16416, Stop: 17186, Start Num: 45
Candidate Starts for Franklin22_21:
(9, 15909), (10, 16089), (24, 16242), (Start: 45 @16416 has 23 MA's), (79, 16653), (85, 16683), (91, 16725), (141, 17067), (153, 17136),

Gene: Gack_20 Start: 16302, Stop: 17072, Start Num: 45
Candidate Starts for Gack_20:
(10, 15975), (24, 16128), (Start: 45 @16302 has 23 MA's), (79, 16539), (85, 16569), (91, 16611), (141, 16953), (153, 17022),

Gene: GardenB_24 Start: 18645, Stop: 19385, Start Num: 44
Candidate Starts for GardenB_24:
(34, 18576), (Start: 44 @18645 has 6 MA's), (Start: 53 @18678 has 1 MA's), (61, 18735), (74, 18858), (79, 18885), (102, 19032), (142, 19269), (143, 19278),

Gene: GardenState_21 Start: 18154, Stop: 19038, Start Num: 42
Candidate Starts for GardenState_21:
(Start: 42 @18154 has 9 MA's), (79, 18436), (103, 18619),

Gene: Garey24_24 Start: 18519, Stop: 19325, Start Num: 48
Candidate Starts for Garey24_24:
(18, 18297), (26, 18378), (27, 18402), (Start: 43 @18513 has 3 MA's), (Start: 48 @18519 has 146 MA's), (90, 18834), (104, 18939), (112, 19020), (142, 19209), (143, 19218),

Gene: Gargoyle_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Gargoyle_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Gelo_24 Start: 18540, Stop: 19346, Start Num: 48
Candidate Starts for Gelo_24:
(18, 18318), (26, 18399), (27, 18423), (Start: 43 @18534 has 3 MA's), (Start: 48 @18540 has 146 MA's), (90, 18855), (104, 18960), (112, 19041), (142, 19230), (143, 19239),

Gene: Gershwin_24 Start: 18556, Stop: 19362, Start Num: 48
Candidate Starts for Gershwin_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: Glamour_22 Start: 18468, Stop: 19250, Start Num: 48
Candidate Starts for Glamour_22:
(Start: 48 @18468 has 146 MA's), (77, 18702), (94, 18819), (110, 18945), (146, 19167), (153, 19200),

Gene: GoingMerry_24 Start: 18269, Stop: 19075, Start Num: 48
Candidate Starts for GoingMerry_24:
(26, 18128), (27, 18152), (Start: 48 @18269 has 146 MA's), (90, 18584), (104, 18689), (112, 18770), (142, 18959),

Gene: GoneGirl_25 Start: 18751, Stop: 19491, Start Num: 44
Candidate Starts for GoneGirl_25:
(34, 18682), (Start: 44 @18751 has 6 MA's), (Start: 53 @18784 has 1 MA's), (61, 18841), (74, 18964), (79, 18991), (102, 19138), (142, 19375), (143, 19384),

Gene: Gretchen_21 Start: 18931, Stop: 19728, Start Num: 42
Candidate Starts for Gretchen_21:
(12, 18691), (Start: 42 @18931 has 9 MA's), (55, 18979), (57, 19000), (62, 19042), (79, 19213), (83, 19249), (123, 19531), (127, 19543), (133, 19600),

Gene: Greys_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for Greys_24:
(26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946),

Gene: Gshelby23_32 Start: 40996, Stop: 41742, Start Num: 48
Candidate Starts for Gshelby23_32:
(Start: 48 @40996 has 146 MA's), (Start: 53 @41023 has 1 MA's), (61, 41080), (78, 41221), (107, 41401), (110, 41434), (141, 41623), (155, 41695),

Gene: Gubbabump_24 Start: 18545, Stop: 19351, Start Num: 48
Candidate Starts for Gubbabump_24:
(Start: 48 @18545 has 146 MA's), (90, 18860), (104, 18965), (112, 19046), (142, 19235), (143, 19244),

Gene: HairyMan_22 Start: 18211, Stop: 19077, Start Num: 48
Candidate Starts for HairyMan_22:
(Start: 48 @18211 has 146 MA's), (75, 18433), (94, 18562), (110, 18688), (154, 18952), (156, 18955), (161, 19012), (163, 19027),

Gene: Hamlet_24 Start: 18648, Stop: 19388, Start Num: 45
Candidate Starts for Hamlet_24:
(Start: 45 @18648 has 23 MA's), (Start: 53 @18681 has 1 MA's), (61, 18738), (79, 18888), (91, 18960), (102, 19035), (106, 19065), (143, 19281),

Gene: HanSolo_24 Start: 18543, Stop: 19349, Start Num: 48

Candidate Starts for HanSolo_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: HankSprout_25 Start: 18423, Stop: 19229, Start Num: 48
Candidate Starts for HankSprout_25:
(Start: 48 @18423 has 146 MA's), (90, 18738), (104, 18843), (112, 18924), (142, 19113), (143, 19122),

Gene: Hannabella_34 Start: 41037, Stop: 41783, Start Num: 48
Candidate Starts for Hannabella_34:
(Start: 48 @41037 has 146 MA's), (Start: 53 @41064 has 1 MA's), (61, 41121), (78, 41262), (107, 41442), (110, 41475), (141, 41664), (155, 41736),

Gene: HavenFinLeoSun_25 Start: 18488, Stop: 19309, Start Num: 46
Candidate Starts for HavenFinLeoSun_25:
(Start: 46 @18488 has 5 MA's), (Start: 53 @18521 has 1 MA's), (61, 18578), (79, 18740), (104, 18917), (112, 18998), (118, 19031), (155, 19259),

Gene: Honk_19 Start: 16206, Stop: 16907, Start Num: 48
Candidate Starts for Honk_19:
(11, 15921), (17, 15963), (Start: 48 @16206 has 146 MA's), (Start: 53 @16233 has 1 MA's), (79, 16440), (88, 16488), (91, 16512), (139, 16785), (146, 16842), (151, 16857),

Gene: HungryHenry_24 Start: 18553, Stop: 19359, Start Num: 48
Candidate Starts for HungryHenry_24:
(Start: 48 @18553 has 146 MA's), (90, 18868), (104, 18973), (112, 19054), (142, 19243), (143, 19252),

Gene: Huwbert_28 Start: 10411, Stop: 11349, Start Num: 48
Candidate Starts for Huwbert_28:
(Start: 48 @10411 has 146 MA's), (49, 10420), (Start: 53 @10438 has 1 MA's), (62, 10501), (79, 10657), (137, 11086),

Gene: IAmGroot_21 Start: 18815, Stop: 19699, Start Num: 42
Candidate Starts for IAmGroot_21:
(Start: 42 @18815 has 9 MA's), (79, 19097), (103, 19280),

Gene: Ilzat_24 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for Ilzat_24:
(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: Inventa_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Inventa_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Ioannes_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Ioannes_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Janus167_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Janus167_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: JasonD_26 Start: 18670, Stop: 19491, Start Num: 46
Candidate Starts for JasonD_26:
(Start: 46 @18670 has 5 MA's), (Start: 53 @18703 has 1 MA's), (61, 18760), (79, 18922), (104, 19099), (112, 19180), (118, 19213), (141, 19369), (155, 19441),

Gene: JasperRussell_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for JasperRussell_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Jenos_26 Start: 18997, Stop: 19818, Start Num: 46
Candidate Starts for Jenos_26:
(28, 18886), (Start: 46 @18997 has 5 MA's), (Start: 53 @19030 has 1 MA's), (79, 19249), (104, 19426), (112, 19507), (118, 19540), (155, 19768),

Gene: Jerbirus_25 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Jerbirus_25:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: JeriBeth_24 Start: 18399, Stop: 19205, Start Num: 48
Candidate Starts for JeriBeth_24:
(Start: 48 @18399 has 146 MA's), (90, 18714), (104, 18819), (112, 18900), (142, 19089), (143, 19098),

Gene: JoyLin_1 Start: 116, Stop: 946, Start Num: 48
Candidate Starts for JoyLin_1:
(Start: 48 @116 has 146 MA's), (61, 200), (82, 380), (91, 434), (109, 590), (146, 839),

Gene: Juanyo_23 Start: 18651, Stop: 19424, Start Num: 48
Candidate Starts for Juanyo_23:
(26, 18513), (Start: 43 @18645 has 3 MA's), (Start: 48 @18651 has 146 MA's), (77, 18885), (90, 18966), (110, 19128), (147, 19344),

Gene: Kale_24 Start: 18558, Stop: 19364, Start Num: 48
Candidate Starts for Kale_24:
(Start: 48 @18558 has 146 MA's), (90, 18873), (104, 18978), (112, 19059), (142, 19248), (143, 19257),

Gene: KannH_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for KannH_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: KellyGreen_25 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for KellyGreen_25:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: KingJulien_24 Start: 18641, Stop: 19381, Start Num: 45
Candidate Starts for KingJulien_24:
(26, 18500), (Start: 45 @18641 has 23 MA's), (Start: 53 @18674 has 1 MA's), (61, 18731), (79, 18881), (91, 18953), (102, 19028), (143, 19274),

Gene: Klimt_24 Start: 18538, Stop: 19344, Start Num: 48
Candidate Starts for Klimt_24:
(18, 18316), (26, 18397), (27, 18421), (Start: 43 @18532 has 3 MA's), (Start: 48 @18538 has 146 MA's), (90, 18853), (104, 18958), (112, 19039), (142, 19228), (143, 19237),

Gene: Knox_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Knox_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Kouch_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Kouch_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Kurt1_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Kurt1_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Leafus_24 Start: 18786, Stop: 19526, Start Num: 45
Candidate Starts for Leafus_24:
(Start: 45 @18786 has 23 MA's), (Start: 53 @18819 has 1 MA's), (61, 18876), (79, 19026), (91, 19098), (143, 19419),

Gene: Lovelyunicorn_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Lovelyunicorn_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Ludgate_24 Start: 18255, Stop: 19061, Start Num: 48
Candidate Starts for Ludgate_24:
(18, 18033), (26, 18114), (27, 18138), (Start: 48 @18255 has 146 MA's), (90, 18570), (104, 18675), (112, 18756), (142, 18945),

Gene: MCubed_23 Start: 18494, Stop: 19276, Start Num: 48
Candidate Starts for MCubed_23:
(Start: 48 @18494 has 146 MA's), (77, 18728), (94, 18845), (110, 18971), (146, 19193), (153, 19226),

Gene: Mabodamaca_21 Start: 18203, Stop: 18886, Start Num: 53
Candidate Starts for Mabodamaca_21:
(Start: 48 @18176 has 146 MA's), (Start: 53 @18203 has 1 MA's), (71, 18347),

Gene: MaeLinda_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for MaeLinda_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: ManRay_24 Start: 18556, Stop: 19362, Start Num: 48
Candidate Starts for ManRay_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: Mandalorian_23 Start: 18676, Stop: 19539, Start Num: 48
Candidate Starts for Mandalorian_23:
(19, 18457), (Start: 48 @18676 has 146 MA's), (77, 18910), (78, 18916), (94, 19027), (110, 19153), (152, 19402), (154, 19414), (156, 19417), (163, 19489),

Gene: Martin_25 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Martin_25:

(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: McGalleon_25 Start: 19116, Stop: 19937, Start Num: 46
Candidate Starts for McGalleon_25:
(13, 18864), (30, 19017), (Start: 46 @19116 has 5 MA's), (Start: 53 @19149 has 1 MA's), (79, 19368), (104, 19545), (112, 19626), (118, 19659), (155, 19887),

Gene: Merida02_25 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for Merida02_25:
(26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: Metamorphoo_44 Start: 30731, Stop: 31672, Start Num: 36
Candidate Starts for Metamorphoo_44:
(23, 30614), (Start: 36 @30731 has 5 MA's), (Start: 38 @30746 has 1 MA's), (41, 30779), (51, 30812), (54, 30830), (64, 30914), (80, 31076), (102, 31244), (108, 31298), (131, 31442), (135, 31502), (149, 31586), (160, 31661),

Gene: MillyPhilly_24 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for MillyPhilly_24:
(26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: MiniVolent_23 Start: 18638, Stop: 19411, Start Num: 48
Candidate Starts for MiniVolent_23:
(26, 18500), (Start: 43 @18632 has 3 MA's), (Start: 48 @18638 has 146 MA's), (77, 18872), (90, 18953), (110, 19115),

Gene: MonChoix_23 Start: 18301, Stop: 19041, Start Num: 44
Candidate Starts for MonChoix_23:
(Start: 44 @18301 has 6 MA's), (Start: 53 @18334 has 1 MA's), (61, 18391), (79, 18541), (91, 18613), (102, 18688), (143, 18934), (155, 18994),

Gene: MrWorldwide_24 Start: 18262, Stop: 19068, Start Num: 48
Candidate Starts for MrWorldwide_24:
(Start: 48 @18262 has 146 MA's), (90, 18577), (104, 18682), (112, 18763), (142, 18952),

Gene: Naby_17 Start: 12821, Stop: 13573, Start Num: 40
Candidate Starts for Naby_17:
(Start: 40 @12821 has 2 MA's), (47, 12830), (62, 12926), (72, 13028), (74, 13049), (79, 13076), (81, 13082), (82, 13094), (89, 13145), (99, 13208), (123, 13382), (133, 13451), (143, 13508), (145, 13523),

Gene: Nagem_24 Start: 18255, Stop: 19061, Start Num: 48
Candidate Starts for Nagem_24:
(18, 18033), (26, 18114), (27, 18138), (Start: 48 @18255 has 146 MA's), (90, 18570), (104, 18675), (112, 18756), (142, 18945),

Gene: Nattles_24 Start: 18536, Stop: 19348, Start Num: 43
Candidate Starts for Nattles_24:
(18, 18320), (26, 18401), (27, 18425), (Start: 43 @18536 has 3 MA's), (Start: 48 @18542 has 146 MA's), (90, 18857), (104, 18962), (112, 19043), (142, 19232), (143, 19241),

Gene: Nebulous_23 Start: 18708, Stop: 19520, Start Num: 48
Candidate Starts for Nebulous_23:
(Start: 48 @18708 has 146 MA's), (Start: 53 @18735 has 1 MA's), (63, 18801), (75, 18930), (88, 19002), (104, 19131), (112, 19212), (116, 19245), (142, 19404),

Gene: Neferthena_23 Start: 18721, Stop: 19533, Start Num: 48
Candidate Starts for Neferthena_23:
(Start: 48 @18721 has 146 MA's), (Start: 53 @18748 has 1 MA's), (58, 18787), (78, 18961), (86, 18997), (91, 19039), (104, 19144), (112, 19225), (142, 19417), (143, 19426),

Gene: NickSell_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for NickSell_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Nucci_23 Start: 18665, Stop: 19528, Start Num: 48
Candidate Starts for Nucci_23:
(19, 18446), (Start: 48 @18665 has 146 MA's), (77, 18899), (78, 18905), (94, 19016), (110, 19142), (152, 19391), (154, 19403), (156, 19406), (163, 19478),

Gene: Oats_24 Start: 18556, Stop: 19362, Start Num: 48
Candidate Starts for Oats_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: OldNelly_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for OldNelly_24:
(26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Olliecat_23 Start: 18597, Stop: 19451, Start Num: 50
Candidate Starts for Olliecat_23:
(Start: 50 @18597 has 5 MA's), (56, 18636), (68, 18741), (78, 18864), (92, 18978), (93, 18987), (99, 19014), (111, 19104), (115, 19140), (122, 19188), (147, 19374), (148, 19377), (153, 19404),

Gene: Orpington_23 Start: 18480, Stop: 19262, Start Num: 48
Candidate Starts for Orpington_23:
(Start: 48 @18480 has 146 MA's), (77, 18714), (94, 18831), (110, 18957), (146, 19179), (153, 19212),

Gene: Oxtober96_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Oxtober96_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: PSirce_23 Start: 18483, Stop: 19265, Start Num: 48
Candidate Starts for PSirce_23:
(Start: 48 @18483 has 146 MA's), (77, 18717), (94, 18834), (110, 18960), (146, 19182), (153, 19215),

Gene: Papafritta_24 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for Papafritta_24:
(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: ParleG_24 Start: 18262, Stop: 19068, Start Num: 48
Candidate Starts for ParleG_24:

(Start: 48 @18262 has 146 MA's), (90, 18577), (104, 18682), (112, 18763), (142, 18952),

Gene: Peep_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for Peep_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937),

Gene: PensacolaC28_13 Start: 11328, Stop: 12149, Start Num: 70
Candidate Starts for PensacolaC28_13:
(35, 11043), (61, 11217), (66, 11256), (Start: 70 @11328 has 1 MA's), (76, 11385), (120, 11763), (128, 11811), (129, 11814), (140, 11913),

Gene: Peppino_24 Start: 18639, Stop: 19379, Start Num: 45
Candidate Starts for Peppino_24:
(Start: 45 @18639 has 23 MA's), (Start: 53 @18672 has 1 MA's), (61, 18729), (79, 18879), (91, 18951), (102, 19026), (106, 19056), (143, 19272),

Gene: Percival_21 Start: 18765, Stop: 19562, Start Num: 42
Candidate Starts for Percival_21:
(12, 18525), (Start: 42 @18765 has 9 MA's), (55, 18813), (57, 18834), (62, 18876), (79, 19047), (83, 19083), (123, 19365), (127, 19377), (133, 19434),

Gene: Phanita_23 Start: 18465, Stop: 19247, Start Num: 48
Candidate Starts for Phanita_23:
(Start: 48 @18465 has 146 MA's), (77, 18699), (94, 18816), (110, 18942), (146, 19164), (153, 19197),

Gene: Pherferi_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Pherferi_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Phiderman_24 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for Phiderman_24:
(18, 18036), (26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: PhillyPhantom_24 Start: 18648, Stop: 19388, Start Num: 45
Candidate Starts for PhillyPhantom_24:
(Start: 45 @18648 has 23 MA's), (Start: 53 @18681 has 1 MA's), (61, 18738), (79, 18888), (91, 18960), (143, 19281),

Gene: Phireproof_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Phireproof_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: PhredFlintston_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for PhredFlintston_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Phriends_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Phriends_24:

(26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Pippin15_1 Start: 127, Stop: 969, Start Num: 48
Candidate Starts for Pippin15_1:
(37, 73), (Start: 48 @127 has 146 MA's), (61, 211), (82, 391), (109, 601), (132, 760),

Gene: Pocket_24 Start: 18541, Stop: 19347, Start Num: 48
Candidate Starts for Pocket_24:
(Start: 48 @18541 has 146 MA's), (90, 18856), (104, 18961), (112, 19042), (142, 19231), (143, 19240),

Gene: PuppyEggo_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for PuppyEggo_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946), (143, 18955),

Gene: Quartz_23 Start: 18677, Stop: 19540, Start Num: 48
Candidate Starts for Quartz_23:
(19, 18458), (Start: 48 @18677 has 146 MA's), (77, 18911), (78, 18917), (94, 19028), (110, 19154), (152, 19403), (154, 19415), (156, 19418), (163, 19490),

Gene: Raccoon_24 Start: 18647, Stop: 19387, Start Num: 45
Candidate Starts for Raccoon_24:
(26, 18506), (Start: 45 @18647 has 23 MA's), (Start: 53 @18680 has 1 MA's), (61, 18737), (79, 18887), (91, 18959), (102, 19034), (143, 19280),

Gene: Rapheph_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Rapheph_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Raptor_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Raptor_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Redfield_24 Start: 18647, Stop: 19387, Start Num: 45
Candidate Starts for Redfield_24:
(Start: 45 @18647 has 23 MA's), (Start: 53 @18680 has 1 MA's), (61, 18737), (79, 18887), (91, 18959), (102, 19034), (106, 19064), (143, 19280),

Gene: Renzie_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for Renzie_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937),

Gene: Riyhil_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Riyhil_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Robinson_24 Start: 18250, Stop: 19056, Start Num: 48
Candidate Starts for Robinson_24:

(18, 18028), (26, 18109), (27, 18133), (Start: 43 @18244 has 3 MA's), (Start: 48 @18250 has 146 MA's), (90, 18565), (104, 18670), (112, 18751), (142, 18940),

Gene: RobsFeet_45 Start: 31012, Stop: 31953, Start Num: 36
Candidate Starts for RobsFeet_45:
(Start: 36 @31012 has 5 MA's), (Start: 38 @31027 has 1 MA's), (41, 31060), (51, 31093), (64, 31195), (80, 31357), (88, 31417), (102, 31525), (108, 31579), (131, 31723), (135, 31783), (149, 31867), (160, 31942),

Gene: Rog141_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Rog141_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Rollins_20 Start: 15893, Stop: 16774, Start Num: 45
Candidate Starts for Rollins_20:
(24, 15716), (Start: 45 @15893 has 23 MA's), (54, 15929), (79, 16175), (104, 16388), (112, 16469), (155, 16727),

Gene: RosieMae_24 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for RosieMae_24:
(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: SJay_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for SJay_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946),

Gene: Sansa_22 Start: 18490, Stop: 19272, Start Num: 48
Candidate Starts for Sansa_22:
(Start: 48 @18490 has 146 MA's), (77, 18724), (94, 18841), (110, 18967), (146, 19189), (153, 19222),

Gene: Saratos_23 Start: 18468, Stop: 19250, Start Num: 48
Candidate Starts for Saratos_23:
(Start: 48 @18468 has 146 MA's), (77, 18702), (94, 18819), (110, 18945), (146, 19167), (153, 19200),

Gene: Schnapsidee_24 Start: 18640, Stop: 19380, Start Num: 45
Candidate Starts for Schnapsidee_24:
(26, 18499), (Start: 45 @18640 has 23 MA's), (Start: 53 @18673 has 1 MA's), (61, 18730), (79, 18880), (91, 18952), (102, 19027), (106, 19057), (143, 19273),

Gene: Scruffy_34 Start: 41322, Stop: 42068, Start Num: 48
Candidate Starts for Scruffy_34:
(Start: 48 @41322 has 146 MA's), (Start: 53 @41349 has 1 MA's), (61, 41406), (78, 41547), (110, 41760), (141, 41949), (155, 42021),

Gene: Sedgewig_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for Sedgewig_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: ShaiHulud_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for ShaiHulud_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946), (143, 18955),

Gene: Shamu_23 Start: 18480, Stop: 19262, Start Num: 48
Candidate Starts for Shamu_23:
(Start: 48 @18480 has 146 MA's), (77, 18714), (94, 18831), (110, 18957), (146, 19179), (153, 19212),

Gene: Shee_24 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for Shee_24:
(18, 18036), (26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: Shrubaron_44 Start: 30646, Stop: 31587, Start Num: 36
Candidate Starts for Shrubaron_44:
(Start: 36 @30646 has 5 MA's), (Start: 38 @30661 has 1 MA's), (41, 30694), (51, 30727), (54, 30745), (62, 30814), (64, 30829), (80, 30991), (102, 31159), (108, 31213), (131, 31357), (135, 31417), (149, 31501), (160, 31576),

Gene: Skylord_20 Start: 15838, Stop: 16722, Start Num: 45
Candidate Starts for Skylord_20:
(24, 15661), (Start: 45 @15838 has 23 MA's), (54, 15874), (79, 16120), (104, 16336), (112, 16417), (117, 16453), (141, 16603), (155, 16675),

Gene: SoilGremlin_24 Start: 18258, Stop: 19064, Start Num: 48
Candidate Starts for SoilGremlin_24:
(26, 18117), (27, 18141), (Start: 48 @18258 has 146 MA's), (90, 18573), (104, 18678), (112, 18759), (142, 18948),

Gene: SolidSnake_25 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for SolidSnake_25:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: SonOfLevi_24 Start: 18532, Stop: 19344, Start Num: 43
Candidate Starts for SonOfLevi_24:
(18, 18316), (26, 18397), (27, 18421), (Start: 43 @18532 has 3 MA's), (Start: 48 @18538 has 146 MA's), (90, 18853), (104, 18958), (112, 19039), (142, 19228), (143, 19237),

Gene: Soror1_24 Start: 18650, Stop: 19390, Start Num: 45
Candidate Starts for Soror1_24:
(26, 18509), (Start: 45 @18650 has 23 MA's), (Start: 53 @18683 has 1 MA's), (61, 18740), (79, 18890), (91, 18962), (102, 19037), (143, 19283),

Gene: Squircle_23 Start: 18596, Stop: 19450, Start Num: 50
Candidate Starts for Squircle_23:
(Start: 50 @18596 has 5 MA's), (56, 18635), (68, 18740), (78, 18863), (92, 18977), (93, 18986), (99, 19013), (111, 19103), (115, 19139), (122, 19187), (147, 19373), (148, 19376), (153, 19403),

Gene: Stanktossa_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for Stanktossa_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: StingRay_24 Start: 18552, Stop: 19358, Start Num: 48
Candidate Starts for StingRay_24:

(Start: 48 @18552 has 146 MA's), (90, 18867), (104, 18972), (112, 19053), (142, 19242), (143, 19251),

Gene: StirfryIV_24 Start: 18543, Stop: 19349, Start Num: 48
Candidate Starts for StirfryIV_24:
(Start: 48 @18543 has 146 MA's), (90, 18858), (104, 18963), (112, 19044), (142, 19233), (143, 19242),

Gene: Stormbreaker8_24 Start: 18641, Stop: 19381, Start Num: 45
Candidate Starts for Stormbreaker8_24:
(26, 18500), (Start: 45 @18641 has 23 MA's), (Start: 53 @18674 has 1 MA's), (61, 18731), (79, 18881), (91, 18953), (102, 19028), (143, 19274),

Gene: Strathdee_24 Start: 18260, Stop: 19066, Start Num: 48
Candidate Starts for Strathdee_24:
(26, 18119), (27, 18143), (Start: 48 @18260 has 146 MA's), (90, 18575), (104, 18680), (112, 18761), (142, 18950),

Gene: SuMoo_20 Start: 17131, Stop: 17841, Start Num: 48
Candidate Starts for SuMoo_20:
(Start: 48 @17131 has 146 MA's), (Start: 53 @17158 has 1 MA's), (101, 17479), (153, 17791),

Gene: SuperHands_21 Start: 19659, Stop: 20459, Start Num: 42
Candidate Starts for SuperHands_21:
(12, 19419), (Start: 42 @19659 has 9 MA's), (55, 19707), (57, 19728), (62, 19770), (79, 19941), (83, 19977), (123, 20262), (127, 20274), (133, 20331),

Gene: Superfresh_24 Start: 18247, Stop: 19053, Start Num: 48
Candidate Starts for Superfresh_24:
(18, 18025), (26, 18106), (27, 18130), (Start: 48 @18247 has 146 MA's), (90, 18562), (104, 18667), (112, 18748), (142, 18937),

Gene: Symere_24 Start: 18540, Stop: 19346, Start Num: 48
Candidate Starts for Symere_24:
(Start: 48 @18540 has 146 MA's), (90, 18855), (104, 18960), (112, 19041), (142, 19230), (143, 19239),

Gene: TatarkaPM_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for TatarkaPM_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Teagan_24 Start: 18255, Stop: 19061, Start Num: 48
Candidate Starts for Teagan_24:
(18, 18033), (26, 18114), (27, 18138), (Start: 48 @18255 has 146 MA's), (90, 18570), (104, 18675), (112, 18756), (142, 18945),

Gene: TeddyBear_24 Start: 18556, Stop: 19362, Start Num: 48
Candidate Starts for TeddyBear_24:
(Start: 48 @18556 has 146 MA's), (90, 18871), (104, 18976), (112, 19057), (142, 19246), (143, 19255),

Gene: Tenda_24 Start: 18554, Stop: 19360, Start Num: 48
Candidate Starts for Tenda_24:
(Start: 48 @18554 has 146 MA's), (90, 18869), (104, 18974), (112, 19055), (142, 19244), (143, 19253),

Gene: Thompsone_24 Start: 18259, Stop: 19065, Start Num: 48

Candidate Starts for Thompsone_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Thorongil_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for Thorongil_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946), (143, 18955),

Gene: TinSulphur_24 Start: 18261, Stop: 19067, Start Num: 48
Candidate Starts for TinSulphur_24:
(18, 18039), (26, 18120), (27, 18144), (Start: 48 @18261 has 146 MA's), (90, 18576), (104, 18681), (112, 18762), (142, 18951),

Gene: Triscuit_27 Start: 10327, Stop: 11265, Start Num: 48
Candidate Starts for Triscuit_27:
(Start: 48 @10327 has 146 MA's), (49, 10336), (Start: 53 @10354 has 1 MA's), (62, 10417), (79, 10573), (137, 11002), (159, 11143),

Gene: Tyrumbra_42 Start: 30812, Stop: 31753, Start Num: 36
Candidate Starts for Tyrumbra_42:
(Start: 36 @30812 has 5 MA's), (Start: 38 @30827 has 1 MA's), (41, 30860), (51, 30893), (64, 30995), (80, 31157), (102, 31325), (108, 31379), (131, 31523), (149, 31667), (160, 31742),

Gene: UtzChips_20 Start: 17730, Stop: 18590, Start Num: 42
Candidate Starts for UtzChips_20:
(Start: 42 @17730 has 9 MA's), (98, 18150), (125, 18348),

Gene: Velene_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for Velene_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: Vispistious_24 Start: 18256, Stop: 19062, Start Num: 48
Candidate Starts for Vispistious_24:
(18, 18034), (26, 18115), (27, 18139), (Start: 48 @18256 has 146 MA's), (90, 18571), (104, 18676), (112, 18757), (142, 18946), (143, 18955),

Gene: Vitas_20 Start: 15833, Stop: 16714, Start Num: 45
Candidate Starts for Vitas_20:
(24, 15656), (Start: 45 @15833 has 23 MA's), (54, 15869), (79, 16115), (104, 16328), (112, 16409), (155, 16667),

Gene: WildNOut_24 Start: 18259, Stop: 19065, Start Num: 48
Candidate Starts for WildNOut_24:
(26, 18118), (27, 18142), (Start: 48 @18259 has 146 MA's), (90, 18574), (104, 18679), (112, 18760), (142, 18949),

Gene: WilliamStrong_22 Start: 18396, Stop: 19301, Start Num: 36
Candidate Starts for WilliamStrong_22:
(Start: 36 @18396 has 5 MA's), (41, 18441), (52, 18483), (54, 18492), (65, 18585), (102, 18897), (130, 19089), (136, 19146), (149, 19215), (150, 19221), (157, 19248),

Gene: Winzigespinne_24 Start: 18542, Stop: 19348, Start Num: 48
Candidate Starts for Winzigespinne_24:
(Start: 48 @18542 has 146 MA's), (90, 18857), (104, 18962), (112, 19043), (142, 19232), (143, 19241),

Gene: Xebius_23 Start: 18468, Stop: 19250, Start Num: 48
Candidate Starts for Xebius_23:
(Start: 48 @18468 has 146 MA's), (77, 18702), (94, 18819), (110, 18945), (146, 19167), (153, 19200),

Gene: Yotsuba_1 Start: 116, Stop: 946, Start Num: 48
Candidate Starts for Yotsuba_1:
(Start: 48 @116 has 146 MA's), (61, 200), (82, 380), (91, 434), (109, 590), (146, 839),

Gene: YuuY_23 Start: 18668, Stop: 19531, Start Num: 48
Candidate Starts for YuuY_23:
(26, 18527), (Start: 48 @18668 has 146 MA's), (63, 18761), (77, 18902), (78, 18908), (110, 19145), (119, 19208), (154, 19406), (156, 19409), (162, 19478), (163, 19481),

Gene: Zada_24 Start: 18241, Stop: 19047, Start Num: 48
Candidate Starts for Zada_24:
(18, 18019), (26, 18100), (27, 18124), (Start: 48 @18241 has 146 MA's), (90, 18556), (104, 18661), (112, 18742), (142, 18931),

Gene: Zenitsu_23 Start: 18495, Stop: 19277, Start Num: 48
Candidate Starts for Zenitsu_23:
(Start: 48 @18495 has 146 MA's), (77, 18729), (94, 18846), (110, 18972), (146, 19194), (153, 19227),

Gene: Zeta1847_19 Start: 17757, Stop: 18641, Start Num: 39
Candidate Starts for Zeta1847_19:
(Start: 39 @17757 has 1 MA's), (73, 17979), (87, 18072), (104, 18222), (110, 18285), (134, 18465), (147, 18561),