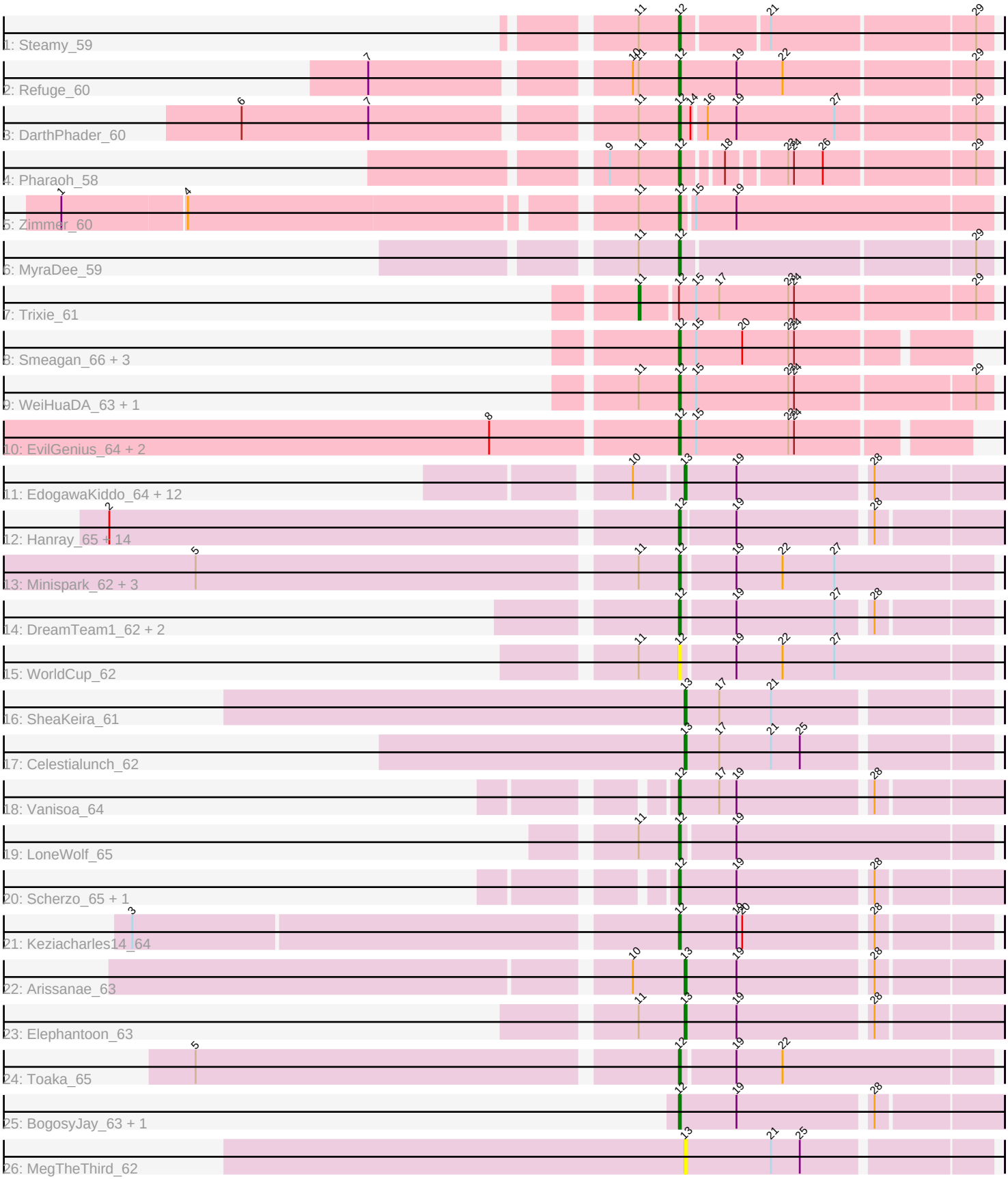
# Pham 347606


1: Steamy_59
2: Refuge_60
3: DarthPhader_60
4: Pharaoh_58
5: Zimmer_60
6: MyraDee_59
7: Trixie_61
8: Smeagan_66 + 3
9: WeiHuaDA_63 + 1
10: EvilGenius_64 + 2
11: EdogawaKiddo_64 + 12
12: Hanray_65 + 14
13: Minispark_62 + 3
14: DreamTeam1_62 + 2
15: WorldCup_62
16: SheaKeira_61
17: Celestialunch_62
18: Vanisoa_64
19: LoneWolf_65
20: Scherzo_65 + 1
21: Keziacharles14_64
22: Arissanae_63
23: Elephantoon_63
24: Toaka_65
25: BogosyJay_63 + 1
26: MegTheThird_62

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 347606 Report

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

Pham number 347606 has 65 members, 5 are drafts.

Phages represented in each track:
- Track 1 : Steamy_59
- Track 2 : Refuge_60
- Track 3 : DarthPhader_60
- Track 4 : Pharaoh_58
- Track 5 : Zimmer_60
- Track 6 : MyraDee_59
- Track 7 : Trixie_61
- Track 8 : Smeagan_66, Leviathan_65, Whabigail7_64, Dignity_65
- Track 9 : WeiHuaDA_63, Colin_62
- Track 10 : EvilGenius_64, ChipMunk_65, KingCyrus_64
- Track 11 : EdogawaKiddo_64, Sachima_64, RyeScarlet_65, HortumSL17_65, Tubs_64, PackMan_63, Aliter_65, Phonnegut_65, Phaeder_64, Pioneer_65, Myxus_64, Catalina_66, Beemo_65
- Track 12 : Hanray_65, Jiawan_65, Onglai_64, Qobbit_63, ExplosioNervosa_63, EmyBug_62, Eidsmoe_63, Holex_65, Conquerage_63, Alma_63, Lilleskat_64, Fayely_63, Spouty_63, Priya_63, Ayanochan_62
- Track 13 : Minispark_62, Bellris_64, CogOmlette_62, Rahalelujah_64
- Track 14 : DreamTeam1_62, Charm_62, Klodlith_62
- Track 15 : WorldCup_62
- Track 16 : SheaKeira_61
- Track 17 : Celestialunch_62
- Track 18 : Vanisoa_64
- Track 19 : LoneWolf_65
- Track 20 : Scherzo_65, Ugenie5_61
- Track 21 : Keziacharles14_64
- Track 22 : Arissanae_63
- Track 23 : Elephantoon_63
- Track 24 : Toaka_65
- Track 25 : BogosyJay_63, Maminiaina_63
- Track 26 : MegTheThird_62

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

The start number called the most often in the published annotations is 12, it was called in 42 of the 60 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alma_63, Ayanochan_62, Bellris_64, BogosyJay_63, Charm_62, ChipMunk_65, CogOmlette_62, Colin_62, Conquerage_63, DarthPhader_60, Dignity_65, DreamTeam1_62, Eidsmoe_63, EmyBug_62, EvilGenius_64, ExplosioNervosa_63, Fayely_63, Hanray_65, Holex_65, Jiawan_65, Keziacharles14_64, KingCyrus_64, Klodlith_62, Leviathan_65, Lilleskat_64, LoneWolf_65, Maminiaina_63, Minispark_62, MyraDee_59, Onglai_64, Pharaoh_58, Priya_63, Qobbit_63, Rahalelujah_64, Refuge_60, Scherzo_65, Smeagan_66, Spouty_63, Steamy_59, Toaka_65, Ugenie5_61, Vanisoa_64, WeiHuaDA_63, Whabigail7_64, WorldCup_62, Zimmer_60,

Genes that have the "Most Annotated" start but do not call it:
• Trixie_61,

Genes that do not have the "Most Annotated" start:
• Aliter_65, Arissanae_63, Beemo_65, Catalina_66, Celestialunch_62, EdogawaKiddo_64, Elephantoon_63, HortumSL17_65, MegTheThird_62, Myxus_64, PackMan_63, Phaeder_64, Phonnegut_65, Pioneer_65, RyeScarlet_65, Sachima_64, SheaKeira_61, Tubs_64,

**Summary by start number:**

Start 11:
• Found in 16 of 65 ( 24.6% ) of genes in pham
• Manual Annotations of this start: 1 of 60
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Trixie_61 (A2),

Start 12:
• Found in 47 of 65 ( 72.3% ) of genes in pham
• Manual Annotations of this start: 42 of 60
• Called 97.9% of time when present
• Phage (with cluster) where this start called: Alma_63 (A9), Ayanochan_62 (A9), Bellris_64 (A9), BogosyJay_63 (A9), Charm_62 (A9), ChipMunk_65 (A2), CogOmlette_62 (A9), Colin_62 (A2), Conquerage_63 (A9), DarthPhader_60 (A12), Dignity_65 (A2), DreamTeam1_62 (A9), Eidsmoe_63 (A9), EmyBug_62 (A9), EvilGenius_64 (A2), ExplosioNervosa_63 (A9), Fayely_63 (A9), Hanray_65 (A9), Holex_65 (A9), Jiawan_65 (A9), Keziacharles14_64 (A9), KingCyrus_64 (A2), Klodlith_62 (A9), Leviathan_65 (A2), Lilleskat_64 (A9), LoneWolf_65 (A9), Maminiaina_63 (A9), Minispark_62 (A9), MyraDee_59 (A18), Onglai_64 (A9), Pharaoh_58 (A12), Priya_63 (A9), Qobbit_63 (A9), Rahalelujah_64 (A9), Refuge_60 (A12), Scherzo_65 (A9), Smeagan_66 (A2), Spouty_63 (A9), Steamy_59 (A12), Toaka_65 (A9), Ugenie5_61 (A9), Vanisoa_64 (A9), WeiHuaDA_63 (A2), Whabigail7_64 (A2), WorldCup_62 (A9), Zimmer_60 (A12),

Start 13:
• Found in 18 of 65 ( 27.7% ) of genes in pham
• Manual Annotations of this start: 17 of 60
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Aliter_65 (A9), Arissanae_63 (A9), Beemo_65 (A9), Catalina_66 (A9), Celestialunch_62 (A9), EdogawaKiddo_64 (A9), Elephantoon_63 (A9), HortumSL17_65 (A9), MegTheThird_62 (A9), Myxus_64 (A9), PackMan_63 (A9), Phaeder_64 (A9), Phonnegut_65 (A9), Pioneer_65 (A9), RyeScarlet_65 (A9), Sachima_64 (A9), SheaKeira_61 (A9), Tubs_64 (A9),

**Summary by clusters:**

There are 4 clusters represented in this pham: A9, A2, A18, A12,

Info for manual annotations of cluster A12:
•Start number 12 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A18:
•Start number 12 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 11 was manually annotated 1 time for cluster A2.
•Start number 12 was manually annotated 9 times for cluster A2.

Info for manual annotations of cluster A9:
•Start number 12 was manually annotated 27 times for cluster A9.
•Start number 13 was manually annotated 17 times for cluster A9.

***Gene Information:***

Gene: Aliter_65 Start: 40065, Stop: 39910, Start Num: 13
Candidate Starts for Aliter_65:
(10, 40089), (Start: 13 @40065 has 17 MA's), (19, 40038), (28, 39972),

Gene: Alma_63 Start: 40097, Stop: 39942, Start Num: 12
Candidate Starts for Alma_63:
(2, 40385), (Start: 12 @40097 has 42 MA's), (19, 40070), (28, 40004),

Gene: Arissanae_63 Start: 40631, Stop: 40476, Start Num: 13
Candidate Starts for Arissanae_63:
(10, 40658), (Start: 13 @40631 has 17 MA's), (19, 40604), (28, 40538),

Gene: Ayanochan_62 Start: 39880, Stop: 39725, Start Num: 12
Candidate Starts for Ayanochan_62:
(2, 40168), (Start: 12 @39880 has 42 MA's), (19, 39853), (28, 39787),

Gene: Beemo_65 Start: 40235, Stop: 40080, Start Num: 13
Candidate Starts for Beemo_65:
(10, 40259), (Start: 13 @40235 has 17 MA's), (19, 40208), (28, 40142),

Gene: Bellris_64 Start: 39767, Stop: 39609, Start Num: 12
Candidate Starts for Bellris_64:
(5, 40010), (Start: 11 @39788 has 1 MA's), (Start: 12 @39767 has 42 MA's), (19, 39740), (22, 39716), (27, 39689),

Gene: BogosyJay_63 Start: 40035, Stop: 39877, Start Num: 12
Candidate Starts for BogosyJay_63:
(Start: 12 @40035 has 42 MA's), (19, 40005), (28, 39939),

Gene: Catalina_66 Start: 40138, Stop: 39983, Start Num: 13
Candidate Starts for Catalina_66:
(10, 40162), (Start: 13 @40138 has 17 MA's), (19, 40111), (28, 40045),

Gene: Celestialunch_62 Start: 39704, Stop: 39552, Start Num: 13
Candidate Starts for Celestialunch_62:
(Start: 13 @39704 has 17 MA's), (17, 39686), (21, 39659), (25, 39644),

Gene: Charm_62 Start: 39763, Stop: 39614, Start Num: 12
Candidate Starts for Charm_62:
(Start: 12 @39763 has 42 MA's), (19, 39736), (27, 39685), (28, 39670),

Gene: ChipMunk_65 Start: 41613, Stop: 41470, Start Num: 12
Candidate Starts for ChipMunk_65:
(8, 41706), (Start: 12 @41613 has 42 MA's), (15, 41604), (23, 41556), (24, 41553),

Gene: CogOmlette_62 Start: 39764, Stop: 39606, Start Num: 12
Candidate Starts for CogOmlette_62:
(5, 40007), (Start: 11 @39785 has 1 MA's), (Start: 12 @39764 has 42 MA's), (19, 39737), (22, 39713), (27, 39686),

Gene: Colin_62 Start: 40164, Stop: 40006, Start Num: 12
Candidate Starts for Colin_62:
(Start: 11 @40185 has 1 MA's), (Start: 12 @40164 has 42 MA's), (15, 40155), (23, 40107), (24, 40104), (29, 40014),

Gene: Conquerage_63 Start: 39866, Stop: 39711, Start Num: 12
Candidate Starts for Conquerage_63:
(2, 40154), (Start: 12 @39866 has 42 MA's), (19, 39839), (28, 39773),

Gene: DarthPhader_60 Start: 40985, Stop: 40830, Start Num: 12
Candidate Starts for DarthPhader_60:
(6, 41195), (7, 41129), (Start: 11 @41006 has 1 MA's), (Start: 12 @40985 has 42 MA's), (14, 40979), (16, 40973), (19, 40958), (27, 40907), (29, 40838),

Gene: Dignity_65 Start: 40427, Stop: 40284, Start Num: 12
Candidate Starts for Dignity_65:
(Start: 12 @40427 has 42 MA's), (15, 40418), (20, 40394), (23, 40370), (24, 40367),

Gene: DreamTeam1_62 Start: 39595, Stop: 39446, Start Num: 12
Candidate Starts for DreamTeam1_62:
(Start: 12 @39595 has 42 MA's), (19, 39568), (27, 39517), (28, 39502),

Gene: EdogawaKiddo_64 Start: 40105, Stop: 39947, Start Num: 13
Candidate Starts for EdogawaKiddo_64:
(10, 40129), (Start: 13 @40105 has 17 MA's), (19, 40078), (28, 40012),

Gene: Eidsmoe_63 Start: 39858, Stop: 39703, Start Num: 12
Candidate Starts for Eidsmoe_63:

(2, 40146), (Start: 12 @39858 has 42 MA's), (19, 39831), (28, 39765),

Gene: Elephantoon_63 Start: 39445, Stop: 39290, Start Num: 13
Candidate Starts for Elephantoon_63:
(Start: 11 @39469 has 1 MA's), (Start: 13 @39445 has 17 MA's), (19, 39418), (28, 39352),

Gene: EmyBug_62 Start: 39860, Stop: 39705, Start Num: 12
Candidate Starts for EmyBug_62:
(2, 40148), (Start: 12 @39860 has 42 MA's), (19, 39833), (28, 39767),

Gene: EvilGenius_64 Start: 41614, Stop: 41471, Start Num: 12
Candidate Starts for EvilGenius_64:
(8, 41707), (Start: 12 @41614 has 42 MA's), (15, 41605), (23, 41557), (24, 41554),

Gene: ExplosioNervosa_63 Start: 39926, Stop: 39771, Start Num: 12
Candidate Starts for ExplosioNervosa_63:
(2, 40214), (Start: 12 @39926 has 42 MA's), (19, 39899), (28, 39833),

Gene: Fayely_63 Start: 39827, Stop: 39672, Start Num: 12
Candidate Starts for Fayely_63:
(2, 40115), (Start: 12 @39827 has 42 MA's), (19, 39800), (28, 39734),

Gene: Hanray_65 Start: 40190, Stop: 40035, Start Num: 12
Candidate Starts for Hanray_65:
(2, 40478), (Start: 12 @40190 has 42 MA's), (19, 40163), (28, 40097),

Gene: Holex_65 Start: 40206, Stop: 40051, Start Num: 12
Candidate Starts for Holex_65:
(2, 40494), (Start: 12 @40206 has 42 MA's), (19, 40179), (28, 40113),

Gene: HortumSL17_65 Start: 40137, Stop: 39982, Start Num: 13
Candidate Starts for HortumSL17_65:
(10, 40161), (Start: 13 @40137 has 17 MA's), (19, 40110), (28, 40044),

Gene: Jiawan_65 Start: 40222, Stop: 40067, Start Num: 12
Candidate Starts for Jiawan_65:
(2, 40510), (Start: 12 @40222 has 42 MA's), (19, 40195), (28, 40129),

Gene: Keziacharles14_64 Start: 41212, Stop: 41060, Start Num: 12
Candidate Starts for Keziacharles14_64:
(3, 41485), (Start: 12 @41212 has 42 MA's), (19, 41182), (20, 41179), (28, 41116),

Gene: KingCyrus_64 Start: 41609, Stop: 41466, Start Num: 12
Candidate Starts for KingCyrus_64:
(8, 41702), (Start: 12 @41609 has 42 MA's), (15, 41600), (23, 41552), (24, 41549),

Gene: Klodlith_62 Start: 39660, Stop: 39511, Start Num: 12
Candidate Starts for Klodlith_62:
(Start: 12 @39660 has 42 MA's), (19, 39633), (27, 39582), (28, 39567),

Gene: Leviathan_65 Start: 40476, Stop: 40333, Start Num: 12
Candidate Starts for Leviathan_65:
(Start: 12 @40476 has 42 MA's), (15, 40467), (20, 40443), (23, 40419), (24, 40416),

Gene: Lilleskat_64 Start: 40058, Stop: 39900, Start Num: 12
Candidate Starts for Lilleskat_64:
(2, 40346), (Start: 12 @40058 has 42 MA's), (19, 40031), (28, 39965),

Gene: LoneWolf_65 Start: 40176, Stop: 40018, Start Num: 12
Candidate Starts for LoneWolf_65:
(Start: 11 @40197 has 1 MA's), (Start: 12 @40176 has 42 MA's), (19, 40149),

Gene: Maminiaina_63 Start: 40017, Stop: 39859, Start Num: 12
Candidate Starts for Maminiaina_63:
(Start: 12 @40017 has 42 MA's), (19, 39987), (28, 39921),

Gene: MegTheThird_62 Start: 39703, Stop: 39551, Start Num: 13
Candidate Starts for MegTheThird_62:
(Start: 13 @39703 has 17 MA's), (21, 39658), (25, 39643),

Gene: Minispark_62 Start: 39761, Stop: 39603, Start Num: 12
Candidate Starts for Minispark_62:
(5, 40004), (Start: 11 @39782 has 1 MA's), (Start: 12 @39761 has 42 MA's), (19, 39734), (22, 39710), (27, 39683),

Gene: MyraDee_59 Start: 36819, Stop: 36664, Start Num: 12
Candidate Starts for MyraDee_59:
(Start: 11 @36840 has 1 MA's), (Start: 12 @36819 has 42 MA's), (29, 36672),

Gene: Myxus_64 Start: 40137, Stop: 39982, Start Num: 13
Candidate Starts for Myxus_64:
(10, 40161), (Start: 13 @40137 has 17 MA's), (19, 40110), (28, 40044),

Gene: Onglai_64 Start: 38478, Stop: 38323, Start Num: 12
Candidate Starts for Onglai_64:
(2, 38766), (Start: 12 @38478 has 42 MA's), (19, 38451), (28, 38385),

Gene: PackMan_63 Start: 40012, Stop: 39857, Start Num: 13
Candidate Starts for PackMan_63:
(10, 40036), (Start: 13 @40012 has 17 MA's), (19, 39985), (28, 39919),

Gene: Phaeder_64 Start: 40012, Stop: 39857, Start Num: 13
Candidate Starts for Phaeder_64:
(10, 40036), (Start: 13 @40012 has 17 MA's), (19, 39985), (28, 39919),

Gene: Pharaoh_58 Start: 39859, Stop: 39713, Start Num: 12
Candidate Starts for Pharaoh_58:
(9, 39895), (Start: 11 @39880 has 1 MA's), (Start: 12 @39859 has 42 MA's), (18, 39841), (23, 39814), (24, 39811), (26, 39796), (29, 39721),

Gene: Phonnegut_65 Start: 40234, Stop: 40079, Start Num: 13
Candidate Starts for Phonnegut_65:
(10, 40258), (Start: 13 @40234 has 17 MA's), (19, 40207), (28, 40141),

Gene: Pioneer_65 Start: 40234, Stop: 40079, Start Num: 13
Candidate Starts for Pioneer_65:

(10, 40258), (Start: 13 @40234 has 17 MA's), (19, 40207), (28, 40141),

Gene: Priya_63 Start: 39861, Stop: 39706, Start Num: 12
Candidate Starts for Priya_63:
(2, 40149), (Start: 12 @39861 has 42 MA's), (19, 39834), (28, 39768),

Gene: Qobbit_63 Start: 39823, Stop: 39668, Start Num: 12
Candidate Starts for Qobbit_63:
(2, 40111), (Start: 12 @39823 has 42 MA's), (19, 39796), (28, 39730),

Gene: Rahalelujah_64 Start: 39776, Stop: 39618, Start Num: 12
Candidate Starts for Rahalelujah_64:
(5, 40019), (Start: 11 @39797 has 1 MA's), (Start: 12 @39776 has 42 MA's), (19, 39749), (22, 39725), (27, 39698),

Gene: Refuge_60 Start: 41000, Stop: 40842, Start Num: 12
Candidate Starts for Refuge_60:
(7, 41144), (10, 41024), (Start: 11 @41021 has 1 MA's), (Start: 12 @41000 has 42 MA's), (19, 40970), (22, 40946), (29, 40850),

Gene: RyeScarlet_65 Start: 40209, Stop: 40054, Start Num: 13
Candidate Starts for RyeScarlet_65:
(10, 40233), (Start: 13 @40209 has 17 MA's), (19, 40182), (28, 40116),

Gene: Sachima_64 Start: 40038, Stop: 39880, Start Num: 13
Candidate Starts for Sachima_64:
(10, 40062), (Start: 13 @40038 has 17 MA's), (19, 40011), (28, 39945),

Gene: Scherzo_65 Start: 40426, Stop: 40268, Start Num: 12
Candidate Starts for Scherzo_65:
(Start: 12 @40426 has 42 MA's), (19, 40396), (28, 40330),

Gene: SheaKeira_61 Start: 39614, Stop: 39462, Start Num: 13
Candidate Starts for SheaKeira_61:
(Start: 13 @39614 has 17 MA's), (17, 39596), (21, 39569),

Gene: Smeagan_66 Start: 40563, Stop: 40420, Start Num: 12
Candidate Starts for Smeagan_66:
(Start: 12 @40563 has 42 MA's), (15, 40554), (20, 40530), (23, 40506), (24, 40503),

Gene: Spouty_63 Start: 39860, Stop: 39705, Start Num: 12
Candidate Starts for Spouty_63:
(2, 40148), (Start: 12 @39860 has 42 MA's), (19, 39833), (28, 39767),

Gene: Steamy_59 Start: 39593, Stop: 39441, Start Num: 12
Candidate Starts for Steamy_59:
(Start: 11 @39614 has 1 MA's), (Start: 12 @39593 has 42 MA's), (21, 39551), (29, 39449),

Gene: Toaka_65 Start: 40248, Stop: 40090, Start Num: 12
Candidate Starts for Toaka_65:
(5, 40491), (Start: 12 @40248 has 42 MA's), (19, 40221), (22, 40197),

Gene: Trixie_61 Start: 40009, Stop: 39833, Start Num: 11

Candidate Starts for Trixie_61:
(Start: 11 @40009 has 1 MA's), (Start: 12 @39991 has 42 MA's), (15, 39982), (17, 39970), (23, 39934), (24, 39931), (29, 39841),

Gene: Tubs_64 Start: 40012, Stop: 39857, Start Num: 13
Candidate Starts for Tubs_64:
(10, 40036), (Start: 13 @40012 has 17 MA's), (19, 39985), (28, 39919),

Gene: Ugenie5_61 Start: 40425, Stop: 40267, Start Num: 12
Candidate Starts for Ugenie5_61:
(Start: 12 @40425 has 42 MA's), (19, 40395), (28, 40329),

Gene: Vanisoa_64 Start: 41119, Stop: 40961, Start Num: 12
Candidate Starts for Vanisoa_64:
(Start: 12 @41119 has 42 MA's), (17, 41098), (19, 41089), (28, 41023),

Gene: WeiHuaDA_63 Start: 40711, Stop: 40553, Start Num: 12
Candidate Starts for WeiHuaDA_63:
(Start: 11 @40732 has 1 MA's), (Start: 12 @40711 has 42 MA's), (15, 40702), (23, 40654), (24, 40651), (29, 40561),

Gene: Whabigail7_64 Start: 40282, Stop: 40139, Start Num: 12
Candidate Starts for Whabigail7_64:
(Start: 12 @40282 has 42 MA's), (15, 40273), (20, 40249), (23, 40225), (24, 40222),

Gene: WorldCup_62 Start: 39770, Stop: 39612, Start Num: 12
Candidate Starts for WorldCup_62:
(Start: 11 @39791 has 1 MA's), (Start: 12 @39770 has 42 MA's), (19, 39743), (22, 39719), (27, 39692),

Gene: Zimmer_60 Start: 40828, Stop: 40670, Start Num: 12
Candidate Starts for Zimmer_60:
(1, 41128), (4, 41065), (Start: 11 @40849 has 1 MA's), (Start: 12 @40828 has 42 MA's), (15, 40822), (19, 40801),