



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 216047 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216047 has 95 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Sigman_16, Maskar_15, Puhltonio_16, Pops_16, MelsMeow_15, TallGrassMM_16, Longacauda_15, Fang_16, BatteryCK_15, IsaacEli_16, Olive_16, Swish_16, Gwennie1_16, Oosterbaan_16, Numberten_16, Swiphy_16, OSmaximus_16, Anderson_16, Phipps_16, Harvey_16, Andre_16, DuchessDung_15, Doddsville_16, Nyala_15, Orwigg_15, Mesmerelda_16, Chah_16, Yoshand_16, SilverBell_16, Virgeve_15, Inverness_16, Etaye_16, Caspiboi_17, Pinkman_15, Chute_15, Banjo_15, JDog_15, Eugenia_16, KLucky39_16, Newman_16, Badfish_16, SirBeauregard_15, Kikipoo_16, Khan1_16, MrPhizzler_15, Scoot17C_16, Thora_16, Lasso_16, Ashraf_15, Lopsy_15, UncleHowie_16, Daffy_16, Eremos_16, Apizium_15, Cornbread_16, TooFast2Furius_17, Katniss_16, ABU_16, Hamish_16, FluffyNinja_16, Suffolk_16, Orion_16, Colbert_16, Rimu_15, Gophee_16, ThreeOh3D2_16, AngelCake_15, Iridessa_15, Vortex_16, PG1_16, Megatron_16, Coletti_15, Mana_15, ImtiyazSitla_15, PhatLouie_16, Morgushi_16, LeiMonet_16, ElvisPhasley_16, Jesabah_16, Murdoc_16, Megamind20_16, Vaishali24_15, DelRivs_15, Iridoclysis_16, Nathan_17, Serendipity_16, Potter_15
- Track 2 : Chipette_17, OliverWalter_16, Riverton_15, Manad_15, Basato_17, Prickles_16, Thunderbird_15
- Track 3 : Plata_16

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

The start number called the most often in the published annotations is 2, it was called in 72 of the 72 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU_16, Anderson_16, Andre_16, AngelCake_15, Apizium_15, Ashraf_15, Badfish_16, Banjo_15, Basato_17, BatteryCK_15, Caspiboi_17, Chah_16, Chipette_17, Chute_15, Colbert_16, Coletti_15, Cornbread_16, Daffy_16, DelRivs_15, Doddsville_16, DuchessDung_15, ElvisPhasley_16, Eremos_16, Etaye_16, Eugenia_16, Fang_16, FluffyNinja_16, Gophee_16, Gwennie1_16, Hamish_16, Harvey_16, ImtiyazSitla_15, Inverness_16, Iridessa_15, Iridoclysis_16, IsaacEli_16, JDog_15, Jesabah_16, KLucky39_16, Katniss_16, Khan1_16, Kikipoo_16, Lasso_16, LeiMonet_16, Longacauda_15, Lopsy_15, Mana_15, Manad_15, Maskar_15, Megamind20_16, Megatron_16, MelsMeow_15,

Mesmerelda_16, Morgushi_16, MrPhizzler_15, Murdoc_16, Nathan_17, Newman_16, Numberten_16, Nyala_15, OSmaximus_16, Olive_16, OliverWalter_16, Oosterbaan_16, Orion_16, Orwigg_15, PG1_16, PhatLouie_16, Phipps_16, Pinkman_15, Plata_16, Pops_16, Potter_15, Prickles_16, Puhltonio_16, Rimu_15, Riverton_15, Scoot17C_16, Serendipity_16, Sigman_16, SilverBell_16, SirBeauregard_15, Suffolk_16, Swiphy_16, Swish_16, TallGrassMM_16, Thora_16, ThreeOh3D2_16, Thunderbird_15, TooFast2Furius_17, UncleHowie_16, Vaishali24_15, Virgeve_15, Vortex_16, Yoshand_16,

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

-

Genes that do not have the "Most Annotated" start:

-

Summary by start number:

Start 2:

- Found in 95 of 95 (100.0%) of genes in pham
- Manual Annotations of this start: 72 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ABU_16 (B1), Anderson_16 (B1), Andre_16 (B1), AngelCake_15 (B1), Apizium_15 (B1), Ashraf_15 (B1), Badfish_16 (B1), Banjo_15 (B1), Basato_17 (B1), BatteryCK_15 (B1), Caspiboi_17 (B1), Chah_16 (B1), Chipette_17 (B1), Chute_15 (B1), Colbert_16 (B1), Coletti_15 (B1), Cornbread_16 (B1), Daffy_16 (B1), DelRivs_15 (B1), Doddsville_16 (B1), DuchessDung_15 (B1), ElvisPhasley_16 (B1), Eremos_16 (B1), Etaye_16 (B1), Eugenia_16 (B1), Fang_16 (B1), FluffyNinja_16 (B1), Gophee_16 (B1), Gwennie1_16 (B1), Hamish_16 (B1), Harvey_16 (B1), ImtiyazSitla_15 (B1), Inverness_16 (B1), Iridessa_15 (B1), Iridoclysis_16 (B1), IsaacEli_16 (B1), JDog_15 (B1), Jesabah_16 (B1), KLucky39_16 (B1), Katniss_16 (B1), Khan1_16 (B1), Kikipoo_16 (B1), Lasso_16 (B1), LeiMonet_16 (B1), Longacauda_15 (B1), Lopsy_15 (B1), Mana_15 (B1), Manad_15 (B1), Maskar_15 (B1), Megamind20_16 (B1), Megatron_16 (B1), MelsMeow_15 (B1), Mesmerelda_16 (B1), Morgushi_16 (B1), MrPhizzler_15 (B1), Murdoc_16 (B1), Nathan_17 (B1), Newman_16 (B1), Numberten_16 (B1), Nyala_15 (B1), OSmaximus_16 (B1), Olive_16 (B1), OliverWalter_16 (B1), Oosterbaan_16 (B1), Orion_16 (B1), Orwigg_15 (B1), PG1_16 (B1), PhatLouie_16 (B1), Phipps_16 (B1), Pinkman_15 (B1), Plata_16 (B1), Pops_16 (B1), Potter_15 (B1), Prickles_16 (B1), Puhltonio_16 (B1), Rimu_15 (B1), Riverton_15 (B1), Scoot17C_16 (B1), Serendipity_16 (B1), Sigman_16 (B1), SilverBell_16 (B1), SirBeauregard_15 (B1), Suffolk_16 (B1), Swiphy_16 (B1), Swish_16 (B1), TallGrassMM_16 (B1), Thora_16 (B1), ThreeOh3D2_16 (B1), Thunderbird_15 (B1), TooFast2Furius_17 (B1), UncleHowie_16 (B1), Vaishali24_15 (B1), Virgeve_15 (B1), Vortex_16 (B1), Yoshand_16 (B1),

Summary by clusters:

There is one cluster represented in this pham: B1

Info for manual annotations of cluster B1:

- Start number 2 was manually annotated 72 times for cluster B1.

Gene Information:

Gene: ABU_16 Start: 13693, Stop: 13992, Start Num: 2

Candidate Starts for ABU_16:

(1, 13642), (Start: 2 @13693 has 72 MA's), (3, 13705), (4, 13708), (5, 13717), (6, 13738), (7, 13933),

Gene: Anderson_16 Start: 13686, Stop: 13985, Start Num: 2

Candidate Starts for Anderson_16:

(1, 13635), (Start: 2 @13686 has 72 MA's), (3, 13698), (4, 13701), (5, 13710), (6, 13731), (7, 13926),

Gene: Andre_16 Start: 13684, Stop: 13983, Start Num: 2

Candidate Starts for Andre_16:

(1, 13633), (Start: 2 @13684 has 72 MA's), (3, 13696), (4, 13699), (5, 13708), (6, 13729), (7, 13924),

Gene: AngelCake_15 Start: 13698, Stop: 13997, Start Num: 2

Candidate Starts for AngelCake_15:

(1, 13647), (Start: 2 @13698 has 72 MA's), (3, 13710), (4, 13713), (5, 13722), (6, 13743), (7, 13938),

Gene: Apizium_15 Start: 13430, Stop: 13729, Start Num: 2

Candidate Starts for Apizium_15:

(1, 13379), (Start: 2 @13430 has 72 MA's), (3, 13442), (4, 13445), (5, 13454), (6, 13475), (7, 13670),

Gene: Ashraf_15 Start: 13248, Stop: 13547, Start Num: 2

Candidate Starts for Ashraf_15:

(1, 13197), (Start: 2 @13248 has 72 MA's), (3, 13260), (4, 13263), (5, 13272), (6, 13293), (7, 13488),

Gene: Badfish_16 Start: 13719, Stop: 14018, Start Num: 2

Candidate Starts for Badfish_16:

(1, 13668), (Start: 2 @13719 has 72 MA's), (3, 13731), (4, 13734), (5, 13743), (6, 13764), (7, 13959),

Gene: Banjo_15 Start: 13397, Stop: 13696, Start Num: 2

Candidate Starts for Banjo_15:

(1, 13346), (Start: 2 @13397 has 72 MA's), (3, 13409), (4, 13412), (5, 13421), (6, 13442), (7, 13637),

Gene: Basato_17 Start: 13923, Stop: 14222, Start Num: 2

Candidate Starts for Basato_17:

(1, 13872), (Start: 2 @13923 has 72 MA's), (4, 13938), (5, 13947), (6, 13968), (7, 14163),

Gene: BatteryCK_15 Start: 13254, Stop: 13553, Start Num: 2

Candidate Starts for BatteryCK_15:

(1, 13203), (Start: 2 @13254 has 72 MA's), (3, 13266), (4, 13269), (5, 13278), (6, 13299), (7, 13494),

Gene: Caspiboi_17 Start: 13408, Stop: 13707, Start Num: 2

Candidate Starts for Caspiboi_17:

(1, 13357), (Start: 2 @13408 has 72 MA's), (3, 13420), (4, 13423), (5, 13432), (6, 13453), (7, 13648),

Gene: Chah_16 Start: 13720, Stop: 14019, Start Num: 2

Candidate Starts for Chah_16:

(1, 13669), (Start: 2 @13720 has 72 MA's), (3, 13732), (4, 13735), (5, 13744), (6, 13765), (7, 13960),

Gene: Chipette_17 Start: 13924, Stop: 14223, Start Num: 2

Candidate Starts for Chipette_17:

(1, 13873), (Start: 2 @13924 has 72 MA's), (4, 13939), (5, 13948), (6, 13969), (7, 14164),

Gene: Chute_15 Start: 13716, Stop: 14015, Start Num: 2
Candidate Starts for Chute_15:
(1, 13665), (Start: 2 @13716 has 72 MA's), (3, 13728), (4, 13731), (5, 13740), (6, 13761), (7, 13956),

Gene: Colbert_16 Start: 13704, Stop: 14003, Start Num: 2
Candidate Starts for Colbert_16:
(1, 13653), (Start: 2 @13704 has 72 MA's), (3, 13716), (4, 13719), (5, 13728), (6, 13749), (7, 13944),

Gene: Coletti_15 Start: 13716, Stop: 14015, Start Num: 2
Candidate Starts for Coletti_15:
(1, 13665), (Start: 2 @13716 has 72 MA's), (3, 13728), (4, 13731), (5, 13740), (6, 13761), (7, 13956),

Gene: Cornbread_16 Start: 13417, Stop: 13716, Start Num: 2
Candidate Starts for Cornbread_16:
(1, 13366), (Start: 2 @13417 has 72 MA's), (3, 13429), (4, 13432), (5, 13441), (6, 13462), (7, 13657),

Gene: Daffy_16 Start: 13426, Stop: 13725, Start Num: 2
Candidate Starts for Daffy_16:
(1, 13375), (Start: 2 @13426 has 72 MA's), (3, 13438), (4, 13441), (5, 13450), (6, 13471), (7, 13666),

Gene: DelRivs_15 Start: 13413, Stop: 13712, Start Num: 2
Candidate Starts for DelRivs_15:
(1, 13362), (Start: 2 @13413 has 72 MA's), (3, 13425), (4, 13428), (5, 13437), (6, 13458), (7, 13653),

Gene: Doddsville_16 Start: 13414, Stop: 13713, Start Num: 2
Candidate Starts for Doddsville_16:
(1, 13363), (Start: 2 @13414 has 72 MA's), (3, 13426), (4, 13429), (5, 13438), (6, 13459), (7, 13654),

Gene: DuchessDung_15 Start: 13254, Stop: 13553, Start Num: 2
Candidate Starts for DuchessDung_15:
(1, 13203), (Start: 2 @13254 has 72 MA's), (3, 13266), (4, 13269), (5, 13278), (6, 13299), (7, 13494),

Gene: ElvisPhasley_16 Start: 13714, Stop: 14013, Start Num: 2
Candidate Starts for ElvisPhasley_16:
(1, 13663), (Start: 2 @13714 has 72 MA's), (3, 13726), (4, 13729), (5, 13738), (6, 13759), (7, 13954),

Gene: Eremos_16 Start: 13701, Stop: 14000, Start Num: 2
Candidate Starts for Eremos_16:
(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Etaye_16 Start: 13686, Stop: 13985, Start Num: 2
Candidate Starts for Etaye_16:
(1, 13635), (Start: 2 @13686 has 72 MA's), (3, 13698), (4, 13701), (5, 13710), (6, 13731), (7, 13926),

Gene: Eugenia_16 Start: 13714, Stop: 14013, Start Num: 2
Candidate Starts for Eugenia_16:
(1, 13663), (Start: 2 @13714 has 72 MA's), (3, 13726), (4, 13729), (5, 13738), (6, 13759), (7, 13954),

Gene: Fang_16 Start: 13717, Stop: 14016, Start Num: 2
Candidate Starts for Fang_16:
(1, 13666), (Start: 2 @13717 has 72 MA's), (3, 13729), (4, 13732), (5, 13741), (6, 13762), (7, 13957),

Gene: FluffyNinja_16 Start: 13705, Stop: 14004, Start Num: 2
Candidate Starts for FluffyNinja_16:
(1, 13654), (Start: 2 @13705 has 72 MA's), (3, 13717), (4, 13720), (5, 13729), (6, 13750), (7, 13945),

Gene: Gophee_16 Start: 13686, Stop: 13985, Start Num: 2
Candidate Starts for Gophee_16:
(1, 13635), (Start: 2 @13686 has 72 MA's), (3, 13698), (4, 13701), (5, 13710), (6, 13731), (7, 13926),

Gene: Gwennie1_16 Start: 13725, Stop: 14024, Start Num: 2
Candidate Starts for Gwennie1_16:
(1, 13674), (Start: 2 @13725 has 72 MA's), (3, 13737), (4, 13740), (5, 13749), (6, 13770), (7, 13965),

Gene: Hamish_16 Start: 13695, Stop: 13994, Start Num: 2
Candidate Starts for Hamish_16:
(1, 13644), (Start: 2 @13695 has 72 MA's), (3, 13707), (4, 13710), (5, 13719), (6, 13740), (7, 13935),

Gene: Harvey_16 Start: 13723, Stop: 14022, Start Num: 2
Candidate Starts for Harvey_16:
(1, 13672), (Start: 2 @13723 has 72 MA's), (3, 13735), (4, 13738), (5, 13747), (6, 13768), (7, 13963),

Gene: ImtiyazSitla_15 Start: 13248, Stop: 13547, Start Num: 2
Candidate Starts for ImtiyazSitla_15:
(1, 13197), (Start: 2 @13248 has 72 MA's), (3, 13260), (4, 13263), (5, 13272), (6, 13293), (7, 13488),

Gene: Inverness_16 Start: 13709, Stop: 14008, Start Num: 2
Candidate Starts for Inverness_16:
(1, 13658), (Start: 2 @13709 has 72 MA's), (3, 13721), (4, 13724), (5, 13733), (6, 13754), (7, 13949),

Gene: Iridessa_15 Start: 13377, Stop: 13676, Start Num: 2
Candidate Starts for Iridessa_15:
(1, 13326), (Start: 2 @13377 has 72 MA's), (3, 13389), (4, 13392), (5, 13401), (6, 13422), (7, 13617),

Gene: Iridoclysis_16 Start: 13681, Stop: 13980, Start Num: 2
Candidate Starts for Iridoclysis_16:
(1, 13630), (Start: 2 @13681 has 72 MA's), (3, 13693), (4, 13696), (5, 13705), (6, 13726), (7, 13921),

Gene: IsaacEli_16 Start: 13713, Stop: 14012, Start Num: 2
Candidate Starts for IsaacEli_16:
(1, 13662), (Start: 2 @13713 has 72 MA's), (3, 13725), (4, 13728), (5, 13737), (6, 13758), (7, 13953),

Gene: JDog_15 Start: 13416, Stop: 13715, Start Num: 2
Candidate Starts for JDog_15:
(1, 13365), (Start: 2 @13416 has 72 MA's), (3, 13428), (4, 13431), (5, 13440), (6, 13461), (7, 13656),

Gene: Jesabah_16 Start: 13421, Stop: 13720, Start Num: 2
Candidate Starts for Jesabah_16:
(1, 13370), (Start: 2 @13421 has 72 MA's), (3, 13433), (4, 13436), (5, 13445), (6, 13466), (7, 13661),

Gene: KLucky39_16 Start: 13701, Stop: 14000, Start Num: 2
Candidate Starts for KLucky39_16:
(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Katniss_16 Start: 13720, Stop: 14019, Start Num: 2

Candidate Starts for Katniss_16:

(1, 13669), (Start: 2 @13720 has 72 MA's), (3, 13732), (4, 13735), (5, 13744), (6, 13765), (7, 13960),

Gene: Khan1_16 Start: 13416, Stop: 13715, Start Num: 2

Candidate Starts for Khan1_16:

(1, 13365), (Start: 2 @13416 has 72 MA's), (3, 13428), (4, 13431), (5, 13440), (6, 13461), (7, 13656),

Gene: Kikipoo_16 Start: 13713, Stop: 14012, Start Num: 2

Candidate Starts for Kikipoo_16:

(1, 13662), (Start: 2 @13713 has 72 MA's), (3, 13725), (4, 13728), (5, 13737), (6, 13758), (7, 13953),

Gene: Lasso_16 Start: 13680, Stop: 13979, Start Num: 2

Candidate Starts for Lasso_16:

(1, 13629), (Start: 2 @13680 has 72 MA's), (3, 13692), (4, 13695), (5, 13704), (6, 13725), (7, 13920),

Gene: LeiMonet_16 Start: 13410, Stop: 13709, Start Num: 2

Candidate Starts for LeiMonet_16:

(1, 13359), (Start: 2 @13410 has 72 MA's), (3, 13422), (4, 13425), (5, 13434), (6, 13455), (7, 13650),

Gene: Longacauda_15 Start: 13404, Stop: 13703, Start Num: 2

Candidate Starts for Longacauda_15:

(1, 13353), (Start: 2 @13404 has 72 MA's), (3, 13416), (4, 13419), (5, 13428), (6, 13449), (7, 13644),

Gene: Lopsy_15 Start: 13260, Stop: 13559, Start Num: 2

Candidate Starts for Lopsy_15:

(1, 13209), (Start: 2 @13260 has 72 MA's), (3, 13272), (4, 13275), (5, 13284), (6, 13305), (7, 13500),

Gene: Mana_15 Start: 13408, Stop: 13707, Start Num: 2

Candidate Starts for Mana_15:

(1, 13357), (Start: 2 @13408 has 72 MA's), (3, 13420), (4, 13423), (5, 13432), (6, 13453), (7, 13648),

Gene: Manad_15 Start: 13258, Stop: 13557, Start Num: 2

Candidate Starts for Manad_15:

(1, 13207), (Start: 2 @13258 has 72 MA's), (4, 13273), (5, 13282), (6, 13303), (7, 13498),

Gene: Maskar_15 Start: 13248, Stop: 13547, Start Num: 2

Candidate Starts for Maskar_15:

(1, 13197), (Start: 2 @13248 has 72 MA's), (3, 13260), (4, 13263), (5, 13272), (6, 13293), (7, 13488),

Gene: Megamind20_16 Start: 13421, Stop: 13720, Start Num: 2

Candidate Starts for Megamind20_16:

(1, 13370), (Start: 2 @13421 has 72 MA's), (3, 13433), (4, 13436), (5, 13445), (6, 13466), (7, 13661),

Gene: Megatron_16 Start: 13701, Stop: 14000, Start Num: 2

Candidate Starts for Megatron_16:

(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: MelsMeow_15 Start: 13260, Stop: 13559, Start Num: 2

Candidate Starts for MelsMeow_15:

(1, 13209), (Start: 2 @13260 has 72 MA's), (3, 13272), (4, 13275), (5, 13284), (6, 13305), (7, 13500),

Gene: Mesmerelda_16 Start: 13402, Stop: 13701, Start Num: 2

Candidate Starts for Mesmerelda_16:

(1, 13351), (Start: 2 @13402 has 72 MA's), (3, 13414), (4, 13417), (5, 13426), (6, 13447), (7, 13642),

Gene: Morgushi_16 Start: 13412, Stop: 13711, Start Num: 2

Candidate Starts for Morgushi_16:

(1, 13361), (Start: 2 @13412 has 72 MA's), (3, 13424), (4, 13427), (5, 13436), (6, 13457), (7, 13652),

Gene: MrPhizzler_15 Start: 13413, Stop: 13712, Start Num: 2

Candidate Starts for MrPhizzler_15:

(1, 13362), (Start: 2 @13413 has 72 MA's), (3, 13425), (4, 13428), (5, 13437), (6, 13458), (7, 13653),

Gene: Murdoc_16 Start: 13701, Stop: 14000, Start Num: 2

Candidate Starts for Murdoc_16:

(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Nathan_17 Start: 13711, Stop: 14010, Start Num: 2

Candidate Starts for Nathan_17:

(1, 13660), (Start: 2 @13711 has 72 MA's), (3, 13723), (4, 13726), (5, 13735), (6, 13756), (7, 13951),

Gene: Newman_16 Start: 13701, Stop: 14000, Start Num: 2

Candidate Starts for Newman_16:

(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Numberten_16 Start: 13704, Stop: 14003, Start Num: 2

Candidate Starts for Numberten_16:

(1, 13653), (Start: 2 @13704 has 72 MA's), (3, 13716), (4, 13719), (5, 13728), (6, 13749), (7, 13944),

Gene: Nyala_15 Start: 13403, Stop: 13702, Start Num: 2

Candidate Starts for Nyala_15:

(1, 13352), (Start: 2 @13403 has 72 MA's), (3, 13415), (4, 13418), (5, 13427), (6, 13448), (7, 13643),

Gene: OSmaximus_16 Start: 13711, Stop: 14010, Start Num: 2

Candidate Starts for OSmaximus_16:

(1, 13660), (Start: 2 @13711 has 72 MA's), (3, 13723), (4, 13726), (5, 13735), (6, 13756), (7, 13951),

Gene: Olive_16 Start: 13692, Stop: 13991, Start Num: 2

Candidate Starts for Olive_16:

(1, 13641), (Start: 2 @13692 has 72 MA's), (3, 13704), (4, 13707), (5, 13716), (6, 13737), (7, 13932),

Gene: OliverWalter_16 Start: 13709, Stop: 14008, Start Num: 2

Candidate Starts for OliverWalter_16:

(1, 13658), (Start: 2 @13709 has 72 MA's), (4, 13724), (5, 13733), (6, 13754), (7, 13949),

Gene: Oosterbaan_16 Start: 13702, Stop: 14001, Start Num: 2

Candidate Starts for Oosterbaan_16:

(1, 13651), (Start: 2 @13702 has 72 MA's), (3, 13714), (4, 13717), (5, 13726), (6, 13747), (7, 13942),

Gene: Orion_16 Start: 13702, Stop: 14001, Start Num: 2

Candidate Starts for Orion_16:

(1, 13651), (Start: 2 @13702 has 72 MA's), (3, 13714), (4, 13717), (5, 13726), (6, 13747), (7, 13942),

Gene: Orwigg_15 Start: 13394, Stop: 13693, Start Num: 2

Candidate Starts for Orwigg_15:

(1, 13343), (Start: 2 @13394 has 72 MA's), (3, 13406), (4, 13409), (5, 13418), (6, 13439), (7, 13634),

Gene: PG1_16 Start: 13714, Stop: 14013, Start Num: 2
Candidate Starts for PG1_16:
(1, 13663), (Start: 2 @13714 has 72 MA's), (3, 13726), (4, 13729), (5, 13738), (6, 13759), (7, 13954),

Gene: PhatLouie_16 Start: 13701, Stop: 14000, Start Num: 2
Candidate Starts for PhatLouie_16:
(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Phipps_16 Start: 13680, Stop: 13979, Start Num: 2
Candidate Starts for Phipps_16:
(1, 13629), (Start: 2 @13680 has 72 MA's), (3, 13692), (4, 13695), (5, 13704), (6, 13725), (7, 13920),

Gene: Pinkman_15 Start: 13260, Stop: 13559, Start Num: 2
Candidate Starts for Pinkman_15:
(1, 13209), (Start: 2 @13260 has 72 MA's), (3, 13272), (4, 13275), (5, 13284), (6, 13305), (7, 13500),

Gene: Plata_16 Start: 13416, Stop: 13715, Start Num: 2
Candidate Starts for Plata_16:
(1, 13365), (Start: 2 @13416 has 72 MA's), (3, 13428), (4, 13431), (5, 13440), (6, 13461),

Gene: Pops_16 Start: 13704, Stop: 14003, Start Num: 2
Candidate Starts for Pops_16:
(1, 13653), (Start: 2 @13704 has 72 MA's), (3, 13716), (4, 13719), (5, 13728), (6, 13749), (7, 13944),

Gene: Potter_15 Start: 13415, Stop: 13714, Start Num: 2
Candidate Starts for Potter_15:
(1, 13364), (Start: 2 @13415 has 72 MA's), (3, 13427), (4, 13430), (5, 13439), (6, 13460), (7, 13655),

Gene: Prickles_16 Start: 13695, Stop: 13994, Start Num: 2
Candidate Starts for Prickles_16:
(1, 13644), (Start: 2 @13695 has 72 MA's), (4, 13710), (5, 13719), (6, 13740), (7, 13935),

Gene: Puhltonio_16 Start: 13710, Stop: 14009, Start Num: 2
Candidate Starts for Puhltonio_16:
(1, 13659), (Start: 2 @13710 has 72 MA's), (3, 13722), (4, 13725), (5, 13734), (6, 13755), (7, 13950),

Gene: Rimu_15 Start: 13413, Stop: 13712, Start Num: 2
Candidate Starts for Rimu_15:
(1, 13362), (Start: 2 @13413 has 72 MA's), (3, 13425), (4, 13428), (5, 13437), (6, 13458), (7, 13653),

Gene: Riverton_15 Start: 13707, Stop: 14006, Start Num: 2
Candidate Starts for Riverton_15:
(1, 13656), (Start: 2 @13707 has 72 MA's), (4, 13722), (5, 13731), (6, 13752), (7, 13947),

Gene: Scoot17C_16 Start: 13702, Stop: 14001, Start Num: 2
Candidate Starts for Scoot17C_16:
(1, 13651), (Start: 2 @13702 has 72 MA's), (3, 13714), (4, 13717), (5, 13726), (6, 13747), (7, 13942),

Gene: Serendipity_16 Start: 13722, Stop: 14021, Start Num: 2
Candidate Starts for Serendipity_16:
(1, 13671), (Start: 2 @13722 has 72 MA's), (3, 13734), (4, 13737), (5, 13746), (6, 13767), (7, 13962),

Gene: Sigman_16 Start: 13692, Stop: 13991, Start Num: 2
Candidate Starts for Sigman_16:
(1, 13641), (Start: 2 @13692 has 72 MA's), (3, 13704), (4, 13707), (5, 13716), (6, 13737), (7, 13932),

Gene: SilverBell_16 Start: 13707, Stop: 14006, Start Num: 2
Candidate Starts for SilverBell_16:
(1, 13656), (Start: 2 @13707 has 72 MA's), (3, 13719), (4, 13722), (5, 13731), (6, 13752), (7, 13947),

Gene: SirBeauregard_15 Start: 13368, Stop: 13667, Start Num: 2
Candidate Starts for SirBeauregard_15:
(1, 13317), (Start: 2 @13368 has 72 MA's), (3, 13380), (4, 13383), (5, 13392), (6, 13413), (7, 13608),

Gene: Suffolk_16 Start: 13700, Stop: 13999, Start Num: 2
Candidate Starts for Suffolk_16:
(1, 13649), (Start: 2 @13700 has 72 MA's), (3, 13712), (4, 13715), (5, 13724), (6, 13745), (7, 13940),

Gene: Swiphy_16 Start: 13701, Stop: 14000, Start Num: 2
Candidate Starts for Swiphy_16:
(1, 13650), (Start: 2 @13701 has 72 MA's), (3, 13713), (4, 13716), (5, 13725), (6, 13746), (7, 13941),

Gene: Swish_16 Start: 13696, Stop: 13995, Start Num: 2
Candidate Starts for Swish_16:
(1, 13645), (Start: 2 @13696 has 72 MA's), (3, 13708), (4, 13711), (5, 13720), (6, 13741), (7, 13936),

Gene: TallGrassMM_16 Start: 13426, Stop: 13725, Start Num: 2
Candidate Starts for TallGrassMM_16:
(1, 13375), (Start: 2 @13426 has 72 MA's), (3, 13438), (4, 13441), (5, 13450), (6, 13471), (7, 13666),

Gene: Thora_16 Start: 13710, Stop: 14009, Start Num: 2
Candidate Starts for Thora_16:
(1, 13659), (Start: 2 @13710 has 72 MA's), (3, 13722), (4, 13725), (5, 13734), (6, 13755), (7, 13950),

Gene: ThreeOh3D2_16 Start: 13711, Stop: 14010, Start Num: 2
Candidate Starts for ThreeOh3D2_16:
(1, 13660), (Start: 2 @13711 has 72 MA's), (3, 13723), (4, 13726), (5, 13735), (6, 13756), (7, 13951),

Gene: Thunderbird_15 Start: 13410, Stop: 13709, Start Num: 2
Candidate Starts for Thunderbird_15:
(1, 13359), (Start: 2 @13410 has 72 MA's), (4, 13425), (5, 13434), (6, 13455), (7, 13650),

Gene: TooFast2Furius_17 Start: 13942, Stop: 14241, Start Num: 2
Candidate Starts for TooFast2Furius_17:
(1, 13891), (Start: 2 @13942 has 72 MA's), (3, 13954), (4, 13957), (5, 13966), (6, 13987), (7, 14182),

Gene: UncleHowie_16 Start: 13408, Stop: 13707, Start Num: 2
Candidate Starts for UncleHowie_16:
(1, 13357), (Start: 2 @13408 has 72 MA's), (3, 13420), (4, 13423), (5, 13432), (6, 13453), (7, 13648),

Gene: Vaishali24_15 Start: 13361, Stop: 13660, Start Num: 2
Candidate Starts for Vaishali24_15:
(1, 13310), (Start: 2 @13361 has 72 MA's), (3, 13373), (4, 13376), (5, 13385), (6, 13406), (7, 13601),

Gene: Virgeve_15 Start: 13414, Stop: 13713, Start Num: 2

Candidate Starts for Virgeve_15:

(1, 13363), (Start: 2 @13414 has 72 MA's), (3, 13426), (4, 13429), (5, 13438), (6, 13459), (7, 13654),

Gene: Vortex_16 Start: 13415, Stop: 13714, Start Num: 2

Candidate Starts for Vortex_16:

(1, 13364), (Start: 2 @13415 has 72 MA's), (3, 13427), (4, 13430), (5, 13439), (6, 13460), (7, 13655),

Gene: Yoshand_16 Start: 13705, Stop: 14004, Start Num: 2

Candidate Starts for Yoshand_16:

(1, 13654), (Start: 2 @13705 has 72 MA's), (3, 13717), (4, 13720), (5, 13729), (6, 13750), (7, 13945),