

Pham 193778



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 193778 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193778 has 171 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Ebony_57, Bud_57, Flaverint_58, Mulciber_57, Snape_57, Fibonacci_57, Munch_58, Orange_57, Gilberta_58, Hutc2_57, Insomnia_58, Bowtie_58, Jabith_58, Timothy_57, TinyTimmy_57, Aneem_58, Joselito_58, Salz_56, Lucivia_58, Petersenfast_56, Et2Brutus_56, Sham4_57
- Track 2 : MaCh_58, Bachome_59
- Track 3 : Mabel_57
- Track 4 : Steamy_54
- Track 5 : DarthPhader_54
- Track 6 : Pharaoh_53
- Track 7 : Refugee_56, Zimmer_55
- Track 8 : Phlei_47
- Track 9 : LastResort_62, Strosahl_64, Waits_64, Epsocamisio_61, ReMo_62, Rosalind_62, Remus_64, JSwag_63, Looper_63
- Track 10 : Battleship_66, DekHockey33_65, ShayRa_64, Soups_64, Switzerland_63
- Track 11 : MinecraftSteve_64, KatherineG_64
- Track 12 : Anon_61
- Track 13 : Oofda_65
- Track 14 : Nebulosus_62, Anaysia_64, Boohoo_64
- Track 15 : Nedarya_60
- Track 16 : EagleEye_60
- Track 17 : PainterBoy_59
- Track 18 : Lucyedi_59
- Track 19 : 40AC_59
- Track 20 : Crucio_58, Benvolio_55, ChipMunk_60, EvilGenius_60, LiITurb_59, FiringLine_58, Smeagan_61, Echild_58, Dignity_60, Whabigail7_59, Power_57, SnapTap_58, Leviathan_60, KingCyrus_60, QueenBeesly_58, Jerm_60, SemperFi_59, Agape74_60
- Track 21 : Adzzy_59
- Track 22 : Travvers_60, Pomar16_60, D29_56, D32_59, Kerberos_60, DBQu4n_60, Tomathan_60, Naji_60, Duplo_60, StarStuff_60
- Track 23 : Heffalump_57, Fameo_58, QueenB2_57
- Track 24 : Bugsy_60
- Track 25 : C3_56, AN9_61, VC3_61, ANI8_61
- Track 26 : Dalmatian_59, Retro23_59, DudeLittle_57, Anselm_59
- Track 27 : Georgie2_59, AbbyPaige_60, Turbido_59, SweetiePie_58
- Track 28 : MajorMajor_57, Jsquared_56, Bradman_57, Quokka_56

- Track 29 : Acolyte_53
- Track 30 : BobSwaget_54, Rachaly_57, Lokk_55
- Track 31 : TopsytheTRex_54
- Track 32 : Larenn_57, Malec_58
- Track 33 : SwirlSquare_63
- Track 34 : Odin_56, Superchunk_56, Caraxes_58
- Track 35 : Ph8s_59
- Track 36 : Miko_55
- Track 37 : MissWhite_57
- Track 38 : Herbertwm_56
- Track 39 : L5_56, Koduck_59
- Track 40 : Serenity_58
- Track 41 : NothingSpecial_56
- Track 42 : Che12_59
- Track 43 : Journey13_52
- Track 44 : Anthony_54
- Track 45 : Arissanae_57
- Track 46 : Lilleskat_56, Pioneer_58, Spouty_58, Priya_58, RyeScarlet_59, Eidsmoe_58, EmyBug_57, Myxus_58, Beemo_58, Aliter_58, Ugenie5_55, PackMan_57, Phaeder_58, Qobbit_58, Onglai_56, Scherzo_58, HortumSL17_58, Conquerage_58, Alma_58, Fayely_58, Phonnegut_58, Catalina_59, Sachima_55, Jiawan_56, Tubs_58
- Track 47 : SheaKeira_56
- Track 48 : Rahalelujah_58
- Track 49 : Maminiaina_57, BogosyJay_57
- Track 50 : Hanray_56, Halex_57, EdogawaKiddo_56
- Track 51 : Vanisoa_58
- Track 52 : ExplosioNervosa_58
- Track 53 : Charm_56, DreamTeam1_56
- Track 54 : Toaka_58
- Track 55 : Elephantoon_57
- Track 56 : LoneWolf_59
- Track 57 : Keziacharles14_58
- Track 58 : Darrell_60
- Track 59 : Yecey3_59

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

The start number called the most often in the published annotations is 14, it was called in 125 of the 152 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 40AC_59, AbbyPaige_60, Acolyte_53, Adzzy_59, Agape74_60, Aliter_58, Alma_58, Aneem_58, Anselm_59, Anthony_54, Arissanae_57, Bachome_59, Beemo_58, Benvolio_55, BobSwaget_54, BogosyJay_57, Bowtie_58, Bradman_57, Bud_57, Buggy_60, Caraxes_58, Catalina_59, Charm_56, Che12_59, ChipMunk_60, Conquerage_58, Crucio_58, D29_56, D32_59, DBQu4n_60, Dalmatian_59, Darrell_60, DarthPhader_54, Dignity_60, DreamTeam1_56, DudeLittle_57, Duplo_60, EagleEye_60, Ebony_57, Echild_58, Eidsmoe_58, Elephantoon_57, EmyBug_57, Et2Brutus_56, EvilGenius_60, Fameo_58, Fayely_58, Fibonacci_57, FiringLine_58,

Flaverint_58, Georgie2_59, Gilberta_58, Heffalump_57, Herbertwm_56, HortumSL17_58, Hutc2_57, Insomnia_58, Jabith_58, Jerm_60, Jiawan_56, Joselito_58, Journey13_52, Jsquared_56, Kerberos_60, Keziacharles14_58, KingCyrus_60, Larenn_57, Leviathan_60, LilTurb_59, Lilleskat_56, Lökk_55, LoneWolf_59, Lucivia_58, MaCh_58, Mabel_57, MajorMajor_57, Malec_58, Maminiaina_57, Miko_55, MissWhite_57, Mulciber_57, Munch_58, Myxus_58, Naji_60, Nedarya_60, NothingSpecial_56, Odin_56, Onglai_56, Orange_57, PackMan_57, PainterBoy_59, Petersenfast_56, Ph8s_59, Phaeder_58, Pharaoh_53, Phlei_47, Phonnegut_58, Pioneer_58, Pomar16_60, Power_57, Priya_58, Qobbit_58, QueenB2_57, QueenBeesly_58, Quokka_56, Rachaly_57, Rahalelujah_58, Refuge_56, Retro23_59, RyeScarlet_59, Sachima_55, Salz_56, Scherzo_58, SemperFi_59, Serenity_58, Sham4_57, SheaKeira_56, Smeagan_61, SnapTap_58, Snape_57, Spouty_58, StarStuff_60, Steamy_54, Superchunk_56, SweetiePie_58, SwirlSquare_63, Timothy_57, TinyTimmy_57, TopsytheTRex_54, Toaka_58, Tomathan_60, Travvers_60, Tubs_58, Turbido_59, Ugenie5_55, Vanisoa_58, Whabigail7_59, Yecey3_59, Zimmer_55,

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

- AN9_61, ANI8_61, C3_56, EdogawaKiddo_56, ExplosioNervosa_58, Hanray_56, Horex_57, Koduck_59, L5_56, Lucyedi_59, VC3_61,

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

- Anaysia_64, Anon_61, Battleship_66, Boohoo_64, DekHockey33_65, Epsocamisio_61, JSwag_63, KatherineG_64, LastResort_62, Looper_63, MinecraftSteve_64, Nebulosus_62, Oofda_65, ReMo_62, Remus_64, Rosalind_62, ShayRa_64, Soups_64, Strosahl_64, Switzerland_63, Waits_64,

Summary by start number:

Start 11:

- Found in 2 of 171 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Koduck_59 (A2), L5_56 (A2),

Start 12:

- Found in 4 of 171 (2.3%) of genes in pham
- Manual Annotations of this start: 4 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AN9_61 (A2), ANI8_61 (A2), C3_56 (A2), VC3_61 (A2),

Start 14:

- Found in 150 of 171 (87.7%) of genes in pham
- Manual Annotations of this start: 125 of 152
- Called 92.7% of time when present
- Phage (with cluster) where this start called: 40AC_59 (A17), AbbyPaige_60 (A2), Acolyte_53 (A2), Adzzy_59 (A2), Agape74_60 (A2), Aliter_58 (A9), Alma_58 (A9), Aneem_58 (A11), Anselm_59 (A2), Anthony_54 (A20), Arissanee_57 (A9), Bachome_59 (A11), Beemo_58 (A9), Benvolio_55 (A2), BobSwaget_54 (A2), BogosyJay_57 (A9), Bowtie_58 (A11), Bradman_57 (A2), Bud_57 (A11), Buggy_60 (A2), Caraxes_58 (A2), Catalina_59 (A9), Charm_56 (A9), Che12_59 (A2), ChipMunk_60 (A2), Conquerage_58 (A9), Crucio_58 (A2), D29_56 (A2), D32_59

(A2), DBQu4n_60 (A2), Dalmatian_59 (A2), Darrell_60 (A9), DARTHPhader_54 (A12), Dignity_60 (A2), DreamTeam1_56 (A9), DudeLittle_57 (A2), Duplo_60 (A2), EagleEye_60 (A16), Ebony_57 (A11), Echild_58 (A2), Eidsmoe_58 (A9), Elephantoon_57 (A9), EmyBug_57 (A9), Et2Brutus_56 (A11), EvilGenius_60 (A2), Fameo_58 (A2), Fayely_58 (A9), Fibonacci_57 (A11), FiringLine_58 (A2), Flaverint_58 (A11), Georgie2_59 (A2), Gilberta_58 (A11), Heffalump_57 (A2), Herbertwm_56 (A2), HortumSL17_58 (A9), Hutc2_57 (A11), Insomnia_58 (A11), Jabith_58 (A11), Jerm_60 (A2), Jiawan_56 (A9), Joselito_58 (A11), Journey13_52 (A2), Jsquared_56 (A2), Kerberos_60 (A2), Keziacharles14_58 (A9), KingCyrus_60 (A2), Larenn_57 (A2), Leviathan_60 (A2), LiTurb_59 (A2), Lilleskat_56 (A9), Lokk_55 (A2), LoneWolf_59 (A9), Lucivia_58 (A11), MaCh_58 (A11), Mabel_57 (A11), MajorMajor_57 (A2), Malec_58 (A2), Maminaiaina_57 (A9), Miko_55 (A2), MissWhite_57 (A2), Mulciber_57 (A11), Munch_58 (A11), Myxus_58 (A9), Naji_60 (A2), Nedarya_60 (A15), NothingSpecial_56 (A2), Odin_56 (A2), Onglai_56 (A9), Orange_57 (A11), PackMan_57 (A9), PainterBoy_59 (A16), Petersenfast_56 (A11), Ph8s_59 (A2), Phaeder_58 (A9), Pharaoh_53 (A12), Phlei_47 (A13), Phonnegut_58 (A9), Pioneer_58 (A9), Pomar16_60 (A2), Power_57 (A2), Priya_58 (A9), Qobbit_58 (A9), QueenB2_57 (A2), QueenBeesly_58 (A2), Quokka_56 (A2), Rachaly_57 (A2), Rahalelujah_58 (A9), Refuge_56 (A12), Retro23_59 (A2), RyeScarlet_59 (A9), Sachima_55 (A9), Salz_56 (A11), Scherzo_58 (A9), SemperFi_59 (A2), Serenity_58 (A2), Sham4_57 (A11), SheaKeira_56 (A9), Smeagan_61 (A2), SnapTap_58 (A2), Snape_57 (A11), Spouty_58 (A9), StarStuff_60 (A2), Steamy_54 (A12), Superchunk_56 (A2), SweetiePie_58 (A2), SwirlSquare_63 (A2), Timothy_57 (A11), TinyTimmy_57 (A11), TopsytheTRex_54 (A2), Toaka_58 (A9), Tomathan_60 (A2), Travvers_60 (A2), Tubs_58 (A9), Turbido_59 (A2), Ugenie5_55 (A9), Vanisoa_58 (A9), Whabigail7_59 (A2), Yecey3_59 (A9), Zimmer_55 (A12),

Start 15:

- Found in 20 of 171 (11.7%) of genes in pham
- Manual Annotations of this start: 19 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia_64 (A15), Battleship_66 (A15), Boohoo_64 (A15), DekHockey33_65 (A15), Epsocamisio_61 (A15), JSwag_63 (A15), KatherineG_64 (A15), LastResort_62 (A15), Looper_63 (A15), MinecraftSteve_64 (A15), Nebulosus_62 (A15), Oofda_65 (A15), ReMo_62 (A15), Remus_64 (A15), Rosalind_62 (A15), ShayRa_64 (A15), Soups_64 (A15), Strosahl_64 (A15), Switzerland_63 (A15), Waits_64 (A15),

Start 16:

- Found in 3 of 171 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 152
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Anon_61 (A15), Lucyedi_59 (A16),

Start 17:

- Found in 123 of 171 (71.9%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 0.8% of time when present
- Phage (with cluster) where this start called: ExplosioNervosa_58 (A9),

Start 23:

- Found in 41 of 171 (24.0%) of genes in pham
- No Manual Annotations of this start.

- Called 7.3% of time when present
- Phage (with cluster) where this start called: EdogawaKiddo_56 (A9), Hanray_56 (A9), Holecx_57 (A9),

Summary by clusters:

There are 9 clusters represented in this pham: A15, A20, A17, A16, A11, A13, A12, A2, A9,

Info for manual annotations of cluster A11:

- Start number 14 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 14 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A15:

- Start number 14 was manually annotated 1 time for cluster A15.
- Start number 15 was manually annotated 19 times for cluster A15.
- Start number 16 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A16:

- Start number 14 was manually annotated 2 times for cluster A16.
- Start number 16 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A2:

- Start number 11 was manually annotated 1 time for cluster A2.
- Start number 12 was manually annotated 4 times for cluster A2.
- Start number 14 was manually annotated 58 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 14 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A9:

- Start number 14 was manually annotated 34 times for cluster A9.
- Start number 17 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: 40AC_59 Start: 39531, Stop: 39259, Start Num: 14

Candidate Starts for 40AC_59:

(Start: 14 @39531 has 125 MA's), (18, 39510), (19, 39504), (28, 39417), (33, 39381), (39, 39351),

Gene: AN9_61 Start: 38705, Stop: 38394, Start Num: 12

Candidate Starts for AN9_61:

(Start: 12 @38705 has 4 MA's), (Start: 14 @38666 has 125 MA's), (Start: 17 @38657 has 1 MA's), (25, 38564), (33, 38516), (39, 38486),

Gene: ANI8_61 Start: 38705, Stop: 38394, Start Num: 12

Candidate Starts for ANI8_61:

(Start: 12 @38705 has 4 MA's), (Start: 14 @38666 has 125 MA's), (Start: 17 @38657 has 1 MA's), (25, 38564), (33, 38516), (39, 38486),

Gene: AbbyPaige_60 Start: 38775, Stop: 38503, Start Num: 14

Candidate Starts for AbbyPaige_60:

(Start: 14 @38775 has 125 MA's), (Start: 17 @38766 has 1 MA's), (18, 38754), (19, 38748),

Gene: Acolyte_53 Start: 37597, Stop: 37325, Start Num: 14

Candidate Starts for Acolyte_53:

(Start: 14 @37597 has 125 MA's), (Start: 17 @37588 has 1 MA's), (18, 37576), (19, 37570), (22, 37534), (26, 37492), (33, 37447),

Gene: Adzzy_59 Start: 37247, Stop: 36975, Start Num: 14

Candidate Starts for Adzzy_59:

(Start: 14 @37247 has 125 MA's), (22, 37184), (27, 37136), (33, 37097), (36, 37085), (39, 37067),

Gene: Agape74_60 Start: 38769, Stop: 38497, Start Num: 14

Candidate Starts for Agape74_60:

(Start: 14 @38769 has 125 MA's), (Start: 17 @38760 has 1 MA's), (18, 38748), (19, 38742), (33, 38619),

Gene: Aliter_58 Start: 38153, Stop: 37881, Start Num: 14

Candidate Starts for Aliter_58:

(Start: 14 @38153 has 125 MA's), (Start: 17 @38144 has 1 MA's), (23, 38087), (25, 38051), (31, 38012), (37, 37985), (39, 37973),

Gene: Alma_58 Start: 38528, Stop: 38256, Start Num: 14

Candidate Starts for Alma_58:

(Start: 14 @38528 has 125 MA's), (Start: 17 @38519 has 1 MA's), (23, 38462), (25, 38426), (31, 38387), (37, 38360), (39, 38348),

Gene: Anaysia_64 Start: 37667, Stop: 37398, Start Num: 15

Candidate Starts for Anaysia_64:

(2, 38111), (3, 38087), (4, 38009), (Start: 15 @37667 has 19 MA's), (39, 37490), (44, 37451),

Gene: Aneem_58 Start: 37786, Stop: 37514, Start Num: 14

Candidate Starts for Aneem_58:

(Start: 14 @37786 has 125 MA's), (Start: 17 @37777 has 1 MA's), (39, 37606),

Gene: Anon_61 Start: 37216, Stop: 36947, Start Num: 16

Candidate Starts for Anon_61:

(Start: 16 @37216 has 2 MA's), (32, 37075), (43, 37018), (47, 36982),

Gene: Anselm_59 Start: 38676, Stop: 38404, Start Num: 14

Candidate Starts for Anselm_59:

(Start: 14 @38676 has 125 MA's), (Start: 17 @38667 has 1 MA's), (18, 38655), (19, 38649), (33, 38526), (39, 38496),

Gene: Anthony_54 Start: 36233, Stop: 35961, Start Num: 14

Candidate Starts for Anthony_54:

(Start: 14 @36233 has 125 MA's), (Start: 17 @36224 has 1 MA's), (19, 36206), (20, 36185), (39, 36053),

Gene: Arissanae_57 Start: 38844, Stop: 38572, Start Num: 14

Candidate Starts for Arissanae_57:

(Start: 14 @38844 has 125 MA's), (Start: 17 @38835 has 1 MA's), (22, 38781), (25, 38742), (33, 38694),

Gene: Bachome_59 Start: 37766, Stop: 37494, Start Num: 14

Candidate Starts for Bachome_59:

(Start: 14 @37766 has 125 MA's), (Start: 17 @37757 has 1 MA's), (33, 37616),

Gene: Battleship_66 Start: 37873, Stop: 37604, Start Num: 15

Candidate Starts for Battleship_66:

(2, 38317), (4, 38215), (Start: 15 @37873 has 19 MA's), (39, 37696),

Gene: Beemo_58 Start: 38323, Stop: 38051, Start Num: 14

Candidate Starts for Beemo_58:

(Start: 14 @38323 has 125 MA's), (Start: 17 @38314 has 1 MA's), (23, 38257), (25, 38221), (31, 38182), (37, 38155), (39, 38143),

Gene: Benvolio_55 Start: 37700, Stop: 37428, Start Num: 14

Candidate Starts for Benvolio_55:

(Start: 14 @37700 has 125 MA's), (Start: 17 @37691 has 1 MA's), (18, 37679), (19, 37673), (33, 37550),

Gene: BobSwaget_54 Start: 37176, Stop: 36904, Start Num: 14

Candidate Starts for BobSwaget_54:

(Start: 14 @37176 has 125 MA's), (19, 37149), (33, 37026), (39, 36996),

Gene: BogosyJay_57 Start: 38245, Stop: 37973, Start Num: 14

Candidate Starts for BogosyJay_57:

(Start: 14 @38245 has 125 MA's), (Start: 17 @38236 has 1 MA's), (23, 38179), (25, 38143), (39, 38065),

Gene: Boohoo_64 Start: 37667, Stop: 37398, Start Num: 15

Candidate Starts for Boohoo_64:

(2, 38111), (3, 38087), (4, 38009), (Start: 15 @37667 has 19 MA's), (39, 37490), (44, 37451),

Gene: Bowtie_58 Start: 37793, Stop: 37521, Start Num: 14

Candidate Starts for Bowtie_58:

(Start: 14 @37793 has 125 MA's), (Start: 17 @37784 has 1 MA's), (39, 37613),

Gene: Bradman_57 Start: 37421, Stop: 37149, Start Num: 14

Candidate Starts for Bradman_57:

(Start: 14 @37421 has 125 MA's), (18, 37400), (19, 37394), (33, 37271), (36, 37259),

Gene: Bud_57 Start: 37340, Stop: 37068, Start Num: 14

Candidate Starts for Bud_57:

(Start: 14 @37340 has 125 MA's), (Start: 17 @37331 has 1 MA's), (39, 37160),

Gene: Buggy_60 Start: 38826, Stop: 38554, Start Num: 14

Candidate Starts for Buggy_60:

(6, 39066), (8, 39027), (Start: 14 @38826 has 125 MA's), (Start: 17 @38817 has 1 MA's), (18, 38805), (19, 38799), (33, 38676),

Gene: C3_56 Start: 38705, Stop: 38394, Start Num: 12
Candidate Starts for C3_56:
(Start: 12 @38705 has 4 MA's), (Start: 14 @38666 has 125 MA's), (Start: 17 @38657 has 1 MA's),
(25, 38564), (33, 38516), (39, 38486),

Gene: Caraxes_58 Start: 36944, Stop: 36672, Start Num: 14
Candidate Starts for Caraxes_58:
(Start: 14 @36944 has 125 MA's), (19, 36917), (33, 36794), (36, 36782),

Gene: Catalina_59 Start: 38226, Stop: 37954, Start Num: 14
Candidate Starts for Catalina_59:
(Start: 14 @38226 has 125 MA's), (Start: 17 @38217 has 1 MA's), (23, 38160), (25, 38124), (31,
38085), (37, 38058), (39, 38046),

Gene: Charm_56 Start: 38090, Stop: 37818, Start Num: 14
Candidate Starts for Charm_56:
(Start: 14 @38090 has 125 MA's), (23, 38024), (25, 37988), (37, 37922), (39, 37910), (40, 37901),

Gene: Che12_59 Start: 37385, Stop: 37113, Start Num: 14
Candidate Starts for Che12_59:
(Start: 14 @37385 has 125 MA's), (19, 37358), (22, 37322), (27, 37274), (33, 37235), (36, 37223), (39,
37205),

Gene: ChipMunk_60 Start: 40026, Stop: 39754, Start Num: 14
Candidate Starts for ChipMunk_60:
(Start: 14 @40026 has 125 MA's), (Start: 17 @40017 has 1 MA's), (18, 40005), (19, 39999), (33,
39876),

Gene: Conquerage_58 Start: 38297, Stop: 38025, Start Num: 14
Candidate Starts for Conquerage_58:
(Start: 14 @38297 has 125 MA's), (Start: 17 @38288 has 1 MA's), (23, 38231), (25, 38195), (31,
38156), (37, 38129), (39, 38117),

Gene: Crucio_58 Start: 38443, Stop: 38171, Start Num: 14
Candidate Starts for Crucio_58:
(Start: 14 @38443 has 125 MA's), (Start: 17 @38434 has 1 MA's), (18, 38422), (19, 38416), (33,
38293),

Gene: D29_56 Start: 38269, Stop: 37997, Start Num: 14
Candidate Starts for D29_56:
(Start: 14 @38269 has 125 MA's), (Start: 17 @38260 has 1 MA's), (25, 38167), (39, 38089), (46,
38035),

Gene: D32_59 Start: 38269, Stop: 37997, Start Num: 14
Candidate Starts for D32_59:
(Start: 14 @38269 has 125 MA's), (Start: 17 @38260 has 1 MA's), (25, 38167), (39, 38089), (46,
38035),

Gene: DBQu4n_60 Start: 38250, Stop: 37978, Start Num: 14
Candidate Starts for DBQu4n_60:
(Start: 14 @38250 has 125 MA's), (Start: 17 @38241 has 1 MA's), (25, 38148), (39, 38070), (46,
38016),

Gene: Dalmatian_59 Start: 38649, Stop: 38377, Start Num: 14

Candidate Starts for Dalmatian_59:

(Start: 14 @38649 has 125 MA's), (Start: 17 @38640 has 1 MA's), (18, 38628), (19, 38622), (33, 38499), (39, 38469),

Gene: Darrell_60 Start: 38922, Stop: 38650, Start Num: 14

Candidate Starts for Darrell_60:

(Start: 14 @38922 has 125 MA's), (Start: 17 @38913 has 1 MA's), (23, 38856), (25, 38820), (33, 38772), (41, 38730),

Gene: DarthPhader_54 Start: 39183, Stop: 38911, Start Num: 14

Candidate Starts for DarthPhader_54:

(Start: 14 @39183 has 125 MA's), (Start: 17 @39174 has 1 MA's), (25, 39081), (33, 39033), (38, 39009), (39, 39003),

Gene: DekHockey33_65 Start: 37959, Stop: 37690, Start Num: 15

Candidate Starts for DekHockey33_65:

(2, 38403), (4, 38301), (Start: 15 @37959 has 19 MA's), (39, 37782),

Gene: Dignity_60 Start: 38849, Stop: 38577, Start Num: 14

Candidate Starts for Dignity_60:

(Start: 14 @38849 has 125 MA's), (Start: 17 @38840 has 1 MA's), (18, 38828), (19, 38822), (33, 38699),

Gene: DreamTeam1_56 Start: 37922, Stop: 37650, Start Num: 14

Candidate Starts for DreamTeam1_56:

(Start: 14 @37922 has 125 MA's), (23, 37856), (25, 37820), (37, 37754), (39, 37742), (40, 37733),

Gene: DudeLittle_57 Start: 38415, Stop: 38143, Start Num: 14

Candidate Starts for DudeLittle_57:

(Start: 14 @38415 has 125 MA's), (Start: 17 @38406 has 1 MA's), (18, 38394), (19, 38388), (33, 38265), (39, 38235),

Gene: Duplo_60 Start: 38306, Stop: 38034, Start Num: 14

Candidate Starts for Duplo_60:

(Start: 14 @38306 has 125 MA's), (Start: 17 @38297 has 1 MA's), (25, 38204), (39, 38126), (46, 38072),

Gene: EagleEye_60 Start: 38143, Stop: 37871, Start Num: 14

Candidate Starts for EagleEye_60:

(10, 38212), (Start: 14 @38143 has 125 MA's), (Start: 16 @38140 has 2 MA's), (Start: 17 @38134 has 1 MA's), (25, 38041), (32, 37999), (33, 37993), (39, 37963),

Gene: Ebony_57 Start: 37357, Stop: 37085, Start Num: 14

Candidate Starts for Ebony_57:

(Start: 14 @37357 has 125 MA's), (Start: 17 @37348 has 1 MA's), (39, 37177),

Gene: Echild_58 Start: 37724, Stop: 37452, Start Num: 14

Candidate Starts for Echild_58:

(Start: 14 @37724 has 125 MA's), (Start: 17 @37715 has 1 MA's), (18, 37703), (19, 37697), (33, 37574),

Gene: EdogawaKiddo_56 Start: 38208, Stop: 38002, Start Num: 23

Candidate Starts for EdogawaKiddo_56:

(Start: 14 @38274 has 125 MA's), (Start: 17 @38265 has 1 MA's), (23, 38208), (25, 38172), (31, 38133), (37, 38106), (39, 38094),

Gene: Eidsmoe_58 Start: 38289, Stop: 38017, Start Num: 14

Candidate Starts for Eidsmoe_58:

(Start: 14 @38289 has 125 MA's), (Start: 17 @38280 has 1 MA's), (23, 38223), (25, 38187), (31, 38148), (37, 38121), (39, 38109),

Gene: Elephantoon_57 Start: 37664, Stop: 37392, Start Num: 14

Candidate Starts for Elephantoon_57:

(Start: 14 @37664 has 125 MA's), (Start: 17 @37655 has 1 MA's), (23, 37598), (25, 37562), (31, 37523), (37, 37496), (39, 37484),

Gene: EmyBug_57 Start: 38291, Stop: 38019, Start Num: 14

Candidate Starts for EmyBug_57:

(Start: 14 @38291 has 125 MA's), (Start: 17 @38282 has 1 MA's), (23, 38225), (25, 38189), (31, 38150), (37, 38123), (39, 38111),

Gene: Epsocamisio_61 Start: 37202, Stop: 36933, Start Num: 15

Candidate Starts for Epsocamisio_61:

(2, 37646), (3, 37622), (4, 37544), (Start: 15 @37202 has 19 MA's), (39, 37025),

Gene: Et2Brutus_56 Start: 37320, Stop: 37048, Start Num: 14

Candidate Starts for Et2Brutus_56:

(Start: 14 @37320 has 125 MA's), (Start: 17 @37311 has 1 MA's), (39, 37140),

Gene: EvilGenius_60 Start: 40027, Stop: 39755, Start Num: 14

Candidate Starts for EvilGenius_60:

(Start: 14 @40027 has 125 MA's), (Start: 17 @40018 has 1 MA's), (18, 40006), (19, 40000), (33, 39877),

Gene: ExplosioNervosa_58 Start: 38348, Stop: 38085, Start Num: 17

Candidate Starts for ExplosioNervosa_58:

(Start: 14 @38357 has 125 MA's), (Start: 17 @38348 has 1 MA's), (23, 38291), (25, 38255), (31, 38216), (37, 38189), (39, 38177),

Gene: Fameo_58 Start: 38774, Stop: 38502, Start Num: 14

Candidate Starts for Fameo_58:

(Start: 14 @38774 has 125 MA's), (Start: 17 @38765 has 1 MA's), (18, 38753), (19, 38747), (33, 38624), (39, 38594),

Gene: Fayely_58 Start: 38258, Stop: 37986, Start Num: 14

Candidate Starts for Fayely_58:

(Start: 14 @38258 has 125 MA's), (Start: 17 @38249 has 1 MA's), (23, 38192), (25, 38156), (31, 38117), (37, 38090), (39, 38078),

Gene: Fibonacci_57 Start: 37326, Stop: 37054, Start Num: 14

Candidate Starts for Fibonacci_57:

(Start: 14 @37326 has 125 MA's), (Start: 17 @37317 has 1 MA's), (39, 37146),

Gene: FiringLine_58 Start: 38424, Stop: 38152, Start Num: 14

Candidate Starts for FiringLine_58:

(Start: 14 @38424 has 125 MA's), (Start: 17 @38415 has 1 MA's), (18, 38403), (19, 38397), (33, 38274),

Gene: Flaverint_58 Start: 37784, Stop: 37512, Start Num: 14

Candidate Starts for Flaverint_58:

(Start: 14 @37784 has 125 MA's), (Start: 17 @37775 has 1 MA's), (39, 37604),

Gene: Georgie2_59 Start: 38469, Stop: 38197, Start Num: 14

Candidate Starts for Georgie2_59:

(Start: 14 @38469 has 125 MA's), (Start: 17 @38460 has 1 MA's), (18, 38448), (19, 38442),

Gene: Gilberta_58 Start: 37777, Stop: 37505, Start Num: 14

Candidate Starts for Gilberta_58:

(Start: 14 @37777 has 125 MA's), (Start: 17 @37768 has 1 MA's), (39, 37597),

Gene: Hanray_56 Start: 38212, Stop: 38006, Start Num: 23

Candidate Starts for Hanray_56:

(Start: 14 @38278 has 125 MA's), (Start: 17 @38269 has 1 MA's), (23, 38212), (25, 38176), (31, 38137), (37, 38110), (39, 38098),

Gene: Heffalump_57 Start: 39242, Stop: 38970, Start Num: 14

Candidate Starts for Heffalump_57:

(Start: 14 @39242 has 125 MA's), (Start: 17 @39233 has 1 MA's), (18, 39221), (19, 39215), (33, 39092), (39, 39062),

Gene: Herbertwm_56 Start: 38206, Stop: 37934, Start Num: 14

Candidate Starts for Herbertwm_56:

(8, 38407), (Start: 14 @38206 has 125 MA's), (Start: 17 @38197 has 1 MA's), (18, 38185), (21, 38146), (22, 38143), (26, 38101), (27, 38095), (33, 38056), (39, 38026),

Gene: Holec_57 Start: 38228, Stop: 38022, Start Num: 23

Candidate Starts for Holec_57:

(Start: 14 @38294 has 125 MA's), (Start: 17 @38285 has 1 MA's), (23, 38228), (25, 38192), (31, 38153), (37, 38126), (39, 38114),

Gene: HortumSL17_58 Start: 38225, Stop: 37953, Start Num: 14

Candidate Starts for HortumSL17_58:

(Start: 14 @38225 has 125 MA's), (Start: 17 @38216 has 1 MA's), (23, 38159), (25, 38123), (31, 38084), (37, 38057), (39, 38045),

Gene: Hutc2_57 Start: 37326, Stop: 37054, Start Num: 14

Candidate Starts for Hutc2_57:

(Start: 14 @37326 has 125 MA's), (Start: 17 @37317 has 1 MA's), (39, 37146),

Gene: Insomnia_58 Start: 37837, Stop: 37565, Start Num: 14

Candidate Starts for Insomnia_58:

(Start: 14 @37837 has 125 MA's), (Start: 17 @37828 has 1 MA's), (39, 37657),

Gene: JSwag_63 Start: 37391, Stop: 37122, Start Num: 15

Candidate Starts for JSwag_63:

(2, 37835), (3, 37811), (4, 37733), (Start: 15 @37391 has 19 MA's), (39, 37214),

Gene: Jabith_58 Start: 37838, Stop: 37566, Start Num: 14

Candidate Starts for Jabith_58:

(Start: 14 @37838 has 125 MA's), (Start: 17 @37829 has 1 MA's), (39, 37658),

Gene: Jerm_60 Start: 38841, Stop: 38569, Start Num: 14

Candidate Starts for Jerm_60:

(Start: 14 @38841 has 125 MA's), (Start: 17 @38832 has 1 MA's), (18, 38820), (19, 38814), (33, 38691),

Gene: Jiawan_56 Start: 38310, Stop: 38038, Start Num: 14

Candidate Starts for Jiawan_56:

(Start: 14 @38310 has 125 MA's), (Start: 17 @38301 has 1 MA's), (23, 38244), (25, 38208), (31, 38169), (37, 38142), (39, 38130),

Gene: Joselito_58 Start: 37786, Stop: 37514, Start Num: 14

Candidate Starts for Joselito_58:

(Start: 14 @37786 has 125 MA's), (Start: 17 @37777 has 1 MA's), (39, 37606),

Gene: Journey13_52 Start: 36811, Stop: 36539, Start Num: 14

Candidate Starts for Journey13_52:

(Start: 14 @36811 has 125 MA's), (Start: 17 @36802 has 1 MA's), (19, 36784), (27, 36700), (33, 36661), (39, 36631),

Gene: Jsquared_56 Start: 37405, Stop: 37133, Start Num: 14

Candidate Starts for Jsquared_56:

(Start: 14 @37405 has 125 MA's), (18, 37384), (19, 37378), (33, 37255), (36, 37243),

Gene: KatherineG_64 Start: 37864, Stop: 37595, Start Num: 15

Candidate Starts for KatherineG_64:

(Start: 15 @37864 has 19 MA's), (39, 37687),

Gene: Kerberos_60 Start: 38268, Stop: 37996, Start Num: 14

Candidate Starts for Kerberos_60:

(Start: 14 @38268 has 125 MA's), (Start: 17 @38259 has 1 MA's), (25, 38166), (39, 38088), (46, 38034),

Gene: Keziacharles14_58 Start: 39366, Stop: 39094, Start Num: 14

Candidate Starts for Keziacharles14_58:

(Start: 14 @39366 has 125 MA's), (Start: 17 @39357 has 1 MA's), (23, 39300), (25, 39264), (32, 39222),

Gene: KingCyrus_60 Start: 40022, Stop: 39750, Start Num: 14

Candidate Starts for KingCyrus_60:

(Start: 14 @40022 has 125 MA's), (Start: 17 @40013 has 1 MA's), (18, 40001), (19, 39995), (33, 39872),

Gene: Koduck_59 Start: 37723, Stop: 37412, Start Num: 11

Candidate Starts for Koduck_59:

(1, 38146), (5, 37963), (7, 37924), (Start: 11 @37723 has 1 MA's), (Start: 14 @37684 has 125 MA's), (19, 37657), (33, 37534), (36, 37522),

Gene: L5_56 Start: 37810, Stop: 37499, Start Num: 11

Candidate Starts for L5_56:

(1, 38233), (5, 38050), (7, 38011), (Start: 11 @37810 has 1 MA's), (Start: 14 @37771 has 125 MA's), (19, 37744), (33, 37621), (36, 37609),

Gene: Larenn_57 Start: 38431, Stop: 38159, Start Num: 14

Candidate Starts for Larenn_57:

(Start: 14 @38431 has 125 MA's), (19, 38404), (22, 38368), (26, 38326), (33, 38281), (39, 38251), (40, 38242),

Gene: LastResort_62 Start: 37443, Stop: 37174, Start Num: 15

Candidate Starts for LastResort_62:

(2, 37887), (3, 37863), (4, 37785), (Start: 15 @37443 has 19 MA's), (39, 37266),

Gene: Leviathan_60 Start: 38898, Stop: 38626, Start Num: 14

Candidate Starts for Leviathan_60:

(Start: 14 @38898 has 125 MA's), (Start: 17 @38889 has 1 MA's), (18, 38877), (19, 38871), (33, 38748),

Gene: LilTurb_59 Start: 38722, Stop: 38450, Start Num: 14

Candidate Starts for LilTurb_59:

(Start: 14 @38722 has 125 MA's), (Start: 17 @38713 has 1 MA's), (18, 38701), (19, 38695), (33, 38572),

Gene: Lilleskat_56 Start: 38227, Stop: 37955, Start Num: 14

Candidate Starts for Lilleskat_56:

(Start: 14 @38227 has 125 MA's), (Start: 17 @38218 has 1 MA's), (23, 38161), (25, 38125), (31, 38086), (37, 38059), (39, 38047),

Gene: Lokk_55 Start: 37800, Stop: 37528, Start Num: 14

Candidate Starts for Lokk_55:

(Start: 14 @37800 has 125 MA's), (19, 37773), (33, 37650), (39, 37620),

Gene: LoneWolf_59 Start: 38258, Stop: 37986, Start Num: 14

Candidate Starts for LoneWolf_59:

(Start: 14 @38258 has 125 MA's), (Start: 17 @38249 has 1 MA's), (23, 38192), (25, 38156), (33, 38108), (39, 38078),

Gene: Looper_63 Start: 37355, Stop: 37086, Start Num: 15

Candidate Starts for Looper_63:

(2, 37799), (3, 37775), (4, 37697), (Start: 15 @37355 has 19 MA's), (39, 37178),

Gene: Lucivia_58 Start: 37835, Stop: 37563, Start Num: 14

Candidate Starts for Lucivia_58:

(Start: 14 @37835 has 125 MA's), (Start: 17 @37826 has 1 MA's), (39, 37655),

Gene: Lucyedi_59 Start: 38336, Stop: 38067, Start Num: 16

Candidate Starts for Lucyedi_59:

(10, 38408), (Start: 14 @38339 has 125 MA's), (Start: 16 @38336 has 2 MA's), (Start: 17 @38330 has 1 MA's), (25, 38237), (32, 38195), (33, 38189), (39, 38159),

Gene: MaCh_58 Start: 37765, Stop: 37493, Start Num: 14

Candidate Starts for MaCh_58:

(Start: 14 @37765 has 125 MA's), (Start: 17 @37756 has 1 MA's), (33, 37615),

Gene: Mabel_57 Start: 37367, Stop: 37095, Start Num: 14

Candidate Starts for Mabel_57:

(Start: 14 @37367 has 125 MA's), (Start: 17 @37358 has 1 MA's), (39, 37187),

Gene: MajorMajor_57 Start: 37421, Stop: 37149, Start Num: 14

Candidate Starts for MajorMajor_57:

(Start: 14 @37421 has 125 MA's), (18, 37400), (19, 37394), (33, 37271), (36, 37259),

Gene: Malec_58 Start: 38998, Stop: 38726, Start Num: 14

Candidate Starts for Malec_58:

(Start: 14 @38998 has 125 MA's), (19, 38971), (22, 38935), (26, 38893), (33, 38848), (39, 38818), (40, 38809),

Gene: Maminiaina_57 Start: 38227, Stop: 37955, Start Num: 14

Candidate Starts for Maminiaina_57:

(Start: 14 @38227 has 125 MA's), (Start: 17 @38218 has 1 MA's), (23, 38161), (25, 38125), (39, 38047),

Gene: Miko_55 Start: 38578, Stop: 38306, Start Num: 14

Candidate Starts for Miko_55:

(8, 38779), (Start: 14 @38578 has 125 MA's), (19, 38551), (33, 38428), (39, 38398),

Gene: MinecraftSteve_64 Start: 37679, Stop: 37410, Start Num: 15

Candidate Starts for MinecraftSteve_64:

(Start: 15 @37679 has 19 MA's), (39, 37502),

Gene: MissWhite_57 Start: 36925, Stop: 36653, Start Num: 14

Candidate Starts for MissWhite_57:

(Start: 14 @36925 has 125 MA's), (Start: 17 @36916 has 1 MA's), (19, 36898), (39, 36745),

Gene: Mulciber_57 Start: 37323, Stop: 37051, Start Num: 14

Candidate Starts for Mulciber_57:

(Start: 14 @37323 has 125 MA's), (Start: 17 @37314 has 1 MA's), (39, 37143),

Gene: Munch_58 Start: 37786, Stop: 37514, Start Num: 14

Candidate Starts for Munch_58:

(Start: 14 @37786 has 125 MA's), (Start: 17 @37777 has 1 MA's), (39, 37606),

Gene: Myxus_58 Start: 38225, Stop: 37953, Start Num: 14

Candidate Starts for Myxus_58:

(Start: 14 @38225 has 125 MA's), (Start: 17 @38216 has 1 MA's), (23, 38159), (25, 38123), (31, 38084), (37, 38057), (39, 38045),

Gene: Naji_60 Start: 38269, Stop: 37997, Start Num: 14

Candidate Starts for Naji_60:

(Start: 14 @38269 has 125 MA's), (Start: 17 @38260 has 1 MA's), (25, 38167), (39, 38089), (46, 38035),

Gene: Nebulosus_62 Start: 37439, Stop: 37170, Start Num: 15

Candidate Starts for Nebulosus_62:

(2, 37883), (3, 37859), (4, 37781), (Start: 15 @37439 has 19 MA's), (39, 37262), (44, 37223),

Gene: Nedarya_60 Start: 37419, Stop: 37150, Start Num: 14

Candidate Starts for Nedarya_60:

(3, 37842), (Start: 14 @37419 has 125 MA's), (Start: 17 @37410 has 1 MA's), (19, 37392), (39, 37239),

Gene: NothingSpecial_56 Start: 38807, Stop: 38535, Start Num: 14

Candidate Starts for NothingSpecial_56:

(Start: 14 @38807 has 125 MA's), (18, 38786), (19, 38780), (22, 38744), (26, 38702), (28, 38693), (33, 38657), (39, 38627), (40, 38618), (41, 38615),

Gene: Odin_56 Start: 37328, Stop: 37056, Start Num: 14

Candidate Starts for Odin_56:

(Start: 14 @37328 has 125 MA's), (19, 37301), (33, 37178), (36, 37166),

Gene: Onglai_56 Start: 36566, Stop: 36294, Start Num: 14

Candidate Starts for Onglai_56:

(Start: 14 @36566 has 125 MA's), (Start: 17 @36557 has 1 MA's), (23, 36500), (25, 36464), (31, 36425), (37, 36398), (39, 36386),

Gene: Oofda_65 Start: 37642, Stop: 37373, Start Num: 15

Candidate Starts for Oofda_65:

(Start: 15 @37642 has 19 MA's), (39, 37465),

Gene: Orange_57 Start: 37335, Stop: 37063, Start Num: 14

Candidate Starts for Orange_57:

(Start: 14 @37335 has 125 MA's), (Start: 17 @37326 has 1 MA's), (39, 37155),

Gene: PackMan_57 Start: 38225, Stop: 37953, Start Num: 14

Candidate Starts for PackMan_57:

(Start: 14 @38225 has 125 MA's), (Start: 17 @38216 has 1 MA's), (23, 38159), (25, 38123), (31, 38084), (37, 38057), (39, 38045),

Gene: PainterBoy_59 Start: 38298, Stop: 38026, Start Num: 14

Candidate Starts for PainterBoy_59:

(10, 38367), (Start: 14 @38298 has 125 MA's), (Start: 17 @38289 has 1 MA's), (25, 38196), (33, 38148), (37, 38130), (39, 38118),

Gene: Petersenfast_56 Start: 37334, Stop: 37062, Start Num: 14

Candidate Starts for Petersenfast_56:

(Start: 14 @37334 has 125 MA's), (Start: 17 @37325 has 1 MA's), (39, 37154),

Gene: Ph8s_59 Start: 37685, Stop: 37413, Start Num: 14

Candidate Starts for Ph8s_59:

(Start: 14 @37685 has 125 MA's), (22, 37622), (27, 37574), (33, 37535), (36, 37523), (39, 37505),

Gene: Phaeder_58 Start: 38225, Stop: 37953, Start Num: 14

Candidate Starts for Phaeder_58:

(Start: 14 @38225 has 125 MA's), (Start: 17 @38216 has 1 MA's), (23, 38159), (25, 38123), (31, 38084), (37, 38057), (39, 38045),

Gene: Pharaoh_53 Start: 38271, Stop: 37999, Start Num: 14

Candidate Starts for Pharaoh_53:

(8, 38472), (Start: 14 @38271 has 125 MA's), (Start: 17 @38262 has 1 MA's), (18, 38250), (22, 38208), (25, 38169), (33, 38121), (37, 38103), (39, 38091), (40, 38082),

Gene: Phlei_47 Start: 37907, Stop: 37635, Start Num: 14

Candidate Starts for Phlei_47:

(Start: 14 @37907 has 125 MA's), (Start: 17 @37898 has 1 MA's), (27, 37796), (33, 37757), (34, 37754), (46, 37673),

Gene: Phonnegut_58 Start: 38322, Stop: 38050, Start Num: 14

Candidate Starts for Phonnegut_58:

(Start: 14 @38322 has 125 MA's), (Start: 17 @38313 has 1 MA's), (23, 38256), (25, 38220), (31, 38181), (37, 38154), (39, 38142),

Gene: Pioneer_58 Start: 38322, Stop: 38050, Start Num: 14

Candidate Starts for Pioneer_58:

(Start: 14 @38322 has 125 MA's), (Start: 17 @38313 has 1 MA's), (23, 38256), (25, 38220), (31, 38181), (37, 38154), (39, 38142),

Gene: Pomar16_60 Start: 38309, Stop: 38037, Start Num: 14

Candidate Starts for Pomar16_60:

(Start: 14 @38309 has 125 MA's), (Start: 17 @38300 has 1 MA's), (25, 38207), (39, 38129), (46, 38075),

Gene: Power_57 Start: 38477, Stop: 38205, Start Num: 14

Candidate Starts for Power_57:

(Start: 14 @38477 has 125 MA's), (Start: 17 @38468 has 1 MA's), (18, 38456), (19, 38450), (33, 38327),

Gene: Priya_58 Start: 38292, Stop: 38020, Start Num: 14

Candidate Starts for Priya_58:

(Start: 14 @38292 has 125 MA's), (Start: 17 @38283 has 1 MA's), (23, 38226), (25, 38190), (31, 38151), (37, 38124), (39, 38112),

Gene: Qobbit_58 Start: 38254, Stop: 37982, Start Num: 14

Candidate Starts for Qobbit_58:

(Start: 14 @38254 has 125 MA's), (Start: 17 @38245 has 1 MA's), (23, 38188), (25, 38152), (31, 38113), (37, 38086), (39, 38074),

Gene: QueenB2_57 Start: 38455, Stop: 38183, Start Num: 14

Candidate Starts for QueenB2_57:

(Start: 14 @38455 has 125 MA's), (Start: 17 @38446 has 1 MA's), (18, 38434), (19, 38428), (33, 38305), (39, 38275),

Gene: QueenBeesly_58 Start: 38424, Stop: 38152, Start Num: 14

Candidate Starts for QueenBeesly_58:

(Start: 14 @38424 has 125 MA's), (Start: 17 @38415 has 1 MA's), (18, 38403), (19, 38397), (33, 38274),

Gene: Quokka_56 Start: 37421, Stop: 37149, Start Num: 14

Candidate Starts for Quokka_56:

(Start: 14 @37421 has 125 MA's), (18, 37400), (19, 37394), (33, 37271), (36, 37259),

Gene: Rachaly_57 Start: 38723, Stop: 38451, Start Num: 14

Candidate Starts for Rachaly_57:

(Start: 14 @38723 has 125 MA's), (19, 38696), (33, 38573), (39, 38543),

Gene: Rahalelujah_58 Start: 37998, Stop: 37726, Start Num: 14

Candidate Starts for Rahalelujah_58:

(Start: 14 @37998 has 125 MA's), (Start: 17 @37989 has 1 MA's), (23, 37932), (25, 37896), (33, 37848),

Gene: ReMo_62 Start: 37440, Stop: 37171, Start Num: 15

Candidate Starts for ReMo_62:

(2, 37884), (3, 37860), (4, 37782), (Start: 15 @37440 has 19 MA's), (39, 37263),

Gene: Refuge_56 Start: 39539, Stop: 39267, Start Num: 14

Candidate Starts for Refuge_56:

(13, 39569), (Start: 14 @39539 has 125 MA's), (25, 39437), (33, 39389), (37, 39371), (39, 39359),

Gene: Remus_64 Start: 37446, Stop: 37177, Start Num: 15

Candidate Starts for Remus_64:

(2, 37890), (3, 37866), (4, 37788), (Start: 15 @37446 has 19 MA's), (39, 37269),

Gene: Retro23_59 Start: 38669, Stop: 38397, Start Num: 14

Candidate Starts for Retro23_59:

(Start: 14 @38669 has 125 MA's), (Start: 17 @38660 has 1 MA's), (18, 38648), (19, 38642), (33, 38519), (39, 38489),

Gene: Rosalind_62 Start: 37598, Stop: 37329, Start Num: 15

Candidate Starts for Rosalind_62:

(2, 38042), (3, 38018), (4, 37940), (Start: 15 @37598 has 19 MA's), (39, 37421),

Gene: RyeScarlet_59 Start: 38297, Stop: 38025, Start Num: 14

Candidate Starts for RyeScarlet_59:

(Start: 14 @38297 has 125 MA's), (Start: 17 @38288 has 1 MA's), (23, 38231), (25, 38195), (31, 38156), (37, 38129), (39, 38117),

Gene: Sachima_55 Start: 38207, Stop: 37935, Start Num: 14

Candidate Starts for Sachima_55:

(Start: 14 @38207 has 125 MA's), (Start: 17 @38198 has 1 MA's), (23, 38141), (25, 38105), (31, 38066), (37, 38039), (39, 38027),

Gene: Salz_56 Start: 37305, Stop: 37033, Start Num: 14

Candidate Starts for Salz_56:

(Start: 14 @37305 has 125 MA's), (Start: 17 @37296 has 1 MA's), (39, 37125),

Gene: Scherzo_58 Start: 38511, Stop: 38239, Start Num: 14

Candidate Starts for Scherzo_58:

(Start: 14 @38511 has 125 MA's), (Start: 17 @38502 has 1 MA's), (23, 38445), (25, 38409), (31, 38370), (37, 38343), (39, 38331),

Gene: SemperFi_59 Start: 38692, Stop: 38420, Start Num: 14

Candidate Starts for SemperFi_59:

(Start: 14 @38692 has 125 MA's), (Start: 17 @38683 has 1 MA's), (18, 38671), (19, 38665), (33, 38542),

Gene: Serenity_58 Start: 37628, Stop: 37356, Start Num: 14

Candidate Starts for Serenity_58:

(9, 37700), (10, 37688), (Start: 14 @37628 has 125 MA's), (18, 37607), (19, 37601), (33, 37478), (36, 37466),

Gene: Sham4_57 Start: 37333, Stop: 37061, Start Num: 14

Candidate Starts for Sham4_57:

(Start: 14 @37333 has 125 MA's), (Start: 17 @37324 has 1 MA's), (39, 37153),

Gene: ShayRa_64 Start: 37627, Stop: 37358, Start Num: 15

Candidate Starts for ShayRa_64:

(2, 38071), (4, 37969), (Start: 15 @37627 has 19 MA's), (39, 37450),

Gene: SheaKeira_56 Start: 37935, Stop: 37663, Start Num: 14

Candidate Starts for SheaKeira_56:

(Start: 14 @37935 has 125 MA's), (Start: 17 @37926 has 1 MA's), (18, 37914), (23, 37869), (25, 37833), (29, 37812), (33, 37785), (35, 37776), (38, 37761), (45, 37710), (48, 37689),

Gene: Smeagan_61 Start: 38985, Stop: 38713, Start Num: 14

Candidate Starts for Smeagan_61:

(Start: 14 @38985 has 125 MA's), (Start: 17 @38976 has 1 MA's), (18, 38964), (19, 38958), (33, 38835),

Gene: SnapTap_58 Start: 38503, Stop: 38231, Start Num: 14

Candidate Starts for SnapTap_58:

(Start: 14 @38503 has 125 MA's), (Start: 17 @38494 has 1 MA's), (18, 38482), (19, 38476), (33, 38353),

Gene: Snape_57 Start: 37325, Stop: 37053, Start Num: 14

Candidate Starts for Snape_57:

(Start: 14 @37325 has 125 MA's), (Start: 17 @37316 has 1 MA's), (39, 37145),

Gene: Soups_64 Start: 37890, Stop: 37621, Start Num: 15

Candidate Starts for Soups_64:

(2, 38334), (4, 38232), (Start: 15 @37890 has 19 MA's), (39, 37713),

Gene: Spouty_58 Start: 38291, Stop: 38019, Start Num: 14

Candidate Starts for Spouty_58:

(Start: 14 @38291 has 125 MA's), (Start: 17 @38282 has 1 MA's), (23, 38225), (25, 38189), (31, 38150), (37, 38123), (39, 38111),

Gene: StarStuff_60 Start: 38271, Stop: 37999, Start Num: 14

Candidate Starts for StarStuff_60:

(Start: 14 @38271 has 125 MA's), (Start: 17 @38262 has 1 MA's), (25, 38169), (39, 38091), (46, 38037),

Gene: Steamy_54 Start: 38003, Stop: 37731, Start Num: 14

Candidate Starts for Steamy_54:

(8, 38204), (Start: 14 @38003 has 125 MA's), (Start: 17 @37994 has 1 MA's), (19, 37976), (22, 37940), (25, 37901), (33, 37853), (37, 37835), (40, 37814), (41, 37811),

Gene: Strosahl_64 Start: 37446, Stop: 37177, Start Num: 15

Candidate Starts for Strosahl_64:

(2, 37890), (3, 37866), (4, 37788), (Start: 15 @37446 has 19 MA's), (39, 37269),

Gene: Superchunk_56 Start: 36944, Stop: 36672, Start Num: 14
Candidate Starts for Superchunk_56:
(Start: 14 @36944 has 125 MA's), (19, 36917), (33, 36794), (36, 36782),

Gene: SweetiePie_58 Start: 38635, Stop: 38363, Start Num: 14
Candidate Starts for SweetiePie_58:
(Start: 14 @38635 has 125 MA's), (Start: 17 @38626 has 1 MA's), (18, 38614), (19, 38608),

Gene: SwirlSquare_63 Start: 37866, Stop: 37594, Start Num: 14
Candidate Starts for SwirlSquare_63:
(Start: 14 @37866 has 125 MA's), (19, 37839), (24, 37791), (30, 37734), (39, 37686), (42, 37668),

Gene: Switzerland_63 Start: 37766, Stop: 37497, Start Num: 15
Candidate Starts for Switzerland_63:
(2, 38210), (4, 38108), (Start: 15 @37766 has 19 MA's), (39, 37589),

Gene: Timothy_57 Start: 37302, Stop: 37030, Start Num: 14
Candidate Starts for Timothy_57:
(Start: 14 @37302 has 125 MA's), (Start: 17 @37293 has 1 MA's), (39, 37122),

Gene: TinyTimmy_57 Start: 37351, Stop: 37079, Start Num: 14
Candidate Starts for TinyTimmy_57:
(Start: 14 @37351 has 125 MA's), (Start: 17 @37342 has 1 MA's), (39, 37171),

Gene: TipsytheTRex_54 Start: 37698, Stop: 37426, Start Num: 14
Candidate Starts for TipsytheTRex_54:
(9, 37770), (10, 37758), (Start: 14 @37698 has 125 MA's), (18, 37677), (19, 37671), (33, 37548), (36, 37536),

Gene: Toaka_58 Start: 38206, Stop: 37934, Start Num: 14
Candidate Starts for Toaka_58:
(Start: 14 @38206 has 125 MA's), (Start: 17 @38197 has 1 MA's), (33, 38056), (37, 38038),

Gene: Tomathan_60 Start: 38318, Stop: 38046, Start Num: 14
Candidate Starts for Tomathan_60:
(Start: 14 @38318 has 125 MA's), (Start: 17 @38309 has 1 MA's), (25, 38216), (39, 38138), (46, 38084),

Gene: Travvers_60 Start: 38268, Stop: 37996, Start Num: 14
Candidate Starts for Travvers_60:
(Start: 14 @38268 has 125 MA's), (Start: 17 @38259 has 1 MA's), (25, 38166), (39, 38088), (46, 38034),

Gene: Tubs_58 Start: 38225, Stop: 37953, Start Num: 14
Candidate Starts for Tubs_58:
(Start: 14 @38225 has 125 MA's), (Start: 17 @38216 has 1 MA's), (23, 38159), (25, 38123), (31, 38084), (37, 38057), (39, 38045),

Gene: Turbido_59 Start: 38719, Stop: 38447, Start Num: 14
Candidate Starts for Turbido_59:
(Start: 14 @38719 has 125 MA's), (Start: 17 @38710 has 1 MA's), (18, 38698), (19, 38692),

Gene: Ugenie5_55 Start: 38510, Stop: 38238, Start Num: 14

Candidate Starts for Ugenie5_55:

(Start: 14 @38510 has 125 MA's), (Start: 17 @38501 has 1 MA's), (23, 38444), (25, 38408), (31, 38369), (37, 38342), (39, 38330),

Gene: VC3_61 Start: 38705, Stop: 38394, Start Num: 12

Candidate Starts for VC3_61:

(Start: 12 @38705 has 4 MA's), (Start: 14 @38666 has 125 MA's), (Start: 17 @38657 has 1 MA's), (25, 38564), (33, 38516), (39, 38486),

Gene: Vanisoa_58 Start: 39326, Stop: 39054, Start Num: 14

Candidate Starts for Vanisoa_58:

(Start: 14 @39326 has 125 MA's), (Start: 17 @39317 has 1 MA's), (23, 39260), (25, 39224), (33, 39176), (39, 39146), (40, 39137),

Gene: Waits_64 Start: 37663, Stop: 37394, Start Num: 15

Candidate Starts for Waits_64:

(2, 38107), (3, 38083), (4, 38005), (Start: 15 @37663 has 19 MA's), (39, 37486),

Gene: Whabigail7_59 Start: 38704, Stop: 38432, Start Num: 14

Candidate Starts for Whabigail7_59:

(Start: 14 @38704 has 125 MA's), (Start: 17 @38695 has 1 MA's), (18, 38683), (19, 38677), (33, 38554),

Gene: Yecey3_59 Start: 38093, Stop: 37821, Start Num: 14

Candidate Starts for Yecey3_59:

(Start: 14 @38093 has 125 MA's), (Start: 17 @38084 has 1 MA's), (23, 38027), (25, 37991), (33, 37943), (37, 37925),

Gene: Zimmer_55 Start: 39223, Stop: 38951, Start Num: 14

Candidate Starts for Zimmer_55:

(13, 39253), (Start: 14 @39223 has 125 MA's), (25, 39121), (33, 39073), (37, 39055), (39, 39043),