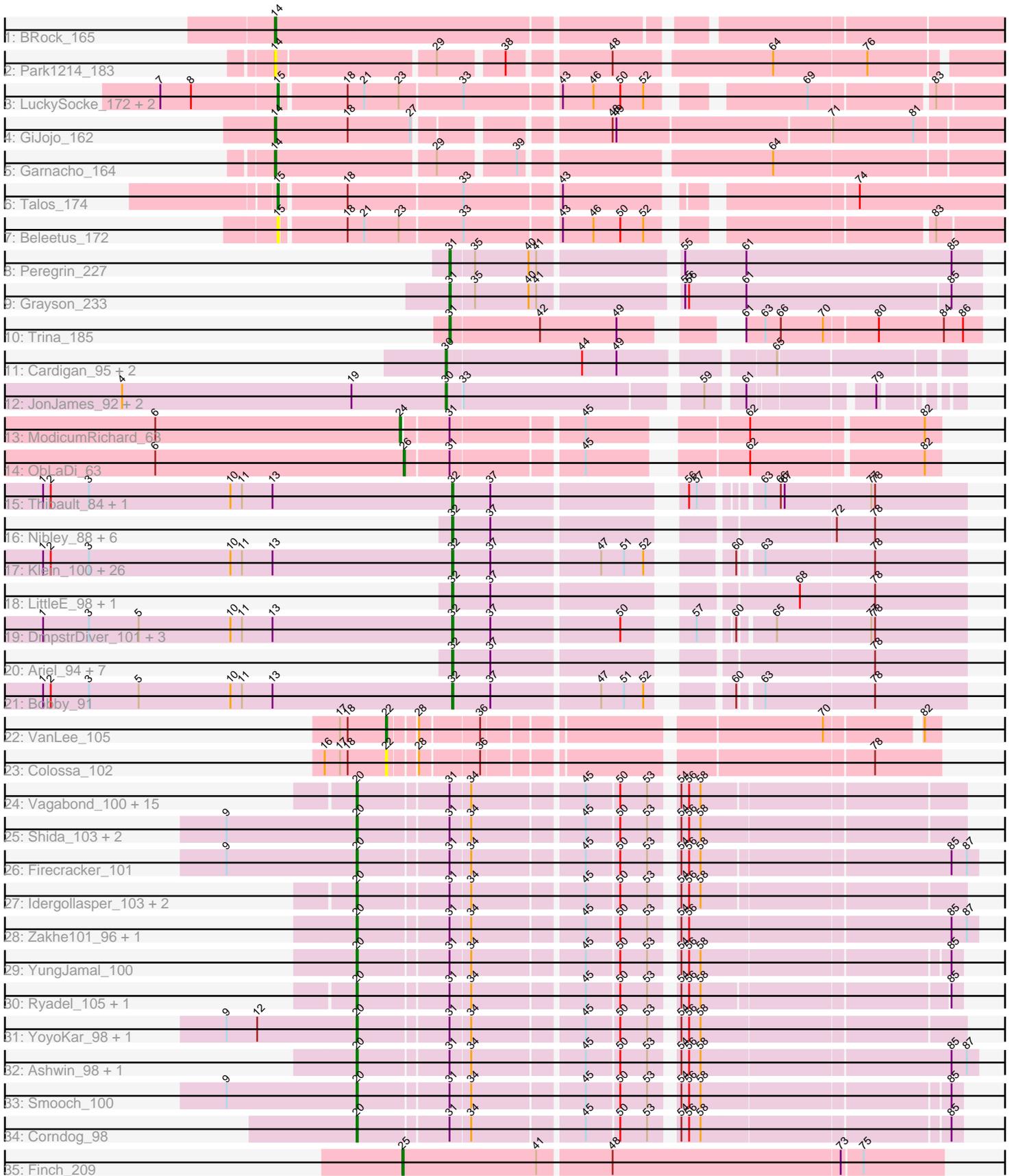


Pham 291003



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 291003 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291003 has 108 members, 21 are drafts.

Phages represented in each track:

- Track 1 : BRock_165
- Track 2 : Park1214_183
- Track 3 : LuckySocke_172, Fudan_174, Alone3_174
- Track 4 : GiJojo_162
- Track 5 : Garnacho_164
- Track 6 : Talos_174
- Track 7 : Beleetus_172
- Track 8 : Peregrin_227
- Track 9 : Grayson_233
- Track 10 : Trina_185
- Track 11 : Cardigan_95, JonJames_93, Yvonnetastic_91
- Track 12 : JonJames_92, Yvonnetastic_90, Cardigan_94
- Track 13 : ModicumRichard_63
- Track 14 : ObLaDi_63
- Track 15 : Thibault_84, Constella_85
- Track 16 : Nibley_88, Gonephishing_87, BronnyJames_94, Nekros_97, Rearden_89, Lucky2013_92, Shaboozey_93
- Track 17 : Klein_100, Bombitas_88, Duke13_96, Beem_100, Dallas_101, EricMillard_93, Halley_101, Phoebus_101, Odette_99, Minerva_99, Schatzie_94, Ejimix_93, Pound_91, JuicyJay_96, Redno2_91, Dove_85, Wanda_103, Hughesyang_99, Yeet_92, Kalah2_93, Bagrid_99, ThreeRngTarjay_96, BAKA_101, Optimus_93, Zelink_96, NihilNomen_101, HokkenD_88
- Track 18 : LittleE_98, Omega_104
- Track 19 : DmpstrDiver_101, KashFlow_90, Marleymoo_81, Hannaconda_86
- Track 20 : Ariel_94, Courthouse_90, Porcelain_93, Squint_93, Hidrated_85, MiaZeal_95, Superphikiman_92, Xiaokay_89
- Track 21 : Bobby_91
- Track 22 : VanLee_105
- Track 23 : Colossa_102
- Track 24 : Vagabond_100, Familton_102, Winget_101, Mori_101, Blessica_99, NiebruSaylor_101, Schuy_101, Bora_100, Zebo_100, Vorrps_101, Catdawg_102, Imara_97, Alkhayr_101, FoulBall_100, Murai_101, SchoolBus_100
- Track 25 : Shida_103, JangDynasty_97, KingPhillip3_99
- Track 26 : Firecracker_101
- Track 27 : Idergollasper_103, Wogge42_98, Krili_103
- Track 28 : Zakhe101_96, Dylan_96
- Track 29 : YungJamal_100

- Track 30 : Ryadel_105, MadKillah_104
- Track 31 : YoyoKar_98, TelAviv_98
- Track 32 : Ashwin_98, Wildflower_98
- Track 33 : Smooch_100
- Track 34 : Corndog_98
- Track 35 : Finch_209

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

The start number called the most often in the published annotations is 32, it was called in 40 of the 87 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel_94, BAKA_101, Bagrid_99, Beem_100, Bobby_91, Bombitas_88, BronnyJames_94, Constella_85, Courthouse_90, Dallas_101, DmpstrDiver_101, Dove_85, Duke13_96, Ejimix_93, EricMillard_93, Gonephishing_87, Halley_101, Hannaconda_86, Hidrated_85, HokkenD_88, Hughesyang_99, JuicyJay_96, Kalah2_93, KashFlow_90, Klein_100, LittleE_98, Lucky2013_92, Marleymoo_81, MiaZeal_95, Minerva_99, Nekros_97, Nibley_88, NihilNomen_101, Odette_99, Omega_104, Optimus_93, Phoebus_101, Porcelain_93, Pound_91, Rearden_89, Redno2_91, Schatzie_94, Shaboozey_93, Squint_93, Superphikiman_92, Thibault_84, ThreeRngTarjay_96, Wanda_103, Xiaokay_89, Yeet_92, Zelink_96,

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

-

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

- Alkhayr_101, Alone3_174, Ashwin_98, BRock_165, Beleetus_172, Blessica_99, Bora_100, Cardigan_94, Cardigan_95, Catdawg_102, Colossa_102, Corndog_98, Dylan_96, Familton_102, Finch_209, Firecracker_101, FoulBall_100, Fudan_174, Garnacho_164, GiJojo_162, Grayson_233, Idergollasper_103, Imara_97, JangDynasty_97, JonJames_92, JonJames_93, KingPhillip3_99, Krili_103, LuckySocke_172, MadKillah_104, ModicumRichard_63, Mori_101, Murai_101, NiebruSaylor_101, ObLaDi_63, Park1214_183, Peregrin_227, Ryadel_105, SchoolBus_100, Schuy_101, Shida_103, Smooch_100, Talos_174, TelAviv_98, Trina_185, Vagabond_100, VanLee_105, Vorrsps_101, Wildflower_98, Winget_101, Wogge42_98, YoyoKar_98, YungJamal_100, Yvonnetastic_90, Yvonnetastic_91, Zakhe101_96, Zebo_100,

Summary by start number:

Start 14:

- Found in 4 of 108 (3.7%) of genes in pham
- Manual Annotations of this start: 3 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BRock_165 (BS), Garnacho_164 (BS), GiJojo_162 (BS), Park1214_183 (BS),

Start 15:

- Found in 5 of 108 (4.6%) of genes in pham

- Manual Annotations of this start: 3 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alone3_174 (BS), Beleetus_172 (BS), Fudan_174 (BS), LuckySocke_172 (BS), Talos_174 (BS),

Start 20:

- Found in 34 of 108 (31.5%) of genes in pham
- Manual Annotations of this start: 30 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alkhayr_101 (O), Ashwin_98 (O), Blessica_99 (O), Bora_100 (O), Catdawg_102 (O), Corndog_98 (O), Dylan_96 (O), Familton_102 (O), Firecracker_101 (O), FoulBall_100 (O), Idergollasper_103 (O), Imara_97 (O), JangDynasty_97 (O), KingPhillip3_99 (O), Krili_103 (O), MadKillah_104 (O), Mori_101 (O), Murai_101 (O), NiebruSaylor_101 (O), Ryadel_105 (O), SchoolBus_100 (O), Schuy_101 (O), Shida_103 (O), Smooch_100 (O), TelAviv_98 (O), Vagabond_100 (O), Vorrps_101 (O), Wildflower_98 (O), Winget_101 (O), Wogge42_98 (O), YoyoKar_98 (O), YungJamal_100 (O), Zakhe101_96 (O), Zebo_100 (O),

Start 22:

- Found in 2 of 108 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Colossa_102 (KA), VanLee_105 (KA),

Start 24:

- Found in 1 of 108 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ModicumRichard_63 (DZ),

Start 25:

- Found in 1 of 108 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_209 (singleton),

Start 26:

- Found in 1 of 108 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ObLaDi_63 (DZ),

Start 30:

- Found in 6 of 108 (5.6%) of genes in pham
- Manual Annotations of this start: 4 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_94 (DD), Cardigan_95 (DD), JonJames_92 (DD), JonJames_93 (DD), Yvonnetastic_90 (DD), Yvonnetastic_91 (DD),

Start 31:

- Found in 39 of 108 (36.1%) of genes in pham

- Manual Annotations of this start: 3 of 87
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Grayson_233 (CB), Peregrin_227 (CB), Trina_185 (CE),

Start 32:

- Found in 51 of 108 (47.2%) of genes in pham
- Manual Annotations of this start: 40 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel_94 (J), BAKA_101 (J), Bagrid_99 (J), Beem_100 (J), Bobby_91 (J), Bombitas_88 (J), BronnyJames_94 (J), Constella_85 (J), Courthouse_90 (J), Dallas_101 (J), DmpstrDiver_101 (J), Dove_85 (J), Duke13_96 (J), Ejimix_93 (J), EricMillard_93 (J), Gonephishing_87 (J), Halley_101 (J), Hannaconda_86 (J), Hidrated_85 (J), HokkenD_88 (J), Hughesyang_99 (J), JuicyJay_96 (J), Kalah2_93 (J), KashFlow_90 (J), Klein_100 (J), LittleE_98 (J), Lucky2013_92 (J), Marleymoo_81 (J), MiaZeal_95 (J), Minerva_99 (J), Nekros_97 (J), Nibley_88 (J), NihilNomen_101 (J), Odette_99 (J), Omega_104 (J), Optimus_93 (J), Phoebus_101 (J), Porcelain_93 (J), Pound_91 (J), Rearden_89 (J), Redno2_91 (J), Schatzie_94 (J), Shaboozey_93 (J), Squint_93 (J), Superphikiman_92 (J), Thibault_84 (J), ThreeRngTarjay_96 (J), Wanda_103 (J), Xiaokay_89 (J), Yeet_92 (J), Zelink_96 (J),

Summary by clusters:

There are 9 clusters represented in this pham: KA, CB, DD, J, singleton, O, DZ, CE, BS,

Info for manual annotations of cluster BS:

- Start number 14 was manually annotated 3 times for cluster BS.
- Start number 15 was manually annotated 3 times for cluster BS.

Info for manual annotations of cluster CB:

- Start number 31 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CE:

- Start number 31 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DD:

- Start number 30 was manually annotated 4 times for cluster DD.

Info for manual annotations of cluster DZ:

- Start number 24 was manually annotated 1 time for cluster DZ.
- Start number 26 was manually annotated 1 time for cluster DZ.

Info for manual annotations of cluster J:

- Start number 32 was manually annotated 40 times for cluster J.

Info for manual annotations of cluster KA:

- Start number 22 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster O:

- Start number 20 was manually annotated 30 times for cluster O.

Gene Information:

Gene: Alkhayr_101 Start: 62112, Stop: 61681, Start Num: 20

Candidate Starts for Alkhayr_101:

(Start: 20 @62112 has 30 MA's), (Start: 31 @62046 has 3 MA's), (34, 62031), (45, 61950), (50, 61926), (53, 61905), (54, 61890), (56, 61884), (58, 61875),

Gene: Alone3_174 Start: 90396, Stop: 90902, Start Num: 15

Candidate Starts for Alone3_174:

(7, 90306), (8, 90330), (Start: 15 @90396 has 3 MA's), (18, 90444), (21, 90456), (23, 90483), (33, 90531), (43, 90600), (46, 90624), (50, 90645), (52, 90663), (69, 90762), (83, 90852),

Gene: Ariel_94 Start: 54759, Stop: 55124, Start Num: 32

Candidate Starts for Ariel_94:

(Start: 32 @54759 has 40 MA's), (37, 54789), (78, 55053),

Gene: Ashwin_98 Start: 61339, Stop: 60893, Start Num: 20

Candidate Starts for Ashwin_98:

(Start: 20 @61339 has 30 MA's), (Start: 31 @61273 has 3 MA's), (34, 61258), (45, 61177), (50, 61153), (53, 61132), (54, 61117), (56, 61111), (58, 61102), (85, 60913), (87, 60901),

Gene: BAKA_101 Start: 60653, Stop: 61012, Start Num: 32

Candidate Starts for BAKA_101:

(1, 60332), (2, 60338), (3, 60368), (10, 60479), (11, 60488), (13, 60512), (Start: 32 @60653 has 40 MA's), (37, 60683), (47, 60764), (51, 60782), (52, 60797), (60, 60842), (63, 60857), (78, 60941),

Gene: BRock_165 Start: 85734, Stop: 86285, Start Num: 14

Candidate Starts for BRock_165:

(Start: 14 @85734 has 3 MA's),

Gene: Bagrid_99 Start: 59520, Stop: 59879, Start Num: 32

Candidate Starts for Bagrid_99:

(1, 59199), (2, 59205), (3, 59235), (10, 59346), (11, 59355), (13, 59379), (Start: 32 @59520 has 40 MA's), (37, 59550), (47, 59631), (51, 59649), (52, 59664), (60, 59709), (63, 59724), (78, 59808),

Gene: Beem_100 Start: 60381, Stop: 60740, Start Num: 32

Candidate Starts for Beem_100:

(1, 60060), (2, 60066), (3, 60096), (10, 60207), (11, 60216), (13, 60240), (Start: 32 @60381 has 40 MA's), (37, 60411), (47, 60492), (51, 60510), (52, 60525), (60, 60570), (63, 60585), (78, 60669),

Gene: Beleetus_172 Start: 89060, Stop: 89566, Start Num: 15

Candidate Starts for Beleetus_172:

(Start: 15 @89060 has 3 MA's), (18, 89108), (21, 89120), (23, 89147), (33, 89195), (43, 89264), (46, 89288), (50, 89309), (52, 89327), (83, 89516),

Gene: Blessica_99 Start: 62320, Stop: 61889, Start Num: 20

Candidate Starts for Blessica_99:

(Start: 20 @62320 has 30 MA's), (Start: 31 @62254 has 3 MA's), (34, 62239), (45, 62158), (50, 62134), (53, 62113), (54, 62098), (56, 62092), (58, 62083),

Gene: Bobby_91 Start: 58746, Stop: 59105, Start Num: 32

Candidate Starts for Bobby_91:

(1, 58425), (2, 58431), (3, 58461), (5, 58500), (10, 58572), (11, 58581), (13, 58605), (Start: 32 @58746 has 40 MA's), (37, 58776), (47, 58857), (51, 58875), (52, 58890), (60, 58935), (63, 58950), (78, 59034),

Gene: Bombitas_88 Start: 57544, Stop: 57903, Start Num: 32

Candidate Starts for Bombitas_88:

(1, 57223), (2, 57229), (3, 57259), (10, 57370), (11, 57379), (13, 57403), (Start: 32 @57544 has 40 MA's), (37, 57574), (47, 57655), (51, 57673), (52, 57688), (60, 57733), (63, 57748), (78, 57832),

Gene: Bora_100 Start: 63162, Stop: 62731, Start Num: 20

Candidate Starts for Bora_100:

(Start: 20 @63162 has 30 MA's), (Start: 31 @63096 has 3 MA's), (34, 63081), (45, 63000), (50, 62976), (53, 62955), (54, 62940), (56, 62934), (58, 62925),

Gene: BronnyJames_94 Start: 55241, Stop: 55606, Start Num: 32

Candidate Starts for BronnyJames_94:

(Start: 32 @55241 has 40 MA's), (37, 55271), (72, 55505), (78, 55535),

Gene: Cardigan_95 Start: 56781, Stop: 57152, Start Num: 30

Candidate Starts for Cardigan_95:

(Start: 30 @56781 has 4 MA's), (44, 56886), (49, 56913), (65, 57018),

Gene: Cardigan_94 Start: 56443, Stop: 56784, Start Num: 30

Candidate Starts for Cardigan_94:

(4, 56191), (19, 56371), (Start: 30 @56443 has 4 MA's), (33, 56455), (59, 56629), (61, 56653), (79, 56737),

Gene: Catdawg_102 Start: 63432, Stop: 63001, Start Num: 20

Candidate Starts for Catdawg_102:

(Start: 20 @63432 has 30 MA's), (Start: 31 @63366 has 3 MA's), (34, 63351), (45, 63270), (50, 63246), (53, 63225), (54, 63210), (56, 63204), (58, 63195),

Gene: Colossa_102 Start: 55194, Stop: 55577, Start Num: 22

Candidate Starts for Colossa_102:

(16, 55146), (17, 55158), (18, 55164), (Start: 22 @55194 has 1 MA's), (28, 55212), (36, 55254), (78, 55527),

Gene: Constella_85 Start: 54550, Stop: 54906, Start Num: 32

Candidate Starts for Constella_85:

(1, 54229), (2, 54235), (3, 54265), (10, 54376), (11, 54385), (13, 54409), (Start: 32 @54550 has 40 MA's), (37, 54580), (56, 54709), (57, 54715), (63, 54751), (66, 54763), (67, 54766), (77, 54832), (78, 54835),

Gene: Corndog_98 Start: 61248, Stop: 60820, Start Num: 20

Candidate Starts for Corndog_98:

(Start: 20 @61248 has 30 MA's), (Start: 31 @61182 has 3 MA's), (34, 61167), (45, 61086), (50, 61062), (53, 61041), (54, 61026), (56, 61020), (58, 61011), (85, 60828),

Gene: Courthouse_90 Start: 54359, Stop: 54724, Start Num: 32

Candidate Starts for Courthouse_90:

(Start: 32 @54359 has 40 MA's), (37, 54389), (78, 54653),

Gene: Dallas_101 Start: 60389, Stop: 60748, Start Num: 32

Candidate Starts for Dallas_101:

(1, 60068), (2, 60074), (3, 60104), (10, 60215), (11, 60224), (13, 60248), (Start: 32 @60389 has 40 MA's), (37, 60419), (47, 60500), (51, 60518), (52, 60533), (60, 60578), (63, 60593), (78, 60677),

Gene: DmpstrDiver_101 Start: 59812, Stop: 60168, Start Num: 32

Candidate Starts for DmpstrDiver_101:

(1, 59491), (3, 59527), (5, 59566), (10, 59638), (11, 59647), (13, 59671), (Start: 32 @59812 has 40 MA's), (37, 59842), (50, 59938), (57, 59977), (60, 59998), (65, 60022), (77, 60094), (78, 60097),

Gene: Dove_85 Start: 55810, Stop: 56169, Start Num: 32

Candidate Starts for Dove_85:

(1, 55489), (2, 55495), (3, 55525), (10, 55636), (11, 55645), (13, 55669), (Start: 32 @55810 has 40 MA's), (37, 55840), (47, 55921), (51, 55939), (52, 55954), (60, 55999), (63, 56014), (78, 56098),

Gene: Duke13_96 Start: 58321, Stop: 58680, Start Num: 32

Candidate Starts for Duke13_96:

(1, 58000), (2, 58006), (3, 58036), (10, 58147), (11, 58156), (13, 58180), (Start: 32 @58321 has 40 MA's), (37, 58351), (47, 58432), (51, 58450), (52, 58465), (60, 58510), (63, 58525), (78, 58609),

Gene: Dylan_96 Start: 61072, Stop: 60626, Start Num: 20

Candidate Starts for Dylan_96:

(Start: 20 @61072 has 30 MA's), (Start: 31 @61006 has 3 MA's), (34, 60991), (45, 60910), (50, 60886), (53, 60865), (54, 60850), (56, 60844), (85, 60646), (87, 60634),

Gene: Ejimix_93 Start: 60108, Stop: 60467, Start Num: 32

Candidate Starts for Ejimix_93:

(1, 59787), (2, 59793), (3, 59823), (10, 59934), (11, 59943), (13, 59967), (Start: 32 @60108 has 40 MA's), (37, 60138), (47, 60219), (51, 60237), (52, 60252), (60, 60297), (63, 60312), (78, 60396),

Gene: EricMillard_93 Start: 59449, Stop: 59808, Start Num: 32

Candidate Starts for EricMillard_93:

(1, 59128), (2, 59134), (3, 59164), (10, 59275), (11, 59284), (13, 59308), (Start: 32 @59449 has 40 MA's), (37, 59479), (47, 59560), (51, 59578), (52, 59593), (60, 59638), (63, 59653), (78, 59737),

Gene: Familton_102 Start: 62844, Stop: 62413, Start Num: 20

Candidate Starts for Familton_102:

(Start: 20 @62844 has 30 MA's), (Start: 31 @62778 has 3 MA's), (34, 62763), (45, 62682), (50, 62658), (53, 62637), (54, 62622), (56, 62616), (58, 62607),

Gene: Finch_209 Start: 121773, Stop: 122186, Start Num: 25

Candidate Starts for Finch_209:

(Start: 25 @121773 has 1 MA's), (41, 121878), (48, 121932), (73, 122109), (75, 122124),

Gene: Firecracker_101 Start: 62707, Stop: 62264, Start Num: 20

Candidate Starts for Firecracker_101:

(9, 62809), (Start: 20 @62707 has 30 MA's), (Start: 31 @62641 has 3 MA's), (34, 62626), (45, 62545), (50, 62521), (53, 62500), (54, 62485), (56, 62479), (58, 62470), (85, 62284), (87, 62272),

Gene: FoulBall_100 Start: 62395, Stop: 61964, Start Num: 20

Candidate Starts for FoulBall_100:

(Start: 20 @62395 has 30 MA's), (Start: 31 @62329 has 3 MA's), (34, 62314), (45, 62233), (50, 62209), (53, 62188), (54, 62173), (56, 62167), (58, 62158),

Gene: Fudan_174 Start: 88952, Stop: 89458, Start Num: 15

Candidate Starts for Fudan_174:

(7, 88862), (8, 88886), (Start: 15 @88952 has 3 MA's), (18, 89000), (21, 89012), (23, 89039), (33, 89087), (43, 89156), (46, 89180), (50, 89201), (52, 89219), (69, 89318), (83, 89408),

Gene: Garnacho_164 Start: 88706, Stop: 89239, Start Num: 14

Candidate Starts for Garnacho_164:

(Start: 14 @88706 has 3 MA's), (29, 88826), (39, 88880), (64, 89060),

Gene: GiJojo_162 Start: 89485, Stop: 90018, Start Num: 14

Candidate Starts for GiJojo_162:

(Start: 14 @89485 has 3 MA's), (18, 89542), (27, 89590), (48, 89719), (49, 89722), (71, 89884), (81, 89947),

Gene: Gonephishing_87 Start: 53920, Stop: 54285, Start Num: 32

Candidate Starts for Gonephishing_87:

(Start: 32 @53920 has 40 MA's), (37, 53950), (72, 54184), (78, 54214),

Gene: Grayson_233 Start: 113502, Stop: 113894, Start Num: 31

Candidate Starts for Grayson_233:

(Start: 31 @113502 has 3 MA's), (35, 113520), (40, 113562), (41, 113568), (55, 113667), (56, 113670), (61, 113715), (85, 113871),

Gene: Halley_101 Start: 60382, Stop: 60741, Start Num: 32

Candidate Starts for Halley_101:

(1, 60061), (2, 60067), (3, 60097), (10, 60208), (11, 60217), (13, 60241), (Start: 32 @60382 has 40 MA's), (37, 60412), (47, 60493), (51, 60511), (52, 60526), (60, 60571), (63, 60586), (78, 60670),

Gene: Hannaconda_86 Start: 53322, Stop: 53678, Start Num: 32

Candidate Starts for Hannaconda_86:

(1, 53001), (3, 53037), (5, 53076), (10, 53148), (11, 53157), (13, 53181), (Start: 32 @53322 has 40 MA's), (37, 53352), (50, 53448), (57, 53487), (60, 53508), (65, 53532), (77, 53604), (78, 53607),

Gene: Hidrated_85 Start: 58278, Stop: 58643, Start Num: 32

Candidate Starts for Hidrated_85:

(Start: 32 @58278 has 40 MA's), (37, 58308), (78, 58572),

Gene: HokkenD_88 Start: 58651, Stop: 59010, Start Num: 32

Candidate Starts for HokkenD_88:

(1, 58330), (2, 58336), (3, 58366), (10, 58477), (11, 58486), (13, 58510), (Start: 32 @58651 has 40 MA's), (37, 58681), (47, 58762), (51, 58780), (52, 58795), (60, 58840), (63, 58855), (78, 58939),

Gene: Hughesyang_99 Start: 60340, Stop: 60699, Start Num: 32

Candidate Starts for Hughesyang_99:

(1, 60019), (2, 60025), (3, 60055), (10, 60166), (11, 60175), (13, 60199), (Start: 32 @60340 has 40 MA's), (37, 60370), (47, 60451), (51, 60469), (52, 60484), (60, 60529), (63, 60544), (78, 60628),

Gene: Idergollasper_103 Start: 63392, Stop: 62961, Start Num: 20

Candidate Starts for Idergollasper_103:

(Start: 20 @63392 has 30 MA's), (Start: 31 @63326 has 3 MA's), (34, 63311), (45, 63230), (50, 63206), (53, 63185), (54, 63170), (56, 63164), (58, 63155),

Gene: Imara_97 Start: 62198, Stop: 61767, Start Num: 20

Candidate Starts for Imara_97:

(Start: 20 @62198 has 30 MA's), (Start: 31 @62132 has 3 MA's), (34, 62117), (45, 62036), (50, 62012), (53, 61991), (54, 61976), (56, 61970), (58, 61961),

Gene: JangDynasty_97 Start: 61738, Stop: 61307, Start Num: 20

Candidate Starts for JangDynasty_97:

(9, 61840), (Start: 20 @61738 has 30 MA's), (Start: 31 @61672 has 3 MA's), (34, 61657), (45, 61576), (50, 61552), (53, 61531), (54, 61516), (56, 61510), (58, 61501),

Gene: JonJames_92 Start: 56636, Stop: 56977, Start Num: 30

Candidate Starts for JonJames_92:

(4, 56384), (19, 56564), (Start: 30 @56636 has 4 MA's), (33, 56648), (59, 56822), (61, 56846), (79, 56930),

Gene: JonJames_93 Start: 56974, Stop: 57345, Start Num: 30

Candidate Starts for JonJames_93:

(Start: 30 @56974 has 4 MA's), (44, 57079), (49, 57106), (65, 57211),

Gene: JuicyJay_96 Start: 61516, Stop: 61875, Start Num: 32

Candidate Starts for JuicyJay_96:

(1, 61195), (2, 61201), (3, 61231), (10, 61342), (11, 61351), (13, 61375), (Start: 32 @61516 has 40 MA's), (37, 61546), (47, 61627), (51, 61645), (52, 61660), (60, 61705), (63, 61720), (78, 61804),

Gene: Kalah2_93 Start: 59675, Stop: 60034, Start Num: 32

Candidate Starts for Kalah2_93:

(1, 59354), (2, 59360), (3, 59390), (10, 59501), (11, 59510), (13, 59534), (Start: 32 @59675 has 40 MA's), (37, 59705), (47, 59786), (51, 59804), (52, 59819), (60, 59864), (63, 59879), (78, 59963),

Gene: KashFlow_90 Start: 54883, Stop: 55239, Start Num: 32

Candidate Starts for KashFlow_90:

(1, 54562), (3, 54598), (5, 54637), (10, 54709), (11, 54718), (13, 54742), (Start: 32 @54883 has 40 MA's), (37, 54913), (50, 55009), (57, 55048), (60, 55069), (65, 55093), (77, 55165), (78, 55168),

Gene: KingPhillip3_99 Start: 63095, Stop: 62661, Start Num: 20

Candidate Starts for KingPhillip3_99:

(9, 63197), (Start: 20 @63095 has 30 MA's), (Start: 31 @63029 has 3 MA's), (34, 63014), (45, 62933), (50, 62909), (53, 62888), (54, 62873), (56, 62867), (58, 62858),

Gene: Klein_100 Start: 59382, Stop: 59741, Start Num: 32

Candidate Starts for Klein_100:

(1, 59061), (2, 59067), (3, 59097), (10, 59208), (11, 59217), (13, 59241), (Start: 32 @59382 has 40 MA's), (37, 59412), (47, 59493), (51, 59511), (52, 59526), (60, 59571), (63, 59586), (78, 59670),

Gene: Krili_103 Start: 62941, Stop: 62510, Start Num: 20

Candidate Starts for Krili_103:

(Start: 20 @62941 has 30 MA's), (Start: 31 @62875 has 3 MA's), (34, 62860), (45, 62779), (50, 62755), (53, 62734), (54, 62719), (56, 62713), (58, 62704),

Gene: LittleE_98 Start: 58455, Stop: 58820, Start Num: 32

Candidate Starts for LittleE_98:

(Start: 32 @58455 has 40 MA's), (37, 58485), (68, 58692), (78, 58749),

Gene: Lucky2013_92 Start: 54775, Stop: 55140, Start Num: 32

Candidate Starts for Lucky2013_92:

(Start: 32 @54775 has 40 MA's), (37, 54805), (72, 55039), (78, 55069),

Gene: LuckySocke_172 Start: 88901, Stop: 89407, Start Num: 15

Candidate Starts for LuckySocke_172:

(7, 88811), (8, 88835), (Start: 15 @88901 has 3 MA's), (18, 88949), (21, 88961), (23, 88988), (33, 89036), (43, 89105), (46, 89129), (50, 89150), (52, 89168), (69, 89267), (83, 89357),

Gene: MadKillah_104 Start: 62467, Stop: 62042, Start Num: 20

Candidate Starts for MadKillah_104:

(Start: 20 @62467 has 30 MA's), (Start: 31 @62401 has 3 MA's), (34, 62386), (45, 62305), (50, 62281), (53, 62260), (54, 62245), (56, 62239), (58, 62230), (85, 62050),

Gene: Marleymoo_81 Start: 56537, Stop: 56893, Start Num: 32

Candidate Starts for Marleymoo_81:

(1, 56216), (3, 56252), (5, 56291), (10, 56363), (11, 56372), (13, 56396), (Start: 32 @56537 has 40 MA's), (37, 56567), (50, 56663), (57, 56702), (60, 56723), (65, 56747), (77, 56819), (78, 56822),

Gene: MiaZeal_95 Start: 55431, Stop: 55796, Start Num: 32

Candidate Starts for MiaZeal_95:

(Start: 32 @55431 has 40 MA's), (37, 55461), (78, 55725),

Gene: Minerva_99 Start: 60327, Stop: 60686, Start Num: 32

Candidate Starts for Minerva_99:

(1, 60006), (2, 60012), (3, 60042), (10, 60153), (11, 60162), (13, 60186), (Start: 32 @60327 has 40 MA's), (37, 60357), (47, 60438), (51, 60456), (52, 60471), (60, 60516), (63, 60531), (78, 60615),

Gene: ModicumRichard_63 Start: 43300, Stop: 43671, Start Num: 24

Candidate Starts for ModicumRichard_63:

(6, 43108), (Start: 24 @43300 has 1 MA's), (Start: 31 @43333 has 3 MA's), (45, 43429), (62, 43531), (82, 43660),

Gene: Mori_101 Start: 62970, Stop: 62539, Start Num: 20

Candidate Starts for Mori_101:

(Start: 20 @62970 has 30 MA's), (Start: 31 @62904 has 3 MA's), (34, 62889), (45, 62808), (50, 62784), (53, 62763), (54, 62748), (56, 62742), (58, 62733),

Gene: Murai_101 Start: 62818, Stop: 62387, Start Num: 20

Candidate Starts for Murai_101:

(Start: 20 @62818 has 30 MA's), (Start: 31 @62752 has 3 MA's), (34, 62737), (45, 62656), (50, 62632), (53, 62611), (54, 62596), (56, 62590), (58, 62581),

Gene: Nekros_97 Start: 58390, Stop: 58755, Start Num: 32

Candidate Starts for Nekros_97:

(Start: 32 @58390 has 40 MA's), (37, 58420), (72, 58654), (78, 58684),

Gene: Nibley_88 Start: 54818, Stop: 55183, Start Num: 32

Candidate Starts for Nibley_88:

(Start: 32 @54818 has 40 MA's), (37, 54848), (72, 55082), (78, 55112),

Gene: NiebruSaylor_101 Start: 62085, Stop: 61654, Start Num: 20

Candidate Starts for NiebruSaylor_101:

(Start: 20 @62085 has 30 MA's), (Start: 31 @62019 has 3 MA's), (34, 62004), (45, 61923), (50, 61899), (53, 61878), (54, 61863), (56, 61857), (58, 61848),

Gene: NihilNomen_101 Start: 60468, Stop: 60827, Start Num: 32

Candidate Starts for NihilNomen_101:

(1, 60147), (2, 60153), (3, 60183), (10, 60294), (11, 60303), (13, 60327), (Start: 32 @60468 has 40 MA's), (37, 60498), (47, 60579), (51, 60597), (52, 60612), (60, 60657), (63, 60672), (78, 60756),

Gene: ObLaDi_63 Start: 43248, Stop: 43619, Start Num: 26

Candidate Starts for ObLaDi_63:

(6, 43053), (Start: 26 @43248 has 1 MA's), (Start: 31 @43281 has 3 MA's), (45, 43377), (62, 43479), (82, 43608),

Gene: Odette_99 Start: 59511, Stop: 59870, Start Num: 32

Candidate Starts for Odette_99:

(1, 59190), (2, 59196), (3, 59226), (10, 59337), (11, 59346), (13, 59370), (Start: 32 @59511 has 40 MA's), (37, 59541), (47, 59622), (51, 59640), (52, 59655), (60, 59700), (63, 59715), (78, 59799),

Gene: Omega_104 Start: 60228, Stop: 60593, Start Num: 32

Candidate Starts for Omega_104:

(Start: 32 @60228 has 40 MA's), (37, 60258), (68, 60465), (78, 60522),

Gene: Optimus_93 Start: 59002, Stop: 59361, Start Num: 32

Candidate Starts for Optimus_93:

(1, 58681), (2, 58687), (3, 58717), (10, 58828), (11, 58837), (13, 58861), (Start: 32 @59002 has 40 MA's), (37, 59032), (47, 59113), (51, 59131), (52, 59146), (60, 59191), (63, 59206), (78, 59290),

Gene: Park1214_183 Start: 90265, Stop: 90783, Start Num: 14

Candidate Starts for Park1214_183:

(Start: 14 @90265 has 3 MA's), (29, 90382), (38, 90427), (48, 90499), (64, 90616), (76, 90688),

Gene: Peregrin_227 Start: 113498, Stop: 113893, Start Num: 31

Candidate Starts for Peregrin_227:

(Start: 31 @113498 has 3 MA's), (35, 113516), (40, 113558), (41, 113564), (55, 113663), (61, 113711), (85, 113870),

Gene: Phoebus_101 Start: 61651, Stop: 62010, Start Num: 32

Candidate Starts for Phoebus_101:

(1, 61330), (2, 61336), (3, 61366), (10, 61477), (11, 61486), (13, 61510), (Start: 32 @61651 has 40 MA's), (37, 61681), (47, 61762), (51, 61780), (52, 61795), (60, 61840), (63, 61855), (78, 61939),

Gene: Porcelain_93 Start: 55431, Stop: 55796, Start Num: 32

Candidate Starts for Porcelain_93:

(Start: 32 @55431 has 40 MA's), (37, 55461), (78, 55725),

Gene: Pound_91 Start: 59679, Stop: 60038, Start Num: 32

Candidate Starts for Pound_91:

(1, 59358), (2, 59364), (3, 59394), (10, 59505), (11, 59514), (13, 59538), (Start: 32 @59679 has 40 MA's), (37, 59709), (47, 59790), (51, 59808), (52, 59823), (60, 59868), (63, 59883), (78, 59967),

Gene: Rearden_89 Start: 55614, Stop: 55979, Start Num: 32

Candidate Starts for Rearden_89:

(Start: 32 @55614 has 40 MA's), (37, 55644), (72, 55878), (78, 55908),

Gene: Redno2_91 Start: 56202, Stop: 56561, Start Num: 32

Candidate Starts for Redno2_91:

(1, 55881), (2, 55887), (3, 55917), (10, 56028), (11, 56037), (13, 56061), (Start: 32 @56202 has 40 MA's), (37, 56232), (47, 56313), (51, 56331), (52, 56346), (60, 56391), (63, 56406), (78, 56490),

Gene: Ryadel_105 Start: 63803, Stop: 63378, Start Num: 20

Candidate Starts for Ryadel_105:

(Start: 20 @63803 has 30 MA's), (Start: 31 @63737 has 3 MA's), (34, 63722), (45, 63641), (50, 63617), (53, 63596), (54, 63581), (56, 63575), (58, 63566), (85, 63386),

Gene: Schatzie_94 Start: 59258, Stop: 59617, Start Num: 32

Candidate Starts for Schatzie_94:

(1, 58937), (2, 58943), (3, 58973), (10, 59084), (11, 59093), (13, 59117), (Start: 32 @59258 has 40 MA's), (37, 59288), (47, 59369), (51, 59387), (52, 59402), (60, 59447), (63, 59462), (78, 59546),

Gene: SchoolBus_100 Start: 62561, Stop: 62130, Start Num: 20

Candidate Starts for SchoolBus_100:

(Start: 20 @62561 has 30 MA's), (Start: 31 @62495 has 3 MA's), (34, 62480), (45, 62399), (50, 62375), (53, 62354), (54, 62339), (56, 62333), (58, 62324),

Gene: Schuy_101 Start: 62180, Stop: 61749, Start Num: 20

Candidate Starts for Schuy_101:

(Start: 20 @62180 has 30 MA's), (Start: 31 @62114 has 3 MA's), (34, 62099), (45, 62018), (50, 61994), (53, 61973), (54, 61958), (56, 61952), (58, 61943),

Gene: Shaboozey_93 Start: 55262, Stop: 55627, Start Num: 32

Candidate Starts for Shaboozey_93:

(Start: 32 @55262 has 40 MA's), (37, 55292), (72, 55526), (78, 55556),

Gene: Shida_103 Start: 63065, Stop: 62631, Start Num: 20

Candidate Starts for Shida_103:

(9, 63167), (Start: 20 @63065 has 30 MA's), (Start: 31 @62999 has 3 MA's), (34, 62984), (45, 62903), (50, 62879), (53, 62858), (54, 62843), (56, 62837), (58, 62828),

Gene: Smooch_100 Start: 62946, Stop: 62518, Start Num: 20

Candidate Starts for Smooch_100:

(9, 63048), (Start: 20 @62946 has 30 MA's), (Start: 31 @62880 has 3 MA's), (34, 62865), (45, 62784), (50, 62760), (53, 62739), (54, 62724), (56, 62718), (58, 62709), (85, 62526),

Gene: Squint_93 Start: 55550, Stop: 55915, Start Num: 32

Candidate Starts for Squint_93:

(Start: 32 @55550 has 40 MA's), (37, 55580), (78, 55844),

Gene: Superphikiman_92 Start: 54641, Stop: 55006, Start Num: 32

Candidate Starts for Superphikiman_92:

(Start: 32 @54641 has 40 MA's), (37, 54671), (78, 54935),

Gene: Talos_174 Start: 88895, Stop: 89413, Start Num: 15

Candidate Starts for Talos_174:

(Start: 15 @88895 has 3 MA's), (18, 88943), (33, 89030), (43, 89099), (74, 89294),

Gene: TelAviv_98 Start: 62790, Stop: 62356, Start Num: 20

Candidate Starts for TelAviv_98:

(9, 62892), (12, 62868), (Start: 20 @62790 has 30 MA's), (Start: 31 @62724 has 3 MA's), (34, 62709), (45, 62628), (50, 62604), (53, 62583), (54, 62568), (56, 62562), (58, 62553),

Gene: Thibault_84 Start: 55167, Stop: 55523, Start Num: 32

Candidate Starts for Thibault_84:

(1, 54846), (2, 54852), (3, 54882), (10, 54993), (11, 55002), (13, 55026), (Start: 32 @55167 has 40 MA's), (37, 55197), (56, 55326), (57, 55332), (63, 55368), (66, 55380), (67, 55383), (77, 55449), (78, 55452),

Gene: ThreeRngTarjay_96 Start: 60543, Stop: 60902, Start Num: 32

Candidate Starts for ThreeRngTarjay_96:

(1, 60222), (2, 60228), (3, 60258), (10, 60369), (11, 60378), (13, 60402), (Start: 32 @60543 has 40 MA's), (37, 60573), (47, 60654), (51, 60672), (52, 60687), (60, 60732), (63, 60747), (78, 60831),

Gene: Trina_185 Start: 102486, Stop: 102851, Start Num: 31

Candidate Starts for Trina_185:

(Start: 31 @102486 has 3 MA's), (42, 102555), (49, 102615), (61, 102672), (63, 102687), (66, 102699), (70, 102732), (80, 102771), (84, 102822), (86, 102837),

Gene: Vagabond_100 Start: 62228, Stop: 61797, Start Num: 20

Candidate Starts for Vagabond_100:

(Start: 20 @62228 has 30 MA's), (Start: 31 @62162 has 3 MA's), (34, 62147), (45, 62066), (50, 62042), (53, 62021), (54, 62006), (56, 62000), (58, 61991),

Gene: VanLee_105 Start: 56038, Stop: 56412, Start Num: 22

Candidate Starts for VanLee_105:

(17, 56002), (18, 56008), (Start: 22 @56038 has 1 MA's), (28, 56056), (36, 56098), (70, 56335), (82, 56401),

Gene: Vorrps_101 Start: 62971, Stop: 62540, Start Num: 20

Candidate Starts for Vorrps_101:

(Start: 20 @62971 has 30 MA's), (Start: 31 @62905 has 3 MA's), (34, 62890), (45, 62809), (50, 62785), (53, 62764), (54, 62749), (56, 62743), (58, 62734),

Gene: Wanda_103 Start: 59659, Stop: 60018, Start Num: 32

Candidate Starts for Wanda_103:

(1, 59338), (2, 59344), (3, 59374), (10, 59485), (11, 59494), (13, 59518), (Start: 32 @59659 has 40 MA's), (37, 59689), (47, 59770), (51, 59788), (52, 59803), (60, 59848), (63, 59863), (78, 59947),

Gene: Wildflower_98 Start: 60971, Stop: 60525, Start Num: 20

Candidate Starts for Wildflower_98:

(Start: 20 @60971 has 30 MA's), (Start: 31 @60905 has 3 MA's), (34, 60890), (45, 60809), (50, 60785), (53, 60764), (54, 60749), (56, 60743), (58, 60734), (85, 60545), (87, 60533),

Gene: Winget_101 Start: 62865, Stop: 62434, Start Num: 20

Candidate Starts for Winget_101:

(Start: 20 @62865 has 30 MA's), (Start: 31 @62799 has 3 MA's), (34, 62784), (45, 62703), (50, 62679), (53, 62658), (54, 62643), (56, 62637), (58, 62628),

Gene: Wogge42_98 Start: 62149, Stop: 61718, Start Num: 20

Candidate Starts for Wogge42_98:

(Start: 20 @62149 has 30 MA's), (Start: 31 @62083 has 3 MA's), (34, 62068), (45, 61987), (50, 61963), (53, 61942), (54, 61927), (56, 61921), (58, 61912),

Gene: Xiaokay_89 Start: 56418, Stop: 56783, Start Num: 32

Candidate Starts for Xiaokay_89:

(Start: 32 @56418 has 40 MA's), (37, 56448), (78, 56712),

Gene: Yeet_92 Start: 58760, Stop: 59119, Start Num: 32

Candidate Starts for Yeet_92:

(1, 58439), (2, 58445), (3, 58475), (10, 58586), (11, 58595), (13, 58619), (Start: 32 @58760 has 40 MA's), (37, 58790), (47, 58871), (51, 58889), (52, 58904), (60, 58949), (63, 58964), (78, 59048),

Gene: YoyoKar_98 Start: 62126, Stop: 61692, Start Num: 20

Candidate Starts for YoyoKar_98:

(9, 62228), (12, 62204), (Start: 20 @62126 has 30 MA's), (Start: 31 @62060 has 3 MA's), (34, 62045), (45, 61964), (50, 61940), (53, 61919), (54, 61904), (56, 61898), (58, 61889),

Gene: YungJamal_100 Start: 62022, Stop: 61594, Start Num: 20

Candidate Starts for YungJamal_100:

(Start: 20 @62022 has 30 MA's), (Start: 31 @61956 has 3 MA's), (34, 61941), (45, 61860), (50, 61836), (53, 61815), (54, 61800), (56, 61794), (58, 61785), (85, 61602),

Gene: Yvonnetastic_90 Start: 54178, Stop: 54519, Start Num: 30

Candidate Starts for Yvonnetastic_90:

(4, 53926), (19, 54106), (Start: 30 @54178 has 4 MA's), (33, 54190), (59, 54364), (61, 54388), (79, 54472),

Gene: Yvonnetastic_91 Start: 54516, Stop: 54887, Start Num: 30

Candidate Starts for Yvonnetastic_91:

(Start: 30 @54516 has 4 MA's), (44, 54621), (49, 54648), (65, 54753),

Gene: Zakhe101_96 Start: 61076, Stop: 60630, Start Num: 20

Candidate Starts for Zakhe101_96:

(Start: 20 @61076 has 30 MA's), (Start: 31 @61010 has 3 MA's), (34, 60995), (45, 60914), (50, 60890), (53, 60869), (54, 60854), (56, 60848), (85, 60650), (87, 60638),

Gene: Zebo_100 Start: 62561, Stop: 62130, Start Num: 20

Candidate Starts for Zebo_100:

(Start: 20 @62561 has 30 MA's), (Start: 31 @62495 has 3 MA's), (34, 62480), (45, 62399), (50, 62375), (53, 62354), (54, 62339), (56, 62333), (58, 62324),

Gene: Zelink_96 Start: 60854, Stop: 61213, Start Num: 32

Candidate Starts for Zelink_96:

(1, 60533), (2, 60539), (3, 60569), (10, 60680), (11, 60689), (13, 60713), (Start: 32 @60854 has 40 MA's), (37, 60884), (47, 60965), (51, 60983), (52, 60998), (60, 61043), (63, 61058), (78, 61142),