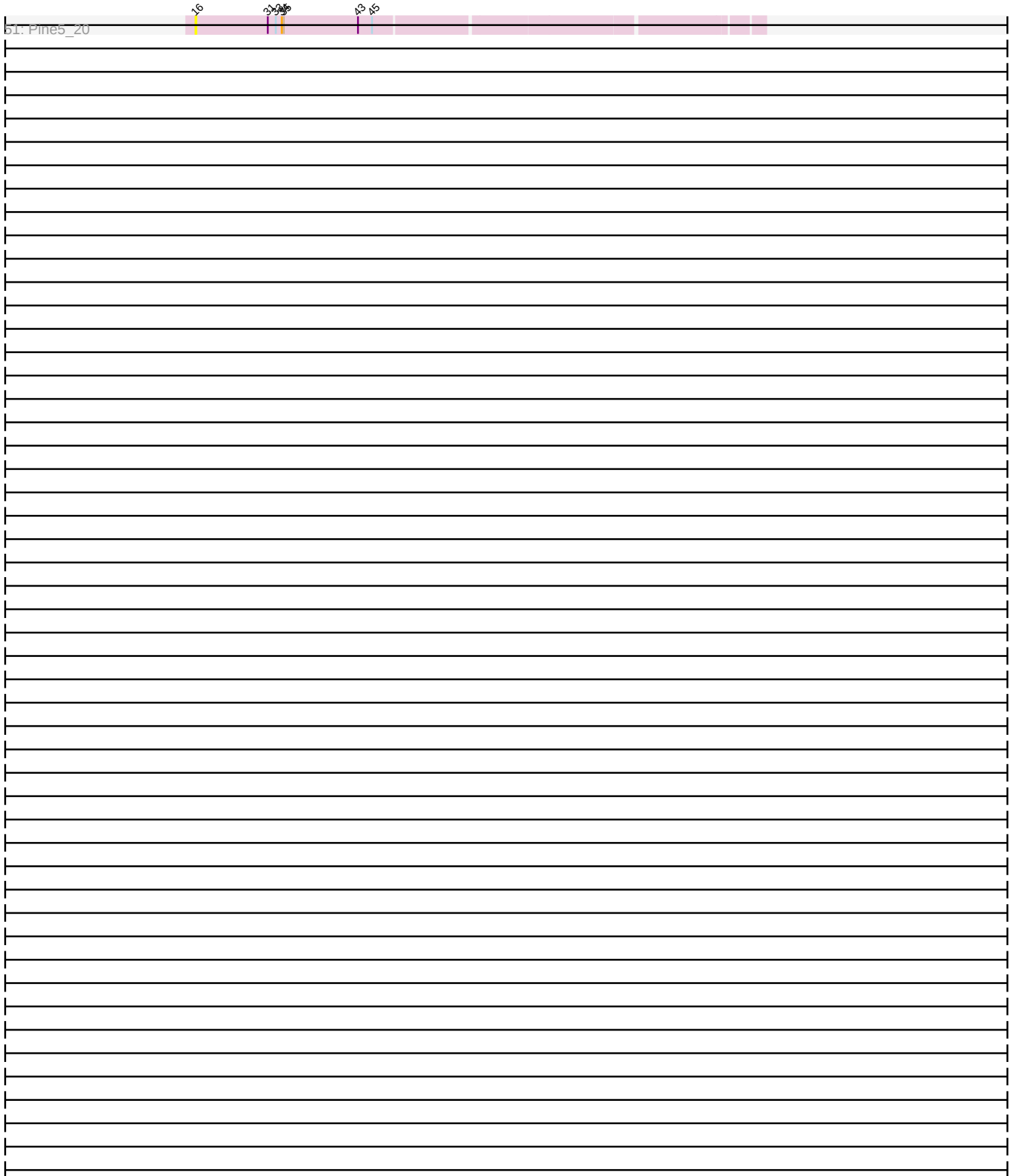


Pham 280130

[illegible]

Pham 280130



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 280130 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280130 has 175 members, 30 are drafts.

Phages represented in each track:

- Track 1 : Dori_17, Mask_17, Sejanus_17, Mao1_16
- Track 2 : Causa_27
- Track 3 : StAugustine_25
- Track 4 : Brownie5_21, Boyle_21, Opia_21, Rosebush_21, Hedgerow_21, LilSmirk_21, Tinciduntolum_22, Glass_21, West99_21, Sabella_21, Blocker23_21, Ares_21, Tres_21, Kheth_21, Lars_21, MasterPo_21
- Track 5 : Qyrzula_20, Arbiter_21, Phantasmagoria_21, LizLemon_21
- Track 6 : Eaglehorse_21, Coffee_21, Laurie_21, Kaleb_21, PrinceCharming_21, Vic9_00021, Allegro_21, Calamitous_21, Lephleur_21, TA17A_21, Rhinoforte_21, Bananafish_21
- Track 7 : Holeinone_21
- Track 8 : Faze9_21, Kolhan_21, FrenchFry_21
- Track 9 : ItsyBitsy1_21
- Track 10 : Godines_21
- Track 11 : Obutu_21, Mulaychimus_21, Neos5_21, Chandler_21, Bernardo_21, Compostia_22, GlenHope_22, Baloo_21, Gervas_21, HarveySr_21, Briakila_21, OrangeOswald_21, Morty007_21, RomaT_21, Deenasa_21, Kronus_20, Chentzyk_20, Audrey_21, Rita1961_21, Phlyer_21, Shenandoah_21, ChaChing_21, Phayeta_21, Athena_22, Mortcellus_20, Daisy_21, Marley1013_21, SwainyDoc_21, Glubnar_22, Devonte_21, TinyTerror_21, Ben11_20, Marlia_21, Heathcliff_21, Olivio_20, RagingRooster_21, SynergyX_21, Akoma_21, LestyG_21, Tydolla_21, Jackstina_20, Pipefish_21, Casbah_20, Yahalom_21, Halfpint_20, MmasiCarm_21, Yinz_21, SlippinJimmy_21, Chalmers_21, Phaedrus_20, Abinghost_21, Gadjet_22, Corofin_21, Kamiyu_21, Philly_20, Nozo_21
- Track 12 : Vincenzo_19, AlanGrant_19
- Track 13 : Nigel_16
- Track 14 : Magpie_18, Hydro_18, Lolalove_18, VioletZ_18
- Track 15 : Xincheng_18
- Track 16 : JoyceMaria_18, Hangman_18, Mithril_18, Zemanar_19, BrownCNA_19, Waleliano_18
- Track 17 : Stinger_16
- Track 18 : Jolie1_016, ForDig_16
- Track 19 : 39HC_016
- Track 20 : Hosp_014
- Track 21 : 40BC_016
- Track 22 : KayaCho_16
- Track 23 : Stillion_49, Jollymon_49, Purplicious_48, Amo99_50, ColdSoup_50

- Track 24 : Clawz_49, Makar_50
- Track 25 : Grumio_49, Sting_48, DonTron_49, Soos_45, KingstonB_50
- Track 26 : Ligma_18, Axumite_18, Shatter_18, Fresco_18
- Track 27 : Evaa_19
- Track 28 : Sisko_18
- Track 29 : MarioKart_18
- Track 30 : CaiB_20, FelixTres_20, Blackpen_20, CloverMinnie_20, MossRose_20, MakoManhole_20
- Track 31 : TraderJ_20
- Track 32 : BobRoss2024_17
- Track 33 : LittleMunchkin_19
- Track 34 : AksarBAT_18, NHagos_18
- Track 35 : Sour_21
- Track 36 : Yago84_18
- Track 37 : AnClar_18
- Track 38 : Yeshua_20, Wooper_20
- Track 39 : CharlottesWeb_18
- Track 40 : AnarQue_20
- Track 41 : BiggityBass_17
- Track 42 : Coldpizza_20
- Track 43 : Skugga_28
- Track 44 : Gina_31, Teamocil_31
- Track 45 : Dewdrop_63, Leaf_63
- Track 46 : Jeon_15, GodPhather_16
- Track 47 : Taptic_15, Megabear_15, Cepens_15
- Track 48 : PR_15, D12_15
- Track 49 : Argie_16
- Track 50 : TPA2_27
- Track 51 : Pine5_20

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 55 of the 145 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_21, Akoma_21, AlanGrant_19, Athena_22, Audrey_21, Baloo_21, Ben11_20, Bernardo_21, Briakila_21, Casbah_20, ChaChing_21, Chalmers_21, Chandler_21, Chentzyk_20, Compostia_22, Corofin_21, Daisy_21, Deenasa_21, Devonte_21, Evaa_19, Gadget_22, Gervas_21, GlenHope_22, Glubnar_22, Halfpint_20, HarveySr_21, Heathcliff_21, Jackstina_20, Kamiyu_21, Kronus_20, LestyG_21, Marley1013_21, Marlia_21, MmasiCarm_21, Mortcellus_20, Morty007_21, Mulaychimus_21, Neos5_21, Nigel_16, Nozo_21, Obutu_21, Olivio_20, OrangeOswald_21, Phaedruss_20, Phayeta_21, Philly_20, Phlyer_21, Pipefish_21, RagingRooster_21, Rita1961_21, RomaT_21, Shenandoah_21, SlippinJimmy_21, Stinger_16, SwainyDoc_21, SynergyX_21, TinyTerror_21, Tydolla_21, Vincenzo_19, Yahalom_21, Yinz_21,

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

-

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

- 39HC_016, 40BC_016, AksarBAT_18, Allegro_21, Amo99_50, AnClar_18, AnarQue_20, Arbiter_21, Ares_21, Argie_16, Axumite_18, Bananafish_21, BiggityBass_17, Blackpen_20, Blocker23_21, BobRoss2024_17, Boyle_21, BrownCNA_19, Brownie5_21, CaiB_20, Calamitous_21, Causa_27, Cepens_15, CharlottesWeb_18, Clawz_49, CloverMinnie_20, Coffee_21, ColdSoup_50, Coldpizza_20, D12_15, Dewdrop_63, DonTron_49, Dori_17, Eaglehorse_21, Faze9_21, FelixTres_20, ForDig_16, FrenchFry_21, Fresco_18, Gina_31, Glass_21, GodPhather_16, Godines_21, Grumio_49, Hangman_18, Hedgerow_21, Holeinone_21, Hosp_014, Hydro_18, ItsyBitsy1_21, Jeon_15, Jolie1_016, Jollymon_49, JoyceMaria_18, Kaleb_21, KayaCho_16, Kheth_21, KingstonB_50, Kolhan_21, Lars_21, Laurie_21, Leaf_63, Lephleur_21, Ligma_18, LilSmirk_21, LittleMunchkin_19, LizLemon_21, Lolalove_18, Magpie_18, Makar_50, MakoManhole_20, Mao1_16, Mariokart_18, Mask_17, MasterPo_21, Megabear_15, Mithril_18, MossRose_20, NHagos_18, Opia_21, PR_15, Phantasmagoria_21, Pine5_20, PrinceCharming_21, Purplicious_48, Qyrzula_20, Rhinoforte_21, Rosebush_21, Sabella_21, Sejanus_17, Shatter_18, Sisko_18, Skugga_28, Soos_45, Sour_21, StAugustine_25, Stillion_49, Sting_48, TA17A_21, TPA2_27, Taptic_15, Teamocil_31, Tinciduntolum_22, TraderJ_20, Tres_21, Vic9_00021, VioletZ_18, Waleliano_18, West99_21, Wooper_20, Xincheng_18, Yago84_18, Yeshua_20, Zemanar_19,

Summary by start number:

Start 10:

- Found in 4 of 175 (2.3%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: 40BC_016 (B6),

Start 12:

- Found in 7 of 175 (4.0%) of genes in pham
- Manual Annotations of this start: 6 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Causa_27 (AI), Dewdrop_63 (GC), Gina_31 (EC), Leaf_63 (GC), Skugga_28 (EC), StAugustine_25 (AI), Teamocil_31 (EC),

Start 13:

- Found in 17 of 175 (9.7%) of genes in pham
- Manual Annotations of this start: 11 of 145
- Called 94.1% of time when present
- Phage (with cluster) where this start called: 39HC_016 (B6), BrownCNA_19 (B4), ForDig_16 (B6), Hangman_18 (B4), Hosp_014 (B6), Hydro_18 (B4), Jolie1_016 (B6), JoyceMaria_18 (B4), KayaCho_16 (B6), Lolalove_18 (B4), Magpie_18 (B4), Mithril_18 (B4), VioletZ_18 (B4), Waleliano_18 (B4), Xincheng_18 (B4), Zemanar_19 (B4),

Start 14:

- Found in 61 of 175 (34.9%) of genes in pham
- Manual Annotations of this start: 55 of 145
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Abinghost_21 (B3), Akoma_21 (B3), AlanGrant_19 (B4), Athena_22 (B3), Audrey_21 (B3), Baloo_21 (B3), Ben11_20 (B3), Bernardo_21 (B3), Briakila_21 (B3), Casbah_20 (B3), ChaChing_21 (B3), Chalmers_21 (B3), Chandler_21 (B3), Chentzyk_20 (B3), Compostia_22 (B3), Corofin_21 (B3), Daisy_21 (B3), Deenasa_21 (B3), Devonte_21 (B3), Evaa_19 (DR), Gadget_22 (B3), Gervas_21 (B3), GlenHope_22 (B3), Glubnar_22 (B3), Halfpint_20 (B3), HarveySr_21 (B3), Heathcliff_21 (B3), Jackstina_20 (B3), Kamiyu_21 (B3), Kronus_20 (B3), LestyG_21 (B3), Marley1013_21 (B3), Marlia_21 (B3), MmasiCarm_21 (B3), Mortcellus_20 (B3), Morty007_21 (B3), Mulaychimus_21 (B3), Neos5_21 (B3), Nigel_16 (B4), Nozo_21 (B3), Obutu_21 (B3), Olivio_20 (B3), OrangeOswald_21 (B3), Phaedrus_20 (B3), Phayeta_21 (B3), Philly_20 (B3), Phlyer_21 (B3), Pipefish_21 (B3), RagingRooster_21 (B3), Rita1961_21 (B3), RomaT_21 (B3), Shenandoah_21 (B3), SlippinJimmy_21 (B3), Stinger_16 (B4), SwainyDoc_21 (B3), SynergyX_21 (B3), TinyTerror_21 (B3), Tydolla_21 (B3), Vincenzo_19 (B4), Yahalom_21 (B3), Yinz_21 (B3),

Start 15:

- Found in 60 of 175 (34.3%) of genes in pham
- Manual Annotations of this start: 51 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT_18 (DR), Allegro_21 (B2), AnClar_18 (DR), AnarQue_20 (DR), Arbiter_21 (B2), Ares_21 (B2), Bananafish_21 (B2), BiggityBass_17 (DR), Blackpen_20 (DR), Blocker23_21 (B2), BobRoss2024_17 (DR), Boyle_21 (B2), Brownie5_21 (B2), CaiB_20 (DR), Calamitous_21 (B2), CharlottesWeb_18 (DR), CloverMinnie_20 (DR), Coffee_21 (B2), Coldpizza_20 (DR), Eaglehorse_21 (B2), Faze9_21 (B2), FelixTres_20 (DR), FrenchFry_21 (B2), Glass_21 (B2), Godines_21 (B2), Hedgerow_21 (B2), Holeinone_21 (B2), ItsyBitsy1_21 (B2), Kaleb_21 (B2), Kheth_21 (B2), Kolhan_21 (B2), Lars_21 (B2), Laurie_21 (B2), Lephleur_21 (B2), LilSmirk_21 (B2), LizLemon_21 (B2), MakoManhole_20 (DR), Mariokart_18 (DR), MasterPo_21 (B2), MossRose_20 (DR), NHagos_18 (DR), Opia_21 (B2), Phantasmagoria_21 (B2), PrinceCharming_21 (B2), Qyrzula_20 (B2), Rhinoforte_21 (B2), Rosebush_21 (B2), Sabella_21 (B2), Sisko_18 (DR), Sour_21 (DR), TA17A_21 (B2), TPA2_27 (singleton), Tinciduntsum_22 (B2), TraderJ_20 (DR), Tres_21 (B2), Vic9_00021 (B2), West99_21 (B2), Wooper_20 (DR), Yago84_18 (DR), Yeshua_20 (DR),

Start 16:

- Found in 6 of 175 (3.4%) of genes in pham
- Manual Annotations of this start: 5 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite_18 (DR), Fresco_18 (DR), Ligma_18 (DR), LittleMunchkin_19 (DR), Pine5_20 (singleton), Shatter_18 (DR),

Start 17:

- Found in 24 of 175 (13.7%) of genes in pham
- Manual Annotations of this start: 17 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amo99_50 (CP), Argie_16 (W), Cepens_15 (W), Clawz_49 (CP), ColdSoup_50 (CP), D12_15 (W), DonTron_49 (CP), Dori_17 (AD), GodPhather_16 (W), Grumio_49 (CP), Jeon_15 (W), Jollymon_49 (CP), KingstonB_50 (CP), Makar_50 (CP), Mao1_16 (AD), Mask_17 (AD), Megabear_15 (W), PR_15 (W), Purpicious_48 (CP), Sejanus_17 (AD), Soos_45 (CP), Stillion_49 (CP), Sting_48 (CP), Taptic_15 (W),

Summary by clusters:

There are 12 clusters represented in this pham: singleton, AD, AI, W, EC, B4, B6, GC, B2, B3, CP, DR,

Info for manual annotations of cluster AD:

- Start number 17 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 12 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster B2:

- Start number 15 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 14 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 13 was manually annotated 9 times for cluster B4.
- Start number 14 was manually annotated 4 times for cluster B4.

Info for manual annotations of cluster B6:

- Start number 13 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster CP:

- Start number 17 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster DR:

- Start number 14 was manually annotated 1 time for cluster DR.
- Start number 15 was manually annotated 15 times for cluster DR.
- Start number 16 was manually annotated 5 times for cluster DR.

Info for manual annotations of cluster EC:

- Start number 12 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster GC:

- Start number 12 was manually annotated 2 times for cluster GC.

Info for manual annotations of cluster W:

- Start number 17 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 39HC_016 Start: 14982, Stop: 15791, Start Num: 13

Candidate Starts for 39HC_016:

(10, 14955), (11, 14973), (Start: 13 @14982 has 11 MA's), (34, 15111), (35, 15114), (43, 15225), (44, 15240), (45, 15246), (60, 15369), (78, 15537), (79, 15552), (81, 15567), (93, 15687), (95, 15708), (99, 15765), (100, 15780),

Gene: 40BC_016 Start: 14955, Stop: 15791, Start Num: 10

Candidate Starts for 40BC_016:

(10, 14955), (11, 14973), (Start: 13 @14982 has 11 MA's), (34, 15111), (35, 15114), (43, 15225), (44, 15240), (45, 15246), (60, 15369), (78, 15537), (79, 15552), (81, 15567), (93, 15687), (95, 15708), (99, 15765), (100, 15780),

Gene: Abinghost_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for Abinghost_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: Akoma_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for Akoma_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: AksarBAT_18 Start: 14589, Stop: 15398, Start Num: 15

Candidate Starts for AksarBAT_18:

(Start: 15 @14589 has 51 MA's), (20, 14607), (30, 14682), (31, 14697), (34, 14718), (35, 14721), (39, 14766), (48, 14874), (50, 14892), (73, 15099), (78, 15135), (87, 15237), (95, 15309), (99, 15366),

Gene: AlanGrant_19 Start: 17209, Stop: 18015, Start Num: 14

Candidate Starts for AlanGrant_19:

(6, 17149), (Start: 14 @17209 has 55 MA's), (25, 17272), (33, 17329), (35, 17341), (37, 17359), (45, 17473), (48, 17494), (73, 17722), (78, 17758), (81, 17788), (83, 17824), (87, 17857), (88, 17869), (93, 17908), (99, 17986),

Gene: Allegro_21 Start: 17579, Stop: 18655, Start Num: 15

Candidate Starts for Allegro_21:

(Start: 15 @17579 has 51 MA's), (19, 17594), (20, 17597), (35, 17711), (39, 17756), (56, 17930), (58, 17936), (61, 17978), (64, 18005), (73, 18089), (78, 18125), (81, 18155), (89, 18242), (92, 18272), (99, 18350), (104, 18383), (105, 18392), (111, 18497), (115, 18566), (116, 18575), (118, 18596), (121, 18644),

Gene: Amo99_50 Start: 27058, Stop: 27801, Start Num: 17

Candidate Starts for Amo99_50:

(Start: 17 @27058 has 17 MA's), (18, 27064), (30, 27148), (35, 27187), (40, 27238), (45, 27319), (47, 27337), (54, 27388), (55, 27394), (56, 27406), (66, 27493), (68, 27526), (73, 27565), (76, 27595), (87, 27703),

Gene: AnClar_18 Start: 15482, Stop: 16294, Start Num: 15

Candidate Starts for AnClar_18:

(5, 15413), (8, 15431), (Start: 15 @15482 has 51 MA's), (20, 15500), (30, 15575), (35, 15614), (45, 15746), (48, 15767), (56, 15833), (78, 16028), (87, 16130), (89, 16145), (95, 16202), (102, 16283),

Gene: AnarQue_20 Start: 16103, Stop: 16912, Start Num: 15

Candidate Starts for AnarQue_20:

(Start: 15 @16103 has 51 MA's), (20, 16121), (30, 16196), (35, 16235), (37, 16253), (39, 16280), (45, 16367), (48, 16388), (50, 16406), (52, 16412), (56, 16454), (78, 16649), (87, 16751), (95, 16823),

Gene: Arbiter_21 Start: 17666, Stop: 18742, Start Num: 15

Candidate Starts for Arbiter_21:

(Start: 15 @17666 has 51 MA's), (19, 17681), (20, 17684), (35, 17798), (39, 17843), (56, 18017), (58, 18023), (61, 18065), (64, 18092), (73, 18176), (78, 18212), (81, 18242), (87, 18314), (89, 18329), (92,

18359), (99, 18437), (104, 18470), (105, 18479), (111, 18584), (115, 18653), (116, 18662), (118, 18683), (121, 18731),

Gene: Ares_21 Start: 17579, Stop: 18658, Start Num: 15

Candidate Starts for Ares_21:

(Start: 15 @17579 has 51 MA's), (19, 17594), (20, 17597), (35, 17711), (39, 17756), (56, 17930), (58, 17936), (61, 17978), (64, 18005), (73, 18089), (78, 18125), (81, 18155), (89, 18242), (92, 18272), (99, 18350), (104, 18383), (105, 18392), (111, 18497), (115, 18566), (116, 18575), (121, 18644),

Gene: Argie_16 Start: 15691, Stop: 16797, Start Num: 17

Candidate Starts for Argie_16:

(4, 15613), (Start: 17 @15691 has 17 MA's), (20, 15706), (22, 15721), (30, 15781), (35, 15820), (37, 15838), (39, 15865), (40, 15871), (53, 16003), (56, 16039), (57, 16042), (61, 16087), (81, 16264), (89, 16360), (91, 16375), (92, 16390), (99, 16465), (111, 16615), (113, 16630), (114, 16669), (120, 16732), (122, 16792),

Gene: Athena_22 Start: 17120, Stop: 18199, Start Num: 14

Candidate Starts for Athena_22:

(Start: 14 @17120 has 55 MA's), (19, 17138), (22, 17156), (30, 17216), (34, 17252), (54, 17456), (73, 17633), (85, 17747), (87, 17771), (99, 17900), (112, 18053), (116, 18122), (117, 18140), (119, 18158),

Gene: Audrey_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for Audrey_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: Axumite_18 Start: 14690, Stop: 15502, Start Num: 16

Candidate Starts for Axumite_18:

(Start: 16 @14690 has 5 MA's), (20, 14708), (30, 14783), (33, 14810), (35, 14822), (39, 14867), (45, 14954), (48, 14975), (73, 15200), (76, 15230), (78, 15236), (87, 15338), (95, 15410), (99, 15467),

Gene: Baloo_21 Start: 16354, Stop: 17433, Start Num: 14

Candidate Starts for Baloo_21:

(Start: 14 @16354 has 55 MA's), (19, 16372), (22, 16390), (30, 16450), (34, 16486), (54, 16690), (73, 16867), (85, 16981), (87, 17005), (99, 17134), (112, 17287), (116, 17356), (117, 17374), (119, 17392),

Gene: Bananafish_21 Start: 17576, Stop: 18652, Start Num: 15

Candidate Starts for Bananafish_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (118, 18593), (121, 18641),

Gene: Ben11_20 Start: 16181, Stop: 17260, Start Num: 14

Candidate Starts for Ben11_20:

(Start: 14 @16181 has 55 MA's), (19, 16199), (22, 16217), (30, 16277), (34, 16313), (54, 16517), (73, 16694), (85, 16808), (87, 16832), (99, 16961), (112, 17114), (116, 17183), (117, 17201), (119, 17219),

Gene: Bernardo_21 Start: 16356, Stop: 17435, Start Num: 14

Candidate Starts for Bernardo_21:

(Start: 14 @16356 has 55 MA's), (19, 16374), (22, 16392), (30, 16452), (34, 16488), (54, 16692), (73, 16869), (85, 16983), (87, 17007), (99, 17136), (112, 17289), (116, 17358), (117, 17376), (119, 17394),

Gene: BiggityBass_17 Start: 14580, Stop: 15392, Start Num: 15

Candidate Starts for BiggityBass_17:

(Start: 15 @14580 has 51 MA's), (20, 14598), (30, 14673), (35, 14712), (39, 14757), (45, 14844), (48, 14865), (56, 14931), (78, 15126), (87, 15228), (95, 15300), (102, 15381),

Gene: Blackpen_20 Start: 15520, Stop: 16329, Start Num: 15

Candidate Starts for Blackpen_20:

(Start: 15 @15520 has 51 MA's), (20, 15538), (30, 15613), (35, 15652), (39, 15697), (45, 15784), (48, 15805), (50, 15823), (52, 15829), (56, 15871), (78, 16066), (87, 16168), (95, 16240), (99, 16297),

Gene: Blocker23_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for Blocker23_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: BobRoss2024_17 Start: 14469, Stop: 15278, Start Num: 15

Candidate Starts for BobRoss2024_17:

(Start: 15 @14469 has 51 MA's), (20, 14487), (30, 14562), (35, 14601), (42, 14703), (45, 14733), (48, 14754), (78, 15015), (81, 15045), (87, 15117), (95, 15189),

Gene: Boyle_21 Start: 17697, Stop: 18776, Start Num: 15

Candidate Starts for Boyle_21:

(Start: 15 @17697 has 51 MA's), (19, 17712), (20, 17715), (35, 17829), (39, 17874), (56, 18048), (58, 18054), (61, 18096), (64, 18123), (73, 18207), (78, 18243), (81, 18273), (89, 18360), (92, 18390), (99, 18468), (104, 18501), (105, 18510), (111, 18615), (115, 18684), (116, 18693), (121, 18762),

Gene: Briakila_21 Start: 17122, Stop: 18201, Start Num: 14

Candidate Starts for Briakila_21:

(Start: 14 @17122 has 55 MA's), (19, 17140), (22, 17158), (30, 17218), (34, 17254), (54, 17458), (73, 17635), (85, 17749), (87, 17773), (99, 17902), (112, 18055), (116, 18124), (117, 18142), (119, 18160),

Gene: BrownCNA_19 Start: 16691, Stop: 17497, Start Num: 13

Candidate Starts for BrownCNA_19:

(Start: 13 @16691 has 11 MA's), (25, 16754), (34, 16820), (35, 16823), (37, 16841), (43, 16934), (45, 16955), (48, 16976), (62, 17093), (63, 17111), (73, 17204), (81, 17270), (83, 17306), (87, 17339), (88, 17351), (89, 17354), (93, 17390),

Gene: Brownie5_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for Brownie5_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: CaiB_20 Start: 16088, Stop: 16897, Start Num: 15

Candidate Starts for CaiB_20:

(Start: 15 @16088 has 51 MA's), (20, 16106), (30, 16181), (35, 16220), (39, 16265), (45, 16352), (48, 16373), (50, 16391), (52, 16397), (56, 16439), (78, 16634), (87, 16736), (95, 16808), (99, 16865),

Gene: Calamitous_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for Calamitous_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99,

18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (118, 18593), (121, 18641),

Gene: Casbah_20 Start: 16209, Stop: 17288, Start Num: 14

Candidate Starts for Casbah_20:

(Start: 14 @16209 has 55 MA's), (19, 16227), (22, 16245), (30, 16305), (34, 16341), (54, 16545), (73, 16722), (85, 16836), (87, 16860), (99, 16989), (112, 17142), (116, 17211), (117, 17229), (119, 17247),

Gene: Causa_27 Start: 18877, Stop: 19983, Start Num: 12

Candidate Starts for Causa_27:

(Start: 12 @18877 has 6 MA's), (19, 18898), (20, 18901), (25, 18946), (38, 19039), (73, 19393), (74, 19408), (78, 19429), (87, 19531), (103, 19687), (108, 19738),

Gene: Cepens_15 Start: 15415, Stop: 16521, Start Num: 17

Candidate Starts for Cepens_15:

(4, 15337), (Start: 17 @15415 has 17 MA's), (20, 15430), (22, 15445), (30, 15505), (35, 15544), (37, 15562), (39, 15589), (40, 15595), (53, 15727), (56, 15763), (57, 15766), (61, 15811), (72, 15910), (81, 15988), (89, 16084), (91, 16099), (92, 16114), (99, 16189), (111, 16339), (113, 16354), (114, 16393), (120, 16456), (122, 16516),

Gene: ChaChing_21 Start: 16372, Stop: 17451, Start Num: 14

Candidate Starts for ChaChing_21:

(Start: 14 @16372 has 55 MA's), (19, 16390), (22, 16408), (30, 16468), (34, 16504), (54, 16708), (73, 16885), (85, 16999), (87, 17023), (99, 17152), (112, 17305), (116, 17374), (117, 17392), (119, 17410),

Gene: Chalmers_21 Start: 17165, Stop: 18244, Start Num: 14

Candidate Starts for Chalmers_21:

(Start: 14 @17165 has 55 MA's), (19, 17183), (22, 17201), (30, 17261), (34, 17297), (54, 17501), (73, 17678), (85, 17792), (87, 17816), (99, 17945), (112, 18098), (116, 18167), (117, 18185), (119, 18203),

Gene: Chandler_21 Start: 17131, Stop: 18210, Start Num: 14

Candidate Starts for Chandler_21:

(Start: 14 @17131 has 55 MA's), (19, 17149), (22, 17167), (30, 17227), (34, 17263), (54, 17467), (73, 17644), (85, 17758), (87, 17782), (99, 17911), (112, 18064), (116, 18133), (117, 18151), (119, 18169),

Gene: CharlottesWeb_18 Start: 14586, Stop: 15398, Start Num: 15

Candidate Starts for CharlottesWeb_18:

(Start: 15 @14586 has 51 MA's), (20, 14604), (35, 14718), (40, 14769), (45, 14850), (48, 14871), (50, 14889), (69, 15069), (76, 15126), (78, 15132), (84, 15204), (87, 15234), (95, 15306), (99, 15363),

Gene: Chentzyk_20 Start: 16227, Stop: 17306, Start Num: 14

Candidate Starts for Chentzyk_20:

(Start: 14 @16227 has 55 MA's), (19, 16245), (22, 16263), (30, 16323), (34, 16359), (54, 16563), (73, 16740), (85, 16854), (87, 16878), (99, 17007), (112, 17160), (116, 17229), (117, 17247), (119, 17265),

Gene: Clawz_49 Start: 26964, Stop: 27716, Start Num: 17

Candidate Starts for Clawz_49:

(Start: 17 @26964 has 17 MA's), (18, 26970), (32, 27075), (35, 27093), (40, 27144), (43, 27204), (45, 27225), (47, 27243), (54, 27294), (55, 27300), (56, 27312), (58, 27318), (66, 27399), (68, 27432), (76, 27501), (81, 27537),

Gene: CloverMinnie_20 Start: 16028, Stop: 16837, Start Num: 15

Candidate Starts for CloverMinnie_20:

(Start: 15 @16028 has 51 MA's), (20, 16046), (30, 16121), (35, 16160), (39, 16205), (45, 16292), (48, 16313), (50, 16331), (52, 16337), (56, 16379), (78, 16574), (87, 16676), (95, 16748), (99, 16805),

Gene: Coffee_21 Start: 17693, Stop: 18769, Start Num: 15

Candidate Starts for Coffee_21:

(Start: 15 @17693 has 51 MA's), (19, 17708), (20, 17711), (35, 17825), (39, 17870), (56, 18044), (58, 18050), (61, 18092), (64, 18119), (73, 18203), (78, 18239), (81, 18269), (89, 18356), (92, 18386), (99, 18464), (104, 18497), (105, 18506), (111, 18611), (115, 18680), (116, 18689), (118, 18710), (121, 18758),

Gene: ColdSoup_50 Start: 27058, Stop: 27801, Start Num: 17

Candidate Starts for ColdSoup_50:

(Start: 17 @27058 has 17 MA's), (18, 27064), (30, 27148), (35, 27187), (40, 27238), (45, 27319), (47, 27337), (54, 27388), (55, 27394), (56, 27406), (66, 27493), (68, 27526), (73, 27565), (76, 27595), (87, 27703),

Gene: Coldpizza_20 Start: 16760, Stop: 17572, Start Num: 15

Candidate Starts for Coldpizza_20:

(3, 16655), (7, 16703), (Start: 15 @16760 has 51 MA's), (31, 16868), (35, 16892), (43, 17003), (45, 17024), (69, 17243), (78, 17306), (87, 17408), (99, 17537), (102, 17561),

Gene: Compostia_22 Start: 16790, Stop: 17869, Start Num: 14

Candidate Starts for Compostia_22:

(Start: 14 @16790 has 55 MA's), (19, 16808), (22, 16826), (30, 16886), (34, 16922), (54, 17126), (73, 17303), (85, 17417), (87, 17441), (99, 17570), (112, 17723), (116, 17792), (117, 17810), (119, 17828),

Gene: Corofin_21 Start: 16382, Stop: 17461, Start Num: 14

Candidate Starts for Corofin_21:

(Start: 14 @16382 has 55 MA's), (19, 16400), (22, 16418), (30, 16478), (34, 16514), (54, 16718), (73, 16895), (85, 17009), (87, 17033), (99, 17162), (112, 17315), (116, 17384), (117, 17402), (119, 17420),

Gene: D12_15 Start: 15408, Stop: 16514, Start Num: 17

Candidate Starts for D12_15:

(4, 15330), (Start: 17 @15408 has 17 MA's), (20, 15423), (22, 15438), (30, 15498), (35, 15537), (37, 15555), (39, 15582), (40, 15588), (53, 15720), (56, 15756), (57, 15759), (61, 15804), (72, 15903), (81, 15981), (89, 16077), (92, 16107), (99, 16182), (111, 16332), (113, 16347), (114, 16386), (120, 16449), (122, 16509),

Gene: Daisy_21 Start: 16378, Stop: 17457, Start Num: 14

Candidate Starts for Daisy_21:

(Start: 14 @16378 has 55 MA's), (19, 16396), (22, 16414), (30, 16474), (34, 16510), (54, 16714), (73, 16891), (85, 17005), (87, 17029), (99, 17158), (112, 17311), (116, 17380), (117, 17398), (119, 17416),

Gene: Deenasa_21 Start: 17120, Stop: 18199, Start Num: 14

Candidate Starts for Deenasa_21:

(Start: 14 @17120 has 55 MA's), (19, 17138), (22, 17156), (30, 17216), (34, 17252), (54, 17456), (73, 17633), (85, 17747), (87, 17771), (99, 17900), (112, 18053), (116, 18122), (117, 18140), (119, 18158),

Gene: Devonte_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for Devonte_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: Dewdrop_63 Start: 33239, Stop: 34438, Start Num: 12

Candidate Starts for Dewdrop_63:

(1, 32990), (Start: 12 @33239 has 6 MA's), (40, 33425), (43, 33485), (46, 33509), (51, 33548), (65, 33680), (67, 33692), (75, 33779), (78, 33797), (86, 33878), (90, 33929), (94, 33956), (95, 33974), (97, 34007), (98, 34013), (101, 34055), (106, 34097), (109, 34151), (111, 34184), (123, 34385), (124, 34403),

Gene: DonTron_49 Start: 27098, Stop: 27841, Start Num: 17

Candidate Starts for DonTron_49:

(Start: 17 @27098 has 17 MA's), (18, 27104), (30, 27188), (35, 27227), (40, 27278), (45, 27359), (47, 27377), (54, 27428), (55, 27434), (56, 27446), (66, 27533), (68, 27566), (76, 27635), (87, 27743),

Gene: Dori_17 Start: 13328, Stop: 14131, Start Num: 17

Candidate Starts for Dori_17:

(Start: 17 @13328 has 17 MA's), (19, 13340), (21, 13355), (23, 13364), (24, 13373), (35, 13457), (40, 13508), (48, 13610), (49, 13613), (53, 13640), (57, 13679), (59, 13688), (65, 13757), (71, 13820), (84, 13946), (89, 14000),

Gene: Eaglehorse_21 Start: 17600, Stop: 18676, Start Num: 15

Candidate Starts for Eaglehorse_21:

(Start: 15 @17600 has 51 MA's), (19, 17615), (20, 17618), (35, 17732), (39, 17777), (56, 17951), (58, 17957), (61, 17999), (64, 18026), (73, 18110), (78, 18146), (81, 18176), (89, 18263), (92, 18293), (99, 18371), (104, 18404), (105, 18413), (111, 18518), (115, 18587), (116, 18596), (118, 18617), (121, 18665),

Gene: Evaa_19 Start: 15945, Stop: 16754, Start Num: 14

Candidate Starts for Evaa_19:

(11, 15936), (Start: 14 @15945 has 55 MA's), (20, 15963), (30, 16038), (35, 16077), (40, 16128), (43, 16188), (45, 16209), (48, 16230), (69, 16428), (78, 16491), (87, 16593),

Gene: Faze9_21 Start: 17693, Stop: 18772, Start Num: 15

Candidate Starts for Faze9_21:

(Start: 15 @17693 has 51 MA's), (19, 17708), (20, 17711), (35, 17825), (39, 17870), (56, 18044), (58, 18050), (61, 18092), (64, 18119), (73, 18203), (78, 18239), (81, 18269), (87, 18341), (89, 18356), (92, 18386), (99, 18464), (104, 18497), (105, 18506), (111, 18611), (115, 18680), (116, 18689), (121, 18758),

Gene: FelixTres_20 Start: 16091, Stop: 16900, Start Num: 15

Candidate Starts for FelixTres_20:

(Start: 15 @16091 has 51 MA's), (20, 16109), (30, 16184), (35, 16223), (39, 16268), (45, 16355), (48, 16376), (50, 16394), (52, 16400), (56, 16442), (78, 16637), (87, 16739), (95, 16811), (99, 16868),

Gene: ForDig_16 Start: 14970, Stop: 15776, Start Num: 13

Candidate Starts for ForDig_16:

(Start: 13 @14970 has 11 MA's), (34, 15099), (35, 15102), (36, 15114), (43, 15213), (44, 15228), (45, 15234), (60, 15357), (78, 15525), (79, 15540), (81, 15555), (93, 15675),

Gene: FrenchFry_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for FrenchFry_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (87, 18344), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: Fresco_18 Start: 14690, Stop: 15502, Start Num: 16

Candidate Starts for Fresco_18:

(Start: 16 @14690 has 5 MA's), (20, 14708), (30, 14783), (33, 14810), (35, 14822), (39, 14867), (45, 14954), (48, 14975), (73, 15200), (76, 15230), (78, 15236), (87, 15338), (95, 15410), (99, 15467),

Gene: Gadget_22 Start: 16361, Stop: 17440, Start Num: 14

Candidate Starts for Gadget_22:

(Start: 14 @16361 has 55 MA's), (19, 16379), (22, 16397), (30, 16457), (34, 16493), (54, 16697), (73, 16874), (85, 16988), (87, 17012), (99, 17141), (112, 17294), (116, 17363), (117, 17381), (119, 17399),

Gene: Gervas_21 Start: 16340, Stop: 17419, Start Num: 14

Candidate Starts for Gervas_21:

(Start: 14 @16340 has 55 MA's), (19, 16358), (22, 16376), (30, 16436), (34, 16472), (54, 16676), (73, 16853), (85, 16967), (87, 16991), (99, 17120), (112, 17273), (116, 17342), (117, 17360), (119, 17378),

Gene: Gina_31 Start: 16779, Stop: 17786, Start Num: 12

Candidate Starts for Gina_31:

(Start: 12 @16779 has 6 MA's), (26, 16851), (28, 16866), (29, 16872), (31, 16890), (35, 16914), (40, 16965), (41, 16977), (43, 17025), (51, 17085), (65, 17214), (67, 17226), (70, 17274), (77, 17328), (80, 17352), (81, 17361), (82, 17370), (90, 17466), (95, 17511), (98, 17553), (110, 17718),

Gene: Glass_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for Glass_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: GlenHope_22 Start: 16347, Stop: 17426, Start Num: 14

Candidate Starts for GlenHope_22:

(Start: 14 @16347 has 55 MA's), (19, 16365), (22, 16383), (30, 16443), (34, 16479), (54, 16683), (73, 16860), (85, 16974), (87, 16998), (99, 17127), (112, 17280), (116, 17349), (117, 17367), (119, 17385),

Gene: Glubnar_22 Start: 16362, Stop: 17441, Start Num: 14

Candidate Starts for Glubnar_22:

(Start: 14 @16362 has 55 MA's), (19, 16380), (22, 16398), (30, 16458), (34, 16494), (54, 16698), (73, 16875), (85, 16989), (87, 17013), (99, 17142), (112, 17295), (116, 17364), (117, 17382), (119, 17400),

Gene: GodPhather_16 Start: 15673, Stop: 16779, Start Num: 17

Candidate Starts for GodPhather_16:

(2, 15520), (4, 15595), (Start: 17 @15673 has 17 MA's), (20, 15688), (22, 15703), (30, 15763), (35, 15802), (37, 15820), (39, 15847), (40, 15853), (53, 15985), (56, 16021), (57, 16024), (61, 16069), (72, 16168), (81, 16246), (89, 16342), (91, 16357), (92, 16372), (99, 16447), (111, 16597), (113, 16612), (114, 16651), (120, 16714), (122, 16774),

Gene: Godines_21 Start: 17591, Stop: 18667, Start Num: 15

Candidate Starts for Godines_21:

(Start: 15 @17591 has 51 MA's), (19, 17606), (20, 17609), (35, 17723), (39, 17768), (48, 17876), (56, 17942), (61, 17990), (64, 18017), (73, 18101), (76, 18131), (78, 18137), (81, 18167), (89, 18254), (92, 18284), (99, 18362), (104, 18395), (105, 18404), (111, 18509), (115, 18578), (116, 18587), (118, 18608), (121, 18656),

Gene: Grumio_49 Start: 26536, Stop: 27279, Start Num: 17

Candidate Starts for Grumio_49:

(Start: 17 @26536 has 17 MA's), (18, 26542), (30, 26626), (35, 26665), (40, 26716), (45, 26797), (47, 26815), (54, 26866), (55, 26872), (56, 26884), (66, 26971), (68, 27004), (76, 27073), (87, 27181),

Gene: Halfpint_20 Start: 16182, Stop: 17261, Start Num: 14

Candidate Starts for Halfpint_20:

(Start: 14 @16182 has 55 MA's), (19, 16200), (22, 16218), (30, 16278), (34, 16314), (54, 16518), (73, 16695), (85, 16809), (87, 16833), (99, 16962), (112, 17115), (116, 17184), (117, 17202), (119, 17220),

Gene: Hangman_18 Start: 16440, Stop: 17246, Start Num: 13

Candidate Starts for Hangman_18:

(Start: 13 @16440 has 11 MA's), (25, 16503), (34, 16569), (35, 16572), (37, 16590), (43, 16683), (45, 16704), (48, 16725), (62, 16842), (63, 16860), (73, 16953), (81, 17019), (83, 17055), (87, 17088), (88, 17100), (89, 17103), (93, 17139),

Gene: HarveySr_21 Start: 16334, Stop: 17413, Start Num: 14

Candidate Starts for HarveySr_21:

(Start: 14 @16334 has 55 MA's), (19, 16352), (22, 16370), (30, 16430), (34, 16466), (54, 16670), (73, 16847), (85, 16961), (87, 16985), (99, 17114), (112, 17267), (116, 17336), (117, 17354), (119, 17372),

Gene: Heathcliff_21 Start: 16319, Stop: 17398, Start Num: 14

Candidate Starts for Heathcliff_21:

(Start: 14 @16319 has 55 MA's), (19, 16337), (22, 16355), (30, 16415), (34, 16451), (54, 16655), (73, 16832), (85, 16946), (87, 16970), (99, 17099), (112, 17252), (116, 17321), (117, 17339), (119, 17357),

Gene: Hedgerow_21 Start: 17678, Stop: 18757, Start Num: 15

Candidate Starts for Hedgerow_21:

(Start: 15 @17678 has 51 MA's), (19, 17693), (20, 17696), (35, 17810), (39, 17855), (56, 18029), (58, 18035), (61, 18077), (64, 18104), (73, 18188), (78, 18224), (81, 18254), (89, 18341), (92, 18371), (99, 18449), (104, 18482), (105, 18491), (111, 18596), (115, 18665), (116, 18674), (121, 18743),

Gene: Holeinone_21 Start: 17578, Stop: 18654, Start Num: 15

Candidate Starts for Holeinone_21:

(Start: 15 @17578 has 51 MA's), (19, 17593), (20, 17596), (35, 17710), (56, 17929), (58, 17935), (61, 17977), (64, 18004), (73, 18088), (78, 18124), (81, 18154), (89, 18241), (92, 18271), (99, 18349), (104, 18382), (105, 18391), (111, 18496), (115, 18565), (116, 18574), (118, 18595), (121, 18643),

Gene: Hosp_014 Start: 13184, Stop: 13993, Start Num: 13

Candidate Starts for Hosp_014:

(10, 13157), (11, 13175), (Start: 13 @13184 has 11 MA's), (34, 13313), (35, 13316), (43, 13427), (44, 13442), (45, 13448), (60, 13571), (78, 13739), (81, 13769), (93, 13889), (99, 13967), (100, 13982),

Gene: Hydro_18 Start: 16437, Stop: 17243, Start Num: 13

Candidate Starts for Hydro_18:

(Start: 13 @16437 has 11 MA's), (25, 16500), (34, 16566), (35, 16569), (37, 16587), (43, 16680), (45, 16701), (48, 16722), (62, 16839), (63, 16857), (73, 16950), (83, 17052), (87, 17085), (88, 17097), (89, 17100), (93, 17136),

Gene: ItsyBitsy1_21 Start: 17570, Stop: 18646, Start Num: 15

Candidate Starts for ItsyBitsy1_21:

(Start: 15 @17570 has 51 MA's), (19, 17585), (20, 17588), (35, 17702), (39, 17747), (48, 17855), (56, 17921), (58, 17927), (61, 17969), (64, 17996), (73, 18080), (78, 18116), (81, 18146), (87, 18218), (89, 18233), (92, 18263), (99, 18341), (104, 18374), (105, 18383), (111, 18488), (115, 18557), (116,

18566), (118, 18587), (121, 18635),

Gene: Jackstina_20 Start: 16283, Stop: 17362, Start Num: 14

Candidate Starts for Jackstina_20:

(Start: 14 @16283 has 55 MA's), (19, 16301), (22, 16319), (30, 16379), (34, 16415), (54, 16619), (73, 16796), (85, 16910), (87, 16934), (99, 17063), (112, 17216), (116, 17285), (117, 17303), (119, 17321),

Gene: Jeon_15 Start: 15415, Stop: 16521, Start Num: 17

Candidate Starts for Jeon_15:

(2, 15262), (4, 15337), (Start: 17 @15415 has 17 MA's), (20, 15430), (22, 15445), (30, 15505), (35, 15544), (37, 15562), (39, 15589), (40, 15595), (53, 15727), (56, 15763), (57, 15766), (61, 15811), (72, 15910), (81, 15988), (89, 16084), (91, 16099), (92, 16114), (99, 16189), (111, 16339), (113, 16354), (114, 16393), (120, 16456), (122, 16516),

Gene: Jolie1_016 Start: 14954, Stop: 15760, Start Num: 13

Candidate Starts for Jolie1_016:

(Start: 13 @14954 has 11 MA's), (34, 15083), (35, 15086), (36, 15098), (43, 15197), (44, 15212), (45, 15218), (60, 15341), (78, 15509), (79, 15524), (81, 15539), (93, 15659),

Gene: Jollymon_49 Start: 27058, Stop: 27801, Start Num: 17

Candidate Starts for Jollymon_49:

(Start: 17 @27058 has 17 MA's), (18, 27064), (30, 27148), (35, 27187), (40, 27238), (45, 27319), (47, 27337), (54, 27388), (55, 27394), (56, 27406), (66, 27493), (68, 27526), (73, 27565), (76, 27595), (87, 27703),

Gene: JoyceMaria_18 Start: 16440, Stop: 17246, Start Num: 13

Candidate Starts for JoyceMaria_18:

(Start: 13 @16440 has 11 MA's), (25, 16503), (34, 16569), (35, 16572), (37, 16590), (43, 16683), (45, 16704), (48, 16725), (62, 16842), (63, 16860), (73, 16953), (81, 17019), (83, 17055), (87, 17088), (88, 17100), (89, 17103), (93, 17139),

Gene: Kaleb_21 Start: 17696, Stop: 18772, Start Num: 15

Candidate Starts for Kaleb_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (118, 18713), (121, 18761),

Gene: Kamiyu_21 Start: 16328, Stop: 17407, Start Num: 14

Candidate Starts for Kamiyu_21:

(Start: 14 @16328 has 55 MA's), (19, 16346), (22, 16364), (30, 16424), (34, 16460), (54, 16664), (73, 16841), (85, 16955), (87, 16979), (99, 17108), (112, 17261), (116, 17330), (117, 17348), (119, 17366),

Gene: KayaCho_16 Start: 14971, Stop: 15777, Start Num: 13

Candidate Starts for KayaCho_16:

(10, 14944), (11, 14962), (Start: 13 @14971 has 11 MA's), (34, 15100), (35, 15103), (36, 15115), (43, 15214), (44, 15229), (45, 15235), (60, 15358), (78, 15526), (79, 15541), (93, 15676),

Gene: Kheth_21 Start: 17579, Stop: 18658, Start Num: 15

Candidate Starts for Kheth_21:

(Start: 15 @17579 has 51 MA's), (19, 17594), (20, 17597), (35, 17711), (39, 17756), (56, 17930), (58, 17936), (61, 17978), (64, 18005), (73, 18089), (78, 18125), (81, 18155), (89, 18242), (92, 18272), (99, 18350), (104, 18383), (105, 18392), (111, 18497), (115, 18566), (116, 18575), (121, 18644),

Gene: KingstonB_50 Start: 26536, Stop: 27279, Start Num: 17

Candidate Starts for KingstonB_50:

(Start: 17 @26536 has 17 MA's), (18, 26542), (30, 26626), (35, 26665), (40, 26716), (45, 26797), (47, 26815), (54, 26866), (55, 26872), (56, 26884), (66, 26971), (68, 27004), (76, 27073), (87, 27181),

Gene: Kolhan_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for Kolhan_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (87, 18224), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (121, 18641),

Gene: Kronus_20 Start: 16940, Stop: 18019, Start Num: 14

Candidate Starts for Kronus_20:

(Start: 14 @16940 has 55 MA's), (19, 16958), (22, 16976), (30, 17036), (34, 17072), (54, 17276), (73, 17453), (85, 17567), (87, 17591), (99, 17720), (112, 17873), (116, 17942), (117, 17960), (119, 17978),

Gene: Lars_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for Lars_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: Laurie_21 Start: 17574, Stop: 18650, Start Num: 15

Candidate Starts for Laurie_21:

(Start: 15 @17574 has 51 MA's), (19, 17589), (20, 17592), (35, 17706), (39, 17751), (56, 17925), (58, 17931), (61, 17973), (64, 18000), (73, 18084), (78, 18120), (81, 18150), (89, 18237), (92, 18267), (99, 18345), (104, 18378), (105, 18387), (111, 18492), (115, 18561), (116, 18570), (118, 18591), (121, 18639),

Gene: Leaf_63 Start: 33239, Stop: 34438, Start Num: 12

Candidate Starts for Leaf_63:

(1, 32990), (Start: 12 @33239 has 6 MA's), (40, 33425), (43, 33485), (46, 33509), (51, 33548), (65, 33680), (67, 33692), (75, 33779), (78, 33797), (86, 33878), (90, 33929), (94, 33956), (95, 33974), (97, 34007), (98, 34013), (101, 34055), (106, 34097), (109, 34151), (111, 34184), (123, 34385), (124, 34403),

Gene: Lephleur_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for Lephleur_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (118, 18593), (121, 18641),

Gene: LestyG_21 Start: 16361, Stop: 17440, Start Num: 14

Candidate Starts for LestyG_21:

(Start: 14 @16361 has 55 MA's), (19, 16379), (22, 16397), (30, 16457), (34, 16493), (54, 16697), (73, 16874), (85, 16988), (87, 17012), (99, 17141), (112, 17294), (116, 17363), (117, 17381), (119, 17399),

Gene: Ligma_18 Start: 14690, Stop: 15502, Start Num: 16

Candidate Starts for Ligma_18:

(Start: 16 @14690 has 5 MA's), (20, 14708), (30, 14783), (33, 14810), (35, 14822), (39, 14867), (45, 14954), (48, 14975), (73, 15200), (76, 15230), (78, 15236), (87, 15338), (95, 15410), (99, 15467),

Gene: LilSmirk_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for LilSmirk_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (121, 18641),

Gene: LittleMunchkin_19 Start: 16116, Stop: 16928, Start Num: 16

Candidate Starts for LittleMunchkin_19:

(Start: 16 @16116 has 5 MA's), (20, 16134), (30, 16209), (31, 16224), (34, 16245), (35, 16248), (45, 16380), (48, 16401), (50, 16419), (52, 16425), (78, 16662), (87, 16764), (89, 16779), (95, 16836), (99, 16893), (102, 16917),

Gene: LizLemon_21 Start: 17696, Stop: 18772, Start Num: 15

Candidate Starts for LizLemon_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (87, 18344), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (118, 18713), (121, 18761),

Gene: Lolalove_18 Start: 16434, Stop: 17240, Start Num: 13

Candidate Starts for Lolalove_18:

(Start: 13 @16434 has 11 MA's), (25, 16497), (34, 16563), (35, 16566), (37, 16584), (43, 16677), (45, 16698), (48, 16719), (62, 16836), (63, 16854), (73, 16947), (83, 17049), (87, 17082), (88, 17094), (89, 17097), (93, 17133),

Gene: Magpie_18 Start: 16625, Stop: 17431, Start Num: 13

Candidate Starts for Magpie_18:

(Start: 13 @16625 has 11 MA's), (25, 16688), (34, 16754), (35, 16757), (37, 16775), (43, 16868), (45, 16889), (48, 16910), (62, 17027), (63, 17045), (73, 17138), (83, 17240), (87, 17273), (88, 17285), (89, 17288), (93, 17324),

Gene: Makar_50 Start: 26991, Stop: 27743, Start Num: 17

Candidate Starts for Makar_50:

(Start: 17 @26991 has 17 MA's), (18, 26997), (32, 27102), (35, 27120), (40, 27171), (43, 27231), (45, 27252), (47, 27270), (54, 27321), (55, 27327), (56, 27339), (58, 27345), (66, 27426), (68, 27459), (76, 27528), (81, 27564),

Gene: MakoManhole_20 Start: 16106, Stop: 16915, Start Num: 15

Candidate Starts for MakoManhole_20:

(Start: 15 @16106 has 51 MA's), (20, 16124), (30, 16199), (35, 16238), (39, 16283), (45, 16370), (48, 16391), (50, 16409), (52, 16415), (56, 16457), (78, 16652), (87, 16754), (95, 16826), (99, 16883),

Gene: Mao1_16 Start: 13724, Stop: 14527, Start Num: 17

Candidate Starts for Mao1_16:

(Start: 17 @13724 has 17 MA's), (19, 13736), (21, 13751), (23, 13760), (24, 13769), (35, 13853), (40, 13904), (48, 14006), (49, 14009), (53, 14036), (57, 14075), (59, 14084), (65, 14153), (71, 14216), (84, 14342), (89, 14396),

Gene: Mariokart_18 Start: 14585, Stop: 15397, Start Num: 15

Candidate Starts for Mariokart_18:

(Start: 15 @14585 has 51 MA's), (20, 14603), (35, 14717), (40, 14768), (45, 14849), (48, 14870), (50, 14888), (69, 15068), (74, 15110), (76, 15125), (78, 15131), (84, 15203), (87, 15233), (95, 15305), (99, 15362),

Gene: Marley1013_21 Start: 17141, Stop: 18220, Start Num: 14

Candidate Starts for Marley1013_21:

(Start: 14 @17141 has 55 MA's), (19, 17159), (22, 17177), (30, 17237), (34, 17273), (54, 17477), (73, 17654), (85, 17768), (87, 17792), (99, 17921), (112, 18074), (116, 18143), (117, 18161), (119, 18179),

Gene: Marlia_21 Start: 16343, Stop: 17422, Start Num: 14

Candidate Starts for Marlia_21:

(Start: 14 @16343 has 55 MA's), (19, 16361), (22, 16379), (30, 16439), (34, 16475), (54, 16679), (73, 16856), (85, 16970), (87, 16994), (99, 17123), (112, 17276), (116, 17345), (117, 17363), (119, 17381),

Gene: Mask_17 Start: 13725, Stop: 14528, Start Num: 17

Candidate Starts for Mask_17:

(Start: 17 @13725 has 17 MA's), (19, 13737), (21, 13752), (23, 13761), (24, 13770), (35, 13854), (40, 13905), (48, 14007), (49, 14010), (53, 14037), (57, 14076), (59, 14085), (65, 14154), (71, 14217), (84, 14343), (89, 14397),

Gene: MasterPo_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for MasterPo_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (121, 18641),

Gene: Megabear_15 Start: 15358, Stop: 16464, Start Num: 17

Candidate Starts for Megabear_15:

(4, 15280), (Start: 17 @15358 has 17 MA's), (20, 15373), (22, 15388), (30, 15448), (35, 15487), (37, 15505), (39, 15532), (40, 15538), (53, 15670), (56, 15706), (57, 15709), (61, 15754), (72, 15853), (81, 15931), (89, 16027), (91, 16042), (92, 16057), (99, 16132), (111, 16282), (113, 16297), (114, 16336), (120, 16399), (122, 16459),

Gene: Mithril_18 Start: 16440, Stop: 17246, Start Num: 13

Candidate Starts for Mithril_18:

(Start: 13 @16440 has 11 MA's), (25, 16503), (34, 16569), (35, 16572), (37, 16590), (43, 16683), (45, 16704), (48, 16725), (62, 16842), (63, 16860), (73, 16953), (81, 17019), (83, 17055), (87, 17088), (88, 17100), (89, 17103), (93, 17139),

Gene: MmasiCarm_21 Start: 16354, Stop: 17433, Start Num: 14

Candidate Starts for MmasiCarm_21:

(Start: 14 @16354 has 55 MA's), (19, 16372), (22, 16390), (30, 16450), (34, 16486), (54, 16690), (73, 16867), (85, 16981), (87, 17005), (99, 17134), (112, 17287), (116, 17356), (117, 17374), (119, 17392),

Gene: Mortcellus_20 Start: 16995, Stop: 18074, Start Num: 14

Candidate Starts for Mortcellus_20:

(Start: 14 @16995 has 55 MA's), (19, 17013), (22, 17031), (30, 17091), (34, 17127), (54, 17331), (73, 17508), (85, 17622), (87, 17646), (99, 17775), (112, 17928), (116, 17997), (117, 18015), (119, 18033),

Gene: Morty007_21 Start: 17141, Stop: 18220, Start Num: 14

Candidate Starts for Morty007_21:

(Start: 14 @17141 has 55 MA's), (19, 17159), (22, 17177), (30, 17237), (34, 17273), (54, 17477), (73, 17654), (85, 17768), (87, 17792), (99, 17921), (112, 18074), (116, 18143), (117, 18161), (119, 18179),

Gene: MossRose_20 Start: 16085, Stop: 16894, Start Num: 15

Candidate Starts for MossRose_20:

(Start: 15 @16085 has 51 MA's), (20, 16103), (30, 16178), (35, 16217), (39, 16262), (45, 16349), (48, 16370), (50, 16388), (52, 16394), (56, 16436), (78, 16631), (87, 16733), (95, 16805), (99, 16862),

Gene: Mulaychimus_21 Start: 16334, Stop: 17413, Start Num: 14

Candidate Starts for Mulaychimus_21:

(Start: 14 @16334 has 55 MA's), (19, 16352), (22, 16370), (30, 16430), (34, 16466), (54, 16670), (73, 16847), (85, 16961), (87, 16985), (99, 17114), (112, 17267), (116, 17336), (117, 17354), (119, 17372),

Gene: NHagos_18 Start: 14592, Stop: 15401, Start Num: 15

Candidate Starts for NHagos_18:

(Start: 15 @14592 has 51 MA's), (20, 14610), (30, 14685), (31, 14700), (34, 14721), (35, 14724), (39, 14769), (48, 14877), (50, 14895), (73, 15102), (78, 15138), (87, 15240), (95, 15312), (99, 15369),

Gene: Neos5_21 Start: 17149, Stop: 18228, Start Num: 14

Candidate Starts for Neos5_21:

(Start: 14 @17149 has 55 MA's), (19, 17167), (22, 17185), (30, 17245), (34, 17281), (54, 17485), (73, 17662), (85, 17776), (87, 17800), (99, 17929), (112, 18082), (116, 18151), (117, 18169), (119, 18187),

Gene: Nigel_16 Start: 15288, Stop: 16094, Start Num: 14

Candidate Starts for Nigel_16:

(6, 15228), (Start: 14 @15288 has 55 MA's), (25, 15351), (34, 15417), (35, 15420), (37, 15438), (43, 15531), (45, 15552), (48, 15573), (63, 15708), (73, 15801), (83, 15903), (87, 15936), (88, 15948), (89, 15951), (93, 15987), (95, 16008),

Gene: Nozo_21 Start: 17119, Stop: 18198, Start Num: 14

Candidate Starts for Nozo_21:

(Start: 14 @17119 has 55 MA's), (19, 17137), (22, 17155), (30, 17215), (34, 17251), (54, 17455), (73, 17632), (85, 17746), (87, 17770), (99, 17899), (112, 18052), (116, 18121), (117, 18139), (119, 18157),

Gene: Obutu_21 Start: 16352, Stop: 17431, Start Num: 14

Candidate Starts for Obutu_21:

(Start: 14 @16352 has 55 MA's), (19, 16370), (22, 16388), (30, 16448), (34, 16484), (54, 16688), (73, 16865), (85, 16979), (87, 17003), (99, 17132), (112, 17285), (116, 17354), (117, 17372), (119, 17390),

Gene: Olivio_20 Start: 16206, Stop: 17285, Start Num: 14

Candidate Starts for Olivio_20:

(Start: 14 @16206 has 55 MA's), (19, 16224), (22, 16242), (30, 16302), (34, 16338), (54, 16542), (73, 16719), (85, 16833), (87, 16857), (99, 16986), (112, 17139), (116, 17208), (117, 17226), (119, 17244),

Gene: Opia_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for Opia_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (121, 18641),

Gene: OrangeOswald_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for OrangeOswald_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: PR_15 Start: 15385, Stop: 16491, Start Num: 17

Candidate Starts for PR_15:

(4, 15307), (Start: 17 @15385 has 17 MA's), (20, 15400), (22, 15415), (30, 15475), (35, 15514), (37, 15532), (39, 15559), (40, 15565), (53, 15697), (56, 15733), (57, 15736), (61, 15781), (72, 15880), (81, 15958), (89, 16054), (92, 16084), (99, 16159), (111, 16309), (113, 16324), (114, 16363), (120, 16426), (122, 16486),

Gene: Phaedrus_20 Start: 16275, Stop: 17354, Start Num: 14

Candidate Starts for Phaedrus_20:

(Start: 14 @16275 has 55 MA's), (19, 16293), (22, 16311), (30, 16371), (34, 16407), (54, 16611), (73, 16788), (85, 16902), (87, 16926), (99, 17055), (112, 17208), (116, 17277), (117, 17295), (119, 17313),

Gene: Phantasmagoria_21 Start: 17576, Stop: 18652, Start Num: 15

Candidate Starts for Phantasmagoria_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (87, 18224), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (118, 18593), (121, 18641),

Gene: Phayeta_21 Start: 16233, Stop: 17312, Start Num: 14

Candidate Starts for Phayeta_21:

(Start: 14 @16233 has 55 MA's), (19, 16251), (22, 16269), (30, 16329), (34, 16365), (54, 16569), (73, 16746), (85, 16860), (87, 16884), (99, 17013), (112, 17166), (116, 17235), (117, 17253), (119, 17271),

Gene: Philly_20 Start: 16223, Stop: 17302, Start Num: 14

Candidate Starts for Philly_20:

(Start: 14 @16223 has 55 MA's), (19, 16241), (22, 16259), (30, 16319), (34, 16355), (54, 16559), (73, 16736), (85, 16850), (87, 16874), (99, 17003), (112, 17156), (116, 17225), (117, 17243), (119, 17261),

Gene: Phlyer_21 Start: 17092, Stop: 18171, Start Num: 14

Candidate Starts for Phlyer_21:

(Start: 14 @17092 has 55 MA's), (19, 17110), (22, 17128), (30, 17188), (34, 17224), (54, 17428), (73, 17605), (85, 17719), (87, 17743), (99, 17872), (112, 18025), (116, 18094), (117, 18112), (119, 18130),

Gene: Pine5_20 Start: 15594, Stop: 16400, Start Num: 16

Candidate Starts for Pine5_20:

(Start: 16 @15594 has 5 MA's), (31, 15702), (33, 15714), (34, 15723), (35, 15726), (43, 15837), (45, 15858),

Gene: Pipefish_21 Start: 17241, Stop: 18320, Start Num: 14

Candidate Starts for Pipefish_21:

(Start: 14 @17241 has 55 MA's), (19, 17259), (22, 17277), (30, 17337), (34, 17373), (54, 17577), (73, 17754), (85, 17868), (87, 17892), (99, 18021), (112, 18174), (116, 18243), (117, 18261), (119, 18279),

Gene: PrinceCharming_21 Start: 17696, Stop: 18772, Start Num: 15

Candidate Starts for PrinceCharming_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (118, 18713), (121, 18761),

Gene: Purpicious_48 Start: 26304, Stop: 27047, Start Num: 17

Candidate Starts for Purpicious_48:

(Start: 17 @26304 has 17 MA's), (18, 26310), (30, 26394), (35, 26433), (40, 26484), (45, 26565), (47, 26583), (54, 26634), (55, 26640), (56, 26652), (66, 26739), (68, 26772), (73, 26811), (76, 26841), (87, 26949),

Gene: Qyrzula_20 Start: 17666, Stop: 18742, Start Num: 15

Candidate Starts for Qyrzula_20:

(Start: 15 @17666 has 51 MA's), (19, 17681), (20, 17684), (35, 17798), (39, 17843), (56, 18017), (58, 18023), (61, 18065), (64, 18092), (73, 18176), (78, 18212), (81, 18242), (87, 18314), (89, 18329), (92, 18359), (99, 18437), (104, 18470), (105, 18479), (111, 18584), (115, 18653), (116, 18662), (118, 18683), (121, 18731),

Gene: RagingRooster_21 Start: 16358, Stop: 17437, Start Num: 14

Candidate Starts for RagingRooster_21:

(Start: 14 @16358 has 55 MA's), (19, 16376), (22, 16394), (30, 16454), (34, 16490), (54, 16694), (73, 16871), (85, 16985), (87, 17009), (99, 17138), (112, 17291), (116, 17360), (117, 17378), (119, 17396),

Gene: Rhinoforte_21 Start: 17693, Stop: 18772, Start Num: 15

Candidate Starts for Rhinoforte_21:

(Start: 15 @17693 has 51 MA's), (19, 17708), (20, 17711), (35, 17825), (39, 17870), (56, 18044), (58, 18050), (61, 18092), (64, 18119), (73, 18203), (78, 18239), (81, 18269), (89, 18356), (92, 18386), (99, 18464), (104, 18497), (105, 18506), (111, 18611), (115, 18680), (116, 18689), (118, 18710), (121, 18758),

Gene: Rita1961_21 Start: 16353, Stop: 17432, Start Num: 14

Candidate Starts for Rita1961_21:

(Start: 14 @16353 has 55 MA's), (19, 16371), (22, 16389), (30, 16449), (34, 16485), (54, 16689), (73, 16866), (85, 16980), (87, 17004), (99, 17133), (112, 17286), (116, 17355), (117, 17373), (119, 17391),

Gene: RomaT_21 Start: 17139, Stop: 18218, Start Num: 14

Candidate Starts for RomaT_21:

(Start: 14 @17139 has 55 MA's), (19, 17157), (22, 17175), (30, 17235), (34, 17271), (54, 17475), (73, 17652), (85, 17766), (87, 17790), (99, 17919), (112, 18072), (116, 18141), (117, 18159), (119, 18177),

Gene: Rosebush_21 Start: 17693, Stop: 18772, Start Num: 15

Candidate Starts for Rosebush_21:

(Start: 15 @17693 has 51 MA's), (19, 17708), (20, 17711), (35, 17825), (39, 17870), (56, 18044), (58, 18050), (61, 18092), (64, 18119), (73, 18203), (78, 18239), (81, 18269), (89, 18356), (92, 18386), (99, 18464), (104, 18497), (105, 18506), (111, 18611), (115, 18680), (116, 18689), (121, 18758),

Gene: Sabella_21 Start: 17579, Stop: 18658, Start Num: 15

Candidate Starts for Sabella_21:

(Start: 15 @17579 has 51 MA's), (19, 17594), (20, 17597), (35, 17711), (39, 17756), (56, 17930), (58, 17936), (61, 17978), (64, 18005), (73, 18089), (78, 18125), (81, 18155), (89, 18242), (92, 18272), (99, 18350), (104, 18383), (105, 18392), (111, 18497), (115, 18566), (116, 18575), (121, 18644),

Gene: Sejanus_17 Start: 14658, Stop: 15461, Start Num: 17

Candidate Starts for Sejanus_17:

(Start: 17 @14658 has 17 MA's), (19, 14670), (21, 14685), (23, 14694), (24, 14703), (35, 14787), (40, 14838), (48, 14940), (49, 14943), (53, 14970), (57, 15009), (59, 15018), (65, 15087), (71, 15150), (84, 15276), (89, 15330),

Gene: Shatter_18 Start: 14690, Stop: 15502, Start Num: 16

Candidate Starts for Shatter_18:

(Start: 16 @14690 has 5 MA's), (20, 14708), (30, 14783), (33, 14810), (35, 14822), (39, 14867), (45, 14954), (48, 14975), (73, 15200), (76, 15230), (78, 15236), (87, 15338), (95, 15410), (99, 15467),

Gene: Shenandoah_21 Start: 16336, Stop: 17415, Start Num: 14

Candidate Starts for Shenandoah_21:

(Start: 14 @16336 has 55 MA's), (19, 16354), (22, 16372), (30, 16432), (34, 16468), (54, 16672), (73, 16849), (85, 16963), (87, 16987), (99, 17116), (112, 17269), (116, 17338), (117, 17356), (119, 17374),

Gene: Sisko_18 Start: 14990, Stop: 15799, Start Num: 15

Candidate Starts for Sisko_18:

(5, 14921), (8, 14939), (Start: 15 @14990 has 51 MA's), (20, 15008), (30, 15083), (35, 15122), (45, 15254), (48, 15275), (56, 15341), (78, 15536), (87, 15638), (89, 15653), (95, 15710),

Gene: Skugga_28 Start: 16797, Stop: 17804, Start Num: 12

Candidate Starts for Skugga_28:

(Start: 12 @16797 has 6 MA's), (26, 16869), (28, 16884), (31, 16908), (40, 16983), (41, 16995), (43, 17043), (51, 17103), (67, 17244), (70, 17292), (77, 17346), (80, 17370), (90, 17484), (95, 17529), (98, 17571), (100, 17604), (110, 17736),

Gene: SlippinJimmy_21 Start: 17122, Stop: 18201, Start Num: 14

Candidate Starts for SlippinJimmy_21:

(Start: 14 @17122 has 55 MA's), (19, 17140), (22, 17158), (30, 17218), (34, 17254), (54, 17458), (73, 17635), (85, 17749), (87, 17773), (99, 17902), (112, 18055), (116, 18124), (117, 18142), (119, 18160),

Gene: Soos_45 Start: 26265, Stop: 27008, Start Num: 17

Candidate Starts for Soos_45:

(Start: 17 @26265 has 17 MA's), (18, 26271), (30, 26355), (35, 26394), (40, 26445), (45, 26526), (47, 26544), (54, 26595), (55, 26601), (56, 26613), (66, 26700), (68, 26733), (76, 26802), (87, 26910),

Gene: Sour_21 Start: 16499, Stop: 17311, Start Num: 15

Candidate Starts for Sour_21:

(9, 16466), (Start: 15 @16499 has 51 MA's), (30, 16592), (35, 16631), (40, 16682), (45, 16763), (48, 16784), (50, 16802), (56, 16850), (78, 17045), (87, 17147), (89, 17162), (99, 17276), (102, 17300),

Gene: StAugustine_25 Start: 18871, Stop: 19977, Start Num: 12

Candidate Starts for StAugustine_25:

(Start: 12 @18871 has 6 MA's), (19, 18892), (20, 18895), (25, 18940), (38, 19033), (73, 19387), (74, 19402), (78, 19423), (87, 19525), (103, 19681), (107, 19726), (108, 19732),

Gene: Stillion_49 Start: 26850, Stop: 27605, Start Num: 17

Candidate Starts for Stillion_49:

(Start: 17 @26850 has 17 MA's), (18, 26856), (30, 26940), (35, 26979), (40, 27030), (45, 27111), (47, 27129), (54, 27180), (55, 27186), (56, 27198), (66, 27285), (68, 27318), (73, 27357), (76, 27387), (87, 27495),

Gene: Sting_48 Start: 26704, Stop: 27447, Start Num: 17

Candidate Starts for Sting_48:

(Start: 17 @26704 has 17 MA's), (18, 26710), (30, 26794), (35, 26833), (40, 26884), (45, 26965), (47, 26983), (54, 27034), (55, 27040), (56, 27052), (66, 27139), (68, 27172), (76, 27241), (87, 27349),

Gene: Stinger_16 Start: 14936, Stop: 15742, Start Num: 14

Candidate Starts for Stinger_16:

(Start: 14 @14936 has 55 MA's), (25, 14999), (34, 15065), (35, 15068), (43, 15179), (45, 15200), (48, 15221), (63, 15356), (73, 15449), (83, 15551), (87, 15584), (88, 15596), (89, 15599), (93, 15635),

Gene: SwainyDoc_21 Start: 16355, Stop: 17434, Start Num: 14

Candidate Starts for SwainyDoc_21:

(Start: 14 @16355 has 55 MA's), (19, 16373), (22, 16391), (30, 16451), (34, 16487), (54, 16691), (73, 16868), (85, 16982), (87, 17006), (99, 17135), (112, 17288), (116, 17357), (117, 17375), (119, 17393),

Gene: SynergyX_21 Start: 16358, Stop: 17437, Start Num: 14

Candidate Starts for SynergyX_21:

(Start: 14 @16358 has 55 MA's), (19, 16376), (22, 16394), (30, 16454), (34, 16490), (54, 16694), (73, 16871), (85, 16985), (87, 17009), (99, 17138), (112, 17291), (116, 17360), (117, 17378), (119, 17396),

Gene: TA17A_21 Start: 17576, Stop: 18652, Start Num: 15

Candidate Starts for TA17A_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (118, 18593), (121, 18641),

Gene: TPA2_27 Start: 17080, Stop: 17883, Start Num: 15

Candidate Starts for TPA2_27:

(Start: 15 @17080 has 51 MA's), (20, 17098), (27, 17149), (31, 17188), (35, 17212), (39, 17257), (43, 17323), (45, 17344), (52, 17389), (56, 17431), (73, 17590), (76, 17620), (78, 17626), (87, 17728), (96, 17800),

Gene: Taptic_15 Start: 15358, Stop: 16464, Start Num: 17

Candidate Starts for Taptic_15:

(4, 15280), (Start: 17 @15358 has 17 MA's), (20, 15373), (22, 15388), (30, 15448), (35, 15487), (37, 15505), (39, 15532), (40, 15538), (53, 15670), (56, 15706), (57, 15709), (61, 15754), (72, 15853), (81, 15931), (89, 16027), (91, 16042), (92, 16057), (99, 16132), (111, 16282), (113, 16297), (114, 16336), (120, 16399), (122, 16459),

Gene: Teamocil_31 Start: 16878, Stop: 17885, Start Num: 12

Candidate Starts for Teamocil_31:

(Start: 12 @16878 has 6 MA's), (26, 16950), (28, 16965), (29, 16971), (31, 16989), (35, 17013), (40, 17064), (41, 17076), (43, 17124), (51, 17184), (65, 17313), (67, 17325), (70, 17373), (77, 17427), (80, 17451), (81, 17460), (82, 17469), (90, 17565), (95, 17610), (98, 17652), (110, 17817),

Gene: Tinciduntolum_22 Start: 17695, Stop: 18774, Start Num: 15

Candidate Starts for Tinciduntolum_22:

(Start: 15 @17695 has 51 MA's), (19, 17710), (20, 17713), (35, 17827), (39, 17872), (56, 18046), (58, 18052), (61, 18094), (64, 18121), (73, 18205), (78, 18241), (81, 18271), (89, 18358), (92, 18388), (99, 18466), (104, 18499), (105, 18508), (111, 18613), (115, 18682), (116, 18691), (121, 18760),

Gene: TinyTerror_21 Start: 16357, Stop: 17436, Start Num: 14

Candidate Starts for TinyTerror_21:

(Start: 14 @16357 has 55 MA's), (19, 16375), (22, 16393), (30, 16453), (34, 16489), (54, 16693), (73, 16870), (85, 16984), (87, 17008), (99, 17137), (112, 17290), (116, 17359), (117, 17377), (119, 17395),

Gene: TraderJ_20 Start: 16088, Stop: 16900, Start Num: 15

Candidate Starts for TraderJ_20:

(Start: 15 @16088 has 51 MA's), (20, 16106), (30, 16181), (35, 16220), (39, 16265), (45, 16352), (48, 16373), (50, 16391), (52, 16397), (56, 16439), (78, 16634), (87, 16736), (95, 16808),

Gene: Tres_21 Start: 17576, Stop: 18655, Start Num: 15

Candidate Starts for Tres_21:

(Start: 15 @17576 has 51 MA's), (19, 17591), (20, 17594), (35, 17708), (39, 17753), (56, 17927), (58, 17933), (61, 17975), (64, 18002), (73, 18086), (78, 18122), (81, 18152), (89, 18239), (92, 18269), (99, 18347), (104, 18380), (105, 18389), (111, 18494), (115, 18563), (116, 18572), (121, 18641),

Gene: Tydolla_21 Start: 17095, Stop: 18174, Start Num: 14

Candidate Starts for Tydolla_21:

(Start: 14 @17095 has 55 MA's), (19, 17113), (22, 17131), (30, 17191), (34, 17227), (54, 17431), (73, 17608), (85, 17722), (87, 17746), (99, 17875), (112, 18028), (116, 18097), (117, 18115), (119, 18133),

Gene: Vic9_00021 Start: 18016, Stop: 19095, Start Num: 15

Candidate Starts for Vic9_00021:

(Start: 15 @18016 has 51 MA's), (19, 18031), (20, 18034), (35, 18148), (39, 18193), (56, 18367), (58, 18373), (61, 18415), (64, 18442), (73, 18526), (78, 18562), (81, 18592), (89, 18679), (92, 18709), (99, 18787), (104, 18820), (105, 18829), (111, 18934), (115, 19003), (116, 19012), (118, 19033), (121, 19081),

Gene: Vincenzo_19 Start: 17209, Stop: 18015, Start Num: 14

Candidate Starts for Vincenzo_19:

(6, 17149), (Start: 14 @17209 has 55 MA's), (25, 17272), (33, 17329), (35, 17341), (37, 17359), (45, 17473), (48, 17494), (73, 17722), (78, 17758), (81, 17788), (83, 17824), (87, 17857), (88, 17869), (93, 17908), (99, 17986),

Gene: VioletZ_18 Start: 16470, Stop: 17276, Start Num: 13

Candidate Starts for VioletZ_18:

(Start: 13 @16470 has 11 MA's), (25, 16533), (34, 16599), (35, 16602), (37, 16620), (43, 16713), (45, 16734), (48, 16755), (62, 16872), (63, 16890), (73, 16983), (83, 17085), (87, 17118), (88, 17130), (89, 17133), (93, 17169),

Gene: Waleliano_18 Start: 16440, Stop: 17246, Start Num: 13

Candidate Starts for Waleliano_18:

(Start: 13 @16440 has 11 MA's), (25, 16503), (34, 16569), (35, 16572), (37, 16590), (43, 16683), (45, 16704), (48, 16725), (62, 16842), (63, 16860), (73, 16953), (81, 17019), (83, 17055), (87, 17088), (88, 17100), (89, 17103), (93, 17139),

Gene: West99_21 Start: 17696, Stop: 18775, Start Num: 15

Candidate Starts for West99_21:

(Start: 15 @17696 has 51 MA's), (19, 17711), (20, 17714), (35, 17828), (39, 17873), (56, 18047), (58, 18053), (61, 18095), (64, 18122), (73, 18206), (78, 18242), (81, 18272), (89, 18359), (92, 18389), (99, 18467), (104, 18500), (105, 18509), (111, 18614), (115, 18683), (116, 18692), (121, 18761),

Gene: Wooper_20 Start: 16094, Stop: 16906, Start Num: 15

Candidate Starts for Wooper_20:

(Start: 15 @16094 has 51 MA's), (20, 16112), (30, 16187), (35, 16226), (39, 16271), (45, 16358), (48, 16379), (50, 16397), (56, 16445), (78, 16640), (87, 16742), (95, 16814),

Gene: Xincheng_18 Start: 16261, Stop: 17067, Start Num: 13

Candidate Starts for Xincheng_18:

(Start: 13 @16261 has 11 MA's), (25, 16324), (35, 16393), (37, 16411), (43, 16504), (45, 16525), (48, 16546), (62, 16663), (63, 16681), (73, 16774), (83, 16876), (87, 16909), (88, 16921), (89, 16924), (93, 16960),

Gene: Yago84_18 Start: 14999, Stop: 15808, Start Num: 15

Candidate Starts for Yago84_18:

(5, 14930), (8, 14948), (Start: 15 @14999 has 51 MA's), (20, 15017), (30, 15092), (35, 15131), (39, 15176), (45, 15263), (48, 15284), (56, 15350), (78, 15545), (87, 15647), (89, 15662), (95, 15719),

Gene: Yahalom_21 Start: 16369, Stop: 17448, Start Num: 14

Candidate Starts for Yahalom_21:

(Start: 14 @16369 has 55 MA's), (19, 16387), (22, 16405), (30, 16465), (34, 16501), (54, 16705), (73, 16882), (85, 16996), (87, 17020), (99, 17149), (112, 17302), (116, 17371), (117, 17389), (119, 17407),

Gene: Yeshua_20 Start: 16071, Stop: 16883, Start Num: 15

Candidate Starts for Yeshua_20:

(Start: 15 @16071 has 51 MA's), (20, 16089), (30, 16164), (35, 16203), (39, 16248), (45, 16335), (48, 16356), (50, 16374), (56, 16422), (78, 16617), (87, 16719), (95, 16791),

Gene: Yinz_21 Start: 16396, Stop: 17475, Start Num: 14

Candidate Starts for Yinz_21:

(Start: 14 @16396 has 55 MA's), (19, 16414), (22, 16432), (30, 16492), (34, 16528), (54, 16732), (73, 16909), (85, 17023), (87, 17047), (99, 17176), (112, 17329), (116, 17398), (117, 17416), (119, 17434),

Gene: Zemanar_19 Start: 16440, Stop: 17246, Start Num: 13

Candidate Starts for Zemanar_19:

(Start: 13 @16440 has 11 MA's), (25, 16503), (34, 16569), (35, 16572), (37, 16590), (43, 16683), (45, 16704), (48, 16725), (62, 16842), (63, 16860), (73, 16953), (81, 17019), (83, 17055), (87, 17088), (88, 17100), (89, 17103), (93, 17139),