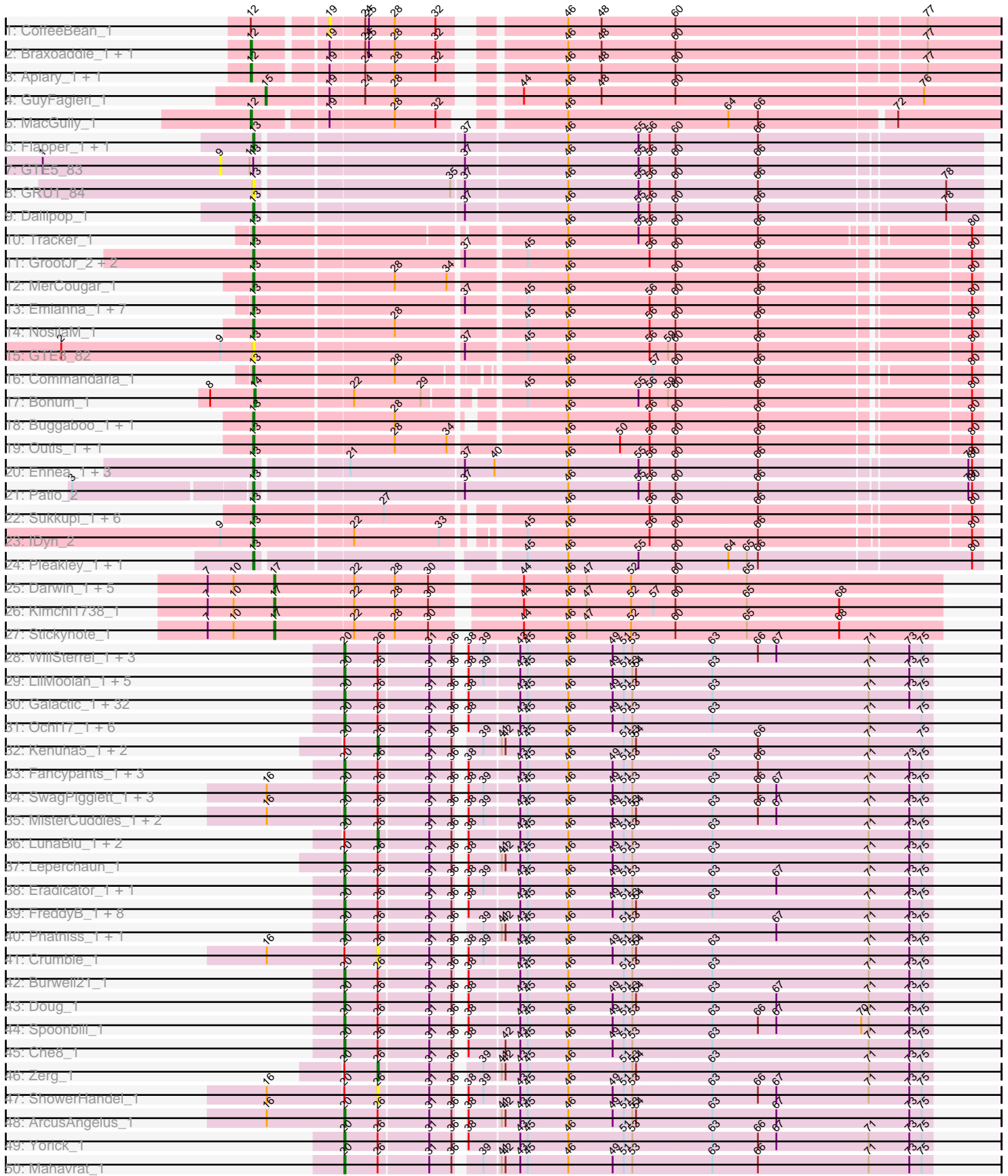


Pham 160200



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 160200 Report

This analysis was run 04/28/24 on database version 559.

Pham number 160200 has 151 members, 14 are drafts.

Phages represented in each track:

- Track 1 : CoffeeBean_1
- Track 2 : Braxoaddie_1, Maselop_1
- Track 3 : Apiary_1, Polykyu_1
- Track 4 : GuyFagieri_1
- Track 5 : MacGully_1
- Track 6 : Flapper_1, Turuncu_1
- Track 7 : GTE5_83
- Track 8 : GRU1_84
- Track 9 : Dalilpop_1
- Track 10 : Tracker_1
- Track 11 : GrootJr_2, NovumRegina_2, NatB6_2
- Track 12 : MerCougar_1
- Track 13 : Emianna_1, KidneyBean_1, Phomeo_1, Arti_1, Wheezy_1, Kurt_1, Foxboro_1, Jifall16_1
- Track 14 : NosilaM_1
- Track 15 : GTE8_82
- Track 16 : Commandaria_1
- Track 17 : Bonum_1
- Track 18 : Buggaboo_1, SuperSulley_1
- Track 19 : Outis_1, StarStruck_1
- Track 20 : Ennea_1, Lollipop1437_1, Float294_1, Skysand_1
- Track 21 : Patio_2
- Track 22 : Sukkupi_1, Yndexa_1, WhoseManz_1, NadineRae_1, HubbaBubba_1, BiPauneto_1, Marietta_1
- Track 23 : IDyn_2
- Track 24 : Pleakley_1, Fury_1
- Track 25 : Darwin_1, C3PO_1, PeteyPab_1, PotatoChip_1, Zion_1, Cruella_1
- Track 26 : Kimchi1738_1
- Track 27 : Stickynote_1
- Track 28 : WillSterrel_1, Kersh_1, Spartacus_1, IrishSherpFalk_1
- Track 29 : LilMoolah_1, Nivrat_1, ShiLan_1, Polka14_1, Jarcob_1, Philus_1
- Track 30 : Galactic_1, Mattes_1, BodEinwohner17_1, Nimbo_1, Scottish_1, Estave1_1, KingMidas_1, Eish_1, Strokeseat_1, PHappiness_1, RedBird_1, Wachhund_1, Daenerys_1, Brocalys_1, Gorge_1, Saal_1, VRedHorse_1, JoeyJr_1, Dorothy_1, Empress_1, Radiance_1, Inventum_1, OldBen_1, Hlubikazi_1, Latretium_1, RitaG_1, Mandlovu_1, BlueCrab_1, Sassafras_1, Pacc40_1, Geralt_1, Poenanya_1, Doomphist_1

- Track 31 : Ochi17_1, Seabastian_1, Llama_1, Modragons_1, OfUltron_1, AlpineSix_1, Jinglebell_1
- Track 32 : Kenuha5_1, Minnie_1, MulchSalad_1
- Track 33 : Fancypants_1, Ibhubesi_1, Harley_1, Whouxphf_1
- Track 34 : SwagPigglett_1, ByChance_1, Lizziana_1, Martik_1
- Track 35 : MisterCuddles_1, Girr_1, Ruby_1
- Track 36 : LunaBlu_1, DaddyRickover_1, Deb65_1
- Track 37 : Leperchaun_1
- Track 38 : Eradicator_1, Moonbeam_1
- Track 39 : FreddyB_1, Koella_1, LastJedi_1, Clifton_1, NormanBulbieJr_1, OlympiaSaint_1, Pippy_1, Priscilla_1, Cabrinians_1
- Track 40 : Phatniss_1, Maravista_1
- Track 41 : Crumble_1
- Track 42 : Burwell21_1
- Track 43 : Doug_1
- Track 44 : Spoonbill_1
- Track 45 : Che8_1
- Track 46 : Zerg_1
- Track 47 : ShowerHandel_1
- Track 48 : ArcusAngelus_1
- Track 49 : Yorick_1
- Track 50 : Mahavrat_1
- Track 51 : SiSi_1
- Track 52 : ChewyVIII_1
- Track 53 : P1201_02
- Track 54 : GAL1_2

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

The start number called the most often in the published annotations is 20, it was called in 82 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlpineSix_1, ArcusAngelus_1, BlueCrab_1, BodEinwohner17_1, Brocalys_1, Burwell21_1, ByChance_1, Cabrinians_1, Che8_1, Clifton_1, Daenerys_1, Doomphist_1, Dorothy_1, Doug_1, Eish_1, Empress_1, Eradicator_1, Estave1_1, Fancypants_1, FreddyB_1, GAL1_2, Galactic_1, Geralt_1, Girr_1, Gorge_1, Harley_1, Hlubikazi_1, Ibhubesi_1, Inventum_1, IrishSherpFalk_1, Jarcob_1, Jinglebell_1, JoeyJr_1, Kersh_1, KingMidas_1, Koella_1, LastJedi_1, Latretium_1, Leperchaun_1, LilMoolah_1, Lizziana_1, Llama_1, Mahavrat_1, Mandlovu_1, Maravista_1, Martik_1, Mattes_1, MisterCuddles_1, Modragons_1, Moonbeam_1, Nimbo_1, Nivrat_1, NormanBulbieJr_1, Ochi17_1, OfUltron_1, OldBen_1, OlympiaSaint_1, PHappiness_1, Pacc40_1, Phatniss_1, Philus_1, Pippy_1, Poenanya_1, Polka14_1, Priscilla_1, Radiance_1, RedBird_1, RitaG_1, Ruby_1, Saal_1, Sassafras_1, Scottish_1, Seabastian_1, ShiLan_1, SiSi_1, Spartacus_1, Spoonbill_1, Strokeseat_1, SwagPigglett_1, VRedHorse_1, Wachhund_1, Whouxphf_1, WillSterrel_1, Yorick_1,

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

- Crumble_1, DaddyRickover_1, Deb65_1, Kenuha5_1, LunaBlu_1, Minnie_1, MulchSalad_1, ShowerHandel_1, Zerg_1,

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

- Apiary_1, Arti_1, BiPauneto_1, Bonum_1, Braxoaddie_1, Buggaboo_1, C3PO_1, ChewyVIII_1, CoffeeBean_1, Commandaria_1, Cruella_1, Dalilpop_1, Darwin_1, Emianna_1, Ennea_1, Flapper_1, Float294_1, Foxboro_1, Fury_1, GRU1_84, GTE5_83, GTE8_82, GrootJr_2, GuyFagieri_1, HubbaBubba_1, IDyn_2, Jifall16_1, KidneyBean_1, Kimchi1738_1, Kurt_1, Lollipop1437_1, MacGully_1, Marietta_1, Maselop_1, MerCougar_1, NadineRae_1, NatB6_2, NosilaM_1, NovumRegina_2, Outis_1, P1201_02, Patio_2, PeteyPab_1, Phomeo_1, Pleakley_1, Polyuyuki_1, PotatoChip_1, Skysand_1, StarStruck_1, Stickynote_1, Sukkupi_1, SuperSulley_1, Tracker_1, Turuncu_1, Wheezy_1, WhoseManz_1, Yndexa_1, Zion_1,

Summary by start number:

Start 4:

- Found in 1 of 151 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P1201_02 (singleton),

Start 9:

- Found in 3 of 151 (2.0%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: GTE5_83 (CR1),

Start 12:

- Found in 6 of 151 (4.0%) of genes in pham
- Manual Annotations of this start: 5 of 137
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Apiary_1 (CR), Braxoaddie_1 (CR), MacGully_1 (CR), Maselop_1 (CR), Polyuyuki_1 (CR),

Start 13:

- Found in 41 of 151 (27.2%) of genes in pham
- Manual Annotations of this start: 36 of 137
- Called 97.6% of time when present
- Phage (with cluster) where this start called: Arti_1 (CR2), BiPauneto_1 (CR4), Buggaboo_1 (CR2), ChewyVIII_1 (singleton), Commandaria_1 (CR2), Dalilpop_1 (CR1), Emianna_1 (CR2), Ennea_1 (CR3), Flapper_1 (CR1), Float294_1 (CR3), Foxboro_1 (CR2), Fury_1 (CR5), GRU1_84 (CR1), GTE8_82 (CR2), GrootJr_2 (CR2), HubbaBubba_1 (CR4), IDyn_2 (CR4), Jifall16_1 (CR2), KidneyBean_1 (CR2), Kurt_1 (CR2), Lollipop1437_1 (CR3), Marietta_1 (CR4), MerCougar_1 (CR2), NadineRae_1 (CR4), NatB6_2 (CR2), NosilaM_1 (CR2), NovumRegina_2 (CR2), Outis_1 (CR2), Patio_2 (CR3), Phomeo_1 (CR2), Pleakley_1 (CR5), Skysand_1 (CR3), StarStruck_1 (CR2), Sukkupi_1 (CR4), SuperSulley_1 (CR2), Tracker_1 (CR2), Turuncu_1 (CR1), Wheezy_1 (CR2), WhoseManz_1 (CR4), Yndexa_1 (CR4),

Start 14:

- Found in 1 of 151 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 137

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonum_1 (CR2),

Start 15:

- Found in 1 of 151 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GuyFagieri_1 (CR),

Start 17:

- Found in 8 of 151 (5.3%) of genes in pham
- Manual Annotations of this start: 8 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO_1 (EN), Cruella_1 (EN), Darwin_1 (EN), Kimchi1738_1 (EN), PeteyPab_1 (EN), PotatoChip_1 (EN), Stickynote_1 (EN), Zion_1 (EN),

Start 19:

- Found in 7 of 151 (4.6%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: CoffeeBean_1 (CR),

Start 20:

- Found in 93 of 151 (61.6%) of genes in pham
- Manual Annotations of this start: 82 of 137
- Called 90.3% of time when present
- Phage (with cluster) where this start called: AlpineSix_1 (F1), ArcusAngelus_1 (F1), BlueCrab_1 (F1), BodEinwohner17_1 (F1), Brocalys_1 (F1), Burwell21_1 (F1), ByChance_1 (F1), Cabrinians_1 (F1), Che8_1 (F1), Clifton_1 (F1), Daenerys_1 (F1), Doomphist_1 (F1), Dorothy_1 (F1), Doug_1 (F1), Eish_1 (F1), Empress_1 (F1), Eradicator_1 (F1), Estave1_1 (F1), Fancypants_1 (F1), FreddyB_1 (F1), GAL1_2 (singleton), Galactic_1 (F1), Geralt_1 (F1), Girr_1 (F1), Gorge_1 (F1), Harley_1 (F1), Hlubikazi_1 (F1), Ibhubesi_1 (F1), Inventum_1 (F1), IrishSherpFalk_1 (F1), Jarcob_1 (F1), Jinglebell_1 (F1), JoeyJr_1 (F1), Kersh_1 (F1), KingMidas_1 (F1), Koella_1 (F1), LastJedi_1 (F1), Latretium_1 (F1), Leperchaun_1 (F1), LilMoolah_1 (F1), Lizziana_1 (F1), Llama_1 (F1), Mahavrat_1 (F1), Mandlovu_1 (F1), Maravista_1 (F1), Martik_1 (F1), Mattes_1 (F1), MisterCuddles_1 (F1), Modragons_1 (F1), Moonbeam_1 (F1), Nimbo_1 (F1), Nivrat_1 (F1), NormanBulbieJr_1 (F1), Ochi17_1 (F1), OfUltron_1 (F1), OldBen_1 (F1), OlympiaSaint_1 (F1), PHappiness_1 (F1), Pacc40_1 (F1), Phatniss_1 (F1), Philus_1 (F1), Pippy_1 (F1), Poenanya_1 (F1), Polka14_1 (F1), Priscilla_1 (F1), Radiance_1 (F1), RedBird_1 (F1), RitaG_1 (F1), Ruby_1 (F1), Saal_1 (F1), Sassafras_1 (F1), Scottish_1 (F1), Seabastian_1 (F1), ShiLan_1 (F1), SiSi_1 (F1), Spartacus_1 (F1), Spoonbill_1 (F1), Strokeseat_1 (F1), SwagPiggett_1 (F1), VRedHorse_1 (F1), Wachhund_1 (F1), Whouxphf_1 (F1), WillSterrel_1 (F1), Yorick_1 (F1),

Start 26:

- Found in 92 of 151 (60.9%) of genes in pham
- Manual Annotations of this start: 4 of 137
- Called 9.8% of time when present
- Phage (with cluster) where this start called: Crumble_1 (F1), DaddyRickover_1 (F1), Deb65_1 (F1), Kenuha5_1 (F1), LunaBlu_1 (F1), Minnie_1 (F1), MulchSalad_1 (F),

ShowerHandel_1 (F1), Zerg_1 (F1),

Summary by clusters:

There are 10 clusters represented in this pham: CR2, F1, singleton, CR1, CR4, CR3, CR5, EN, F, CR,

Info for manual annotations of cluster CR:

- Start number 12 was manually annotated 5 times for cluster CR.
- Start number 15 was manually annotated 1 time for cluster CR.

Info for manual annotations of cluster CR1:

- Start number 13 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 13 was manually annotated 18 times for cluster CR2.
- Start number 14 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 13 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 13 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 13 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster EN:

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

Info for manual annotations of cluster F1:

- Start number 20 was manually annotated 82 times for cluster F1.
- Start number 26 was manually annotated 4 times for cluster F1.

Gene Information:

Gene: AlpineSix_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for AlpineSix_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: Apiary_1 Start: 110, Stop: 667, Start Num: 12

Candidate Starts for Apiary_1:

(Start: 12 @110 has 5 MA's), (19, 161), (24, 188), (28, 212), (32, 245), (46, 326), (48, 353), (60, 413), (77, 608),

Gene: ArcusAngelus_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for ArcusAngelus_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (41, 221), (42, 224), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (54, 329), (63, 389),

(67, 440), (73, 548), (75, 557),

Gene: Arti_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Arti_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: BiPauneto_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for BiPauneto_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: BlueCrab_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for BlueCrab_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: BodEinwohner17_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for BodEinwohner17_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Bonum_1 Start: 160, Stop: 708, Start Num: 14

Candidate Starts for Bonum_1:

(8, 124), (Start: 14 @160 has 1 MA's), (22, 235), (29, 289), (45, 355), (46, 388), (55, 445), (56, 454), (59, 469), (60, 475), (66, 541), (80, 700),

Gene: Braxoaddie_1 Start: 110, Stop: 667, Start Num: 12

Candidate Starts for Braxoaddie_1:

(Start: 12 @110 has 5 MA's), (19, 161), (24, 188), (25, 191), (28, 212), (32, 245), (46, 326), (48, 353), (60, 413), (77, 608),

Gene: Brocalys_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Brocalys_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Buggaboo_1 Start: 157, Stop: 702, Start Num: 13

Candidate Starts for Buggaboo_1:

(Start: 13 @157 has 36 MA's), (28, 265), (46, 382), (56, 448), (60, 469), (66, 535), (80, 694),

Gene: Burwell21_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Burwell21_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: ByChance_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for ByChance_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: C3PO_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for C3PO_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),

Gene: Cabrinians_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Cabrinians_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Che8_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Che8_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (42, 222), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: ChewyVIII_1 Start: 141, Stop: 653, Start Num: 13

Candidate Starts for ChewyVIII_1:

(6, 99), (Start: 13 @141 has 36 MA's), (23, 222), (28, 249), (32, 270), (44, 315), (46, 351), (58, 429), (61, 459), (66, 504), (69, 582),

Gene: Clifton_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Clifton_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: CoffeeBean_1 Start: 161, Stop: 667, Start Num: 19

Candidate Starts for CoffeeBean_1:

(Start: 12 @110 has 5 MA's), (19, 161), (24, 188), (25, 191), (28, 212), (32, 245), (46, 326), (48, 353), (60, 413), (77, 608),

Gene: Commandaria_1 Start: 158, Stop: 700, Start Num: 13

Candidate Starts for Commandaria_1:

(Start: 13 @158 has 36 MA's), (28, 266), (46, 383), (57, 452), (60, 470), (66, 536), (80, 692),

Gene: Cruella_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for Cruella_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),

Gene: Crumble_1 Start: 137, Stop: 565, Start Num: 26

Candidate Starts for Crumble_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (54, 329), (63, 389), (71, 515), (73, 548), (75, 557),

Gene: DaddyRickover_1 Start: 135, Stop: 563, Start Num: 26

Candidate Starts for DaddyRickover_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Daenerys_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Daenerys_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Dalilpop_1 Start: 122, Stop: 685, Start Num: 13

Candidate Starts for Dalilpop_1:

(Start: 13 @122 has 36 MA's), (37, 278), (46, 359), (55, 416), (56, 425), (60, 446), (66, 512), (78, 656),

Gene: Darwin_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for Darwin_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),

Gene: Deb65_1 Start: 135, Stop: 563, Start Num: 26

Candidate Starts for Deb65_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Doomphist_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Doomphist_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Dorothy_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Dorothy_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Doug_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Doug_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (67, 439), (71, 514), (73, 547), (75, 556),

Gene: Eish_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Eish_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Emianna_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Emianna_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: Empress_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Empress_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Ennea_1 Start: 121, Stop: 687, Start Num: 13

Candidate Starts for Ennea_1:

(Start: 13 @121 has 36 MA's), (21, 187), (37, 277), (40, 301), (46, 361), (55, 418), (56, 427), (60, 448), (66, 514), (79, 676), (80, 679),

Gene: Eradicator_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Eradicator_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (67, 439), (71, 514), (73, 547),

(75, 556),

Gene: Estave1_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Estave1_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Fancypants_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Fancypants_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (66, 424), (71, 514), (73, 547), (75, 556),

Gene: Flapper_1 Start: 122, Stop: 685, Start Num: 13

Candidate Starts for Flapper_1:

(Start: 13 @122 has 36 MA's), (37, 278), (46, 359), (55, 416), (56, 425), (60, 446), (66, 512),

Gene: Float294_1 Start: 121, Stop: 687, Start Num: 13

Candidate Starts for Float294_1:

(Start: 13 @121 has 36 MA's), (21, 187), (37, 277), (40, 301), (46, 361), (55, 418), (56, 427), (60, 448), (66, 514), (79, 676), (80, 679),

Gene: Foxboro_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Foxboro_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: FreddyB_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for FreddyB_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Fury_1 Start: 122, Stop: 679, Start Num: 13

Candidate Starts for Fury_1:

(Start: 13 @122 has 36 MA's), (45, 317), (46, 350), (55, 407), (60, 437), (64, 479), (65, 494), (66, 503), (80, 671),

Gene: GAL1_2 Start: 720, Stop: 1169, Start Num: 20

Candidate Starts for GAL1_2:

(Start: 20 @720 has 82 MA's), (31, 786), (38, 807), (39, 819), (44, 849), (46, 885), (47, 900), (50, 927), (62, 993), (66, 1038), (74, 1155),

Gene: GRU1_84 Start: 59190, Stop: 59753, Start Num: 13

Candidate Starts for GRU1_84:

(Start: 13 @59190 has 36 MA's), (35, 59337), (37, 59346), (46, 59427), (55, 59484), (56, 59493), (60, 59514), (66, 59580), (78, 59724),

Gene: GTE5_83 Start: 60179, Stop: 60772, Start Num: 9

Candidate Starts for GTE5_83:

(1, 60035), (9, 60179), (11, 60203), (Start: 13 @60206 has 36 MA's), (37, 60365), (46, 60446), (55, 60503), (56, 60512), (60, 60533), (66, 60599),

Gene: GTE8_82 Start: 60392, Stop: 60949, Start Num: 13

Candidate Starts for GTE8_82:

(2, 60236), (9, 60365), (Start: 13 @60392 has 36 MA's), (37, 60551), (45, 60596), (46, 60629), (56, 60695), (59, 60710), (60, 60716), (66, 60782), (80, 60941),

Gene: Galactic_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Galactic_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Geralt_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Geralt_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Girr_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for Girr_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (54, 329), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Gorge_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Gorge_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: GrootJr_2 Start: 773, Stop: 1330, Start Num: 13

Candidate Starts for GrootJr_2:

(Start: 13 @773 has 36 MA's), (37, 932), (45, 977), (46, 1010), (56, 1076), (60, 1097), (66, 1163), (80, 1322),

Gene: GuyFagieri_1 Start: 112, Stop: 669, Start Num: 15

Candidate Starts for GuyFagieri_1:

(Start: 15 @112 has 1 MA's), (19, 160), (24, 187), (28, 211), (44, 289), (46, 325), (48, 352), (60, 412), (76, 607),

Gene: Harley_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Harley_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (66, 424), (71, 514), (73, 547), (75, 556),

Gene: Hlubikazi_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Hlubikazi_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: HubbaBubba_1 Start: 158, Stop: 709, Start Num: 13

Candidate Starts for HubbaBubba_1:

(Start: 13 @158 has 36 MA's), (27, 257), (46, 386), (56, 452), (60, 473), (66, 539), (80, 701),

Gene: IDyn_2 Start: 786, Stop: 1334, Start Num: 13

Candidate Starts for IDyn_2:

(9, 759), (Start: 13 @786 has 36 MA's), (22, 861), (33, 930), (45, 978), (46, 1011), (56, 1077), (60, 1098), (66, 1164), (80, 1326),

Gene: lbhubesi_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for lbhubesi_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (66, 424), (71, 514), (73, 547), (75, 556),

Gene: Inventum_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Inventum_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: IrishSherpFalk_1 Start: 112, Stop: 567, Start Num: 20

Candidate Starts for IrishSherpFalk_1:

(Start: 20 @112 has 82 MA's), (Start: 26 @139 has 4 MA's), (31, 178), (36, 196), (38, 199), (39, 211), (43, 238), (45, 244), (46, 277), (49, 313), (51, 322), (53, 328), (63, 391), (66, 427), (67, 442), (71, 517), (73, 550), (75, 559),

Gene: Jarcob_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Jarcob_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Jifall16_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Jifall16_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: Jinglebell_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Jinglebell_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: JoeyJr_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for JoeyJr_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Kenuha5_1 Start: 136, Stop: 564, Start Num: 26

Candidate Starts for Kenuha5_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (54, 328), (66, 424), (71, 514), (75, 556),

Gene: Kersh_1 Start: 112, Stop: 567, Start Num: 20

Candidate Starts for Kersh_1:

(Start: 20 @112 has 82 MA's), (Start: 26 @139 has 4 MA's), (31, 178), (36, 196), (38, 199), (39, 211), (43, 238), (45, 244), (46, 277), (49, 313), (51, 322), (53, 328), (63, 391), (66, 427), (67, 442), (71, 517), (73, 550), (75, 559),

Gene: KidneyBean_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for KidneyBean_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: Kimchi1738_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for Kimchi1738_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (57, 385), (60, 403), (65, 460), (68, 535),

Gene: KingMidas_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for KingMidas_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Koella_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Koella_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Kurt_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Kurt_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: LastJedi_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for LastJedi_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Latretium_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Latretium_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Leperchaun_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Leperchaun_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: LilMoolah_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for LilMoolah_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Lizziana_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for Lizziana_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Llama_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Llama_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: Lollipop1437_1 Start: 121, Stop: 687, Start Num: 13

Candidate Starts for Lollipop1437_1:

(Start: 13 @121 has 36 MA's), (21, 187), (37, 277), (40, 301), (46, 361), (55, 418), (56, 427), (60, 448), (66, 514), (79, 676), (80, 679),

Gene: LunaBlu_1 Start: 135, Stop: 563, Start Num: 26

Candidate Starts for LunaBlu_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: MacGully_1 Start: 112, Stop: 666, Start Num: 12

Candidate Starts for MacGully_1:

(Start: 12 @112 has 5 MA's), (19, 163), (28, 214), (32, 247), (46, 325), (64, 454), (66, 478), (72, 583),

Gene: Mahavrat_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Mahavrat_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (39, 207), (41, 219), (42, 222), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (66, 423), (71, 513), (73, 546), (75, 555),

Gene: Mandlovu_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Mandlovu_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Maravista_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Maravista_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (67, 439), (71, 514), (73, 547), (75, 556),

Gene: Marietta_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for Marietta_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: Martik_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for Martik_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Maselop_1 Start: 110, Stop: 667, Start Num: 12

Candidate Starts for Maselop_1:

(Start: 12 @110 has 5 MA's), (19, 161), (24, 188), (25, 191), (28, 212), (32, 245), (46, 326), (48, 353), (60, 413), (77, 608),

Gene: Mattes_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Mattes_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: MerCougar_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for MerCougar_1:

(Start: 13 @158 has 36 MA's), (28, 266), (34, 308), (46, 395), (60, 482), (66, 548), (80, 707),

Gene: Minnie_1 Start: 136, Stop: 564, Start Num: 26

Candidate Starts for Minnie_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (54, 328), (66, 424), (71, 514), (75, 556),

Gene: MisterCuddles_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for MisterCuddles_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (54, 329), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Modragons_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Modragons_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: Moonbeam_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Moonbeam_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (67, 439), (71, 514), (73, 547), (75, 556),

Gene: MulchSalad_1 Start: 135, Stop: 563, Start Num: 26

Candidate Starts for MulchSalad_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (39, 207), (41, 219), (42, 222), (43, 234), (45, 240), (46, 273), (51, 318), (53, 324), (54, 327), (66, 423), (71, 513), (75, 555),

Gene: NadineRae_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for NadineRae_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: NatB6_2 Start: 773, Stop: 1330, Start Num: 13

Candidate Starts for NatB6_2:

(Start: 13 @773 has 36 MA's), (37, 932), (45, 977), (46, 1010), (56, 1076), (60, 1097), (66, 1163), (80, 1322),

Gene: Nimbo_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Nimbo_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Nivrat_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Nivrat_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: NormanBulbieJr_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for NormanBulbieJr_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: NosilaM_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for NosilaM_1:

(Start: 13 @158 has 36 MA's), (28, 266), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: NovumRegina_2 Start: 773, Stop: 1330, Start Num: 13

Candidate Starts for NovumRegina_2:

(Start: 13 @773 has 36 MA's), (37, 932), (45, 977), (46, 1010), (56, 1076), (60, 1097), (66, 1163), (80, 1322),

Gene: Ochi17_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Ochi17_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: OfUltron_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for OfUltron_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: OldBen_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for OldBen_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: OlympiaSaint_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for OlympiaSaint_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Outis_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Outis_1:

(Start: 13 @158 has 36 MA's), (28, 266), (34, 308), (46, 395), (50, 437), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: P1201_02 Start: 294, Stop: 875, Start Num: 4

Candidate Starts for P1201_02:

(4, 294), (5, 306), (18, 390), (21, 429), (41, 525), (46, 579), (47, 594), (50, 621),

Gene: PHappiness_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for PHappiness_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Pacc40_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Pacc40_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Patio_2 Start: 777, Stop: 1343, Start Num: 13

Candidate Starts for Patio_2:

(3, 642), (Start: 13 @777 has 36 MA's), (37, 933), (46, 1017), (55, 1074), (56, 1083), (60, 1104), (66, 1170), (79, 1332), (80, 1335),

Gene: PeteyPab_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for PeteyPab_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),

Gene: Phatniss_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Phatniss_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (67, 439), (71, 514), (73, 547), (75, 556),

Gene: Philus_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Philus_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Phomeo_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Phomeo_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: Pippy_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Pippy_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Pleakley_1 Start: 122, Stop: 679, Start Num: 13

Candidate Starts for Pleakley_1:

(Start: 13 @122 has 36 MA's), (45, 317), (46, 350), (55, 407), (60, 437), (64, 479), (65, 494), (66, 503), (80, 671),

Gene: Poenanya_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Poenanya_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Polka14_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Polka14_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Polyzuki_1 Start: 110, Stop: 667, Start Num: 12

Candidate Starts for Polyzuki_1:

(Start: 12 @110 has 5 MA's), (19, 161), (24, 188), (28, 212), (32, 245), (46, 326), (48, 353), (60, 413), (77, 608),

Gene: PotatoChip_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for PotatoChip_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),

Gene: Priscilla_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Priscilla_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Radiance_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Radiance_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: RedBird_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for RedBird_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: RitaG_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for RitaG_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Ruby_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for Ruby_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (54, 329), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Saal_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Saal_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Sassafras_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Sassafras_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Scottish_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Scottish_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (49, 309), (51, 318), (53, 324), (63, 387), (71, 513), (73, 546), (75, 555),

Gene: Seabastian_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Seabastian_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (75, 556),

Gene: ShiLan_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for ShiLan_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (39, 208), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: ShowerHandel_1 Start: 137, Stop: 565, Start Num: 26

Candidate Starts for ShowerHandel_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: SiSi_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for SiSi_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (66, 424), (67, 439), (71, 514), (73, 547), (75, 556),

Gene: Skysand_1 Start: 121, Stop: 687, Start Num: 13

Candidate Starts for Skysand_1:

(Start: 13 @121 has 36 MA's), (21, 187), (37, 277), (40, 301), (46, 361), (55, 418), (56, 427), (60, 448), (66, 514), (79, 676), (80, 679),

Gene: Spartacus_1 Start: 112, Stop: 567, Start Num: 20

Candidate Starts for Spartacus_1:

(Start: 20 @112 has 82 MA's), (Start: 26 @139 has 4 MA's), (31, 178), (36, 196), (38, 199), (39, 211), (43, 238), (45, 244), (46, 277), (49, 313), (51, 322), (53, 328), (63, 391), (66, 427), (67, 442), (71, 517), (73, 550), (75, 559),

Gene: Spoonbill_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Spoonbill_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (66, 424), (67, 439), (70, 508), (71, 514), (73, 547), (75, 556),

Gene: StarStruck_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for StarStruck_1:

(Start: 13 @158 has 36 MA's), (28, 266), (34, 308), (46, 395), (50, 437), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: Stickynote_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for Stickynote_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460), (68, 535),

Gene: Strokeseat_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Strokeseat_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Sukkupi_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for Sukkupi_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: SuperSulley_1 Start: 157, Stop: 702, Start Num: 13

Candidate Starts for SuperSulley_1:

(Start: 13 @157 has 36 MA's), (28, 265), (46, 382), (56, 448), (60, 469), (66, 535), (80, 694),

Gene: SwagPiggett_1 Start: 110, Stop: 565, Start Num: 20

Candidate Starts for SwagPiggett_1:

(16, 50), (Start: 20 @110 has 82 MA's), (Start: 26 @137 has 4 MA's), (31, 176), (36, 194), (38, 197), (39, 209), (43, 236), (45, 242), (46, 275), (49, 311), (51, 320), (53, 326), (63, 389), (66, 425), (67, 440), (71, 515), (73, 548), (75, 557),

Gene: Tracker_1 Start: 159, Stop: 701, Start Num: 13

Candidate Starts for Tracker_1:

(Start: 13 @159 has 36 MA's), (46, 387), (55, 444), (56, 453), (60, 474), (66, 540), (80, 693),

Gene: Turuncu_1 Start: 122, Stop: 688, Start Num: 13

Candidate Starts for Turuncu_1:

(Start: 13 @122 has 36 MA's), (37, 281), (46, 362), (55, 419), (56, 428), (60, 449), (66, 515),

Gene: VRedHorse_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for VRedHorse_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Wachhund_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Wachhund_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Wheezy_1 Start: 158, Stop: 715, Start Num: 13

Candidate Starts for Wheezy_1:

(Start: 13 @158 has 36 MA's), (37, 317), (45, 362), (46, 395), (56, 461), (60, 482), (66, 548), (80, 707),

Gene: WhoseManz_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for WhoseManz_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: Whouxphf_1 Start: 109, Stop: 564, Start Num: 20

Candidate Starts for Whouxphf_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (38, 196), (43, 235), (45, 241), (46, 274), (49, 310), (51, 319), (53, 325), (63, 388), (66, 424), (71, 514), (73, 547), (75, 556),

Gene: WillSterrel_1 Start: 112, Stop: 567, Start Num: 20

Candidate Starts for WillSterrel_1:

(Start: 20 @112 has 82 MA's), (Start: 26 @139 has 4 MA's), (31, 178), (36, 196), (38, 199), (39, 211), (43, 238), (45, 244), (46, 277), (49, 313), (51, 322), (53, 328), (63, 391), (66, 427), (67, 442), (71, 517), (73, 550), (75, 559),

Gene: Yndexa_1 Start: 159, Stop: 710, Start Num: 13

Candidate Starts for Yndexa_1:

(Start: 13 @159 has 36 MA's), (27, 258), (46, 387), (56, 453), (60, 474), (66, 540), (80, 702),

Gene: Yorick_1 Start: 108, Stop: 563, Start Num: 20

Candidate Starts for Yorick_1:

(Start: 20 @108 has 82 MA's), (Start: 26 @135 has 4 MA's), (31, 174), (36, 192), (38, 195), (43, 234), (45, 240), (46, 273), (51, 318), (53, 324), (63, 387), (66, 423), (67, 438), (71, 513), (73, 546), (75, 555),

Gene: Zerg_1 Start: 136, Stop: 564, Start Num: 26

Candidate Starts for Zerg_1:

(Start: 20 @109 has 82 MA's), (Start: 26 @136 has 4 MA's), (31, 175), (36, 193), (39, 208), (41, 220), (42, 223), (43, 235), (45, 241), (46, 274), (51, 319), (53, 325), (54, 328), (63, 388), (71, 514), (73, 547), (75, 556),

Gene: Zion_1 Start: 94, Stop: 618, Start Num: 17

Candidate Starts for Zion_1:

(7, 40), (10, 61), (Start: 17 @94 has 8 MA's), (22, 157), (28, 190), (30, 217), (44, 280), (46, 316), (47, 331), (52, 367), (60, 403), (65, 460),