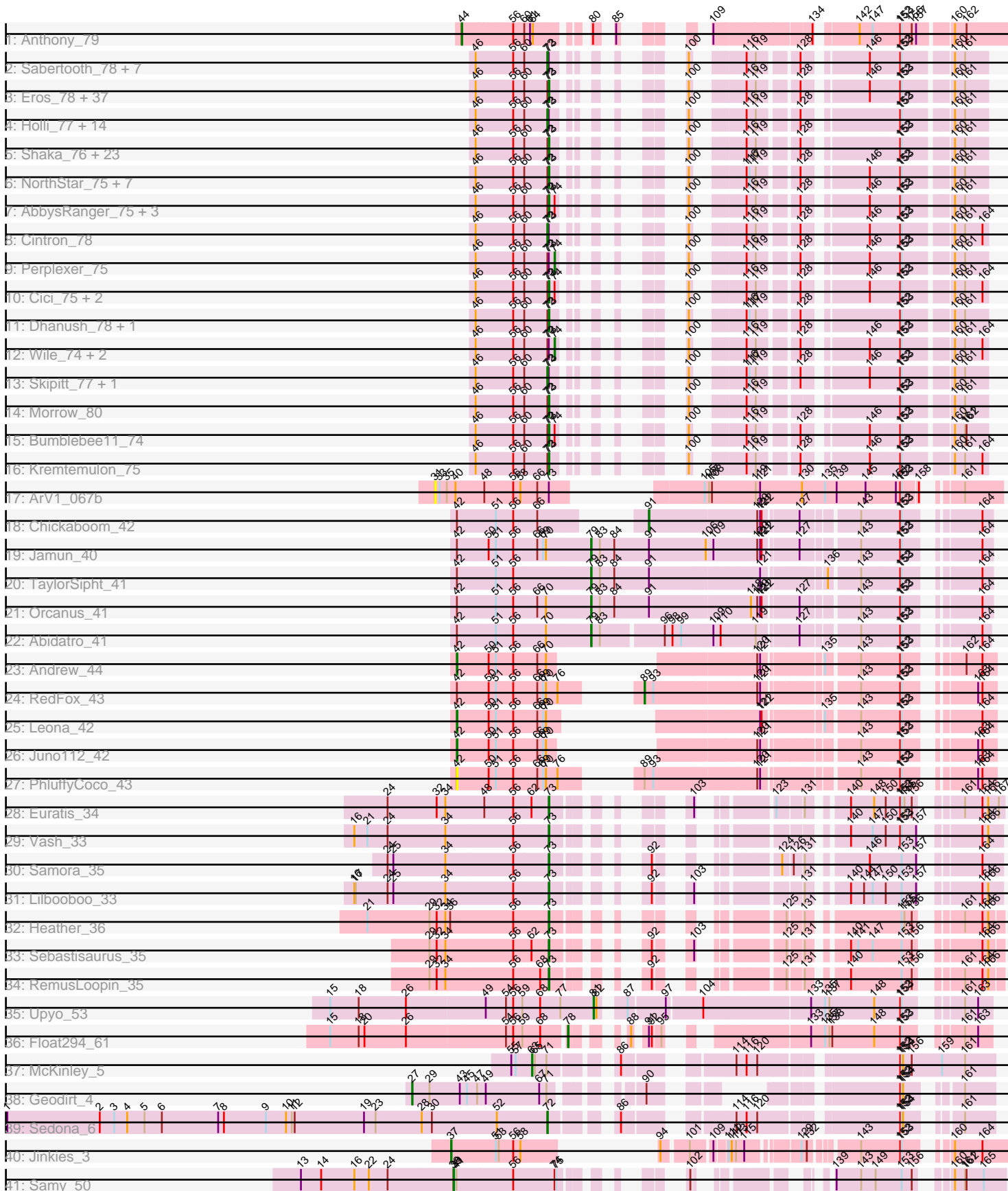


Pham 196357



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 196357 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196357 has 138 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Anthony_79
- Track 2 : Sabertooth_78, Mazhar510_78, Connomayer_78, Polymorphads_79, Koreni_77, LHTSCC_80, Tinybot_77, Pumbaa_78
- Track 3 : Eros_78, OKaNui_77, DirtyDunning_77, MeeZee_77, Obama12_79, Maverick_77, Iceman_76, Happiness_77, HamSlice_74, Peaches_76, Burger_76, Phacado_78, Huxley_67, Millski_77, PeterPeter_78, Avle17_78, Broseidon_78, Datway_75, Lorenzo_78, Cocoaberry_78, ICleared_77, Alberto7_79, Wander_78, Relief_77, Kyee_78, Arturo_75, Commander_76, LittleGuy_78, Scamp_78, Nemo27_77, LappelDuVide_78, Gadost_78, Houdini22_77, NotAPhaseMom_77, Eapen_78, Annyong_77, Phighter1804_78, Xena_74
- Track 4 : Holli_77, Kingmustik0402_78, Sparxx_79, Blackmoor_77, Maxo_80, Ohfah_79, JetBlade_79, Nyxis_77, Bartimeaus_78, TroyPia_79, BangNhom_75, YoSam321_78, Baby16_78, Rosa24_74, Eurydice_79
- Track 5 : Shaka_76, TiroTheta9_77, Caelakin_76, LochMonster_79, Kampy_77, Eagle_77, Iracema64_78, ChampagnePapi_81, BellusTerra_79, Deano_75, Lunsford_78, Spino_77, Roosevelt_76, Felipe_79, Abdiel_77, SheldonCooper_78, Taquarus_77, Cerulean_80, CentreCat_78, Citius_78, Phontbonne_78, Nebs_79, Ulysses_77, Druantia_77
- Track 6 : NorthStar_75, Romney_77, Melvin_80, Wilbur_78, Pipcraft_74, Ruin_78, Lemur_78, Flux_79
- Track 7 : AbbysRanger_75, Badger_74, PetiteSangsue_75, Backyardigan_73
- Track 8 : Cintron_78
- Track 9 : Perplexer_75
- Track 10 : Cici_75, Morpher26_75, Shygu2_76
- Track 11 : Dhanush_78, Chaph_78
- Track 12 : Wile_74, Wizard007_75, Katalie136_75
- Track 13 : Skipitt_77, Bombshell_78
- Track 14 : Morrow_80
- Track 15 : Bumblebee11_74
- Track 16 : Kremtemulon_75
- Track 17 : ArV1_067b
- Track 18 : Chickaboom_42
- Track 19 : Jamun_40
- Track 20 : TaylorSipht_41
- Track 21 : Orcanus_41
- Track 22 : Abidatro_41
- Track 23 : Andrew_44

- Track 24 : RedFox_43
- Track 25 : Leona_42
- Track 26 : Juno112_42
- Track 27 : PhluffyCoco_43
- Track 28 : Euratis_34
- Track 29 : Vash_33
- Track 30 : Samora_35
- Track 31 : Lilbooboo_33
- Track 32 : Heather_36
- Track 33 : Sebastisaurus_35
- Track 34 : RemusLoopin_35
- Track 35 : Upyo_53
- Track 36 : Float294_61
- Track 37 : McKinley_5
- Track 38 : Geodirt_4
- Track 39 : Sedona_6
- Track 40 : Jinkies_3
- Track 41 : Samy_50

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

The start number called the most often in the published annotations is 73, it was called in 88 of the 134 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_75, Abdiel_77, Alberto7_79, Annyong_77, Arturo_75, Avle17_78, Backyardigan_73, Badger_74, BellusTerra_79, Broseidon_78, Bumblebee11_74, Burger_76, Caelakin_76, CentreCat_78, Cerulean_80, ChampagnePapi_81, Chaph_78, Cici_75, Citius_78, Cocoaberry_78, Commander_76, Datway_75, Deano_75, Dhanush_78, DirtyDunning_77, Druantia_77, Eagle_77, Eapen_78, Eros_78, Euratis_34, Flux_79, Gadost_78, HamSlice_74, Happiness_77, Heather_36, Houdini22_77, Huxley_67, ICleared_77, Iceman_76, Iracema64_78, Kampy_77, Kremtemulon_75, Kyee_78, LappelDuVide_78, Lemur_78, Lilbooboo_33, LittleGuy_78, LochMonster_79, Lorenzo_78, Lunsford_78, Maverick_77, MeeZee_77, Melvin_80, Millski_77, Morpher26_75, Morrow_80, Nebs_79, Nemo27_77, NorthStar_75, NotAPhaseMom_77, OKaNui_77, Obama12_79, Peaches_76, PeterPeter_78, PetiteSangsue_75, Phacado_78, Phelipe_79, Phighter1804_78, Phontbonne_78, Pipcraft_74, Relief_77, RemusLoopin_35, Romney_77, Roosevelt_76, Ruin_78, Samora_35, Scamp_78, Sebastisaurus_35, Shaka_76, SheldonCooper_78, Shygu2_76, Spino_77, Taquarus_77, TiroTheta9_77, Ulysses_77, Vash_33, Wander_78, Wilbur_78, Xena_74,

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

- ArV1_067b, Baby16_78, BangNhom_75, Bartimeaus_78, Blackmoor_77, Bombshell_78, Cintron_78, Connomayer_78, Eurydice_79, Holli_77, JetBlade_79, Katalie136_75, Kingmustik0402_78, Koreni_77, LHTSCC_80, Maxo_80, Mazhar510_78, Nyxis_77, Ohfah_79, Perplexer_75, Polymorphads_79, Pumbaa_78, Rosa24_74, Sabertooth_78, Skipitt_77, Sparxx_79, Tinybot_77, TroyPia_79, Wile_74, Wizard007_75, YoSam321_78,

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

• Abidatro_41, Andrew_44, Anthony_79, Chickaboom_42, Float294_61, Geodirt_4, Jamun_40, Jinkies_3, Juno112_42, Leona_42, McKinley_5, Orcanus_41, PhluffyCoco_43, RedFox_43, Samy_50, Sedona_6, TaylorSipht_41, Upyo_53,

Summary by start number:

Start 27:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Geodirt_4 (DE1),

Start 31:

- Found in 1 of 138 (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: ArV1_067b (AR),

Start 37:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jinkies_3 (FL),

Start 38:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samy_50 (singleton),

Start 42:

- Found in 10 of 138 (7.2%) of genes in pham
- Manual Annotations of this start: 3 of 134
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Andrew_44 (AS3), Juno112_42 (AS3), Leona_42 (AS3), PhluffyCoco_43 (AS3),

Start 44:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony_79 (A20),

Start 63:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: McKinley_5 (DE1),

Start 72:

- Found in 113 of 138 (81.9%) of genes in pham
- Manual Annotations of this start: 26 of 134

- Called 23.9% of time when present
- Phage (with cluster) where this start called: Baby16_78 (A4), BangNhom_75 (A4), Bartimeaus_78 (A4), Blackmoor_77 (A4), Bombshell_78 (A4), Cintron_78 (A4), Connomayer_78 (A4), Eurydice_79 (A4), Holli_77 (A4), JetBlade_79 (A4), Kingmustik0402_78 (A4), Koreni_77 (A4), LHTSCC_80 (A4), Maxo_80 (A4), Mazhar510_78 (A4), Nyxis_77 (A4), Ohfah_79 (A4), Polymorphads_79 (A4), Pumbaa_78 (A4), Rosa24_74 (A4), Sabertooth_78 (A4), Sedona_6 (DE1), Skipitt_77 (A4), Sparxx_79 (A4), Tinybot_77 (A4), TroyPia_79 (A4), YoSam321_78 (A4),

Start 73:

- Found in 120 of 138 (87.0%) of genes in pham
- Manual Annotations of this start: 88 of 134
- Called 74.2% of time when present
- Phage (with cluster) where this start called: AbbysRanger_75 (A4), Abdiel_77 (A4), Alberto7_79 (A4), Annyong_77 (A4), Arturo_75 (A4), Avie17_78 (A4), Backyardigan_73 (A4), Badger_74 (A4), BellusTerra_79 (A4), Broseidon_78 (A4), Bumblebee11_74 (A4), Burger_76 (A4), Caelakin_76 (A4), CentreCat_78 (A4), Cerulean_80 (A4), ChampagnePapi_81 (A4), Chaph_78 (A4), Cici_75 (A4), Citius_78 (A4), Cocoaberry_78 (A4), Commander_76 (A4), Datway_75 (A4), Deano_75 (A4), Dhanush_78 (A4), DirtyDunning_77 (A4), Druantia_77 (A4), Eagle_77 (A4), Eapen_78 (A4), Eros_78 (A4), Euratis_34 (BB1), Flux_79 (A4), Gadost_78 (A4), HamSlice_74 (A4), Happiness_77 (A4), Heather_36 (BB2), Houdini22_77 (A4), Huxley_67 (A4), ICleared_77 (A4), Iceman_76 (A4), Iracema64_78 (A4), Kampy_77 (A4), Kremtemulon_75 (A4), Kyee_78 (A4), LappelDuVide_78 (A4), Lemur_78 (A4), Lilbooboo_33 (BB1), LittleGuy_78 (A4), LochMonster_79 (A4), Lorenzo_78 (A4), Lunsford_78 (A4), Maverick_77 (A4), MeeZee_77 (A4), Melvin_80 (A4), Millski_77 (A4), Morpher26_75 (A4), Morrow_80 (A4), Nebs_79 (A4), Nemo27_77 (A4), NorthStar_75 (A4), NotAPhaseMom_77 (A4), OKaNui_77 (A4), Obama12_79 (A4), Peaches_76 (A4), PeterPeter_78 (A4), PetiteSangsue_75 (A4), Phacado_78 (A4), Phelipe_79 (A4), Phighter1804_78 (A4), Phontbonne_78 (A4), Pipcraft_74 (A4), Relief_77 (A4), RemusLoopin_35 (BB2), Romney_77 (A4), Roosevelt_76 (A4), Ruin_78 (A4), Samora_35 (BB1), Scamp_78 (A4), Sebastisaurus_35 (BB2), Shaka_76 (A4), SheldonCooper_78 (A4), Shygu2_76 (A4), Spino_77 (A4), Taquarus_77 (A4), TiroTheta9_77 (A4), Ulysses_77 (A4), Vash_33 (BB1), Wander_78 (A4), Wilbur_78 (A4), Xena_74 (A4),

Start 74:

- Found in 13 of 138 (9.4%) of genes in pham
- Manual Annotations of this start: 4 of 134
- Called 30.8% of time when present
- Phage (with cluster) where this start called: Katalie136_75 (A4), Perplexer_75 (A4), Wile_74 (A4), Wizard007_75 (A4),

Start 78:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Float294_61 (CR3),

Start 79:

- Found in 4 of 138 (2.9%) of genes in pham
- Manual Annotations of this start: 4 of 134
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Abidatro_41 (AS1), Jamun_40 (AS1), Orcanus_41 (AS1), TaylorSipht_41 (AS1),

Start 81:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Upyo_53 (CD),

Start 89:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 50.0% of time when present
- Phage (with cluster) where this start called: RedFox_43 (AS3),

Start 91:

- Found in 5 of 138 (3.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Chickaboom_42 (AS1),

Summary by clusters:

There are 12 clusters represented in this pham: AS3, A20, AS1, CR3, DE1, singleton, CD, AR, A4, FL, BB2, BB1,

Info for manual annotations of cluster A20:

- Start number 44 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 72 was manually annotated 25 times for cluster A4.
- Start number 73 was manually annotated 81 times for cluster A4.
- Start number 74 was manually annotated 4 times for cluster A4.

Info for manual annotations of cluster AS1:

- Start number 79 was manually annotated 4 times for cluster AS1.
- Start number 91 was manually annotated 1 time for cluster AS1.

Info for manual annotations of cluster AS3:

- Start number 42 was manually annotated 3 times for cluster AS3.
- Start number 89 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster BB1:

- Start number 73 was manually annotated 4 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 73 was manually annotated 3 times for cluster BB2.

Info for manual annotations of cluster CD:

- Start number 81 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CR3:

- Start number 78 was manually annotated 1 time for cluster CR3.

Info for manual annotations of cluster DE1:

- Start number 27 was manually annotated 1 time for cluster DE1.
- Start number 63 was manually annotated 1 time for cluster DE1.
- Start number 72 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster FL:

- Start number 37 was manually annotated 1 time for cluster FL.

Gene Information:

Gene: AbbysRanger_75 Start: 46560, Stop: 45976, Start Num: 73

Candidate Starts for AbbysRanger_75:

(46, 46710), (56, 46632), (60, 46611), (Start: 72 @46563 has 26 MA's), (Start: 73 @46560 has 88 MA's), (Start: 74 @46548 has 4 MA's), (100, 46455), (116, 46383), (119, 46365), (128, 46299), (146, 46194), (152, 46134), (153, 46131), (160, 46044), (161, 46023),

Gene: Abdiel_77 Start: 46760, Stop: 46176, Start Num: 73

Candidate Starts for Abdiel_77:

(46, 46910), (56, 46832), (60, 46811), (Start: 72 @46763 has 26 MA's), (Start: 73 @46760 has 88 MA's), (100, 46655), (116, 46583), (119, 46565), (128, 46499), (152, 46334), (153, 46331), (160, 46244), (161, 46223),

Gene: Abidatro_41 Start: 27763, Stop: 28476, Start Num: 79

Candidate Starts for Abidatro_41:

(Start: 42 @27487 has 3 MA's), (51, 27568), (56, 27604), (70, 27670), (Start: 79 @27763 has 4 MA's), (83, 27781), (96, 27901), (98, 27916), (99, 27934), (109, 28000), (110, 28015), (119, 28087), (127, 28162), (143, 28264), (152, 28339), (153, 28342), (164, 28459),

Gene: Alberto7_79 Start: 47085, Stop: 46501, Start Num: 73

Candidate Starts for Alberto7_79:

(46, 47235), (56, 47157), (60, 47136), (Start: 72 @47088 has 26 MA's), (Start: 73 @47085 has 88 MA's), (100, 46980), (116, 46908), (119, 46890), (128, 46824), (146, 46719), (152, 46659), (153, 46656), (160, 46569), (161, 46548),

Gene: Andrew_44 Start: 27053, Stop: 27850, Start Num: 42

Candidate Starts for Andrew_44:

(Start: 42 @27053 has 3 MA's), (50, 27119), (51, 27134), (56, 27170), (66, 27218), (70, 27236), (120, 27452), (121, 27458), (135, 27563), (143, 27626), (152, 27701), (153, 27704), (162, 27788), (164, 27821),

Gene: Annyong_77 Start: 46793, Stop: 46209, Start Num: 73

Candidate Starts for Annyong_77:

(46, 46943), (56, 46865), (60, 46844), (Start: 72 @46796 has 26 MA's), (Start: 73 @46793 has 88 MA's), (100, 46688), (116, 46616), (119, 46598), (128, 46532), (146, 46427), (152, 46367), (153, 46364), (160, 46277), (161, 46256),

Gene: Anthony_79 Start: 47520, Stop: 46663, Start Num: 44

Candidate Starts for Anthony_79:

(Start: 44 @47520 has 1 MA's), (56, 47415), (60, 47394), (61, 47382), (64, 47376), (80, 47298), (85, 47280), (109, 47214), (134, 47034), (142, 46965), (147, 46941), (152, 46887), (153, 46884), (156, 46863), (157, 46854), (160, 46791), (162, 46767),

Gene: ArV1_067b Start: 51785, Stop: 52711, Start Num: 31

Candidate Starts for ArV1_067b:

(31, 51785), (33, 51794), (35, 51809), (40, 51827), (48, 51887), (56, 51944), (58, 51959), (66, 51992), (Start: 73 @52016 has 88 MA's), (105, 52154), (107, 52163), (108, 52169), (119, 52256), (121, 52265), (130, 52352), (135, 52400), (139, 52424), (145, 52484), (151, 52547), (152, 52556), (153, 52559), (158, 52589), (161, 52634),

Gene: Arturo_75 Start: 46876, Stop: 46292, Start Num: 73

Candidate Starts for Arturo_75:

(46, 47026), (56, 46948), (60, 46927), (Start: 72 @46879 has 26 MA's), (Start: 73 @46876 has 88 MA's), (100, 46771), (116, 46699), (119, 46681), (128, 46615), (146, 46510), (152, 46450), (153, 46447), (160, 46360), (161, 46339),

Gene: Avle17_78 Start: 46742, Stop: 46158, Start Num: 73

Candidate Starts for Avle17_78:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (119, 46547), (128, 46481), (146, 46376), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: Baby16_78 Start: 46762, Stop: 46175, Start Num: 72

Candidate Starts for Baby16_78:

(46, 46909), (56, 46831), (60, 46810), (Start: 72 @46762 has 26 MA's), (Start: 73 @46759 has 88 MA's), (100, 46654), (116, 46582), (119, 46564), (128, 46498), (152, 46333), (153, 46330), (160, 46243), (161, 46222),

Gene: Backyardigan_73 Start: 46576, Stop: 45992, Start Num: 73

Candidate Starts for Backyardigan_73:

(46, 46726), (56, 46648), (60, 46627), (Start: 72 @46579 has 26 MA's), (Start: 73 @46576 has 88 MA's), (Start: 74 @46564 has 4 MA's), (100, 46471), (116, 46399), (119, 46381), (128, 46315), (146, 46210), (152, 46150), (153, 46147), (160, 46060), (161, 46039),

Gene: Badger_74 Start: 46542, Stop: 45958, Start Num: 73

Candidate Starts for Badger_74:

(46, 46692), (56, 46614), (60, 46593), (Start: 72 @46545 has 26 MA's), (Start: 73 @46542 has 88 MA's), (Start: 74 @46530 has 4 MA's), (100, 46437), (116, 46365), (119, 46347), (128, 46281), (146, 46176), (152, 46116), (153, 46113), (160, 46026), (161, 46005),

Gene: BangNhom_75 Start: 47188, Stop: 46601, Start Num: 72

Candidate Starts for BangNhom_75:

(46, 47335), (56, 47257), (60, 47236), (Start: 72 @47188 has 26 MA's), (Start: 73 @47185 has 88 MA's), (100, 47080), (116, 47008), (119, 46990), (128, 46924), (152, 46759), (153, 46756), (160, 46669), (161, 46648),

Gene: Bartimeaus_78 Start: 46753, Stop: 46166, Start Num: 72

Candidate Starts for Bartimeaus_78:

(46, 46900), (56, 46822), (60, 46801), (Start: 72 @46753 has 26 MA's), (Start: 73 @46750 has 88 MA's), (100, 46645), (116, 46573), (119, 46555), (128, 46489), (152, 46324), (153, 46321), (160, 46234), (161, 46213),

Gene: BellusTerra_79 Start: 46789, Stop: 46205, Start Num: 73

Candidate Starts for BellusTerra_79:

(46, 46939), (56, 46861), (60, 46840), (Start: 72 @46792 has 26 MA's), (Start: 73 @46789 has 88 MA's), (100, 46684), (116, 46612), (119, 46594), (128, 46528), (152, 46363), (153, 46360), (160, 46273), (161, 46252),

Gene: Blackmoor_77 Start: 46753, Stop: 46166, Start Num: 72

Candidate Starts for Blackmoor_77:

(46, 46900), (56, 46822), (60, 46801), (Start: 72 @46753 has 26 MA's), (Start: 73 @46750 has 88 MA's), (100, 46645), (116, 46573), (119, 46555), (128, 46489), (152, 46324), (153, 46321), (160, 46234), (161, 46213),

Gene: Bombshell_78 Start: 46748, Stop: 46161, Start Num: 72

Candidate Starts for Bombshell_78:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (117, 46562), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: Broseidon_78 Start: 46751, Stop: 46167, Start Num: 73

Candidate Starts for Broseidon_78:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (119, 46556), (128, 46490), (146, 46385), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: Bumblebee11_74 Start: 46542, Stop: 45958, Start Num: 73

Candidate Starts for Bumblebee11_74:

(46, 46692), (56, 46614), (60, 46593), (Start: 72 @46545 has 26 MA's), (Start: 73 @46542 has 88 MA's), (Start: 74 @46530 has 4 MA's), (100, 46437), (116, 46365), (119, 46347), (128, 46281), (146, 46176), (152, 46116), (153, 46113), (160, 46026), (161, 46005), (162, 46002),

Gene: Burger_76 Start: 46748, Stop: 46164, Start Num: 73

Candidate Starts for Burger_76:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (119, 46553), (128, 46487), (146, 46382), (152, 46322), (153, 46319), (160, 46232), (161, 46211),

Gene: Caelakin_76 Start: 46748, Stop: 46164, Start Num: 73

Candidate Starts for Caelakin_76:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (119, 46553), (128, 46487), (152, 46322), (153, 46319), (160, 46232), (161, 46211),

Gene: CentreCat_78 Start: 46788, Stop: 46204, Start Num: 73

Candidate Starts for CentreCat_78:

(46, 46938), (56, 46860), (60, 46839), (Start: 72 @46791 has 26 MA's), (Start: 73 @46788 has 88 MA's), (100, 46683), (116, 46611), (119, 46593), (128, 46527), (152, 46362), (153, 46359), (160, 46272), (161, 46251),

Gene: Cerulean_80 Start: 47186, Stop: 46602, Start Num: 73

Candidate Starts for Cerulean_80:

(46, 47336), (56, 47258), (60, 47237), (Start: 72 @47189 has 26 MA's), (Start: 73 @47186 has 88 MA's), (100, 47081), (116, 47009), (119, 46991), (128, 46925), (152, 46760), (153, 46757), (160, 46670), (161, 46649),

Gene: ChampagnePapi_81 Start: 47188, Stop: 46604, Start Num: 73

Candidate Starts for ChampagnePapi_81:

(46, 47338), (56, 47260), (60, 47239), (Start: 72 @47191 has 26 MA's), (Start: 73 @47188 has 88 MA's), (100, 47083), (116, 47011), (119, 46993), (128, 46927), (152, 46762), (153, 46759), (160, 46672), (161, 46651),

Gene: Chaph_78 Start: 46759, Stop: 46175, Start Num: 73

Candidate Starts for Chaph_78:

(46, 46909), (56, 46831), (60, 46810), (Start: 72 @46762 has 26 MA's), (Start: 73 @46759 has 88 MA's), (100, 46654), (116, 46582), (117, 46576), (119, 46564), (128, 46498), (152, 46333), (153, 46330), (160, 46243), (161, 46222),

Gene: Chickaboom_42 Start: 27783, Stop: 28385, Start Num: 91

Candidate Starts for Chickaboom_42:

(Start: 42 @27504 has 3 MA's), (51, 27585), (56, 27621), (66, 27669), (Start: 91 @27783 has 1 MA's), (120, 27996), (121, 28002), (122, 28005), (127, 28068), (143, 28170), (152, 28245), (153, 28248), (164, 28365),

Gene: Cici_75 Start: 46555, Stop: 45971, Start Num: 73

Candidate Starts for Cici_75:

(46, 46705), (56, 46627), (60, 46606), (Start: 72 @46558 has 26 MA's), (Start: 73 @46555 has 88 MA's), (Start: 74 @46543 has 4 MA's), (100, 46450), (116, 46378), (119, 46360), (128, 46294), (146, 46189), (152, 46129), (153, 46126), (160, 46039), (161, 46018), (164, 45982),

Gene: Cintron_78 Start: 46867, Stop: 46280, Start Num: 72

Candidate Starts for Cintron_78:

(46, 47014), (56, 46936), (60, 46915), (Start: 72 @46867 has 26 MA's), (Start: 73 @46864 has 88 MA's), (100, 46759), (116, 46687), (119, 46669), (128, 46603), (146, 46498), (152, 46438), (153, 46435), (160, 46348), (161, 46327), (164, 46291),

Gene: Citius_78 Start: 46769, Stop: 46185, Start Num: 73

Candidate Starts for Citius_78:

(46, 46919), (56, 46841), (60, 46820), (Start: 72 @46772 has 26 MA's), (Start: 73 @46769 has 88 MA's), (100, 46664), (116, 46592), (119, 46574), (128, 46508), (152, 46343), (153, 46340), (160, 46253), (161, 46232),

Gene: Cocoaberry_78 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for Cocoaberry_78:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Commander_76 Start: 46746, Stop: 46162, Start Num: 73

Candidate Starts for Commander_76:

(46, 46896), (56, 46818), (60, 46797), (Start: 72 @46749 has 26 MA's), (Start: 73 @46746 has 88 MA's), (100, 46641), (116, 46569), (119, 46551), (128, 46485), (146, 46380), (152, 46320), (153, 46317), (160, 46230), (161, 46209),

Gene: Connomayer_78 Start: 46751, Stop: 46164, Start Num: 72

Candidate Starts for Connomayer_78:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (119, 46553), (128, 46487), (146, 46382), (152, 46322), (153,

46319), (160, 46232), (161, 46211),

Gene: Datway_75 Start: 46559, Stop: 45975, Start Num: 73

Candidate Starts for Datway_75:

(46, 46709), (56, 46631), (60, 46610), (Start: 72 @46562 has 26 MA's), (Start: 73 @46559 has 88 MA's), (100, 46454), (116, 46382), (119, 46364), (128, 46298), (146, 46193), (152, 46133), (153, 46130), (160, 46043), (161, 46022),

Gene: Deano_75 Start: 46756, Stop: 46172, Start Num: 73

Candidate Starts for Deano_75:

(46, 46906), (56, 46828), (60, 46807), (Start: 72 @46759 has 26 MA's), (Start: 73 @46756 has 88 MA's), (100, 46651), (116, 46579), (119, 46561), (128, 46495), (152, 46330), (153, 46327), (160, 46240), (161, 46219),

Gene: Dhanush_78 Start: 46751, Stop: 46167, Start Num: 73

Candidate Starts for Dhanush_78:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (117, 46568), (119, 46556), (128, 46490), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: DirtyDunning_77 Start: 46760, Stop: 46176, Start Num: 73

Candidate Starts for DirtyDunning_77:

(46, 46910), (56, 46832), (60, 46811), (Start: 72 @46763 has 26 MA's), (Start: 73 @46760 has 88 MA's), (100, 46655), (116, 46583), (119, 46565), (128, 46499), (146, 46394), (152, 46334), (153, 46331), (160, 46244), (161, 46223),

Gene: Druantia_77 Start: 46751, Stop: 46167, Start Num: 73

Candidate Starts for Druantia_77:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (119, 46556), (128, 46490), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: Eagle_77 Start: 46810, Stop: 46226, Start Num: 73

Candidate Starts for Eagle_77:

(46, 46960), (56, 46882), (60, 46861), (Start: 72 @46813 has 26 MA's), (Start: 73 @46810 has 88 MA's), (100, 46705), (116, 46633), (119, 46615), (128, 46549), (152, 46384), (153, 46381), (160, 46294), (161, 46273),

Gene: Eapen_78 Start: 46743, Stop: 46159, Start Num: 73

Candidate Starts for Eapen_78:

(46, 46893), (56, 46815), (60, 46794), (Start: 72 @46746 has 26 MA's), (Start: 73 @46743 has 88 MA's), (100, 46638), (116, 46566), (119, 46548), (128, 46482), (146, 46377), (152, 46317), (153, 46314), (160, 46227), (161, 46206),

Gene: Eros_78 Start: 46750, Stop: 46166, Start Num: 73

Candidate Starts for Eros_78:

(46, 46900), (56, 46822), (60, 46801), (Start: 72 @46753 has 26 MA's), (Start: 73 @46750 has 88 MA's), (100, 46645), (116, 46573), (119, 46555), (128, 46489), (146, 46384), (152, 46324), (153, 46321), (160, 46234), (161, 46213),

Gene: Euratis_34 Start: 26257, Stop: 26847, Start Num: 73

Candidate Starts for Euratis_34:

(24, 25936), (32, 26032), (34, 26047), (48, 26125), (56, 26185), (62, 26221), (Start: 73 @26257 has 88 MA's), (103, 26392), (123, 26482), (131, 26530), (140, 26587), (148, 26635), (150, 26656), (152, 26686), (153, 26689), (155, 26695), (156, 26710), (161, 26767), (164, 26803), (166, 26815), (167, 26836),

Gene: Eurydice_79 Start: 46788, Stop: 46201, Start Num: 72

Candidate Starts for Eurydice_79:

(46, 46935), (56, 46857), (60, 46836), (Start: 72 @46788 has 26 MA's), (Start: 73 @46785 has 88 MA's), (100, 46680), (116, 46608), (119, 46590), (128, 46524), (152, 46359), (153, 46356), (160, 46269), (161, 46248),

Gene: Float294_61 Start: 49716, Stop: 49099, Start Num: 78

Candidate Starts for Float294_61:

(15, 50178), (18, 50121), (20, 50109), (26, 50025), (54, 49830), (56, 49815), (59, 49797), (68, 49761), (Start: 78 @49716 has 1 MA's), (88, 49653), (Start: 91 @49638 has 1 MA's), (92, 49632), (95, 49617), (133, 49413), (135, 49386), (137, 49377), (138, 49371), (148, 49287), (152, 49236), (153, 49233), (161, 49155), (163, 49128),

Gene: Flux_79 Start: 46746, Stop: 46162, Start Num: 73

Candidate Starts for Flux_79:

(46, 46896), (56, 46818), (60, 46797), (Start: 72 @46749 has 26 MA's), (Start: 73 @46746 has 88 MA's), (100, 46641), (116, 46569), (117, 46563), (119, 46551), (128, 46485), (146, 46380), (152, 46320), (153, 46317), (160, 46230), (161, 46209),

Gene: Gadost_78 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for Gadost_78:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Geodirt_4 Start: 2785, Stop: 3651, Start Num: 27

Candidate Starts for Geodirt_4:

(Start: 27 @2785 has 1 MA's), (29, 2821), (43, 2884), (45, 2899), (47, 2920), (49, 2938), (67, 3049), (71, 3064), (90, 3181), (152, 3505), (153, 3508), (154, 3511), (161, 3589),

Gene: HamSlice_74 Start: 46747, Stop: 46163, Start Num: 73

Candidate Starts for HamSlice_74:

(46, 46897), (56, 46819), (60, 46798), (Start: 72 @46750 has 26 MA's), (Start: 73 @46747 has 88 MA's), (100, 46642), (116, 46570), (119, 46552), (128, 46486), (146, 46381), (152, 46321), (153, 46318), (160, 46231), (161, 46210),

Gene: Happiness_77 Start: 46771, Stop: 46187, Start Num: 73

Candidate Starts for Happiness_77:

(46, 46921), (56, 46843), (60, 46822), (Start: 72 @46774 has 26 MA's), (Start: 73 @46771 has 88 MA's), (100, 46666), (116, 46594), (119, 46576), (128, 46510), (146, 46405), (152, 46345), (153, 46342), (160, 46255), (161, 46234),

Gene: Heather_36 Start: 27272, Stop: 27856, Start Num: 73

Candidate Starts for Heather_36:

(21, 26909), (29, 27035), (32, 27047), (34, 27062), (36, 27071), (56, 27200), (Start: 73 @27272 has 88 MA's), (125, 27518), (131, 27545), (153, 27704), (155, 27710), (156, 27725), (161, 27782), (164, 27818), (166, 27830),

Gene: Holli_77 Start: 46541, Stop: 45954, Start Num: 72

Candidate Starts for Holli_77:

(46, 46688), (56, 46610), (60, 46589), (Start: 72 @46541 has 26 MA's), (Start: 73 @46538 has 88 MA's), (100, 46433), (116, 46361), (119, 46343), (128, 46277), (152, 46112), (153, 46109), (160, 46022), (161, 46001),

Gene: Houdini22_77 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for Houdini22_77:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Huxley_67 Start: 44641, Stop: 44057, Start Num: 73

Candidate Starts for Huxley_67:

(46, 44791), (56, 44713), (60, 44692), (Start: 72 @44644 has 26 MA's), (Start: 73 @44641 has 88 MA's), (100, 44536), (116, 44464), (119, 44446), (128, 44380), (146, 44275), (152, 44215), (153, 44212), (160, 44125), (161, 44104),

Gene: ICleared_77 Start: 46816, Stop: 46232, Start Num: 73

Candidate Starts for ICleared_77:

(46, 46966), (56, 46888), (60, 46867), (Start: 72 @46819 has 26 MA's), (Start: 73 @46816 has 88 MA's), (100, 46711), (116, 46639), (119, 46621), (128, 46555), (146, 46450), (152, 46390), (153, 46387), (160, 46300), (161, 46279),

Gene: Iceman_76 Start: 47038, Stop: 46454, Start Num: 73

Candidate Starts for Iceman_76:

(46, 47188), (56, 47110), (60, 47089), (Start: 72 @47041 has 26 MA's), (Start: 73 @47038 has 88 MA's), (100, 46933), (116, 46861), (119, 46843), (128, 46777), (146, 46672), (152, 46612), (153, 46609), (160, 46522), (161, 46501),

Gene: Iracema64_78 Start: 47012, Stop: 46428, Start Num: 73

Candidate Starts for Iracema64_78:

(46, 47162), (56, 47084), (60, 47063), (Start: 72 @47015 has 26 MA's), (Start: 73 @47012 has 88 MA's), (100, 46907), (116, 46835), (119, 46817), (128, 46751), (152, 46586), (153, 46583), (160, 46496), (161, 46475),

Gene: Jamun_40 Start: 27823, Stop: 28545, Start Num: 79

Candidate Starts for Jamun_40:

(Start: 42 @27547 has 3 MA's), (50, 27613), (51, 27628), (56, 27664), (66, 27712), (69, 27724), (70, 27730), (Start: 79 @27823 has 4 MA's), (83, 27841), (84, 27871), (Start: 91 @27943 has 1 MA's), (106, 28057), (109, 28069), (120, 28156), (121, 28162), (122, 28165), (127, 28228), (143, 28330), (152, 28405), (153, 28408), (164, 28525),

Gene: JetBlade_79 Start: 46779, Stop: 46192, Start Num: 72

Candidate Starts for JetBlade_79:

(46, 46926), (56, 46848), (60, 46827), (Start: 72 @46779 has 26 MA's), (Start: 73 @46776 has 88 MA's), (100, 46671), (116, 46599), (119, 46581), (128, 46515), (152, 46350), (153, 46347), (160, 46260), (161, 46239),

Gene: Jinkies_3 Start: 2349, Stop: 3125, Start Num: 37

Candidate Starts for Jinkies_3:

(Start: 37 @2349 has 1 MA's), (51, 2442), (53, 2448), (56, 2478), (58, 2493), (94, 2571), (101, 2616), (109, 2649), (111, 2670), (112, 2676), (113, 2685), (115, 2700), (129, 2784), (132, 2793), (143, 2871),

(152, 2952), (153, 2955), (160, 3015), (164, 3072),

Gene: Juno112_42 Start: 27172, Stop: 27969, Start Num: 42

Candidate Starts for Juno112_42:

(Start: 42 @27172 has 3 MA's), (50, 27238), (51, 27253), (56, 27289), (66, 27337), (69, 27349), (70, 27355), (120, 27571), (121, 27577), (143, 27745), (152, 27820), (153, 27823), (163, 27931), (164, 27940),

Gene: Kamy_77 Start: 46751, Stop: 46167, Start Num: 73

Candidate Starts for Kamy_77:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (119, 46556), (128, 46490), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: Katalie136_75 Start: 46530, Stop: 45958, Start Num: 74

Candidate Starts for Katalie136_75:

(46, 46692), (56, 46614), (60, 46593), (Start: 72 @46545 has 26 MA's), (Start: 73 @46542 has 88 MA's), (Start: 74 @46530 has 4 MA's), (100, 46437), (116, 46365), (119, 46347), (128, 46281), (146, 46176), (152, 46116), (153, 46113), (160, 46026), (161, 46005), (164, 45969),

Gene: Kingmustik0402_78 Start: 46740, Stop: 46153, Start Num: 72

Candidate Starts for Kingmustik0402_78:

(46, 46887), (56, 46809), (60, 46788), (Start: 72 @46740 has 26 MA's), (Start: 73 @46737 has 88 MA's), (100, 46632), (116, 46560), (119, 46542), (128, 46476), (152, 46311), (153, 46308), (160, 46221), (161, 46200),

Gene: Koreni_77 Start: 46432, Stop: 45845, Start Num: 72

Candidate Starts for Koreni_77:

(46, 46579), (56, 46501), (60, 46480), (Start: 72 @46432 has 26 MA's), (Start: 73 @46429 has 88 MA's), (100, 46324), (116, 46252), (119, 46234), (128, 46168), (146, 46063), (152, 46003), (153, 46000), (160, 45913), (161, 45892),

Gene: Kremtemulon_75 Start: 46628, Stop: 46044, Start Num: 73

Candidate Starts for Kremtemulon_75:

(46, 46778), (56, 46700), (60, 46679), (Start: 72 @46631 has 26 MA's), (Start: 73 @46628 has 88 MA's), (100, 46523), (116, 46451), (119, 46433), (128, 46367), (146, 46262), (152, 46202), (153, 46199), (160, 46112), (161, 46091), (164, 46055),

Gene: Kyee_78 Start: 46743, Stop: 46159, Start Num: 73

Candidate Starts for Kyee_78:

(46, 46893), (56, 46815), (60, 46794), (Start: 72 @46746 has 26 MA's), (Start: 73 @46743 has 88 MA's), (100, 46638), (116, 46566), (119, 46548), (128, 46482), (146, 46377), (152, 46317), (153, 46314), (160, 46227), (161, 46206),

Gene: LHTSCC_80 Start: 47191, Stop: 46604, Start Num: 72

Candidate Starts for LHTSCC_80:

(46, 47338), (56, 47260), (60, 47239), (Start: 72 @47191 has 26 MA's), (Start: 73 @47188 has 88 MA's), (100, 47083), (116, 47011), (119, 46993), (128, 46927), (146, 46822), (152, 46762), (153, 46759), (160, 46672), (161, 46651),

Gene: LappelDuVide_78 Start: 46748, Stop: 46164, Start Num: 73

Candidate Starts for LappelDuVide_78:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (119, 46553), (128, 46487), (146, 46382), (152, 46322), (153, 46319), (160, 46232), (161, 46211),

Gene: Lemur_78 Start: 46745, Stop: 46161, Start Num: 73

Candidate Starts for Lemur_78:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (117, 46562), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: Leona_42 Start: 27237, Stop: 28046, Start Num: 42

Candidate Starts for Leona_42:

(Start: 42 @27237 has 3 MA's), (50, 27303), (51, 27318), (56, 27354), (66, 27402), (69, 27414), (70, 27420), (121, 27654), (122, 27657), (135, 27759), (143, 27822), (152, 27897), (153, 27900), (164, 28017),

Gene: Lilbooboo_33 Start: 26272, Stop: 26859, Start Num: 73

Candidate Starts for Lilbooboo_33:

(16, 25882), (17, 25885), (24, 25951), (25, 25963), (34, 26062), (56, 26200), (Start: 73 @26272 has 88 MA's), (92, 26374), (103, 26407), (131, 26545), (140, 26602), (144, 26629), (147, 26647), (150, 26671), (153, 26704), (157, 26734), (164, 26818), (166, 26830),

Gene: LittleGuy_78 Start: 46633, Stop: 46049, Start Num: 73

Candidate Starts for LittleGuy_78:

(46, 46783), (56, 46705), (60, 46684), (Start: 72 @46636 has 26 MA's), (Start: 73 @46633 has 88 MA's), (100, 46528), (116, 46456), (119, 46438), (128, 46372), (146, 46267), (152, 46207), (153, 46204), (160, 46117), (161, 46096),

Gene: LochMonster_79 Start: 46985, Stop: 46401, Start Num: 73

Candidate Starts for LochMonster_79:

(46, 47135), (56, 47057), (60, 47036), (Start: 72 @46988 has 26 MA's), (Start: 73 @46985 has 88 MA's), (100, 46880), (116, 46808), (119, 46790), (128, 46724), (152, 46559), (153, 46556), (160, 46469), (161, 46448),

Gene: Lorenzo_78 Start: 46746, Stop: 46162, Start Num: 73

Candidate Starts for Lorenzo_78:

(46, 46896), (56, 46818), (60, 46797), (Start: 72 @46749 has 26 MA's), (Start: 73 @46746 has 88 MA's), (100, 46641), (116, 46569), (119, 46551), (128, 46485), (146, 46380), (152, 46320), (153, 46317), (160, 46230), (161, 46209),

Gene: Lunsford_78 Start: 46741, Stop: 46157, Start Num: 73

Candidate Starts for Lunsford_78:

(46, 46891), (56, 46813), (60, 46792), (Start: 72 @46744 has 26 MA's), (Start: 73 @46741 has 88 MA's), (100, 46636), (116, 46564), (119, 46546), (128, 46480), (152, 46315), (153, 46312), (160, 46225), (161, 46204),

Gene: Maverick_77 Start: 46745, Stop: 46161, Start Num: 73

Candidate Starts for Maverick_77:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: Maxo_80 Start: 46754, Stop: 46167, Start Num: 72

Candidate Starts for Maxo_80:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (119, 46556), (128, 46490), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: Mazhar510_78 Start: 46749, Stop: 46162, Start Num: 72

Candidate Starts for Mazhar510_78:

(46, 46896), (56, 46818), (60, 46797), (Start: 72 @46749 has 26 MA's), (Start: 73 @46746 has 88 MA's), (100, 46641), (116, 46569), (119, 46551), (128, 46485), (146, 46380), (152, 46320), (153, 46317), (160, 46230), (161, 46209),

Gene: McKinley_5 Start: 3198, Stop: 3983, Start Num: 63

Candidate Starts for McKinley_5:

(55, 3156), (57, 3165), (Start: 63 @3198 has 1 MA's), (65, 3204), (71, 3228), (86, 3327), (114, 3495), (116, 3516), (120, 3537), (152, 3786), (153, 3789), (154, 3792), (156, 3810), (159, 3873), (161, 3921),

Gene: MeeZee_77 Start: 46742, Stop: 46158, Start Num: 73

Candidate Starts for MeeZee_77:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (119, 46547), (128, 46481), (146, 46376), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: Melvin_80 Start: 46743, Stop: 46159, Start Num: 73

Candidate Starts for Melvin_80:

(46, 46893), (56, 46815), (60, 46794), (Start: 72 @46746 has 26 MA's), (Start: 73 @46743 has 88 MA's), (100, 46638), (116, 46566), (117, 46560), (119, 46548), (128, 46482), (146, 46377), (152, 46317), (153, 46314), (160, 46227), (161, 46206),

Gene: Millski_77 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for Millski_77:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Morpher26_75 Start: 46563, Stop: 45979, Start Num: 73

Candidate Starts for Morpher26_75:

(46, 46713), (56, 46635), (60, 46614), (Start: 72 @46566 has 26 MA's), (Start: 73 @46563 has 88 MA's), (Start: 74 @46551 has 4 MA's), (100, 46458), (116, 46386), (119, 46368), (128, 46302), (146, 46197), (152, 46137), (153, 46134), (160, 46047), (161, 46026), (164, 45990),

Gene: Morrow_80 Start: 46788, Stop: 46204, Start Num: 73

Candidate Starts for Morrow_80:

(46, 46938), (56, 46860), (60, 46839), (Start: 72 @46791 has 26 MA's), (Start: 73 @46788 has 88 MA's), (100, 46683), (116, 46611), (119, 46593), (152, 46362), (153, 46359), (160, 46272), (161, 46251),

Gene: Nebs_79 Start: 46788, Stop: 46204, Start Num: 73

Candidate Starts for Nebs_79:

(46, 46938), (56, 46860), (60, 46839), (Start: 72 @46791 has 26 MA's), (Start: 73 @46788 has 88 MA's), (100, 46683), (116, 46611), (119, 46593), (128, 46527), (152, 46362), (153, 46359), (160, 46272), (161, 46251),

Gene: Nemo27_77 Start: 46744, Stop: 46160, Start Num: 73

Candidate Starts for Nemo27_77:

(46, 46894), (56, 46816), (60, 46795), (Start: 72 @46747 has 26 MA's), (Start: 73 @46744 has 88 MA's), (100, 46639), (116, 46567), (119, 46549), (128, 46483), (146, 46378), (152, 46318), (153, 46315), (160, 46228), (161, 46207),

Gene: NorthStar_75 Start: 46748, Stop: 46164, Start Num: 73

Candidate Starts for NorthStar_75:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (117, 46565), (119, 46553), (128, 46487), (146, 46382), (152, 46322), (153, 46319), (160, 46232), (161, 46211),

Gene: NotAPhaseMom_77 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for NotAPhaseMom_77:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Nyxis_77 Start: 46630, Stop: 46043, Start Num: 72

Candidate Starts for Nyxis_77:

(46, 46777), (56, 46699), (60, 46678), (Start: 72 @46630 has 26 MA's), (Start: 73 @46627 has 88 MA's), (100, 46522), (116, 46450), (119, 46432), (128, 46366), (152, 46201), (153, 46198), (160, 46111), (161, 46090),

Gene: OKaNui_77 Start: 46799, Stop: 46215, Start Num: 73

Candidate Starts for OKaNui_77:

(46, 46949), (56, 46871), (60, 46850), (Start: 72 @46802 has 26 MA's), (Start: 73 @46799 has 88 MA's), (100, 46694), (116, 46622), (119, 46604), (128, 46538), (146, 46433), (152, 46373), (153, 46370), (160, 46283), (161, 46262),

Gene: Obama12_79 Start: 47172, Stop: 46588, Start Num: 73

Candidate Starts for Obama12_79:

(46, 47322), (56, 47244), (60, 47223), (Start: 72 @47175 has 26 MA's), (Start: 73 @47172 has 88 MA's), (100, 47067), (116, 46995), (119, 46977), (128, 46911), (146, 46806), (152, 46746), (153, 46743), (160, 46656), (161, 46635),

Gene: Ohfah_79 Start: 46791, Stop: 46204, Start Num: 72

Candidate Starts for Ohfah_79:

(46, 46938), (56, 46860), (60, 46839), (Start: 72 @46791 has 26 MA's), (Start: 73 @46788 has 88 MA's), (100, 46683), (116, 46611), (119, 46593), (128, 46527), (152, 46362), (153, 46359), (160, 46272), (161, 46251),

Gene: Orcanus_41 Start: 28182, Stop: 28904, Start Num: 79

Candidate Starts for Orcanus_41:

(Start: 42 @27906 has 3 MA's), (51, 27987), (56, 28023), (66, 28071), (70, 28089), (Start: 79 @28182 has 4 MA's), (83, 28200), (84, 28230), (Start: 91 @28302 has 1 MA's), (118, 28503), (120, 28515), (121, 28521), (122, 28524), (127, 28587), (143, 28689), (152, 28764), (153, 28767), (164, 28884),

Gene: Peaches_76 Start: 46747, Stop: 46163, Start Num: 73

Candidate Starts for Peaches_76:

(46, 46897), (56, 46819), (60, 46798), (Start: 72 @46750 has 26 MA's), (Start: 73 @46747 has 88 MA's), (100, 46642), (116, 46570), (119, 46552), (128, 46486), (146, 46381), (152, 46321), (153, 46318), (160, 46231), (161, 46210),

Gene: Perplexer_75 Start: 46531, Stop: 45959, Start Num: 74

Candidate Starts for Perplexer_75:

(46, 46693), (56, 46615), (60, 46594), (Start: 72 @46546 has 26 MA's), (Start: 73 @46543 has 88 MA's), (Start: 74 @46531 has 4 MA's), (100, 46438), (116, 46366), (119, 46348), (128, 46282), (146, 46177), (152, 46117), (153, 46114), (160, 46027), (161, 46006),

Gene: PeterPeter_78 Start: 46742, Stop: 46158, Start Num: 73

Candidate Starts for PeterPeter_78:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (119, 46547), (128, 46481), (146, 46376), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: PetiteSangsue_75 Start: 46546, Stop: 45962, Start Num: 73

Candidate Starts for PetiteSangsue_75:

(46, 46696), (56, 46618), (60, 46597), (Start: 72 @46549 has 26 MA's), (Start: 73 @46546 has 88 MA's), (Start: 74 @46534 has 4 MA's), (100, 46441), (116, 46369), (119, 46351), (128, 46285), (146, 46180), (152, 46120), (153, 46117), (160, 46030), (161, 46009),

Gene: Phacado_78 Start: 46744, Stop: 46160, Start Num: 73

Candidate Starts for Phacado_78:

(46, 46894), (56, 46816), (60, 46795), (Start: 72 @46747 has 26 MA's), (Start: 73 @46744 has 88 MA's), (100, 46639), (116, 46567), (119, 46549), (128, 46483), (146, 46378), (152, 46318), (153, 46315), (160, 46228), (161, 46207),

Gene: Phelipe_79 Start: 46788, Stop: 46204, Start Num: 73

Candidate Starts for Phelipe_79:

(46, 46938), (56, 46860), (60, 46839), (Start: 72 @46791 has 26 MA's), (Start: 73 @46788 has 88 MA's), (100, 46683), (116, 46611), (119, 46593), (128, 46527), (152, 46362), (153, 46359), (160, 46272), (161, 46251),

Gene: Phighter1804_78 Start: 46809, Stop: 46225, Start Num: 73

Candidate Starts for Phighter1804_78:

(46, 46959), (56, 46881), (60, 46860), (Start: 72 @46812 has 26 MA's), (Start: 73 @46809 has 88 MA's), (100, 46704), (116, 46632), (119, 46614), (128, 46548), (146, 46443), (152, 46383), (153, 46380), (160, 46293), (161, 46272),

Gene: PhluffyCoco_43 Start: 27168, Stop: 28064, Start Num: 42

Candidate Starts for PhluffyCoco_43:

(Start: 42 @27168 has 3 MA's), (50, 27234), (51, 27249), (56, 27285), (66, 27333), (69, 27345), (70, 27351), (76, 27375), (Start: 89 @27444 has 1 MA's), (93, 27462), (120, 27666), (121, 27672), (143, 27840), (152, 27915), (153, 27918), (163, 28026), (164, 28035),

Gene: Phontbonne_78 Start: 46643, Stop: 46059, Start Num: 73

Candidate Starts for Phontbonne_78:

(46, 46793), (56, 46715), (60, 46694), (Start: 72 @46646 has 26 MA's), (Start: 73 @46643 has 88 MA's), (100, 46538), (116, 46466), (119, 46448), (128, 46382), (152, 46217), (153, 46214), (160, 46127), (161, 46106),

Gene: Pipcraft_74 Start: 46749, Stop: 46165, Start Num: 73

Candidate Starts for Pipcraft_74:

(46, 46899), (56, 46821), (60, 46800), (Start: 72 @46752 has 26 MA's), (Start: 73 @46749 has 88 MA's), (100, 46644), (116, 46572), (117, 46566), (119, 46554), (128, 46488), (146, 46383), (152, 46323), (153, 46320), (160, 46233), (161, 46212),

Gene: Polymorphads_79 Start: 46772, Stop: 46185, Start Num: 72

Candidate Starts for Polymorphads_79:

(46, 46919), (56, 46841), (60, 46820), (Start: 72 @46772 has 26 MA's), (Start: 73 @46769 has 88 MA's), (100, 46664), (116, 46592), (119, 46574), (128, 46508), (146, 46403), (152, 46343), (153, 46340), (160, 46253), (161, 46232),

Gene: Pumbaa_78 Start: 46696, Stop: 46109, Start Num: 72

Candidate Starts for Pumbaa_78:

(46, 46843), (56, 46765), (60, 46744), (Start: 72 @46696 has 26 MA's), (Start: 73 @46693 has 88 MA's), (100, 46588), (116, 46516), (119, 46498), (128, 46432), (146, 46327), (152, 46267), (153, 46264), (160, 46177), (161, 46156),

Gene: RedFox_43 Start: 27443, Stop: 28063, Start Num: 89

Candidate Starts for RedFox_43:

(Start: 42 @27167 has 3 MA's), (50, 27233), (51, 27248), (56, 27284), (66, 27332), (69, 27344), (70, 27350), (76, 27374), (Start: 89 @27443 has 1 MA's), (93, 27461), (120, 27665), (121, 27671), (143, 27839), (152, 27914), (153, 27917), (163, 28025), (164, 28034),

Gene: Relief_77 Start: 46745, Stop: 46161, Start Num: 73

Candidate Starts for Relief_77:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: RemusLoopin_35 Start: 27467, Stop: 28051, Start Num: 73

Candidate Starts for RemusLoopin_35:

(29, 27230), (32, 27242), (34, 27257), (56, 27395), (68, 27449), (Start: 73 @27467 has 88 MA's), (92, 27569), (125, 27713), (131, 27740), (140, 27797), (153, 27899), (156, 27920), (161, 27977), (164, 28013), (166, 28025),

Gene: Romney_77 Start: 46745, Stop: 46161, Start Num: 73

Candidate Starts for Romney_77:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (117, 46562), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: Roosevelt_76 Start: 46750, Stop: 46166, Start Num: 73

Candidate Starts for Roosevelt_76:

(46, 46900), (56, 46822), (60, 46801), (Start: 72 @46753 has 26 MA's), (Start: 73 @46750 has 88 MA's), (100, 46645), (116, 46573), (119, 46555), (128, 46489), (152, 46324), (153, 46321), (160, 46234), (161, 46213),

Gene: Rosa24_74 Start: 46779, Stop: 46192, Start Num: 72

Candidate Starts for Rosa24_74:

(46, 46926), (56, 46848), (60, 46827), (Start: 72 @46779 has 26 MA's), (Start: 73 @46776 has 88 MA's), (100, 46671), (116, 46599), (119, 46581), (128, 46515), (152, 46350), (153, 46347), (160, 46260), (161, 46239),

Gene: Ruin_78 Start: 46741, Stop: 46157, Start Num: 73

Candidate Starts for Ruin_78:

(46, 46891), (56, 46813), (60, 46792), (Start: 72 @46744 has 26 MA's), (Start: 73 @46741 has 88 MA's), (100, 46636), (116, 46564), (117, 46558), (119, 46546), (128, 46480), (146, 46375), (152,

46315), (153, 46312), (160, 46225), (161, 46204),

Gene: Sabertooth_78 Start: 46756, Stop: 46169, Start Num: 72

Candidate Starts for Sabertooth_78:

(46, 46903), (56, 46825), (60, 46804), (Start: 72 @46756 has 26 MA's), (Start: 73 @46753 has 88 MA's), (100, 46648), (116, 46576), (119, 46558), (128, 46492), (146, 46387), (152, 46327), (153, 46324), (160, 46237), (161, 46216),

Gene: Samora_35 Start: 26872, Stop: 27459, Start Num: 73

Candidate Starts for Samora_35:

(24, 26551), (25, 26563), (34, 26662), (56, 26800), (Start: 73 @26872 has 88 MA's), (92, 26974), (124, 27109), (126, 27127), (131, 27145), (146, 27241), (153, 27304), (157, 27334), (164, 27418),

Gene: Samy_50 Start: 33615, Stop: 34364, Start Num: 38

Candidate Starts for Samy_50:

(13, 33303), (14, 33345), (16, 33414), (22, 33444), (24, 33483), (Start: 38 @33615 has 1 MA's), (39, 33618), (41, 33621), (56, 33735), (Start: 74 @33819 has 4 MA's), (75, 33822), (102, 33933), (139, 34071), (143, 34122), (149, 34152), (153, 34203), (156, 34224), (160, 34260), (161, 34281), (162, 34284), (165, 34320),

Gene: Scamp_78 Start: 46750, Stop: 46166, Start Num: 73

Candidate Starts for Scamp_78:

(46, 46900), (56, 46822), (60, 46801), (Start: 72 @46753 has 26 MA's), (Start: 73 @46750 has 88 MA's), (100, 46645), (116, 46573), (119, 46555), (128, 46489), (146, 46384), (152, 46324), (153, 46321), (160, 46234), (161, 46213),

Gene: Sebastisaurus_35 Start: 27189, Stop: 27773, Start Num: 73

Candidate Starts for Sebastisaurus_35:

(29, 26952), (32, 26964), (34, 26979), (56, 27117), (62, 27153), (Start: 73 @27189 has 88 MA's), (92, 27291), (103, 27324), (125, 27435), (131, 27462), (140, 27519), (141, 27534), (147, 27564), (153, 27621), (156, 27642), (164, 27735), (166, 27747),

Gene: Sedona_6 Start: 4350, Stop: 5051, Start Num: 72

Candidate Starts for Sedona_6:

(1, 3228), (2, 3420), (3, 3450), (4, 3477), (5, 3513), (6, 3549), (7, 3666), (8, 3678), (9, 3765), (10, 3807), (11, 3819), (12, 3825), (19, 3969), (23, 3993), (28, 4089), (30, 4110), (52, 4245), (Start: 72 @4350 has 26 MA's), (86, 4446), (114, 4614), (116, 4635), (120, 4656), (152, 4905), (153, 4908), (154, 4911), (161, 4989),

Gene: Shaka_76 Start: 46746, Stop: 46162, Start Num: 73

Candidate Starts for Shaka_76:

(46, 46896), (56, 46818), (60, 46797), (Start: 72 @46749 has 26 MA's), (Start: 73 @46746 has 88 MA's), (100, 46641), (116, 46569), (119, 46551), (128, 46485), (152, 46320), (153, 46317), (160, 46230), (161, 46209),

Gene: SheldonCooper_78 Start: 47186, Stop: 46602, Start Num: 73

Candidate Starts for SheldonCooper_78:

(46, 47336), (56, 47258), (60, 47237), (Start: 72 @47189 has 26 MA's), (Start: 73 @47186 has 88 MA's), (100, 47081), (116, 47009), (119, 46991), (128, 46925), (152, 46760), (153, 46757), (160, 46670), (161, 46649),

Gene: Shygu2_76 Start: 46692, Stop: 46108, Start Num: 73

Candidate Starts for Shygu2_76:

(46, 46842), (56, 46764), (60, 46743), (Start: 72 @46695 has 26 MA's), (Start: 73 @46692 has 88 MA's), (Start: 74 @46680 has 4 MA's), (100, 46587), (116, 46515), (119, 46497), (128, 46431), (146, 46326), (152, 46266), (153, 46263), (160, 46176), (161, 46155), (164, 46119),

Gene: Skipitt_77 Start: 46745, Stop: 46158, Start Num: 72

Candidate Starts for Skipitt_77:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (117, 46559), (119, 46547), (128, 46481), (146, 46376), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: Sparxx_79 Start: 46747, Stop: 46160, Start Num: 72

Candidate Starts for Sparxx_79:

(46, 46894), (56, 46816), (60, 46795), (Start: 72 @46747 has 26 MA's), (Start: 73 @46744 has 88 MA's), (100, 46639), (116, 46567), (119, 46549), (128, 46483), (152, 46318), (153, 46315), (160, 46228), (161, 46207),

Gene: Spino_77 Start: 46748, Stop: 46164, Start Num: 73

Candidate Starts for Spino_77:

(46, 46898), (56, 46820), (60, 46799), (Start: 72 @46751 has 26 MA's), (Start: 73 @46748 has 88 MA's), (100, 46643), (116, 46571), (119, 46553), (128, 46487), (152, 46322), (153, 46319), (160, 46232), (161, 46211),

Gene: Taquarus_77 Start: 46751, Stop: 46167, Start Num: 73

Candidate Starts for Taquarus_77:

(46, 46901), (56, 46823), (60, 46802), (Start: 72 @46754 has 26 MA's), (Start: 73 @46751 has 88 MA's), (100, 46646), (116, 46574), (119, 46556), (128, 46490), (152, 46325), (153, 46322), (160, 46235), (161, 46214),

Gene: TaylorSipht_41 Start: 27587, Stop: 28306, Start Num: 79

Candidate Starts for TaylorSipht_41:

(Start: 42 @27311 has 3 MA's), (51, 27392), (56, 27428), (Start: 79 @27587 has 4 MA's), (83, 27605), (84, 27635), (Start: 91 @27707 has 1 MA's), (121, 27923), (136, 28034), (143, 28091), (152, 28166), (153, 28169), (164, 28286),

Gene: Tinybot_77 Start: 46778, Stop: 46191, Start Num: 72

Candidate Starts for Tinybot_77:

(46, 46925), (56, 46847), (60, 46826), (Start: 72 @46778 has 26 MA's), (Start: 73 @46775 has 88 MA's), (100, 46670), (116, 46598), (119, 46580), (128, 46514), (146, 46409), (152, 46349), (153, 46346), (160, 46259), (161, 46238),

Gene: TiroTheta9_77 Start: 46742, Stop: 46158, Start Num: 73

Candidate Starts for TiroTheta9_77:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (119, 46547), (128, 46481), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: TroyPia_79 Start: 46786, Stop: 46199, Start Num: 72

Candidate Starts for TroyPia_79:

(46, 46933), (56, 46855), (60, 46834), (Start: 72 @46786 has 26 MA's), (Start: 73 @46783 has 88 MA's), (100, 46678), (116, 46606), (119, 46588), (128, 46522), (152, 46357), (153, 46354), (160, 46267), (161, 46246),

Gene: Ulysses_77 Start: 46431, Stop: 45847, Start Num: 73

Candidate Starts for Ulysses_77:

(46, 46581), (56, 46503), (60, 46482), (Start: 72 @46434 has 26 MA's), (Start: 73 @46431 has 88 MA's), (100, 46326), (116, 46254), (119, 46236), (128, 46170), (152, 46005), (153, 46002), (160, 45915), (161, 45894),

Gene: Upyo_53 Start: 39312, Stop: 38611, Start Num: 81

Candidate Starts for Upyo_53:

(15, 39840), (18, 39783), (26, 39687), (49, 39534), (54, 39492), (56, 39477), (59, 39459), (68, 39423), (77, 39381), (Start: 81 @39312 has 1 MA's), (82, 39306), (87, 39270), (97, 39198), (104, 39132), (133, 38925), (135, 38898), (137, 38889), (148, 38799), (152, 38748), (153, 38745), (161, 38667), (163, 38640),

Gene: Vash_33 Start: 26115, Stop: 26702, Start Num: 73

Candidate Starts for Vash_33:

(16, 25725), (21, 25752), (24, 25794), (34, 25905), (56, 26043), (Start: 73 @26115 has 88 MA's), (140, 26445), (147, 26490), (150, 26514), (152, 26544), (153, 26547), (157, 26577), (164, 26661), (166, 26673),

Gene: Wander_78 Start: 46742, Stop: 46158, Start Num: 73

Candidate Starts for Wander_78:

(46, 46892), (56, 46814), (60, 46793), (Start: 72 @46745 has 26 MA's), (Start: 73 @46742 has 88 MA's), (100, 46637), (116, 46565), (119, 46547), (128, 46481), (146, 46376), (152, 46316), (153, 46313), (160, 46226), (161, 46205),

Gene: Wilbur_78 Start: 46745, Stop: 46161, Start Num: 73

Candidate Starts for Wilbur_78:

(46, 46895), (56, 46817), (60, 46796), (Start: 72 @46748 has 26 MA's), (Start: 73 @46745 has 88 MA's), (100, 46640), (116, 46568), (117, 46562), (119, 46550), (128, 46484), (146, 46379), (152, 46319), (153, 46316), (160, 46229), (161, 46208),

Gene: Wile_74 Start: 46560, Stop: 45988, Start Num: 74

Candidate Starts for Wile_74:

(46, 46722), (56, 46644), (60, 46623), (Start: 72 @46575 has 26 MA's), (Start: 73 @46572 has 88 MA's), (Start: 74 @46560 has 4 MA's), (100, 46467), (116, 46395), (119, 46377), (128, 46311), (146, 46206), (152, 46146), (153, 46143), (160, 46056), (161, 46035), (164, 45999),

Gene: Wizard007_75 Start: 46286, Stop: 45714, Start Num: 74

Candidate Starts for Wizard007_75:

(46, 46448), (56, 46370), (60, 46349), (Start: 72 @46301 has 26 MA's), (Start: 73 @46298 has 88 MA's), (Start: 74 @46286 has 4 MA's), (100, 46193), (116, 46121), (119, 46103), (128, 46037), (146, 45932), (152, 45872), (153, 45869), (160, 45782), (161, 45761), (164, 45725),

Gene: Xena_74 Start: 46567, Stop: 45983, Start Num: 73

Candidate Starts for Xena_74:

(46, 46717), (56, 46639), (60, 46618), (Start: 72 @46570 has 26 MA's), (Start: 73 @46567 has 88 MA's), (100, 46462), (116, 46390), (119, 46372), (128, 46306), (146, 46201), (152, 46141), (153, 46138), (160, 46051), (161, 46030),

Gene: YoSam321_78 Start: 46746, Stop: 46159, Start Num: 72

Candidate Starts for YoSam321_78:

(46, 46893), (56, 46815), (60, 46794), (Start: 72 @46746 has 26 MA's), (Start: 73 @46743 has 88 MA's), (100, 46638), (116, 46566), (119, 46548), (128, 46482), (152, 46317), (153, 46314), (160, 46227), (161, 46206),

