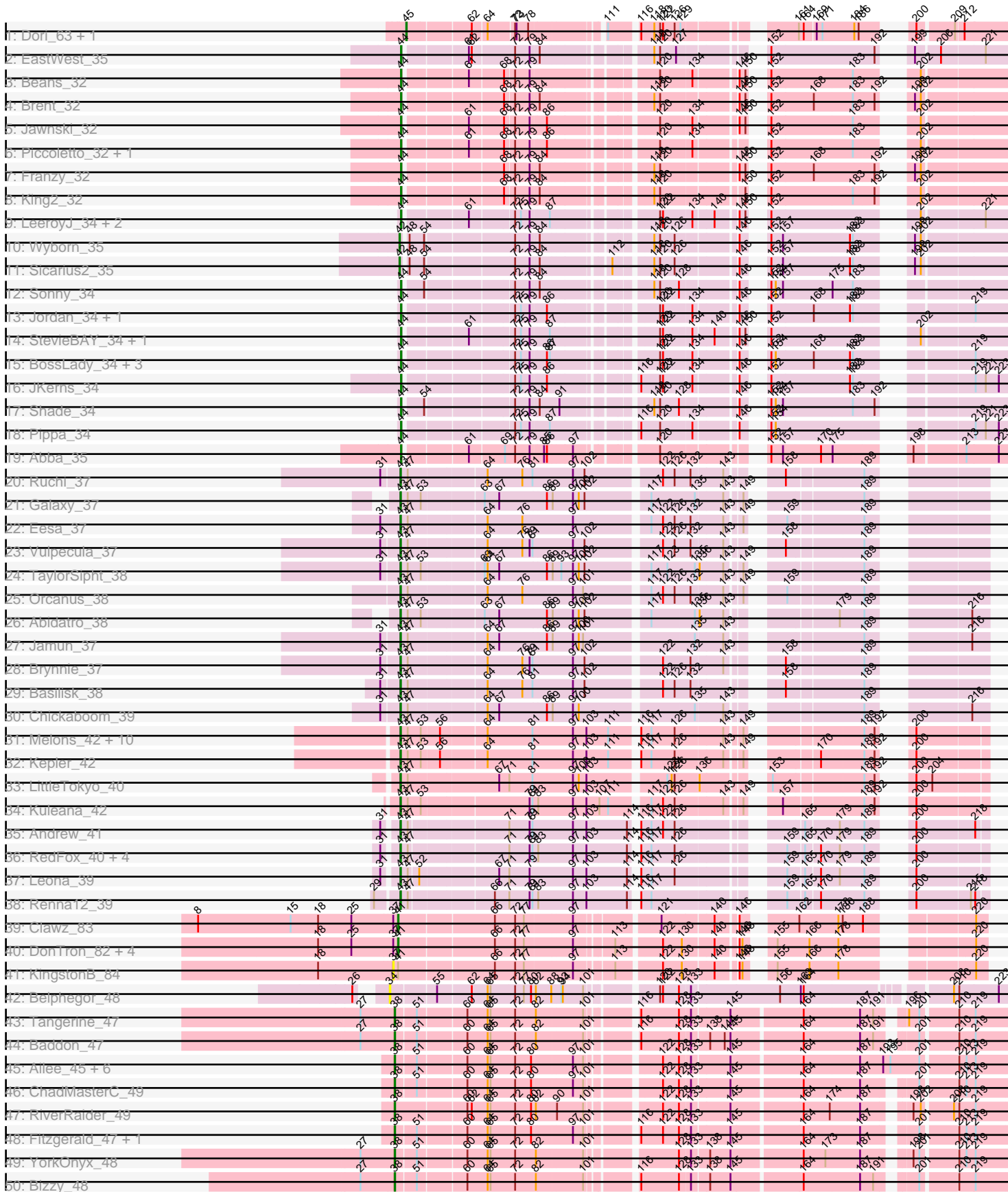
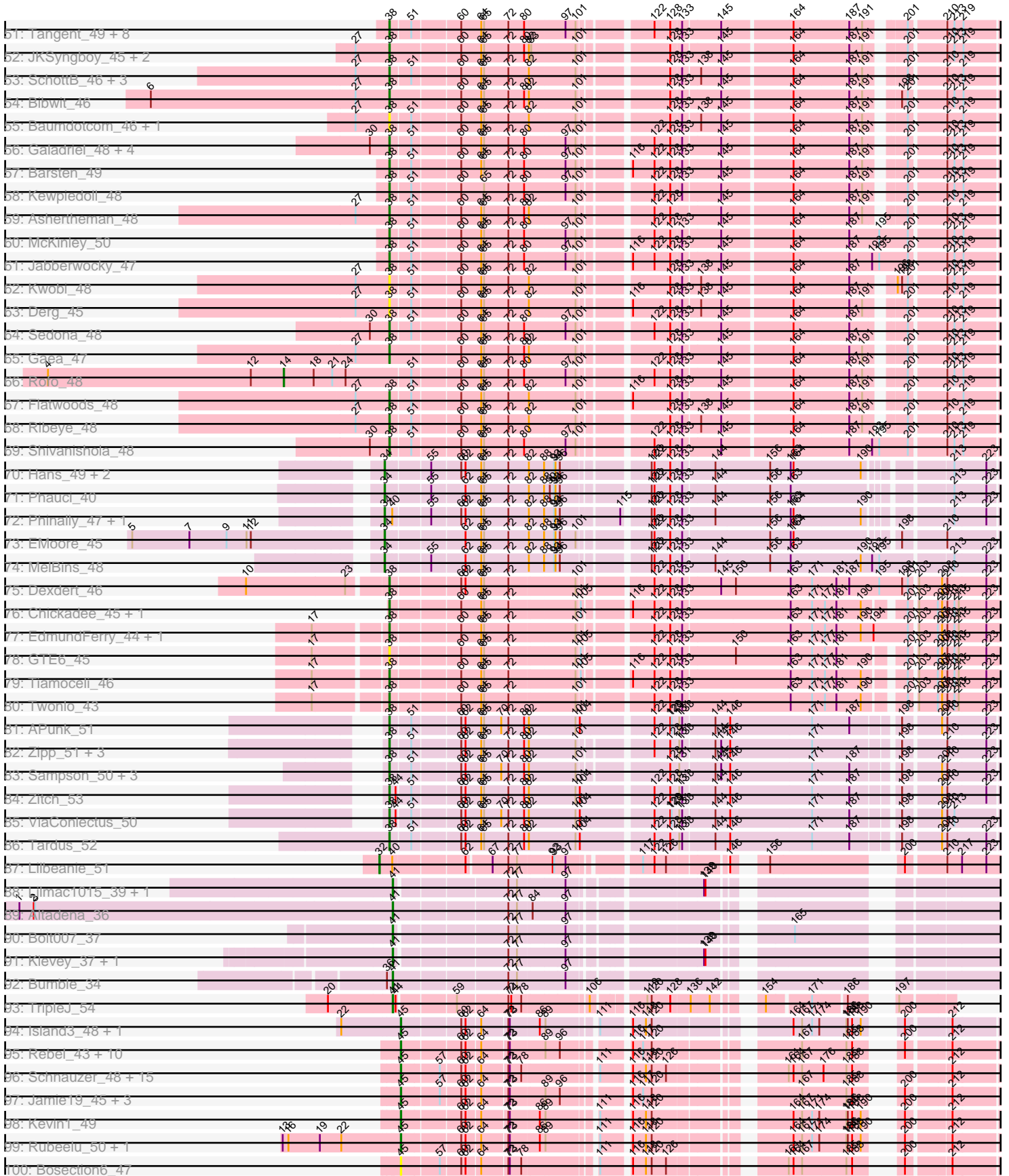


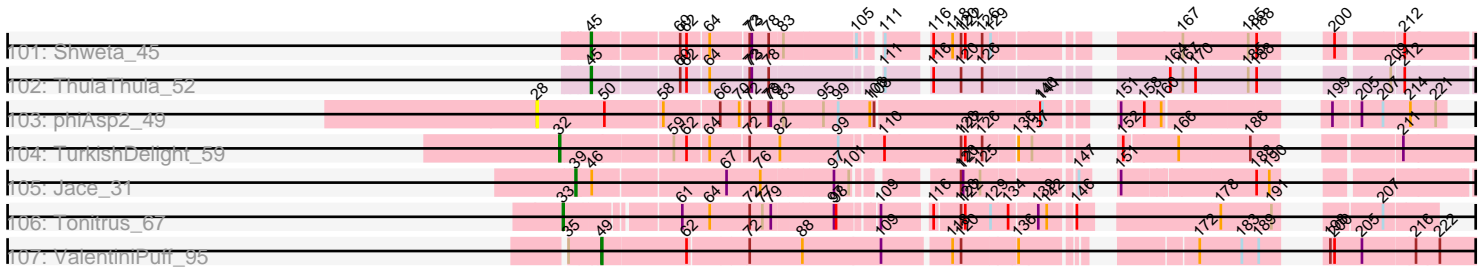
Pham 196295



Pham 196295



Pham 196295



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 196295 Report

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

Pham number 196295 has 202 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Dori_63, Mask_63
- Track 2 : EastWest_35
- Track 3 : Beans_32
- Track 4 : Brent_32
- Track 5 : Jawnski_32
- Track 6 : Piccoletto_32, NathanVaag_32
- Track 7 : Franzy_32
- Track 8 : King2_32
- Track 9 : LeeroyJ_34, BarretLemon_34, Timinator_34
- Track 10 : Wyborn_35
- Track 11 : Sicarius2_35
- Track 12 : Sonny_34
- Track 13 : Jordan_34, Zartrosa_34
- Track 14 : StevieBAY_34, GravityBall_34
- Track 15 : BossLady_34, Martha_34, TaeYoung_34, Grekaycon_34
- Track 16 : JKerns_34
- Track 17 : Shade_34
- Track 18 : Pippa_34
- Track 19 : Abba_35
- Track 20 : Ruchi_37
- Track 21 : Galaxy_37
- Track 22 : Eesa_37
- Track 23 : Vulpecula_37
- Track 24 : TaylorSipht_38
- Track 25 : Orcanus_38
- Track 26 : Abidatro_38
- Track 27 : Jamun_37
- Track 28 : Brynnie_37
- Track 29 : Basilisk_38
- Track 30 : Chickaboom_39
- Track 31 : Melons_42, Coral_40, Amelia_40, Colusalem_43, HannahPhantana_41, Bedetta_45, Jerole_50, Daob_42, Lunar_42, Cote_42, Polka_40
- Track 32 : Kepler_42
- Track 33 : LittleTokyo_40
- Track 34 : Kuleana_42
- Track 35 : Andrew_41
- Track 36 : RedFox_40, Camara_40, PhluffyCoco_40, Juno112_39, KHumphrey_40

- Track 37 : Leona_39
- Track 38 : Renna12_39
- Track 39 : Clawz_83
- Track 40 : DonTron_82, ColdSoup_85, Jollymon_85, Sting_81, Soos_78
- Track 41 : KingstonB_84
- Track 42 : Belphegor_48
- Track 43 : Tangerine_47
- Track 44 : Baddon_47
- Track 45 : Ailee_45, Sitar_48, Affeca_46, Keitabear_48, Stultus_47, Lennon_48, Angelicage_46
- Track 46 : ChadMasterC_49
- Track 47 : RiverRaider_49
- Track 48 : Fitzgerald_47, Sanjuju_47
- Track 49 : YorkOnyx_48
- Track 50 : Bizzy_48
- Track 51 : Tangent_49, Charming_49, Geodirt_47, Vivi2_51, Fosterous_46, Love_52, MoontowerMania_48, Kamashten_46, Thing3_46
- Track 52 : JKSyngboy_45, Saronaya_47, Gustavo_47
- Track 53 : SchottB_46, StorminNorm_47, Kroos_48, Tycho_47
- Track 54 : Bibwit_46
- Track 55 : Baumdotcom_46, LilHam_45
- Track 56 : Galadriel_48, Nordenberg_43, Brandonk123_50, Paries_51, BobBob_46
- Track 57 : Barsten_49
- Track 58 : Kewpiedoll_48
- Track 59 : Ashertheman_48
- Track 60 : McKinley_50
- Track 61 : Jabberwocky_47
- Track 62 : Kwobi_48
- Track 63 : Derg_45
- Track 64 : Sedona_48
- Track 65 : Gaea_47
- Track 66 : Rofo_48
- Track 67 : Flatwoods_48
- Track 68 : Ribeye_48
- Track 69 : Shivanishola_48
- Track 70 : Hans_49, Inspectinfecti_48, Ali17_45
- Track 71 : Phauci_40
- Track 72 : Phinally_47, Leonard_47
- Track 73 : EMoore_45
- Track 74 : MelBins_48
- Track 75 : Dxdert_46
- Track 76 : Chickadee_45, Kwekel_45
- Track 77 : EdmundFerry_44, RoadKill_43
- Track 78 : GTE6_45
- Track 79 : Tiamoceli_46
- Track 80 : Twonlo_43
- Track 81 : APunk_51
- Track 82 : Zipp_51, Delrey21_50, DoctorFroggo_50, Verity_50
- Track 83 : Sampson_50, Scioto_51, Natkenzie_50, Abblin_50
- Track 84 : Zitch_53
- Track 85 : ViaConlectus_50
- Track 86 : Tardus_52
- Track 87 : Lilbeanie_51

- Track 88 : Lilmac1015_39, CalWood4100_39
- Track 89 : Altadena_36
- Track 90 : Bolt007_37
- Track 91 : Klevey_37, Prairie_36
- Track 92 : Bumble_34
- Track 93 : TripleJ_54
- Track 94 : Island3_48, Brujita_48
- Track 95 : Rebel_43, ShrimpFriedEgg_51, Nenae_51, Purgamenstris_51, BabeRuth_52, Redi_51, Andies_44, PhancyPhin_51, Hanako_51, Raymond7_45, Phrann_48
- Track 96 : Schnauzer_48, Fulbright_46, Melville_50, Parmesanjohn_47, Magsby_47, Xerxes_47, Scitech_44, Silvafighter_48, Carcharodon_47, Gex_47, Pipsqueaks_47, Smurph_47, Phloss_45, Tapioca_49, Chewbacca_49, Duplicity_47
- Track 97 : Jamie19_45, Panchino_44, SpongeBob_45, Snekmaggon_45
- Track 98 : Kevin1_49
- Track 99 : Rubeelu_50, Butters_50
- Track 100 : Bosection6_47
- Track 101 : Shweta_45
- Track 102 : ThulaThula_52
- Track 103 : phiAsp2_49
- Track 104 : TurkishDelight_59
- Track 105 : Jace_31
- Track 106 : Tonitrus_67
- Track 107 : ValentiniPuff_95

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

The start number called the most often in the published annotations is 38, it was called in 59 of the 175 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk_51, Abblin_50, Affeca_46, Ailee_45, Angelicage_46, Ashertheman_48, Baddon_47, Barsten_49, Baumdotcom_46, Bibwit_46, Bizzy_48, BobBob_46, Brandonk123_50, ChadMasterC_49, Charming_49, Chickadee_45, Delrey21_50, Derg_45, Dxdert_46, DoctorFroggo_50, EdmundFerry_44, Fitzgerald_47, Flatwoods_48, Fosterous_46, GTE6_45, Gaea_47, Galadriel_48, Geodirt_47, Gustavo_47, JKSyngboy_45, Jabberwocky_47, Kamashten_46, Keitabear_48, Kewpiedoll_48, Kroos_48, Kwekel_45, Kwobi_48, Lennon_48, LilHam_45, Love_52, McKinley_50, MoontowerMania_48, Natkenzie_50, Nordenberg_43, Paries_51, Ribeye_48, RiverRaider_49, RoadKill_43, Sampson_50, Sanjuju_47, Saronaya_47, SchottB_46, Scioto_51, Sedona_48, Shivanishola_48, Sitar_48, StorminNorm_47, Stultus_47, Tangent_49, Tangerine_47, Tardus_52, Thing3_46, Tiamoceli_46, Twonlo_43, Tycho_47, Verity_50, ViaConlectus_50, Vivi2_51, YorkOnyx_48, Zipp_51, Zitch_53,

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

-

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

- Abba_35, Abidatro_38, Ali17_45, Altadena_36, Amelia_40, Andies_44, Andrew_41, BabeRuth_52, BarretLemon_34, Basilisk_38, Beans_32, Bedetta_45, Belphegor_48, Bolt007_37, Bosection6_47, BossLady_34, Brent_32, Brujita_48, Brynnie_37, Bumble_34, Butters_50, CalWood4100_39, Camara_40, Carcharodon_47, Chewbacca_49, Chickaboom_39, Clawz_83, ColdSoup_85, Colusalem_43, Coral_40, Cote_42, Daob_42, DonTron_82, Dori_63, Duplicity_47, EMOore_45, EastWest_35, Eesa_37, Franzy_32, Fulbright_46, Galaxy_37, Gex_47, GravityBall_34, Grekaycon_34, Hanako_51, HannahPhantana_41, Hans_49, Inspectinfecti_48, Island3_48, JKerns_34, Jace_31, Jamie19_45, Jamun_37, Jawnski_32, Jerole_50, Jollymon_85, Jordan_34, Juno112_39, KHumphrey_40, Kepler_42, Kevin1_49, King2_32, KingstonB_84, Klevey_37, Kuleana_42, LeeroyJ_34, Leona_39, Leonard_47, Lilbeanie_51, Lilmac1015_39, LittleTokyo_40, Lunar_42, Magsby_47, Martha_34, Mask_63, MelBins_48, Melons_42, Melville_50, NathanVaag_32, Nenae_51, Orcanus_38, Panchino_44, Parmesanjohn_47, PhancyPhin_51, Phauci_40, Phinally_47, Phloss_45, PhluffyCoco_40, Phrann_48, Piccoletto_32, Pippa_34, Pipsqueaks_47, Polka_40, Prairie_36, Purgamenstris_51, Raymond7_45, Rebel_43, RedFox_40, Redi_51, Renna12_39, Rofo_48, Rubeelu_50, Ruchi_37, Schnauzer_48, Scitech_44, Shade_34, ShrimpFriedEgg_51, Shweta_45, Sicarius2_35, Silvafighter_48, Smurph_47, Snekmaggedon_45, Sonny_34, Soos_78, SpongeBob_45, StevieBAY_34, Sting_81, TaeYoung_34, Tapioca_49, TaylorSipht_38, ThulaThula_52, Timinator_34, Tonitrus_67, TripleJ_54, TurkishDelight_59, ValentiniPuff_95, Vulpecula_37, Wyborn_35, Xerxes_47, Zartrosa_34, phiAsp2_49,

Summary by start number:

Start 14:

- Found in 1 of 202 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rofo_48 (DE1),

Start 28:

- Found in 1 of 202 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: phiAsp2_49 (singleton),

Start 32:

- Found in 2 of 202 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_51 (DE5), TurkishDelight_59 (singleton),

Start 33:

- Found in 1 of 202 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus_67 (singleton),

Start 34:

- Found in 9 of 202 (4.5%) of genes in pham

- Manual Annotations of this start: 8 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ali17_45 (DE2), Belphegor_48 (DE), EMOore_45 (DE2), Hans_49 (DE2), Inspectinfecti_48 (DE2), Leonard_47 (DE2), MelBins_48 (DE2), Phauci_40 (DE2), Phinally_47 (DE2),

Start 37:

- Found in 7 of 202 (3.5%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: KingstonB_84 (CP),

Start 38:

- Found in 71 of 202 (35.1%) of genes in pham
- Manual Annotations of this start: 59 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk_51 (DE4), Abblin_50 (DE4), Affeca_46 (DE1), Ailee_45 (DE1), Angelicage_46 (DE1), Ashertheman_48 (DE1), Baddon_47 (DE1), Barsten_49 (DE1), Baumdotcom_46 (DE1), Bibwit_46 (DE1), Bizzy_48 (DE1), BobBob_46 (DE1), Brandonk123_50 (DE1), ChadMasterC_49 (DE1), Charming_49 (DE1), Chickadee_45 (DE3), Delrey21_50 (DE4), Derg_45 (DE1), Dexdert_46 (DE3), DoctorFroggo_50 (DE4), EdmundFerry_44 (DE3), Fitzgerald_47 (DE1), Flatwoods_48 (DE1), Fosterous_46 (DE1), GTE6_45 (DE3), Gaea_47 (DE1), Galadriel_48 (DE1), Geodirt_47 (DE1), Gustavo_47 (DE1), JKSyngboy_45 (DE1), Jabberwocky_47 (DE1), Kamashten_46 (DE1), Keitabear_48 (DE1), Kewpiedoll_48 (DE1), Kroos_48 (DE1), Kwekel_45 (DE3), Kwobi_48 (DE1), Lennon_48 (DE1), LilHam_45 (DE1), Love_52 (DE1), McKinley_50 (DE1), MoontowerMania_48 (DE1), Natkenzie_50 (DE4), Nordenberg_43 (DE1), Paries_51 (DE1), Ribeye_48 (DE1), RiverRaider_49 (DE1), RoadKill_43 (DE3), Sampson_50 (DE4), Sanjuju_47 (DE1), Saronaya_47 (DE1), SchottB_46 (DE1), Scioto_51 (DE4), Sedona_48 (DE1), Shivanishola_48 (DE1), Sitar_48 (DE1), StorminNorm_47 (DE1), Stultus_47 (DE1), Tangent_49 (DE1), Tangerine_47 (DE1), Tardus_52 (DE4), Thing3_46 (DE1), Tiamoceli_46 (DE3), Twonlo_43 (DE3), Tycho_47 (DE1), Verity_50 (DE4), ViaConlectus_50 (DE4), Vivi2_51 (DE1), YorkOnyx_48 (DE1), Zipp_51 (DE4), Zitch_53 (DE4),

Start 39:

- Found in 1 of 202 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace_31 (singleton),

Start 41:

- Found in 15 of 202 (7.4%) of genes in pham
- Manual Annotations of this start: 10 of 175
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Altadena_36 (FH), Bolt007_37 (FH), Bumble_34 (FH), CalWood4100_39 (FH), Clawz_83 (CP), ColdSoup_85 (CP), DonTron_82 (CP), Jollymon_85 (CP), Klevey_37 (FH), Lilmac1015_39 (FH), Prairie_36 (FH), Soos_78 (CP), Sting_81 (CP), TripleJ_54 (FJ),

Start 42:

- Found in 2 of 202 (1.0%) of genes in pham

- Manual Annotations of this start: 2 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sicarius2_35 (AO2), Wyborn_35 (AO2),

Start 43:

- Found in 33 of 202 (16.3%) of genes in pham
- Manual Annotations of this start: 28 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_38 (AS1), Amelia_40 (AS2), Andrew_41 (AS3), Basilisk_38 (AS1), Bedetta_45 (AS2), Brynnie_37 (AS1), Camara_40 (AS3), Chickaboom_39 (AS1), Colusalem_43 (AS2), Coral_40 (AS2), Cote_42 (AS2), Daob_42 (AS2), Eesa_37 (AS1), Galaxy_37 (AS1), HannahPhantana_41 (AS2), Jamun_37 (AS1), Jerole_50 (AS2), Juno112_39 (AS3), KHumphrey_40 (AS3), Kepler_42 (AS2), Kuleana_42 (AS2), Leona_39 (AS3), LittleTokyo_40 (AS2), Lunar_42 (AS2), Melons_42 (AS2), Orcanus_38 (AS1), PhluffyCoco_40 (AS3), Polka_40 (AS2), RedFox_40 (AS3), Renna12_39 (AS3), Ruchi_37 (AS1), TaylorSipht_38 (AS1), Vulpecula_37 (AS1),

Start 44:

- Found in 27 of 202 (13.4%) of genes in pham
- Manual Annotations of this start: 23 of 175
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Abba_35 (AO3), BarretLemon_34 (AO2), Beans_32 (AO1), BossLady_34 (AO2), Brent_32 (AO1), EastWest_35 (AO), Franzy_32 (AO1), GravityBall_34 (AO2), Grekaycon_34 (AO2), JKerns_34 (AO2), Jawnski_32 (AO1), Jordan_34 (AO2), King2_32 (AO1), LeeroyJ_34 (AO2), Martha_34 (AO2), NathanVaag_32 (AO1), Piccoletto_32 (AO1), Pippa_34 (AO2), Shade_34 (AO2), Sonny_34 (AO2), StevieBAY_34 (AO2), TaeYoung_34 (AO2), Timinator_34 (AO2), Zartrosa_34 (AO2),

Start 45:

- Found in 41 of 202 (20.3%) of genes in pham
- Manual Annotations of this start: 39 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andies_44 (N), BabeRuth_52 (N), Bosection6_47 (N), Brujita_48 (I1), Butters_50 (N), Carcharodon_47 (N), Chewbacca_49 (N), Dori_63 (AD), Duplicity_47 (N), Fulbright_46 (N), Gex_47 (N), Hanako_51 (N), Island3_48 (I1), Jamie19_45 (N), Kevin1_49 (N), Magsby_47 (N), Mask_63 (AD), Melville_50 (N), Nenae_51 (N), Panchino_44 (N), Parmesanjohn_47 (N), PhancyPhin_51 (N), Phloss_45 (N), Phrann_48 (N), Pipsqueaks_47 (N), Purgamenstris_51 (N), Raymond7_45 (N), Rebel_43 (N), Redi_51 (N), Rubeelu_50 (N), Schnauzer_48 (N), Scitech_44 (N), ShrimpFriedEgg_51 (N), Shweta_45 (N), Silvafighter_48 (N), Smurph_47 (N), Snekmaggon_45 (N), SpongeBob_45 (N), Tapioca_49 (N), ThulaThula_52 (P5), Xerxes_47 (N),

Start 49:

- Found in 1 of 202 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 175
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ValentiniPuff_95 (singleton),

Summary by clusters:

There are 21 clusters represented in this pham: AS3, AS2, AS1, DE, AD, DE5, P5, I1, DE1, DE2, DE3, DE4, singleton, AO, N, AO3, AO2, AO1, FH, FJ, CP,

Info for manual annotations of cluster AD:

- Start number 45 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AO:

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

Info for manual annotations of cluster AO1:

- Start number 44 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:

- Start number 42 was manually annotated 2 times for cluster AO2.
- Start number 44 was manually annotated 14 times for cluster AO2.

Info for manual annotations of cluster AO3:

- Start number 44 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster AS1:

- Start number 43 was manually annotated 11 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 43 was manually annotated 11 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 43 was manually annotated 6 times for cluster AS3.

Info for manual annotations of cluster CP:

- Start number 41 was manually annotated 3 times for cluster CP.

Info for manual annotations of cluster DE1:

- Start number 14 was manually annotated 1 time for cluster DE1.
- Start number 38 was manually annotated 43 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 34 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 38 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 38 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 32 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster FH:

- Start number 41 was manually annotated 6 times for cluster FH.

Info for manual annotations of cluster FJ:

- Start number 41 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster I1:

- Start number 45 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster N:

- Start number 45 was manually annotated 34 times for cluster N.

Info for manual annotations of cluster P5:

- Start number 45 was manually annotated 1 time for cluster P5.

Gene Information:

Gene: APunk_51 Start: 41866, Stop: 43041, Start Num: 38

Candidate Starts for APunk_51:

(Start: 38 @41866 has 59 MA's), (51, 41905), (60, 41998), (62, 42007), (64, 42040), (65, 42046), (70, 42082), (72, 42097), (80, 42130), (82, 42136), (101, 42229), (104, 42238), (122, 42373), (128, 42406), (129, 42409), (131, 42421), (133, 42427), (144, 42490), (146, 42520), (171, 42691), (187, 42766), (198, 42850), (208, 42922), (210, 42928), (223, 43009),

Gene: Abba_35 Start: 27714, Stop: 28745, Start Num: 44

Candidate Starts for Abba_35:

(Start: 44 @27714 has 23 MA's), (61, 27831), (69, 27897), (72, 27915), (79, 27945), (85, 27969), (86, 27975), (97, 28023), (120, 28155), (152, 28317), (157, 28341), (170, 28416), (175, 28437), (198, 28542), (213, 28635), (223, 28701),

Gene: Abblin_50 Start: 42409, Stop: 43563, Start Num: 38

Candidate Starts for Abblin_50:

(Start: 38 @42409 has 59 MA's), (51, 42448), (60, 42541), (62, 42550), (64, 42583), (65, 42589), (70, 42625), (72, 42640), (80, 42673), (82, 42679), (101, 42772), (128, 42928), (131, 42943), (144, 43012), (145, 43024), (146, 43042), (171, 43213), (187, 43288), (198, 43372), (208, 43444), (210, 43450), (223, 43531),

Gene: Abidatro_38 Start: 25301, Stop: 26326, Start Num: 43

Candidate Starts for Abidatro_38:

(Start: 43 @25301 has 28 MA's), (47, 25316), (53, 25343), (63, 25460), (67, 25490), (86, 25586), (89, 25598), (97, 25640), (100, 25652), (102, 25664), (117, 25778), (135, 25865), (136, 25871), (143, 25919), (179, 26090), (189, 26138), (216, 26291),

Gene: Affeca_46 Start: 40965, Stop: 42128, Start Num: 38

Candidate Starts for Affeca_46:

(Start: 38 @40965 has 59 MA's), (51, 41004), (60, 41097), (64, 41139), (65, 41145), (72, 41196), (80, 41229), (97, 41304), (101, 41325), (122, 41448), (128, 41481), (133, 41502), (145, 41577), (164, 41715), (187, 41829), (193, 41877), (195, 41892), (201, 41952), (210, 42018), (213, 42033), (219, 42051),

Gene: Ailee_45 Start: 40558, Stop: 41721, Start Num: 38

Candidate Starts for Ailee_45:

(Start: 38 @40558 has 59 MA's), (51, 40597), (60, 40690), (64, 40732), (65, 40738), (72, 40789), (80, 40822), (97, 40897), (101, 40918), (122, 41041), (128, 41074), (133, 41095), (145, 41170), (164, 41308), (187, 41422), (193, 41470), (195, 41485), (201, 41545), (210, 41611), (213, 41626), (219, 41644),

Gene: Ali17_45 Start: 39857, Stop: 41008, Start Num: 34

Candidate Starts for Ali17_45:

(Start: 34 @39857 has 8 MA's), (55, 39941), (60, 39998), (62, 40007), (64, 40040), (65, 40046), (72, 40094), (82, 40133), (88, 40163), (93, 40181), (94, 40184), (96, 40193), (120, 40343), (122, 40349), (128, 40382), (133, 40403), (144, 40466), (156, 40580), (163, 40622), (164, 40628), (190, 40766), (213, 40910), (223, 40976),

Gene: Altadena_36 Start: 26934, Stop: 28001, Start Num: 41

Candidate Starts for Altadena_36:

(1, 26163), (2, 26193), (3, 26196), (Start: 41 @26934 has 10 MA's), (72, 27156), (77, 27174), (84, 27201), (97, 27264),

Gene: Amelia_40 Start: 25064, Stop: 26086, Start Num: 43

Candidate Starts for Amelia_40:

(Start: 43 @25064 has 28 MA's), (47, 25079), (53, 25106), (56, 25142), (64, 25229), (81, 25322), (97, 25403), (103, 25430), (111, 25475), (116, 25523), (117, 25544), (126, 25592), (143, 25688), (149, 25715), (189, 25907), (192, 25928), (200, 25952),

Gene: Andies_44 Start: 31627, Stop: 32637, Start Num: 45

Candidate Starts for Andies_44:

(Start: 45 @31627 has 39 MA's), (60, 31741), (62, 31750), (64, 31777), (72, 31828), (73, 31831), (89, 31897), (96, 31924), (116, 32032), (117, 32050), (120, 32068), (167, 32317), (185, 32407), (188, 32419), (200, 32467), (212, 32548),

Gene: Andrew_41 Start: 24893, Stop: 25906, Start Num: 43

Candidate Starts for Andrew_41:

(31, 24869), (Start: 43 @24893 has 28 MA's), (47, 24908), (71, 25097), (79, 25139), (81, 25145), (97, 25226), (103, 25253), (114, 25334), (116, 25343), (117, 25364), (122, 25388), (126, 25412), (165, 25613), (179, 25679), (189, 25727), (200, 25772), (218, 25883),

Gene: Angelicage_46 Start: 41383, Stop: 42546, Start Num: 38

Candidate Starts for Angelicage_46:

(Start: 38 @41383 has 59 MA's), (51, 41422), (60, 41515), (64, 41557), (65, 41563), (72, 41614), (80, 41647), (97, 41722), (101, 41743), (122, 41866), (128, 41899), (133, 41920), (145, 41995), (164, 42133), (187, 42247), (193, 42295), (195, 42310), (201, 42370), (210, 42436), (213, 42451), (219, 42469),

Gene: Ashertheman_48 Start: 41154, Stop: 42287, Start Num: 38

Candidate Starts for Ashertheman_48:

(27, 41085), (Start: 38 @41154 has 59 MA's), (51, 41199), (60, 41292), (64, 41334), (65, 41340), (72, 41391), (80, 41424), (82, 41430), (101, 41520), (122, 41643), (128, 41676), (145, 41772), (164, 41910), (187, 42024), (191, 42051), (201, 42111), (210, 42177), (219, 42210),

Gene: BabeRuth_52 Start: 33348, Stop: 34358, Start Num: 45

Candidate Starts for BabeRuth_52:

(Start: 45 @33348 has 39 MA's), (60, 33462), (62, 33471), (64, 33498), (72, 33549), (73, 33552), (89, 33618), (96, 33645), (116, 33753), (117, 33771), (120, 33789), (167, 34038), (185, 34128), (188, 34140), (200, 34188), (212, 34269),

Gene: Baddon_47 Start: 41688, Stop: 42815, Start Num: 38

Candidate Starts for Baddon_47:

(27, 41619), (Start: 38 @41688 has 59 MA's), (51, 41727), (60, 41820), (64, 41862), (65, 41868), (72, 41919), (82, 41958), (101, 42048), (116, 42129), (128, 42204), (133, 42225), (138, 42258), (144, 42288), (145, 42300), (164, 42438), (187, 42552), (191, 42579), (201, 42639), (210, 42705), (219, 42738),

Gene: BarretLemon_34 Start: 28805, Stop: 29824, Start Num: 44

Candidate Starts for BarretLemon_34:

(Start: 44 @28805 has 23 MA's), (61, 28922), (72, 29006), (75, 29018), (79, 29036), (87, 29072), (120, 29246), (122, 29252), (134, 29309), (140, 29348), (146, 29384), (150, 29396), (152, 29408), (202, 29651), (221, 29771),

Gene: Barsten_49 Start: 41538, Stop: 42665, Start Num: 38

Candidate Starts for Barsten_49:

(Start: 38 @41538 has 59 MA's), (51, 41577), (60, 41670), (64, 41712), (65, 41718), (72, 41769), (80, 41802), (97, 41877), (101, 41898), (116, 41979), (122, 42021), (128, 42054), (133, 42075), (145, 42150), (164, 42288), (187, 42402), (191, 42429), (201, 42489), (210, 42555), (213, 42570), (219, 42588),

Gene: Basilisk_38 Start: 25812, Stop: 26840, Start Num: 43

Candidate Starts for Basilisk_38:

(31, 25779), (Start: 43 @25812 has 28 MA's), (47, 25827), (64, 25977), (76, 26049), (81, 26070), (97, 26151), (102, 26175), (122, 26313), (126, 26337), (132, 26370), (158, 26505), (189, 26652),

Gene: Baumdotcom_46 Start: 40560, Stop: 41684, Start Num: 38

Candidate Starts for Baumdotcom_46:

(27, 40491), (Start: 38 @40560 has 59 MA's), (51, 40596), (60, 40689), (64, 40731), (65, 40737), (72, 40788), (82, 40827), (101, 40917), (128, 41073), (133, 41094), (138, 41127), (145, 41169), (164, 41307), (187, 41421), (191, 41448), (201, 41508), (210, 41574), (219, 41607),

Gene: Beans_32 Start: 28492, Stop: 29520, Start Num: 44

Candidate Starts for Beans_32:

(Start: 44 @28492 has 23 MA's), (61, 28609), (68, 28675), (72, 28693), (79, 28723), (120, 28933), (134, 28996), (146, 29071), (150, 29083), (152, 29095), (183, 29260), (202, 29338),

Gene: Bedetta_45 Start: 25211, Stop: 26233, Start Num: 43

Candidate Starts for Bedetta_45:

(Start: 43 @25211 has 28 MA's), (47, 25226), (53, 25253), (56, 25289), (64, 25376), (81, 25469), (97, 25550), (103, 25577), (111, 25622), (116, 25670), (117, 25691), (126, 25739), (143, 25835), (149, 25862), (189, 26054), (192, 26075), (200, 26099),

Gene: Belphegor_48 Start: 41897, Stop: 43045, Start Num: 34

Candidate Starts for Belphegor_48:

(26, 41861), (Start: 34 @41897 has 8 MA's), (55, 41978), (62, 42044), (64, 42077), (65, 42083), (72, 42131), (77, 42149), (80, 42164), (82, 42170), (88, 42200), (93, 42218), (94, 42221), (101, 42263), (120, 42380), (122, 42386), (128, 42419), (133, 42440), (156, 42617), (163, 42659), (164, 42665), (208, 42926), (210, 42932), (223, 43013),

Gene: Bibwit_46 Start: 40244, Stop: 41377, Start Num: 38

Candidate Starts for Bibwit_46:

(6, 39749), (27, 40175), (Start: 38 @40244 has 59 MA's), (60, 40382), (64, 40424), (65, 40430), (72, 40481), (80, 40514), (82, 40520), (101, 40610), (128, 40766), (133, 40787), (145, 40862), (164, 41000), (187, 41114), (191, 41141), (198, 41189), (201, 41201), (210, 41267), (213, 41282), (219, 41300),

Gene: Bizzy_48 Start: 40845, Stop: 41972, Start Num: 38

Candidate Starts for Bizzy_48:

(27, 40776), (Start: 38 @40845 has 59 MA's), (51, 40884), (60, 40977), (64, 41019), (65, 41025), (72, 41076), (82, 41115), (101, 41205), (116, 41286), (128, 41361), (133, 41382), (138, 41415), (145, 41457), (164, 41595), (187, 41709), (191, 41736), (201, 41796), (210, 41862), (219, 41895),

Gene: BobBob_46 Start: 40656, Stop: 41780, Start Num: 38

Candidate Starts for BobBob_46:

(30, 40617), (Start: 38 @40656 has 59 MA's), (51, 40692), (60, 40785), (64, 40827), (65, 40833), (72, 40884), (80, 40917), (97, 40992), (101, 41013), (122, 41136), (128, 41169), (133, 41190), (145, 41265), (164, 41403), (187, 41517), (191, 41544), (201, 41604), (210, 41670), (213, 41685), (219, 41703),

Gene: Bolt007_37 Start: 29435, Stop: 30487, Start Num: 41

Candidate Starts for Bolt007_37:

(Start: 41 @29435 has 10 MA's), (72, 29645), (77, 29663), (97, 29753), (165, 30122),

Gene: Bosection6_47 Start: 31093, Stop: 32103, Start Num: 45

Candidate Starts for Bosection6_47:

(Start: 45 @31093 has 39 MA's), (57, 31168), (60, 31207), (62, 31216), (64, 31243), (72, 31294), (73, 31297), (78, 31321), (111, 31447), (116, 31498), (118, 31522), (120, 31534), (126, 31564), (161, 31756), (164, 31765), (167, 31783), (185, 31873), (188, 31885), (200, 31933), (212, 32014),

Gene: BossLady_34 Start: 28774, Stop: 29793, Start Num: 44

Candidate Starts for BossLady_34:

(Start: 44 @28774 has 23 MA's), (72, 28975), (75, 28987), (79, 29005), (86, 29035), (87, 29041), (120, 29215), (122, 29221), (134, 29278), (146, 29353), (152, 29377), (154, 29386), (168, 29464), (182, 29536), (183, 29542), (219, 29719),

Gene: Brandonk123_50 Start: 41790, Stop: 42914, Start Num: 38

Candidate Starts for Brandonk123_50:

(30, 41751), (Start: 38 @41790 has 59 MA's), (51, 41826), (60, 41919), (64, 41961), (65, 41967), (72, 42018), (80, 42051), (97, 42126), (101, 42147), (122, 42270), (128, 42303), (133, 42324), (145, 42399), (164, 42537), (187, 42651), (191, 42678), (201, 42738), (210, 42804), (213, 42819), (219, 42837),

Gene: Brent_32 Start: 28455, Stop: 29483, Start Num: 44

Candidate Starts for Brent_32:

(Start: 44 @28455 has 23 MA's), (68, 28638), (72, 28656), (79, 28686), (84, 28701), (118, 28884), (120, 28896), (146, 29034), (150, 29046), (152, 29058), (168, 29145), (183, 29223), (192, 29265), (199, 29289), (202, 29301),

Gene: Brujita_48 Start: 33774, Stop: 34781, Start Num: 45

Candidate Starts for Brujita_48:

(22, 33654), (Start: 45 @33774 has 39 MA's), (60, 33885), (62, 33894), (64, 33921), (72, 33972), (73, 33975), (86, 34032), (89, 34041), (111, 34125), (116, 34176), (118, 34200), (120, 34212), (164, 34443), (167, 34461), (171, 34482), (174, 34497), (185, 34551), (186, 34554), (188, 34563), (190, 34581), (200, 34611), (212, 34692),

Gene: Brynnie_37 Start: 25690, Stop: 26718, Start Num: 43

Candidate Starts for Brynnie_37:

(31, 25657), (Start: 43 @25690 has 28 MA's), (47, 25705), (64, 25855), (76, 25927), (79, 25942), (81, 25948), (97, 26029), (102, 26053), (122, 26191), (132, 26248), (143, 26311), (158, 26383), (189, 26530),

Gene: Bumble_34 Start: 26999, Stop: 28066, Start Num: 41

Candidate Starts for Bumble_34:

(36, 26987), (Start: 41 @26999 has 10 MA's), (72, 27221), (77, 27239), (97, 27329),

Gene: Butters_50 Start: 33050, Stop: 34057, Start Num: 45

Candidate Starts for Butters_50:

(13, 32807), (16, 32819), (19, 32885), (22, 32930), (Start: 45 @33050 has 39 MA's), (60, 33161), (62, 33170), (64, 33197), (72, 33248), (73, 33251), (86, 33308), (89, 33317), (111, 33401), (116, 33452), (118, 33476), (120, 33488), (164, 33719), (167, 33737), (171, 33758), (174, 33773), (185, 33827), (186, 33830), (188, 33839), (190, 33857), (200, 33887), (212, 33968),

Gene: CalWood4100_39 Start: 28926, Stop: 29978, Start Num: 41

Candidate Starts for CalWood4100_39:

(Start: 41 @28926 has 10 MA's), (72, 29136), (77, 29154), (97, 29244), (139, 29481), (140, 29484),

Gene: Camara_40 Start: 25003, Stop: 26016, Start Num: 43

Candidate Starts for Camara_40:

(31, 24979), (Start: 43 @25003 has 28 MA's), (47, 25018), (71, 25207), (79, 25249), (81, 25255), (83, 25264), (97, 25336), (103, 25363), (114, 25444), (116, 25453), (117, 25474), (126, 25522), (159, 25693), (165, 25723), (170, 25750), (179, 25789), (189, 25837), (200, 25882),

Gene: Carcharodon_47 Start: 32442, Stop: 33452, Start Num: 45

Candidate Starts for Carcharodon_47:

(Start: 45 @32442 has 39 MA's), (57, 32517), (60, 32556), (62, 32565), (64, 32592), (72, 32643), (73, 32646), (78, 32670), (111, 32796), (116, 32847), (118, 32871), (120, 32883), (126, 32913), (161, 33105), (164, 33114), (167, 33132), (176, 33174), (185, 33222), (188, 33234), (212, 33363),

Gene: ChadMasterC_49 Start: 42937, Stop: 44064, Start Num: 38

Candidate Starts for ChadMasterC_49:

(Start: 38 @42937 has 59 MA's), (51, 42976), (60, 43069), (64, 43111), (65, 43117), (72, 43168), (80, 43201), (97, 43276), (101, 43297), (122, 43420), (128, 43453), (133, 43474), (145, 43549), (164, 43687), (187, 43801), (201, 43888), (210, 43954), (213, 43969), (219, 43987),

Gene: Charming_49 Start: 41293, Stop: 42420, Start Num: 38

Candidate Starts for Charming_49:

(Start: 38 @41293 has 59 MA's), (51, 41332), (60, 41425), (64, 41467), (65, 41473), (72, 41524), (80, 41557), (97, 41632), (101, 41653), (122, 41776), (128, 41809), (133, 41830), (145, 41905), (164, 42043), (187, 42157), (191, 42184), (201, 42244), (210, 42310), (213, 42325), (219, 42343),

Gene: Chewbacca_49 Start: 32442, Stop: 33452, Start Num: 45

Candidate Starts for Chewbacca_49:

(Start: 45 @32442 has 39 MA's), (57, 32517), (60, 32556), (62, 32565), (64, 32592), (72, 32643), (73, 32646), (78, 32670), (111, 32796), (116, 32847), (118, 32871), (120, 32883), (126, 32913), (161, 33105), (164, 33114), (167, 33132), (176, 33174), (185, 33222), (188, 33234), (212, 33363),

Gene: Chickaboom_39 Start: 25312, Stop: 26337, Start Num: 43

Candidate Starts for Chickaboom_39:

(31, 25279), (Start: 43 @25312 has 28 MA's), (47, 25327), (64, 25477), (67, 25501), (86, 25597), (89, 25609), (97, 25651), (100, 25663), (135, 25876), (143, 25930), (189, 26149), (216, 26302),

Gene: Chickadee_45 Start: 37929, Stop: 39083, Start Num: 38

Candidate Starts for Chickadee_45:

(Start: 38 @37929 has 59 MA's), (60, 38058), (64, 38100), (65, 38106), (72, 38157), (101, 38286), (105, 38292), (116, 38370), (122, 38412), (128, 38445), (133, 38466), (163, 38685), (171, 38730), (177, 38754), (181, 38778), (190, 38829), (201, 38898), (203, 38910), (207, 38949), (208, 38958), (210, 38964), (213, 38979), (215, 38988), (223, 39045),

Gene: Clawz_83 Start: 52842, Stop: 53858, Start Num: 41

Candidate Starts for Clawz_83:

(8, 52431), (15, 52623), (18, 52680), (25, 52749), (37, 52833), (Start: 41 @52842 has 10 MA's), (66, 53031), (72, 53070), (77, 53088), (97, 53181), (121, 53328), (140, 53430), (146, 53466), (162, 53550), (178, 53628), (180, 53637), (188, 53679), (220, 53835),

Gene: ColdSoup_85 Start: 52837, Stop: 53850, Start Num: 41

Candidate Starts for ColdSoup_85:

(18, 52675), (25, 52744), (37, 52828), (Start: 41 @52837 has 10 MA's), (66, 53023), (72, 53062), (77, 53080), (97, 53173), (113, 53242), (122, 53323), (130, 53362), (140, 53422), (146, 53458), (148, 53464), (155, 53497), (166, 53563), (178, 53620), (220, 53827),

Gene: Colusalem_43 Start: 25041, Stop: 26063, Start Num: 43

Candidate Starts for Colusalem_43:

(Start: 43 @25041 has 28 MA's), (47, 25056), (53, 25083), (56, 25119), (64, 25206), (81, 25299), (97, 25380), (103, 25407), (111, 25452), (116, 25500), (117, 25521), (126, 25569), (143, 25665), (149, 25692), (189, 25884), (192, 25905), (200, 25929),

Gene: Coral_40 Start: 24912, Stop: 25934, Start Num: 43

Candidate Starts for Coral_40:

(Start: 43 @24912 has 28 MA's), (47, 24927), (53, 24954), (56, 24990), (64, 25077), (81, 25170), (97, 25251), (103, 25278), (111, 25323), (116, 25371), (117, 25392), (126, 25440), (143, 25536), (149, 25563), (189, 25755), (192, 25776), (200, 25800),

Gene: Cote_42 Start: 25389, Stop: 26411, Start Num: 43

Candidate Starts for Cote_42:

(Start: 43 @25389 has 28 MA's), (47, 25404), (53, 25431), (56, 25467), (64, 25554), (81, 25647), (97, 25728), (103, 25755), (111, 25800), (116, 25848), (117, 25869), (126, 25917), (143, 26013), (149, 26040), (189, 26232), (192, 26253), (200, 26277),

Gene: Daob_42 Start: 25397, Stop: 26419, Start Num: 43

Candidate Starts for Daob_42:

(Start: 43 @25397 has 28 MA's), (47, 25412), (53, 25439), (56, 25475), (64, 25562), (81, 25655), (97, 25736), (103, 25763), (111, 25808), (116, 25856), (117, 25877), (126, 25925), (143, 26021), (149, 26048), (189, 26240), (192, 26261), (200, 26285),

Gene: Delrey21_50 Start: 43180, Stop: 44334, Start Num: 38

Candidate Starts for Delrey21_50:

(Start: 38 @43180 has 59 MA's), (51, 43219), (60, 43312), (62, 43321), (64, 43354), (65, 43360), (72, 43411), (80, 43444), (82, 43450), (101, 43543), (122, 43666), (128, 43699), (131, 43714), (133, 43720), (144, 43783), (145, 43795), (146, 43813), (171, 43984), (198, 44143), (210, 44221), (223, 44302),

Gene: Derg_45 Start: 40440, Stop: 41564, Start Num: 38

Candidate Starts for Derg_45:

(27, 40371), (Start: 38 @40440 has 59 MA's), (51, 40476), (60, 40569), (64, 40611), (65, 40617), (72, 40668), (82, 40707), (101, 40797), (116, 40878), (128, 40953), (133, 40974), (138, 41007), (145, 41049), (164, 41187), (187, 41301), (191, 41328), (201, 41388), (210, 41454), (219, 41487),

Gene: Dextrert_46 Start: 38194, Stop: 39375, Start Num: 38

Candidate Starts for Dextrert_46:

(10, 37912), (23, 38119), (Start: 38 @38194 has 59 MA's), (60, 38326), (62, 38335), (64, 38368), (65, 38374), (72, 38425), (101, 38554), (122, 38680), (128, 38713), (133, 38734), (145, 38809), (150, 38839), (163, 38953), (171, 38998), (181, 39046), (187, 39073), (195, 39136), (198, 39184), (201, 39196), (203, 39208), (208, 39256), (210, 39262), (223, 39343),

Gene: DoctorFroggo_50 Start: 43180, Stop: 44334, Start Num: 38

Candidate Starts for DoctorFroggo_50:

(Start: 38 @43180 has 59 MA's), (51, 43219), (60, 43312), (62, 43321), (64, 43354), (65, 43360), (72, 43411), (80, 43444), (82, 43450), (101, 43543), (122, 43666), (128, 43699), (131, 43714), (133, 43720), (144, 43783), (145, 43795), (146, 43813), (171, 43984), (198, 44143), (210, 44221), (223, 44302),

Gene: DonTron_82 Start: 52715, Stop: 53728, Start Num: 41

Candidate Starts for DonTron_82:

(18, 52553), (25, 52622), (37, 52706), (Start: 41 @52715 has 10 MA's), (66, 52901), (72, 52940), (77, 52958), (97, 53051), (113, 53120), (122, 53201), (130, 53240), (140, 53300), (146, 53336), (148, 53342), (155, 53375), (166, 53441), (178, 53498), (220, 53705),

Gene: Dori_63 Start: 49123, Stop: 50127, Start Num: 45

Candidate Starts for Dori_63:

(Start: 45 @49123 has 39 MA's), (62, 49246), (64, 49273), (72, 49324), (73, 49327), (78, 49351), (111, 49477), (116, 49528), (118, 49552), (120, 49564), (122, 49570), (126, 49594), (129, 49606), (161, 49786), (164, 49795), (169, 49816), (171, 49828), (184, 49891), (186, 49900), (200, 49957), (209, 50023), (212, 50038),

Gene: Duplicity_47 Start: 32451, Stop: 33461, Start Num: 45

Candidate Starts for Duplicity_47:

(Start: 45 @32451 has 39 MA's), (57, 32526), (60, 32565), (62, 32574), (64, 32601), (72, 32652), (73, 32655), (78, 32679), (111, 32805), (116, 32856), (118, 32880), (120, 32892), (126, 32922), (161, 33114), (164, 33123), (167, 33141), (176, 33183), (185, 33231), (188, 33243), (212, 33372),

Gene: EMoore_45 Start: 41058, Stop: 42209, Start Num: 34

Candidate Starts for EMoore_45:

(5, 40575), (7, 40695), (9, 40773), (11, 40815), (12, 40824), (Start: 34 @41058 has 8 MA's), (62, 41208), (64, 41241), (65, 41247), (72, 41295), (82, 41334), (88, 41364), (93, 41382), (94, 41385), (96, 41394), (101, 41427), (120, 41544), (122, 41550), (128, 41583), (133, 41604), (156, 41781), (163, 41823), (164, 41829), (198, 42018), (210, 42096),

Gene: EastWest_35 Start: 28014, Stop: 29039, Start Num: 44

Candidate Starts for EastWest_35:

(Start: 44 @28014 has 23 MA's), (61, 28131), (62, 28137), (72, 28215), (79, 28245), (84, 28260), (118, 28443), (120, 28455), (127, 28488), (152, 28617), (192, 28824), (199, 28848), (206, 28893), (221, 28980),

Gene: EdmundFerry_44 Start: 37970, Stop: 39154, Start Num: 38

Candidate Starts for EdmundFerry_44:

(17, 37829), (Start: 38 @37970 has 59 MA's), (60, 38099), (64, 38141), (65, 38147), (72, 38198), (101, 38327), (122, 38453), (128, 38486), (133, 38507), (163, 38726), (171, 38771), (177, 38795), (181, 38819), (190, 38870), (194, 38897), (201, 38969), (203, 38981), (207, 39020), (208, 39029), (210, 39035), (213, 39050), (215, 39059), (223, 39116),

Gene: Eesa_37 Start: 26191, Stop: 27219, Start Num: 43

Candidate Starts for Eesa_37:

(31, 26149), (Start: 43 @26191 has 28 MA's), (47, 26206), (64, 26356), (76, 26428), (97, 26530), (117, 26668), (122, 26692), (126, 26716), (132, 26749), (143, 26812), (149, 26839), (159, 26887), (189, 27031),

Gene: Fitzgerald_47 Start: 42195, Stop: 43319, Start Num: 38

Candidate Starts for Fitzgerald_47:

(Start: 38 @42195 has 59 MA's), (51, 42231), (60, 42324), (64, 42366), (65, 42372), (72, 42423), (80, 42456), (97, 42531), (101, 42552), (116, 42633), (122, 42675), (128, 42708), (133, 42729), (145, 42804), (164, 42942), (187, 43056), (201, 43143), (210, 43209), (213, 43224), (219, 43242),

Gene: Flatwoods_48 Start: 40789, Stop: 41913, Start Num: 38

Candidate Starts for Flatwoods_48:

(27, 40720), (Start: 38 @40789 has 59 MA's), (51, 40825), (60, 40918), (64, 40960), (65, 40966), (72, 41017), (82, 41056), (101, 41146), (116, 41227), (128, 41302), (133, 41323), (145, 41398), (164, 41536), (187, 41650), (191, 41677), (201, 41737), (210, 41803), (219, 41836),

Gene: Fosterous_46 Start: 40754, Stop: 41881, Start Num: 38

Candidate Starts for Fosterous_46:

(Start: 38 @40754 has 59 MA's), (51, 40793), (60, 40886), (64, 40928), (65, 40934), (72, 40985), (80, 41018), (97, 41093), (101, 41114), (122, 41237), (128, 41270), (133, 41291), (145, 41366), (164, 41504), (187, 41618), (191, 41645), (201, 41705), (210, 41771), (213, 41786), (219, 41804),

Gene: Franzy_32 Start: 28454, Stop: 29482, Start Num: 44

Candidate Starts for Franzy_32:

(Start: 44 @28454 has 23 MA's), (68, 28637), (72, 28655), (79, 28685), (84, 28700), (118, 28883), (120, 28895), (146, 29033), (150, 29045), (152, 29057), (168, 29144), (192, 29264), (199, 29288), (202, 29300),

Gene: Fulbright_46 Start: 31531, Stop: 32541, Start Num: 45

Candidate Starts for Fulbright_46:

(Start: 45 @31531 has 39 MA's), (57, 31606), (60, 31645), (62, 31654), (64, 31681), (72, 31732), (73, 31735), (78, 31759), (111, 31885), (116, 31936), (118, 31960), (120, 31972), (126, 32002), (161, 32194), (164, 32203), (167, 32221), (176, 32263), (185, 32311), (188, 32323), (212, 32452),

Gene: GTE6_45 Start: 38462, Stop: 39616, Start Num: 38

Candidate Starts for GTE6_45:

(17, 38321), (Start: 38 @38462 has 59 MA's), (60, 38591), (64, 38633), (65, 38639), (72, 38690), (101, 38819), (105, 38825), (122, 38945), (128, 38978), (133, 38999), (150, 39104), (163, 39218), (171, 39263), (177, 39287), (181, 39311), (201, 39431), (203, 39443), (207, 39482), (208, 39491), (210, 39497), (213, 39512), (215, 39521), (223, 39578),

Gene: Gaea_47 Start: 40432, Stop: 41565, Start Num: 38

Candidate Starts for Gaea_47:

(27, 40363), (Start: 38 @40432 has 59 MA's), (60, 40570), (64, 40612), (65, 40618), (72, 40669), (80, 40702), (82, 40708), (101, 40798), (128, 40954), (133, 40975), (145, 41050), (164, 41188), (187, 41302), (191, 41329), (201, 41389), (210, 41455), (213, 41470), (219, 41488),

Gene: Galadriel_48 Start: 41561, Stop: 42682, Start Num: 38

Candidate Starts for Galadriel_48:

(30, 41522), (Start: 38 @41561 has 59 MA's), (51, 41597), (60, 41690), (64, 41732), (65, 41738), (72, 41789), (80, 41822), (97, 41897), (101, 41918), (122, 42041), (128, 42074), (133, 42095), (145, 42170), (164, 42308), (187, 42422), (191, 42449), (201, 42509), (210, 42575), (213, 42590), (219, 42608),

Gene: Galaxy_37 Start: 25067, Stop: 26092, Start Num: 43

Candidate Starts for Galaxy_37:

(Start: 43 @25067 has 28 MA's), (47, 25082), (53, 25109), (63, 25226), (67, 25256), (86, 25352), (89, 25364), (97, 25406), (100, 25418), (102, 25430), (117, 25544), (135, 25631), (143, 25685), (149, 25712), (189, 25904),

Gene: Geodirt_47 Start: 42173, Stop: 43297, Start Num: 38

Candidate Starts for Geodirt_47:

(Start: 38 @42173 has 59 MA's), (51, 42212), (60, 42305), (64, 42347), (65, 42353), (72, 42404), (80, 42437), (97, 42512), (101, 42533), (122, 42656), (128, 42689), (133, 42710), (145, 42785), (164, 42923), (187, 43037), (191, 43064), (201, 43124), (210, 43190), (213, 43205), (219, 43223),

Gene: Gex_47 Start: 32458, Stop: 33468, Start Num: 45

Candidate Starts for Gex_47:

(Start: 45 @32458 has 39 MA's), (57, 32533), (60, 32572), (62, 32581), (64, 32608), (72, 32659), (73, 32662), (78, 32686), (111, 32812), (116, 32863), (118, 32887), (120, 32899), (126, 32929), (161, 33121), (164, 33130), (167, 33148), (176, 33190), (185, 33238), (188, 33250), (212, 33379),

Gene: GravityBall_34 Start: 28804, Stop: 29823, Start Num: 44

Candidate Starts for GravityBall_34:

(Start: 44 @28804 has 23 MA's), (61, 28921), (72, 29005), (75, 29017), (79, 29035), (87, 29071), (120, 29245), (122, 29251), (134, 29308), (140, 29347), (146, 29383), (150, 29395), (152, 29407), (202, 29650),

Gene: Grekaycon_34 Start: 28720, Stop: 29739, Start Num: 44

Candidate Starts for Grekaycon_34:

(Start: 44 @28720 has 23 MA's), (72, 28921), (75, 28933), (79, 28951), (86, 28981), (87, 28987), (120, 29161), (122, 29167), (134, 29224), (146, 29299), (152, 29323), (154, 29332), (168, 29410), (182, 29482), (183, 29488), (219, 29665),

Gene: Gustavo_47 Start: 40605, Stop: 41738, Start Num: 38

Candidate Starts for Gustavo_47:

(27, 40536), (Start: 38 @40605 has 59 MA's), (60, 40743), (64, 40785), (65, 40791), (72, 40842), (80, 40875), (82, 40881), (83, 40884), (101, 40971), (128, 41127), (133, 41148), (145, 41223), (164, 41361), (187, 41475), (191, 41502), (201, 41562), (210, 41628), (213, 41643), (219, 41661),

Gene: Hanako_51 Start: 33348, Stop: 34358, Start Num: 45

Candidate Starts for Hanako_51:

(Start: 45 @33348 has 39 MA's), (60, 33462), (62, 33471), (64, 33498), (72, 33549), (73, 33552), (89, 33618), (96, 33645), (116, 33753), (117, 33771), (120, 33789), (167, 34038), (185, 34128), (188, 34140), (200, 34188), (212, 34269),

Gene: HannahPhantana_41 Start: 25059, Stop: 26081, Start Num: 43

Candidate Starts for HannahPhantana_41:

(Start: 43 @25059 has 28 MA's), (47, 25074), (53, 25101), (56, 25137), (64, 25224), (81, 25317), (97, 25398), (103, 25425), (111, 25470), (116, 25518), (117, 25539), (126, 25587), (143, 25683), (149, 25710), (189, 25902), (192, 25923), (200, 25947),

Gene: Hans_49 Start: 40497, Stop: 41648, Start Num: 34

Candidate Starts for Hans_49:

(Start: 34 @40497 has 8 MA's), (55, 40581), (60, 40638), (62, 40647), (64, 40680), (65, 40686), (72, 40734), (82, 40773), (88, 40803), (93, 40821), (94, 40824), (96, 40833), (120, 40983), (122, 40989), (128, 41022), (133, 41043), (144, 41106), (156, 41220), (163, 41262), (164, 41268), (190, 41406), (213, 41550), (223, 41616),

Gene: Inspectinfecti_48 Start: 40943, Stop: 42094, Start Num: 34

Candidate Starts for Inspectinfecti_48:

(Start: 34 @40943 has 8 MA's), (55, 41027), (60, 41084), (62, 41093), (64, 41126), (65, 41132), (72, 41180), (82, 41219), (88, 41249), (93, 41267), (94, 41270), (96, 41279), (120, 41429), (122, 41435), (128, 41468), (133, 41489), (144, 41552), (156, 41666), (163, 41708), (164, 41714), (190, 41852), (213, 41996), (223, 42062),

Gene: Island3_48 Start: 33774, Stop: 34781, Start Num: 45

Candidate Starts for Island3_48:

(22, 33654), (Start: 45 @33774 has 39 MA's), (60, 33885), (62, 33894), (64, 33921), (72, 33972), (73, 33975), (86, 34032), (89, 34041), (111, 34125), (116, 34176), (118, 34200), (120, 34212), (164, 34443), (167, 34461), (171, 34482), (174, 34497), (185, 34551), (186, 34554), (188, 34563), (190, 34581), (200, 34611), (212, 34692),

Gene: JKSyngboy_45 Start: 41204, Stop: 42337, Start Num: 38

Candidate Starts for JKSyngboy_45:

(27, 41135), (Start: 38 @41204 has 59 MA's), (60, 41342), (64, 41384), (65, 41390), (72, 41441), (80, 41474), (82, 41480), (83, 41483), (101, 41570), (128, 41726), (133, 41747), (145, 41822), (164, 41960), (187, 42074), (191, 42101), (201, 42161), (210, 42227), (213, 42242), (219, 42260),

Gene: JKerns_34 Start: 28666, Stop: 29685, Start Num: 44

Candidate Starts for JKerns_34:

(Start: 44 @28666 has 23 MA's), (72, 28867), (75, 28879), (79, 28897), (86, 28927), (116, 29071), (120, 29107), (122, 29113), (134, 29170), (146, 29245), (152, 29269), (182, 29428), (183, 29434), (219, 29611), (221, 29632), (223, 29659),

Gene: Jabberwocky_47 Start: 42599, Stop: 43762, Start Num: 38

Candidate Starts for Jabberwocky_47:

(Start: 38 @42599 has 59 MA's), (51, 42638), (60, 42731), (64, 42773), (65, 42779), (72, 42830), (80, 42863), (97, 42938), (101, 42959), (116, 43040), (122, 43082), (128, 43115), (133, 43136), (145, 43211), (164, 43349), (187, 43463), (193, 43511), (195, 43526), (201, 43586), (210, 43652), (213, 43667), (219, 43685),

Gene: Jace_31 Start: 25322, Stop: 26353, Start Num: 39

Candidate Starts for Jace_31:

(Start: 39 @25322 has 1 MA's), (46, 25343), (67, 25523), (76, 25571), (97, 25664), (101, 25685), (120, 25793), (121, 25796), (125, 25820), (147, 25934), (151, 25955), (188, 26132), (190, 26150),

Gene: Jamie19_45 Start: 31639, Stop: 32649, Start Num: 45

Candidate Starts for Jamie19_45:

(Start: 45 @31639 has 39 MA's), (57, 31714), (60, 31753), (62, 31762), (64, 31789), (72, 31840), (73, 31843), (89, 31909), (96, 31936), (116, 32044), (117, 32062), (120, 32080), (167, 32329), (185,

32419), (188, 32431), (200, 32479), (212, 32560),

Gene: Jamun_37 Start: 25352, Stop: 26377, Start Num: 43

Candidate Starts for Jamun_37:

(31, 25319), (Start: 43 @25352 has 28 MA's), (47, 25367), (64, 25517), (67, 25541), (86, 25637), (89, 25649), (97, 25691), (100, 25703), (101, 25712), (135, 25916), (143, 25970), (189, 26189), (216, 26342),

Gene: Jawnski_32 Start: 28461, Stop: 29489, Start Num: 44

Candidate Starts for Jawnski_32:

(Start: 44 @28461 has 23 MA's), (61, 28578), (68, 28644), (72, 28662), (79, 28692), (86, 28722), (120, 28902), (134, 28965), (146, 29040), (150, 29052), (152, 29064), (183, 29229), (202, 29307),

Gene: Jerole_50 Start: 25183, Stop: 26205, Start Num: 43

Candidate Starts for Jerole_50:

(Start: 43 @25183 has 28 MA's), (47, 25198), (53, 25225), (56, 25261), (64, 25348), (81, 25441), (97, 25522), (103, 25549), (111, 25594), (116, 25642), (117, 25663), (126, 25711), (143, 25807), (149, 25834), (189, 26026), (192, 26047), (200, 26071),

Gene: Jollymon_85 Start: 52837, Stop: 53850, Start Num: 41

Candidate Starts for Jollymon_85:

(18, 52675), (25, 52744), (37, 52828), (Start: 41 @52837 has 10 MA's), (66, 53023), (72, 53062), (77, 53080), (97, 53173), (113, 53242), (122, 53323), (130, 53362), (140, 53422), (146, 53458), (148, 53464), (155, 53497), (166, 53563), (178, 53620), (220, 53827),

Gene: Jordan_34 Start: 28716, Stop: 29735, Start Num: 44

Candidate Starts for Jordan_34:

(Start: 44 @28716 has 23 MA's), (72, 28917), (75, 28929), (79, 28947), (86, 28977), (120, 29157), (122, 29163), (134, 29220), (146, 29295), (152, 29319), (168, 29406), (182, 29478), (183, 29484), (219, 29661),

Gene: Juno112_39 Start: 25003, Stop: 26016, Start Num: 43

Candidate Starts for Juno112_39:

(31, 24979), (Start: 43 @25003 has 28 MA's), (47, 25018), (71, 25207), (79, 25249), (81, 25255), (83, 25264), (97, 25336), (103, 25363), (114, 25444), (116, 25453), (117, 25474), (126, 25522), (159, 25693), (165, 25723), (170, 25750), (179, 25789), (189, 25837), (200, 25882),

Gene: KHumphrey_40 Start: 25002, Stop: 26015, Start Num: 43

Candidate Starts for KHumphrey_40:

(31, 24978), (Start: 43 @25002 has 28 MA's), (47, 25017), (71, 25206), (79, 25248), (81, 25254), (83, 25263), (97, 25335), (103, 25362), (114, 25443), (116, 25452), (117, 25473), (126, 25521), (159, 25692), (165, 25722), (170, 25749), (179, 25788), (189, 25836), (200, 25881),

Gene: Kamashten_46 Start: 40534, Stop: 41661, Start Num: 38

Candidate Starts for Kamashten_46:

(Start: 38 @40534 has 59 MA's), (51, 40573), (60, 40666), (64, 40708), (65, 40714), (72, 40765), (80, 40798), (97, 40873), (101, 40894), (122, 41017), (128, 41050), (133, 41071), (145, 41146), (164, 41284), (187, 41398), (191, 41425), (201, 41485), (210, 41551), (213, 41566), (219, 41584),

Gene: Keitabear_48 Start: 42189, Stop: 43352, Start Num: 38

Candidate Starts for Keitabear_48:

(Start: 38 @42189 has 59 MA's), (51, 42228), (60, 42321), (64, 42363), (65, 42369), (72, 42420), (80, 42453), (97, 42528), (101, 42549), (122, 42672), (128, 42705), (133, 42726), (145, 42801), (164,

42939), (187, 43053), (193, 43101), (195, 43116), (201, 43176), (210, 43242), (213, 43257), (219, 43275),

Gene: Kepler_42 Start: 25807, Stop: 26829, Start Num: 43

Candidate Starts for Kepler_42:

(Start: 43 @25807 has 28 MA's), (47, 25822), (53, 25849), (56, 25885), (64, 25972), (81, 26065), (97, 26146), (103, 26173), (111, 26218), (116, 26266), (117, 26287), (126, 26335), (143, 26431), (149, 26458), (170, 26563), (189, 26650), (192, 26671), (200, 26695),

Gene: Kevin1_49 Start: 32486, Stop: 33493, Start Num: 45

Candidate Starts for Kevin1_49:

(Start: 45 @32486 has 39 MA's), (60, 32597), (62, 32606), (64, 32633), (72, 32684), (73, 32687), (86, 32744), (89, 32753), (111, 32837), (116, 32888), (118, 32912), (120, 32924), (164, 33155), (167, 33173), (171, 33194), (174, 33209), (185, 33263), (186, 33266), (188, 33275), (190, 33293), (200, 33323), (212, 33404),

Gene: Kewpiedoll_48 Start: 41475, Stop: 42602, Start Num: 38

Candidate Starts for Kewpiedoll_48:

(Start: 38 @41475 has 59 MA's), (51, 41514), (60, 41607), (65, 41655), (72, 41706), (80, 41739), (97, 41814), (101, 41835), (122, 41958), (128, 41991), (133, 42012), (145, 42087), (164, 42225), (187, 42339), (191, 42366), (201, 42426), (210, 42492), (213, 42507), (219, 42525),

Gene: King2_32 Start: 28450, Stop: 29478, Start Num: 44

Candidate Starts for King2_32:

(Start: 44 @28450 has 23 MA's), (68, 28633), (72, 28651), (79, 28681), (84, 28696), (118, 28879), (120, 28891), (150, 29041), (152, 29053), (183, 29218), (192, 29260), (202, 29296),

Gene: KingstonB_84 Start: 52239, Stop: 53261, Start Num: 37

Candidate Starts for KingstonB_84:

(18, 52086), (37, 52239), (Start: 41 @52248 has 10 MA's), (66, 52434), (72, 52473), (77, 52491), (97, 52584), (113, 52653), (122, 52734), (130, 52773), (140, 52833), (146, 52869), (148, 52875), (155, 52908), (166, 52974), (178, 53031), (220, 53238),

Gene: Klevey_37 Start: 28353, Stop: 29405, Start Num: 41

Candidate Starts for Klevey_37:

(Start: 41 @28353 has 10 MA's), (72, 28563), (77, 28581), (97, 28671), (139, 28908), (140, 28911),

Gene: Kroos_48 Start: 41345, Stop: 42472, Start Num: 38

Candidate Starts for Kroos_48:

(27, 41276), (Start: 38 @41345 has 59 MA's), (51, 41384), (60, 41477), (64, 41519), (65, 41525), (72, 41576), (82, 41615), (101, 41705), (128, 41861), (133, 41882), (138, 41915), (145, 41957), (164, 42095), (187, 42209), (191, 42236), (201, 42296), (210, 42362), (219, 42395),

Gene: Kuleana_42 Start: 25383, Stop: 26405, Start Num: 43

Candidate Starts for Kuleana_42:

(Start: 43 @25383 has 28 MA's), (47, 25398), (53, 25425), (79, 25635), (81, 25641), (83, 25650), (97, 25722), (103, 25749), (107, 25776), (111, 25794), (117, 25863), (122, 25887), (126, 25911), (143, 26007), (149, 26034), (157, 26073), (189, 26226), (192, 26247), (200, 26271),

Gene: Kwekel_45 Start: 37890, Stop: 39044, Start Num: 38

Candidate Starts for Kwekel_45:

(Start: 38 @37890 has 59 MA's), (60, 38019), (64, 38061), (65, 38067), (72, 38118), (101, 38247), (105, 38253), (116, 38331), (122, 38373), (128, 38406), (133, 38427), (163, 38646), (171, 38691),

(177, 38715), (181, 38739), (190, 38790), (201, 38859), (203, 38871), (207, 38910), (208, 38919), (210, 38925), (213, 38940), (215, 38949), (223, 39006),

Gene: Kwobi_48 Start: 41331, Stop: 42458, Start Num: 38

Candidate Starts for Kwobi_48:

(27, 41262), (Start: 38 @41331 has 59 MA's), (51, 41370), (60, 41463), (64, 41505), (65, 41511), (72, 41562), (82, 41601), (101, 41691), (128, 41847), (133, 41868), (138, 41901), (145, 41943), (164, 42081), (187, 42195), (196, 42261), (198, 42270), (201, 42282), (210, 42348), (213, 42363), (219, 42381),

Gene: LeeroyJ_34 Start: 28804, Stop: 29823, Start Num: 44

Candidate Starts for LeeroyJ_34:

(Start: 44 @28804 has 23 MA's), (61, 28921), (72, 29005), (75, 29017), (79, 29035), (87, 29071), (120, 29245), (122, 29251), (134, 29308), (140, 29347), (146, 29383), (150, 29395), (152, 29407), (202, 29650), (221, 29770),

Gene: Lennon_48 Start: 42278, Stop: 43441, Start Num: 38

Candidate Starts for Lennon_48:

(Start: 38 @42278 has 59 MA's), (51, 42317), (60, 42410), (64, 42452), (65, 42458), (72, 42509), (80, 42542), (97, 42617), (101, 42638), (122, 42761), (128, 42794), (133, 42815), (145, 42890), (164, 43028), (187, 43142), (193, 43190), (195, 43205), (201, 43265), (210, 43331), (213, 43346), (219, 43364),

Gene: Leona_39 Start: 25074, Stop: 26087, Start Num: 43

Candidate Starts for Leona_39:

(31, 25050), (Start: 43 @25074 has 28 MA's), (47, 25089), (52, 25107), (67, 25257), (71, 25278), (79, 25320), (97, 25407), (103, 25434), (114, 25515), (116, 25524), (117, 25545), (126, 25593), (159, 25764), (165, 25794), (170, 25821), (179, 25860), (189, 25908), (200, 25953),

Gene: Leonard_47 Start: 40587, Stop: 41741, Start Num: 34

Candidate Starts for Leonard_47:

(Start: 34 @40587 has 8 MA's), (40, 40602), (55, 40671), (60, 40728), (62, 40737), (64, 40770), (65, 40776), (72, 40824), (82, 40863), (88, 40893), (93, 40911), (94, 40914), (96, 40923), (115, 41031), (120, 41076), (122, 41082), (128, 41115), (133, 41136), (144, 41199), (156, 41313), (163, 41355), (164, 41361), (190, 41499), (213, 41643), (223, 41709),

Gene: LilHam_45 Start: 39953, Stop: 41077, Start Num: 38

Candidate Starts for LilHam_45:

(27, 39884), (Start: 38 @39953 has 59 MA's), (51, 39989), (60, 40082), (64, 40124), (65, 40130), (72, 40181), (82, 40220), (101, 40310), (128, 40466), (133, 40487), (138, 40520), (145, 40562), (164, 40700), (187, 40814), (191, 40841), (201, 40901), (210, 40967), (219, 41000),

Gene: Lilbeanie_51 Start: 37513, Stop: 38625, Start Num: 32

Candidate Starts for Lilbeanie_51:

(Start: 32 @37513 has 2 MA's), (40, 37537), (62, 37675), (67, 37723), (72, 37753), (77, 37771), (92, 37837), (93, 37840), (97, 37864), (117, 37981), (122, 38005), (126, 38029), (146, 38137), (156, 38179), (200, 38395), (210, 38467), (217, 38497), (223, 38548),

Gene: Lilmac1015_39 Start: 28926, Stop: 29978, Start Num: 41

Candidate Starts for Lilmac1015_39:

(Start: 41 @28926 has 10 MA's), (72, 29136), (77, 29154), (97, 29244), (139, 29481), (140, 29484),

Gene: LittleTokyo_40 Start: 24933, Stop: 25961, Start Num: 43

Candidate Starts for LittleTokyo_40:

(Start: 43 @24933 has 28 MA's), (47, 24948), (67, 25128), (71, 25149), (81, 25197), (97, 25278), (100, 25290), (103, 25305), (123, 25452), (124, 25461), (126, 25467), (136, 25515), (153, 25608), (189, 25782), (192, 25803), (200, 25827), (204, 25857),

Gene: Love_52 Start: 42726, Stop: 43853, Start Num: 38

Candidate Starts for Love_52:

(Start: 38 @42726 has 59 MA's), (51, 42765), (60, 42858), (64, 42900), (65, 42906), (72, 42957), (80, 42990), (97, 43065), (101, 43086), (122, 43209), (128, 43242), (133, 43263), (145, 43338), (164, 43476), (187, 43590), (191, 43617), (201, 43677), (210, 43743), (213, 43758), (219, 43776),

Gene: Lunar_42 Start: 25723, Stop: 26745, Start Num: 43

Candidate Starts for Lunar_42:

(Start: 43 @25723 has 28 MA's), (47, 25738), (53, 25765), (56, 25801), (64, 25888), (81, 25981), (97, 26062), (103, 26089), (111, 26134), (116, 26182), (117, 26203), (126, 26251), (143, 26347), (149, 26374), (189, 26566), (192, 26587), (200, 26611),

Gene: Magsby_47 Start: 32459, Stop: 33469, Start Num: 45

Candidate Starts for Magsby_47:

(Start: 45 @32459 has 39 MA's), (57, 32534), (60, 32573), (62, 32582), (64, 32609), (72, 32660), (73, 32663), (78, 32687), (111, 32813), (116, 32864), (118, 32888), (120, 32900), (126, 32930), (161, 33122), (164, 33131), (167, 33149), (176, 33191), (185, 33239), (188, 33251), (212, 33380),

Gene: Martha_34 Start: 28721, Stop: 29740, Start Num: 44

Candidate Starts for Martha_34:

(Start: 44 @28721 has 23 MA's), (72, 28922), (75, 28934), (79, 28952), (86, 28982), (87, 28988), (120, 29162), (122, 29168), (134, 29225), (146, 29300), (152, 29324), (154, 29333), (168, 29411), (182, 29483), (183, 29489), (219, 29666),

Gene: Mask_63 Start: 49866, Stop: 50870, Start Num: 45

Candidate Starts for Mask_63:

(Start: 45 @49866 has 39 MA's), (62, 49989), (64, 50016), (72, 50067), (73, 50070), (78, 50094), (111, 50220), (116, 50271), (118, 50295), (120, 50307), (122, 50313), (126, 50337), (129, 50349), (161, 50529), (164, 50538), (169, 50559), (171, 50571), (184, 50634), (186, 50643), (200, 50700), (209, 50766), (212, 50781),

Gene: McKinley_50 Start: 42099, Stop: 43259, Start Num: 38

Candidate Starts for McKinley_50:

(Start: 38 @42099 has 59 MA's), (51, 42138), (60, 42231), (64, 42273), (65, 42279), (72, 42330), (80, 42363), (97, 42438), (101, 42459), (122, 42582), (128, 42615), (133, 42636), (145, 42711), (164, 42849), (187, 42963), (195, 43026), (201, 43086), (210, 43152), (213, 43167), (219, 43185),

Gene: MelBins_48 Start: 40737, Stop: 41921, Start Num: 34

Candidate Starts for MelBins_48:

(Start: 34 @40737 has 8 MA's), (55, 40821), (62, 40887), (64, 40920), (65, 40926), (72, 40974), (82, 41013), (88, 41043), (93, 41061), (94, 41064), (96, 41073), (120, 41223), (122, 41229), (128, 41262), (133, 41283), (144, 41346), (156, 41460), (163, 41502), (190, 41646), (193, 41667), (195, 41682), (213, 41823), (223, 41889),

Gene: Melons_42 Start: 25537, Stop: 26559, Start Num: 43

Candidate Starts for Melons_42:

(Start: 43 @25537 has 28 MA's), (47, 25552), (53, 25579), (56, 25615), (64, 25702), (81, 25795), (97, 25876), (103, 25903), (111, 25948), (116, 25996), (117, 26017), (126, 26065), (143, 26161), (149,

26188), (189, 26380), (192, 26401), (200, 26425),

Gene: Melville_50 Start: 32443, Stop: 33453, Start Num: 45

Candidate Starts for Melville_50:

(Start: 45 @32443 has 39 MA's), (57, 32518), (60, 32557), (62, 32566), (64, 32593), (72, 32644), (73, 32647), (78, 32671), (111, 32797), (116, 32848), (118, 32872), (120, 32884), (126, 32914), (161, 33106), (164, 33115), (167, 33133), (176, 33175), (185, 33223), (188, 33235), (212, 33364),

Gene: MoontowerMania_48 Start: 41934, Stop: 43061, Start Num: 38

Candidate Starts for MoontowerMania_48:

(Start: 38 @41934 has 59 MA's), (51, 41973), (60, 42066), (64, 42108), (65, 42114), (72, 42165), (80, 42198), (97, 42273), (101, 42294), (122, 42417), (128, 42450), (133, 42471), (145, 42546), (164, 42684), (187, 42798), (191, 42825), (201, 42885), (210, 42951), (213, 42966), (219, 42984),

Gene: NathanVaag_32 Start: 28464, Stop: 29492, Start Num: 44

Candidate Starts for NathanVaag_32:

(Start: 44 @28464 has 23 MA's), (61, 28581), (68, 28647), (72, 28665), (79, 28695), (86, 28725), (120, 28905), (134, 28968), (152, 29067), (183, 29232), (202, 29310),

Gene: Natkenzie_50 Start: 42409, Stop: 43563, Start Num: 38

Candidate Starts for Natkenzie_50:

(Start: 38 @42409 has 59 MA's), (51, 42448), (60, 42541), (62, 42550), (64, 42583), (65, 42589), (70, 42625), (72, 42640), (80, 42673), (82, 42679), (101, 42772), (128, 42928), (131, 42943), (144, 43012), (145, 43024), (146, 43042), (171, 43213), (187, 43288), (198, 43372), (208, 43444), (210, 43450), (223, 43531),

Gene: Nenae_51 Start: 33350, Stop: 34360, Start Num: 45

Candidate Starts for Nenae_51:

(Start: 45 @33350 has 39 MA's), (60, 33464), (62, 33473), (64, 33500), (72, 33551), (73, 33554), (89, 33620), (96, 33647), (116, 33755), (117, 33773), (120, 33791), (167, 34040), (185, 34130), (188, 34142), (200, 34190), (212, 34271),

Gene: Nordenberg_43 Start: 40917, Stop: 42038, Start Num: 38

Candidate Starts for Nordenberg_43:

(30, 40878), (Start: 38 @40917 has 59 MA's), (51, 40953), (60, 41046), (64, 41088), (65, 41094), (72, 41145), (80, 41178), (97, 41253), (101, 41274), (122, 41397), (128, 41430), (133, 41451), (145, 41526), (164, 41664), (187, 41778), (191, 41805), (201, 41865), (210, 41931), (213, 41946), (219, 41964),

Gene: Orcanus_38 Start: 25714, Stop: 26742, Start Num: 43

Candidate Starts for Orcanus_38:

(Start: 43 @25714 has 28 MA's), (47, 25729), (64, 25879), (76, 25951), (97, 26053), (101, 26074), (117, 26191), (122, 26215), (126, 26239), (132, 26272), (143, 26335), (149, 26362), (159, 26410), (189, 26554),

Gene: Panchino_44 Start: 32985, Stop: 33995, Start Num: 45

Candidate Starts for Panchino_44:

(Start: 45 @32985 has 39 MA's), (57, 33060), (60, 33099), (62, 33108), (64, 33135), (72, 33186), (73, 33189), (89, 33255), (96, 33282), (116, 33390), (117, 33408), (120, 33426), (167, 33675), (185, 33765), (188, 33777), (200, 33825), (212, 33906),

Gene: Paries_51 Start: 42388, Stop: 43509, Start Num: 38

Candidate Starts for Paries_51:

(30, 42349), (Start: 38 @42388 has 59 MA's), (51, 42424), (60, 42517), (64, 42559), (65, 42565), (72, 42616), (80, 42649), (97, 42724), (101, 42745), (122, 42868), (128, 42901), (133, 42922), (145, 42997), (164, 43135), (187, 43249), (191, 43276), (201, 43336), (210, 43402), (213, 43417), (219, 43435),

Gene: Parmesanjohn_47 Start: 32462, Stop: 33472, Start Num: 45

Candidate Starts for Parmesanjohn_47:

(Start: 45 @32462 has 39 MA's), (57, 32537), (60, 32576), (62, 32585), (64, 32612), (72, 32663), (73, 32666), (78, 32690), (111, 32816), (116, 32867), (118, 32891), (120, 32903), (126, 32933), (161, 33125), (164, 33134), (167, 33152), (176, 33194), (185, 33242), (188, 33254), (212, 33383),

Gene: PhancyPhin_51 Start: 33344, Stop: 34354, Start Num: 45

Candidate Starts for PhancyPhin_51:

(Start: 45 @33344 has 39 MA's), (60, 33458), (62, 33467), (64, 33494), (72, 33545), (73, 33548), (89, 33614), (96, 33641), (116, 33749), (117, 33767), (120, 33785), (167, 34034), (185, 34124), (188, 34136), (200, 34184), (212, 34265),

Gene: Phauci_40 Start: 37439, Stop: 38590, Start Num: 34

Candidate Starts for Phauci_40:

(Start: 34 @37439 has 8 MA's), (55, 37523), (62, 37589), (64, 37622), (65, 37628), (72, 37676), (82, 37715), (88, 37745), (90, 37754), (93, 37763), (94, 37766), (96, 37775), (120, 37925), (122, 37931), (128, 37964), (133, 37985), (144, 38048), (156, 38162), (163, 38204), (213, 38492), (223, 38558),

Gene: Phinally_47 Start: 40584, Stop: 41738, Start Num: 34

Candidate Starts for Phinally_47:

(Start: 34 @40584 has 8 MA's), (40, 40599), (55, 40668), (60, 40725), (62, 40734), (64, 40767), (65, 40773), (72, 40821), (82, 40860), (88, 40890), (93, 40908), (94, 40911), (96, 40920), (115, 41028), (120, 41073), (122, 41079), (128, 41112), (133, 41133), (144, 41196), (156, 41310), (163, 41352), (164, 41358), (190, 41496), (213, 41640), (223, 41706),

Gene: Phloss_45 Start: 31869, Stop: 32879, Start Num: 45

Candidate Starts for Phloss_45:

(Start: 45 @31869 has 39 MA's), (57, 31944), (60, 31983), (62, 31992), (64, 32019), (72, 32070), (73, 32073), (78, 32097), (111, 32223), (116, 32274), (118, 32298), (120, 32310), (126, 32340), (161, 32532), (164, 32541), (167, 32559), (176, 32601), (185, 32649), (188, 32661), (212, 32790),

Gene: PhluffyCoco_40 Start: 24999, Stop: 26012, Start Num: 43

Candidate Starts for PhluffyCoco_40:

(31, 24975), (Start: 43 @24999 has 28 MA's), (47, 25014), (71, 25203), (79, 25245), (81, 25251), (83, 25260), (97, 25332), (103, 25359), (114, 25440), (116, 25449), (117, 25470), (126, 25518), (159, 25689), (165, 25719), (170, 25746), (179, 25785), (189, 25833), (200, 25878),

Gene: Phrann_48 Start: 33627, Stop: 34637, Start Num: 45

Candidate Starts for Phrann_48:

(Start: 45 @33627 has 39 MA's), (60, 33741), (62, 33750), (64, 33777), (72, 33828), (73, 33831), (89, 33897), (96, 33924), (116, 34032), (117, 34050), (120, 34068), (167, 34317), (185, 34407), (188, 34419), (200, 34467), (212, 34548),

Gene: Piccoletto_32 Start: 28465, Stop: 29493, Start Num: 44

Candidate Starts for Piccoletto_32:

(Start: 44 @28465 has 23 MA's), (61, 28582), (68, 28648), (72, 28666), (79, 28696), (86, 28726), (120, 28906), (134, 28969), (152, 29068), (183, 29233), (202, 29311),

Gene: Pippa_34 Start: 28845, Stop: 29864, Start Num: 44

Candidate Starts for Pippa_34:

(Start: 44 @28845 has 23 MA's), (72, 29046), (75, 29058), (79, 29076), (87, 29112), (116, 29250), (120, 29286), (134, 29349), (146, 29424), (152, 29448), (154, 29457), (219, 29790), (221, 29811), (223, 29838),

Gene: Pipsqueaks_47 Start: 32439, Stop: 33449, Start Num: 45

Candidate Starts for Pipsqueaks_47:

(Start: 45 @32439 has 39 MA's), (57, 32514), (60, 32553), (62, 32562), (64, 32589), (72, 32640), (73, 32643), (78, 32667), (111, 32793), (116, 32844), (118, 32868), (120, 32880), (126, 32910), (161, 33102), (164, 33111), (167, 33129), (176, 33171), (185, 33219), (188, 33231), (212, 33360),

Gene: Polka_40 Start: 24913, Stop: 25935, Start Num: 43

Candidate Starts for Polka_40:

(Start: 43 @24913 has 28 MA's), (47, 24928), (53, 24955), (56, 24991), (64, 25078), (81, 25171), (97, 25252), (103, 25279), (111, 25324), (116, 25372), (117, 25393), (126, 25441), (143, 25537), (149, 25564), (189, 25756), (192, 25777), (200, 25801),

Gene: Prairie_36 Start: 28272, Stop: 29321, Start Num: 41

Candidate Starts for Prairie_36:

(Start: 41 @28272 has 10 MA's), (72, 28482), (77, 28500), (97, 28590), (139, 28827), (140, 28830),

Gene: Purgamenstris_51 Start: 33348, Stop: 34358, Start Num: 45

Candidate Starts for Purgamenstris_51:

(Start: 45 @33348 has 39 MA's), (60, 33462), (62, 33471), (64, 33498), (72, 33549), (73, 33552), (89, 33618), (96, 33645), (116, 33753), (117, 33771), (120, 33789), (167, 34038), (185, 34128), (188, 34140), (200, 34188), (212, 34269),

Gene: Raymond7_45 Start: 33136, Stop: 34146, Start Num: 45

Candidate Starts for Raymond7_45:

(Start: 45 @33136 has 39 MA's), (60, 33250), (62, 33259), (64, 33286), (72, 33337), (73, 33340), (89, 33406), (96, 33433), (116, 33541), (117, 33559), (120, 33577), (167, 33826), (185, 33916), (188, 33928), (200, 33976), (212, 34057),

Gene: Rebel_43 Start: 29478, Stop: 30488, Start Num: 45

Candidate Starts for Rebel_43:

(Start: 45 @29478 has 39 MA's), (60, 29592), (62, 29601), (64, 29628), (72, 29679), (73, 29682), (89, 29748), (96, 29775), (116, 29883), (117, 29901), (120, 29919), (167, 30168), (185, 30258), (188, 30270), (200, 30318), (212, 30399),

Gene: RedFox_40 Start: 24998, Stop: 26011, Start Num: 43

Candidate Starts for RedFox_40:

(31, 24974), (Start: 43 @24998 has 28 MA's), (47, 25013), (71, 25202), (79, 25244), (81, 25250), (83, 25259), (97, 25331), (103, 25358), (114, 25439), (116, 25448), (117, 25469), (126, 25517), (159, 25688), (165, 25718), (170, 25745), (179, 25784), (189, 25832), (200, 25877),

Gene: Redi_51 Start: 33347, Stop: 34357, Start Num: 45

Candidate Starts for Redi_51:

(Start: 45 @33347 has 39 MA's), (60, 33461), (62, 33470), (64, 33497), (72, 33548), (73, 33551), (89, 33617), (96, 33644), (116, 33752), (117, 33770), (120, 33788), (167, 34037), (185, 34127), (188, 34139), (200, 34187), (212, 34268),

Gene: Renna12_39 Start: 25056, Stop: 26069, Start Num: 43

Candidate Starts for Renna12_39:

(29, 25014), (Start: 43 @25056 has 28 MA's), (47, 25071), (66, 25230), (71, 25260), (79, 25302), (81, 25308), (83, 25317), (97, 25389), (103, 25416), (114, 25497), (116, 25506), (117, 25527), (159, 25746), (165, 25776), (170, 25803), (189, 25890), (200, 25935), (215, 26037), (218, 26046),

Gene: Ribeye_48 Start: 41766, Stop: 42890, Start Num: 38

Candidate Starts for Ribeye_48:

(27, 41697), (Start: 38 @41766 has 59 MA's), (51, 41802), (60, 41895), (64, 41937), (65, 41943), (72, 41994), (82, 42033), (101, 42123), (128, 42279), (133, 42300), (138, 42333), (145, 42375), (164, 42513), (187, 42627), (191, 42654), (201, 42714), (210, 42780), (219, 42813),

Gene: RiverRaider_49 Start: 40177, Stop: 41307, Start Num: 38

Candidate Starts for RiverRaider_49:

(Start: 38 @40177 has 59 MA's), (60, 40315), (62, 40324), (64, 40357), (65, 40363), (72, 40414), (80, 40447), (82, 40453), (90, 40489), (101, 40543), (122, 40666), (128, 40699), (133, 40720), (145, 40795), (164, 40933), (174, 40987), (187, 41047), (198, 41122), (202, 41137), (208, 41194), (210, 41200), (219, 41233),

Gene: RoadKill_43 Start: 37465, Stop: 38649, Start Num: 38

Candidate Starts for RoadKill_43:

(17, 37324), (Start: 38 @37465 has 59 MA's), (60, 37594), (64, 37636), (65, 37642), (72, 37693), (101, 37822), (122, 37948), (128, 37981), (133, 38002), (163, 38221), (171, 38266), (177, 38290), (181, 38314), (190, 38365), (194, 38392), (201, 38464), (203, 38476), (207, 38515), (208, 38524), (210, 38530), (213, 38545), (215, 38554), (223, 38611),

Gene: Rofo_48 Start: 41463, Stop: 42809, Start Num: 14

Candidate Starts for Rofo_48:

(4, 40968), (12, 41394), (Start: 14 @41463 has 1 MA's), (18, 41526), (21, 41565), (24, 41592), (51, 41721), (60, 41814), (64, 41856), (65, 41862), (72, 41913), (80, 41946), (97, 42021), (101, 42042), (122, 42165), (128, 42198), (133, 42219), (145, 42294), (164, 42432), (187, 42546), (191, 42573), (201, 42633), (210, 42699), (213, 42714), (219, 42732),

Gene: Rubeelu_50 Start: 33050, Stop: 34057, Start Num: 45

Candidate Starts for Rubeelu_50:

(13, 32807), (16, 32819), (19, 32885), (22, 32930), (Start: 45 @33050 has 39 MA's), (60, 33161), (62, 33170), (64, 33197), (72, 33248), (73, 33251), (86, 33308), (89, 33317), (111, 33401), (116, 33452), (118, 33476), (120, 33488), (164, 33719), (167, 33737), (171, 33758), (174, 33773), (185, 33827), (186, 33830), (188, 33839), (190, 33857), (200, 33887), (212, 33968),

Gene: Ruchi_37 Start: 25758, Stop: 26786, Start Num: 43

Candidate Starts for Ruchi_37:

(31, 25725), (Start: 43 @25758 has 28 MA's), (47, 25773), (64, 25923), (76, 25995), (81, 26016), (97, 26097), (102, 26121), (122, 26259), (126, 26283), (132, 26316), (143, 26379), (158, 26451), (189, 26598),

Gene: Sampson_50 Start: 42354, Stop: 43508, Start Num: 38

Candidate Starts for Sampson_50:

(Start: 38 @42354 has 59 MA's), (51, 42393), (60, 42486), (62, 42495), (64, 42528), (65, 42534), (70, 42570), (72, 42585), (80, 42618), (82, 42624), (101, 42717), (128, 42873), (131, 42888), (144, 42957), (145, 42969), (146, 42987), (171, 43158), (187, 43233), (198, 43317), (208, 43389), (210, 43395), (223, 43476),

Gene: Sanjuju_47 Start: 42328, Stop: 43452, Start Num: 38

Candidate Starts for Sanjuju_47:

(Start: 38 @42328 has 59 MA's), (51, 42364), (60, 42457), (64, 42499), (65, 42505), (72, 42556), (80, 42589), (97, 42664), (101, 42685), (116, 42766), (122, 42808), (128, 42841), (133, 42862), (145, 42937), (164, 43075), (187, 43189), (201, 43276), (210, 43342), (213, 43357), (219, 43375),

Gene: Saronaya_47 Start: 40605, Stop: 41738, Start Num: 38

Candidate Starts for Saronaya_47:

(27, 40536), (Start: 38 @40605 has 59 MA's), (60, 40743), (64, 40785), (65, 40791), (72, 40842), (80, 40875), (82, 40881), (83, 40884), (101, 40971), (128, 41127), (133, 41148), (145, 41223), (164, 41361), (187, 41475), (191, 41502), (201, 41562), (210, 41628), (213, 41643), (219, 41661),

Gene: Schnauzer_48 Start: 32462, Stop: 33472, Start Num: 45

Candidate Starts for Schnauzer_48:

(Start: 45 @32462 has 39 MA's), (57, 32537), (60, 32576), (62, 32585), (64, 32612), (72, 32663), (73, 32666), (78, 32690), (111, 32816), (116, 32867), (118, 32891), (120, 32903), (126, 32933), (161, 33125), (164, 33134), (167, 33152), (176, 33194), (185, 33242), (188, 33254), (212, 33383),

Gene: SchottB_46 Start: 41605, Stop: 42732, Start Num: 38

Candidate Starts for SchottB_46:

(27, 41536), (Start: 38 @41605 has 59 MA's), (51, 41644), (60, 41737), (64, 41779), (65, 41785), (72, 41836), (82, 41875), (101, 41965), (128, 42121), (133, 42142), (138, 42175), (145, 42217), (164, 42355), (187, 42469), (191, 42496), (201, 42556), (210, 42622), (219, 42655),

Gene: Scioto_51 Start: 42410, Stop: 43564, Start Num: 38

Candidate Starts for Scioto_51:

(Start: 38 @42410 has 59 MA's), (51, 42449), (60, 42542), (62, 42551), (64, 42584), (65, 42590), (70, 42626), (72, 42641), (80, 42674), (82, 42680), (101, 42773), (128, 42929), (131, 42944), (144, 43013), (145, 43025), (146, 43043), (171, 43214), (187, 43289), (198, 43373), (208, 43445), (210, 43451), (223, 43532),

Gene: Scitech_44 Start: 30478, Stop: 31488, Start Num: 45

Candidate Starts for Scitech_44:

(Start: 45 @30478 has 39 MA's), (57, 30553), (60, 30592), (62, 30601), (64, 30628), (72, 30679), (73, 30682), (78, 30706), (111, 30832), (116, 30883), (118, 30907), (120, 30919), (126, 30949), (161, 31141), (164, 31150), (167, 31168), (176, 31210), (185, 31258), (188, 31270), (212, 31399),

Gene: Sedona_48 Start: 41923, Stop: 43047, Start Num: 38

Candidate Starts for Sedona_48:

(30, 41884), (Start: 38 @41923 has 59 MA's), (51, 41959), (60, 42052), (64, 42094), (65, 42100), (72, 42151), (80, 42184), (97, 42259), (101, 42280), (122, 42403), (128, 42436), (133, 42457), (145, 42532), (164, 42670), (187, 42784), (201, 42871), (210, 42937), (213, 42952), (219, 42970),

Gene: Shade_34 Start: 28686, Stop: 29714, Start Num: 44

Candidate Starts for Shade_34:

(Start: 44 @28686 has 23 MA's), (54, 28722), (72, 28887), (79, 28917), (84, 28932), (91, 28968), (118, 29115), (120, 29127), (128, 29166), (146, 29265), (152, 29289), (154, 29298), (157, 29313), (183, 29454), (192, 29496),

Gene: Shivanishola_48 Start: 40593, Stop: 41753, Start Num: 38

Candidate Starts for Shivanishola_48:

(30, 40554), (Start: 38 @40593 has 59 MA's), (51, 40629), (60, 40722), (64, 40764), (65, 40770), (72, 40821), (80, 40854), (97, 40929), (101, 40950), (122, 41073), (128, 41106), (133, 41127), (145, 41202), (164, 41340), (187, 41454), (193, 41502), (195, 41517), (201, 41577), (210, 41643), (213,

41658), (219, 41676),

Gene: ShrimpFriedEgg_51 Start: 33347, Stop: 34357, Start Num: 45

Candidate Starts for ShrimpFriedEgg_51:

(Start: 45 @33347 has 39 MA's), (60, 33461), (62, 33470), (64, 33497), (72, 33548), (73, 33551), (89, 33617), (96, 33644), (116, 33752), (117, 33770), (120, 33788), (167, 34037), (185, 34127), (188, 34139), (200, 34187), (212, 34268),

Gene: Shweta_45 Start: 31406, Stop: 32416, Start Num: 45

Candidate Starts for Shweta_45:

(Start: 45 @31406 has 39 MA's), (60, 31520), (62, 31529), (64, 31556), (72, 31607), (73, 31610), (78, 31634), (83, 31649), (105, 31742), (111, 31760), (116, 31811), (118, 31835), (120, 31847), (122, 31853), (126, 31877), (129, 31889), (167, 32096), (185, 32186), (188, 32198), (200, 32246), (212, 32327),

Gene: Sicarius2_35 Start: 28313, Stop: 29347, Start Num: 42

Candidate Starts for Sicarius2_35:

(Start: 42 @28313 has 2 MA's), (48, 28322), (54, 28352), (72, 28520), (79, 28550), (84, 28565), (112, 28685), (118, 28748), (120, 28760), (126, 28790), (146, 28898), (152, 28922), (157, 28946), (182, 29081), (183, 29087), (199, 29153), (202, 29165),

Gene: Silvafighter_48 Start: 32435, Stop: 33445, Start Num: 45

Candidate Starts for Silvafighter_48:

(Start: 45 @32435 has 39 MA's), (57, 32510), (60, 32549), (62, 32558), (64, 32585), (72, 32636), (73, 32639), (78, 32663), (111, 32789), (116, 32840), (118, 32864), (120, 32876), (126, 32906), (161, 33098), (164, 33107), (167, 33125), (176, 33167), (185, 33215), (188, 33227), (212, 33356),

Gene: Sitar_48 Start: 42278, Stop: 43441, Start Num: 38

Candidate Starts for Sitar_48:

(Start: 38 @42278 has 59 MA's), (51, 42317), (60, 42410), (64, 42452), (65, 42458), (72, 42509), (80, 42542), (97, 42617), (101, 42638), (122, 42761), (128, 42794), (133, 42815), (145, 42890), (164, 43028), (187, 43142), (193, 43190), (195, 43205), (201, 43265), (210, 43331), (213, 43346), (219, 43364),

Gene: Smurph_47 Start: 32462, Stop: 33472, Start Num: 45

Candidate Starts for Smurph_47:

(Start: 45 @32462 has 39 MA's), (57, 32537), (60, 32576), (62, 32585), (64, 32612), (72, 32663), (73, 32666), (78, 32690), (111, 32816), (116, 32867), (118, 32891), (120, 32903), (126, 32933), (161, 33125), (164, 33134), (167, 33152), (176, 33194), (185, 33242), (188, 33254), (212, 33383),

Gene: Snekmaggedon_45 Start: 31639, Stop: 32649, Start Num: 45

Candidate Starts for Snekmaggedon_45:

(Start: 45 @31639 has 39 MA's), (57, 31714), (60, 31753), (62, 31762), (64, 31789), (72, 31840), (73, 31843), (89, 31909), (96, 31936), (116, 32044), (117, 32062), (120, 32080), (167, 32329), (185, 32419), (188, 32431), (200, 32479), (212, 32560),

Gene: Sonny_34 Start: 28716, Stop: 29744, Start Num: 44

Candidate Starts for Sonny_34:

(Start: 44 @28716 has 23 MA's), (54, 28752), (72, 28917), (79, 28947), (84, 28962), (118, 29145), (120, 29157), (128, 29196), (146, 29295), (152, 29319), (154, 29328), (157, 29343), (175, 29442), (183, 29484),

Gene: Soos_78 Start: 52041, Stop: 53054, Start Num: 41

Candidate Starts for Soos_78:

(18, 51879), (25, 51948), (37, 52032), (Start: 41 @52041 has 10 MA's), (66, 52227), (72, 52266), (77, 52284), (97, 52377), (113, 52446), (122, 52527), (130, 52566), (140, 52626), (146, 52662), (148, 52668), (155, 52701), (166, 52767), (178, 52824), (220, 53031),

Gene: SpongeBob_45 Start: 31639, Stop: 32649, Start Num: 45

Candidate Starts for SpongeBob_45:

(Start: 45 @31639 has 39 MA's), (57, 31714), (60, 31753), (62, 31762), (64, 31789), (72, 31840), (73, 31843), (89, 31909), (96, 31936), (116, 32044), (117, 32062), (120, 32080), (167, 32329), (185, 32419), (188, 32431), (200, 32479), (212, 32560),

Gene: StevieBAY_34 Start: 28804, Stop: 29823, Start Num: 44

Candidate Starts for StevieBAY_34:

(Start: 44 @28804 has 23 MA's), (61, 28921), (72, 29005), (75, 29017), (79, 29035), (87, 29071), (120, 29245), (122, 29251), (134, 29308), (140, 29347), (146, 29383), (150, 29395), (152, 29407), (202, 29650),

Gene: Sting_81 Start: 52480, Stop: 53493, Start Num: 41

Candidate Starts for Sting_81:

(18, 52318), (25, 52387), (37, 52471), (Start: 41 @52480 has 10 MA's), (66, 52666), (72, 52705), (77, 52723), (97, 52816), (113, 52885), (122, 52966), (130, 53005), (140, 53065), (146, 53101), (148, 53107), (155, 53140), (166, 53206), (178, 53263), (220, 53470),

Gene: StorminNorm_47 Start: 40696, Stop: 41823, Start Num: 38

Candidate Starts for StorminNorm_47:

(27, 40627), (Start: 38 @40696 has 59 MA's), (51, 40735), (60, 40828), (64, 40870), (65, 40876), (72, 40927), (82, 40966), (101, 41056), (128, 41212), (133, 41233), (138, 41266), (145, 41308), (164, 41446), (187, 41560), (191, 41587), (201, 41647), (210, 41713), (219, 41746),

Gene: Stultus_47 Start: 41231, Stop: 42394, Start Num: 38

Candidate Starts for Stultus_47:

(Start: 38 @41231 has 59 MA's), (51, 41270), (60, 41363), (64, 41405), (65, 41411), (72, 41462), (80, 41495), (97, 41570), (101, 41591), (122, 41714), (128, 41747), (133, 41768), (145, 41843), (164, 41981), (187, 42095), (193, 42143), (195, 42158), (201, 42218), (210, 42284), (213, 42299), (219, 42317),

Gene: TaeYoung_34 Start: 28721, Stop: 29740, Start Num: 44

Candidate Starts for TaeYoung_34:

(Start: 44 @28721 has 23 MA's), (72, 28922), (75, 28934), (79, 28952), (86, 28982), (87, 28988), (120, 29162), (122, 29168), (134, 29225), (146, 29300), (152, 29324), (154, 29333), (168, 29411), (182, 29483), (183, 29489), (219, 29666),

Gene: Tangent_49 Start: 41305, Stop: 42432, Start Num: 38

Candidate Starts for Tangent_49:

(Start: 38 @41305 has 59 MA's), (51, 41344), (60, 41437), (64, 41479), (65, 41485), (72, 41536), (80, 41569), (97, 41644), (101, 41665), (122, 41788), (128, 41821), (133, 41842), (145, 41917), (164, 42055), (187, 42169), (191, 42196), (201, 42256), (210, 42322), (213, 42337), (219, 42355),

Gene: Tangerine_47 Start: 40477, Stop: 41601, Start Num: 38

Candidate Starts for Tangerine_47:

(27, 40408), (Start: 38 @40477 has 59 MA's), (51, 40513), (60, 40606), (64, 40648), (65, 40654), (72, 40705), (82, 40744), (101, 40834), (116, 40915), (128, 40990), (133, 41011), (145, 41086), (164, 41224), (187, 41338), (191, 41365), (196, 41404), (201, 41425), (210, 41491), (219, 41524),

Gene: Tapioca_49 Start: 32428, Stop: 33438, Start Num: 45

Candidate Starts for Tapioca_49:

(Start: 45 @32428 has 39 MA's), (57, 32503), (60, 32542), (62, 32551), (64, 32578), (72, 32629), (73, 32632), (78, 32656), (111, 32782), (116, 32833), (118, 32857), (120, 32869), (126, 32899), (161, 33091), (164, 33100), (167, 33118), (176, 33160), (185, 33208), (188, 33220), (212, 33349),

Gene: Tardus_52 Start: 42085, Stop: 43260, Start Num: 38

Candidate Starts for Tardus_52:

(Start: 38 @42085 has 59 MA's), (51, 42124), (60, 42217), (62, 42226), (64, 42259), (65, 42265), (72, 42316), (80, 42349), (82, 42355), (101, 42448), (104, 42457), (122, 42592), (128, 42625), (131, 42640), (133, 42646), (144, 42709), (146, 42739), (171, 42910), (187, 42985), (198, 43069), (208, 43141), (210, 43147), (223, 43228),

Gene: TaylorSipt_38 Start: 25131, Stop: 26156, Start Num: 43

Candidate Starts for TaylorSipt_38:

(31, 25098), (Start: 43 @25131 has 28 MA's), (47, 25146), (53, 25173), (63, 25290), (64, 25296), (67, 25320), (86, 25416), (89, 25428), (93, 25446), (97, 25470), (100, 25482), (102, 25494), (117, 25608), (123, 25641), (135, 25695), (136, 25701), (143, 25749), (149, 25776), (189, 25968),

Gene: Thing3_46 Start: 40534, Stop: 41661, Start Num: 38

Candidate Starts for Thing3_46:

(Start: 38 @40534 has 59 MA's), (51, 40573), (60, 40666), (64, 40708), (65, 40714), (72, 40765), (80, 40798), (97, 40873), (101, 40894), (122, 41017), (128, 41050), (133, 41071), (145, 41146), (164, 41284), (187, 41398), (191, 41425), (201, 41485), (210, 41551), (213, 41566), (219, 41584),

Gene: ThulaThula_52 Start: 36104, Stop: 37114, Start Num: 45

Candidate Starts for ThulaThula_52:

(Start: 45 @36104 has 39 MA's), (60, 36218), (62, 36227), (64, 36254), (72, 36305), (73, 36308), (78, 36332), (111, 36458), (116, 36509), (120, 36545), (126, 36575), (164, 36776), (167, 36794), (170, 36812), (185, 36884), (188, 36896), (209, 37010), (212, 37025),

Gene: Tiamoceli_46 Start: 38786, Stop: 39940, Start Num: 38

Candidate Starts for Tiamoceli_46:

(17, 38645), (Start: 38 @38786 has 59 MA's), (60, 38915), (64, 38957), (65, 38963), (72, 39014), (101, 39143), (105, 39149), (116, 39227), (122, 39269), (128, 39302), (133, 39323), (163, 39542), (171, 39587), (177, 39611), (181, 39635), (190, 39686), (201, 39755), (203, 39767), (207, 39806), (208, 39815), (210, 39821), (213, 39836), (215, 39845), (223, 39902),

Gene: Timinator_34 Start: 28804, Stop: 29823, Start Num: 44

Candidate Starts for Timinator_34:

(Start: 44 @28804 has 23 MA's), (61, 28921), (72, 29005), (75, 29017), (79, 29035), (87, 29071), (120, 29245), (122, 29251), (134, 29308), (140, 29347), (146, 29383), (150, 29395), (152, 29407), (202, 29650), (221, 29770),

Gene: Tonitrus_67 Start: 48810, Stop: 49829, Start Num: 33

Candidate Starts for Tonitrus_67:

(Start: 33 @48810 has 1 MA's), (61, 48945), (64, 48984), (72, 49038), (77, 49056), (79, 49068), (97, 49146), (98, 49149), (109, 49194), (116, 49254), (120, 49287), (122, 49293), (129, 49329), (134, 49353), (139, 49389), (142, 49401), (146, 49428), (178, 49596), (191, 49668), (207, 49758),

Gene: TripleJ_54 Start: 32997, Stop: 33923, Start Num: 41

Candidate Starts for TripleJ_54:

(20, 32865), (Start: 41 @32997 has 10 MA's), (Start: 44 @33003 has 23 MA's), (59, 33111), (72, 33207), (74, 33213), (78, 33234), (106, 33354), (119, 33441), (120, 33450), (128, 33489), (136, 33528), (142, 33567), (154, 33627), (171, 33711), (186, 33774), (197, 33819),

Gene: TurkishDelight_59 Start: 49631, Stop: 50719, Start Num: 32

Candidate Starts for TurkishDelight_59:

(Start: 32 @49631 has 2 MA's), (59, 49781), (62, 49799), (64, 49826), (72, 49874), (82, 49913), (99, 49991), (110, 50042), (120, 50150), (122, 50156), (126, 50180), (136, 50222), (137, 50240), (152, 50312), (166, 50384), (186, 50483), (211, 50621),

Gene: Twonlo_43 Start: 37416, Stop: 38570, Start Num: 38

Candidate Starts for Twonlo_43:

(17, 37275), (Start: 38 @37416 has 59 MA's), (60, 37545), (64, 37587), (65, 37593), (72, 37644), (101, 37773), (122, 37899), (128, 37932), (133, 37953), (163, 38172), (171, 38217), (177, 38241), (181, 38265), (190, 38316), (201, 38385), (203, 38397), (207, 38436), (208, 38445), (210, 38451), (213, 38466), (215, 38475), (223, 38532),

Gene: Tycho_47 Start: 40564, Stop: 41691, Start Num: 38

Candidate Starts for Tycho_47:

(27, 40495), (Start: 38 @40564 has 59 MA's), (51, 40603), (60, 40696), (64, 40738), (65, 40744), (72, 40795), (82, 40834), (101, 40924), (128, 41080), (133, 41101), (138, 41134), (145, 41176), (164, 41314), (187, 41428), (191, 41455), (201, 41515), (210, 41581), (219, 41614),

Gene: ValentiniPuff_95 Start: 54258, Stop: 55337, Start Num: 49

Candidate Starts for ValentiniPuff_95:

(35, 54216), (Start: 49 @54258 has 1 MA's), (62, 54375), (72, 54453), (88, 54528), (109, 54639), (118, 54729), (120, 54741), (136, 54813), (172, 54993), (183, 55053), (189, 55077), (198, 55116), (200, 55122), (205, 55161), (216, 55233), (222, 55266),

Gene: Verity_50 Start: 43180, Stop: 44334, Start Num: 38

Candidate Starts for Verity_50:

(Start: 38 @43180 has 59 MA's), (51, 43219), (60, 43312), (62, 43321), (64, 43354), (65, 43360), (72, 43411), (80, 43444), (82, 43450), (101, 43543), (122, 43666), (128, 43699), (131, 43714), (133, 43720), (144, 43783), (145, 43795), (146, 43813), (171, 43984), (198, 44143), (210, 44221), (223, 44302),

Gene: ViaConlectus_50 Start: 41038, Stop: 42213, Start Num: 38

Candidate Starts for ViaConlectus_50:

(Start: 38 @41038 has 59 MA's), (Start: 44 @41050 has 23 MA's), (51, 41077), (60, 41170), (62, 41179), (64, 41212), (65, 41218), (70, 41254), (72, 41269), (80, 41302), (82, 41308), (101, 41401), (104, 41410), (122, 41545), (128, 41578), (129, 41581), (131, 41593), (133, 41599), (144, 41662), (146, 41692), (171, 41863), (187, 41938), (198, 42022), (208, 42094), (210, 42100), (213, 42115),

Gene: Vivi2_51 Start: 42332, Stop: 43459, Start Num: 38

Candidate Starts for Vivi2_51:

(Start: 38 @42332 has 59 MA's), (51, 42371), (60, 42464), (64, 42506), (65, 42512), (72, 42563), (80, 42596), (97, 42671), (101, 42692), (122, 42815), (128, 42848), (133, 42869), (145, 42944), (164, 43082), (187, 43196), (191, 43223), (201, 43283), (210, 43349), (213, 43364), (219, 43382),

Gene: Vulpecula_37 Start: 25435, Stop: 26463, Start Num: 43

Candidate Starts for Vulpecula_37:

(31, 25402), (Start: 43 @25435 has 28 MA's), (47, 25450), (64, 25600), (76, 25672), (79, 25687), (81, 25693), (97, 25774), (102, 25798), (122, 25936), (126, 25960), (132, 25993), (143, 26056), (158,

26128), (189, 26275),

Gene: Wyborn_35 Start: 28951, Stop: 29985, Start Num: 42

Candidate Starts for Wyborn_35:

(Start: 42 @28951 has 2 MA's), (48, 28960), (54, 28990), (72, 29158), (79, 29188), (84, 29203), (118, 29386), (120, 29398), (126, 29428), (146, 29536), (152, 29560), (157, 29584), (182, 29719), (183, 29725), (199, 29791), (202, 29803),

Gene: Xerxes_47 Start: 32459, Stop: 33469, Start Num: 45

Candidate Starts for Xerxes_47:

(Start: 45 @32459 has 39 MA's), (57, 32534), (60, 32573), (62, 32582), (64, 32609), (72, 32660), (73, 32663), (78, 32687), (111, 32813), (116, 32864), (118, 32888), (120, 32900), (126, 32930), (161, 33122), (164, 33131), (167, 33149), (176, 33191), (185, 33239), (188, 33251), (212, 33380),

Gene: YorkOnyx_48 Start: 40821, Stop: 41948, Start Num: 38

Candidate Starts for YorkOnyx_48:

(27, 40752), (Start: 38 @40821 has 59 MA's), (51, 40860), (60, 40953), (64, 40995), (65, 41001), (72, 41052), (82, 41091), (101, 41181), (128, 41337), (133, 41358), (138, 41391), (145, 41433), (164, 41571), (173, 41616), (187, 41685), (198, 41760), (201, 41772), (210, 41838), (213, 41853), (219, 41871),

Gene: Zartrosa_34 Start: 28629, Stop: 29648, Start Num: 44

Candidate Starts for Zartrosa_34:

(Start: 44 @28629 has 23 MA's), (72, 28830), (75, 28842), (79, 28860), (86, 28890), (120, 29070), (122, 29076), (134, 29133), (146, 29208), (152, 29232), (168, 29319), (182, 29391), (183, 29397), (219, 29574),

Gene: Zipp_51 Start: 43095, Stop: 44249, Start Num: 38

Candidate Starts for Zipp_51:

(Start: 38 @43095 has 59 MA's), (51, 43134), (60, 43227), (62, 43236), (64, 43269), (65, 43275), (72, 43326), (80, 43359), (82, 43365), (101, 43458), (122, 43581), (128, 43614), (131, 43629), (133, 43635), (144, 43698), (145, 43710), (146, 43728), (171, 43899), (198, 44058), (210, 44136), (223, 44217),

Gene: Zitch_53 Start: 41194, Stop: 42369, Start Num: 38

Candidate Starts for Zitch_53:

(Start: 38 @41194 has 59 MA's), (Start: 44 @41206 has 23 MA's), (51, 41233), (60, 41326), (62, 41335), (64, 41368), (65, 41374), (72, 41425), (80, 41458), (82, 41464), (101, 41557), (104, 41566), (122, 41701), (128, 41734), (131, 41749), (133, 41755), (144, 41818), (146, 41848), (171, 42019), (187, 42094), (198, 42178), (208, 42250), (210, 42256), (223, 42337),

Gene: phiAsp2_49 Start: 37965, Stop: 39083, Start Num: 28

Candidate Starts for phiAsp2_49:

(28, 37965), (50, 38061), (58, 38139), (66, 38214), (70, 38241), (72, 38250), (78, 38277), (79, 38280), (83, 38292), (95, 38346), (99, 38367), (106, 38412), (108, 38418), (140, 38643), (141, 38646), (151, 38700), (158, 38733), (160, 38757), (199, 38928), (205, 38964), (207, 38994), (214, 39033), (221, 39069),