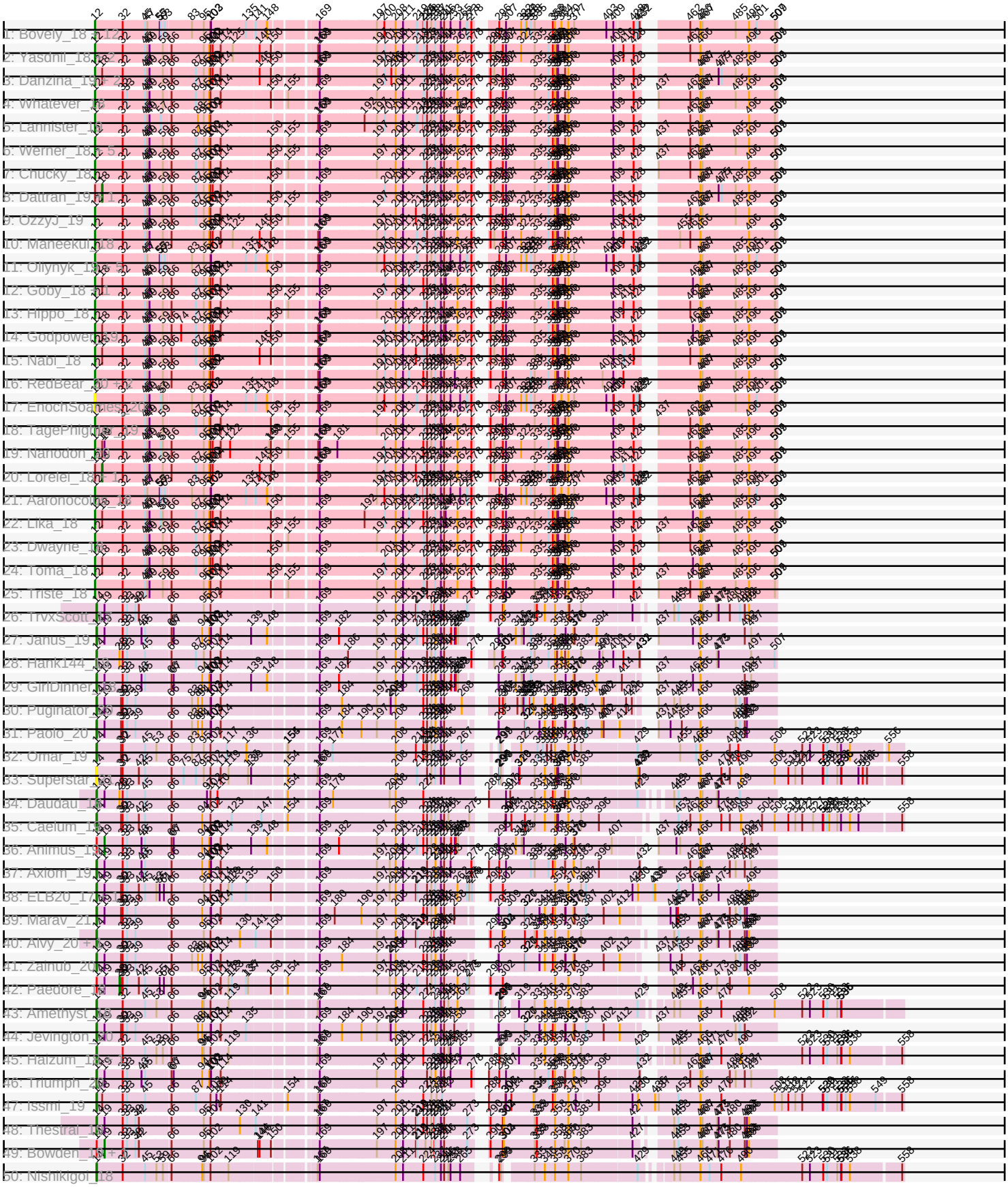
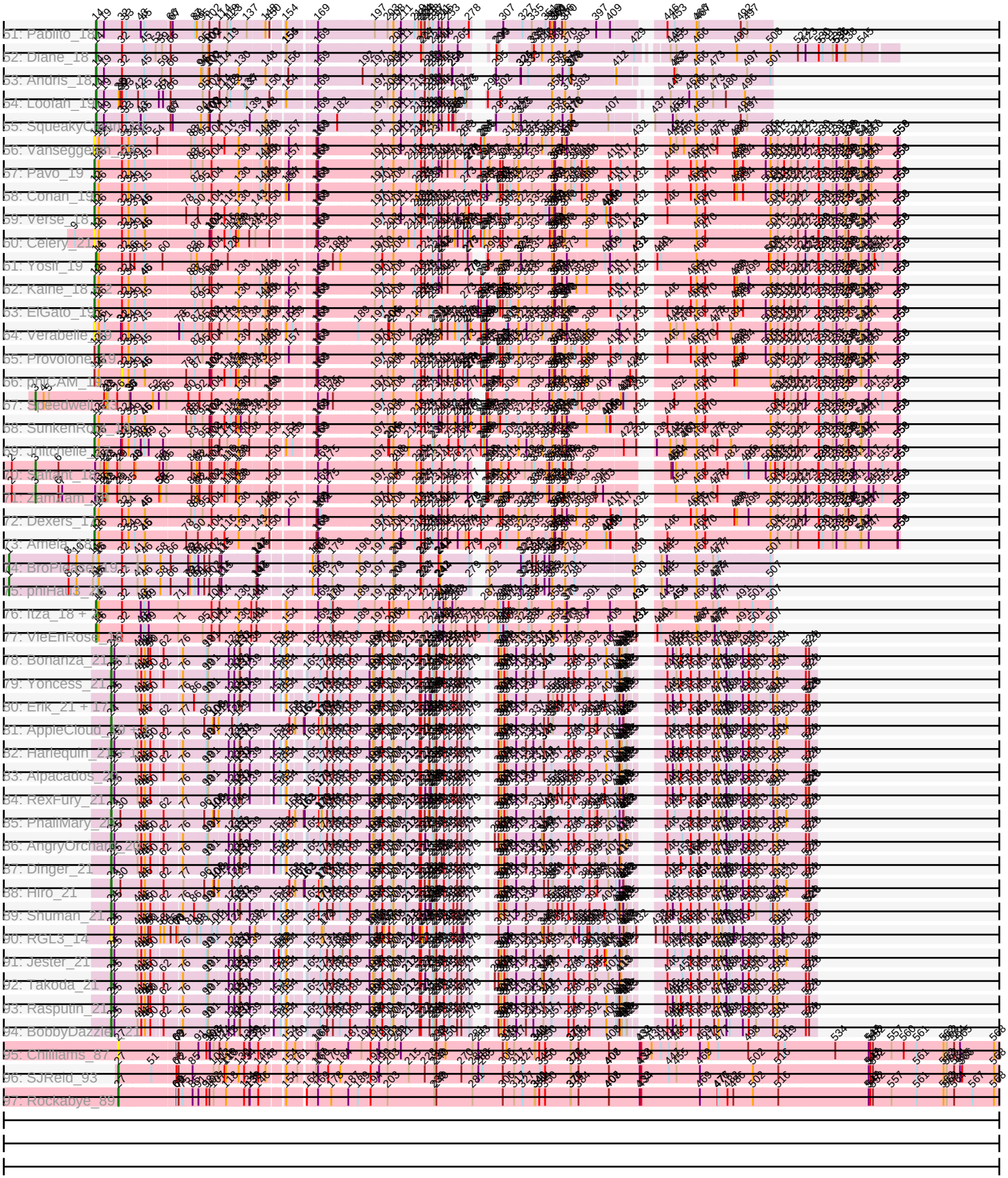
Pham 347338



Pham 347338



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 347338 Report

This analysis was run 11/14/26 on database version 672.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 347338 has 157 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Bovely_18, Esperer_18, SunsetPointe_18, Leviticus_18, Indigo_18, Ozzie_18, Caliburn_18, Unstoppable_18, Hydra_20, BeardedLady_19, Legacy_18, Phettuccine_18, Nerdos_18
• Track 2 : Yasdnil_18, TuanPN_18, Ejemplo_18
• Track 3 : Danzina_19, Brataylor_19, Zemlya_19
• Track 4 : Whatever_18
• Track 5 : Lannister_19
• Track 6 : Werner_18, Snorlax_18, SarahRose_18, BarryBee_20, Asten_18, Emaanora_20
• Track 7 : Chucky_18
• Track 8 : Dattran_19, Celeste_18
• Track 9 : OzzyJ_19
• Track 10 : Maneekul_18
• Track 11 : Oliynyk_19, BryanRecycles_19, Rusticus_19, Eddasa_19, Izzy_19, Jash_19
• Track 12 : Goby_18, Sujidade_19
• Track 13 : Hippo_18
• Track 14 : Godpower_19
• Track 15 : Nabi_18
• Track 16 : RedBear_20, Katalie_19, South40_19
• Track 17 : EnochSoames_20
• Track 18 : TagePhighter_19
• Track 19 : Nanodon_20
• Track 20 : Lorelei_18, Rana_18
• Track 21 : Aaronocolus_18
• Track 22 : Lika_18
• Track 23 : Dwayne_18
• Track 24 : Toma_18
• Track 25 : Triste_18
• Track 26 : TrvxScott_17
• Track 27 : Janus_19
• Track 28 : Hank144_19
• Track 29 : GirlDinner_18

• Track 30 : Puginator_20
• Track 31 : Paolo_20
• Track 32 : Omar_19
• Track 33 : Superstar_21
• Track 34 : Daudau_18
• Track 35 : Caelum_19
• Track 36 : Animus_19
• Track 37 : Axiom_19
• Track 38 : ELB20_17, R4_18
• Track 39 : Marav_21
• Track 40 : Alvy_20, BartholomewSD_20
• Track 41 : Zainub_20
• Track 42 : Paedore_18
• Track 43 : Amethyst_18
• Track 44 : Jevington_20
• Track 45 : Haizum_18, Tefunt_18
• Track 46 : Triumph_20
• Track 47 : Issmi_19
• Track 48 : Thestral_19
• Track 49 : Bowden_19, TinaBelcher_18
• Track 50 : Nishikigoi_18
• Track 51 : Pablito_18
• Track 52 : Diane_18
• Track 53 : Andris_18
• Track 54 : Loofah_19
• Track 55 : SqueakyClean_19
• Track 56 : Vanseggelen_23
• Track 57 : Pavo_19
• Track 58 : Conan_19
• Track 59 : Verse_18
• Track 60 : Celery_21
• Track 61 : Yosif_19
• Track 62 : Kaine_18, Alsaber_19, Sudan_18
• Track 63 : ElGato_19
• Track 64 : Verabelle_19
• Track 65 : Provolone_19
• Track 66 : phiCAM_19
• Track 67 : Speedwell_23
• Track 68 : SunkenRoot_18
• Track 69 : Jhitchelle_17
• Track 70 : Saftant_18
• Track 71 : ZamZam_18
• Track 72 : Dexers_17
• Track 73 : Amela_18
• Track 74 : BroPlease_19, GreenWeasel_20
• Track 75 : phiHau3_20
• Track 76 : Itza_18, Celia_18, Urza_18
• Track 77 : VieEnRose_18
• Track 78 : Bonanza_21, Yogi_21
• Track 79 : Yoncess_21
• Track 80 : Erik_21, RER2_14, Naiad_21, Espica_21, CosmicSans_21, TWAMP_21, Swann_21, Bradshaw_21, Lillie_21, Nancinator_21, Gollum_21, StCroix_21, Alatin_21, Rhodalysa_21, Natosaleda_21, Belenaria_21, Phrankenstein_21,

UhSalsa_21
• Track 81 : AppleCloud_19, Krishelle_21
• Track 82 : Harlequin_21, Bryce_21
• Track 83 : Alpacados_20
• Track 84 : RexFury_21
• Track 85 : PhailMary_20
• Track 86 : AngryOrchard_20
• Track 87 : Dinger_21
• Track 88 : Hiro_21
• Track 89 : Shuman_21
• Track 90 : RGL3_14
• Track 91 : Jester_21
• Track 92 : Takoda_21
• Track 93 : Rasputin_21
• Track 94 : BobbyDazzler_21
• Track 95 : Chilliams_87
• Track 96 : SJReid_93
• Track 97 : Rockabye_89

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

The start number called the most often in the published annotations is 12, it was called in 62 of the 148 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_18, Alsaber_19, Amela_18, Asten_18, BarryBee_20, BeardedLady_19, Bovely_18, Brataylor_19, BryanRecycles_19, Caliburn_18, Celery_21, Chucky_18, Conan_19, Danzina_19, Dexers_17, Dwayne_18, Eddasa_19, Ejemplo_18, ElGato_19, Emaanora_20, EnochSoames_20, Esperer_18, Goby_18, Godpower_19, Hippo_18, Hydra_20, Indigo_18, Izzy_19, Jash_19, Jhitchelle_17, Kaine_18, Katalie_19, Lannister_19, Legacy_18, Leviticus_18, Lika_18, Maneekul_18, Nabi_18, Nanodon_20, Nerdos_18, Oliynyk_19, Ozzie_18, OzzyJ_19, Pavo_19, Phettuccine_18, RedBear_20, Rusticus_19, SarahRose_18, Snorlax_18, South40_19, Sudan_18, Sujidade_19, SunkenRoot_18, SunsetPointe_18, TagePhighter_19, Toma_18, Triste_18, TuanPN_18, Unstoppable_18, Vanseggelen_23, Verabelle_19, Verse_18, Werner_18, Whatever_18, Yasdnil_18, Zemlya_19,

Genes that have the "Most Annotated" start but do not call it:
• Celeste_18, Dattran_19, Lorelei_18, Provolone_19, Rana_18, phiCAM_19,

Genes that do not have the "Most Annotated" start:
• Alatin_21, Alpacados_20, Alvy_20, Amethyst_18, Andris_18, AngryOrchard_20, Animus_19, AppleCloud_19, Axiom_19, BartholomewSD_20, Belenaria_21, BobbyDazzler_21, Bonanza_21, Bowden_19, Bradshaw_21, BroPlease_19, Bryce_21, Caelum_19, Celia_18, Chilliams_87, CosmicSans_21, Daudau_18, Diane_18, Dinger_21, ELB20_17, Erik_21, Espica_21, GirlDinner_18, Gollum_21, GreenWeasel_20, Haizum_18, Hank144_19, Harlequin_21, Hiro_21, Issmi_19, Itza_18, Janus_19, Jester_21, Jevington_20, Krishelle_21, Lillie_21, Loofah_19, Marav_21, Naiad_21, Nancinator_21, Natosaleda_21, Nishikigoi_18, Omar_19,

Pablito_18, Paedore_18, Paolo_20, PhailMary_20, Phrankenstein_21, Puginator_20, R4_18, RER2_14, RGL3_14, Rasputin_21, RexFury_21, Rhodalysa_21, Rockabye_89, SJReid_93, Saftant_18, Shuman_21, Speedwell_23, SqueakyClean_19, StCroix_21, Superstar_21, Swann_21, TWAMP_21, Takoda_21, Tefunt_18, Thestral_19, TinaBelcher_18, Triumph_20, TrvxScott_17, UhSalsa_21, Urza_18, VieEnRose_18, Yogi_21, Yoncess_21, Yosif_19, Zainub_20, ZamZam_18, phiHau3_20,

Summary by start number:

Start 1:
• Found in 3 of 157 (1.9%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BroPlease_19 (BD4), GreenWeasel_20 (BD4), phiHau3_20 (BD4),

Start 3:
• Found in 3 of 157 (1.9%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Saftant_18 (BD3), Speedwell_23 (BD3), ZamZam_18 (BD3),

Start 12:
• Found in 72 of 157 (45.9%) of genes in pham
• Manual Annotations of this start: 62 of 148
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Aaronocolus_18 (BD1), Alsaber_19 (BD3), Amela_18 (BD3), Asten_18 (BD1), BarryBee_20 (BD1), BeardedLady_19 (BD1), Bovely_18 (BD1), Brataylor_19 (BD1), BryanRecycles_19 (BD1), Caliburn_18 (BD1), Celery_21 (BD3), Chucky_18 (BD1), Conan_19 (BD3), Danzina_19 (BD1), Dexers_17 (BD3), Dwayne_18 (BD1), Eddasa_19 (BD1), Ejemplo_18 (BD1), ElGato_19 (BD3), Emaanora_20 (BD1), EnochSoames_20 (BD1), Esperer_18 (BD1), Goby_18 (BD1), Godpower_19 (BD1), Hippo_18 (BD1), Hydra_20 (BD1), Indigo_18 (BD1), Izzy_19 (BD1), Jash_19 (BD1), Jhitchelle_17 (BD3), Kaine_18 (BD3), Katalie_19 (BD1), Lannister_19 (BD1), Legacy_18 (BD1), Leviticus_18 (BD1), Lika_18 (BD1), Maneekul_18 (BD1), Nabi_18 (BD1), Nanodon_20 (BD1), Nerdos_18 (BD1), Oliynyk_19 (BD1), Ozzie_18 (BD1), OzzyJ_19 (BD1), Pavo_19 (BD3), Phettuccine_18 (BD1), RedBear_20 (BD1), Rusticus_19 (BD1), SarahRose_18 (BD1), Snorlax_18 (BD1), South40_19 (BD1), Sudan_18 (BD3), Sujidade_19 (BD1), SunkenRoot_18 (BD3), SunsetPointe_18 (BD1), TagePhighter_19 (BD1), Toma_18 (BD1), Triste_18 (BD1), TuanPN_18 (BD1), Unstoppable_18 (BD1), Vanseggelen_23 (BD3), Verabelle_19 (BD3), Verse_18 (BD3), Werner_18 (BD1), Whatever_18 (BD1), Yasdnil_18 (BD1), Zemlya_19 (BD1),

Start 14:
• Found in 39 of 157 (24.8%) of genes in pham
• Manual Annotations of this start: 34 of 148
• Called 89.7% of time when present
• Phage (with cluster) where this start called: Alvy_20 (BD2), Amethyst_18 (BD2), Andris_18 (BD2), Axiom_19 (BD2), BartholomewSD_20 (BD2), Caelum_19 (BD2), Celia_18 (BD6), Daudau_18 (BD2), Diane_18 (BD2), ELB20_17 (BD2), GirlDinner_18

(BD2), Haizum_18 (BD2), Hank144_19 (BD2), Issmi_19 (BD2), Itza_18 (BD6), Janus_19 (BD2), Jevington_20 (BD2), Loofah_19 (BD2), Marav_21 (BD2), Nishikigoi_18 (BD2), Omar_19 (BD2), Pablito_18 (BD2), Paolo_20 (BD2), Puginator_20 (BD2), R4_18 (BD2), SqueakyClean_19 (BD2), Superstar_21 (BD2), Tefunt_18 (BD2), Thestral_19 (BD2), Triumph_20 (BD2), TrvxScott_17 (BD2), Urza_18 (BD6), VieEnRose_18 (BD6), Yosif_19 (BD3), Zainub_20 (BD2),

Start 16:
• Found in 24 of 157 (15.3%) of genes in pham
• Manual Annotations of this start: 1 of 148
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Provolone_19 (BD3),

Start 18:
• Found in 15 of 157 (9.6%) of genes in pham
• Manual Annotations of this start: 4 of 148
• Called 26.7% of time when present
• Phage (with cluster) where this start called: Celeste_18 (BD1), Dattran_19 (BD1), Lorelei_18 (BD1), Rana_18 (BD1),

Start 19:
• Found in 23 of 157 (14.6%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 13.0% of time when present
• Phage (with cluster) where this start called: Animus_19 (BD2), Bowden_19 (BD2), TinaBelcher_18 (BD2),

Start 24:
• Found in 37 of 157 (23.6%) of genes in pham
• Manual Annotations of this start: 35 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alatin_21 (CA), Alpacados_20 (CA), AngryOrchard_20 (CA), AppleCloud_19 (CA), Belenaria_21 (CA), BobbyDazzler_21 (CA), Bonanza_21 (CA), Bradshaw_21 (CA), Bryce_21 (CA), CosmicSans_21 (CA), Dinger_21 (CA), Erik_21 (CA), Espica_21 (CA), Gollum_21 (CA), Harlequin_21 (CA), Hiro_21 (CA), Jester_21 (CA), Krishelle_21 (CA), Lillie_21 (CA), Naiad_21 (CA), Nancinator_21 (CA), Natosaleda_21 (CA), PhailMary_20 (CA), Phrankenstein_21 (CA), RER2_14 (CA), RGL3_14 (CA), Rasputin_21 (CA), RexFury_21 (CA), Rhodalysa_21 (CA), Shuman_21 (CA), StCroix_21 (CA), Swann_21 (CA), TWAMP_21 (CA), Takoda_21 (CA), UhSalsa_21 (CA), Yogi_21 (CA), Yoncess_21 (CA),

Start 27:
• Found in 3 of 157 (1.9%) of genes in pham
• Manual Annotations of this start: 2 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chilliams_87 (FC), Rockabye_89 (FC), SJReid_93 (FC),

Start 28:
• Found in 4 of 157 (2.5%) of genes in pham
• Manual Annotations of this start: 1 of 148
• Called 25.0% of time when present

• Phage (with cluster) where this start called: Paedore_18 (BD2),

Start 32:
• Found in 114 of 157 (72.6%) of genes in pham
• No Manual Annotations of this start.
• Called 0.9% of time when present
• Phage (with cluster) where this start called: phiCAM_19 (BD3),

Summary by clusters:

There are 7 clusters represented in this pham: CA, BD4, FC, BD1, BD6, BD3, BD2,

Info for manual annotations of cluster BD1:
•Start number 12 was manually annotated 51 times for cluster BD1.
•Start number 18 was manually annotated 4 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 14 was manually annotated 29 times for cluster BD2.
•Start number 19 was manually annotated 3 times for cluster BD2.
•Start number 28 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 3 was manually annotated 3 times for cluster BD3.
•Start number 12 was manually annotated 11 times for cluster BD3.
•Start number 14 was manually annotated 1 time for cluster BD3.
•Start number 16 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD4:
•Start number 1 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:
•Start number 14 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster CA:
•Start number 24 was manually annotated 35 times for cluster CA.

Info for manual annotations of cluster FC:
•Start number 27 was manually annotated 2 times for cluster FC.

Gene Information:

Gene: Aaronocolus_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Aaronocolus_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (353, 13889), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507,

14975), (509, 14978),

Gene: Alatin_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Alatin_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Alpacados_20 Start: 12060, Stop: 15407, Start Num: 24
Candidate Starts for Alpacados_20:
(Start: 24 @12060 has 35 MA's), (25, 12078), (41, 12201), (44, 12222), (46, 12243), (50, 12273), (62, 12312), (76, 12387), (99, 12483), (101, 12492), (121, 12567), (127, 12588), (131, 12609), (132, 12615), (139, 12663), (151, 12735), (153, 12774), (154, 12783), (165, 12837), (171, 12897), (174, 12936), (180, 12969), (183, 13008), (188, 13065), (193, 13176), (196, 13197), (197, 13206), (200, 13248), (207, 13299), (208, 13311), (212, 13383), (213, 13386), (222, 13458), (224, 13467), (232, 13509), (234, 13515), (237, 13533), (239, 13542), (240, 13554), (248, 13596), (255, 13626), (264, 13671), (270, 13695), (279, 13740), (300, 13791), (303, 13803), (304, 13806), (308, 13824), (311, 13839), (319, 13890), (330, 13944), (337, 13986), (347, 14040), (348, 14043), (357, 14085), (374, 14181), (380, 14211), (392, 14295), (406, 14385), (411, 14421), (413, 14433), (415, 14442), (418, 14451), (419, 14457), (423, 14475), (425, 14484), (446, 14598), (451, 14619), (455, 14640), (458, 14664), (464, 14718), (468, 14763), (474, 14835), (478, 14859), (481, 14904), (483, 14922), (493, 14997), (500, 15030), (503, 15072), (510, 15165), (514, 15189), (524, 15345), (528, 15363),

Gene: Alsaber_19 Start: 11562, Stop: 15674, Start Num: 12
Candidate Starts for Alsaber_19:
(Start: 12 @11562 has 62 MA's), (Start: 16 @11586 has 1 MA's), (32, 11706), (34, 11739), (45, 11817), (46, 11820), (83, 12060), (87, 12081), (95, 12123), (102, 12159), (104, 12171), (130, 12297), (147, 12393), (148, 12423), (150, 12444), (157, 12516), (168, 12615), (169, 12624), (197, 12930), (201, 12966), (208, 13026), (219, 13137), (224, 13173), (228, 13194), (237, 13239), (241, 13272), (246, 13290), (252, 13323), (278, 13443), (279, 13446), (284, 13512), (285, 13521), (299, 13605), (302, 13614), (306, 13629), (322, 13704), (329, 13740), (335, 13779), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (373, 13977), (382, 14031), (388, 14085), (410, 14214), (417, 14259), (432, 14346), (464, 14544), (466, 14574), (470, 14616), (488, 14775), (490, 14787), (499, 14850), (508, 14964), (515, 15003), (521, 15075), (522, 15114), (523, 15156), (530, 15231), (531, 15252), (533, 15309), (535, 15330), (538, 15378), (539, 15381), (540, 15396), (543, 15459), (544, 15468), (547, 15510), (558, 15660), (559, 15663),

Gene: Alvy_20 Start: 11699, Stop: 14998, Start Num: 14
Candidate Starts for Alvy_20:
(Start: 14 @11699 has 34 MA's), (32, 11834), (33, 11855), (39, 11897), (66, 12074), (95, 12245), (102, 12281), (130, 12419), (141, 12488), (150, 12566), (169, 12749), (197, 13052), (208, 13148), (211, 13181), (218, 13253), (219, 13259), (233, 13340), (236, 13358), (237, 13361), (241, 13394), (246, 13412), (290, 13586), (302, 13649), (304, 13655), (326, 13760), (335, 13814), (338, 13826), (346,

13871), (358, 13928), (370, 14003), (383, 14075), (449, 14468), (453, 14492), (466, 14609), (467, 14621), (473, 14690), (475, 14699), (480, 14762), (492, 14840), (493, 14852), (496, 14864),

Gene: Amela_18 Start: 11854, Stop: 15966, Start Num: 12
Candidate Starts for Amela_18:
(Start: 12 @11854 has 62 MA's), (Start: 16 @11878 has 1 MA's), (32, 11998), (34, 12031), (39, 12061), (45, 12109), (46, 12112), (78, 12328), (90, 12388), (104, 12463), (116, 12526), (130, 12589), (143, 12664), (150, 12736), (168, 12907), (169, 12916), (197, 13222), (201, 13258), (208, 13318), (211, 13351), (219, 13429), (224, 13465), (228, 13486), (231, 13504), (237, 13531), (241, 13564), (246, 13582), (252, 13615), (265, 13672), (274, 13717), (278, 13735), (284, 13804), (302, 13906), (309, 13933), (322, 13996), (335, 14071), (351, 14149), (358, 14185), (360, 14197), (361, 14203), (366, 14242), (370, 14260), (388, 14377), (405, 14476), (406, 14482), (409, 14503), (410, 14506), (432, 14638), (446, 14716), (466, 14866), (470, 14908), (508, 15256), (515, 15295), (521, 15367), (522, 15406), (530, 15523), (531, 15544), (533, 15601), (535, 15622), (538, 15670), (539, 15673), (543, 15751), (544, 15760), (547, 15802), (558, 15952), (559, 15955),

Gene: Amethyst_18 Start: 11541, Stop: 15449, Start Num: 14
Candidate Starts for Amethyst_18:
(Start: 14 @11541 has 34 MA's), (32, 11676), (45, 11787), (53, 11850), (66, 11919), (94, 12081), (95, 12090), (102, 12126), (119, 12213), (167, 12582), (169, 12591), (208, 12990), (211, 13023), (224, 13137), (237, 13203), (241, 13236), (246, 13254), (251, 13278), (262, 13329), (296, 13428), (297, 13431), (299, 13437), (319, 13482), (335, 13569), (346, 13626), (358, 13683), (370, 13758), (383, 13830), (429, 14124), (449, 14223), (455, 14256), (466, 14364), (476, 14469), (508, 14754), (522, 14904), (523, 14946), (530, 15021), (531, 15042), (533, 15099), (535, 15120), (536, 15123),

Gene: Andris_18 Start: 11508, Stop: 14702, Start Num: 14
Candidate Starts for Andris_18:
(Start: 14 @11508 has 34 MA's), (Start: 19 @11547 has 3 MA's), (32, 11643), (45, 11754), (59, 11850), (66, 11886), (94, 12048), (95, 12057), (100, 12087), (102, 12093), (114, 12150), (130, 12231), (148, 12357), (156, 12447), (169, 12561), (192, 12795), (197, 12864), (203, 12927), (208, 12960), (211, 12993), (228, 13128), (233, 13152), (237, 13173), (241, 13206), (246, 13224), (258, 13281), (259, 13284), (295, 13371), (324, 13476), (325, 13479), (333, 13518), (358, 13653), (367, 13713), (375, 13749), (376, 13758), (378, 13764), (412, 13995), (452, 14193), (455, 14205), (466, 14313), (473, 14394), (497, 14580), (507, 14691),

Gene: AngryOrchard_20 Start: 12043, Stop: 15390, Start Num: 24
Candidate Starts for AngryOrchard_20:
(Start: 24 @12043 has 35 MA's), (25, 12061), (41, 12184), (44, 12205), (46, 12226), (50, 12256), (62, 12295), (76, 12370), (99, 12466), (101, 12475), (121, 12550), (127, 12571), (131, 12592), (132, 12598), (139, 12646), (151, 12718), (153, 12757), (154, 12766), (165, 12820), (171, 12880), (174, 12919), (180, 12952), (183, 12991), (188, 13048), (193, 13159), (196, 13180), (197, 13189), (200, 13231), (207, 13282), (208, 13294), (212, 13366), (213, 13369), (222, 13441), (224, 13450), (229, 13474), (237, 13516), (239, 13525), (240, 13537), (248, 13579), (255, 13609), (264, 13654), (270, 13678), (279, 13723), (294, 13753), (300, 13774), (303, 13786), (304, 13789), (308, 13807), (311, 13822), (319, 13873), (337, 13969), (346, 14014), (347, 14023), (348, 14026), (357, 14068), (374, 14164), (380, 14194), (392, 14278), (395, 14305), (407, 14380), (415, 14425), (418, 14434), (424, 14461), (446, 14581), (459, 14656), (464, 14701), (468, 14746), (474, 14818), (478, 14842), (481, 14887), (483, 14905), (493, 14980), (500, 15013), (503, 15055), (510, 15148), (514, 15172), (524, 15328), (528, 15346),

Gene: Animus_19 Start: 11880, Stop: 15038, Start Num: 19
Candidate Starts for Animus_19:

(Start: 14 @11841 has 34 MA's), (Start: 19 @11880 has 3 MA's), (32, 11979), (33, 12000), (43, 12072), (45, 12090), (66, 12222), (67, 12234), (94, 12384), (100, 12423), (102, 12429), (103, 12432), (114, 12486), (139, 12621), (148, 12693), (169, 12897), (182, 13005), (197, 13200), (208, 13296), (211, 13329), (219, 13407), (224, 13443), (228, 13464), (233, 13488), (237, 13509), (238, 13512), (241, 13542), (246, 13560), (254, 13599), (259, 13620), (260, 13626), (263, 13638), (295, 13707), (316, 13770), (323, 13803), (325, 13815), (358, 13989), (367, 14049), (376, 14094), (378, 14100), (407, 14298), (437, 14430), (451, 14520), (455, 14541), (466, 14649), (492, 14880), (497, 14916),

Gene: AppleCloud_19 Start: 11777, Stop: 15436, Start Num: 24
Candidate Starts for AppleCloud_19:
(Start: 24 @11777 has 35 MA's), (44, 11939), (46, 11960), (62, 12062), (77, 12164), (96, 12278), (106, 12326), (108, 12332), (112, 12356), (126, 12428), (129, 12461), (158, 12752), (160, 12785), (162, 12833), (163, 12839), (170, 12920), (171, 12926), (172, 12935), (174, 12965), (177, 12986), (180, 12998), (183, 13037), (188, 13094), (193, 13205), (196, 13226), (197, 13235), (200, 13277), (207, 13328), (208, 13340), (212, 13412), (213, 13415), (222, 13487), (224, 13496), (228, 13517), (232, 13538), (234, 13544), (237, 13562), (239, 13571), (240, 13583), (248, 13625), (255, 13655), (264, 13700), (270, 13724), (279, 13769), (300, 13820), (303, 13832), (304, 13835), (308, 13853), (311, 13868), (319, 13919), (337, 14015), (348, 14072), (354, 14096), (357, 14114), (359, 14123), (374, 14210), (387, 14288), (392, 14324), (395, 14351), (398, 14363), (407, 14426), (411, 14450), (415, 14471), (419, 14486), (421, 14492), (422, 14495), (423, 14504), (446, 14627), (453, 14660), (464, 14747), (467, 14789), (468, 14792), (474, 14864), (478, 14888), (479, 14909), (481, 14933), (483, 14951), (493, 15026), (500, 15059), (503, 15101), (511, 15197), (514, 15218), (520, 15269), (524, 15374), (528, 15392),

Gene: Asten_18 Start: 11636, Stop: 14959, Start Num: 12
Candidate Starts for Asten_18:
(Start: 12 @11636 has 62 MA's), (32, 11783), (45, 11894), (47, 11906), (49, 11918), (59, 11993), (66, 12029), (87, 12158), (95, 12200), (100, 12230), (102, 12236), (114, 12293), (150, 12521), (155, 12581), (169, 12704), (197, 13007), (208, 13103), (211, 13136), (225, 13253), (228, 13271), (237, 13316), (241, 13349), (246, 13367), (262, 13442), (278, 13520), (290, 13541), (302, 13604), (307, 13622), (335, 13769), (351, 13847), (356, 13871), (358, 13883), (360, 13895), (361, 13901), (366, 13940), (370, 13958), (409, 14201), (428, 14303), (437, 14345), (462, 14513), (466, 14564), (467, 14576), (485, 14750), (496, 14819), (507, 14945), (509, 14948),

Gene: Axiom_19 Start: 11546, Stop: 14851, Start Num: 14
Candidate Starts for Axiom_19:
(Start: 14 @11546 has 34 MA's), (Start: 19 @11585 has 3 MA's), (32, 11684), (33, 11705), (43, 11777), (45, 11795), (66, 11927), (94, 12089), (100, 12128), (102, 12134), (103, 12137), (114, 12191), (169, 12602), (197, 12905), (203, 12968), (208, 13001), (211, 13034), (228, 13169), (237, 13214), (238, 13217), (241, 13247), (246, 13265), (253, 13301), (278, 13418), (288, 13430), (296, 13484), (307, 13520), (333, 13646), (335, 13667), (351, 13745), (356, 13769), (358, 13781), (366, 13838), (376, 13886), (383, 13928), (396, 14018), (432, 14234), (462, 14411), (466, 14462), (467, 14474), (480, 14615), (485, 14648), (492, 14693), (497, 14729),

Gene: BarryBee_20 Start: 11646, Stop: 14969, Start Num: 12
Candidate Starts for BarryBee_20:
(Start: 12 @11646 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (49, 11928), (59, 12003), (66, 12039), (87, 12168), (95, 12210), (100, 12240), (102, 12246), (114, 12303), (150, 12531), (155, 12591), (169, 12714), (197, 13017), (208, 13113), (211, 13146), (225, 13263), (228, 13281), (237, 13326), (241, 13359), (246, 13377), (262, 13452), (278, 13530), (290, 13551), (302, 13614), (307, 13632), (335, 13779), (351, 13857), (356, 13881), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (370, 13968), (409, 14211), (428, 14313), (437, 14355), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (507, 14955), (509, 14958),

Gene: BartholomewSD_20 Start: 11699, Stop: 14998, Start Num: 14
Candidate Starts for BartholomewSD_20:
(Start: 14 @11699 has 34 MA's), (32, 11834), (33, 11855), (39, 11897), (66, 12074), (95, 12245), (102, 12281), (130, 12419), (141, 12488), (150, 12566), (169, 12749), (197, 13052), (208, 13148), (211, 13181), (218, 13253), (219, 13259), (233, 13340), (236, 13358), (237, 13361), (241, 13394), (246, 13412), (290, 13586), (302, 13649), (304, 13655), (326, 13760), (335, 13814), (338, 13826), (346, 13871), (358, 13928), (370, 14003), (383, 14075), (449, 14468), (453, 14492), (466, 14609), (467, 14621), (473, 14690), (475, 14699), (480, 14762), (492, 14840), (493, 14852), (496, 14864),

Gene: BeardedLady_19 Start: 11916, Stop: 15236, Start Num: 12
Candidate Starts for BeardedLady_19:
(Start: 12 @11916 has 62 MA's), (32, 12060), (45, 12171), (47, 12183), (55, 12252), (57, 12258), (63, 12279), (83, 12414), (95, 12477), (102, 12513), (103, 12516), (135, 12681), (141, 12720), (148, 12777), (169, 12981), (197, 13284), (200, 13317), (208, 13380), (211, 13413), (219, 13491), (224, 13527), (225, 13530), (228, 13548), (233, 13572), (237, 13593), (241, 13626), (246, 13644), (253, 13680), (265, 13734), (273, 13773), (278, 13797), (296, 13863), (307, 13899), (322, 13971), (327, 13995), (328, 14001), (333, 14025), (335, 14046), (356, 14148), (358, 14160), (364, 14196), (370, 14235), (377, 14268), (403, 14439), (409, 14478), (428, 14580), (429, 14601), (432, 14613), (462, 14790), (466, 14841), (467, 14853), (485, 15027), (496, 15096), (501, 15135), (507, 15222), (509, 15225),

Gene: Belenaria_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Belenaria_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: BobbyDazzler_21 Start: 12169, Stop: 15516, Start Num: 24
Candidate Starts for BobbyDazzler_21:
(Start: 24 @12169 has 35 MA's), (25, 12187), (41, 12310), (44, 12331), (46, 12352), (50, 12382), (62, 12421), (76, 12496), (99, 12592), (101, 12601), (121, 12676), (127, 12697), (131, 12718), (132, 12724), (139, 12772), (151, 12844), (153, 12883), (154, 12892), (165, 12946), (171, 13006), (174, 13045), (180, 13078), (183, 13117), (188, 13174), (193, 13285), (196, 13306), (197, 13315), (200, 13357), (207, 13408), (208, 13420), (212, 13492), (213, 13495), (222, 13567), (224, 13576), (234, 13624), (237, 13642), (239, 13651), (240, 13663), (248, 13705), (255, 13735), (264, 13780), (270, 13804), (279, 13849), (300, 13900), (303, 13912), (304, 13915), (308, 13933), (311, 13948), (319, 13999), (330, 14053), (337, 14095), (347, 14149), (357, 14194), (374, 14290), (380, 14320), (392, 14404), (406, 14494), (411, 14530), (413, 14542), (415, 14551), (418, 14560), (419, 14566), (423, 14584), (425, 14593), (446, 14707), (451, 14728), (455, 14749), (458, 14773), (464, 14827), (468, 14872), (474, 14944), (478, 14968), (481, 15013), (483, 15031), (493, 15106), (500, 15139), (503, 15181), (510, 15274), (514, 15298), (524, 15454), (528, 15472),

Gene: Bonanza_21 Start: 12098, Stop: 15445, Start Num: 24
Candidate Starts for Bonanza_21:
(Start: 24 @12098 has 35 MA's), (25, 12116), (41, 12239), (44, 12260), (46, 12281), (48, 12299), (50, 12311), (62, 12350), (76, 12425), (99, 12521), (101, 12530), (121, 12605), (127, 12626), (131, 12647), (132, 12653), (139, 12701), (151, 12773), (153, 12812), (154, 12821), (165, 12875), (171, 12935), (174, 12974), (180, 13007), (183, 13046), (188, 13103), (193, 13214), (196, 13235), (197, 13244), (200, 13286), (207, 13337), (208, 13349), (212, 13421), (213, 13424), (222, 13496), (224, 13505), (232, 13547), (234, 13553), (237, 13571), (239, 13580), (240, 13592), (248, 13634), (255, 13664), (256, 13667), (264, 13709), (270, 13733), (279, 13778), (300, 13829), (303, 13841), (304, 13844), (308, 13862), (311, 13877), (319, 13928), (330, 13982), (337, 14024), (347, 14078), (348, 14081), (357, 14123), (374, 14219), (380, 14249), (392, 14333), (406, 14423), (411, 14459), (413, 14471), (415, 14480), (418, 14489), (419, 14495), (423, 14513), (425, 14522), (446, 14636), (451, 14657), (455, 14678), (458, 14702), (464, 14756), (468, 14801), (474, 14873), (478, 14897), (481, 14942), (483, 14960), (493, 15035), (500, 15068), (503, 15110), (510, 15203), (514, 15227), (524, 15383), (528, 15401),

Gene: Bovely_18 Start: 11675, Stop: 14995, Start Num: 12
Candidate Starts for Bovely_18:
(Start: 12 @11675 has 62 MA's), (32, 11819), (45, 11930), (47, 11942), (55, 12011), (57, 12017), (63, 12038), (83, 12173), (95, 12236), (102, 12272), (103, 12275), (135, 12440), (141, 12479), (148, 12536), (169, 12740), (197, 13043), (200, 13076), (208, 13139), (211, 13172), (219, 13250), (224, 13286), (225, 13289), (228, 13307), (233, 13331), (237, 13352), (241, 13385), (246, 13403), (253, 13439), (265, 13493), (273, 13532), (278, 13556), (296, 13622), (307, 13658), (322, 13730), (327, 13754), (328, 13760), (333, 13784), (335, 13805), (356, 13907), (358, 13919), (364, 13955), (370, 13994), (377, 14027), (403, 14198), (409, 14237), (428, 14339), (429, 14360), (432, 14372), (462, 14549), (466, 14600), (467, 14612), (485, 14786), (496, 14855), (501, 14894), (507, 14981), (509, 14984),

Gene: Bowden_19 Start: 11670, Stop: 14930, Start Num: 19
Candidate Starts for Bowden_19:
(Start: 14 @11631 has 34 MA's), (Start: 19 @11670 has 3 MA's), (32, 11766), (33, 11787), (39, 11829), (42, 11844), (66, 12006), (95, 12177), (102, 12213), (144, 12432), (146, 12438), (150, 12498), (169, 12681), (197, 12984), (208, 13080), (211, 13113), (218, 13185), (219, 13191), (227, 13239), (233, 13272), (236, 13290), (237, 13293), (241, 13326), (246, 13344), (273, 13473), (290, 13518), (302, 13581), (304, 13587), (335, 13746), (338, 13758), (358, 13860), (365, 13914), (370, 13935), (383, 14007), (427, 14274), (449, 14400), (453, 14424), (466, 14541), (467, 14553), (473, 14622), (475, 14631), (480, 14694), (492, 14772), (493, 14784), (496, 14796),

Gene: Bradshaw_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Bradshaw_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Brataylor_19 Start: 11658, Stop: 14981, Start Num: 12
Candidate Starts for Brataylor_19:
(Start: 12 @11658 has 62 MA's), (Start: 18 @11694 has 4 MA's), (32, 11805), (45, 11916), (47, 11928), (49, 11940), (59, 12015), (66, 12051), (87, 12180), (95, 12222), (100, 12252), (102, 12258), (104, 12270), (114, 12315), (146, 12483), (150, 12543), (168, 12717), (169, 12726), (197, 13029), (201, 13065), (206, 13101), (208, 13125), (211, 13158), (225, 13275), (228, 13293), (237, 13338), (241, 13371), (246, 13389), (262, 13464), (278, 13542), (290, 13563), (293, 13584), (302, 13626), (307, 13644), (335, 13791), (351, 13869), (356, 13893), (358, 13905), (360, 13917), (361, 13923), (366, 13962), (370, 13980), (409, 14223), (428, 14325), (466, 14586), (467, 14598), (475, 14676), (477, 14694), (485, 14772), (496, 14841), (507, 14967), (509, 14970),

Gene: BroPlease_19 Start: 11860, Stop: 15681, Start Num: 1
Candidate Starts for BroPlease_19:
(Start: 1 @11860 has 3 MA's), (8, 12196), (10, 12241), (11, 12334), (15, 12358), (Start: 16 @12367 has 1 MA's), (32, 12493), (41, 12577), (46, 12616), (58, 12703), (66, 12760), (79, 12853), (82, 12862), (87, 12889), (91, 12907), (96, 12940), (102, 12967), (114, 13024), (115, 13033), (143, 13180), (144, 13186), (145, 13189), (166, 13408), (167, 13423), (169, 13435), (179, 13516), (190, 13654), (197, 13738), (208, 13834), (209, 13843), (223, 13978), (224, 13981), (227, 13993), (241, 14080), (242, 14083), (244, 14089), (279, 14254), (292, 14281), (325, 14440), (327, 14449), (335, 14500), (336, 14503), (342, 14524), (349, 14572), (355, 14599), (358, 14614), (359, 14620), (370, 14689), (381, 14740), (430, 15058), (442, 15112), (445, 15142), (466, 15295), (473, 15376), (477, 15403), (507, 15670),

Gene: BryanRecycles_19 Start: 11832, Stop: 15152, Start Num: 12
Candidate Starts for BryanRecycles_19:
(Start: 12 @11832 has 62 MA's), (32, 11976), (45, 12087), (47, 12099), (55, 12168), (57, 12174), (63, 12195), (83, 12330), (95, 12393), (102, 12429), (103, 12432), (135, 12597), (141, 12636), (148, 12693), (168, 12888), (169, 12897), (197, 13200), (200, 13233), (208, 13296), (211, 13329), (219, 13407), (228, 13464), (233, 13488), (237, 13509), (241, 13542), (246, 13560), (253, 13596), (265, 13650), (273, 13689), (278, 13713), (296, 13779), (307, 13815), (322, 13887), (327, 13911), (328, 13917), (333, 13941), (335, 13962), (356, 14064), (358, 14076), (364, 14112), (370, 14151), (377, 14184), (403, 14355), (409, 14394), (410, 14397), (428, 14496), (429, 14517), (432, 14529), (466, 14757), (467, 14769), (485, 14943), (496, 15012), (501, 15051), (507, 15138), (509, 15141),

Gene: Bryce_21 Start: 12098, Stop: 15445, Start Num: 24
Candidate Starts for Bryce_21:
(Start: 24 @12098 has 35 MA's), (25, 12116), (41, 12239), (44, 12260), (46, 12281), (50, 12311), (62, 12350), (76, 12425), (99, 12521), (101, 12530), (121, 12605), (127, 12626), (131, 12647), (132, 12653), (139, 12701), (151, 12773), (153, 12812), (154, 12821), (165, 12875), (171, 12935), (174, 12974), (180, 13007), (183, 13046), (188, 13103), (193, 13214), (196, 13235), (197, 13244), (200, 13286), (207, 13337), (208, 13349), (212, 13421), (213, 13424), (222, 13496), (224, 13505), (234, 13553), (237, 13571), (239, 13580), (240, 13592), (248, 13634), (255, 13664), (264, 13709), (270, 13733), (279, 13778), (300, 13829), (303, 13841), (304, 13844), (308, 13862), (311, 13877), (319, 13928), (330, 13982), (337, 14024), (347, 14078), (348, 14081), (374, 14219), (380, 14249), (392, 14333), (406, 14423), (411, 14459), (413, 14471), (415, 14480), (418, 14489), (419, 14495), (423, 14513), (425, 14522), (446, 14636), (451, 14657), (458, 14702), (464, 14756), (468, 14801), (474, 14873), (478, 14897), (481, 14942), (483, 14960), (493, 15035), (500, 15068), (503, 15110), (510, 15203), (514, 15227), (524, 15383), (528, 15401),

Gene: Caelum_19 Start: 11485, Stop: 15480, Start Num: 14
Candidate Starts for Caelum_19:

(Start: 14 @11485 has 34 MA's), (30, 11611), (32, 11620), (33, 11641), (42, 11698), (45, 11731), (66, 11863), (94, 12025), (102, 12070), (123, 12175), (147, 12304), (154, 12412), (169, 12535), (208, 12934), (224, 13081), (228, 13102), (233, 13126), (237, 13147), (241, 13180), (246, 13198), (251, 13222), (275, 13339), (306, 13450), (307, 13453), (314, 13474), (326, 13546), (335, 13600), (346, 13657), (358, 13714), (360, 13726), (361, 13732), (370, 13789), (383, 13861), (396, 13951), (453, 14278), (462, 14344), (466, 14395), (476, 14500), (480, 14548), (490, 14608), (504, 14719), (508, 14785), (518, 14857), (521, 14896), (522, 14935), (527, 14995), (529, 15049), (530, 15052), (531, 15073), (532, 15085), (533, 15130), (535, 15151), (538, 15199), (541, 15247), (558, 15469),

Gene: Caliburn_18 Start: 11649, Stop: 14969, Start Num: 12
Candidate Starts for Caliburn_18:
(Start: 12 @11649 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (55, 11985), (57, 11991), (63, 12012), (83, 12147), (95, 12210), (102, 12246), (103, 12249), (135, 12414), (141, 12453), (148, 12510), (169, 12714), (197, 13017), (200, 13050), (208, 13113), (211, 13146), (219, 13224), (224, 13260), (225, 13263), (228, 13281), (233, 13305), (237, 13326), (241, 13359), (246, 13377), (253, 13413), (265, 13467), (273, 13506), (278, 13530), (296, 13596), (307, 13632), (322, 13704), (327, 13728), (328, 13734), (333, 13758), (335, 13779), (356, 13881), (358, 13893), (364, 13929), (370, 13968), (377, 14001), (403, 14172), (409, 14211), (428, 14313), (429, 14334), (432, 14346), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (501, 14868), (507, 14955), (509, 14958),

Gene: Celery_21 Start: 11512, Stop: 15627, Start Num: 12
Candidate Starts for Celery_21:
(9, 11401), (Start: 12 @11512 has 62 MA's), (Start: 16 @11536 has 1 MA's), (32, 11656), (34, 11689), (39, 11719), (45, 11767), (46, 11770), (87, 12031), (102, 12109), (103, 12112), (104, 12121), (116, 12184), (123, 12214), (128, 12238), (130, 12247), (138, 12298), (143, 12322), (150, 12394), (168, 12565), (169, 12574), (197, 12880), (203, 12943), (208, 12976), (214, 13051), (219, 13087), (224, 13123), (237, 13189), (241, 13222), (246, 13240), (252, 13273), (262, 13315), (265, 13330), (272, 13363), (273, 13369), (277, 13387), (280, 13402), (284, 13462), (285, 13471), (286, 13480), (292, 13510), (302, 13564), (306, 13579), (322, 13654), (335, 13729), (356, 13831), (358, 13843), (360, 13855), (361, 13861), (366, 13900), (370, 13918), (388, 14035), (409, 14161), (417, 14209), (431, 14293), (432, 14296), (466, 14524), (470, 14566), (508, 14914), (515, 14953), (521, 15025), (522, 15064), (523, 15106), (529, 15178), (530, 15181), (531, 15202), (533, 15259), (535, 15280), (538, 15328), (539, 15331), (540, 15346), (543, 15409), (544, 15418), (547, 15460), (558, 15613), (559, 15616),

Gene: Celeste_18 Start: 11686, Stop: 14973, Start Num: 18
Candidate Starts for Celeste_18:
(Start: 12 @11650 has 62 MA's), (Start: 18 @11686 has 4 MA's), (32, 11797), (45, 11908), (47, 11920), (49, 11932), (59, 12007), (66, 12043), (87, 12172), (95, 12214), (100, 12244), (102, 12250), (104, 12262), (114, 12307), (150, 12535), (169, 12718), (201, 13057), (208, 13117), (211, 13150), (225, 13267), (228, 13285), (237, 13330), (241, 13363), (246, 13381), (262, 13456), (278, 13534), (290, 13555), (293, 13576), (302, 13618), (307, 13636), (335, 13783), (351, 13861), (356, 13885), (358, 13897), (360, 13909), (361, 13915), (366, 13954), (370, 13972), (409, 14215), (428, 14317), (466, 14578), (467, 14590), (475, 14668), (477, 14686), (485, 14764), (496, 14833), (507, 14959), (509, 14962),

Gene: Celia_18 Start: 12007, Stop: 15408, Start Num: 14
Candidate Starts for Celia_18:
(Start: 14 @12007 has 34 MA's), (Start: 16 @12022 has 1 MA's), (32, 12142), (43, 12235), (45, 12253), (49, 12277), (71, 12433), (104, 12610), (114, 12655), (130, 12736), (140, 12799), (144, 12817), (154, 12940), (169, 13063), (177, 13135), (180, 13147), (189, 13276), (197, 13369), (206, 13441), (208, 13465), (214, 13540), (227, 13624), (237, 13678), (241, 13711), (243, 13717), (247, 13738), (250,

13750), (259, 13789), (263, 13807), (287, 13972), (298, 14041), (303, 14056), (307, 14071), (314, 14092), (323, 14146), (333, 14197), (335, 14218), (358, 14332), (370, 14407), (373, 14416), (391, 14530), (409, 14650), (431, 14782), (432, 14785), (443, 14836), (454, 14902), (455, 14905), (466, 15013), (473, 15094), (477, 15121), (491, 15238), (501, 15310), (507, 15397),

Gene: Chilliams_87 Start: 56444, Stop: 61222, Start Num: 27
Candidate Starts for Chilliams_87:
(Start: 27 @56444 has 2 MA's), (68, 56747), (69, 56750), (72, 56759), (91, 56864), (98, 56909), (102, 56924), (103, 56927), (107, 56948), (114, 56981), (118, 57008), (134, 57092), (138, 57116), (139, 57119), (146, 57152), (154, 57269), (160, 57314), (167, 57383), (169, 57395), (187, 57560), (191, 57626), (194, 57677), (199, 57716), (203, 57764), (209, 57806), (211, 57830), (239, 58016), (240, 58028), (250, 58079), (281, 58232), (283, 58265), (306, 58403), (310, 58424), (317, 58466), (340, 58583), (341, 58586), (344, 58607), (350, 58640), (376, 58781), (377, 58784), (384, 58826), (408, 58994), (433, 59168), (434, 59177), (436, 59234), (441, 59288), (447, 59333), (455, 59375), (469, 59507), (472, 59555), (477, 59609), (498, 59780), (516, 59948), (519, 59981), (534, 60266), (547, 60455), (548, 60464), (552, 60479), (557, 60581), (560, 60650), (561, 60725), (562, 60875), (563, 60893), (564, 60935), (565, 60968), (568, 61157),

Gene: Chucky_18 Start: 11647, Stop: 14970, Start Num: 12
Candidate Starts for Chucky_18:
(Start: 12 @11647 has 62 MA's), (32, 11794), (45, 11905), (47, 11917), (49, 11929), (59, 12004), (66, 12040), (87, 12169), (95, 12211), (100, 12241), (102, 12247), (114, 12304), (150, 12532), (155, 12592), (169, 12715), (197, 13018), (208, 13114), (211, 13147), (225, 13264), (228, 13282), (237, 13327), (241, 13360), (246, 13378), (262, 13453), (278, 13531), (290, 13552), (302, 13615), (307, 13633), (335, 13780), (351, 13858), (356, 13882), (358, 13894), (360, 13906), (361, 13912), (366, 13951), (370, 13969), (409, 14212), (428, 14314), (437, 14356), (462, 14524), (466, 14575), (467, 14587), (496, 14830), (507, 14956), (509, 14959),

Gene: Conan_19 Start: 11284, Stop: 15396, Start Num: 12
Candidate Starts for Conan_19:
(Start: 12 @11284 has 62 MA's), (Start: 16 @11308 has 1 MA's), (32, 11428), (34, 11461), (39, 11491), (45, 11539), (87, 11803), (95, 11845), (104, 11893), (130, 12019), (147, 12115), (148, 12145), (150, 12166), (154, 12223), (157, 12238), (168, 12337), (169, 12346), (197, 12652), (201, 12688), (208, 12748), (220, 12868), (224, 12895), (225, 12898), (233, 12940), (237, 12961), (273, 13141), (284, 13234), (285, 13243), (289, 13267), (297, 13321), (299, 13327), (302, 13336), (306, 13351), (311, 13366), (315, 13384), (322, 13426), (335, 13501), (358, 13615), (360, 13627), (361, 13633), (370, 13690), (377, 13723), (381, 13741), (386, 13780), (388, 13807), (410, 13936), (417, 13981), (432, 14068), (446, 14146), (464, 14266), (466, 14296), (470, 14338), (488, 14497), (490, 14509), (494, 14542), (505, 14662), (508, 14686), (513, 14719), (515, 14725), (518, 14758), (521, 14797), (522, 14836), (525, 14887), (530, 14953), (531, 14974), (533, 15031), (535, 15052), (538, 15100), (539, 15103), (540, 15118), (543, 15181), (544, 15190), (547, 15232), (550, 15247), (558, 15382), (559, 15385),

Gene: CosmicSans_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for CosmicSans_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354,

14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Danzina_19 Start: 11860, Stop: 15183, Start Num: 12
Candidate Starts for Danzina_19:
(Start: 12 @11860 has 62 MA's), (Start: 18 @11896 has 4 MA's), (32, 12007), (45, 12118), (47, 12130), (49, 12142), (59, 12217), (66, 12253), (87, 12382), (95, 12424), (100, 12454), (102, 12460), (104, 12472), (114, 12517), (146, 12685), (150, 12745), (168, 12919), (169, 12928), (197, 13231), (201, 13267), (206, 13303), (208, 13327), (211, 13360), (225, 13477), (228, 13495), (237, 13540), (241, 13573), (246, 13591), (262, 13666), (278, 13744), (290, 13765), (293, 13786), (302, 13828), (307, 13846), (335, 13993), (351, 14071), (356, 14095), (358, 14107), (360, 14119), (361, 14125), (366, 14164), (370, 14182), (409, 14425), (428, 14527), (466, 14788), (467, 14800), (475, 14878), (477, 14896), (485, 14974), (496, 15043), (507, 15169), (509, 15172),

Gene: Dattran_19 Start: 11685, Stop: 14972, Start Num: 18
Candidate Starts for Dattran_19:
(Start: 12 @11649 has 62 MA's), (Start: 18 @11685 has 4 MA's), (32, 11796), (45, 11907), (47, 11919), (49, 11931), (59, 12006), (66, 12042), (87, 12171), (95, 12213), (100, 12243), (102, 12249), (104, 12261), (114, 12306), (150, 12534), (169, 12717), (201, 13056), (208, 13116), (211, 13149), (225, 13266), (228, 13284), (237, 13329), (241, 13362), (246, 13380), (262, 13455), (278, 13533), (290, 13554), (293, 13575), (302, 13617), (307, 13635), (335, 13782), (351, 13860), (356, 13884), (358, 13896), (360, 13908), (361, 13914), (366, 13953), (370, 13971), (409, 14214), (428, 14316), (466, 14577), (467, 14589), (475, 14667), (477, 14685), (485, 14763), (496, 14832), (507, 14958), (509, 14961),

Gene: Daudau_18 Start: 11605, Stop: 14904, Start Num: 14
Candidate Starts for Daudau_18:
(Start: 14 @11605 has 34 MA's), (Start: 19 @11644 has 3 MA's), (Start: 28 @11722 has 1 MA's), (32, 11740), (33, 11761), (45, 11851), (66, 11983), (97, 12172), (102, 12190), (110, 12229), (154, 12532), (169, 12655), (178, 12730), (203, 13021), (208, 13054), (224, 13201), (288, 13483), (307, 13573), (312, 13588), (335, 13720), (346, 13777), (356, 13822), (358, 13834), (366, 13891), (370, 13909), (429, 14275), (449, 14374), (453, 14398), (466, 14515), (467, 14527), (473, 14596), (475, 14605), (489, 14722),

Gene: Dexers_17 Start: 11265, Stop: 15377, Start Num: 12
Candidate Starts for Dexers_17:
(Start: 12 @11265 has 62 MA's), (Start: 16 @11289 has 1 MA's), (32, 11409), (34, 11442), (45, 11520), (46, 11523), (83, 11763), (87, 11784), (95, 11826), (104, 11874), (130, 12000), (147, 12096), (148, 12126), (150, 12147), (157, 12219), (168, 12318), (169, 12327), (171, 12339), (197, 12633), (201, 12669), (208, 12729), (219, 12840), (224, 12876), (228, 12897), (237, 12942), (241, 12975), (246, 12993), (252, 13026), (278, 13146), (279, 13149), (284, 13215), (285, 13224), (299, 13308), (302, 13317), (306, 13332), (322, 13407), (329, 13443), (335, 13482), (358, 13596), (360, 13608), (361, 13614), (366, 13653), (373, 13680), (382, 13734), (388, 13788), (410, 13917), (417, 13962), (432, 14049), (464, 14247), (466, 14277), (470, 14319), (488, 14478), (490, 14490), (499, 14553), (508, 14667), (515, 14706), (521, 14778), (522, 14817), (523, 14859), (530, 14934), (531, 14955), (533, 15012), (535, 15033), (538, 15081), (539, 15084), (540, 15099), (543, 15162), (544, 15171), (547, 15213), (558, 15363), (559, 15366),

Gene: Diane_18 Start: 11534, Stop: 15442, Start Num: 14
Candidate Starts for Diane_18:

(Start: 14 @11534 has 34 MA's), (32, 11669), (45, 11780), (53, 11843), (59, 11876), (66, 11912), (95, 12083), (100, 12113), (102, 12119), (119, 12206), (154, 12461), (155, 12464), (169, 12584), (208, 12983), (211, 13016), (224, 13130), (227, 13142), (237, 13196), (241, 13229), (246, 13247), (265, 13337), (296, 13421), (299, 13430), (335, 13562), (338, 13574), (346, 13619), (358, 13676), (370, 13751), (383, 13823), (429, 14117), (449, 14216), (455, 14249), (466, 14357), (490, 14570), (508, 14747), (522, 14897), (523, 14939), (530, 15014), (531, 15035), (533, 15092), (535, 15113), (536, 15116), (538, 15161), (545, 15254),

Gene: Dinger_21 Start: 12094, Stop: 15441, Start Num: 24
Candidate Starts for Dinger_21:
(Start: 24 @12094 has 35 MA's), (25, 12112), (41, 12235), (44, 12256), (46, 12277), (50, 12307), (62, 12346), (76, 12421), (99, 12517), (101, 12526), (121, 12601), (127, 12622), (131, 12643), (132, 12649), (139, 12697), (151, 12769), (153, 12808), (154, 12817), (165, 12871), (171, 12931), (174, 12970), (180, 13003), (183, 13042), (188, 13099), (193, 13210), (196, 13231), (197, 13240), (200, 13282), (207, 13333), (208, 13345), (212, 13417), (213, 13420), (222, 13492), (224, 13501), (234, 13549), (237, 13567), (239, 13576), (240, 13588), (246, 13618), (248, 13630), (255, 13660), (264, 13705), (270, 13729), (279, 13774), (300, 13825), (303, 13837), (304, 13840), (308, 13858), (311, 13873), (319, 13924), (330, 13978), (337, 14020), (347, 14074), (348, 14077), (357, 14119), (374, 14215), (380, 14245), (392, 14329), (395, 14356), (407, 14431), (415, 14476), (418, 14485), (446, 14632), (458, 14698), (464, 14752), (465, 14761), (468, 14797), (474, 14869), (478, 14893), (481, 14938), (483, 14956), (493, 15031), (500, 15064), (503, 15106), (510, 15199), (514, 15223), (524, 15379), (528, 15397),

Gene: Dwayne_18 Start: 11643, Stop: 14966, Start Num: 12
Candidate Starts for Dwayne_18:
(Start: 12 @11643 has 62 MA's), (32, 11790), (45, 11901), (47, 11913), (49, 11925), (59, 12000), (66, 12036), (87, 12165), (95, 12207), (100, 12237), (102, 12243), (114, 12300), (150, 12528), (155, 12588), (169, 12711), (197, 13014), (208, 13110), (211, 13143), (225, 13260), (228, 13278), (237, 13323), (241, 13356), (246, 13374), (262, 13449), (278, 13527), (290, 13548), (302, 13611), (307, 13629), (322, 13701), (335, 13776), (351, 13854), (356, 13878), (358, 13890), (360, 13902), (361, 13908), (366, 13947), (370, 13965), (409, 14208), (428, 14310), (437, 14352), (462, 14520), (466, 14571), (467, 14583), (485, 14757), (496, 14826), (507, 14952), (509, 14955),

Gene: ELB20_17 Start: 11627, Stop: 15028, Start Num: 14
Candidate Starts for ELB20_17:
(Start: 14 @11627 has 34 MA's), (Start: 19 @11666 has 3 MA's), (30, 11753), (32, 11762), (33, 11783), (42, 11840), (45, 11873), (53, 11936), (55, 11954), (61, 11975), (66, 12005), (95, 12176), (102, 12212), (114, 12269), (119, 12299), (123, 12317), (135, 12380), (150, 12497), (169, 12680), (197, 12983), (203, 13046), (208, 13079), (211, 13112), (218, 13184), (219, 13190), (228, 13247), (233, 13271), (237, 13292), (241, 13325), (246, 13343), (262, 13418), (273, 13472), (275, 13484), (279, 13499), (290, 13517), (302, 13580), (358, 13859), (370, 13934), (383, 14006), (387, 14030), (427, 14273), (430, 14303), (435, 14390), (436, 14399), (453, 14522), (463, 14600), (466, 14639), (467, 14651), (475, 14729), (496, 14894),

Gene: Eddasa_19 Start: 11832, Stop: 15152, Start Num: 12
Candidate Starts for Eddasa_19:
(Start: 12 @11832 has 62 MA's), (32, 11976), (45, 12087), (47, 12099), (55, 12168), (57, 12174), (63, 12195), (83, 12330), (95, 12393), (102, 12429), (103, 12432), (135, 12597), (141, 12636), (148, 12693), (168, 12888), (169, 12897), (197, 13200), (200, 13233), (208, 13296), (211, 13329), (219, 13407), (228, 13464), (233, 13488), (237, 13509), (241, 13542), (246, 13560), (253, 13596), (265, 13650), (273, 13689), (278, 13713), (296, 13779), (307, 13815), (322, 13887), (327, 13911), (328, 13917), (333, 13941), (335, 13962), (356, 14064), (358, 14076), (364, 14112), (370, 14151), (377, 14184), (403, 14355), (409, 14394), (410, 14397), (428, 14496), (429, 14517), (432, 14529), (466,

14757), (467, 14769), (485, 14943), (496, 15012), (501, 15051), (507, 15138), (509, 15141),

Gene: Ejemplo_18 Start: 11643, Stop: 14966, Start Num: 12
Candidate Starts for Ejemplo_18:
(Start: 12 @11643 has 62 MA's), (32, 11790), (45, 11901), (47, 11913), (49, 11925), (59, 12000), (66, 12036), (95, 12207), (100, 12237), (102, 12243), (104, 12255), (114, 12300), (125, 12354), (146, 12468), (150, 12528), (168, 12702), (169, 12711), (197, 13014), (201, 13050), (208, 13110), (211, 13143), (219, 13221), (225, 13260), (228, 13278), (237, 13323), (241, 13356), (246, 13374), (262, 13449), (278, 13527), (290, 13548), (293, 13569), (302, 13611), (307, 13629), (322, 13701), (335, 13776), (351, 13854), (356, 13878), (358, 13890), (360, 13902), (361, 13908), (366, 13947), (370, 13965), (409, 14208), (416, 14253), (428, 14310), (462, 14520), (466, 14571), (496, 14826), (507, 14952), (509, 14955),

Gene: ElGato_19 Start: 11287, Stop: 15399, Start Num: 12
Candidate Starts for ElGato_19:
(Start: 12 @11287 has 62 MA's), (Start: 16 @11311 has 1 MA's), (32, 11431), (34, 11464), (39, 11494), (45, 11542), (87, 11806), (95, 11848), (104, 11896), (130, 12022), (147, 12118), (148, 12148), (150, 12169), (157, 12241), (168, 12340), (169, 12349), (197, 12655), (201, 12691), (208, 12751), (220, 12871), (224, 12898), (225, 12901), (233, 12943), (237, 12964), (273, 13144), (283, 13222), (284, 13237), (285, 13246), (289, 13270), (297, 13324), (299, 13330), (302, 13339), (306, 13354), (311, 13369), (315, 13387), (322, 13429), (335, 13504), (358, 13618), (360, 13630), (361, 13636), (366, 13675), (369, 13684), (370, 13693), (410, 13939), (417, 13984), (432, 14071), (446, 14149), (464, 14269), (466, 14299), (470, 14341), (488, 14500), (490, 14512), (494, 14545), (505, 14665), (508, 14689), (515, 14728), (518, 14761), (521, 14800), (522, 14839), (525, 14890), (530, 14956), (531, 14977), (533, 15034), (535, 15055), (538, 15103), (539, 15106), (540, 15121), (543, 15184), (544, 15193), (547, 15235), (550, 15250), (558, 15385), (559, 15388),

Gene: Emaanora_20 Start: 11646, Stop: 14969, Start Num: 12
Candidate Starts for Emaanora_20:
(Start: 12 @11646 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (49, 11928), (59, 12003), (66, 12039), (87, 12168), (95, 12210), (100, 12240), (102, 12246), (114, 12303), (150, 12531), (155, 12591), (169, 12714), (197, 13017), (208, 13113), (211, 13146), (225, 13263), (228, 13281), (237, 13326), (241, 13359), (246, 13377), (262, 13452), (278, 13530), (290, 13551), (302, 13614), (307, 13632), (335, 13779), (351, 13857), (356, 13881), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (370, 13968), (409, 14211), (428, 14313), (437, 14355), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (507, 14955), (509, 14958),

Gene: EnochSoames_20 Start: 11828, Stop: 15148, Start Num: 12
Candidate Starts for EnochSoames_20:
(Start: 12 @11828 has 62 MA's), (32, 11972), (45, 12083), (47, 12095), (49, 12107), (57, 12170), (59, 12182), (83, 12326), (95, 12389), (102, 12425), (103, 12428), (135, 12593), (141, 12632), (148, 12689), (168, 12884), (169, 12893), (197, 13196), (200, 13229), (208, 13292), (211, 13325), (219, 13403), (228, 13460), (233, 13484), (237, 13505), (241, 13538), (246, 13556), (253, 13592), (265, 13646), (273, 13685), (278, 13709), (296, 13775), (307, 13811), (322, 13883), (327, 13907), (328, 13913), (333, 13937), (335, 13958), (356, 14060), (358, 14072), (364, 14108), (370, 14147), (377, 14180), (403, 14351), (409, 14390), (410, 14393), (428, 14492), (429, 14513), (432, 14525), (466, 14753), (467, 14765), (485, 14939), (496, 15008), (501, 15047), (507, 15134), (509, 15137),

Gene: Erik_21 Start: 12123, Stop: 15470, Start Num: 24
Candidate Starts for Erik_21:
(Start: 24 @12123 has 35 MA's), (25, 12141), (41, 12264), (44, 12285), (46, 12306), (50, 12336), (76, 12450), (86, 12498), (99, 12546), (101, 12555), (121, 12630), (127, 12651), (131, 12672), (132, 12678), (139, 12726), (151, 12798), (153, 12837), (154, 12846), (165, 12900), (170, 12954), (171,

12960), (174, 12999), (180, 13032), (183, 13071), (188, 13128), (193, 13239), (196, 13260), (197, 13269), (200, 13311), (207, 13362), (208, 13374), (212, 13446), (213, 13449), (222, 13521), (224, 13530), (229, 13554), (234, 13578), (235, 13587), (236, 13593), (237, 13596), (239, 13605), (240, 13617), (248, 13659), (255, 13689), (260, 13713), (264, 13734), (270, 13758), (279, 13803), (300, 13854), (303, 13866), (304, 13869), (308, 13887), (311, 13902), (319, 13953), (330, 14007), (354, 14130), (359, 14157), (362, 14181), (366, 14208), (374, 14244), (380, 14274), (392, 14358), (404, 14439), (411, 14484), (413, 14496), (415, 14505), (418, 14514), (419, 14520), (421, 14526), (425, 14547), (446, 14661), (451, 14682), (458, 14727), (464, 14781), (468, 14826), (474, 14898), (478, 14922), (481, 14967), (483, 14985), (493, 15060), (500, 15093), (503, 15135), (507, 15213), (510, 15228), (514, 15252), (524, 15408), (526, 15420), (528, 15426),

Gene: Esperer_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Esperer_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507, 14975), (509, 14978),

Gene: Espica_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Espica_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: GirlDinner_18 Start: 11503, Stop: 14700, Start Num: 14
Candidate Starts for GirlDinner_18:
(Start: 14 @11503 has 34 MA's), (Start: 19 @11542 has 3 MA's), (32, 11641), (33, 11662), (43, 11734), (45, 11752), (66, 11884), (67, 11896), (94, 12046), (100, 12085), (102, 12091), (103, 12094), (114, 12148), (139, 12283), (148, 12355), (169, 12559), (182, 12667), (197, 12862), (208, 12958), (211, 12991), (219, 13069), (224, 13105), (228, 13126), (233, 13150), (237, 13171), (238, 13174), (241, 13204), (246, 13222), (254, 13261), (259, 13282), (260, 13288), (263, 13300), (295, 13369), (316, 13432), (323, 13465), (325, 13477), (333, 13516), (358, 13651), (367, 13711), (376, 13756), (378, 13762), (394, 13879), (414, 14005), (437, 14092), (463, 14272), (466, 14311), (492, 14542), (497, 14578),

Gene: Goby_18 Start: 11655, Stop: 14978, Start Num: 12
Candidate Starts for Goby_18:

(Start: 12 @11655 has 62 MA's), (Start: 18 @11691 has 4 MA's), (32, 11802), (45, 11913), (47, 11925), (49, 11937), (59, 12012), (66, 12048), (87, 12177), (95, 12219), (100, 12249), (102, 12255), (104, 12267), (114, 12312), (150, 12540), (169, 12723), (201, 13062), (208, 13122), (211, 13155), (213, 13188), (224, 13269), (228, 13290), (237, 13335), (241, 13368), (246, 13386), (247, 13395), (262, 13461), (278, 13539), (290, 13560), (293, 13581), (302, 13623), (307, 13641), (335, 13788), (351, 13866), (356, 13890), (358, 13902), (360, 13914), (361, 13920), (366, 13959), (370, 13977), (409, 14220), (428, 14322), (463, 14544), (466, 14583), (467, 14595), (485, 14769), (496, 14838), (507, 14964), (509, 14967),

Gene: Godpower_19 Start: 11667, Stop: 14990, Start Num: 12
Candidate Starts for Godpower_19:
(Start: 12 @11667 has 62 MA's), (Start: 18 @11703 has 4 MA's), (32, 11814), (45, 11925), (47, 11937), (49, 11949), (59, 12024), (66, 12060), (74, 12114), (87, 12189), (95, 12231), (100, 12261), (102, 12267), (104, 12279), (114, 12324), (150, 12552), (168, 12726), (169, 12735), (201, 13074), (208, 13134), (211, 13167), (213, 13200), (224, 13281), (228, 13302), (237, 13347), (241, 13380), (246, 13398), (247, 13407), (262, 13473), (278, 13551), (290, 13572), (293, 13593), (302, 13635), (307, 13653), (335, 13800), (351, 13878), (356, 13902), (358, 13914), (360, 13926), (361, 13932), (366, 13971), (370, 13989), (409, 14232), (428, 14334), (463, 14556), (466, 14595), (467, 14607), (485, 14781), (496, 14850), (507, 14976), (509, 14979),

Gene: Gollum_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Gollum_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: GreenWeasel_20 Start: 11869, Stop: 15690, Start Num: 1
Candidate Starts for GreenWeasel_20:
(Start: 1 @11869 has 3 MA's), (8, 12205), (10, 12250), (11, 12343), (15, 12367), (Start: 16 @12376 has 1 MA's), (32, 12502), (41, 12586), (46, 12625), (58, 12712), (66, 12769), (79, 12862), (82, 12871), (87, 12898), (91, 12916), (96, 12949), (102, 12976), (114, 13033), (115, 13042), (143, 13189), (144, 13195), (145, 13198), (166, 13417), (167, 13432), (169, 13444), (179, 13525), (190, 13663), (197, 13747), (208, 13843), (209, 13852), (223, 13987), (224, 13990), (227, 14002), (241, 14089), (242, 14092), (244, 14098), (279, 14263), (292, 14290), (325, 14449), (327, 14458), (335, 14509), (336, 14512), (342, 14533), (349, 14581), (355, 14608), (358, 14623), (359, 14629), (370, 14698), (381, 14749), (430, 15067), (442, 15121), (445, 15151), (466, 15304), (473, 15385), (477, 15412), (507, 15679),

Gene: Haizum_18 Start: 11570, Stop: 15475, Start Num: 14
Candidate Starts for Haizum_18:
(Start: 14 @11570 has 34 MA's), (32, 11705), (45, 11816), (53, 11879), (59, 11912), (66, 11948), (94, 12110), (95, 12119), (102, 12155), (119, 12242), (167, 12611), (169, 12620), (208, 13019), (211, 13052), (224, 13166), (237, 13232), (241, 13265), (246, 13283), (251, 13307), (253, 13319), (265,

13373), (296, 13457), (299, 13466), (319, 13511), (335, 13598), (346, 13655), (358, 13712), (370, 13787), (383, 13859), (429, 14153), (449, 14252), (455, 14285), (466, 14393), (471, 14438), (476, 14498), (490, 14606), (522, 14933), (523, 14975), (530, 15050), (531, 15071), (533, 15128), (535, 15149), (536, 15152), (538, 15197), (558, 15464),

Gene: Hank144_19 Start: 11796, Stop: 15098, Start Num: 14
Candidate Starts for Hank144_19:
(Start: 14 @11796 has 34 MA's), (Start: 28 @11913 has 1 MA's), (32, 11931), (33, 11952), (45, 12042), (66, 12174), (87, 12303), (95, 12345), (102, 12381), (114, 12438), (169, 12849), (186, 13002), (197, 13152), (208, 13248), (211, 13281), (228, 13416), (233, 13440), (237, 13461), (241, 13494), (246, 13512), (278, 13665), (293, 13707), (301, 13746), (302, 13749), (333, 13893), (335, 13914), (351, 13992), (358, 14028), (360, 14040), (364, 14064), (366, 14085), (370, 14103), (383, 14175), (397, 14268), (401, 14286), (409, 14346), (416, 14391), (431, 14478), (432, 14481), (466, 14709), (473, 14790), (475, 14799), (497, 14976), (507, 15087),

Gene: Harlequin_21 Start: 12074, Stop: 15421, Start Num: 24
Candidate Starts for Harlequin_21:
(Start: 24 @12074 has 35 MA's), (25, 12092), (41, 12215), (44, 12236), (46, 12257), (50, 12287), (62, 12326), (76, 12401), (99, 12497), (101, 12506), (121, 12581), (127, 12602), (131, 12623), (132, 12629), (139, 12677), (151, 12749), (153, 12788), (154, 12797), (165, 12851), (171, 12911), (174, 12950), (180, 12983), (183, 13022), (188, 13079), (193, 13190), (196, 13211), (197, 13220), (200, 13262), (207, 13313), (208, 13325), (212, 13397), (213, 13400), (222, 13472), (224, 13481), (234, 13529), (237, 13547), (239, 13556), (240, 13568), (248, 13610), (255, 13640), (264, 13685), (270, 13709), (279, 13754), (300, 13805), (303, 13817), (304, 13820), (308, 13838), (311, 13853), (319, 13904), (330, 13958), (337, 14000), (347, 14054), (348, 14057), (374, 14195), (380, 14225), (392, 14309), (406, 14399), (411, 14435), (413, 14447), (415, 14456), (418, 14465), (419, 14471), (423, 14489), (425, 14498), (446, 14612), (451, 14633), (458, 14678), (464, 14732), (468, 14777), (474, 14849), (478, 14873), (481, 14918), (483, 14936), (493, 15011), (500, 15044), (503, 15086), (510, 15179), (514, 15203), (524, 15359), (528, 15377),

Gene: Hippo_18 Start: 11646, Stop: 14969, Start Num: 12
Candidate Starts for Hippo_18:
(Start: 12 @11646 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (49, 11928), (59, 12003), (66, 12039), (87, 12168), (95, 12210), (100, 12240), (102, 12246), (114, 12303), (150, 12531), (155, 12591), (169, 12714), (197, 13017), (208, 13113), (211, 13146), (225, 13263), (228, 13281), (237, 13326), (241, 13359), (246, 13377), (262, 13452), (278, 13530), (290, 13551), (302, 13614), (307, 13632), (335, 13779), (351, 13857), (356, 13881), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (370, 13968), (409, 14211), (416, 14256), (428, 14313), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (507, 14955), (509, 14958),

Gene: Hiro_21 Start: 12068, Stop: 15727, Start Num: 24
Candidate Starts for Hiro_21:
(Start: 24 @12068 has 35 MA's), (30, 12116), (44, 12230), (46, 12251), (62, 12353), (77, 12455), (96, 12569), (106, 12617), (108, 12623), (112, 12647), (126, 12719), (129, 12752), (158, 13043), (160, 13076), (162, 13124), (163, 13130), (170, 13211), (171, 13217), (172, 13226), (177, 13277), (180, 13289), (183, 13328), (188, 13385), (193, 13496), (196, 13517), (197, 13526), (200, 13568), (207, 13619), (208, 13631), (212, 13703), (213, 13706), (222, 13778), (224, 13787), (228, 13808), (232, 13829), (234, 13835), (237, 13853), (239, 13862), (240, 13874), (248, 13916), (255, 13946), (264, 13991), (270, 14015), (279, 14060), (300, 14111), (303, 14123), (304, 14126), (308, 14144), (311, 14159), (319, 14210), (337, 14306), (348, 14363), (354, 14387), (357, 14405), (359, 14414), (374, 14501), (387, 14579), (392, 14615), (395, 14642), (398, 14654), (407, 14717), (411, 14741), (415, 14762), (419, 14777), (421, 14783), (422, 14786), (423, 14795), (446, 14918), (453, 14951), (464, 15038), (467, 15080), (468, 15083), (474, 15155), (478, 15179), (479, 15200), (481, 15224), (483,

15242), (493, 15317), (500, 15350), (503, 15392), (511, 15488), (514, 15509), (520, 15560), (524, 15665), (528, 15683),

Gene: Hydra_20 Start: 12197, Stop: 15517, Start Num: 12
Candidate Starts for Hydra_20:
(Start: 12 @12197 has 62 MA's), (32, 12341), (45, 12452), (47, 12464), (55, 12533), (57, 12539), (63, 12560), (83, 12695), (95, 12758), (102, 12794), (103, 12797), (135, 12962), (141, 13001), (148, 13058), (169, 13262), (197, 13565), (200, 13598), (208, 13661), (211, 13694), (219, 13772), (224, 13808), (225, 13811), (228, 13829), (233, 13853), (237, 13874), (241, 13907), (246, 13925), (253, 13961), (265, 14015), (273, 14054), (278, 14078), (296, 14144), (307, 14180), (322, 14252), (327, 14276), (328, 14282), (333, 14306), (335, 14327), (356, 14429), (358, 14441), (364, 14477), (370, 14516), (377, 14549), (403, 14720), (409, 14759), (428, 14861), (429, 14882), (432, 14894), (462, 15071), (466, 15122), (467, 15134), (485, 15308), (496, 15377), (501, 15416), (507, 15503), (509, 15506),

Gene: Indigo_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Indigo_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507, 14975), (509, 14978),

Gene: Issmi_19 Start: 11823, Stop: 15905, Start Num: 14
Candidate Starts for Issmi_19:
(Start: 14 @11823 has 34 MA's), (Start: 18 @11850 has 4 MA's), (32, 11958), (33, 11979), (45, 12069), (66, 12201), (87, 12330), (102, 12408), (109, 12441), (114, 12465), (154, 12750), (167, 12864), (169, 12873), (208, 13272), (224, 13419), (233, 13464), (239, 13494), (243, 13524), (288, 13701), (306, 13788), (307, 13791), (314, 13812), (334, 13932), (335, 13938), (356, 14040), (358, 14052), (370, 14127), (379, 14169), (396, 14277), (427, 14454), (430, 14484), (436, 14580), (437, 14601), (453, 14703), (466, 14820), (476, 14925), (508, 15210), (515, 15249), (518, 15282), (521, 15321), (522, 15360), (529, 15474), (530, 15477), (531, 15498), (533, 15555), (535, 15576), (536, 15579), (537, 15600), (538, 15624), (549, 15768), (558, 15894),

Gene: Itza_18 Start: 11930, Stop: 15331, Start Num: 14
Candidate Starts for Itza_18:
(Start: 14 @11930 has 34 MA's), (Start: 16 @11945 has 1 MA's), (32, 12065), (43, 12158), (45, 12176), (49, 12200), (71, 12356), (104, 12533), (114, 12578), (130, 12659), (140, 12722), (144, 12740), (154, 12863), (169, 12986), (177, 13058), (180, 13070), (189, 13199), (197, 13292), (206, 13364), (208, 13388), (214, 13463), (227, 13547), (237, 13601), (241, 13634), (243, 13640), (247, 13661), (250, 13673), (259, 13712), (263, 13730), (287, 13895), (298, 13964), (303, 13979), (307, 13994), (314, 14015), (323, 14069), (333, 14120), (335, 14141), (358, 14255), (370, 14330), (373, 14339), (391, 14453), (409, 14573), (431, 14705), (432, 14708), (443, 14759), (454, 14825), (455, 14828), (466, 14936), (473, 15017), (477, 15044), (491, 15161), (501, 15233), (507, 15320),

Gene: Izzy_19 Start: 11879, Stop: 15199, Start Num: 12
Candidate Starts for Izzy_19:
(Start: 12 @11879 has 62 MA's), (32, 12023), (45, 12134), (47, 12146), (55, 12215), (57, 12221), (63, 12242), (83, 12377), (95, 12440), (102, 12476), (103, 12479), (135, 12644), (141, 12683), (148,

12740), (168, 12935), (169, 12944), (197, 13247), (200, 13280), (208, 13343), (211, 13376), (219, 13454), (228, 13511), (233, 13535), (237, 13556), (241, 13589), (246, 13607), (253, 13643), (265, 13697), (273, 13736), (278, 13760), (296, 13826), (307, 13862), (322, 13934), (327, 13958), (328, 13964), (333, 13988), (335, 14009), (356, 14111), (358, 14123), (364, 14159), (370, 14198), (377, 14231), (403, 14402), (409, 14441), (410, 14444), (428, 14543), (429, 14564), (432, 14576), (466, 14804), (467, 14816), (485, 14990), (496, 15059), (501, 15098), (507, 15185), (509, 15188),

Gene: Janus_19 Start: 11841, Stop: 15038, Start Num: 14
Candidate Starts for Janus_19:
(Start: 14 @11841 has 34 MA's), (Start: 19 @11880 has 3 MA's), (32, 11979), (33, 12000), (43, 12072), (45, 12090), (66, 12222), (67, 12234), (94, 12384), (100, 12423), (102, 12429), (103, 12432), (114, 12486), (139, 12621), (148, 12693), (169, 12897), (182, 13005), (197, 13200), (208, 13296), (211, 13329), (219, 13407), (224, 13443), (228, 13464), (233, 13488), (237, 13509), (238, 13512), (241, 13542), (246, 13560), (254, 13599), (259, 13620), (260, 13626), (263, 13638), (295, 13707), (316, 13770), (323, 13803), (325, 13815), (333, 13854), (358, 13989), (367, 14049), (376, 14094), (378, 14100), (394, 14217), (437, 14430), (463, 14610), (466, 14649), (492, 14880), (497, 14916),

Gene: Jash_19 Start: 11832, Stop: 15152, Start Num: 12
Candidate Starts for Jash_19:
(Start: 12 @11832 has 62 MA's), (32, 11976), (45, 12087), (47, 12099), (55, 12168), (57, 12174), (63, 12195), (83, 12330), (95, 12393), (102, 12429), (103, 12432), (135, 12597), (141, 12636), (148, 12693), (168, 12888), (169, 12897), (197, 13200), (200, 13233), (208, 13296), (211, 13329), (219, 13407), (228, 13464), (233, 13488), (237, 13509), (241, 13542), (246, 13560), (253, 13596), (265, 13650), (273, 13689), (278, 13713), (296, 13779), (307, 13815), (322, 13887), (327, 13911), (328, 13917), (333, 13941), (335, 13962), (356, 14064), (358, 14076), (364, 14112), (370, 14151), (377, 14184), (403, 14355), (409, 14394), (410, 14397), (428, 14496), (429, 14517), (432, 14529), (466, 14757), (467, 14769), (485, 14943), (496, 15012), (501, 15051), (507, 15138), (509, 15141),

Gene: Jester_21 Start: 12068, Stop: 15415, Start Num: 24
Candidate Starts for Jester_21:
(Start: 24 @12068 has 35 MA's), (25, 12086), (41, 12209), (44, 12230), (46, 12251), (50, 12281), (76, 12395), (99, 12491), (101, 12500), (121, 12575), (127, 12596), (131, 12617), (132, 12623), (139, 12671), (151, 12743), (152, 12770), (153, 12782), (154, 12791), (165, 12845), (171, 12905), (174, 12944), (180, 12977), (183, 13016), (185, 13031), (188, 13073), (193, 13184), (196, 13205), (197, 13214), (200, 13256), (207, 13307), (208, 13319), (212, 13391), (213, 13394), (222, 13466), (224, 13475), (234, 13523), (237, 13541), (239, 13550), (240, 13562), (248, 13604), (255, 13634), (264, 13679), (270, 13703), (279, 13748), (300, 13799), (303, 13811), (304, 13814), (308, 13832), (311, 13847), (319, 13898), (330, 13952), (337, 13994), (348, 14051), (359, 14102), (374, 14189), (387, 14267), (392, 14303), (398, 14342), (404, 14384), (406, 14393), (411, 14429), (415, 14450), (418, 14459), (419, 14465), (425, 14492), (446, 14606), (453, 14639), (459, 14681), (464, 14726), (467, 14768), (468, 14771), (474, 14843), (478, 14867), (479, 14888), (481, 14912), (483, 14930), (493, 15005), (500, 15038), (503, 15080), (511, 15176), (514, 15197), (520, 15248), (524, 15353), (528, 15371),

Gene: Jevington_20 Start: 12149, Stop: 15340, Start Num: 14
Candidate Starts for Jevington_20:
(Start: 14 @12149 has 34 MA's), (Start: 19 @12188 has 3 MA's), (30, 12275), (32, 12284), (33, 12305), (39, 12347), (66, 12524), (88, 12662), (94, 12686), (102, 12731), (103, 12734), (114, 12788), (135, 12899), (169, 13199), (184, 13322), (190, 13418), (197, 13502), (203, 13565), (205, 13571), (208, 13598), (224, 13745), (228, 13766), (233, 13790), (237, 13811), (238, 13814), (241, 13844), (246, 13862), (258, 13919), (295, 14009), (326, 14123), (327, 14126), (343, 14204), (346, 14234), (356, 14279), (358, 14291), (366, 14348), (367, 14351), (376, 14396), (378, 14402), (387, 14465), (402, 14558), (412, 14633), (437, 14732), (466, 14951), (485, 15137), (489, 15158), (492, 15182),

Gene: Jhitchelle_17 Start: 11193, Stop: 15305, Start Num: 12
Candidate Starts for Jhitchelle_17:
(Start: 12 @11193 has 62 MA's), (Start: 16 @11217 has 1 MA's), (31, 11331), (32, 11337), (34, 11370), (39, 11400), (43, 11430), (45, 11448), (49, 11472), (61, 11553), (83, 11691), (95, 11754), (102, 11790), (104, 11802), (114, 11847), (119, 11877), (130, 11928), (138, 11979), (150, 12075), (154, 12132), (159, 12168), (168, 12246), (169, 12255), (197, 12561), (204, 12627), (206, 12633), (208, 12657), (214, 12732), (224, 12804), (237, 12870), (239, 12879), (254, 12960), (266, 13014), (273, 13050), (284, 13143), (285, 13152), (286, 13161), (289, 13176), (309, 13272), (322, 13335), (331, 13380), (335, 13410), (346, 13467), (351, 13488), (358, 13524), (366, 13581), (370, 13599), (373, 13608), (422, 13908), (432, 13977), (439, 13995), (448, 14064), (455, 14097), (460, 14139), (461, 14148), (466, 14205), (473, 14286), (476, 14310), (484, 14388), (508, 14595), (515, 14634), (521, 14706), (522, 14745), (530, 14862), (531, 14883), (533, 14940), (535, 14961), (538, 15009), (539, 15012), (540, 15027), (543, 15090), (544, 15099), (547, 15141), (558, 15291), (559, 15294),

Gene: Kaine_18 Start: 11265, Stop: 15377, Start Num: 12
Candidate Starts for Kaine_18:
(Start: 12 @11265 has 62 MA's), (Start: 16 @11289 has 1 MA's), (32, 11409), (34, 11442), (45, 11520), (46, 11523), (83, 11763), (87, 11784), (95, 11826), (102, 11862), (104, 11874), (130, 12000), (147, 12096), (148, 12126), (150, 12147), (157, 12219), (168, 12318), (169, 12327), (197, 12633), (201, 12669), (208, 12729), (219, 12840), (224, 12876), (228, 12897), (237, 12942), (241, 12975), (246, 12993), (252, 13026), (278, 13146), (279, 13149), (284, 13215), (285, 13224), (299, 13308), (302, 13317), (306, 13332), (322, 13407), (329, 13443), (335, 13482), (358, 13596), (360, 13608), (361, 13614), (366, 13653), (373, 13680), (382, 13734), (388, 13788), (410, 13917), (417, 13962), (432, 14049), (464, 14247), (466, 14277), (470, 14319), (488, 14478), (490, 14490), (499, 14553), (508, 14667), (515, 14706), (521, 14778), (522, 14817), (523, 14859), (530, 14934), (531, 14955), (533, 15012), (535, 15033), (538, 15081), (539, 15084), (540, 15099), (543, 15162), (544, 15171), (547, 15213), (558, 15363), (559, 15366),

Gene: Katalie_19 Start: 11907, Stop: 15230, Start Num: 12
Candidate Starts for Katalie_19:
(Start: 12 @11907 has 62 MA's), (32, 12054), (45, 12165), (47, 12177), (49, 12189), (59, 12264), (66, 12300), (95, 12471), (100, 12501), (102, 12507), (104, 12519), (168, 12966), (169, 12975), (197, 13278), (201, 13314), (208, 13374), (211, 13407), (213, 13440), (224, 13521), (228, 13542), (233, 13566), (237, 13587), (241, 13620), (246, 13638), (259, 13698), (278, 13791), (290, 13812), (302, 13875), (307, 13893), (333, 14019), (335, 14040), (351, 14118), (358, 14154), (360, 14166), (361, 14172), (366, 14211), (370, 14229), (401, 14412), (409, 14472), (416, 14517), (466, 14835), (467, 14847), (485, 15021), (496, 15090), (507, 15216), (509, 15219),

Gene: Krishelle_21 Start: 12083, Stop: 15742, Start Num: 24
Candidate Starts for Krishelle_21:
(Start: 24 @12083 has 35 MA's), (44, 12245), (46, 12266), (62, 12368), (77, 12470), (96, 12584), (106, 12632), (108, 12638), (112, 12662), (126, 12734), (129, 12767), (158, 13058), (160, 13091), (162, 13139), (163, 13145), (170, 13226), (171, 13232), (172, 13241), (174, 13271), (177, 13292), (180, 13304), (183, 13343), (188, 13400), (193, 13511), (196, 13532), (197, 13541), (200, 13583), (207, 13634), (208, 13646), (212, 13718), (213, 13721), (222, 13793), (224, 13802), (228, 13823), (232, 13844), (234, 13850), (237, 13868), (239, 13877), (240, 13889), (248, 13931), (255, 13961), (264, 14006), (270, 14030), (279, 14075), (300, 14126), (303, 14138), (304, 14141), (308, 14159), (311, 14174), (319, 14225), (337, 14321), (348, 14378), (354, 14402), (357, 14420), (359, 14429), (374, 14516), (387, 14594), (392, 14630), (395, 14657), (398, 14669), (407, 14732), (411, 14756), (415, 14777), (419, 14792), (421, 14798), (422, 14801), (423, 14810), (446, 14933), (453, 14966), (464, 15053), (467, 15095), (468, 15098), (474, 15170), (478, 15194), (479, 15215), (481, 15239), (483, 15257), (493, 15332), (500, 15365), (503, 15407), (511, 15503), (514, 15524), (520, 15575), (524,

15680), (528, 15698),

Gene: Lannister_19 Start: 11670, Stop: 14996, Start Num: 12
Candidate Starts for Lannister_19:
(Start: 12 @11670 has 62 MA's), (32, 11817), (45, 11928), (47, 11940), (49, 11952), (57, 12015), (66, 12063), (88, 12201), (95, 12234), (100, 12264), (102, 12270), (168, 12729), (169, 12738), (192, 12972), (197, 13041), (201, 13077), (208, 13137), (211, 13170), (219, 13248), (224, 13284), (225, 13287), (228, 13305), (233, 13329), (237, 13350), (241, 13383), (246, 13401), (262, 13476), (264, 13488), (278, 13554), (290, 13575), (293, 13596), (302, 13638), (307, 13656), (335, 13803), (351, 13881), (358, 13917), (360, 13929), (361, 13935), (366, 13974), (370, 13992), (409, 14235), (428, 14337), (462, 14547), (466, 14598), (467, 14610), (496, 14853), (507, 14982), (509, 14985),

Gene: Legacy_18 Start: 11640, Stop: 14960, Start Num: 12
Candidate Starts for Legacy_18:
(Start: 12 @11640 has 62 MA's), (32, 11784), (45, 11895), (47, 11907), (55, 11976), (57, 11982), (63, 12003), (83, 12138), (95, 12201), (102, 12237), (103, 12240), (135, 12405), (141, 12444), (148, 12501), (169, 12705), (197, 13008), (200, 13041), (208, 13104), (211, 13137), (219, 13215), (224, 13251), (225, 13254), (228, 13272), (233, 13296), (237, 13317), (241, 13350), (246, 13368), (253, 13404), (265, 13458), (273, 13497), (278, 13521), (296, 13587), (307, 13623), (322, 13695), (327, 13719), (328, 13725), (333, 13749), (335, 13770), (356, 13872), (358, 13884), (364, 13920), (370, 13959), (377, 13992), (403, 14163), (409, 14202), (428, 14304), (429, 14325), (432, 14337), (462, 14514), (466, 14565), (467, 14577), (485, 14751), (496, 14820), (501, 14859), (507, 14946), (509, 14949),

Gene: Leviticus_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Leviticus_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507, 14975), (509, 14978),

Gene: Lika_18 Start: 11671, Stop: 14994, Start Num: 12
Candidate Starts for Lika_18:
(Start: 12 @11671 has 62 MA's), (Start: 18 @11707 has 4 MA's), (32, 11818), (45, 11929), (47, 11941), (49, 11953), (57, 12016), (59, 12028), (66, 12064), (87, 12193), (95, 12235), (100, 12265), (102, 12271), (104, 12283), (114, 12328), (150, 12556), (169, 12739), (192, 12973), (201, 13078), (208, 13138), (211, 13171), (213, 13204), (224, 13285), (228, 13306), (237, 13351), (241, 13384), (246, 13402), (247, 13411), (262, 13477), (278, 13555), (290, 13576), (293, 13597), (302, 13639), (307, 13657), (335, 13804), (351, 13882), (356, 13906), (358, 13918), (360, 13930), (361, 13936), (366, 13975), (370, 13993), (375, 14014), (409, 14236), (428, 14338), (463, 14560), (466, 14599), (467, 14611), (485, 14785), (496, 14854), (507, 14980), (509, 14983),

Gene: Lillie_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Lillie_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197,

13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Loofah_19 Start: 11655, Stop: 14957, Start Num: 14
Candidate Starts for Loofah_19:
(Start: 14 @11655 has 34 MA's), (Start: 19 @11694 has 3 MA's), (Start: 28 @11772 has 1 MA's), (30, 11781), (32, 11790), (33, 11811), (42, 11868), (45, 11901), (55, 11982), (61, 12003), (66, 12033), (95, 12204), (102, 12240), (114, 12297), (119, 12327), (123, 12345), (135, 12408), (137, 12420), (150, 12525), (154, 12582), (169, 12708), (197, 13011), (203, 13074), (208, 13107), (211, 13140), (219, 13218), (228, 13275), (233, 13299), (237, 13320), (241, 13353), (246, 13371), (262, 13446), (273, 13500), (275, 13512), (290, 13545), (302, 13608), (358, 13887), (370, 13962), (383, 14034), (449, 14427), (463, 14529), (466, 14568), (473, 14649), (480, 14721), (496, 14823),

Gene: Lorelei_18 Start: 11676, Stop: 14963, Start Num: 18
Candidate Starts for Lorelei_18:
(Start: 12 @11640 has 62 MA's), (Start: 18 @11676 has 4 MA's), (32, 11787), (45, 11898), (47, 11910), (49, 11922), (59, 11997), (66, 12033), (87, 12162), (95, 12204), (100, 12234), (102, 12240), (104, 12252), (146, 12465), (150, 12525), (168, 12699), (169, 12708), (197, 13011), (201, 13047), (208, 13107), (211, 13140), (218, 13212), (225, 13257), (228, 13275), (237, 13320), (241, 13353), (246, 13371), (262, 13446), (278, 13524), (290, 13545), (293, 13566), (302, 13608), (307, 13626), (335, 13773), (351, 13851), (356, 13875), (358, 13887), (360, 13899), (361, 13905), (366, 13944), (370, 13962), (409, 14205), (417, 14253), (428, 14307), (462, 14517), (466, 14568), (467, 14580), (485, 14754), (496, 14823), (507, 14949), (509, 14952),

Gene: Maneekul_18 Start: 11642, Stop: 14965, Start Num: 12
Candidate Starts for Maneekul_18:
(Start: 12 @11642 has 62 MA's), (32, 11789), (45, 11900), (47, 11912), (49, 11924), (59, 11999), (66, 12035), (95, 12206), (100, 12236), (102, 12242), (104, 12254), (114, 12299), (125, 12353), (146, 12467), (150, 12527), (168, 12701), (169, 12710), (197, 13013), (201, 13049), (208, 13109), (211, 13142), (219, 13220), (225, 13259), (228, 13277), (237, 13322), (241, 13355), (246, 13373), (262, 13448), (278, 13526), (290, 13547), (293, 13568), (302, 13610), (307, 13628), (322, 13700), (335, 13775), (351, 13853), (356, 13877), (358, 13889), (360, 13901), (361, 13907), (366, 13946), (370, 13964), (409, 14207), (416, 14252), (428, 14309), (455, 14462), (462, 14519), (466, 14570), (496, 14825), (507, 14951), (509, 14954),

Gene: Marav_21 Start: 12499, Stop: 15690, Start Num: 14
Candidate Starts for Marav_21:
(Start: 14 @12499 has 34 MA's), (Start: 19 @12538 has 3 MA's), (30, 12625), (32, 12634), (33, 12655), (39, 12697), (66, 12874), (94, 13036), (102, 13081), (103, 13084), (114, 13138), (169, 13549), (180, 13633), (190, 13768), (197, 13852), (208, 13948), (224, 14095), (228, 14116), (233, 14140), (237, 14161), (238, 14164), (241, 14194), (246, 14212), (258, 14269), (295, 14359), (309, 14389), (326, 14473), (327, 14476), (343, 14554), (346, 14584), (356, 14629), (358, 14641), (366, 14698), (367, 14701), (376, 14746), (378, 14752), (387, 14815), (402, 14908), (412, 14983), (445, 15148), (451, 15172), (452, 15181), (466, 15301), (480, 15454), (485, 15487), (489, 15508), (492, 15532), (493, 15544),

Gene: Nabi_18 Start: 11640, Stop: 14963, Start Num: 12
Candidate Starts for Nabi_18:
(Start: 12 @11640 has 62 MA's), (Start: 18 @11676 has 4 MA's), (32, 11787), (45, 11898), (47, 11910), (49, 11922), (59, 11997), (66, 12033), (87, 12162), (95, 12204), (100, 12234), (102, 12240), (104, 12252), (146, 12465), (150, 12525), (168, 12699), (169, 12708), (197, 13011), (201, 13047), (208, 13107), (211, 13140), (218, 13212), (225, 13257), (228, 13275), (237, 13320), (241, 13353), (246, 13371), (262, 13446), (278, 13524), (290, 13545), (293, 13566), (302, 13608), (307, 13626), (335, 13773), (351, 13851), (356, 13875), (358, 13887), (360, 13899), (361, 13905), (366, 13944), (370, 13962), (409, 14205), (417, 14253), (428, 14307), (462, 14517), (466, 14568), (467, 14580), (485, 14754), (496, 14823), (507, 14949), (509, 14952),

Gene: Naiad_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Naiad_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Nancinator_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Nancinator_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Nanodon_20 Start: 11848, Stop: 15171, Start Num: 12
Candidate Starts for Nanodon_20:
(Start: 12 @11848 has 62 MA's), (Start: 18 @11884 has 4 MA's), (Start: 19 @11896 has 3 MA's), (32, 11995), (45, 12106), (47, 12118), (49, 12130), (57, 12193), (59, 12205), (66, 12241), (95, 12412), (100, 12442), (102, 12448), (104, 12460), (114, 12505), (122, 12544), (149, 12724), (150, 12733), (155, 12793), (168, 12907), (169, 12916), (181, 13015), (201, 13255), (208, 13315), (211, 13348), (224, 13462), (228, 13483), (233, 13507), (237, 13528), (241, 13561), (245, 13576), (246, 13579), (262, 13654), (278, 13732), (290, 13753), (293, 13774), (302, 13816), (307, 13834), (322, 13906), (335, 13981), (351, 14059), (358, 14095), (360, 14107), (361, 14113), (366, 14152), (370, 14170), (409, 14413), (428, 14515), (462, 14725), (466, 14776), (467, 14788), (485, 14962), (496, 15031), (507,

15157), (509, 15160),

Gene: Natosaleda_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Natosaleda_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Nerdos_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Nerdos_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507, 14975), (509, 14978),

Gene: Nishikigoi_18 Start: 11570, Stop: 15475, Start Num: 14
Candidate Starts for Nishikigoi_18:
(Start: 14 @11570 has 34 MA's), (32, 11705), (45, 11816), (53, 11879), (59, 11912), (66, 11948), (94, 12110), (95, 12119), (102, 12155), (119, 12242), (167, 12611), (169, 12620), (208, 13019), (211, 13052), (224, 13166), (237, 13232), (241, 13265), (246, 13283), (251, 13307), (253, 13319), (265, 13373), (296, 13457), (299, 13466), (335, 13598), (346, 13655), (358, 13712), (370, 13787), (383, 13859), (429, 14153), (449, 14252), (455, 14285), (466, 14393), (471, 14438), (476, 14498), (490, 14606), (522, 14933), (523, 14975), (530, 15050), (531, 15071), (533, 15128), (535, 15149), (536, 15152), (538, 15197), (558, 15464),

Gene: Oliynyk_19 Start: 11832, Stop: 15152, Start Num: 12
Candidate Starts for Oliynyk_19:
(Start: 12 @11832 has 62 MA's), (32, 11976), (45, 12087), (47, 12099), (55, 12168), (57, 12174), (63, 12195), (83, 12330), (95, 12393), (102, 12429), (103, 12432), (135, 12597), (141, 12636), (148, 12693), (168, 12888), (169, 12897), (197, 13200), (200, 13233), (208, 13296), (211, 13329), (219, 13407), (228, 13464), (233, 13488), (237, 13509), (241, 13542), (246, 13560), (253, 13596), (265, 13650), (273, 13689), (278, 13713), (296, 13779), (307, 13815), (322, 13887), (327, 13911), (328, 13917), (333, 13941), (335, 13962), (356, 14064), (358, 14076), (364, 14112), (370, 14151), (377, 14184), (403, 14355), (409, 14394), (410, 14397), (428, 14496), (429, 14517), (432, 14529), (466, 14757), (467, 14769), (485, 14943), (496, 15012), (501, 15051), (507, 15138), (509, 15141),

Gene: Omar_19 Start: 11800, Stop: 15807, Start Num: 14
Candidate Starts for Omar_19:

(Start: 14 @11800 has 34 MA's), (30, 11926), (32, 11935), (45, 12046), (53, 12109), (66, 12178), (83, 12286), (95, 12349), (102, 12385), (117, 12466), (136, 12556), (154, 12727), (155, 12730), (169, 12850), (177, 12922), (208, 13249), (218, 13354), (224, 13396), (227, 13408), (228, 13417), (233, 13441), (237, 13462), (241, 13495), (246, 13513), (267, 13609), (297, 13690), (299, 13696), (322, 13753), (339, 13843), (345, 13873), (348, 13897), (354, 13921), (358, 13942), (370, 14017), (378, 14053), (383, 14089), (429, 14383), (455, 14614), (465, 14701), (466, 14722), (480, 14875), (488, 14923), (508, 15112), (522, 15262), (523, 15304), (530, 15379), (531, 15400), (533, 15457), (535, 15478), (538, 15526), (556, 15721),

Gene: Ozzie_18 Start: 11649, Stop: 14969, Start Num: 12
Candidate Starts for Ozzie_18:
(Start: 12 @11649 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (55, 11985), (57, 11991), (63, 12012), (83, 12147), (95, 12210), (102, 12246), (103, 12249), (135, 12414), (141, 12453), (148, 12510), (169, 12714), (197, 13017), (200, 13050), (208, 13113), (211, 13146), (219, 13224), (224, 13260), (225, 13263), (228, 13281), (233, 13305), (237, 13326), (241, 13359), (246, 13377), (253, 13413), (265, 13467), (273, 13506), (278, 13530), (296, 13596), (307, 13632), (322, 13704), (327, 13728), (328, 13734), (333, 13758), (335, 13779), (356, 13881), (358, 13893), (364, 13929), (370, 13968), (377, 14001), (403, 14172), (409, 14211), (428, 14313), (429, 14334), (432, 14346), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (501, 14868), (507, 14955), (509, 14958),

Gene: OzzyJ_19 Start: 11637, Stop: 14960, Start Num: 12
Candidate Starts for OzzyJ_19:
(Start: 12 @11637 has 62 MA's), (32, 11784), (45, 11895), (47, 11907), (49, 11919), (59, 11994), (66, 12030), (87, 12159), (95, 12201), (100, 12231), (102, 12237), (114, 12294), (150, 12522), (155, 12582), (169, 12705), (197, 13008), (208, 13104), (211, 13137), (218, 13209), (225, 13254), (228, 13272), (237, 13317), (241, 13350), (246, 13368), (262, 13443), (278, 13521), (290, 13542), (302, 13605), (307, 13623), (322, 13695), (335, 13770), (351, 13848), (358, 13884), (360, 13896), (361, 13902), (366, 13941), (370, 13959), (409, 14202), (416, 14247), (428, 14304), (462, 14514), (466, 14565), (467, 14577), (485, 14751), (496, 14820), (507, 14946), (509, 14949),

Gene: Pablito_18 Start: 11494, Stop: 14799, Start Num: 14
Candidate Starts for Pablito_18:
(Start: 14 @11494 has 34 MA's), (Start: 19 @11533 has 3 MA's), (32, 11632), (33, 11653), (43, 11725), (45, 11743), (66, 11875), (67, 11887), (87, 12004), (88, 12013), (95, 12046), (102, 12082), (114, 12139), (119, 12169), (123, 12187), (137, 12262), (148, 12346), (150, 12367), (154, 12424), (169, 12550), (197, 12853), (203, 12916), (208, 12949), (211, 12982), (219, 13060), (221, 13081), (224, 13096), (227, 13108), (228, 13117), (233, 13141), (237, 13162), (241, 13195), (246, 13213), (253, 13249), (278, 13366), (307, 13468), (327, 13564), (335, 13615), (351, 13693), (356, 13717), (358, 13729), (360, 13741), (361, 13747), (366, 13786), (370, 13804), (397, 13969), (409, 14047), (446, 14260), (453, 14293), (466, 14410), (467, 14422), (492, 14641), (497, 14677),

Gene: Paedore_18 Start: 11772, Stop: 14957, Start Num: 28
Candidate Starts for Paedore_18:
(Start: 14 @11655 has 34 MA's), (Start: 19 @11694 has 3 MA's), (Start: 28 @11772 has 1 MA's), (30, 11781), (32, 11790), (33, 11811), (42, 11868), (45, 11901), (55, 11982), (61, 12003), (66, 12033), (95, 12204), (102, 12240), (114, 12297), (119, 12327), (123, 12345), (135, 12408), (137, 12420), (150, 12525), (154, 12582), (169, 12708), (197, 13011), (203, 13074), (208, 13107), (211, 13140), (219, 13218), (228, 13275), (233, 13299), (237, 13320), (241, 13353), (246, 13371), (262, 13446), (273, 13500), (275, 13512), (290, 13545), (302, 13608), (358, 13887), (370, 13962), (383, 14034), (449, 14427), (463, 14529), (466, 14568), (473, 14649), (480, 14721), (496, 14823),

Gene: Paolo_20 Start: 12162, Stop: 15353, Start Num: 14

Candidate Starts for Paolo_20:
(Start: 14 @12162 has 34 MA's), (Start: 19 @12201 has 3 MA's), (30, 12288), (32, 12297), (33, 12318), (39, 12360), (66, 12537), (83, 12645), (88, 12675), (94, 12699), (102, 12744), (103, 12747), (114, 12801), (169, 13212), (184, 13335), (190, 13431), (197, 13515), (208, 13611), (224, 13758), (228, 13779), (233, 13803), (237, 13824), (238, 13827), (241, 13857), (246, 13875), (295, 14022), (326, 14136), (327, 14139), (343, 14217), (346, 14247), (356, 14292), (358, 14304), (366, 14361), (367, 14364), (376, 14409), (378, 14415), (387, 14478), (400, 14559), (402, 14571), (412, 14646), (437, 14745), (445, 14811), (456, 14865), (466, 14964), (485, 15150), (489, 15171), (492, 15195), (493, 15207),

Gene: Pavo_19 Start: 11557, Stop: 15669, Start Num: 12
Candidate Starts for Pavo_19:
(Start: 12 @11557 has 62 MA's), (Start: 16 @11581 has 1 MA's), (32, 11701), (34, 11734), (39, 11764), (45, 11812), (83, 12055), (87, 12076), (95, 12118), (104, 12166), (130, 12292), (147, 12388), (148, 12418), (150, 12439), (157, 12511), (168, 12610), (169, 12619), (197, 12925), (201, 12961), (208, 13021), (215, 13099), (219, 13132), (224, 13168), (228, 13189), (237, 13234), (241, 13267), (246, 13285), (252, 13318), (262, 13360), (273, 13414), (277, 13432), (278, 13438), (279, 13441), (284, 13507), (285, 13516), (292, 13555), (302, 13609), (306, 13624), (317, 13675), (322, 13699), (335, 13774), (358, 13888), (360, 13900), (361, 13906), (370, 13963), (377, 13996), (381, 14014), (386, 14053), (388, 14080), (410, 14209), (417, 14254), (432, 14341), (446, 14419), (464, 14539), (466, 14569), (470, 14611), (488, 14770), (490, 14782), (494, 14815), (505, 14935), (508, 14959), (515, 14998), (518, 15031), (521, 15070), (522, 15109), (525, 15160), (530, 15226), (531, 15247), (533, 15304), (535, 15325), (538, 15373), (539, 15376), (540, 15391), (543, 15454), (544, 15463), (547, 15505), (550, 15520), (558, 15655), (559, 15658),

Gene: PhailMary_20 Start: 12134, Stop: 15793, Start Num: 24
Candidate Starts for PhailMary_20:
(Start: 24 @12134 has 35 MA's), (30, 12182), (44, 12296), (46, 12317), (62, 12419), (77, 12521), (96, 12635), (106, 12683), (108, 12689), (112, 12713), (126, 12785), (129, 12818), (158, 13109), (160, 13142), (162, 13190), (163, 13196), (170, 13277), (171, 13283), (172, 13292), (174, 13322), (177, 13343), (180, 13355), (183, 13394), (188, 13451), (193, 13562), (196, 13583), (197, 13592), (200, 13634), (207, 13685), (208, 13697), (212, 13769), (213, 13772), (222, 13844), (224, 13853), (228, 13874), (232, 13895), (234, 13901), (237, 13919), (239, 13928), (240, 13940), (248, 13982), (255, 14012), (264, 14057), (270, 14081), (279, 14126), (300, 14177), (303, 14189), (304, 14192), (308, 14210), (311, 14225), (319, 14276), (337, 14372), (347, 14426), (348, 14429), (357, 14471), (374, 14567), (387, 14645), (392, 14681), (395, 14708), (398, 14720), (407, 14783), (411, 14807), (415, 14828), (419, 14843), (421, 14849), (422, 14852), (423, 14861), (446, 14984), (453, 15017), (464, 15104), (467, 15146), (468, 15149), (474, 15221), (478, 15245), (479, 15266), (481, 15290), (483, 15308), (493, 15383), (500, 15416), (503, 15458), (511, 15554), (514, 15575), (520, 15626), (524, 15731), (528, 15749),

Gene: Phettuccine_18 Start: 11669, Stop: 14989, Start Num: 12
Candidate Starts for Phettuccine_18:
(Start: 12 @11669 has 62 MA's), (32, 11813), (45, 11924), (47, 11936), (55, 12005), (57, 12011), (63, 12032), (83, 12167), (95, 12230), (102, 12266), (103, 12269), (135, 12434), (141, 12473), (148, 12530), (169, 12734), (197, 13037), (200, 13070), (208, 13133), (211, 13166), (219, 13244), (224, 13280), (225, 13283), (228, 13301), (233, 13325), (237, 13346), (241, 13379), (246, 13397), (253, 13433), (265, 13487), (273, 13526), (278, 13550), (296, 13616), (307, 13652), (322, 13724), (327, 13748), (328, 13754), (333, 13778), (335, 13799), (356, 13901), (358, 13913), (364, 13949), (370, 13988), (377, 14021), (403, 14192), (409, 14231), (428, 14333), (429, 14354), (432, 14366), (462, 14543), (466, 14594), (467, 14606), (485, 14780), (496, 14849), (501, 14888), (507, 14975), (509, 14978),

Gene: Phrankenstein_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Phrankenstein_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Provolone_19 Start: 11311, Stop: 15399, Start Num: 16
Candidate Starts for Provolone_19:
(Start: 12 @11287 has 62 MA's), (Start: 16 @11311 has 1 MA's), (32, 11431), (34, 11464), (39, 11494), (45, 11542), (87, 11806), (95, 11848), (104, 11896), (130, 12022), (147, 12118), (148, 12148), (150, 12169), (157, 12241), (168, 12340), (169, 12349), (197, 12655), (201, 12691), (208, 12751), (220, 12871), (224, 12898), (225, 12901), (233, 12943), (237, 12964), (273, 13144), (284, 13237), (285, 13246), (289, 13270), (297, 13324), (299, 13330), (302, 13339), (306, 13354), (311, 13369), (315, 13387), (322, 13429), (335, 13504), (358, 13618), (360, 13630), (361, 13636), (370, 13693), (377, 13726), (381, 13744), (386, 13783), (388, 13810), (410, 13939), (417, 13984), (432, 14071), (446, 14149), (464, 14269), (466, 14299), (470, 14341), (488, 14500), (490, 14512), (494, 14545), (505, 14665), (508, 14689), (515, 14728), (518, 14761), (521, 14800), (522, 14839), (525, 14890), (530, 14956), (531, 14977), (533, 15034), (535, 15055), (538, 15103), (539, 15106), (540, 15121), (543, 15184), (544, 15193), (547, 15235), (550, 15250), (558, 15385), (559, 15388),

Gene: Puginator_20 Start: 12120, Stop: 15398, Start Num: 14
Candidate Starts for Puginator_20:
(Start: 14 @12120 has 34 MA's), (Start: 19 @12159 has 3 MA's), (30, 12246), (32, 12255), (33, 12276), (39, 12318), (66, 12495), (83, 12603), (88, 12633), (94, 12657), (102, 12702), (103, 12705), (114, 12759), (169, 13170), (184, 13293), (197, 13473), (203, 13536), (205, 13542), (208, 13569), (224, 13716), (228, 13737), (233, 13761), (237, 13782), (238, 13785), (241, 13815), (246, 13833), (268, 13932), (296, 14052), (302, 14070), (305, 14082), (318, 14139), (323, 14163), (324, 14172), (325, 14175), (327, 14184), (332, 14208), (333, 14214), (334, 14229), (346, 14292), (356, 14337), (358, 14349), (366, 14406), (367, 14409), (371, 14427), (376, 14454), (378, 14460), (387, 14523), (400, 14604), (402, 14616), (420, 14727), (426, 14757), (437, 14790), (449, 14868), (455, 14901), (466, 15009), (485, 15195), (489, 15216), (492, 15240), (493, 15252),

Gene: R4_18 Start: 11638, Stop: 15039, Start Num: 14
Candidate Starts for R4_18:
(Start: 14 @11638 has 34 MA's), (Start: 19 @11677 has 3 MA's), (30, 11764), (32, 11773), (33, 11794), (42, 11851), (45, 11884), (53, 11947), (55, 11965), (61, 11986), (66, 12016), (95, 12187), (102, 12223), (114, 12280), (119, 12310), (123, 12328), (135, 12391), (150, 12508), (169, 12691), (197, 12994), (203, 13057), (208, 13090), (211, 13123), (218, 13195), (219, 13201), (228, 13258), (233, 13282), (237, 13303), (241, 13336), (246, 13354), (262, 13429), (273, 13483), (275, 13495), (279, 13510), (290, 13528), (302, 13591), (358, 13870), (370, 13945), (383, 14017), (387, 14041), (427, 14284), (430, 14314), (435, 14401), (436, 14410), (453, 14533), (463, 14611), (466, 14650), (467, 14662), (475, 14740), (496, 14905),

Gene: RER2_14 Start: 8996, Stop: 12343, Start Num: 24
Candidate Starts for RER2_14:
(Start: 24 @8996 has 35 MA's), (25, 9014), (41, 9137), (44, 9158), (46, 9179), (50, 9209), (76, 9323), (86, 9371), (99, 9419), (101, 9428), (121, 9503), (127, 9524), (131, 9545), (132, 9551), (139, 9599), (151, 9671), (153, 9710), (154, 9719), (165, 9773), (170, 9827), (171, 9833), (174, 9872), (180, 9905), (183, 9944), (188, 10001), (193, 10112), (196, 10133), (197, 10142), (200, 10184), (207, 10235), (208, 10247), (212, 10319), (213, 10322), (222, 10394), (224, 10403), (229, 10427), (234, 10451), (235, 10460), (236, 10466), (237, 10469), (239, 10478), (240, 10490), (248, 10532), (255, 10562), (260, 10586), (264, 10607), (270, 10631), (279, 10676), (300, 10727), (303, 10739), (304, 10742), (308, 10760), (311, 10775), (319, 10826), (330, 10880), (354, 11003), (359, 11030), (362, 11054), (366, 11081), (374, 11117), (380, 11147), (392, 11231), (404, 11312), (411, 11357), (413, 11369), (415, 11378), (418, 11387), (419, 11393), (421, 11399), (425, 11420), (446, 11534), (451, 11555), (458, 11600), (464, 11654), (468, 11699), (474, 11771), (478, 11795), (481, 11840), (483, 11858), (493, 11933), (500, 11966), (503, 12008), (507, 12086), (510, 12101), (514, 12125), (524, 12281), (526, 12293), (528, 12299),

Gene: RGL3_14 Start: 8969, Stop: 12505, Start Num: 24
Candidate Starts for RGL3_14:
(Start: 24 @8969 has 35 MA's), (25, 8987), (41, 9110), (44, 9131), (46, 9152), (48, 9170), (50, 9182), (58, 9221), (64, 9242), (66, 9272), (68, 9305), (70, 9311), (71, 9314), (81, 9374), (89, 9419), (93, 9440), (105, 9503), (111, 9533), (124, 9611), (139, 9707), (142, 9728), (153, 9833), (154, 9842), (165, 9896), (172, 9965), (173, 9977), (188, 10124), (193, 10235), (195, 10244), (197, 10265), (198, 10277), (200, 10307), (202, 10316), (206, 10346), (208, 10370), (212, 10442), (213, 10445), (217, 10478), (222, 10517), (224, 10526), (226, 10532), (230, 10559), (237, 10592), (239, 10601), (240, 10613), (248, 10655), (249, 10658), (255, 10685), (260, 10709), (264, 10730), (270, 10754), (271, 10763), (279, 10799), (300, 10883), (313, 10937), (330, 11036), (346, 11123), (348, 11135), (354, 11159), (359, 11186), (371, 11258), (380, 11303), (385, 11333), (387, 11351), (390, 11375), (392, 11387), (393, 11399), (399, 11429), (407, 11489), (415, 11534), (419, 11549), (422, 11558), (423, 11567), (425, 11576), (432, 11612), (438, 11624), (444, 11669), (446, 11690), (457, 11753), (461, 11783), (464, 11810), (467, 11852), (474, 11927), (478, 11951), (479, 11972), (483, 12014), (487, 12038), (493, 12089), (511, 12260), (514, 12281), (517, 12311), (528, 12461),

Gene: Rana_18 Start: 11676, Stop: 14963, Start Num: 18
Candidate Starts for Rana_18:
(Start: 12 @11640 has 62 MA's), (Start: 18 @11676 has 4 MA's), (32, 11787), (45, 11898), (47, 11910), (49, 11922), (59, 11997), (66, 12033), (87, 12162), (95, 12204), (100, 12234), (102, 12240), (104, 12252), (146, 12465), (150, 12525), (168, 12699), (169, 12708), (197, 13011), (201, 13047), (208, 13107), (211, 13140), (218, 13212), (225, 13257), (228, 13275), (237, 13320), (241, 13353), (246, 13371), (262, 13446), (278, 13524), (290, 13545), (293, 13566), (302, 13608), (307, 13626), (335, 13773), (351, 13851), (356, 13875), (358, 13887), (360, 13899), (361, 13905), (366, 13944), (370, 13962), (409, 14205), (417, 14253), (428, 14307), (462, 14517), (466, 14568), (467, 14580), (485, 14754), (496, 14823), (507, 14949), (509, 14952),

Gene: Rasputin_21 Start: 12092, Stop: 15439, Start Num: 24
Candidate Starts for Rasputin_21:
(Start: 24 @12092 has 35 MA's), (25, 12110), (41, 12233), (44, 12254), (46, 12275), (48, 12293), (50, 12305), (62, 12344), (76, 12419), (99, 12515), (101, 12524), (121, 12599), (127, 12620), (131, 12641), (132, 12647), (139, 12695), (151, 12767), (153, 12806), (154, 12815), (165, 12869), (171, 12929), (174, 12968), (180, 13001), (183, 13040), (188, 13097), (193, 13208), (196, 13229), (197, 13238), (200, 13280), (207, 13331), (208, 13343), (212, 13415), (213, 13418), (222, 13490), (224, 13499), (234, 13547), (237, 13565), (239, 13574), (240, 13586), (248, 13628), (255, 13658), (264, 13703), (270, 13727), (279, 13772), (300, 13823), (303, 13835), (304, 13838), (308, 13856), (311, 13871), (319, 13922), (330, 13976), (337, 14018), (347, 14072), (348, 14075), (357, 14117), (374, 14213),

(380, 14243), (392, 14327), (406, 14417), (411, 14453), (413, 14465), (415, 14474), (418, 14483), (419, 14489), (423, 14507), (425, 14516), (446, 14630), (451, 14651), (455, 14672), (458, 14696), (464, 14750), (468, 14795), (474, 14867), (478, 14891), (481, 14936), (483, 14954), (493, 15029), (500, 15062), (503, 15104), (510, 15197), (514, 15221), (524, 15377), (528, 15395),

Gene: RedBear_20 Start: 11907, Stop: 15230, Start Num: 12
Candidate Starts for RedBear_20:
(Start: 12 @11907 has 62 MA's), (32, 12054), (45, 12165), (47, 12177), (49, 12189), (59, 12264), (66, 12300), (95, 12471), (100, 12501), (102, 12507), (104, 12519), (168, 12966), (169, 12975), (197, 13278), (201, 13314), (208, 13374), (211, 13407), (213, 13440), (224, 13521), (228, 13542), (233, 13566), (237, 13587), (241, 13620), (246, 13638), (259, 13698), (278, 13791), (290, 13812), (302, 13875), (307, 13893), (333, 14019), (335, 14040), (351, 14118), (358, 14154), (360, 14166), (361, 14172), (366, 14211), (370, 14229), (401, 14412), (409, 14472), (416, 14517), (466, 14835), (467, 14847), (485, 15021), (496, 15090), (507, 15216), (509, 15219),

Gene: RexFury_21 Start: 12155, Stop: 15502, Start Num: 24
Candidate Starts for RexFury_21:
(Start: 24 @12155 has 35 MA's), (25, 12173), (41, 12296), (44, 12317), (46, 12338), (50, 12368), (76, 12482), (99, 12578), (101, 12587), (121, 12662), (127, 12683), (131, 12704), (132, 12710), (139, 12758), (151, 12830), (153, 12869), (154, 12878), (165, 12932), (170, 12986), (171, 12992), (174, 13031), (180, 13064), (183, 13103), (188, 13160), (193, 13271), (196, 13292), (197, 13301), (200, 13343), (207, 13394), (208, 13406), (212, 13478), (213, 13481), (222, 13553), (224, 13562), (229, 13586), (234, 13610), (235, 13619), (236, 13625), (237, 13628), (239, 13637), (240, 13649), (248, 13691), (255, 13721), (260, 13745), (264, 13766), (270, 13790), (279, 13835), (300, 13886), (303, 13898), (304, 13901), (308, 13919), (311, 13934), (319, 13985), (330, 14039), (354, 14162), (359, 14189), (362, 14213), (366, 14240), (374, 14276), (380, 14306), (392, 14390), (404, 14471), (411, 14516), (413, 14528), (415, 14537), (418, 14546), (419, 14552), (421, 14558), (425, 14579), (446, 14693), (451, 14714), (458, 14759), (464, 14813), (468, 14858), (474, 14930), (478, 14954), (481, 14999), (483, 15017), (493, 15092), (500, 15125), (503, 15167), (507, 15245), (510, 15260), (514, 15284), (524, 15440), (526, 15452), (528, 15458),

Gene: Rhodalysa_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Rhodalysa_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Rockabye_89 Start: 56803, Stop: 61581, Start Num: 27
Candidate Starts for Rockabye_89:
(Start: 27 @56803 has 2 MA's), (68, 57106), (69, 57109), (72, 57118), (75, 57139), (85, 57193), (91, 57223), (98, 57268), (102, 57283), (107, 57307), (118, 57367), (134, 57451), (138, 57475), (139, 57478), (146, 57511), (154, 57628), (164, 57706), (169, 57754), (178, 57829), (187, 57919), (189, 57967), (194, 58036), (203, 58123), (239, 58375), (240, 58387), (281, 58591), (306, 58762), (317,

58825), (327, 58873), (340, 58942), (341, 58945), (344, 58966), (350, 58999), (376, 59140), (377, 59143), (384, 59185), (407, 59350), (408, 59353), (433, 59527), (434, 59536), (469, 59866), (476, 59965), (477, 59968), (482, 60022), (486, 60055), (502, 60166), (516, 60307), (547, 60814), (548, 60823), (552, 60838), (557, 60940), (561, 61084), (562, 61234), (563, 61252), (564, 61294), (567, 61399), (568, 61516),

Gene: Rusticus_19 Start: 11832, Stop: 15152, Start Num: 12
Candidate Starts for Rusticus_19:
(Start: 12 @11832 has 62 MA's), (32, 11976), (45, 12087), (47, 12099), (55, 12168), (57, 12174), (63, 12195), (83, 12330), (95, 12393), (102, 12429), (103, 12432), (135, 12597), (141, 12636), (148, 12693), (168, 12888), (169, 12897), (197, 13200), (200, 13233), (208, 13296), (211, 13329), (219, 13407), (228, 13464), (233, 13488), (237, 13509), (241, 13542), (246, 13560), (253, 13596), (265, 13650), (273, 13689), (278, 13713), (296, 13779), (307, 13815), (322, 13887), (327, 13911), (328, 13917), (333, 13941), (335, 13962), (356, 14064), (358, 14076), (364, 14112), (370, 14151), (377, 14184), (403, 14355), (409, 14394), (410, 14397), (428, 14496), (429, 14517), (432, 14529), (466, 14757), (467, 14769), (485, 14943), (496, 15012), (501, 15051), (507, 15138), (509, 15141),

Gene: SJReid_93 Start: 55855, Stop: 60636, Start Num: 27
Candidate Starts for SJReid_93:
(Start: 27 @55855 has 2 MA's), (51, 56032), (68, 56158), (72, 56170), (85, 56245), (107, 56359), (113, 56389), (116, 56410), (118, 56419), (130, 56473), (134, 56503), (146, 56563), (148, 56602), (154, 56680), (161, 56737), (167, 56794), (169, 56806), (176, 56863), (184, 56929), (194, 57088), (199, 57127), (203, 57175), (215, 57286), (228, 57373), (239, 57427), (240, 57439), (270, 57580), (281, 57643), (283, 57676), (285, 57700), (306, 57814), (317, 57877), (327, 57925), (345, 58021), (350, 58051), (376, 58192), (377, 58195), (384, 58237), (407, 58402), (408, 58405), (433, 58579), (434, 58588), (447, 58744), (455, 58786), (469, 58918), (502, 59218), (516, 59359), (547, 59866), (548, 59875), (552, 59890), (561, 60136), (562, 60286), (563, 60304), (564, 60346), (565, 60379), (566, 60391), (568, 60571),

Gene: Saftant_18 Start: 11565, Stop: 15947, Start Num: 3
Candidate Starts for Saftant_18:
(2, 11433), (Start: 3 @11565 has 3 MA's), (6, 11694), (13, 11901), (17, 11931), (20, 11952), (22, 11967), (23, 11976), (26, 12018), (29, 12033), (38, 12111), (40, 12117), (56, 12249), (61, 12270), (65, 12288), (84, 12423), (88, 12450), (92, 12465), (102, 12519), (104, 12531), (116, 12594), (119, 12606), (128, 12648), (130, 12657), (150, 12804), (169, 12984), (175, 13038), (197, 13290), (208, 13386), (210, 13404), (220, 13506), (224, 13533), (227, 13545), (237, 13599), (246, 13650), (261, 13719), (277, 13797), (288, 13815), (290, 13824), (293, 13845), (304, 13893), (314, 13926), (329, 14013), (335, 14052), (339, 14067), (352, 14139), (355, 14151), (358, 14166), (363, 14199), (368, 14229), (370, 14241), (375, 14262), (378, 14277), (389, 14349), (450, 14697), (451, 14706), (454, 14724), (466, 14835), (470, 14877), (482, 14997), (495, 15090), (499, 15111), (505, 15201), (508, 15225), (512, 15249), (515, 15264), (518, 15297), (521, 15336), (522, 15375), (529, 15489), (530, 15492), (531, 15513), (533, 15570), (535, 15591), (538, 15639), (539, 15642), (541, 15687), (547, 15771), (555, 15846), (558, 15933), (559, 15936),

Gene: SarahRose_18 Start: 11643, Stop: 14966, Start Num: 12
Candidate Starts for SarahRose_18:
(Start: 12 @11643 has 62 MA's), (32, 11790), (45, 11901), (47, 11913), (49, 11925), (59, 12000), (66, 12036), (87, 12165), (95, 12207), (100, 12237), (102, 12243), (114, 12300), (150, 12528), (155, 12588), (169, 12711), (197, 13014), (208, 13110), (211, 13143), (225, 13260), (228, 13278), (237, 13323), (241, 13356), (246, 13374), (262, 13449), (278, 13527), (290, 13548), (302, 13611), (307, 13629), (335, 13776), (351, 13854), (356, 13878), (358, 13890), (360, 13902), (361, 13908), (366, 13947), (370, 13965), (409, 14208), (428, 14310), (437, 14352), (462, 14520), (466, 14571), (467, 14583), (485, 14757), (496, 14826), (507, 14952), (509, 14955),

Gene: Shuman_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Shuman_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (62, 12376), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Snorlax_18 Start: 11646, Stop: 14969, Start Num: 12
Candidate Starts for Snorlax_18:
(Start: 12 @11646 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (49, 11928), (59, 12003), (66, 12039), (87, 12168), (95, 12210), (100, 12240), (102, 12246), (114, 12303), (150, 12531), (155, 12591), (169, 12714), (197, 13017), (208, 13113), (211, 13146), (225, 13263), (228, 13281), (237, 13326), (241, 13359), (246, 13377), (262, 13452), (278, 13530), (290, 13551), (302, 13614), (307, 13632), (335, 13779), (351, 13857), (356, 13881), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (370, 13968), (409, 14211), (428, 14313), (437, 14355), (462, 14523), (466, 14574), (467, 14586), (485, 14760), (496, 14829), (507, 14955), (509, 14958),

Gene: South40_19 Start: 11907, Stop: 15230, Start Num: 12
Candidate Starts for South40_19:
(Start: 12 @11907 has 62 MA's), (32, 12054), (45, 12165), (47, 12177), (49, 12189), (59, 12264), (66, 12300), (95, 12471), (100, 12501), (102, 12507), (104, 12519), (168, 12966), (169, 12975), (197, 13278), (201, 13314), (208, 13374), (211, 13407), (213, 13440), (224, 13521), (228, 13542), (233, 13566), (237, 13587), (241, 13620), (246, 13638), (259, 13698), (278, 13791), (290, 13812), (302, 13875), (307, 13893), (333, 14019), (335, 14040), (351, 14118), (358, 14154), (360, 14166), (361, 14172), (366, 14211), (370, 14229), (401, 14412), (409, 14472), (416, 14517), (466, 14835), (467, 14847), (485, 15021), (496, 15090), (507, 15216), (509, 15219),

Gene: Speedwell_23 Start: 13301, Stop: 17692, Start Num: 3
Candidate Starts for Speedwell_23:
(Start: 3 @13301 has 3 MA's), (4, 13346), (5, 13376), (20, 13688), (22, 13703), (23, 13712), (26, 13754), (35, 13820), (36, 13826), (37, 13829), (52, 13949), (55, 13982), (65, 14024), (80, 14141), (92, 14201), (104, 14267), (130, 14393), (149, 14531), (150, 14540), (169, 14720), (175, 14774), (180, 14804), (197, 15026), (201, 15062), (208, 15122), (220, 15242), (224, 15269), (237, 15335), (246, 15386), (261, 15455), (277, 15533), (288, 15551), (290, 15560), (293, 15581), (309, 15650), (336, 15791), (355, 15887), (358, 15902), (363, 15935), (370, 15977), (381, 16028), (383, 16049), (386, 16067), (401, 16160), (418, 16271), (421, 16283), (423, 16295), (432, 16355), (452, 16463), (466, 16583), (470, 16625), (512, 16997), (515, 17012), (518, 17045), (521, 17084), (522, 17123), (523, 17165), (530, 17240), (531, 17261), (533, 17318), (535, 17339), (538, 17387), (539, 17390), (547, 17519), (555, 17591), (558, 17678), (559, 17681),

Gene: SqueakyClean_19 Start: 11767, Stop: 14964, Start Num: 14
Candidate Starts for SqueakyClean_19:

(Start: 14 @11767 has 34 MA's), (Start: 19 @11806 has 3 MA's), (32, 11905), (33, 11926), (43, 11998), (45, 12016), (66, 12148), (67, 12160), (94, 12310), (100, 12349), (102, 12355), (103, 12358), (114, 12412), (139, 12547), (148, 12619), (169, 12823), (182, 12931), (197, 13126), (208, 13222), (211, 13255), (219, 13333), (224, 13369), (228, 13390), (233, 13414), (237, 13435), (238, 13438), (241, 13468), (246, 13486), (254, 13525), (259, 13546), (260, 13552), (263, 13564), (295, 13633), (316, 13696), (323, 13729), (325, 13741), (358, 13915), (367, 13975), (376, 14020), (378, 14026), (407, 14224), (437, 14356), (451, 14446), (455, 14467), (466, 14575), (492, 14806), (497, 14842),

Gene: StCroix_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for StCroix_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Sudan_18 Start: 11552, Stop: 15664, Start Num: 12
Candidate Starts for Sudan_18:
(Start: 12 @11552 has 62 MA's), (Start: 16 @11576 has 1 MA's), (32, 11696), (34, 11729), (45, 11807), (46, 11810), (83, 12050), (87, 12071), (95, 12113), (102, 12149), (104, 12161), (130, 12287), (147, 12383), (148, 12413), (150, 12434), (157, 12506), (168, 12605), (169, 12614), (197, 12920), (201, 12956), (208, 13016), (219, 13127), (224, 13163), (228, 13184), (237, 13229), (241, 13262), (246, 13280), (252, 13313), (278, 13433), (279, 13436), (284, 13502), (285, 13511), (299, 13595), (302, 13604), (306, 13619), (322, 13694), (329, 13730), (335, 13769), (358, 13883), (360, 13895), (361, 13901), (366, 13940), (373, 13967), (382, 14021), (388, 14075), (410, 14204), (417, 14249), (432, 14336), (464, 14534), (466, 14564), (470, 14606), (488, 14765), (490, 14777), (499, 14840), (508, 14954), (515, 14993), (521, 15065), (522, 15104), (523, 15146), (530, 15221), (531, 15242), (533, 15299), (535, 15320), (538, 15368), (539, 15371), (540, 15386), (543, 15449), (544, 15458), (547, 15500), (558, 15650), (559, 15653),

Gene: Sujidade_19 Start: 11947, Stop: 15270, Start Num: 12
Candidate Starts for Sujidade_19:
(Start: 12 @11947 has 62 MA's), (Start: 18 @11983 has 4 MA's), (32, 12094), (45, 12205), (47, 12217), (49, 12229), (59, 12304), (66, 12340), (87, 12469), (95, 12511), (100, 12541), (102, 12547), (104, 12559), (114, 12604), (150, 12832), (169, 13015), (201, 13354), (208, 13414), (211, 13447), (213, 13480), (224, 13561), (228, 13582), (237, 13627), (241, 13660), (246, 13678), (247, 13687), (262, 13753), (278, 13831), (290, 13852), (293, 13873), (302, 13915), (307, 13933), (335, 14080), (351, 14158), (356, 14182), (358, 14194), (360, 14206), (361, 14212), (366, 14251), (370, 14269), (409, 14512), (428, 14614), (463, 14836), (466, 14875), (467, 14887), (485, 15061), (496, 15130), (507, 15256), (509, 15259),

Gene: SunkenRoot_18 Start: 11847, Stop: 15959, Start Num: 12
Candidate Starts for SunkenRoot_18:
(Start: 12 @11847 has 62 MA's), (Start: 16 @11871 has 1 MA's), (32, 11991), (34, 12024), (39, 12054), (45, 12102), (46, 12105), (78, 12321), (83, 12345), (87, 12366), (95, 12408), (102, 12444), (103,

12447), (104, 12456), (116, 12519), (123, 12549), (128, 12573), (130, 12582), (133, 12594), (138, 12633), (143, 12657), (150, 12729), (168, 12900), (169, 12909), (197, 13215), (203, 13278), (208, 13311), (219, 13422), (224, 13458), (228, 13479), (237, 13524), (241, 13557), (246, 13575), (252, 13608), (262, 13650), (265, 13665), (272, 13698), (273, 13704), (277, 13722), (280, 13737), (284, 13797), (285, 13806), (286, 13815), (289, 13830), (292, 13845), (299, 13890), (302, 13899), (309, 13926), (321, 13986), (335, 14064), (351, 14142), (358, 14178), (360, 14190), (361, 14196), (366, 14235), (370, 14253), (373, 14262), (388, 14370), (405, 14469), (406, 14475), (409, 14496), (410, 14499), (432, 14631), (446, 14709), (466, 14859), (470, 14901), (508, 15249), (515, 15288), (521, 15360), (522, 15399), (530, 15516), (531, 15537), (533, 15594), (535, 15615), (538, 15663), (539, 15666), (543, 15744), (544, 15753), (547, 15795), (558, 15945), (559, 15948),

Gene: SunsetPointe_18 Start: 11659, Stop: 14979, Start Num: 12
Candidate Starts for SunsetPointe_18:
(Start: 12 @11659 has 62 MA's), (32, 11803), (45, 11914), (47, 11926), (55, 11995), (57, 12001), (63, 12022), (83, 12157), (95, 12220), (102, 12256), (103, 12259), (135, 12424), (141, 12463), (148, 12520), (169, 12724), (197, 13027), (200, 13060), (208, 13123), (211, 13156), (219, 13234), (224, 13270), (225, 13273), (228, 13291), (233, 13315), (237, 13336), (241, 13369), (246, 13387), (253, 13423), (265, 13477), (273, 13516), (278, 13540), (296, 13606), (307, 13642), (322, 13714), (327, 13738), (328, 13744), (333, 13768), (335, 13789), (356, 13891), (358, 13903), (364, 13939), (370, 13978), (377, 14011), (403, 14182), (409, 14221), (428, 14323), (429, 14344), (432, 14356), (462, 14533), (466, 14584), (467, 14596), (485, 14770), (496, 14839), (501, 14878), (507, 14965), (509, 14968),

Gene: Superstar_21 Start: 12671, Stop: 16678, Start Num: 14
Candidate Starts for Superstar_21:
(Start: 14 @12671 has 34 MA's), (30, 12797), (32, 12806), (42, 12884), (45, 12917), (66, 13049), (75, 13115), (87, 13178), (95, 13220), (102, 13256), (114, 13313), (119, 13343), (137, 13436), (139, 13448), (154, 13598), (167, 13712), (169, 13721), (208, 14120), (219, 14231), (228, 14288), (233, 14312), (237, 14333), (241, 14366), (246, 14384), (265, 14474), (296, 14558), (297, 14561), (299, 14567), (319, 14612), (320, 14615), (335, 14699), (346, 14756), (358, 14813), (360, 14825), (361, 14831), (370, 14888), (383, 14960), (429, 15254), (430, 15257), (432, 15266), (466, 15593), (476, 15698), (480, 15746), (490, 15806), (508, 15983), (518, 16055), (521, 16094), (522, 16133), (529, 16247), (530, 16250), (531, 16271), (533, 16328), (535, 16349), (536, 16352), (541, 16445), (542, 16469), (546, 16493), (558, 16667),

Gene: Swann_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for Swann_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: TWAMP_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for TWAMP_21:

(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: TagePhighter_19 Start: 11646, Stop: 14969, Start Num: 12
Candidate Starts for TagePhighter_19:
(Start: 12 @11646 has 62 MA's), (32, 11793), (45, 11904), (47, 11916), (49, 11928), (59, 12003), (87, 12168), (95, 12210), (100, 12240), (102, 12246), (114, 12303), (150, 12531), (155, 12591), (169, 12714), (197, 13017), (208, 13113), (211, 13146), (225, 13263), (228, 13281), (237, 13326), (241, 13359), (246, 13377), (262, 13452), (278, 13530), (290, 13551), (302, 13614), (307, 13632), (335, 13779), (351, 13857), (356, 13881), (358, 13893), (360, 13905), (361, 13911), (366, 13950), (370, 13968), (409, 14211), (428, 14313), (437, 14355), (462, 14523), (466, 14574), (467, 14586), (496, 14829), (507, 14955), (509, 14958),

Gene: Takoda_21 Start: 12084, Stop: 15431, Start Num: 24
Candidate Starts for Takoda_21:
(Start: 24 @12084 has 35 MA's), (25, 12102), (41, 12225), (44, 12246), (46, 12267), (50, 12297), (62, 12336), (76, 12411), (99, 12507), (101, 12516), (121, 12591), (127, 12612), (131, 12633), (132, 12639), (139, 12687), (151, 12759), (153, 12798), (154, 12807), (165, 12861), (171, 12921), (174, 12960), (180, 12993), (183, 13032), (188, 13089), (193, 13200), (196, 13221), (197, 13230), (200, 13272), (207, 13323), (208, 13335), (212, 13407), (213, 13410), (222, 13482), (224, 13491), (229, 13515), (237, 13557), (239, 13566), (240, 13578), (248, 13620), (255, 13650), (264, 13695), (270, 13719), (279, 13764), (294, 13794), (300, 13815), (303, 13827), (304, 13830), (308, 13848), (311, 13863), (319, 13914), (337, 14010), (346, 14055), (347, 14064), (348, 14067), (357, 14109), (374, 14205), (380, 14235), (392, 14319), (395, 14346), (407, 14421), (415, 14466), (418, 14475), (446, 14622), (459, 14697), (464, 14742), (468, 14787), (474, 14859), (478, 14883), (481, 14928), (483, 14946), (493, 15021), (500, 15054), (503, 15096), (510, 15189), (514, 15213), (524, 15369), (528, 15387),

Gene: Tefunt_18 Start: 11570, Stop: 15475, Start Num: 14
Candidate Starts for Tefunt_18:
(Start: 14 @11570 has 34 MA's), (32, 11705), (45, 11816), (53, 11879), (59, 11912), (66, 11948), (94, 12110), (95, 12119), (102, 12155), (119, 12242), (167, 12611), (169, 12620), (208, 13019), (211, 13052), (224, 13166), (237, 13232), (241, 13265), (246, 13283), (251, 13307), (253, 13319), (265, 13373), (296, 13457), (299, 13466), (319, 13511), (335, 13598), (346, 13655), (358, 13712), (370, 13787), (383, 13859), (429, 14153), (449, 14252), (455, 14285), (466, 14393), (471, 14438), (476, 14498), (490, 14606), (522, 14933), (523, 14975), (530, 15050), (531, 15071), (533, 15128), (535, 15149), (536, 15152), (538, 15197), (558, 15464),

Gene: Thestral_19 Start: 11634, Stop: 14933, Start Num: 14
Candidate Starts for Thestral_19:
(Start: 14 @11634 has 34 MA's), (Start: 19 @11673 has 3 MA's), (32, 11769), (33, 11790), (39, 11832), (42, 11847), (66, 12009), (95, 12180), (102, 12216), (130, 12354), (141, 12423), (167, 12672), (169,

12684), (197, 12987), (208, 13083), (211, 13116), (218, 13188), (219, 13194), (224, 13230), (228, 13251), (233, 13275), (236, 13293), (237, 13296), (241, 13329), (246, 13347), (273, 13476), (290, 13521), (302, 13584), (304, 13590), (335, 13749), (338, 13761), (358, 13863), (370, 13938), (383, 14010), (427, 14277), (449, 14403), (453, 14427), (466, 14544), (467, 14556), (473, 14625), (475, 14634), (480, 14697), (492, 14775), (493, 14787), (496, 14799),

Gene: TinaBelcher_18 Start: 11621, Stop: 14881, Start Num: 19
Candidate Starts for TinaBelcher_18:
(Start: 14 @11582 has 34 MA's), (Start: 19 @11621 has 3 MA's), (32, 11717), (33, 11738), (39, 11780), (42, 11795), (66, 11957), (95, 12128), (102, 12164), (144, 12383), (146, 12389), (150, 12449), (169, 12632), (197, 12935), (208, 13031), (211, 13064), (218, 13136), (219, 13142), (227, 13190), (233, 13223), (236, 13241), (237, 13244), (241, 13277), (246, 13295), (273, 13424), (290, 13469), (302, 13532), (304, 13538), (335, 13697), (338, 13709), (358, 13811), (365, 13865), (370, 13886), (383, 13958), (427, 14225), (449, 14351), (453, 14375), (466, 14492), (467, 14504), (473, 14573), (475, 14582), (480, 14645), (492, 14723), (493, 14735), (496, 14747),

Gene: Toma_18 Start: 11655, Stop: 14978, Start Num: 12
Candidate Starts for Toma_18:
(Start: 12 @11655 has 62 MA's), (Start: 18 @11691 has 4 MA's), (32, 11802), (45, 11913), (47, 11925), (49, 11937), (59, 12012), (66, 12048), (87, 12177), (95, 12219), (100, 12249), (102, 12255), (104, 12267), (114, 12312), (150, 12540), (169, 12723), (201, 13062), (208, 13122), (211, 13155), (225, 13272), (228, 13290), (237, 13335), (241, 13368), (246, 13386), (262, 13461), (278, 13539), (290, 13560), (293, 13581), (302, 13623), (307, 13641), (335, 13788), (351, 13866), (356, 13890), (358, 13902), (360, 13914), (361, 13920), (366, 13959), (370, 13977), (409, 14220), (428, 14322), (463, 14544), (466, 14583), (467, 14595), (485, 14769), (496, 14838), (507, 14964), (509, 14967),

Gene: Triste_18 Start: 11637, Stop: 14960, Start Num: 12
Candidate Starts for Triste_18:
(Start: 12 @11637 has 62 MA's), (32, 11784), (45, 11895), (47, 11907), (49, 11919), (59, 11994), (66, 12030), (95, 12201), (100, 12231), (102, 12237), (114, 12294), (150, 12522), (155, 12582), (169, 12705), (197, 13008), (208, 13104), (211, 13137), (225, 13254), (228, 13272), (237, 13317), (241, 13350), (246, 13368), (262, 13443), (278, 13521), (290, 13542), (302, 13605), (307, 13623), (335, 13770), (351, 13848), (356, 13872), (358, 13884), (360, 13896), (361, 13902), (366, 13941), (370, 13959), (409, 14202), (428, 14304), (437, 14346), (462, 14514), (466, 14565), (467, 14577), (485, 14751), (496, 14820), (507, 14946), (509, 14949),

Gene: Triumph_20 Start: 11576, Stop: 14881, Start Num: 14
Candidate Starts for Triumph_20:
(Start: 14 @11576 has 34 MA's), (Start: 19 @11615 has 3 MA's), (32, 11714), (33, 11735), (43, 11807), (45, 11825), (66, 11957), (67, 11969), (94, 12119), (100, 12158), (102, 12164), (103, 12167), (114, 12221), (169, 12632), (197, 12935), (208, 13031), (211, 13064), (228, 13199), (233, 13223), (237, 13244), (238, 13247), (241, 13277), (246, 13295), (253, 13331), (278, 13448), (288, 13460), (296, 13514), (307, 13550), (335, 13697), (351, 13775), (356, 13799), (358, 13811), (366, 13868), (376, 13916), (383, 13958), (396, 14048), (432, 14264), (462, 14441), (466, 14492), (467, 14504), (480, 14645), (485, 14678), (492, 14723), (497, 14759),

Gene: TrvxScott_17 Start: 11584, Stop: 14883, Start Num: 14
Candidate Starts for TrvxScott_17:
(Start: 14 @11584 has 34 MA's), (Start: 19 @11623 has 3 MA's), (32, 11719), (33, 11740), (39, 11782), (42, 11797), (66, 11959), (95, 12130), (102, 12166), (169, 12634), (197, 12937), (208, 13033), (211, 13066), (218, 13138), (219, 13144), (233, 13225), (236, 13243), (237, 13246), (241, 13279), (246, 13297), (273, 13426), (290, 13471), (302, 13534), (304, 13540), (335, 13699), (338, 13711), (346, 13756), (358, 13813), (370, 13888), (372, 13894), (383, 13960), (427, 14227), (449, 14353), (453,

14377), (466, 14494), (467, 14506), (473, 14575), (475, 14584), (480, 14647), (489, 14701), (492, 14725), (496, 14749),

Gene: TuanPN_18 Start: 11643, Stop: 14966, Start Num: 12
Candidate Starts for TuanPN_18:
(Start: 12 @11643 has 62 MA's), (32, 11790), (45, 11901), (47, 11913), (49, 11925), (59, 12000), (66, 12036), (95, 12207), (100, 12237), (102, 12243), (104, 12255), (114, 12300), (125, 12354), (146, 12468), (150, 12528), (168, 12702), (169, 12711), (197, 13014), (201, 13050), (208, 13110), (211, 13143), (219, 13221), (225, 13260), (228, 13278), (237, 13323), (241, 13356), (246, 13374), (262, 13449), (278, 13527), (290, 13548), (293, 13569), (302, 13611), (307, 13629), (322, 13701), (335, 13776), (351, 13854), (356, 13878), (358, 13890), (360, 13902), (361, 13908), (366, 13947), (370, 13965), (409, 14208), (416, 14253), (428, 14310), (462, 14520), (466, 14571), (496, 14826), (507, 14952), (509, 14955),

Gene: UhSalsa_21 Start: 12124, Stop: 15471, Start Num: 24
Candidate Starts for UhSalsa_21:
(Start: 24 @12124 has 35 MA's), (25, 12142), (41, 12265), (44, 12286), (46, 12307), (50, 12337), (76, 12451), (86, 12499), (99, 12547), (101, 12556), (121, 12631), (127, 12652), (131, 12673), (132, 12679), (139, 12727), (151, 12799), (153, 12838), (154, 12847), (165, 12901), (170, 12955), (171, 12961), (174, 13000), (180, 13033), (183, 13072), (188, 13129), (193, 13240), (196, 13261), (197, 13270), (200, 13312), (207, 13363), (208, 13375), (212, 13447), (213, 13450), (222, 13522), (224, 13531), (229, 13555), (234, 13579), (235, 13588), (236, 13594), (237, 13597), (239, 13606), (240, 13618), (248, 13660), (255, 13690), (260, 13714), (264, 13735), (270, 13759), (279, 13804), (300, 13855), (303, 13867), (304, 13870), (308, 13888), (311, 13903), (319, 13954), (330, 14008), (354, 14131), (359, 14158), (362, 14182), (366, 14209), (374, 14245), (380, 14275), (392, 14359), (404, 14440), (411, 14485), (413, 14497), (415, 14506), (418, 14515), (419, 14521), (421, 14527), (425, 14548), (446, 14662), (451, 14683), (458, 14728), (464, 14782), (468, 14827), (474, 14899), (478, 14923), (481, 14968), (483, 14986), (493, 15061), (500, 15094), (503, 15136), (507, 15214), (510, 15229), (514, 15253), (524, 15409), (526, 15421), (528, 15427),

Gene: Unstoppable_18 Start: 11660, Stop: 14980, Start Num: 12
Candidate Starts for Unstoppable_18:
(Start: 12 @11660 has 62 MA's), (32, 11804), (45, 11915), (47, 11927), (55, 11996), (57, 12002), (63, 12023), (83, 12158), (95, 12221), (102, 12257), (103, 12260), (135, 12425), (141, 12464), (148, 12521), (169, 12725), (197, 13028), (200, 13061), (208, 13124), (211, 13157), (219, 13235), (224, 13271), (225, 13274), (228, 13292), (233, 13316), (237, 13337), (241, 13370), (246, 13388), (253, 13424), (265, 13478), (273, 13517), (278, 13541), (296, 13607), (307, 13643), (322, 13715), (327, 13739), (328, 13745), (333, 13769), (335, 13790), (356, 13892), (358, 13904), (364, 13940), (370, 13979), (377, 14012), (403, 14183), (409, 14222), (428, 14324), (429, 14345), (432, 14357), (462, 14534), (466, 14585), (467, 14597), (485, 14771), (496, 14840), (501, 14879), (507, 14966), (509, 14969),

Gene: Urza_18 Start: 11942, Stop: 15343, Start Num: 14
Candidate Starts for Urza_18:
(Start: 14 @11942 has 34 MA's), (Start: 16 @11957 has 1 MA's), (32, 12077), (43, 12170), (45, 12188), (49, 12212), (71, 12368), (104, 12545), (114, 12590), (130, 12671), (140, 12734), (144, 12752), (154, 12875), (169, 12998), (177, 13070), (180, 13082), (189, 13211), (197, 13304), (206, 13376), (208, 13400), (214, 13475), (227, 13559), (237, 13613), (241, 13646), (243, 13652), (247, 13673), (250, 13685), (259, 13724), (263, 13742), (287, 13907), (298, 13976), (303, 13991), (307, 14006), (314, 14027), (323, 14081), (333, 14132), (335, 14153), (358, 14267), (370, 14342), (373, 14351), (391, 14465), (409, 14585), (431, 14717), (432, 14720), (443, 14771), (454, 14837), (455, 14840), (466, 14948), (473, 15029), (477, 15056), (491, 15173), (501, 15245), (507, 15332),

Gene: Vanseggelen_23 Start: 11218, Stop: 15330, Start Num: 12
Candidate Starts for Vanseggelen_23:
(Start: 12 @11218 has 62 MA's), (Start: 16 @11242 has 1 MA's), (21, 11269), (32, 11362), (34, 11395), (39, 11425), (45, 11473), (54, 11545), (83, 11716), (87, 11737), (95, 11779), (104, 11827), (116, 11890), (130, 11953), (147, 12049), (148, 12079), (150, 12100), (157, 12172), (168, 12271), (169, 12280), (197, 12586), (208, 12682), (211, 12715), (219, 12793), (224, 12829), (237, 12895), (269, 13054), (273, 13075), (284, 13168), (285, 13177), (286, 13186), (311, 13300), (322, 13360), (331, 13405), (335, 13435), (346, 13492), (351, 13513), (358, 13549), (366, 13606), (370, 13624), (373, 13633), (432, 14002), (448, 14089), (455, 14122), (460, 14164), (466, 14230), (473, 14311), (476, 14335), (488, 14431), (490, 14443), (505, 14596), (508, 14620), (515, 14659), (521, 14731), (522, 14770), (523, 14812), (530, 14887), (531, 14908), (533, 14965), (535, 14986), (538, 15034), (539, 15037), (540, 15052), (543, 15115), (544, 15124), (547, 15166), (550, 15181), (558, 15316), (559, 15319),

Gene: Verabelle_19 Start: 11549, Stop: 15661, Start Num: 12
Candidate Starts for Verabelle_19:
(Start: 12 @11549 has 62 MA's), (Start: 16 @11573 has 1 MA's), (21, 11600), (31, 11687), (32, 11693), (34, 11726), (39, 11756), (45, 11804), (73, 11987), (75, 12005), (87, 12068), (95, 12110), (102, 12146), (104, 12158), (114, 12203), (119, 12233), (130, 12284), (138, 12335), (148, 12410), (150, 12431), (154, 12488), (159, 12524), (168, 12602), (169, 12611), (189, 12824), (197, 12917), (204, 12983), (206, 12989), (208, 13013), (216, 13100), (237, 13226), (239, 13235), (244, 13268), (246, 13277), (252, 13310), (262, 13352), (267, 13373), (273, 13406), (275, 13418), (277, 13424), (280, 13439), (284, 13499), (285, 13508), (286, 13517), (288, 13529), (289, 13532), (309, 13628), (313, 13637), (322, 13691), (331, 13736), (335, 13766), (346, 13823), (351, 13844), (358, 13880), (366, 13937), (370, 13955), (373, 13964), (388, 14072), (415, 14240), (432, 14333), (448, 14420), (455, 14453), (460, 14495), (466, 14561), (473, 14642), (476, 14666), (484, 14744), (505, 14927), (508, 14951), (515, 14990), (518, 15023), (521, 15062), (522, 15101), (530, 15218), (531, 15239), (533, 15296), (535, 15317), (539, 15368), (543, 15446), (544, 15455), (547, 15497), (558, 15647), (559, 15650),

Gene: Verse_18 Start: 11848, Stop: 15960, Start Num: 12
Candidate Starts for Verse_18:
(Start: 12 @11848 has 62 MA's), (Start: 16 @11872 has 1 MA's), (32, 11992), (34, 12025), (39, 12055), (45, 12103), (46, 12106), (78, 12322), (90, 12382), (104, 12457), (116, 12520), (130, 12583), (143, 12658), (150, 12730), (168, 12901), (169, 12910), (197, 13216), (201, 13252), (208, 13312), (211, 13345), (219, 13423), (221, 13444), (224, 13459), (228, 13480), (231, 13498), (237, 13525), (241, 13558), (246, 13576), (252, 13609), (265, 13666), (274, 13711), (278, 13729), (284, 13798), (302, 13900), (309, 13927), (322, 13990), (335, 14065), (351, 14143), (355, 14164), (358, 14179), (360, 14191), (361, 14197), (366, 14236), (370, 14254), (388, 14371), (405, 14470), (406, 14476), (409, 14497), (410, 14500), (432, 14632), (446, 14710), (466, 14860), (470, 14902), (508, 15250), (515, 15289), (521, 15361), (522, 15400), (530, 15517), (531, 15538), (533, 15595), (535, 15616), (538, 15664), (539, 15667), (543, 15745), (544, 15754), (547, 15796), (558, 15946), (559, 15949),

Gene: VieEnRose_18 Start: 12008, Stop: 15409, Start Num: 14
Candidate Starts for VieEnRose_18:
(Start: 14 @12008 has 34 MA's), (Start: 16 @12023 has 1 MA's), (32, 12143), (43, 12236), (45, 12254), (49, 12278), (71, 12434), (95, 12563), (104, 12611), (114, 12656), (130, 12737), (140, 12800), (144, 12818), (154, 12941), (169, 13064), (177, 13136), (180, 13148), (189, 13277), (197, 13370), (206, 13442), (208, 13466), (227, 13625), (237, 13679), (241, 13712), (243, 13718), (247, 13739), (257, 13784), (263, 13808), (276, 13874), (282, 13919), (291, 13994), (298, 14042), (303, 14057), (307, 14072), (309, 14081), (323, 14147), (333, 14198), (335, 14219), (358, 14333), (370, 14408), (373, 14417), (383, 14480), (409, 14651), (431, 14783), (432, 14786), (440, 14807), (441, 14828), (466, 15014), (467, 15026), (473, 15095), (475, 15104), (477, 15122), (491, 15239), (501, 15311), (507, 15398),

Gene: Werner_18 Start: 11647, Stop: 14970, Start Num: 12
Candidate Starts for Werner_18:
(Start: 12 @11647 has 62 MA's), (32, 11794), (45, 11905), (47, 11917), (49, 11929), (59, 12004), (66, 12040), (87, 12169), (95, 12211), (100, 12241), (102, 12247), (114, 12304), (150, 12532), (155, 12592), (169, 12715), (197, 13018), (208, 13114), (211, 13147), (225, 13264), (228, 13282), (237, 13327), (241, 13360), (246, 13378), (262, 13453), (278, 13531), (290, 13552), (302, 13615), (307, 13633), (335, 13780), (351, 13858), (356, 13882), (358, 13894), (360, 13906), (361, 13912), (366, 13951), (370, 13969), (409, 14212), (428, 14314), (437, 14356), (462, 14524), (466, 14575), (467, 14587), (485, 14761), (496, 14830), (507, 14956), (509, 14959),

Gene: Whatever_18 Start: 11647, Stop: 14970, Start Num: 12
Candidate Starts for Whatever_18:
(Start: 12 @11647 has 62 MA's), (32, 11794), (33, 11815), (45, 11905), (47, 11917), (49, 11929), (59, 12004), (66, 12040), (87, 12169), (95, 12211), (100, 12241), (102, 12247), (114, 12304), (150, 12532), (155, 12592), (169, 12715), (197, 13018), (208, 13114), (211, 13147), (225, 13264), (228, 13282), (237, 13327), (241, 13360), (246, 13378), (262, 13453), (278, 13531), (290, 13552), (302, 13615), (307, 13633), (335, 13780), (351, 13858), (356, 13882), (358, 13894), (360, 13906), (361, 13912), (366, 13951), (370, 13969), (409, 14212), (428, 14314), (437, 14356), (462, 14524), (466, 14575), (467, 14587), (485, 14761), (496, 14830), (507, 14956), (509, 14959),

Gene: Yasdnil_18 Start: 11639, Stop: 14962, Start Num: 12
Candidate Starts for Yasdnil_18:
(Start: 12 @11639 has 62 MA's), (32, 11786), (45, 11897), (47, 11909), (49, 11921), (59, 11996), (66, 12032), (95, 12203), (100, 12233), (102, 12239), (104, 12251), (114, 12296), (125, 12350), (146, 12464), (150, 12524), (168, 12698), (169, 12707), (197, 13010), (201, 13046), (208, 13106), (211, 13139), (219, 13217), (225, 13256), (228, 13274), (237, 13319), (241, 13352), (246, 13370), (262, 13445), (278, 13523), (290, 13544), (293, 13565), (302, 13607), (307, 13625), (322, 13697), (335, 13772), (351, 13850), (356, 13874), (358, 13886), (360, 13898), (361, 13904), (366, 13943), (370, 13961), (409, 14204), (416, 14249), (428, 14306), (462, 14516), (466, 14567), (496, 14822), (507, 14948), (509, 14951),

Gene: Yogi_21 Start: 12098, Stop: 15445, Start Num: 24
Candidate Starts for Yogi_21:
(Start: 24 @12098 has 35 MA's), (25, 12116), (41, 12239), (44, 12260), (46, 12281), (48, 12299), (50, 12311), (62, 12350), (76, 12425), (99, 12521), (101, 12530), (121, 12605), (127, 12626), (131, 12647), (132, 12653), (139, 12701), (151, 12773), (153, 12812), (154, 12821), (165, 12875), (171, 12935), (174, 12974), (180, 13007), (183, 13046), (188, 13103), (193, 13214), (196, 13235), (197, 13244), (200, 13286), (207, 13337), (208, 13349), (212, 13421), (213, 13424), (222, 13496), (224, 13505), (232, 13547), (234, 13553), (237, 13571), (239, 13580), (240, 13592), (248, 13634), (255, 13664), (256, 13667), (264, 13709), (270, 13733), (279, 13778), (300, 13829), (303, 13841), (304, 13844), (308, 13862), (311, 13877), (319, 13928), (330, 13982), (337, 14024), (347, 14078), (348, 14081), (357, 14123), (374, 14219), (380, 14249), (392, 14333), (406, 14423), (411, 14459), (413, 14471), (415, 14480), (418, 14489), (419, 14495), (423, 14513), (425, 14522), (446, 14636), (451, 14657), (455, 14678), (458, 14702), (464, 14756), (468, 14801), (474, 14873), (478, 14897), (481, 14942), (483, 14960), (493, 15035), (500, 15068), (503, 15110), (510, 15203), (514, 15227), (524, 15383), (528, 15401),

Gene: Yoncess_21 Start: 12098, Stop: 15445, Start Num: 24
Candidate Starts for Yoncess_21:
(Start: 24 @12098 has 35 MA's), (25, 12116), (41, 12239), (44, 12260), (46, 12281), (50, 12311), (62, 12350), (76, 12425), (99, 12521), (101, 12530), (121, 12605), (127, 12626), (131, 12647), (132, 12653), (139, 12701), (151, 12773), (153, 12812), (154, 12821), (165, 12875), (171, 12935), (174,

12974), (180, 13007), (183, 13046), (188, 13103), (193, 13214), (196, 13235), (197, 13244), (200, 13286), (207, 13337), (208, 13349), (212, 13421), (213, 13424), (222, 13496), (224, 13505), (234, 13553), (237, 13571), (239, 13580), (240, 13592), (248, 13634), (255, 13664), (264, 13709), (270, 13733), (279, 13778), (300, 13829), (303, 13841), (304, 13844), (308, 13862), (311, 13877), (319, 13928), (330, 13982), (337, 14024), (347, 14078), (348, 14081), (374, 14219), (380, 14249), (392, 14333), (406, 14423), (411, 14459), (413, 14471), (415, 14480), (418, 14489), (419, 14495), (423, 14513), (425, 14522), (446, 14636), (455, 14678), (458, 14702), (464, 14756), (468, 14801), (474, 14873), (478, 14897), (481, 14942), (483, 14960), (493, 15035), (500, 15068), (503, 15110), (510, 15203), (514, 15227), (524, 15383), (528, 15401),

Gene: Yosif_19 Start: 11936, Stop: 15949, Start Num: 14
Candidate Starts for Yosif_19:
(Start: 14 @11936 has 34 MA's), (Start: 16 @11951 has 1 MA's), (32, 12071), (36, 12113), (38, 12134), (45, 12182), (60, 12281), (83, 12425), (88, 12455), (104, 12536), (120, 12614), (169, 12992), (180, 13076), (184, 13115), (197, 13295), (200, 13328), (208, 13391), (224, 13538), (237, 13604), (241, 13637), (243, 13643), (246, 13655), (275, 13796), (277, 13802), (290, 13829), (304, 13898), (322, 13982), (323, 13985), (325, 13997), (335, 14057), (358, 14171), (360, 14183), (373, 14255), (405, 14450), (409, 14477), (431, 14609), (432, 14612), (440, 14633), (441, 14654), (466, 14840), (506, 15218), (508, 15227), (515, 15266), (518, 15299), (522, 15377), (523, 15419), (525, 15428), (529, 15491), (530, 15494), (531, 15515), (533, 15572), (535, 15593), (538, 15641), (539, 15644), (540, 15659), (543, 15722), (544, 15731), (547, 15773), (551, 15794), (554, 15806), (555, 15848), (558, 15935), (559, 15938),

Gene: Zainub_20 Start: 12120, Stop: 15311, Start Num: 14
Candidate Starts for Zainub_20:
(Start: 14 @12120 has 34 MA's), (Start: 19 @12159 has 3 MA's), (30, 12246), (32, 12255), (33, 12276), (39, 12318), (66, 12495), (83, 12603), (88, 12633), (94, 12657), (102, 12702), (103, 12705), (114, 12759), (169, 13170), (184, 13293), (197, 13473), (203, 13536), (205, 13542), (208, 13569), (224, 13716), (228, 13737), (233, 13761), (237, 13782), (238, 13785), (241, 13815), (246, 13833), (295, 13980), (326, 14094), (327, 14097), (343, 14175), (346, 14205), (356, 14250), (358, 14262), (366, 14319), (367, 14322), (376, 14367), (378, 14373), (402, 14529), (412, 14604), (437, 14703), (445, 14769), (456, 14823), (466, 14922), (485, 15108), (489, 15129), (492, 15153), (493, 15165),

Gene: ZamZam_18 Start: 11560, Stop: 15954, Start Num: 3
Candidate Starts for ZamZam_18:
(2, 11434), (Start: 3 @11560 has 3 MA's), (6, 11689), (7, 11710), (13, 11896), (17, 11926), (20, 11947), (22, 11962), (23, 11971), (26, 12013), (29, 12028), (35, 12079), (56, 12244), (58, 12250), (65, 12283), (84, 12418), (88, 12445), (92, 12460), (102, 12514), (104, 12526), (116, 12589), (119, 12601), (128, 12643), (130, 12652), (150, 12799), (169, 12979), (175, 13033), (197, 13285), (204, 13351), (208, 13381), (220, 13501), (224, 13528), (227, 13540), (237, 13594), (246, 13645), (252, 13678), (261, 13714), (277, 13792), (288, 13810), (290, 13819), (293, 13840), (304, 13888), (314, 13921), (335, 14047), (339, 14062), (352, 14134), (355, 14146), (358, 14161), (363, 14194), (368, 14224), (370, 14236), (383, 14308), (396, 14398), (403, 14440), (454, 14731), (466, 14842), (473, 14923), (476, 14947), (508, 15232), (515, 15271), (521, 15343), (522, 15382), (523, 15424), (530, 15499), (531, 15520), (533, 15577), (535, 15598), (538, 15646), (539, 15649), (541, 15694), (547, 15778), (553, 15805), (555, 15853), (558, 15940), (559, 15943),

Gene: Zemlya_19 Start: 11666, Stop: 14989, Start Num: 12
Candidate Starts for Zemlya_19:
(Start: 12 @11666 has 62 MA's), (Start: 18 @11702 has 4 MA's), (32, 11813), (45, 11924), (47, 11936), (49, 11948), (59, 12023), (66, 12059), (87, 12188), (95, 12230), (100, 12260), (102, 12266), (104, 12278), (114, 12323), (146, 12491), (150, 12551), (168, 12725), (169, 12734), (197, 13037), (201, 13073), (206, 13109), (208, 13133), (211, 13166), (225, 13283), (228, 13301), (237, 13346), (241,

13379), (246, 13397), (262, 13472), (278, 13550), (290, 13571), (293, 13592), (302, 13634), (307, 13652), (335, 13799), (351, 13877), (356, 13901), (358, 13913), (360, 13925), (361, 13931), (366, 13970), (370, 13988), (409, 14231), (428, 14333), (466, 14594), (467, 14606), (475, 14684), (477, 14702), (485, 14780), (496, 14849), (507, 14975), (509, 14978),

Gene: phiCAM_19 Start: 13655, Stop: 17626, Start Num: 32
Candidate Starts for phiCAM_19:
(Start: 12 @13511 has 62 MA's), (Start: 16 @13535 has 1 MA's), (32, 13655), (34, 13688), (39, 13718), (45, 13766), (46, 13769), (78, 13985), (87, 14030), (102, 14108), (103, 14111), (104, 14120), (116, 14183), (123, 14213), (128, 14237), (130, 14246), (138, 14297), (143, 14321), (150, 14393), (168, 14564), (169, 14573), (197, 14879), (203, 14942), (208, 14975), (219, 15086), (224, 15122), (228, 15143), (237, 15188), (241, 15221), (246, 15239), (252, 15272), (262, 15314), (265, 15329), (272, 15362), (273, 15368), (277, 15386), (278, 15392), (279, 15395), (284, 15461), (285, 15470), (286, 15479), (289, 15494), (302, 15563), (306, 15578), (322, 15653), (335, 15728), (355, 15827), (358, 15842), (360, 15854), (361, 15860), (366, 15899), (370, 15917), (386, 16007), (388, 16034), (409, 16160), (428, 16262), (432, 16295), (466, 16523), (470, 16565), (488, 16724), (490, 16736), (508, 16913), (515, 16952), (521, 17024), (522, 17063), (530, 17180), (531, 17201), (533, 17258), (535, 17279), (538, 17327), (539, 17330), (540, 17345), (543, 17408), (544, 17417), (547, 17459), (558, 17612), (559, 17615),

Gene: phiHau3_20 Start: 11837, Stop: 15658, Start Num: 1
Candidate Starts for phiHau3_20:
(Start: 1 @11837 has 3 MA's), (8, 12173), (10, 12218), (11, 12311), (15, 12335), (Start: 16 @12344 has 1 MA's), (32, 12470), (41, 12554), (46, 12593), (58, 12680), (66, 12737), (79, 12830), (82, 12839), (87, 12866), (91, 12884), (96, 12917), (102, 12944), (114, 13001), (115, 13010), (143, 13157), (144, 13163), (145, 13166), (166, 13385), (169, 13412), (179, 13493), (190, 13631), (197, 13715), (208, 13811), (209, 13820), (223, 13955), (224, 13958), (227, 13970), (241, 14057), (242, 14060), (244, 14066), (279, 14231), (292, 14258), (325, 14417), (327, 14426), (335, 14477), (342, 14501), (349, 14549), (355, 14576), (358, 14591), (370, 14666), (381, 14717), (430, 15035), (442, 15089), (445, 15119), (466, 15272), (473, 15353), (475, 15362), (477, 15380), (507, 15647),