Zoomed Pham 283591

Zoomed Pham 283591

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 283591 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283591 has 135 members, 12 are drafts.

Phages represented in each track:
• Track 1 : Hedwig_18
• Track 2 : Bowser_17
• Track 3 : Schnabeltier_17, MagicMan_17
• Track 4 : BackstagePass_17
• Track 5 : Eyes_17
• Track 6 : GEazy_17, HannahD_17
• Track 7 : BBQValindra_17
• Track 8 : Kiko_18
• Track 9 : TaronosaurasRx_17
• Track 10 : ZAYM_17
• Track 11 : Opie_17
• Track 12 : Bunker_17
• Track 13 : DirtyBoi_18
• Track 14 : VanDeWege_32
• Track 15 : Togo_29, Portcullis_29, Shinji_29, SmokingBunny_29
• Track 16 : Savbucketdawg_29, Jambalaya_29, PinkCoffee_31, CoveyB_31
• Track 17 : ClamChowder_31, Halo3_30, Gezellig_29, PullumCavea_29, KimmyK_31, Fugax_31, Barb_31, Salvador_29, Phlop_29, Evamon_29, Wizard_29, Twister6_31, Arri_32, Danyall_31
• Track 18 : TillyBobJoe_29
• Track 19 : YungMoney_31
• Track 20 : Egi03_29
• Track 21 : Mutzi_31
• Track 22 : Fireball_30
• Track 23 : RogerDodger_32
• Track 24 : Nubi_29
• Track 25 : Valary_32, CherryCola_33
• Track 26 : Bakery_30
• Track 27 : Clown_33
• Track 28 : Nordenberg_27
• Track 29 : ChadMasterC_33
• Track 30 : LilHam_30, SchottB_31, Ashertheman_33, Baumdotcom_32
• Track 31 : Bizzy_33
• Track 32 : Brandonk123_34
• Track 33 : Shivanishola_34
• Track 34 : Lennon_33, Sitar_33
• Track 35 : Geodirt_30

- Track 36 : McCrothy_33, Love_36
- Track 37 : RiverRaider_33
- Track 38 : Gaea_32
- Track 39 : McKinley_35
- Track 40 : BobBob_30, Tangent_33
- Track 41 : Kewpiedoll_32
- Track 42 : Fosterous_31
- Track 43 : Fitzgerald_31
- Track 44 : FuegoCuervo_35
- Track 45 : Ribeye_33, Derg_28, Baddon_32
- Track 46 : YorkOnyx_33
- Track 47 : Saronaya_32, Gustavo_32
- Track 48 : Sedona_33, Keitabear_33
- Track 49 : Galadriel_33
- Track 50 : Charming_33
- Track 51 : Jabberwocky_31, Sanjuju_31
- Track 52 : StorminNorm_32
- Track 53 : Flatwoods_33
- Track 54 : Tangerine_32
- Track 55 : Kamashten_32, Thing3_32
- Track 56 : Affeca_31, Angelicage_31
- Track 57 : Rofo_33, Paries_35
- Track 58 : JKSyngboy_30
- Track 59 : Kroos_33
- Track 60 : Kwobi_34
- Track 61 : Barsten_33
- Track 62 : Stultus_31
- Track 63 : MoontowerMania_32
- Track 64 : Ailee_31
- Track 65 : Bibwit_32
- Track 66 : Tycho_32
- Track 67 : Vivi2_35
- Track 68 : Leonard_31, Phinally_31
- Track 69 : Inspectinfecti_32
- Track 70 : Hans_33, Phauci_24
- Track 71 : Ali17_29
- Track 72 : EMoore_29
- Track 73 : MelBins_32
- Track 74 : Belphegor_31
- Track 75 : Kwekel_30
- Track 76 : Twonlo_28, Chickadee_30, Tiamoceli_31
- Track 77 : RoadKill_28
- Track 78 : GTE6_30
- Track 79 : Dexdert_31
- Track 80 : EdmundFerry_29
- Track 81 : Scioto_33, Natkenzie_33, Abblin_33, Sampson_33
- Track 82 : DoctorFroggo_32, Verity_32, Delrey21_32
- Track 83 : ViaConlectus_33, APunk_34
- Track 84 : Zipp_32
- Track 85 : Pumpkiney_34
- Track 86 : Tardus_34
- Track 87 : Zitch_34
- Track 88 : BigHunkinEater_35

• Track 89 : Lilbeanie_28

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

The start number called the most often in the published annotations is 19, it was called in 69 of the 123 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• APunk_34, Abblin_33, Affeca_31, Ailee_31, Angelicage_31, Ashertheman_33, Baddon_32, Barsten_33, Baumdotcom_32, Bibwit_32, BigHunkinEater_35, Bizzy_33, BobBob_30, Brandonk123_34, ChadMasterC_33, Charming_33, Chickadee_30, Delrey21_32, Derg_28, Dexdert_31, DoctorFroggo_32, EdmundFerry_29, Fitzgerald_31, Flatwoods_33, Fosterous_31, FuegoCuervo_35, GTE6_30, Gaea_32, Galadriel_33, Geodirt_30, Gustavo_32, JKSyngboy_30, Jabberwocky_31, Kamashten_32, Keitabear_33, Kewpiedoll_32, Kroos_33, Kwekel_30, Kwobi_34, Lennon_33, LilHam_30, Lilbeanie_28, Love_36, McCrothy_33, McKinley_35, MoontowerMania_32, Natkenzie_33, Nordenberg_27, Paries_35, Pumpkiney_34, Ribeye_33, RiverRaider_33, RoadKill_28, Rofo_33, Sampson_33, Sanjuju_31, Saronaya_32, SchottB_31, Scioto_33, Sedona_33, Shivanishola_34, Sitar_33, StorminNorm_32, Stultus_31, Tangent_33, Tangerine_32, Tardus_34, Thing3_32, Tiamoceli_31, Twonlo_28, Tycho_32, Verity_32, ViaConlectus_33, Vivi2_35, YorkOnyx_33, Zipp_32, Zitch_34,

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

Genes that do not have the "Most Annotated" start:
• Ali17_29, Arri_32, BBQValindra_17, BackstagePass_17, Bakery_30, Barb_31, Belphegor_31, Bowser_17, Bunker_17, CherryCola_33, ClamChowder_31, Clown_33, CoveyB_31, Danyall_31, DirtyBoi_18, EMoore_29, Egi03_29, Evamon_29, Eyes_17, Fireball_30, Fugax_31, GEazy_17, Gezellig_29, Halo3_30, HannahD_17, Hans_33, Hedwig_18, Inspectinfecti_32, Jambalaya_29, Kiko_18, KimmyK_31, Leonard_31, MagicMan_17, MelBins_32, Mutzi_31, Nubi_29, Opie_17, Phauci_24, Phinally_31, Phlop_29, PinkCoffee_31, Portcullis_29, PullumCavea_29, RogerDodger_32, Salvador_29, Savbucketdawg_29, Schnabeltier_17, Shinji_29, SmokingBunny_29, TaronosaurasRx_17, TillyBobJoe_29, Togo_29, Twister6_31, Valary_32, VanDeWege_32, Wizard_29, YungMoney_31, ZAYM_17,

Summary by start number:

Start 1:
• Found in 34 of 135 (25.2%) of genes in pham
• Manual Annotations of this start: 32 of 123
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arri_32 (DC1), Bakery_30 (DC1), Barb_31 (DC1), CherryCola_33 (DC1), ClamChowder_31 (DC1), Clown_33 (DC2), CoveyB_31 (DC1), Danyall_31 (DC1), Egi03_29 (DC1), Evamon_29 (DC1), Fireball_30 (DC1), Fugax_31 (DC1), Gezellig_29 (DC1), Halo3_30 (DC1), Jambalaya_29 (DC1), KimmyK_31 (DC1), Mutzi_31 (DC1), Nubi_29 (DC1), Phlop_29 (DC1), PinkCoffee_31 (DC1), Portcullis_29 (DC1), PullumCavea_29 (DC1),

RogerDodger_32 (DC1), Salvador_29 (DC1), Savbucketdawg_29 (DC1), Shinji_29 (DC1), SmokingBunny_29 (DC1), TillyBobJoe_29 (DC1), Togo_29 (DC1), Twister6_31 (DC1), Valary_32 (DC1), VanDeWege_32 (DC1), Wizard_29 (DC1), YungMoney_31 (DC1),

Start 4:
• Found in 15 of 135 (11.1%) of genes in pham
• Manual Annotations of this start: 13 of 123
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BBQValindra_17 (DB), BackstagePass_17 (DB), Bowser_17 (DB), Bunker_17 (DB), DirtyBoi_18 (DB), Eyes_17 (DB), GEazy_17 (DB), HannahD_17 (DB), Hedwig_18 (DB), Kiko_18 (DB), MagicMan_17 (DB), Opie_17 (DB), Schnabeltier_17 (DB), TaronosaurasRx_17 (DB), ZAYM_17 (DB),

Start 19:
• Found in 77 of 135 (57.0%) of genes in pham
• Manual Annotations of this start: 69 of 123
• Called 100.0% of time when present
• Phage (with cluster) where this start called: APunk_34 (DE4), Abblin_33 (DE4), Affeca_31 (DE1), Ailee_31 (DE1), Angelicage_31 (DE1), Ashertheman_33 (DE1), Baddon_32 (DE1), Barsten_33 (DE1), Baumdotcom_32 (DE1), Bibwit_32 (DE1), BigHunkinEater_35 (DE4), Bizzy_33 (DE1), BobBob_30 (DE1), Brandonk123_34 (DE1), ChadMasterC_33 (DE1), Charming_33 (DE1), Chickadee_30 (DE3), Delrey21_32 (DE4), Derg_28 (DE1), Dexdert_31 (DE3), DoctorFroggo_32 (DE4), EdmundFerry_29 (DE3), Fitzgerald_31 (DE1), Flatwoods_33 (DE1), Fosterous_31 (DE1), FuegoCuervo_35 (DE1), GTE6_30 (DE3), Gaea_32 (DE1), Galadriel_33 (DE1), Geodirt_30 (DE1), Gustavo_32 (DE1), JKSyngboy_30 (DE1), Jabberwocky_31 (DE1), Kamashten_32 (DE1), Keitabear_33 (DE1), Kewpiedoll_32 (DE1), Kroos_33 (DE1), Kwekel_30 (DE3), Kwobi_34 (DE1), Lennon_33 (DE1), LilHam_30 (DE1), Lilbeanie_28 (DE5), Love_36 (DE1), McCrothy_33 (DE1), McKinley_35 (DE1), MoontowerMania_32 (DE1), Natkenzie_33 (DE4), Nordenberg_27 (DE1), Paries_35 (DE1), Pumpkiney_34 (DE4), Ribeye_33 (DE1), RiverRaider_33 (DE1), RoadKill_28 (DE3), Rofo_33 (DE1), Sampson_33 (DE4), Sanjuju_31 (DE1), Saronaya_32 (DE1), SchottB_31 (DE1), Scioto_33 (DE4), Sedona_33 (DE1), Shivanishola_34 (DE1), Sitar_33 (DE1), StorminNorm_32 (DE1), Stultus_31 (DE1), Tangent_33 (DE1), Tangerine_32 (DE1), Tardus_34 (DE4), Thing3_32 (DE1), Tiamoceli_31 (DE3), Twonlo_28 (DE3), Tycho_32 (DE1), Verity_32 (DE4), ViaConlectus_33 (DE4), Vivi2_35 (DE1), YorkOnyx_33 (DE1), Zipp_32 (DE4), Zitch_34 (DE4),

Start 20:
• Found in 42 of 135 (31.1%) of genes in pham
• Manual Annotations of this start: 9 of 123
• Called 21.4% of time when present
• Phage (with cluster) where this start called: Ali17_29 (DE2), Belphegor_31 (DE2), EMoore_29 (DE2), Hans_33 (DE2), Inspectinfecti_32 (DE2), Leonard_31 (DE2), MelBins_32 (DE2), Phauci_24 (DE2), Phinally_31 (DE2),

Summary by clusters:

There are 8 clusters represented in this pham: DB, DE1, DE2, DE3, DE4, DE5, DC2, DC1,

Info for manual annotations of cluster DB:
•Start number 4 was manually annotated 13 times for cluster DB.

Info for manual annotations of cluster DC1:
•Start number 1 was manually annotated 31 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 1 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 19 was manually annotated 52 times for cluster DE1.

Info for manual annotations of cluster DE2:
•Start number 20 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:
•Start number 19 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:
•Start number 19 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:
•Start number 19 was manually annotated 1 time for cluster DE5.

Gene Information:

Gene: APunk_34 Start: 24307, Stop: 29232, Start Num: 19
Candidate Starts for APunk_34:
(Start: 19 @24307 has 69 MA's), (37, 24427), (40, 24439), (46, 24481), (52, 24505), (58, 24571), (59, 24580), (69, 24652), (76, 24685), (82, 24754), (84, 24763), (88, 24781), (98, 24847), (102, 24862), (106, 24871), (114, 24934), (116, 24940), (121, 24967), (125, 24997), (127, 25006), (137, 25069), (140, 25081), (149, 25168), (152, 25180), (160, 25303), (163, 25327), (164, 25345), (165, 25357), (172, 25417), (173, 25423), (175, 25435), (185, 25546), (187, 25582), (189, 25621), (190, 25633), (193, 25675), (196, 25705), (201, 25747), (202, 25756), (203, 25759), (206, 25789), (208, 25822), (219, 25915), (223, 25936), (227, 25951), (238, 26038), (240, 26059), (242, 26080), (250, 26134), (255, 26167), (260, 26218), (271, 26266), (272, 26275), (278, 26335), (280, 26347), (284, 26368), (286, 26374), (298, 26416), (299, 26422), (301, 26437), (302, 26443), (310, 26524), (311, 26527), (313, 26548), (323, 26602), (330, 26665), (342, 26722), (360, 26809), (368, 26875), (395, 26932), (396, 26935), (400, 26959), (415, 27049), (420, 27097), (449, 27325), (452, 27343), (459, 27400), (469, 27490), (475, 27553), (488, 27634), (492, 27661), (501, 27733), (502, 27742), (509, 27802), (519, 27913), (543, 28141), (546, 28150), (550, 28177), (557, 28219), (563, 28279), (573, 28441), (576, 28468), (581, 28540), (586, 28579), (607, 28786), (613, 28858), (620, 28924), (636, 29059), (642, 29122), (643, 29125), (645, 29143), (648, 29158), (652, 29185), (656, 29197),

Gene: Abblin_33 Start: 24850, Stop: 29775, Start Num: 19
Candidate Starts for Abblin_33:
(Start: 19 @24850 has 69 MA's), (37, 24970), (40, 24982), (46, 25024), (52, 25048), (58, 25114), (59, 25123), (67, 25168), (69, 25195), (82, 25297), (84, 25306), (88, 25324), (98, 25390), (102, 25405), (106, 25414), (114, 25477), (116, 25483), (121, 25510), (125, 25540), (127, 25549), (135, 25597), (137, 25612), (140, 25624), (149, 25711), (152, 25723), (160, 25846), (163, 25870), (164, 25888), (172, 25960), (173, 25966), (175, 25978), (185, 26089), (187, 26125), (189, 26164), (190, 26176),

(193, 26218), (196, 26248), (201, 26290), (202, 26299), (203, 26302), (206, 26332), (208, 26365), (219, 26458), (227, 26494), (233, 26551), (238, 26581), (242, 26623), (250, 26677), (251, 26683), (255, 26710), (260, 26761), (268, 26797), (271, 26809), (272, 26818), (278, 26878), (280, 26890), (284, 26911), (286, 26917), (298, 26959), (299, 26965), (301, 26980), (302, 26986), (306, 27031), (310, 27067), (311, 27070), (323, 27145), (330, 27208), (342, 27265), (359, 27346), (365, 27397), (387, 27454), (395, 27475), (396, 27478), (400, 27502), (420, 27640), (425, 27661), (449, 27868), (452, 27886), (459, 27943), (469, 28033), (475, 28096), (488, 28177), (492, 28204), (501, 28276), (502, 28285), (509, 28345), (519, 28456), (543, 28687), (546, 28696), (550, 28723), (557, 28765), (573, 28984), (576, 29011), (581, 29083), (586, 29122), (607, 29329), (613, 29401), (620, 29467), (636, 29602), (642, 29665), (643, 29668), (645, 29686), (648, 29701), (652, 29728), (656, 29740),

Gene: Affeca_31 Start: 24649, Stop: 29682, Start Num: 19
Candidate Starts for Affeca_31:
(Start: 19 @24649 has 69 MA's), (46, 24823), (52, 24847), (53, 24856), (55, 24889), (57, 24907), (59, 24922), (74, 25021), (82, 25096), (83, 25102), (84, 25105), (92, 25162), (93, 25180), (95, 25189), (97, 25204), (126, 25369), (130, 25387), (131, 25399), (137, 25438), (154, 25579), (157, 25639), (160, 25672), (164, 25714), (172, 25786), (174, 25801), (175, 25804), (185, 25915), (187, 25951), (190, 26002), (193, 26044), (196, 26074), (202, 26125), (206, 26158), (208, 26191), (209, 26203), (219, 26284), (223, 26305), (226, 26317), (239, 26413), (240, 26428), (242, 26449), (249, 26500), (251, 26509), (260, 26587), (271, 26635), (272, 26644), (278, 26704), (287, 26749), (290, 26758), (298, 26785), (302, 26812), (304, 26833), (308, 26869), (317, 26935), (323, 26971), (331, 27058), (332, 27061), (345, 27088), (359, 27139), (360, 27145), (377, 27271), (398, 27346), (405, 27373), (410, 27406), (417, 27469), (423, 27523), (430, 27586), (441, 27697), (447, 27724), (448, 27730), (462, 27832), (469, 27898), (472, 27925), (476, 27952), (480, 27991), (484, 28015), (492, 28057), (501, 28129), (502, 28138), (509, 28198), (511, 28243), (546, 28558), (547, 28564), (549, 28582), (564, 28678), (571, 28783), (579, 28882), (597, 29026), (602, 29101), (604, 29113), (610, 29197), (650, 29536), (658, 29575), (659, 29581), (661, 29587), (664, 29614), (668, 29650), (669, 29662),

Gene: Ailee_31 Start: 25358, Stop: 30172, Start Num: 19
Candidate Starts for Ailee_31:
(Start: 19 @25358 has 69 MA's), (46, 25532), (52, 25556), (87, 25694), (97, 25733), (99, 25739), (103, 25751), (107, 25769), (111, 25781), (113, 25808), (117, 25826), (120, 25838), (137, 25937), (154, 26078), (157, 26138), (160, 26171), (164, 26213), (172, 26285), (174, 26300), (175, 26303), (185, 26414), (187, 26450), (190, 26501), (193, 26543), (196, 26573), (202, 26624), (206, 26657), (208, 26690), (209, 26702), (219, 26783), (223, 26804), (226, 26816), (239, 26912), (240, 26927), (242, 26948), (249, 26999), (251, 27008), (260, 27086), (271, 27134), (272, 27143), (286, 27242), (287, 27248), (289, 27254), (290, 27257), (302, 27311), (304, 27332), (307, 27362), (308, 27368), (311, 27395), (347, 27590), (356, 27623), (359, 27638), (360, 27644), (365, 27689), (366, 27698), (369, 27713), (371, 27731), (377, 27770), (379, 27776), (398, 27845), (405, 27872), (410, 27905), (417, 27968), (423, 28022), (447, 28223), (448, 28229), (462, 28331), (464, 28343), (469, 28397), (472, 28424), (476, 28451), (480, 28490), (488, 28529), (492, 28556), (501, 28628), (502, 28637), (509, 28697), (511, 28742), (546, 29057), (547, 29063), (549, 29081), (564, 29177), (571, 29282), (579, 29381), (597, 29525), (602, 29600), (604, 29612), (610, 29687), (650, 30026), (658, 30065), (659, 30071), (661, 30077), (664, 30104), (668, 30140), (669, 30152),

Gene: Ali17_29 Start: 22538, Stop: 27427, Start Num: 20
Candidate Starts for Ali17_29:
(Start: 20 @22538 has 9 MA's), (37, 22658), (46, 22712), (52, 22736), (59, 22811), (60, 22814), (74, 22910), (82, 22985), (83, 22991), (85, 22997), (89, 23021), (91, 23030), (100, 23090), (102, 23096), (106, 23105), (111, 23135), (119, 23192), (125, 23231), (127, 23240), (128, 23243), (137, 23303), (138, 23306), (148, 23381), (149, 23390), (160, 23525), (161, 23534), (164, 23567), (166, 23591), (175, 23657), (179, 23720), (187, 23804), (189, 23843), (190, 23855), (194, 23903), (196, 23927), (202, 23978), (206, 24011), (211, 24062), (214, 24092), (221, 24149), (224, 24161), (227, 24173),

(236, 24248), (242, 24302), (250, 24356), (255, 24389), (268, 24476), (271, 24488), (272, 24497),
(278, 24557), (280, 24569), (284, 24590), (286, 24596), (287, 24602), (288, 24605), (289, 24608),
(297, 24635), (298, 24638), (300, 24647), (301, 24659), (302, 24665), (306, 24710), (310, 24746),
(311, 24749), (313, 24770), (330, 24887), (342, 24944), (360, 25031), (368, 25097), (395, 25154),
(396, 25157), (400, 25181), (415, 25271), (420, 25319), (435, 25448), (443, 25517), (445, 25526),
(449, 25547), (452, 25565), (455, 25583), (472, 25739), (473, 25742), (488, 25847), (502, 25955),
(509, 26015), (510, 26045), (519, 26126), (544, 26357), (546, 26363), (553, 26411), (556, 26426),
(563, 26492), (572, 26624), (581, 26753), (586, 26792), (620, 27119), (629, 27215), (645, 27338),
(652, 27380), (656, 27392),

Gene: Angelicage_31 Start: 25066, Stop: 30099, Start Num: 19
Candidate Starts for Angelicage_31:
(Start: 19 @25066 has 69 MA's), (46, 25240), (52, 25264), (53, 25273), (55, 25306), (57, 25324), (59,
25339), (74, 25438), (82, 25513), (83, 25519), (84, 25522), (92, 25579), (93, 25597), (95, 25606), (97,
25621), (126, 25786), (130, 25804), (131, 25816), (137, 25855), (154, 25996), (157, 26056), (160,
26089), (164, 26131), (172, 26203), (174, 26218), (175, 26221), (185, 26332), (187, 26368), (190,
26419), (193, 26461), (196, 26491), (202, 26542), (206, 26575), (208, 26608), (209, 26620), (219,
26701), (223, 26722), (226, 26734), (239, 26830), (240, 26845), (242, 26866), (249, 26917), (251,
26926), (260, 27004), (271, 27052), (272, 27061), (278, 27121), (287, 27166), (290, 27175), (298,
27202), (302, 27229), (304, 27250), (308, 27286), (317, 27352), (323, 27388), (331, 27475), (332,
27478), (345, 27505), (359, 27556), (360, 27562), (377, 27688), (398, 27763), (405, 27790), (410,
27823), (417, 27886), (423, 27940), (430, 28003), (441, 28114), (447, 28141), (448, 28147), (462,
28249), (469, 28315), (472, 28342), (476, 28369), (480, 28408), (484, 28432), (492, 28474), (501,
28546), (502, 28555), (509, 28615), (511, 28660), (546, 28975), (547, 28981), (549, 28999), (564,
29095), (571, 29200), (579, 29299), (597, 29443), (602, 29518), (604, 29530), (610, 29614), (650,
29953), (658, 29992), (659, 29998), (661, 30004), (664, 30031), (668, 30067), (669, 30079),

Gene: Arri_32 Start: 20088, Stop: 25619, Start Num: 1
Candidate Starts for Arri_32:
(Start: 1 @20088 has 32 MA's), (3, 20175), (6, 20262), (10, 20295), (12, 20319), (Start: 20 @20442
has 9 MA's), (22, 20463), (23, 20469), (27, 20493), (33, 20523), (43, 20562), (60, 20646), (68, 20682),
(70, 20706), (78, 20745), (134, 21135), (154, 21303), (157, 21363), (164, 21435), (165, 21447), (168,
21483), (171, 21507), (181, 21606), (182, 21609), (185, 21639), (189, 21714), (190, 21726), (193,
21768), (196, 21798), (202, 21849), (216, 21990), (219, 22008), (221, 22020), (223, 22029), (238,
22131), (240, 22152), (242, 22173), (249, 22224), (250, 22227), (251, 22233), (260, 22311), (266,
22341), (271, 22359), (278, 22428), (284, 22461), (286, 22467), (288, 22476), (291, 22482), (302,
22536), (306, 22581), (309, 22608), (310, 22617), (312, 22638), (323, 22695), (326, 22731), (336,
22812), (337, 22815), (343, 22884), (352, 22956), (360, 23052), (368, 23118), (369, 23121), (372,
23145), (375, 23172), (376, 23175), (377, 23178), (379, 23184), (399, 23253), (402, 23262), (409,
23307), (414, 23316), (425, 23394), (431, 23448), (435, 23502), (440, 23559), (449, 23601), (455,
23637), (462, 23700), (467, 23751), (481, 23862), (489, 23901), (500, 23982), (515, 24156), (516,
24159), (521, 24192), (543, 24399), (546, 24408), (547, 24414), (576, 24726), (594, 24933), (603,
25071), (618, 25221), (626, 25332), (633, 25377), (634, 25386), (635, 25392), (641, 25428), (654,
25521), (657, 25533), (663, 25563), (665, 25596), (667, 25608),

Gene: Ashertheman_33 Start: 23943, Stop: 28961, Start Num: 19
Candidate Starts for Ashertheman_33:
(Start: 19 @23943 has 69 MA's), (31, 24030), (37, 24063), (46, 24117), (52, 24141), (55, 24183), (57,
24201), (59, 24216), (69, 24288), (74, 24315), (82, 24390), (84, 24399), (92, 24456), (93, 24474), (94,
24480), (137, 24732), (145, 24792), (157, 24933), (160, 24966), (164, 25008), (172, 25080), (174,
25095), (175, 25098), (185, 25209), (187, 25245), (190, 25296), (193, 25338), (196, 25368), (202,
25419), (206, 25452), (208, 25485), (209, 25497), (219, 25578), (226, 25611), (227, 25614), (233,
25671), (239, 25707), (240, 25722), (242, 25743), (249, 25794), (271, 25929), (272, 25938), (284,

26031), (286, 26037), (287, 26043), (290, 26052), (295, 26064), (297, 26076), (300, 26088), (302, 26106), (308, 26163), (323, 26265), (324, 26283), (327, 26307), (332, 26355), (347, 26385), (359, 26433), (360, 26439), (376, 26562), (377, 26565), (379, 26571), (397, 26628), (398, 26640), (403, 26661), (405, 26667), (410, 26700), (417, 26763), (423, 26817), (441, 26991), (447, 27018), (448, 27024), (462, 27126), (469, 27192), (492, 27351), (502, 27432), (509, 27492), (511, 27537), (543, 27843), (546, 27852), (550, 27879), (562, 27948), (571, 28077), (579, 28176), (597, 28320), (602, 28392), (603, 28398), (604, 28404), (610, 28479), (614, 28509), (626, 28647), (635, 28707), (641, 28743), (644, 28788), (650, 28815), (658, 28854), (659, 28860), (661, 28866), (664, 28893), (668, 28929), (669, 28941),

Gene: BBQValindra_17 Start: 10583, Stop: 15709, Start Num: 4
Candidate Starts for BBQValindra_17:
(Start: 4 @10583 has 13 MA's), (6, 10592), (25, 10865), (26, 10874), (28, 10904), (39, 10970), (59, 11126), (64, 11144), (81, 11297), (90, 11339), (101, 11426), (132, 11618), (147, 11735), (153, 11774), (157, 11858), (158, 11867), (160, 11891), (161, 11900), (162, 11909), (165, 11942), (166, 11954), (168, 11978), (175, 12023), (176, 12032), (177, 12068), (182, 12104), (184, 12116), (185, 12134), (187, 12170), (196, 12293), (202, 12335), (205, 12359), (216, 12470), (217, 12473), (218, 12476), (220, 12491), (229, 12545), (234, 12584), (245, 12665), (248, 12680), (250, 12701), (252, 12716), (253, 12728), (257, 12764), (263, 12800), (297, 12962), (314, 13019), (321, 13031), (322, 13034), (327, 13067), (328, 13073), (329, 13085), (349, 13160), (350, 13166), (353, 13172), (357, 13193), (358, 13196), (359, 13199), (367, 13262), (372, 13298), (374, 13313), (379, 13337), (387, 13352), (388, 13355), (402, 13415), (416, 13514), (419, 13556), (427, 13634), (435, 13703), (437, 13721), (453, 13829), (454, 13832), (456, 13838), (457, 13856), (458, 13859), (461, 13880), (462, 13898), (463, 13901), (464, 13910), (476, 14015), (479, 14045), (483, 14063), (487, 14069), (496, 14129), (502, 14189), (508, 14237), (510, 14267), (514, 14315), (517, 14327), (526, 14387), (532, 14444), (535, 14462), (538, 14507), (540, 14534), (541, 14552), (542, 14582), (545, 14591), (551, 14630), (552, 14636), (554, 14645), (567, 14804), (569, 14846), (584, 15038), (585, 15041), (590, 15098), (591, 15107), (592, 15119), (595, 15140), (615, 15353), (619, 15392), (624, 15461), (628, 15515), (649, 15668), (652, 15692),

Gene: BackstagePass_17 Start: 10561, Stop: 15849, Start Num: 4
Candidate Starts for BackstagePass_17:
(Start: 4 @10561 has 13 MA's), (6, 10570), (25, 10843), (26, 10852), (28, 10882), (38, 10945), (40, 10957), (42, 10972), (46, 10999), (56, 11083), (59, 11104), (65, 11131), (67, 11143), (81, 11275), (90, 11317), (95, 11371), (101, 11404), (134, 11605), (143, 11683), (157, 11836), (160, 11869), (161, 11878), (162, 11887), (165, 11920), (166, 11932), (168, 11956), (175, 12001), (178, 12055), (181, 12079), (182, 12082), (184, 12094), (185, 12112), (187, 12148), (196, 12271), (202, 12313), (216, 12448), (218, 12454), (220, 12469), (233, 12559), (234, 12562), (238, 12586), (241, 12613), (246, 12646), (248, 12658), (250, 12679), (253, 12706), (263, 12778), (299, 12949), (300, 12952), (301, 12964), (303, 12973), (310, 13057), (318, 13102), (327, 13174), (329, 13192), (333, 13225), (335, 13237), (350, 13273), (359, 13306), (365, 13357), (372, 13405), (379, 13444), (387, 13459), (388, 13462), (390, 13468), (398, 13513), (416, 13621), (419, 13663), (427, 13741), (432, 13765), (435, 13810), (453, 13933), (454, 13936), (458, 13963), (461, 13984), (462, 14002), (463, 14005), (464, 14014), (476, 14119), (487, 14173), (512, 14398), (513, 14434), (526, 14524), (529, 14566), (538, 14647), (540, 14674), (541, 14692), (545, 14731), (551, 14770), (552, 14776), (554, 14785), (567, 14944), (569, 14986), (584, 15178), (585, 15181), (591, 15247), (592, 15259), (595, 15280), (596, 15283), (615, 15493), (619, 15532), (624, 15601), (628, 15655), (649, 15808),

Gene: Baddon_32 Start: 24743, Stop: 29758, Start Num: 19
Candidate Starts for Baddon_32:
(Start: 19 @24743 has 69 MA's), (30, 24818), (37, 24863), (46, 24917), (52, 24941), (55, 24983), (57, 25001), (59, 25016), (69, 25088), (74, 25115), (82, 25190), (84, 25199), (92, 25256), (93, 25274), (94, 25280), (97, 25298), (104, 25325), (130, 25481), (137, 25532), (140, 25544), (145, 25592), (157,

25733), (160, 25766), (164, 25808), (172, 25880), (174, 25895), (175, 25898), (185, 26009), (187, 26045), (190, 26096), (193, 26138), (196, 26168), (202, 26219), (206, 26252), (208, 26285), (209, 26297), (219, 26378), (226, 26411), (227, 26414), (233, 26471), (239, 26507), (240, 26522), (242, 26543), (249, 26594), (271, 26729), (278, 26798), (286, 26837), (287, 26843), (290, 26852), (298, 26879), (302, 26906), (304, 26927), (308, 26963), (310, 26987), (311, 26990), (316, 27026), (323, 27065), (332, 27155), (347, 27185), (359, 27233), (360, 27239), (376, 27362), (377, 27365), (379, 27371), (397, 27428), (398, 27440), (405, 27467), (410, 27500), (411, 27506), (417, 27563), (423, 27617), (430, 27680), (441, 27791), (447, 27818), (448, 27824), (462, 27926), (469, 27992), (488, 28124), (492, 28151), (502, 28232), (509, 28292), (511, 28337), (543, 28643), (546, 28652), (550, 28679), (562, 28748), (579, 28976), (597, 29120), (602, 29189), (603, 29195), (604, 29201), (610, 29276), (614, 29306), (626, 29444), (635, 29504), (641, 29540), (644, 29585), (650, 29612), (658, 29651), (659, 29657), (661, 29663), (664, 29690), (668, 29726), (669, 29738),

Gene: Bakery_30 Start: 19326, Stop: 24842, Start Num: 1
Candidate Starts for Bakery_30:
(Start: 1 @19326 has 32 MA's), (6, 19500), (10, 19533), (12, 19557), (Start: 20 @19680 has 9 MA's), (22, 19701), (23, 19707), (27, 19731), (33, 19761), (43, 19800), (68, 19920), (70, 19944), (78, 19983), (149, 20499), (154, 20541), (157, 20601), (164, 20673), (168, 20721), (176, 20775), (182, 20847), (185, 20877), (189, 20952), (190, 20964), (193, 21006), (196, 21036), (202, 21087), (212, 21180), (216, 21228), (219, 21246), (221, 21258), (223, 21267), (237, 21366), (238, 21369), (240, 21390), (242, 21411), (249, 21462), (250, 21465), (260, 21549), (266, 21579), (271, 21597), (274, 21624), (278, 21666), (297, 21744), (298, 21747), (299, 21753), (302, 21774), (303, 21777), (309, 21846), (311, 21858), (323, 21933), (336, 22050), (337, 22053), (339, 22101), (360, 22290), (368, 22356), (369, 22359), (372, 22383), (376, 22413), (377, 22416), (379, 22422), (395, 22467), (399, 22491), (402, 22500), (409, 22545), (414, 22554), (416, 22566), (420, 22611), (421, 22614), (425, 22632), (431, 22686), (435, 22740), (449, 22839), (462, 22938), (467, 22989), (481, 23100), (489, 23139), (492, 23160), (500, 23220), (515, 23394), (516, 23397), (521, 23430), (543, 23640), (547, 23655), (594, 24165), (600, 24261), (603, 24294), (617, 24441), (618, 24444), (626, 24555), (634, 24609), (641, 24651), (654, 24744), (657, 24756), (663, 24786), (665, 24819), (667, 24831),

Gene: Barb_31 Start: 20106, Stop: 25637, Start Num: 1
Candidate Starts for Barb_31:
(Start: 1 @20106 has 32 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 9 MA's), (22, 20481), (23, 20487), (27, 20511), (33, 20541), (43, 20580), (60, 20664), (68, 20700), (70, 20724), (78, 20763), (134, 21153), (154, 21321), (157, 21381), (164, 21453), (165, 21465), (168, 21501), (171, 21525), (181, 21624), (182, 21627), (185, 21657), (189, 21732), (190, 21744), (193, 21786), (196, 21816), (202, 21867), (216, 22008), (219, 22026), (221, 22038), (223, 22047), (238, 22149), (240, 22170), (242, 22191), (249, 22242), (250, 22245), (251, 22251), (260, 22329), (266, 22359), (271, 22377), (278, 22446), (284, 22479), (286, 22485), (288, 22494), (291, 22500), (302, 22554), (306, 22599), (309, 22626), (310, 22635), (312, 22656), (323, 22713), (326, 22749), (336, 22830), (337, 22833), (343, 22902), (352, 22974), (360, 23070), (368, 23136), (369, 23139), (372, 23163), (375, 23190), (376, 23193), (377, 23196), (379, 23202), (399, 23271), (402, 23280), (409, 23325), (414, 23334), (425, 23412), (431, 23466), (435, 23520), (440, 23577), (449, 23619), (455, 23655), (462, 23718), (467, 23769), (481, 23880), (489, 23919), (500, 24000), (515, 24174), (516, 24177), (521, 24210), (543, 24417), (546, 24426), (547, 24432), (576, 24744), (594, 24951), (603, 25089), (618, 25239), (626, 25350), (633, 25395), (634, 25404), (635, 25410), (641, 25446), (654, 25539), (657, 25551), (663, 25581), (665, 25614), (667, 25626),

Gene: Barsten_33 Start: 24490, Stop: 29313, Start Num: 19
Candidate Starts for Barsten_33:
(Start: 19 @24490 has 69 MA's), (46, 24664), (52, 24688), (87, 24826), (97, 24865), (99, 24871), (103, 24883), (107, 24901), (111, 24913), (113, 24940), (117, 24958), (120, 24970), (137, 25069), (153, 25189), (154, 25210), (157, 25270), (160, 25303), (164, 25345), (167, 25381), (172, 25417), (174,

25432), (175, 25435), (185, 25546), (187, 25582), (190, 25633), (193, 25675), (196, 25705), (202, 25756), (206, 25789), (208, 25822), (209, 25834), (219, 25915), (223, 25936), (226, 25948), (239, 26044), (240, 26059), (242, 26080), (249, 26131), (251, 26140), (260, 26218), (271, 26266), (272, 26275), (278, 26335), (287, 26380), (290, 26389), (298, 26416), (302, 26443), (304, 26464), (308, 26500), (317, 26566), (323, 26602), (331, 26689), (332, 26692), (334, 26701), (345, 26719), (359, 26770), (360, 26776), (377, 26902), (398, 26977), (405, 27004), (410, 27037), (417, 27100), (423, 27154), (430, 27217), (441, 27328), (447, 27355), (448, 27361), (462, 27463), (464, 27475), (469, 27529), (472, 27556), (476, 27583), (480, 27622), (484, 27646), (492, 27688), (501, 27760), (502, 27769), (509, 27829), (511, 27874), (546, 28189), (547, 28195), (549, 28213), (564, 28309), (571, 28414), (579, 28513), (597, 28657), (602, 28732), (604, 28744), (610, 28828), (650, 29167), (658, 29206), (659, 29212), (661, 29218), (664, 29245), (668, 29281), (669, 29293),

Gene: Baumdotcom_32 Start: 23558, Stop: 28582, Start Num: 19
Candidate Starts for Baumdotcom_32:
(Start: 19 @23558 has 69 MA's), (31, 23645), (37, 23678), (46, 23732), (52, 23756), (55, 23798), (57, 23816), (59, 23831), (69, 23903), (74, 23930), (82, 24005), (84, 24014), (92, 24071), (93, 24089), (94, 24095), (137, 24347), (145, 24407), (157, 24548), (160, 24581), (164, 24623), (172, 24695), (174, 24710), (175, 24713), (185, 24824), (187, 24860), (190, 24911), (193, 24953), (196, 24983), (202, 25034), (206, 25067), (208, 25100), (209, 25112), (219, 25193), (226, 25226), (227, 25229), (233, 25286), (239, 25322), (240, 25337), (242, 25358), (249, 25409), (271, 25544), (272, 25553), (284, 25646), (286, 25652), (287, 25658), (290, 25667), (295, 25679), (297, 25691), (300, 25703), (302, 25721), (308, 25778), (323, 25880), (324, 25898), (327, 25922), (332, 25970), (347, 26000), (359, 26048), (360, 26054), (376, 26177), (377, 26180), (379, 26186), (397, 26243), (398, 26255), (403, 26276), (405, 26282), (410, 26315), (417, 26378), (423, 26432), (441, 26606), (447, 26633), (448, 26639), (462, 26741), (469, 26807), (492, 26966), (502, 27047), (509, 27107), (511, 27152), (543, 27464), (546, 27473), (550, 27500), (562, 27569), (571, 27698), (579, 27797), (597, 27941), (602, 28013), (603, 28019), (604, 28025), (610, 28100), (614, 28130), (626, 28268), (635, 28328), (641, 28364), (644, 28409), (650, 28436), (658, 28475), (659, 28481), (661, 28487), (664, 28514), (668, 28550), (669, 28562),

Gene: Belphegor_31 Start: 24145, Stop: 29028, Start Num: 20
Candidate Starts for Belphegor_31:
(Start: 20 @24145 has 9 MA's), (36, 24262), (37, 24265), (42, 24292), (46, 24319), (52, 24343), (55, 24385), (58, 24409), (59, 24418), (60, 24421), (69, 24490), (79, 24553), (82, 24592), (83, 24598), (85, 24604), (91, 24637), (96, 24679), (100, 24697), (102, 24703), (106, 24712), (119, 24799), (137, 24910), (138, 24913), (148, 24988), (149, 24997), (150, 25000), (160, 25132), (164, 25174), (166, 25198), (173, 25252), (175, 25264), (185, 25375), (187, 25411), (189, 25450), (190, 25462), (194, 25510), (196, 25534), (202, 25585), (206, 25618), (211, 25669), (214, 25699), (221, 25756), (224, 25768), (227, 25780), (232, 25819), (236, 25855), (249, 25960), (255, 25996), (260, 26047), (272, 26104), (278, 26164), (280, 26176), (286, 26203), (287, 26209), (288, 26212), (289, 26215), (297, 26242), (298, 26245), (301, 26266), (302, 26272), (309, 26344), (313, 26377), (323, 26431), (330, 26494), (342, 26551), (347, 26584), (360, 26638), (395, 26761), (399, 26785), (400, 26788), (415, 26878), (420, 26926), (435, 27055), (443, 27124), (452, 27172), (455, 27190), (472, 27346), (476, 27376), (488, 27454), (501, 27553), (509, 27622), (510, 27652), (543, 27961), (544, 27964), (546, 27970), (556, 28033), (563, 28099), (572, 28231), (581, 28360), (586, 28399), (620, 28720), (628, 28804), (652, 28981), (656, 28993),

Gene: Bibwit_32 Start: 24677, Stop: 29500, Start Num: 19
Candidate Starts for Bibwit_32:
(Start: 19 @24677 has 69 MA's), (46, 24851), (52, 24875), (87, 25013), (99, 25058), (103, 25070), (107, 25088), (111, 25100), (113, 25127), (117, 25145), (120, 25157), (137, 25256), (153, 25376), (154, 25397), (157, 25457), (160, 25490), (164, 25532), (167, 25568), (172, 25604), (174, 25619), (175, 25622), (185, 25733), (187, 25769), (190, 25820), (193, 25862), (196, 25892), (202, 25943),

(206, 25976), (208, 26009), (209, 26021), (219, 26102), (223, 26123), (226, 26135), (239, 26231),
(240, 26246), (242, 26267), (249, 26318), (251, 26327), (260, 26405), (271, 26453), (272, 26462),
(278, 26522), (287, 26567), (290, 26576), (298, 26603), (302, 26630), (304, 26651), (308, 26687),
(317, 26753), (323, 26789), (331, 26876), (332, 26879), (334, 26888), (345, 26906), (359, 26957),
(360, 26963), (377, 27089), (405, 27191), (410, 27224), (417, 27287), (423, 27341), (430, 27404),
(441, 27515), (447, 27542), (448, 27548), (462, 27650), (469, 27716), (472, 27743), (476, 27770),
(480, 27809), (484, 27833), (492, 27875), (501, 27947), (509, 28016), (511, 28061), (546, 28376),
(547, 28382), (549, 28400), (564, 28496), (571, 28601), (579, 28700), (597, 28844), (602, 28919),
(604, 28931), (610, 29015), (650, 29354), (658, 29393), (659, 29399), (661, 29405), (664, 29432),
(668, 29468), (669, 29480),

Gene: BigHunkinEater_35 Start: 24088, Stop: 29013, Start Num: 19
Candidate Starts for BigHunkinEater_35:
(Start: 19 @24088 has 69 MA's), (37, 24208), (40, 24220), (46, 24262), (52, 24286), (53, 24295), (58,
24352), (59, 24361), (69, 24433), (76, 24466), (82, 24535), (84, 24544), (88, 24562), (98, 24628), (102,
24643), (106, 24652), (114, 24715), (116, 24721), (121, 24748), (125, 24778), (127, 24787), (135,
24835), (137, 24850), (142, 24895), (152, 24961), (160, 25084), (163, 25108), (164, 25126), (165,
25138), (172, 25198), (173, 25204), (175, 25216), (180, 25288), (185, 25327), (187, 25363), (189,
25402), (190, 25414), (193, 25456), (196, 25486), (202, 25537), (203, 25540), (206, 25570), (208,
25603), (219, 25696), (227, 25732), (233, 25789), (238, 25819), (242, 25861), (250, 25915), (255,
25948), (260, 25999), (271, 26047), (272, 26056), (278, 26116), (280, 26128), (284, 26149), (286,
26155), (298, 26197), (299, 26203), (301, 26218), (302, 26224), (310, 26305), (311, 26308), (313,
26329), (323, 26383), (330, 26446), (342, 26503), (360, 26590), (368, 26656), (395, 26713), (396,
26716), (400, 26740), (415, 26830), (420, 26878), (449, 27106), (452, 27124), (459, 27181), (469,
27271), (475, 27334), (488, 27415), (492, 27442), (501, 27514), (502, 27523), (509, 27583), (519,
27694), (543, 27925), (546, 27934), (550, 27961), (557, 28003), (573, 28222), (576, 28249), (581,
28321), (586, 28360), (607, 28567), (613, 28639), (620, 28705), (636, 28840), (642, 28903), (643,
28906), (645, 28924), (648, 28939), (652, 28966), (656, 28978),

Gene: Bizzy_33 Start: 23890, Stop: 28905, Start Num: 19
Candidate Starts for Bizzy_33:
(Start: 19 @23890 has 69 MA's), (30, 23965), (37, 24010), (46, 24064), (52, 24088), (55, 24130), (57,
24148), (59, 24163), (69, 24235), (74, 24262), (82, 24337), (84, 24346), (92, 24403), (93, 24421), (94,
24427), (97, 24445), (104, 24472), (137, 24679), (140, 24691), (145, 24739), (157, 24880), (160,
24913), (164, 24955), (172, 25027), (174, 25042), (175, 25045), (185, 25156), (187, 25192), (190,
25243), (193, 25285), (196, 25315), (202, 25366), (206, 25399), (208, 25432), (209, 25444), (219,
25525), (226, 25558), (227, 25561), (233, 25618), (239, 25654), (240, 25669), (242, 25690), (249,
25741), (271, 25876), (272, 25885), (284, 25978), (286, 25984), (287, 25990), (290, 25999), (297,
26023), (300, 26035), (302, 26053), (308, 26110), (323, 26212), (332, 26302), (347, 26332), (359,
26380), (360, 26386), (376, 26509), (377, 26512), (397, 26575), (398, 26587), (403, 26608), (405,
26614), (410, 26647), (417, 26710), (423, 26764), (430, 26827), (441, 26938), (447, 26965), (448,
26971), (462, 27073), (469, 27139), (488, 27271), (492, 27298), (502, 27379), (509, 27439), (511,
27484), (543, 27790), (546, 27799), (550, 27826), (562, 27895), (571, 28024), (579, 28123), (597,
28267), (602, 28336), (603, 28342), (604, 28348), (610, 28423), (614, 28453), (626, 28591), (635,
28651), (641, 28687), (644, 28732), (650, 28759), (658, 28798), (659, 28804), (661, 28810), (664,
28837), (668, 28873), (669, 28885),

Gene: BobBob_30 Start: 23955, Stop: 28781, Start Num: 19
Candidate Starts for BobBob_30:
(Start: 19 @23955 has 69 MA's), (46, 24129), (52, 24153), (87, 24291), (96, 24324), (99, 24336), (103,
24348), (107, 24366), (111, 24378), (117, 24423), (137, 24534), (153, 24654), (154, 24675), (157,
24735), (160, 24768), (164, 24810), (167, 24846), (172, 24882), (174, 24897), (175, 24900), (185,
25011), (187, 25047), (190, 25098), (193, 25140), (196, 25170), (202, 25221), (206, 25254), (208,

25287), (209, 25299), (219, 25380), (226, 25413), (239, 25509), (240, 25524), (242, 25545), (249, 25596), (251, 25605), (260, 25683), (271, 25731), (272, 25740), (278, 25800), (286, 25839), (287, 25845), (290, 25854), (298, 25881), (302, 25908), (304, 25929), (308, 25965), (317, 26031), (320, 26052), (323, 26067), (331, 26154), (332, 26157), (359, 26235), (366, 26295), (377, 26367), (405, 26469), (410, 26502), (417, 26565), (423, 26619), (430, 26682), (441, 26793), (447, 26820), (448, 26826), (462, 26928), (464, 26940), (469, 26994), (472, 27021), (476, 27048), (480, 27087), (484, 27111), (488, 27126), (492, 27153), (501, 27225), (502, 27234), (509, 27294), (511, 27339), (537, 27528), (546, 27657), (547, 27663), (549, 27681), (564, 27777), (571, 27882), (579, 27981), (597, 28125), (602, 28200), (604, 28212), (610, 28296), (650, 28635), (658, 28674), (659, 28680), (661, 28686), (664, 28713), (668, 28749), (669, 28761),

Gene: Bowser_17 Start: 10588, Stop: 15702, Start Num: 4
Candidate Starts for Bowser_17:
(Start: 4 @10588 has 13 MA's), (6, 10597), (25, 10870), (26, 10879), (28, 10909), (29, 10918), (39, 10975), (49, 11038), (56, 11110), (59, 11131), (64, 11149), (81, 11302), (90, 11344), (95, 11398), (133, 11626), (147, 11740), (153, 11779), (157, 11863), (160, 11896), (161, 11905), (162, 11914), (165, 11947), (166, 11959), (168, 11983), (175, 12028), (177, 12073), (182, 12109), (184, 12121), (185, 12139), (187, 12175), (196, 12298), (197, 12322), (202, 12340), (216, 12475), (218, 12481), (219, 12493), (220, 12496), (229, 12550), (234, 12589), (237, 12610), (238, 12613), (240, 12631), (241, 12640), (248, 12685), (250, 12706), (253, 12733), (264, 12811), (297, 12967), (314, 13024), (321, 13036), (322, 13039), (327, 13072), (329, 13090), (349, 13165), (350, 13171), (353, 13177), (357, 13198), (358, 13201), (359, 13204), (367, 13267), (372, 13303), (374, 13318), (379, 13342), (387, 13357), (388, 13360), (390, 13366), (398, 13411), (402, 13420), (416, 13519), (419, 13561), (428, 13645), (435, 13708), (437, 13726), (453, 13834), (456, 13843), (457, 13861), (458, 13864), (462, 13903), (463, 13906), (464, 13915), (479, 14050), (487, 14074), (502, 14194), (507, 14239), (510, 14272), (514, 14320), (517, 14332), (526, 14392), (538, 14512), (540, 14539), (541, 14557), (551, 14635), (552, 14641), (554, 14650), (565, 14770), (567, 14809), (569, 14851), (578, 14944), (584, 15037), (585, 15040), (590, 15097), (591, 15106), (592, 15118), (595, 15139), (606, 15244), (615, 15352), (619, 15391), (624, 15460), (628, 15514), (649, 15664),

Gene: Brandonk123_34 Start: 25024, Stop: 29847, Start Num: 19
Candidate Starts for Brandonk123_34:
(Start: 19 @25024 has 69 MA's), (46, 25198), (52, 25222), (87, 25360), (97, 25399), (99, 25405), (103, 25417), (107, 25435), (111, 25447), (113, 25474), (117, 25492), (120, 25504), (137, 25603), (153, 25723), (154, 25744), (157, 25804), (160, 25837), (164, 25879), (167, 25915), (172, 25951), (174, 25966), (175, 25969), (185, 26080), (187, 26116), (190, 26167), (193, 26209), (196, 26239), (202, 26290), (206, 26323), (208, 26356), (209, 26368), (219, 26449), (223, 26470), (226, 26482), (239, 26578), (240, 26593), (242, 26614), (249, 26665), (251, 26674), (260, 26752), (271, 26800), (272, 26809), (278, 26869), (287, 26914), (290, 26923), (298, 26950), (302, 26977), (304, 26998), (308, 27034), (317, 27100), (323, 27136), (331, 27223), (332, 27226), (359, 27304), (366, 27364), (377, 27436), (397, 27499), (403, 27532), (405, 27538), (410, 27571), (417, 27634), (423, 27688), (430, 27751), (441, 27862), (447, 27889), (448, 27895), (462, 27997), (464, 28009), (469, 28063), (472, 28090), (476, 28117), (480, 28156), (492, 28222), (501, 28294), (502, 28303), (509, 28363), (511, 28408), (546, 28723), (547, 28729), (549, 28747), (564, 28843), (571, 28948), (579, 29047), (597, 29191), (602, 29266), (604, 29278), (610, 29362), (650, 29701), (658, 29740), (659, 29746), (661, 29752), (664, 29779), (668, 29815), (669, 29827),

Gene: Bunker_17 Start: 10580, Stop: 15829, Start Num: 4
Candidate Starts for Bunker_17:
(Start: 4 @10580 has 13 MA's), (6, 10589), (16, 10736), (25, 10862), (26, 10871), (32, 10934), (34, 10940), (35, 10946), (39, 10967), (42, 10991), (47, 11021), (49, 11030), (59, 11123), (63, 11135), (64, 11141), (81, 11294), (90, 11336), (95, 11390), (101, 11423), (134, 11624), (157, 11855), (160, 11888), (161, 11897), (162, 11906), (165, 11939), (166, 11951), (168, 11975), (175, 12020), (176, 12029),

(182, 12101), (184, 12113), (185, 12131), (187, 12167), (196, 12290), (197, 12314), (213, 12431), (216, 12467), (218, 12473), (220, 12488), (229, 12542), (234, 12581), (237, 12602), (238, 12605), (240, 12623), (241, 12632), (248, 12677), (249, 12695), (250, 12698), (253, 12725), (264, 12803), (299, 12968), (301, 12983), (303, 12992), (310, 13076), (325, 13187), (327, 13193), (328, 13199), (333, 13244), (335, 13256), (350, 13292), (353, 13298), (357, 13319), (359, 13325), (360, 13331), (365, 13376), (367, 13388), (372, 13424), (379, 13463), (387, 13478), (388, 13481), (390, 13487), (398, 13532), (419, 13682), (427, 13760), (428, 13766), (435, 13832), (437, 13850), (453, 13958), (454, 13961), (457, 13985), (458, 13988), (462, 14027), (463, 14030), (464, 14039), (468, 14087), (479, 14174), (487, 14198), (496, 14258), (502, 14318), (510, 14396), (514, 14444), (517, 14456), (526, 14516), (538, 14633), (540, 14660), (551, 14756), (552, 14762), (554, 14771), (567, 14930), (569, 14972), (591, 15230), (592, 15242), (595, 15263), (596, 15266), (598, 15284), (615, 15476), (619, 15515), (628, 15638), (649, 15788), (652, 15812),

Gene: ChadMasterC_33 Start: 25682, Stop: 30712, Start Num: 19
Candidate Starts for ChadMasterC_33:
(Start: 19 @25682 has 69 MA's), (46, 25856), (52, 25880), (53, 25889), (55, 25922), (57, 25940), (59, 25955), (74, 26054), (82, 26129), (83, 26135), (84, 26138), (92, 26195), (93, 26213), (95, 26222), (97, 26237), (126, 26402), (130, 26420), (131, 26432), (137, 26471), (154, 26612), (157, 26672), (160, 26705), (164, 26747), (172, 26819), (174, 26834), (175, 26837), (185, 26948), (187, 26984), (190, 27035), (193, 27077), (196, 27107), (202, 27158), (206, 27191), (208, 27224), (209, 27236), (219, 27317), (223, 27338), (226, 27350), (239, 27446), (240, 27461), (242, 27482), (249, 27533), (251, 27542), (260, 27620), (271, 27668), (272, 27677), (278, 27737), (287, 27782), (290, 27791), (298, 27818), (302, 27845), (304, 27866), (308, 27902), (317, 27968), (323, 28004), (331, 28091), (332, 28094), (345, 28121), (359, 28172), (360, 28178), (377, 28304), (398, 28379), (405, 28406), (410, 28439), (417, 28502), (423, 28556), (430, 28619), (441, 28730), (447, 28757), (448, 28763), (462, 28865), (464, 28877), (469, 28931), (472, 28958), (476, 28985), (480, 29024), (484, 29048), (488, 29063), (492, 29090), (501, 29162), (502, 29171), (509, 29231), (511, 29276), (546, 29594), (547, 29600), (549, 29618), (564, 29714), (571, 29819), (579, 29918), (597, 30062), (602, 30131), (604, 30143), (610, 30227), (650, 30566), (658, 30605), (659, 30611), (661, 30617), (664, 30644), (668, 30680), (669, 30692),

Gene: Charming_33 Start: 24533, Stop: 29347, Start Num: 19
Candidate Starts for Charming_33:
(Start: 19 @24533 has 69 MA's), (46, 24707), (52, 24731), (87, 24869), (96, 24902), (99, 24914), (103, 24926), (107, 24944), (111, 24956), (117, 25001), (120, 25013), (137, 25112), (153, 25232), (154, 25253), (157, 25313), (160, 25346), (164, 25388), (167, 25424), (172, 25460), (174, 25475), (175, 25478), (185, 25589), (187, 25625), (190, 25676), (193, 25718), (196, 25748), (202, 25799), (206, 25832), (208, 25865), (209, 25877), (219, 25958), (223, 25979), (226, 25991), (239, 26087), (240, 26102), (242, 26123), (249, 26174), (251, 26183), (271, 26309), (272, 26318), (278, 26378), (287, 26423), (290, 26432), (298, 26459), (302, 26486), (304, 26507), (308, 26543), (317, 26609), (323, 26645), (331, 26732), (332, 26735), (359, 26813), (360, 26819), (377, 26945), (405, 27047), (410, 27080), (417, 27143), (423, 27197), (430, 27260), (441, 27371), (447, 27398), (448, 27404), (462, 27506), (469, 27572), (470, 27587), (472, 27599), (476, 27626), (480, 27665), (492, 27731), (502, 27812), (509, 27872), (511, 27917), (546, 28232), (547, 28238), (549, 28256), (564, 28352), (579, 28556), (597, 28700), (602, 28775), (610, 28862), (629, 29057), (650, 29201), (658, 29240), (659, 29246), (661, 29252), (664, 29279), (668, 29315), (669, 29327),

Gene: CherryCola_33 Start: 20326, Stop: 25857, Start Num: 1
Candidate Starts for CherryCola_33:
(Start: 1 @20326 has 32 MA's), (3, 20413), (6, 20500), (10, 20533), (Start: 20 @20680 has 9 MA's), (22, 20701), (23, 20707), (27, 20731), (33, 20761), (43, 20800), (60, 20884), (68, 20920), (70, 20944), (78, 20983), (134, 21373), (154, 21541), (157, 21601), (164, 21673), (165, 21685), (168, 21721), (171, 21745), (181, 21844), (182, 21847), (185, 21877), (189, 21952), (190, 21964), (193, 22006), (196,

22036), (202, 22087), (216, 22228), (219, 22246), (221, 22258), (223, 22267), (238, 22369), (240, 22390), (242, 22411), (249, 22462), (250, 22465), (260, 22549), (266, 22579), (271, 22597), (278, 22666), (284, 22699), (286, 22705), (288, 22714), (291, 22720), (302, 22774), (309, 22846), (310, 22855), (312, 22876), (323, 22933), (326, 22969), (336, 23050), (337, 23053), (343, 23122), (360, 23290), (368, 23356), (369, 23359), (372, 23383), (375, 23410), (376, 23413), (377, 23416), (379, 23422), (399, 23491), (402, 23500), (409, 23545), (414, 23554), (425, 23632), (431, 23686), (435, 23740), (440, 23797), (449, 23839), (455, 23875), (462, 23938), (467, 23989), (477, 24073), (481, 24100), (489, 24139), (492, 24160), (500, 24220), (515, 24394), (516, 24397), (521, 24430), (543, 24637), (546, 24646), (547, 24652), (576, 24964), (594, 25171), (603, 25309), (618, 25459), (626, 25570), (633, 25615), (634, 25624), (635, 25630), (641, 25666), (654, 25759), (657, 25771), (663, 25801), (665, 25834), (667, 25846),

Gene: Chickadee_30 Start: 21428, Stop: 26545, Start Num: 19
Candidate Starts for Chickadee_30:
(Start: 19 @21428 has 69 MA's), (37, 21548), (46, 21602), (53, 21635), (58, 21692), (59, 21701), (60, 21704), (69, 21773), (72, 21785), (74, 21800), (79, 21836), (82, 21875), (83, 21881), (85, 21887), (91, 21920), (96, 21962), (98, 21971), (100, 21980), (102, 21986), (116, 22064), (119, 22082), (125, 22121), (135, 22178), (137, 22193), (151, 22286), (164, 22457), (172, 22529), (175, 22547), (181, 22625), (185, 22658), (187, 22694), (189, 22733), (190, 22745), (196, 22817), (202, 22868), (204, 22889), (206, 22901), (211, 22952), (214, 22982), (223, 23048), (238, 23150), (242, 23192), (250, 23246), (254, 23276), (255, 23279), (260, 23330), (265, 23357), (271, 23378), (277, 23444), (284, 23480), (286, 23486), (297, 23525), (300, 23537), (301, 23549), (302, 23555), (304, 23576), (313, 23660), (316, 23675), (320, 23699), (337, 23834), (338, 23846), (345, 23909), (346, 23912), (355, 24017), (357, 24035), (363, 24065), (369, 24116), (377, 24173), (383, 24248), (386, 24257), (389, 24266), (391, 24272), (395, 24323), (402, 24356), (404, 24368), (407, 24389), (408, 24401), (413, 24434), (415, 24455), (426, 24587), (434, 24641), (460, 24848), (472, 24962), (474, 24974), (491, 25100), (494, 25118), (503, 25196), (524, 25385), (527, 25415), (546, 25586), (550, 25613), (574, 25820), (575, 25823), (577, 25841), (601, 26090), (602, 26108), (605, 26120), (620, 26237), (639, 26393), (640, 26396), (643, 26438), (645, 26456), (648, 26471), (656, 26510),

Gene: ClamChowder_31 Start: 20106, Stop: 25637, Start Num: 1
Candidate Starts for ClamChowder_31:
(Start: 1 @20106 has 32 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 9 MA's), (22, 20481), (23, 20487), (27, 20511), (33, 20541), (43, 20580), (60, 20664), (68, 20700), (70, 20724), (78, 20763), (134, 21153), (154, 21321), (157, 21381), (164, 21453), (165, 21465), (168, 21501), (171, 21525), (181, 21624), (182, 21627), (185, 21657), (189, 21732), (190, 21744), (193, 21786), (196, 21816), (202, 21867), (216, 22008), (219, 22026), (221, 22038), (223, 22047), (238, 22149), (240, 22170), (242, 22191), (249, 22242), (250, 22245), (251, 22251), (260, 22329), (266, 22359), (271, 22377), (278, 22446), (284, 22479), (286, 22485), (288, 22494), (291, 22500), (302, 22554), (306, 22599), (309, 22626), (310, 22635), (312, 22656), (323, 22713), (326, 22749), (336, 22830), (337, 22833), (343, 22902), (352, 22974), (360, 23070), (368, 23136), (369, 23139), (372, 23163), (375, 23190), (376, 23193), (377, 23196), (379, 23202), (399, 23271), (402, 23280), (409, 23325), (414, 23334), (425, 23412), (431, 23466), (435, 23520), (440, 23577), (449, 23619), (455, 23655), (462, 23718), (467, 23769), (481, 23880), (489, 23919), (500, 24000), (515, 24174), (516, 24177), (521, 24210), (543, 24417), (546, 24426), (547, 24432), (576, 24744), (594, 24951), (603, 25089), (618, 25239), (626, 25350), (633, 25395), (634, 25404), (635, 25410), (641, 25446), (654, 25539), (657, 25551), (663, 25581), (665, 25614), (667, 25626),

Gene: Clown_33 Start: 21973, Stop: 27672, Start Num: 1
Candidate Starts for Clown_33:
(Start: 1 @21973 has 32 MA's), (2, 22048), (6, 22147), (7, 22156), (10, 22180), (14, 22249), (17, 22348), (18, 22351), (50, 22606), (62, 22696), (68, 22750), (77, 22807), (81, 22873), (86, 22894), (90, 22915), (115, 23086), (122, 23122), (123, 23128), (132, 23194), (134, 23203), (136, 23224), (146,

23308), (157, 23434), (164, 23506), (165, 23518), (168, 23554), (181, 23677), (182, 23680), (185, 23710), (189, 23785), (190, 23797), (192, 23830), (193, 23839), (197, 23893), (206, 23953), (209, 24001), (214, 24034), (219, 24079), (221, 24091), (223, 24100), (242, 24244), (249, 24295), (250, 24298), (255, 24331), (258, 24373), (262, 24388), (266, 24412), (271, 24430), (272, 24439), (278, 24499), (286, 24538), (287, 24544), (289, 24550), (292, 24556), (293, 24559), (297, 24577), (300, 24589), (302, 24607), (309, 24679), (313, 24712), (316, 24727), (323, 24766), (330, 24829), (337, 24886), (355, 25093), (369, 25192), (372, 25216), (375, 25243), (376, 25246), (377, 25249), (399, 25324), (402, 25333), (409, 25378), (414, 25387), (416, 25399), (425, 25465), (431, 25519), (435, 25573), (442, 25642), (449, 25672), (461, 25753), (462, 25771), (465, 25789), (467, 25822), (470, 25852), (502, 26062), (509, 26122), (511, 26167), (512, 26170), (519, 26233), (534, 26344), (536, 26362), (543, 26461), (544, 26464), (546, 26470), (547, 26476), (563, 26596), (581, 26869), (587, 26926), (588, 26950), (593, 26977), (627, 27400), (641, 27484), (649, 27547), (651, 27562), (657, 27589), (662, 27616), (663, 27619),

Gene: CoveyB_31 Start: 19906, Stop: 25437, Start Num: 1
Candidate Starts for CoveyB_31:
(Start: 1 @19906 has 32 MA's), (3, 19993), (6, 20080), (10, 20113), (12, 20137), (Start: 20 @20260 has 9 MA's), (22, 20281), (23, 20287), (27, 20311), (33, 20341), (43, 20380), (60, 20464), (68, 20500), (70, 20524), (78, 20563), (134, 20953), (154, 21121), (157, 21181), (164, 21253), (165, 21265), (168, 21301), (171, 21325), (181, 21424), (182, 21427), (185, 21457), (189, 21532), (190, 21544), (193, 21586), (196, 21616), (202, 21667), (216, 21808), (219, 21826), (221, 21838), (223, 21847), (238, 21949), (240, 21970), (242, 21991), (249, 22042), (250, 22045), (251, 22051), (260, 22129), (266, 22159), (271, 22177), (278, 22246), (284, 22279), (286, 22285), (288, 22294), (291, 22300), (302, 22354), (306, 22399), (309, 22426), (310, 22435), (312, 22456), (323, 22513), (326, 22549), (336, 22630), (337, 22633), (343, 22702), (352, 22774), (360, 22870), (368, 22936), (369, 22939), (372, 22963), (375, 22990), (376, 22993), (377, 22996), (379, 23002), (399, 23071), (402, 23080), (409, 23125), (414, 23134), (425, 23212), (431, 23266), (435, 23320), (440, 23377), (449, 23419), (455, 23455), (462, 23518), (467, 23569), (481, 23680), (489, 23719), (500, 23800), (515, 23974), (516, 23977), (521, 24010), (543, 24217), (546, 24226), (547, 24232), (576, 24544), (594, 24751), (603, 24889), (618, 25039), (626, 25150), (633, 25195), (634, 25204), (641, 25246), (654, 25339), (657, 25351), (663, 25381), (665, 25414), (667, 25426),

Gene: Danyall_31 Start: 19906, Stop: 25437, Start Num: 1
Candidate Starts for Danyall_31:
(Start: 1 @19906 has 32 MA's), (3, 19993), (6, 20080), (10, 20113), (12, 20137), (Start: 20 @20260 has 9 MA's), (22, 20281), (23, 20287), (27, 20311), (33, 20341), (43, 20380), (60, 20464), (68, 20500), (70, 20524), (78, 20563), (134, 20953), (154, 21121), (157, 21181), (164, 21253), (165, 21265), (168, 21301), (171, 21325), (181, 21424), (182, 21427), (185, 21457), (189, 21532), (190, 21544), (193, 21586), (196, 21616), (202, 21667), (216, 21808), (219, 21826), (221, 21838), (223, 21847), (238, 21949), (240, 21970), (242, 21991), (249, 22042), (250, 22045), (251, 22051), (260, 22129), (266, 22159), (271, 22177), (278, 22246), (284, 22279), (286, 22285), (288, 22294), (291, 22300), (302, 22354), (306, 22399), (309, 22426), (310, 22435), (312, 22456), (323, 22513), (326, 22549), (336, 22630), (337, 22633), (343, 22702), (352, 22774), (360, 22870), (368, 22936), (369, 22939), (372, 22963), (375, 22990), (376, 22993), (377, 22996), (379, 23002), (399, 23071), (402, 23080), (409, 23125), (414, 23134), (425, 23212), (431, 23266), (435, 23320), (440, 23377), (449, 23419), (455, 23455), (462, 23518), (467, 23569), (481, 23680), (489, 23719), (500, 23800), (515, 23974), (516, 23977), (521, 24010), (543, 24217), (546, 24226), (547, 24232), (576, 24544), (594, 24751), (603, 24889), (618, 25039), (626, 25150), (633, 25195), (634, 25204), (635, 25210), (641, 25246), (654, 25339), (657, 25351), (663, 25381), (665, 25414), (667, 25426),

Gene: Delrey21_32 Start: 25053, Stop: 29963, Start Num: 19
Candidate Starts for Delrey21_32:

(Start: 19 @25053 has 69 MA's), (37, 25173), (40, 25185), (43, 25206), (46, 25227), (52, 25251), (58, 25317), (59, 25326), (60, 25329), (76, 25431), (82, 25500), (84, 25509), (106, 25617), (110, 25638), (114, 25680), (116, 25686), (125, 25743), (127, 25752), (137, 25815), (149, 25914), (152, 25926), (156, 25968), (160, 26049), (163, 26073), (165, 26103), (170, 26160), (172, 26163), (173, 26169), (175, 26181), (180, 26253), (185, 26292), (187, 26328), (189, 26367), (190, 26379), (193, 26421), (196, 26451), (206, 26535), (208, 26568), (219, 26661), (223, 26682), (227, 26697), (238, 26784), (242, 26826), (250, 26880), (251, 26886), (255, 26913), (268, 27000), (271, 27012), (272, 27021), (278, 27081), (280, 27093), (286, 27120), (298, 27162), (299, 27168), (301, 27183), (302, 27189), (306, 27234), (309, 27261), (310, 27270), (311, 27273), (330, 27411), (340, 27465), (342, 27468), (360, 27555), (387, 27657), (399, 27702), (400, 27705), (415, 27795), (449, 28071), (451, 28086), (452, 28089), (466, 28212), (469, 28236), (475, 28299), (486, 28356), (502, 28473), (505, 28515), (509, 28533), (519, 28644), (533, 28746), (544, 28878), (546, 28884), (547, 28890), (550, 28911), (557, 28953), (573, 29172), (576, 29199), (581, 29271), (586, 29310), (607, 29517), (612, 29583), (613, 29589), (620, 29655), (629, 29751), (636, 29790), (642, 29853), (643, 29856), (645, 29874), (648, 29889), (652, 29916), (656, 29928),

Gene: Derg_28 Start: 23486, Stop: 28501, Start Num: 19
Candidate Starts for Derg_28:
(Start: 19 @23486 has 69 MA's), (30, 23561), (37, 23606), (46, 23660), (52, 23684), (55, 23726), (57, 23744), (59, 23759), (69, 23831), (74, 23858), (82, 23933), (84, 23942), (92, 23999), (93, 24017), (94, 24023), (97, 24041), (104, 24068), (130, 24224), (137, 24275), (140, 24287), (145, 24335), (157, 24476), (160, 24509), (164, 24551), (172, 24623), (174, 24638), (175, 24641), (185, 24752), (187, 24788), (190, 24839), (193, 24881), (196, 24911), (202, 24962), (206, 24995), (208, 25028), (209, 25040), (219, 25121), (226, 25154), (227, 25157), (233, 25214), (239, 25250), (240, 25265), (242, 25286), (249, 25337), (271, 25472), (278, 25541), (286, 25580), (287, 25586), (290, 25595), (298, 25622), (302, 25649), (304, 25670), (308, 25706), (310, 25730), (311, 25733), (316, 25769), (323, 25808), (332, 25898), (347, 25928), (359, 25976), (360, 25982), (376, 26105), (377, 26108), (379, 26114), (397, 26171), (398, 26183), (405, 26210), (410, 26243), (411, 26249), (417, 26306), (423, 26360), (430, 26423), (441, 26534), (447, 26561), (448, 26567), (462, 26669), (469, 26735), (488, 26867), (492, 26894), (502, 26975), (509, 27035), (511, 27080), (543, 27386), (546, 27395), (550, 27422), (562, 27491), (579, 27719), (597, 27863), (602, 27932), (603, 27938), (604, 27944), (610, 28019), (614, 28049), (626, 28187), (635, 28247), (641, 28283), (644, 28328), (650, 28355), (658, 28394), (659, 28400), (661, 28406), (664, 28433), (668, 28469), (669, 28481),

Gene: Dexdert_31 Start: 21862, Stop: 26988, Start Num: 19
Candidate Starts for Dexdert_31:
(Start: 19 @21862 has 69 MA's), (46, 22036), (53, 22069), (58, 22126), (59, 22135), (60, 22138), (69, 22207), (72, 22219), (74, 22234), (79, 22270), (82, 22309), (83, 22315), (85, 22321), (91, 22354), (96, 22396), (98, 22405), (100, 22414), (102, 22420), (109, 22447), (116, 22498), (119, 22516), (135, 22612), (137, 22627), (144, 22672), (151, 22720), (164, 22891), (172, 22963), (175, 22981), (181, 23059), (185, 23092), (187, 23128), (189, 23167), (190, 23179), (196, 23251), (202, 23302), (204, 23323), (206, 23335), (211, 23386), (214, 23416), (223, 23482), (238, 23584), (242, 23626), (250, 23680), (254, 23710), (255, 23713), (260, 23764), (265, 23791), (271, 23812), (277, 23878), (284, 23914), (286, 23920), (297, 23959), (298, 23962), (301, 23983), (302, 23989), (304, 24010), (309, 24061), (313, 24094), (316, 24109), (320, 24133), (345, 24343), (346, 24346), (355, 24451), (357, 24469), (363, 24499), (369, 24550), (377, 24607), (383, 24682), (386, 24691), (389, 24700), (391, 24706), (395, 24757), (402, 24790), (404, 24802), (407, 24823), (408, 24835), (413, 24868), (415, 24889), (426, 25021), (434, 25075), (460, 25282), (472, 25396), (474, 25408), (491, 25534), (494, 25552), (503, 25630), (524, 25819), (527, 25849), (550, 26047), (574, 26254), (575, 26257), (577, 26275), (601, 26524), (602, 26542), (605, 26554), (620, 26680), (639, 26836), (640, 26839), (643, 26881), (645, 26899), (648, 26914), (656, 26953),

Gene: DirtyBoi_18 Start: 11005, Stop: 16017, Start Num: 4

Candidate Starts for DirtyBoi_18:
(Start: 4 @11005 has 13 MA's), (9, 11035), (11, 11056), (13, 11092), (26, 11296), (28, 11326), (40, 11401), (54, 11506), (64, 11566), (75, 11644), (76, 11647), (81, 11719), (90, 11761), (101, 11848), (157, 12277), (160, 12310), (162, 12328), (166, 12373), (168, 12397), (175, 12442), (176, 12451), (177, 12487), (178, 12496), (181, 12520), (184, 12535), (185, 12553), (190, 12640), (195, 12694), (196, 12712), (206, 12787), (207, 12817), (216, 12889), (218, 12895), (220, 12910), (229, 12964), (238, 13027), (240, 13045), (243, 13072), (245, 13084), (248, 13099), (250, 13120), (269, 13240), (273, 13267), (276, 13300), (281, 13339), (283, 13354), (297, 13402), (301, 13426), (304, 13456), (310, 13519), (318, 13564), (319, 13567), (327, 13636), (344, 13708), (349, 13729), (350, 13735), (353, 13741), (358, 13765), (359, 13768), (362, 13789), (365, 13819), (367, 13831), (372, 13867), (387, 13921), (388, 13924), (390, 13930), (398, 13975), (402, 13984), (419, 14125), (422, 14158), (427, 14203), (428, 14209), (431, 14221), (435, 14272), (450, 14356), (454, 14380), (457, 14404), (458, 14407), (464, 14458), (469, 14506), (479, 14593), (487, 14617), (490, 14629), (492, 14650), (496, 14677), (507, 14782), (510, 14815), (514, 14863), (517, 14875), (528, 14947), (530, 14956), (559, 15112), (566, 15142), (582, 15334), (595, 15454), (596, 15457), (608, 15601), (615, 15664), (628, 15826), (629, 15838), (639, 15895), (647, 15970), (649, 15976), (653, 16006), (655, 16009),

Gene: DoctorFroggo_32 Start: 25053, Stop: 29963, Start Num: 19
Candidate Starts for DoctorFroggo_32:
(Start: 19 @25053 has 69 MA's), (37, 25173), (40, 25185), (43, 25206), (46, 25227), (52, 25251), (58, 25317), (59, 25326), (60, 25329), (76, 25431), (82, 25500), (84, 25509), (106, 25617), (110, 25638), (114, 25680), (116, 25686), (125, 25743), (127, 25752), (137, 25815), (149, 25914), (152, 25926), (156, 25968), (160, 26049), (163, 26073), (165, 26103), (170, 26160), (172, 26163), (173, 26169), (175, 26181), (180, 26253), (185, 26292), (187, 26328), (189, 26367), (190, 26379), (193, 26421), (196, 26451), (206, 26535), (208, 26568), (219, 26661), (223, 26682), (227, 26697), (238, 26784), (242, 26826), (250, 26880), (251, 26886), (255, 26913), (268, 27000), (271, 27012), (272, 27021), (278, 27081), (280, 27093), (286, 27120), (298, 27162), (299, 27168), (301, 27183), (302, 27189), (306, 27234), (309, 27261), (310, 27270), (311, 27273), (330, 27411), (340, 27465), (342, 27468), (360, 27555), (387, 27657), (399, 27702), (400, 27705), (415, 27795), (449, 28071), (451, 28086), (452, 28089), (466, 28212), (469, 28236), (475, 28299), (486, 28356), (502, 28473), (505, 28515), (509, 28533), (519, 28644), (533, 28746), (544, 28878), (546, 28884), (547, 28890), (550, 28911), (557, 28953), (573, 29172), (576, 29199), (581, 29271), (586, 29310), (607, 29517), (612, 29583), (613, 29589), (620, 29655), (629, 29751), (636, 29790), (642, 29853), (643, 29856), (645, 29874), (648, 29889), (652, 29916), (656, 29928),

Gene: EMoore_29 Start: 23379, Stop: 28523, Start Num: 20
Candidate Starts for EMoore_29:
(Start: 20 @23379 has 9 MA's), (37, 23499), (46, 23553), (52, 23577), (55, 23619), (59, 23652), (60, 23655), (74, 23751), (82, 23826), (83, 23832), (85, 23838), (91, 23871), (96, 23913), (102, 23937), (106, 23946), (111, 23976), (119, 24033), (125, 24072), (127, 24081), (128, 24084), (137, 24144), (138, 24147), (148, 24222), (149, 24231), (160, 24366), (161, 24375), (166, 24432), (173, 24486), (175, 24498), (181, 24576), (185, 24609), (187, 24645), (189, 24684), (190, 24696), (194, 24744), (196, 24768), (206, 24852), (210, 24900), (211, 24903), (221, 24990), (224, 25002), (236, 25089), (242, 25143), (250, 25197), (251, 25203), (255, 25230), (260, 25281), (271, 25329), (272, 25338), (278, 25398), (280, 25410), (284, 25431), (286, 25437), (287, 25443), (288, 25446), (289, 25449), (297, 25476), (302, 25506), (306, 25551), (309, 25578), (311, 25590), (313, 25611), (316, 25626), (323, 25665), (337, 25785), (341, 25839), (351, 25914), (352, 25926), (354, 25989), (361, 26034), (364, 26055), (371, 26100), (378, 26142), (379, 26145), (380, 26169), (381, 26187), (382, 26199), (385, 26220), (390, 26232), (393, 26250), (395, 26277), (396, 26280), (412, 26364), (418, 26430), (425, 26463), (429, 26505), (431, 26517), (439, 26616), (443, 26646), (449, 26673), (455, 26709), (472, 26865), (473, 26868), (479, 26922), (486, 26946), (501, 27054), (502, 27063), (509, 27123), (510, 27153), (511, 27168), (519, 27234), (525, 27270), (544, 27465), (546, 27471), (550, 27498), (556, 27534), (581, 27861), (586, 27900), (611, 28137), (620, 28215), (629, 28311), (645, 28434),

(652, 28476), (656, 28488),

Gene: EdmundFerry_29 Start: 21457, Stop: 26574, Start Num: 19
Candidate Starts for EdmundFerry_29:
(Start: 19 @21457 has 69 MA's), (37, 21577), (46, 21631), (53, 21664), (58, 21721), (59, 21730), (60, 21733), (69, 21802), (72, 21814), (74, 21829), (79, 21865), (82, 21904), (83, 21910), (85, 21916), (91, 21949), (96, 21991), (98, 22000), (100, 22009), (102, 22015), (116, 22093), (119, 22111), (125, 22150), (135, 22207), (137, 22222), (151, 22315), (164, 22486), (172, 22558), (175, 22576), (181, 22654), (185, 22687), (187, 22723), (189, 22762), (190, 22774), (196, 22846), (198, 22876), (202, 22897), (204, 22918), (206, 22930), (211, 22981), (214, 23011), (223, 23077), (238, 23179), (242, 23221), (250, 23275), (254, 23305), (255, 23308), (260, 23359), (265, 23386), (271, 23407), (277, 23473), (284, 23509), (286, 23515), (297, 23554), (300, 23566), (301, 23578), (302, 23584), (304, 23605), (313, 23689), (316, 23704), (320, 23728), (337, 23863), (345, 23938), (346, 23941), (355, 24046), (357, 24064), (363, 24094), (369, 24145), (377, 24202), (383, 24277), (386, 24286), (389, 24295), (391, 24301), (395, 24352), (402, 24385), (404, 24397), (407, 24418), (408, 24430), (413, 24463), (415, 24484), (426, 24616), (434, 24670), (460, 24877), (472, 24991), (474, 25003), (491, 25129), (494, 25147), (503, 25225), (524, 25414), (527, 25444), (546, 25615), (550, 25642), (574, 25849), (575, 25852), (577, 25870), (601, 26119), (602, 26137), (605, 26149), (620, 26266), (639, 26422), (640, 26425), (643, 26467), (645, 26485), (648, 26500), (656, 26539),

Gene: Egi03_29 Start: 19614, Stop: 25127, Start Num: 1
Candidate Starts for Egi03_29:
(Start: 1 @19614 has 32 MA's), (3, 19701), (6, 19788), (10, 19821), (12, 19845), (Start: 20 @19968 has 9 MA's), (22, 19989), (23, 19995), (27, 20019), (33, 20049), (43, 20088), (60, 20172), (68, 20208), (70, 20232), (78, 20271), (134, 20661), (154, 20829), (157, 20889), (164, 20961), (165, 20973), (168, 21009), (171, 21033), (181, 21132), (182, 21135), (185, 21165), (189, 21240), (190, 21252), (193, 21294), (196, 21324), (202, 21375), (216, 21516), (219, 21534), (221, 21546), (223, 21555), (238, 21657), (240, 21678), (242, 21699), (249, 21750), (250, 21753), (260, 21837), (266, 21867), (271, 21885), (278, 21954), (284, 21987), (286, 21993), (288, 22002), (291, 22008), (302, 22062), (309, 22134), (310, 22143), (312, 22164), (323, 22221), (326, 22257), (336, 22338), (337, 22341), (343, 22410), (352, 22482), (360, 22578), (368, 22644), (369, 22647), (372, 22671), (375, 22698), (376, 22701), (377, 22704), (379, 22710), (399, 22779), (402, 22788), (409, 22833), (414, 22842), (425, 22920), (431, 22974), (435, 23028), (440, 23085), (449, 23127), (455, 23163), (462, 23226), (467, 23277), (481, 23388), (489, 23427), (500, 23508), (515, 23682), (516, 23685), (521, 23718), (523, 23733), (543, 23925), (546, 23934), (547, 23940), (550, 23961), (576, 24249), (594, 24456), (600, 24546), (618, 24729), (626, 24840), (633, 24885), (634, 24894), (641, 24936), (656, 25035), (657, 25041), (663, 25071), (665, 25104), (667, 25116),

Gene: Evamon_29 Start: 19392, Stop: 24923, Start Num: 1
Candidate Starts for Evamon_29:
(Start: 1 @19392 has 32 MA's), (3, 19479), (6, 19566), (10, 19599), (12, 19623), (Start: 20 @19746 has 9 MA's), (22, 19767), (23, 19773), (27, 19797), (33, 19827), (43, 19866), (60, 19950), (68, 19986), (70, 20010), (78, 20049), (134, 20439), (154, 20607), (157, 20667), (164, 20739), (165, 20751), (168, 20787), (171, 20811), (181, 20910), (182, 20913), (185, 20943), (189, 21018), (190, 21030), (193, 21072), (196, 21102), (202, 21153), (216, 21294), (219, 21312), (221, 21324), (223, 21333), (238, 21435), (240, 21456), (242, 21477), (249, 21528), (250, 21531), (251, 21537), (260, 21615), (266, 21645), (271, 21663), (278, 21732), (284, 21765), (286, 21771), (288, 21780), (291, 21786), (302, 21840), (306, 21885), (309, 21912), (310, 21921), (312, 21942), (323, 21999), (326, 22035), (336, 22116), (337, 22119), (343, 22188), (352, 22260), (360, 22356), (368, 22422), (369, 22425), (372, 22449), (375, 22476), (376, 22479), (377, 22482), (379, 22488), (399, 22557), (402, 22566), (409, 22611), (414, 22620), (425, 22698), (431, 22752), (435, 22806), (440, 22863), (449, 22905), (455, 22941), (462, 23004), (467, 23055), (481, 23166), (489, 23205), (500, 23286), (515, 23460), (516, 23463), (521, 23496), (543, 23703), (546, 23712), (547, 23718), (576, 24030), (594, 24237), (603,

24375), (618, 24525), (626, 24636), (633, 24681), (634, 24690), (635, 24696), (641, 24732), (654, 24825), (657, 24837), (663, 24867), (665, 24900), (667, 24912),

Gene: Eyes_17 Start: 10596, Stop: 15716, Start Num: 4
Candidate Starts for Eyes_17:
(Start: 4 @10596 has 13 MA's), (6, 10605), (22, 10848), (25, 10878), (26, 10887), (28, 10917), (34, 10956), (39, 10983), (59, 11139), (64, 11157), (81, 11310), (90, 11352), (95, 11406), (132, 11631), (133, 11634), (139, 11670), (147, 11748), (153, 11787), (157, 11871), (160, 11904), (161, 11913), (162, 11922), (165, 11955), (166, 11967), (168, 11991), (175, 12036), (176, 12045), (177, 12081), (182, 12117), (184, 12129), (185, 12147), (187, 12183), (188, 12192), (196, 12306), (202, 12348), (216, 12483), (217, 12486), (218, 12489), (220, 12504), (229, 12558), (234, 12597), (245, 12678), (248, 12693), (250, 12714), (257, 12777), (263, 12813), (297, 12975), (314, 13032), (321, 13044), (322, 13047), (327, 13080), (329, 13098), (349, 13173), (350, 13179), (353, 13185), (357, 13206), (358, 13209), (359, 13212), (367, 13275), (372, 13311), (374, 13326), (379, 13350), (387, 13365), (388, 13368), (390, 13374), (402, 13428), (416, 13527), (419, 13569), (427, 13647), (435, 13716), (437, 13734), (453, 13842), (454, 13845), (457, 13869), (458, 13872), (461, 13893), (463, 13914), (464, 13923), (479, 14058), (487, 14082), (496, 14142), (502, 14202), (507, 14247), (510, 14280), (514, 14328), (517, 14340), (526, 14400), (540, 14550), (541, 14568), (551, 14646), (552, 14652), (554, 14661), (558, 14688), (565, 14781), (567, 14820), (569, 14862), (580, 15015), (584, 15048), (585, 15051), (590, 15108), (591, 15117), (592, 15129), (595, 15150), (598, 15171), (615, 15363), (619, 15402), (624, 15471), (628, 15525), (649, 15678),

Gene: Fireball_30 Start: 19524, Stop: 25058, Start Num: 1
Candidate Starts for Fireball_30:
(Start: 1 @19524 has 32 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 9 MA's), (22, 19899), (23, 19905), (27, 19929), (30, 19938), (33, 19959), (43, 19998), (60, 20082), (68, 20118), (70, 20142), (78, 20181), (134, 20571), (154, 20739), (157, 20799), (164, 20871), (165, 20883), (168, 20919), (171, 20943), (181, 21042), (182, 21045), (185, 21075), (189, 21150), (190, 21162), (193, 21204), (196, 21234), (202, 21285), (216, 21426), (219, 21444), (221, 21456), (223, 21465), (238, 21567), (240, 21588), (242, 21609), (249, 21660), (250, 21663), (260, 21747), (266, 21777), (271, 21795), (278, 21864), (284, 21897), (286, 21903), (288, 21912), (291, 21918), (302, 21972), (309, 22044), (310, 22053), (312, 22074), (323, 22131), (326, 22167), (336, 22248), (337, 22251), (343, 22320), (352, 22392), (360, 22488), (368, 22554), (369, 22557), (372, 22581), (375, 22608), (376, 22611), (377, 22614), (379, 22620), (399, 22689), (402, 22698), (409, 22743), (414, 22752), (425, 22830), (436, 22959), (438, 22974), (443, 23016), (449, 23058), (452, 23076), (455, 23094), (462, 23157), (467, 23208), (481, 23319), (489, 23358), (500, 23439), (515, 23613), (516, 23616), (521, 23649), (523, 23664), (543, 23856), (546, 23865), (547, 23871), (563, 23985), (570, 24105), (586, 24285), (603, 24510), (618, 24660), (633, 24816), (634, 24825), (641, 24867), (656, 24966), (657, 24972), (663, 25002), (665, 25035), (667, 25047),

Gene: Fitzgerald_31 Start: 25116, Stop: 29930, Start Num: 19
Candidate Starts for Fitzgerald_31:
(Start: 19 @25116 has 69 MA's), (46, 25290), (52, 25314), (87, 25452), (97, 25491), (99, 25497), (103, 25509), (107, 25527), (111, 25539), (113, 25566), (117, 25584), (120, 25596), (122, 25602), (137, 25695), (153, 25815), (154, 25836), (157, 25896), (160, 25929), (164, 25971), (167, 26007), (172, 26043), (174, 26058), (175, 26061), (185, 26172), (187, 26208), (190, 26259), (193, 26301), (196, 26331), (202, 26382), (206, 26415), (208, 26448), (209, 26460), (219, 26541), (223, 26562), (226, 26574), (239, 26670), (240, 26685), (242, 26706), (249, 26757), (251, 26766), (271, 26892), (272, 26901), (278, 26961), (287, 27006), (290, 27015), (298, 27042), (302, 27069), (304, 27090), (308, 27126), (317, 27192), (323, 27228), (331, 27315), (332, 27318), (345, 27345), (359, 27396), (360, 27402), (377, 27528), (405, 27630), (410, 27663), (417, 27726), (423, 27780), (430, 27843), (441, 27954), (447, 27981), (448, 27987), (462, 28089), (464, 28101), (469, 28155), (472, 28182), (476, 28209), (480, 28248), (484, 28272), (488, 28287), (492, 28314), (501, 28386), (502, 28395), (509,

28455), (511, 28500), (537, 28689), (546, 28815), (547, 28821), (549, 28839), (564, 28935), (571, 29040), (579, 29139), (597, 29283), (602, 29358), (610, 29445), (650, 29784), (658, 29823), (659, 29829), (661, 29835), (664, 29862), (668, 29898), (669, 29910),

Gene: Flatwoods_33 Start: 23847, Stop: 28862, Start Num: 19
Candidate Starts for Flatwoods_33:
(Start: 19 @23847 has 69 MA's), (30, 23922), (37, 23967), (46, 24021), (52, 24045), (55, 24087), (57, 24105), (59, 24120), (69, 24192), (74, 24219), (82, 24294), (84, 24303), (91, 24339), (92, 24360), (93, 24378), (94, 24384), (97, 24402), (104, 24429), (137, 24636), (140, 24648), (145, 24696), (157, 24837), (160, 24870), (164, 24912), (172, 24984), (174, 24999), (175, 25002), (185, 25113), (187, 25149), (190, 25200), (193, 25242), (196, 25272), (202, 25323), (206, 25356), (208, 25389), (209, 25401), (219, 25482), (226, 25515), (227, 25518), (233, 25575), (239, 25611), (240, 25626), (242, 25647), (249, 25698), (271, 25833), (278, 25902), (286, 25941), (287, 25947), (290, 25956), (298, 25983), (302, 26010), (304, 26031), (308, 26067), (310, 26091), (311, 26094), (316, 26130), (323, 26169), (332, 26259), (347, 26289), (359, 26337), (360, 26343), (376, 26466), (377, 26469), (379, 26475), (397, 26532), (398, 26544), (405, 26571), (410, 26604), (411, 26610), (417, 26667), (423, 26721), (430, 26784), (441, 26895), (447, 26922), (448, 26928), (462, 27030), (469, 27096), (488, 27228), (492, 27255), (502, 27336), (509, 27396), (511, 27441), (543, 27747), (546, 27756), (550, 27783), (562, 27852), (571, 27981), (579, 28080), (597, 28224), (602, 28293), (603, 28299), (604, 28305), (610, 28380), (614, 28410), (626, 28548), (635, 28608), (641, 28644), (644, 28689), (650, 28716), (658, 28755), (659, 28761), (661, 28767), (664, 28794), (668, 28830), (669, 28842),

Gene: Fosterous_31 Start: 24949, Stop: 29772, Start Num: 19
Candidate Starts for Fosterous_31:
(Start: 19 @24949 has 69 MA's), (46, 25123), (52, 25147), (87, 25285), (96, 25318), (99, 25330), (103, 25342), (107, 25360), (111, 25372), (117, 25417), (137, 25528), (154, 25669), (157, 25729), (160, 25762), (164, 25804), (167, 25840), (172, 25876), (174, 25891), (175, 25894), (185, 26005), (187, 26041), (190, 26092), (193, 26134), (196, 26164), (202, 26215), (206, 26248), (208, 26281), (209, 26293), (219, 26374), (226, 26407), (239, 26503), (240, 26518), (242, 26539), (249, 26590), (251, 26599), (260, 26677), (271, 26725), (272, 26734), (278, 26794), (286, 26833), (287, 26839), (290, 26848), (298, 26875), (302, 26902), (304, 26923), (308, 26959), (317, 27025), (320, 27046), (323, 27061), (331, 27148), (332, 27151), (359, 27229), (366, 27289), (377, 27361), (405, 27463), (410, 27496), (417, 27559), (423, 27613), (430, 27676), (441, 27787), (447, 27814), (448, 27820), (462, 27922), (464, 27934), (469, 27988), (472, 28015), (476, 28042), (480, 28081), (484, 28105), (488, 28120), (492, 28147), (501, 28219), (502, 28228), (509, 28288), (511, 28333), (546, 28648), (547, 28654), (549, 28672), (564, 28768), (571, 28873), (579, 28972), (597, 29116), (602, 29191), (604, 29203), (610, 29287), (650, 29626), (658, 29665), (659, 29671), (661, 29677), (664, 29704), (668, 29740), (669, 29752),

Gene: FuegoCuervo_35 Start: 23500, Stop: 28317, Start Num: 19
Candidate Starts for FuegoCuervo_35:
(Start: 19 @23500 has 69 MA's), (46, 23674), (52, 23698), (87, 23836), (96, 23869), (99, 23881), (103, 23893), (107, 23911), (111, 23923), (117, 23968), (120, 23980), (137, 24079), (153, 24199), (154, 24220), (157, 24280), (160, 24313), (164, 24355), (167, 24391), (172, 24427), (174, 24442), (175, 24445), (185, 24556), (187, 24592), (190, 24643), (193, 24685), (196, 24715), (202, 24766), (206, 24799), (208, 24832), (209, 24844), (219, 24925), (223, 24946), (226, 24958), (239, 25054), (240, 25069), (242, 25090), (249, 25141), (251, 25150), (260, 25228), (271, 25276), (272, 25285), (278, 25345), (287, 25390), (290, 25399), (298, 25426), (302, 25453), (304, 25474), (308, 25510), (317, 25576), (323, 25612), (331, 25699), (332, 25702), (334, 25711), (345, 25729), (359, 25780), (360, 25786), (377, 25912), (398, 25987), (405, 26014), (410, 26047), (417, 26110), (423, 26164), (430, 26227), (441, 26338), (447, 26365), (448, 26371), (462, 26473), (464, 26485), (469, 26539), (472, 26566), (476, 26593), (480, 26632), (484, 26656), (488, 26671), (492, 26698), (501, 26770), (502, 26779), (509, 26839), (511, 26884), (537, 27073), (546, 27202), (547, 27208), (549, 27226), (564,

27322), (571, 27427), (579, 27526), (597, 27670), (602, 27745), (604, 27757), (610, 27832), (650, 28171), (658, 28210), (659, 28216), (661, 28222), (664, 28249), (668, 28285), (669, 28297),

Gene: Fugax_31 Start: 20106, Stop: 25637, Start Num: 1
Candidate Starts for Fugax_31:
(Start: 1 @20106 has 32 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 9 MA's), (22, 20481), (23, 20487), (27, 20511), (33, 20541), (43, 20580), (60, 20664), (68, 20700), (70, 20724), (78, 20763), (134, 21153), (154, 21321), (157, 21381), (164, 21453), (165, 21465), (168, 21501), (171, 21525), (181, 21624), (182, 21627), (185, 21657), (189, 21732), (190, 21744), (193, 21786), (196, 21816), (202, 21867), (216, 22008), (219, 22026), (221, 22038), (223, 22047), (238, 22149), (240, 22170), (242, 22191), (249, 22242), (250, 22245), (251, 22251), (260, 22329), (266, 22359), (271, 22377), (278, 22446), (284, 22479), (286, 22485), (288, 22494), (291, 22500), (302, 22554), (306, 22599), (309, 22626), (310, 22635), (312, 22656), (323, 22713), (326, 22749), (336, 22830), (337, 22833), (343, 22902), (352, 22974), (360, 23070), (368, 23136), (369, 23139), (372, 23163), (375, 23190), (376, 23193), (377, 23196), (379, 23202), (399, 23271), (402, 23280), (409, 23325), (414, 23334), (425, 23412), (431, 23466), (435, 23520), (440, 23577), (449, 23619), (455, 23655), (462, 23718), (467, 23769), (481, 23880), (489, 23919), (500, 24000), (515, 24174), (516, 24177), (521, 24210), (543, 24417), (546, 24426), (547, 24432), (576, 24744), (594, 24951), (603, 25089), (618, 25239), (626, 25350), (633, 25395), (634, 25404), (635, 25410), (641, 25446), (654, 25539), (657, 25551), (663, 25581), (665, 25614), (667, 25626),

Gene: GEazy_17 Start: 10605, Stop: 15728, Start Num: 4
Candidate Starts for GEazy_17:
(Start: 4 @10605 has 13 MA's), (6, 10614), (25, 10887), (26, 10896), (28, 10926), (49, 11055), (64, 11166), (71, 11223), (90, 11361), (95, 11415), (101, 11448), (134, 11649), (139, 11679), (147, 11757), (149, 11775), (153, 11796), (157, 11880), (160, 11913), (161, 11922), (162, 11931), (165, 11964), (166, 11976), (168, 12000), (175, 12045), (176, 12054), (177, 12090), (178, 12099), (182, 12126), (184, 12138), (185, 12156), (187, 12192), (196, 12315), (202, 12357), (216, 12492), (217, 12495), (218, 12498), (220, 12513), (229, 12567), (234, 12606), (245, 12687), (248, 12702), (250, 12723), (252, 12738), (253, 12750), (257, 12786), (263, 12822), (297, 12984), (314, 13041), (321, 13053), (322, 13056), (327, 13089), (329, 13107), (349, 13182), (350, 13188), (353, 13194), (357, 13215), (358, 13218), (359, 13221), (367, 13284), (372, 13320), (374, 13335), (379, 13359), (387, 13374), (388, 13377), (402, 13437), (416, 13536), (419, 13578), (427, 13656), (435, 13725), (437, 13743), (453, 13851), (457, 13878), (458, 13881), (462, 13920), (463, 13923), (464, 13932), (468, 13980), (479, 14067), (487, 14091), (496, 14151), (502, 14211), (510, 14289), (514, 14337), (517, 14349), (526, 14409), (529, 14451), (538, 14532), (540, 14559), (541, 14577), (542, 14607), (551, 14655), (552, 14661), (554, 14670), (561, 14718), (565, 14790), (567, 14829), (569, 14871), (584, 15057), (585, 15060), (590, 15117), (591, 15126), (592, 15138), (595, 15159), (615, 15372), (619, 15411), (624, 15480), (628, 15534), (639, 15606), (649, 15687), (652, 15711),

Gene: GTE6_30 Start: 21946, Stop: 27066, Start Num: 19
Candidate Starts for GTE6_30:
(Start: 19 @21946 has 69 MA's), (37, 22066), (46, 22120), (53, 22153), (58, 22210), (59, 22219), (60, 22222), (69, 22291), (72, 22303), (74, 22318), (79, 22354), (82, 22393), (83, 22399), (85, 22405), (91, 22438), (96, 22480), (98, 22489), (100, 22498), (102, 22504), (116, 22582), (119, 22600), (125, 22639), (135, 22696), (137, 22711), (164, 22975), (172, 23047), (175, 23065), (181, 23143), (185, 23176), (187, 23212), (189, 23251), (190, 23263), (196, 23335), (197, 23359), (198, 23365), (202, 23386), (204, 23407), (206, 23419), (211, 23470), (214, 23500), (223, 23566), (238, 23668), (242, 23710), (250, 23764), (254, 23794), (255, 23797), (260, 23848), (265, 23875), (271, 23896), (277, 23962), (284, 23998), (286, 24004), (296, 24034), (297, 24043), (300, 24055), (301, 24067), (302, 24073), (304, 24094), (309, 24145), (313, 24178), (316, 24193), (320, 24217), (337, 24352), (345, 24427), (346, 24430), (355, 24535), (357, 24553), (363, 24583), (369, 24634), (377, 24691), (383, 24766), (386, 24775), (389, 24784), (391, 24790), (394, 24832), (395, 24841), (402, 24874), (404,

24886), (407, 24907), (408, 24919), (413, 24952), (415, 24973), (426, 25105), (434, 25159), (460, 25366), (472, 25480), (474, 25492), (482, 25570), (491, 25618), (494, 25636), (503, 25714), (524, 25903), (527, 25933), (546, 26104), (550, 26131), (574, 26338), (575, 26341), (577, 26359), (601, 26608), (602, 26626), (605, 26638), (620, 26758), (639, 26914), (640, 26917), (643, 26959), (645, 26977), (648, 26992), (656, 27031),

Gene: Gaea_32 Start: 23498, Stop: 28510, Start Num: 19
Candidate Starts for Gaea_32:
(Start: 19 @23498 has 69 MA's), (30, 23573), (37, 23618), (46, 23672), (52, 23696), (55, 23738), (57, 23756), (59, 23771), (69, 23843), (74, 23870), (82, 23945), (84, 23954), (92, 24011), (93, 24029), (94, 24035), (137, 24287), (140, 24299), (145, 24347), (157, 24488), (160, 24521), (164, 24563), (172, 24635), (174, 24650), (175, 24653), (185, 24764), (187, 24800), (190, 24851), (193, 24893), (196, 24923), (202, 24974), (206, 25007), (208, 25040), (209, 25052), (219, 25133), (226, 25166), (227, 25169), (233, 25226), (239, 25262), (240, 25277), (242, 25298), (249, 25349), (271, 25484), (272, 25493), (284, 25586), (286, 25592), (287, 25598), (290, 25607), (297, 25631), (300, 25643), (302, 25661), (308, 25718), (323, 25820), (327, 25862), (332, 25910), (347, 25940), (359, 25988), (360, 25994), (377, 26120), (397, 26183), (398, 26195), (403, 26216), (405, 26222), (410, 26255), (417, 26318), (423, 26372), (441, 26546), (447, 26573), (448, 26579), (462, 26681), (469, 26747), (488, 26879), (492, 26906), (502, 26987), (509, 27047), (511, 27092), (543, 27398), (546, 27407), (550, 27434), (579, 27728), (597, 27872), (602, 27941), (603, 27947), (604, 27953), (610, 28028), (614, 28058), (626, 28196), (635, 28256), (641, 28292), (644, 28337), (650, 28364), (658, 28403), (659, 28409), (661, 28415), (664, 28442), (668, 28478), (669, 28490),

Gene: Galadriel_33 Start: 25438, Stop: 30261, Start Num: 19
Candidate Starts for Galadriel_33:
(Start: 19 @25438 has 69 MA's), (46, 25612), (52, 25636), (87, 25774), (99, 25819), (103, 25831), (107, 25849), (111, 25861), (113, 25888), (117, 25906), (120, 25918), (137, 26017), (153, 26137), (154, 26158), (157, 26218), (160, 26251), (164, 26293), (167, 26329), (172, 26365), (174, 26380), (175, 26383), (185, 26494), (187, 26530), (190, 26581), (193, 26623), (196, 26653), (202, 26704), (206, 26737), (208, 26770), (209, 26782), (219, 26863), (222, 26881), (223, 26884), (226, 26896), (239, 26992), (240, 27007), (242, 27028), (249, 27079), (251, 27088), (260, 27166), (271, 27214), (272, 27223), (278, 27283), (287, 27328), (290, 27337), (298, 27364), (302, 27391), (304, 27412), (308, 27448), (317, 27514), (323, 27550), (331, 27637), (332, 27640), (334, 27649), (345, 27667), (359, 27718), (360, 27724), (377, 27850), (398, 27925), (405, 27952), (410, 27985), (417, 28048), (423, 28102), (430, 28165), (441, 28276), (447, 28303), (448, 28309), (462, 28411), (464, 28423), (469, 28477), (472, 28504), (476, 28531), (480, 28570), (484, 28594), (492, 28636), (501, 28708), (502, 28717), (509, 28777), (511, 28822), (546, 29137), (547, 29143), (549, 29161), (564, 29257), (571, 29362), (579, 29461), (597, 29605), (602, 29680), (604, 29692), (610, 29776), (650, 30115), (658, 30154), (659, 30160), (661, 30166), (664, 30193), (668, 30229), (669, 30241),

Gene: Geodirt_30 Start: 24421, Stop: 29247, Start Num: 19
Candidate Starts for Geodirt_30:
(Start: 19 @24421 has 69 MA's), (46, 24595), (52, 24619), (87, 24757), (97, 24796), (99, 24802), (103, 24814), (107, 24832), (111, 24844), (113, 24871), (117, 24889), (137, 25000), (153, 25120), (154, 25141), (157, 25201), (160, 25234), (164, 25276), (167, 25312), (172, 25348), (174, 25363), (175, 25366), (185, 25477), (187, 25513), (190, 25564), (193, 25606), (196, 25636), (202, 25687), (206, 25720), (208, 25753), (209, 25765), (219, 25846), (223, 25867), (226, 25879), (239, 25975), (240, 25990), (242, 26011), (249, 26062), (251, 26071), (260, 26149), (271, 26197), (272, 26206), (278, 26266), (287, 26311), (290, 26320), (298, 26347), (302, 26374), (304, 26395), (308, 26431), (317, 26497), (323, 26533), (331, 26620), (332, 26623), (359, 26701), (366, 26761), (377, 26833), (397, 26896), (403, 26929), (405, 26935), (406, 26944), (410, 26968), (417, 27031), (423, 27085), (430, 27148), (441, 27259), (447, 27286), (448, 27292), (462, 27394), (464, 27406), (469, 27460), (472, 27487), (476, 27514), (480, 27553), (484, 27577), (488, 27592), (492, 27619), (501, 27691), (502,

27700), (509, 27760), (511, 27805), (546, 28123), (547, 28129), (549, 28147), (564, 28243), (579, 28447), (597, 28591), (602, 28666), (604, 28678), (610, 28762), (650, 29101), (658, 29140), (659, 29146), (661, 29152), (664, 29179), (668, 29215), (669, 29227),

Gene: Gezellig_29 Start: 19524, Stop: 25055, Start Num: 1
Candidate Starts for Gezellig_29:
(Start: 1 @19524 has 32 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 9 MA's), (22, 19899), (23, 19905), (27, 19929), (33, 19959), (43, 19998), (60, 20082), (68, 20118), (70, 20142), (78, 20181), (134, 20571), (154, 20739), (157, 20799), (164, 20871), (165, 20883), (168, 20919), (171, 20943), (181, 21042), (182, 21045), (185, 21075), (189, 21150), (190, 21162), (193, 21204), (196, 21234), (202, 21285), (216, 21426), (219, 21444), (221, 21456), (223, 21465), (238, 21567), (240, 21588), (242, 21609), (249, 21660), (250, 21663), (251, 21669), (260, 21747), (266, 21777), (271, 21795), (278, 21864), (284, 21897), (286, 21903), (288, 21912), (291, 21918), (302, 21972), (306, 22017), (309, 22044), (310, 22053), (312, 22074), (323, 22131), (326, 22167), (336, 22248), (337, 22251), (343, 22320), (352, 22392), (360, 22488), (368, 22554), (369, 22557), (372, 22581), (375, 22608), (376, 22611), (377, 22614), (379, 22620), (399, 22689), (402, 22698), (409, 22743), (414, 22752), (425, 22830), (431, 22884), (435, 22938), (440, 22995), (449, 23037), (455, 23073), (462, 23136), (467, 23187), (481, 23298), (489, 23337), (500, 23418), (515, 23592), (516, 23595), (521, 23628), (543, 23835), (546, 23844), (547, 23850), (576, 24162), (594, 24369), (603, 24507), (618, 24657), (626, 24768), (633, 24813), (634, 24822), (635, 24828), (641, 24864), (654, 24957), (657, 24969), (663, 24999), (665, 25032), (667, 25044),

Gene: Gustavo_32 Start: 23650, Stop: 28665, Start Num: 19
Candidate Starts for Gustavo_32:
(Start: 19 @23650 has 69 MA's), (31, 23737), (37, 23770), (46, 23824), (52, 23848), (55, 23890), (57, 23908), (59, 23923), (69, 23995), (74, 24022), (82, 24097), (84, 24106), (92, 24163), (93, 24181), (94, 24187), (97, 24205), (104, 24232), (137, 24439), (140, 24451), (145, 24499), (157, 24640), (160, 24673), (164, 24715), (172, 24787), (174, 24802), (175, 24805), (185, 24916), (187, 24952), (190, 25003), (193, 25045), (196, 25075), (198, 25105), (206, 25159), (208, 25192), (219, 25285), (226, 25318), (227, 25321), (233, 25378), (239, 25414), (240, 25429), (242, 25450), (249, 25501), (271, 25636), (272, 25645), (284, 25738), (286, 25744), (287, 25750), (290, 25759), (295, 25771), (297, 25783), (300, 25795), (302, 25813), (308, 25870), (323, 25972), (332, 26062), (347, 26092), (359, 26140), (360, 26146), (376, 26269), (377, 26272), (397, 26335), (398, 26347), (403, 26368), (405, 26374), (410, 26407), (417, 26470), (423, 26524), (441, 26698), (447, 26725), (448, 26731), (462, 26833), (469, 26899), (488, 27031), (492, 27058), (502, 27139), (509, 27199), (511, 27244), (543, 27550), (546, 27559), (550, 27586), (562, 27655), (571, 27784), (579, 27883), (597, 28027), (602, 28096), (603, 28102), (604, 28108), (610, 28183), (614, 28213), (625, 28318), (626, 28351), (635, 28411), (641, 28447), (644, 28492), (650, 28519), (658, 28558), (659, 28564), (661, 28570), (664, 28597), (668, 28633), (669, 28645),

Gene: Halo3_30 Start: 19817, Stop: 25348, Start Num: 1
Candidate Starts for Halo3_30:
(Start: 1 @19817 has 32 MA's), (3, 19904), (6, 19991), (10, 20024), (12, 20048), (Start: 20 @20171 has 9 MA's), (22, 20192), (23, 20198), (27, 20222), (33, 20252), (43, 20291), (60, 20375), (68, 20411), (70, 20435), (78, 20474), (134, 20864), (154, 21032), (157, 21092), (164, 21164), (165, 21176), (168, 21212), (171, 21236), (181, 21335), (182, 21338), (185, 21368), (189, 21443), (190, 21455), (193, 21497), (196, 21527), (202, 21578), (216, 21719), (219, 21737), (221, 21749), (223, 21758), (238, 21860), (240, 21881), (242, 21902), (249, 21953), (250, 21956), (251, 21962), (260, 22040), (266, 22070), (271, 22088), (278, 22157), (284, 22190), (286, 22196), (288, 22205), (291, 22211), (302, 22265), (306, 22310), (309, 22337), (310, 22346), (312, 22367), (323, 22424), (326, 22460), (336, 22541), (337, 22544), (343, 22613), (352, 22685), (360, 22781), (368, 22847), (369, 22850), (372, 22874), (375, 22901), (376, 22904), (377, 22907), (379, 22913), (399, 22982), (402, 22991), (409, 23036), (414, 23045), (425, 23123), (431, 23177), (435, 23231), (440, 23288), (449, 23330), (455,

23366), (462, 23429), (467, 23480), (481, 23591), (489, 23630), (500, 23711), (515, 23885), (516, 23888), (521, 23921), (543, 24128), (546, 24137), (547, 24143), (576, 24455), (594, 24662), (603, 24800), (618, 24950), (626, 25061), (633, 25106), (634, 25115), (635, 25121), (641, 25157), (654, 25250), (657, 25262), (663, 25292), (665, 25325), (667, 25337),

Gene: HannahD_17 Start: 10605, Stop: 15728, Start Num: 4
Candidate Starts for HannahD_17:
(Start: 4 @10605 has 13 MA's), (6, 10614), (25, 10887), (26, 10896), (28, 10926), (49, 11055), (64, 11166), (71, 11223), (90, 11361), (95, 11415), (101, 11448), (134, 11649), (139, 11679), (147, 11757), (149, 11775), (153, 11796), (157, 11880), (160, 11913), (161, 11922), (162, 11931), (165, 11964), (166, 11976), (168, 12000), (175, 12045), (176, 12054), (177, 12090), (178, 12099), (182, 12126), (184, 12138), (185, 12156), (187, 12192), (196, 12315), (202, 12357), (216, 12492), (217, 12495), (218, 12498), (220, 12513), (229, 12567), (234, 12606), (245, 12687), (248, 12702), (250, 12723), (252, 12738), (253, 12750), (257, 12786), (263, 12822), (297, 12984), (314, 13041), (321, 13053), (322, 13056), (327, 13089), (329, 13107), (349, 13182), (350, 13188), (353, 13194), (357, 13215), (358, 13218), (359, 13221), (367, 13284), (372, 13320), (374, 13335), (379, 13359), (387, 13374), (388, 13377), (402, 13437), (416, 13536), (419, 13578), (427, 13656), (435, 13725), (437, 13743), (453, 13851), (457, 13878), (458, 13881), (462, 13920), (463, 13923), (464, 13932), (468, 13980), (479, 14067), (487, 14091), (496, 14151), (502, 14211), (510, 14289), (514, 14337), (517, 14349), (526, 14409), (529, 14451), (538, 14532), (540, 14559), (541, 14577), (542, 14607), (551, 14655), (552, 14661), (554, 14670), (561, 14718), (565, 14790), (567, 14829), (569, 14871), (584, 15057), (585, 15060), (590, 15117), (591, 15126), (592, 15138), (595, 15159), (615, 15372), (619, 15411), (624, 15480), (628, 15534), (639, 15606), (649, 15687), (652, 15711),

Gene: Hans_33 Start: 23262, Stop: 28151, Start Num: 20
Candidate Starts for Hans_33:
(Start: 20 @23262 has 9 MA's), (37, 23382), (46, 23436), (52, 23460), (59, 23535), (60, 23538), (74, 23634), (82, 23709), (83, 23715), (85, 23721), (89, 23745), (91, 23754), (100, 23814), (102, 23820), (106, 23829), (111, 23859), (119, 23916), (125, 23955), (127, 23964), (137, 24027), (138, 24030), (148, 24105), (149, 24114), (160, 24249), (161, 24258), (164, 24291), (166, 24315), (175, 24381), (179, 24444), (187, 24528), (189, 24567), (190, 24579), (194, 24627), (196, 24651), (202, 24702), (206, 24735), (211, 24786), (214, 24816), (221, 24873), (224, 24885), (227, 24897), (236, 24972), (242, 25026), (250, 25080), (255, 25113), (268, 25200), (271, 25212), (272, 25221), (278, 25281), (280, 25293), (284, 25314), (286, 25320), (287, 25326), (288, 25329), (289, 25332), (297, 25359), (298, 25362), (300, 25371), (301, 25383), (302, 25389), (306, 25434), (310, 25470), (311, 25473), (313, 25494), (330, 25611), (342, 25668), (360, 25755), (368, 25821), (395, 25878), (396, 25881), (400, 25905), (415, 25995), (420, 26043), (435, 26172), (443, 26241), (445, 26250), (449, 26271), (452, 26289), (455, 26307), (472, 26463), (473, 26466), (488, 26571), (502, 26679), (509, 26739), (510, 26769), (519, 26850), (544, 27081), (546, 27087), (553, 27135), (556, 27150), (563, 27216), (572, 27348), (581, 27477), (586, 27516), (620, 27843), (629, 27939), (645, 28062), (652, 28104), (656, 28116),

Gene: Hedwig_18 Start: 11001, Stop: 16013, Start Num: 4
Candidate Starts for Hedwig_18:
(Start: 4 @11001 has 13 MA's), (9, 11031), (11, 11052), (13, 11088), (26, 11292), (28, 11322), (40, 11397), (54, 11502), (64, 11562), (75, 11640), (76, 11643), (81, 11715), (90, 11757), (101, 11844), (157, 12273), (158, 12282), (160, 12306), (162, 12324), (166, 12369), (168, 12393), (175, 12438), (176, 12447), (177, 12483), (178, 12492), (181, 12516), (184, 12531), (185, 12549), (186, 12573), (190, 12636), (195, 12690), (196, 12708), (206, 12783), (207, 12813), (216, 12885), (218, 12891), (220, 12906), (224, 12927), (229, 12960), (238, 13023), (240, 13041), (243, 13068), (245, 13080), (248, 13095), (250, 13116), (269, 13236), (273, 13263), (276, 13296), (281, 13335), (283, 13350), (297, 13398), (301, 13422), (304, 13452), (310, 13515), (318, 13560), (319, 13563), (327, 13632), (344, 13704), (349, 13725), (350, 13731), (353, 13737), (358, 13761), (359, 13764), (362, 13785),

(365, 13815), (367, 13827), (372, 13863), (387, 13917), (388, 13920), (390, 13926), (398, 13971), (402, 13980), (419, 14121), (422, 14154), (427, 14199), (428, 14205), (431, 14217), (435, 14268), (450, 14352), (454, 14376), (457, 14400), (458, 14403), (464, 14454), (469, 14502), (479, 14589), (487, 14613), (490, 14625), (492, 14646), (496, 14673), (507, 14778), (510, 14811), (514, 14859), (517, 14871), (528, 14943), (530, 14952), (559, 15108), (566, 15138), (582, 15330), (595, 15450), (596, 15453), (608, 15597), (615, 15660), (628, 15822), (629, 15834), (639, 15891), (647, 15966), (649, 15972), (653, 16002), (655, 16005),

Gene: Inspectinfecti_32 Start: 23624, Stop: 28513, Start Num: 20
Candidate Starts for Inspectinfecti_32:
(Start: 20 @23624 has 9 MA's), (37, 23744), (46, 23798), (52, 23822), (59, 23897), (60, 23900), (74, 23996), (82, 24071), (83, 24077), (85, 24083), (89, 24107), (91, 24116), (100, 24176), (102, 24182), (106, 24191), (111, 24221), (119, 24278), (125, 24317), (127, 24326), (137, 24389), (138, 24392), (148, 24467), (149, 24476), (160, 24611), (161, 24620), (164, 24653), (166, 24677), (175, 24743), (179, 24806), (187, 24890), (189, 24929), (190, 24941), (194, 24989), (196, 25013), (202, 25064), (206, 25097), (211, 25148), (214, 25178), (221, 25235), (224, 25247), (227, 25259), (236, 25334), (242, 25388), (250, 25442), (251, 25448), (255, 25475), (260, 25526), (268, 25562), (271, 25574), (272, 25583), (278, 25643), (280, 25655), (286, 25682), (287, 25688), (288, 25691), (289, 25694), (297, 25721), (298, 25724), (300, 25733), (301, 25745), (302, 25751), (306, 25796), (310, 25832), (311, 25835), (313, 25856), (330, 25973), (342, 26030), (360, 26117), (368, 26183), (395, 26240), (396, 26243), (400, 26267), (415, 26357), (420, 26405), (435, 26534), (443, 26603), (445, 26612), (449, 26633), (452, 26651), (455, 26669), (472, 26825), (473, 26828), (488, 26933), (502, 27041), (509, 27101), (510, 27131), (519, 27212), (544, 27443), (546, 27449), (553, 27497), (556, 27512), (563, 27578), (572, 27710), (581, 27839), (586, 27878), (620, 28205), (629, 28301), (645, 28424), (652, 28466), (656, 28478),

Gene: JKSyngboy_30 Start: 24222, Stop: 29240, Start Num: 19
Candidate Starts for JKSyngboy_30:
(Start: 19 @24222 has 69 MA's), (30, 24297), (46, 24396), (52, 24420), (55, 24462), (57, 24480), (59, 24495), (69, 24567), (74, 24594), (84, 24678), (93, 24753), (94, 24759), (97, 24777), (137, 25011), (145, 25071), (157, 25212), (160, 25245), (164, 25287), (172, 25359), (174, 25374), (175, 25377), (185, 25488), (187, 25524), (190, 25575), (193, 25617), (196, 25647), (206, 25731), (208, 25764), (209, 25776), (219, 25857), (226, 25890), (227, 25893), (237, 25977), (239, 25986), (240, 26001), (242, 26022), (249, 26073), (260, 26160), (271, 26208), (272, 26217), (284, 26310), (286, 26316), (287, 26322), (290, 26331), (295, 26343), (297, 26355), (300, 26367), (302, 26385), (308, 26442), (323, 26544), (327, 26586), (332, 26634), (347, 26664), (359, 26712), (360, 26718), (370, 26793), (377, 26844), (379, 26850), (397, 26907), (398, 26919), (403, 26940), (405, 26946), (410, 26979), (411, 26985), (417, 27042), (423, 27096), (441, 27270), (447, 27297), (448, 27303), (462, 27405), (469, 27471), (480, 27564), (492, 27630), (501, 27702), (502, 27711), (509, 27771), (511, 27816), (543, 28119), (546, 28128), (547, 28134), (550, 28155), (564, 28254), (571, 28359), (579, 28458), (597, 28602), (602, 28671), (603, 28677), (604, 28683), (610, 28758), (614, 28788), (626, 28926), (635, 28986), (641, 29022), (644, 29067), (650, 29094), (658, 29133), (659, 29139), (661, 29145), (664, 29172), (668, 29208), (669, 29220),

Gene: Jabberwocky_31 Start: 25577, Stop: 30391, Start Num: 19
Candidate Starts for Jabberwocky_31:
(Start: 19 @25577 has 69 MA's), (46, 25751), (52, 25775), (87, 25913), (99, 25958), (103, 25970), (107, 25988), (111, 26000), (113, 26027), (117, 26045), (120, 26057), (137, 26156), (153, 26276), (154, 26297), (157, 26357), (160, 26390), (164, 26432), (167, 26468), (172, 26504), (174, 26519), (175, 26522), (185, 26633), (187, 26669), (190, 26720), (193, 26762), (196, 26792), (202, 26843), (206, 26876), (208, 26909), (209, 26921), (219, 27002), (223, 27023), (226, 27035), (239, 27131), (240, 27146), (242, 27167), (249, 27218), (251, 27227), (260, 27305), (271, 27353), (272, 27362), (278, 27422), (287, 27467), (290, 27476), (298, 27503), (302, 27530), (304, 27551), (308, 27587),

(317, 27653), (323, 27689), (331, 27776), (332, 27779), (345, 27806), (359, 27857), (360, 27863),
(377, 27989), (405, 28091), (410, 28124), (417, 28187), (423, 28241), (430, 28304), (441, 28415),
(447, 28442), (448, 28448), (462, 28550), (469, 28616), (472, 28643), (476, 28670), (480, 28709),
(484, 28733), (492, 28775), (501, 28847), (502, 28856), (509, 28916), (511, 28961), (546, 29276),
(547, 29282), (549, 29300), (564, 29396), (571, 29501), (579, 29600), (597, 29744), (602, 29819),
(604, 29831), (610, 29906), (650, 30245), (658, 30284), (659, 30290), (661, 30296), (664, 30323),
(668, 30359), (669, 30371),

Gene: Jambalaya_29 Start: 19171, Stop: 24702, Start Num: 1
Candidate Starts for Jambalaya_29:
(Start: 1 @19171 has 32 MA's), (3, 19258), (6, 19345), (10, 19378), (12, 19402), (Start: 20 @19525
has 9 MA's), (22, 19546), (23, 19552), (27, 19576), (33, 19606), (43, 19645), (60, 19729), (68, 19765),
(70, 19789), (78, 19828), (134, 20218), (154, 20386), (157, 20446), (164, 20518), (165, 20530), (168,
20566), (171, 20590), (181, 20689), (182, 20692), (185, 20722), (189, 20797), (190, 20809), (193,
20851), (196, 20881), (202, 20932), (216, 21073), (219, 21091), (221, 21103), (223, 21112), (238,
21214), (240, 21235), (242, 21256), (249, 21307), (250, 21310), (251, 21316), (260, 21394), (266,
21424), (271, 21442), (278, 21511), (284, 21544), (286, 21550), (288, 21559), (291, 21565), (302,
21619), (306, 21664), (309, 21691), (310, 21700), (312, 21721), (323, 21778), (326, 21814), (336,
21895), (337, 21898), (343, 21967), (352, 22039), (360, 22135), (368, 22201), (369, 22204), (372,
22228), (375, 22255), (376, 22258), (377, 22261), (379, 22267), (399, 22336), (402, 22345), (409,
22390), (414, 22399), (425, 22477), (431, 22531), (435, 22585), (440, 22642), (449, 22684), (455,
22720), (462, 22783), (467, 22834), (481, 22945), (489, 22984), (500, 23065), (515, 23239), (516,
23242), (521, 23275), (543, 23482), (546, 23491), (547, 23497), (576, 23809), (594, 24016), (603,
24154), (618, 24304), (626, 24415), (633, 24460), (634, 24469), (641, 24511), (654, 24604), (657,
24616), (663, 24646), (665, 24679), (667, 24691),

Gene: Kamashten_32 Start: 25026, Stop: 29843, Start Num: 19
Candidate Starts for Kamashten_32:
(Start: 19 @25026 has 69 MA's), (46, 25200), (52, 25224), (87, 25362), (99, 25407), (103, 25419),
(107, 25437), (111, 25449), (113, 25476), (117, 25494), (120, 25506), (137, 25605), (153, 25725),
(154, 25746), (157, 25806), (160, 25839), (164, 25881), (172, 25953), (174, 25968), (175, 25971),
(185, 26082), (187, 26118), (190, 26169), (193, 26211), (196, 26241), (202, 26292), (206, 26325),
(208, 26358), (209, 26370), (219, 26451), (223, 26472), (226, 26484), (239, 26580), (240, 26595),
(242, 26616), (249, 26667), (251, 26676), (260, 26754), (271, 26802), (272, 26811), (278, 26871),
(287, 26916), (290, 26925), (298, 26952), (302, 26979), (304, 27000), (308, 27036), (317, 27102),
(323, 27138), (331, 27225), (332, 27228), (334, 27237), (345, 27255), (359, 27306), (360, 27312),
(377, 27438), (398, 27513), (405, 27540), (410, 27573), (417, 27636), (423, 27690), (430, 27753),
(441, 27864), (447, 27891), (448, 27897), (462, 27999), (464, 28011), (469, 28065), (472, 28092),
(476, 28119), (480, 28158), (484, 28182), (492, 28224), (501, 28296), (502, 28305), (509, 28365),
(511, 28410), (546, 28728), (547, 28734), (549, 28752), (564, 28848), (571, 28953), (579, 29052),
(597, 29196), (602, 29271), (604, 29283), (610, 29358), (629, 29553), (650, 29697), (658, 29736),
(659, 29742), (661, 29748), (664, 29775), (668, 29811), (669, 29823),

Gene: Keitabear_33 Start: 26382, Stop: 31208, Start Num: 19
Candidate Starts for Keitabear_33:
(Start: 19 @26382 has 69 MA's), (46, 26556), (52, 26580), (87, 26718), (99, 26763), (103, 26775),
(107, 26793), (111, 26805), (113, 26832), (117, 26850), (120, 26862), (137, 26961), (153, 27081),
(154, 27102), (157, 27162), (160, 27195), (164, 27237), (167, 27273), (172, 27309), (174, 27324),
(175, 27327), (185, 27438), (187, 27474), (190, 27525), (193, 27567), (196, 27597), (202, 27648),
(206, 27681), (208, 27714), (209, 27726), (219, 27807), (223, 27828), (226, 27840), (239, 27936),
(240, 27951), (242, 27972), (249, 28023), (251, 28032), (260, 28110), (271, 28158), (272, 28167),
(278, 28227), (287, 28272), (290, 28281), (298, 28308), (302, 28335), (304, 28356), (308, 28392),
(317, 28458), (323, 28494), (331, 28581), (332, 28584), (334, 28593), (345, 28611), (359, 28662),

(360, 28668), (377, 28794), (405, 28896), (410, 28929), (417, 28992), (423, 29046), (430, 29109), (441, 29220), (447, 29247), (448, 29253), (462, 29355), (469, 29421), (472, 29448), (476, 29475), (480, 29514), (484, 29538), (492, 29580), (501, 29652), (509, 29721), (511, 29766), (546, 30084), (547, 30090), (549, 30108), (564, 30204), (579, 30408), (597, 30552), (602, 30627), (604, 30639), (610, 30723), (650, 31062), (658, 31101), (659, 31107), (661, 31113), (664, 31140), (668, 31176), (669, 31188),

Gene: Kewpiedoll_32 Start: 24214, Stop: 29250, Start Num: 19
Candidate Starts for Kewpiedoll_32:
(Start: 19 @24214 has 69 MA's), (46, 24388), (52, 24412), (53, 24421), (55, 24454), (57, 24472), (59, 24487), (74, 24586), (82, 24661), (83, 24667), (84, 24670), (92, 24727), (93, 24745), (95, 24754), (97, 24769), (108, 24817), (126, 24934), (130, 24952), (131, 24964), (137, 25003), (154, 25144), (157, 25204), (160, 25237), (164, 25279), (172, 25351), (174, 25366), (175, 25369), (185, 25480), (187, 25516), (190, 25567), (193, 25609), (196, 25639), (202, 25690), (206, 25723), (208, 25756), (209, 25768), (219, 25849), (223, 25870), (226, 25882), (239, 25978), (240, 25993), (242, 26014), (249, 26065), (251, 26074), (260, 26152), (271, 26200), (272, 26209), (278, 26269), (287, 26314), (290, 26323), (298, 26350), (302, 26377), (304, 26398), (308, 26434), (317, 26500), (323, 26536), (331, 26623), (332, 26626), (359, 26704), (366, 26764), (377, 26836), (384, 26854), (397, 26899), (398, 26911), (403, 26932), (405, 26938), (406, 26947), (410, 26971), (417, 27034), (423, 27088), (430, 27151), (441, 27262), (447, 27289), (448, 27295), (462, 27397), (464, 27409), (469, 27463), (472, 27490), (476, 27517), (480, 27556), (488, 27595), (492, 27622), (501, 27694), (502, 27703), (509, 27763), (511, 27808), (537, 27997), (546, 28126), (547, 28132), (549, 28150), (564, 28246), (571, 28351), (579, 28450), (597, 28594), (602, 28669), (604, 28681), (610, 28765), (650, 29104), (658, 29143), (659, 29149), (661, 29155), (664, 29182), (668, 29218), (669, 29230),

Gene: Kiko_18 Start: 10875, Stop: 15764, Start Num: 4
Candidate Starts for Kiko_18:
(Start: 4 @10875 has 13 MA's), (8, 10899), (13, 10962), (15, 11019), (21, 11115), (22, 11127), (24, 11142), (26, 11166), (28, 11196), (45, 11307), (46, 11313), (47, 11316), (48, 11322), (49, 11325), (51, 11337), (54, 11376), (59, 11418), (63, 11430), (70, 11490), (77, 11523), (81, 11589), (86, 11610), (90, 11631), (95, 11685), (101, 11718), (121, 11835), (132, 11910), (134, 11919), (139, 11949), (147, 12027), (157, 12147), (161, 12189), (162, 12198), (165, 12231), (166, 12243), (168, 12267), (169, 12276), (176, 12321), (177, 12357), (178, 12366), (180, 12384), (185, 12423), (187, 12459), (188, 12468), (190, 12510), (196, 12582), (204, 12645), (213, 12723), (215, 12756), (216, 12759), (218, 12765), (220, 12780), (224, 12801), (228, 12831), (229, 12834), (235, 12876), (241, 12924), (243, 12942), (244, 12948), (247, 12963), (248, 12969), (249, 12987), (250, 12990), (253, 13017), (259, 13065), (261, 13074), (269, 13110), (270, 13113), (276, 13170), (279, 13200), (283, 13224), (297, 13272), (301, 13296), (303, 13305), (304, 13326), (315, 13416), (325, 13500), (327, 13506), (365, 13557), (372, 13605), (374, 13620), (379, 13644), (384, 13656), (387, 13659), (388, 13662), (390, 13668), (398, 13713), (402, 13722), (419, 13863), (422, 13896), (427, 13941), (453, 14136), (454, 14139), (456, 14145), (462, 14205), (464, 14217), (476, 14322), (487, 14376), (493, 14412), (496, 14436), (516, 14637), (531, 14727), (548, 14844), (559, 14886), (583, 15093), (585, 15102), (591, 15168), (595, 15201), (615, 15411), (628, 15573), (629, 15585), (639, 15642), (650, 15726), (653, 15753),

Gene: KimmyK_31 Start: 20106, Stop: 25637, Start Num: 1
Candidate Starts for KimmyK_31:
(Start: 1 @20106 has 32 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 9 MA's), (22, 20481), (23, 20487), (27, 20511), (33, 20541), (43, 20580), (60, 20664), (68, 20700), (70, 20724), (78, 20763), (134, 21153), (154, 21321), (157, 21381), (164, 21453), (165, 21465), (168, 21501), (171, 21525), (181, 21624), (182, 21627), (185, 21657), (189, 21732), (190, 21744), (193, 21786), (196, 21816), (202, 21867), (216, 22008), (219, 22026), (221, 22038), (223, 22047), (238, 22149), (240, 22170), (242, 22191), (249, 22242), (250, 22245), (251, 22251), (260, 22329), (266,

22359), (271, 22377), (278, 22446), (284, 22479), (286, 22485), (288, 22494), (291, 22500), (302, 22554), (306, 22599), (309, 22626), (310, 22635), (312, 22656), (323, 22713), (326, 22749), (336, 22830), (337, 22833), (343, 22902), (352, 22974), (360, 23070), (368, 23136), (369, 23139), (372, 23163), (375, 23190), (376, 23193), (377, 23196), (379, 23202), (399, 23271), (402, 23280), (409, 23325), (414, 23334), (425, 23412), (431, 23466), (435, 23520), (440, 23577), (449, 23619), (455, 23655), (462, 23718), (467, 23769), (481, 23880), (489, 23919), (500, 24000), (515, 24174), (516, 24177), (521, 24210), (543, 24417), (546, 24426), (547, 24432), (576, 24744), (594, 24951), (603, 25089), (618, 25239), (626, 25350), (633, 25395), (634, 25404), (635, 25410), (641, 25446), (654, 25539), (657, 25551), (663, 25581), (665, 25614), (667, 25626),

Gene: Kroos_33 Start: 24403, Stop: 29418, Start Num: 19
Candidate Starts for Kroos_33:
(Start: 19 @24403 has 69 MA's), (30, 24478), (37, 24523), (46, 24577), (52, 24601), (55, 24643), (57, 24661), (59, 24676), (69, 24748), (74, 24775), (82, 24850), (84, 24859), (91, 24895), (92, 24916), (93, 24934), (94, 24940), (97, 24958), (104, 24985), (137, 25192), (140, 25204), (145, 25252), (157, 25393), (160, 25426), (164, 25468), (172, 25540), (174, 25555), (175, 25558), (185, 25669), (187, 25705), (190, 25756), (193, 25798), (196, 25828), (202, 25879), (206, 25912), (208, 25945), (209, 25957), (219, 26038), (226, 26071), (227, 26074), (233, 26131), (239, 26167), (240, 26182), (242, 26203), (249, 26254), (271, 26389), (278, 26458), (286, 26497), (287, 26503), (290, 26512), (298, 26539), (302, 26566), (304, 26587), (308, 26623), (310, 26647), (311, 26650), (316, 26686), (323, 26725), (324, 26743), (327, 26767), (332, 26815), (347, 26845), (359, 26893), (360, 26899), (376, 27022), (377, 27025), (379, 27031), (397, 27088), (398, 27100), (403, 27121), (405, 27127), (410, 27160), (411, 27166), (417, 27223), (423, 27277), (430, 27340), (441, 27451), (447, 27478), (448, 27484), (462, 27586), (469, 27652), (488, 27784), (492, 27811), (502, 27892), (509, 27952), (511, 27997), (543, 28303), (546, 28312), (550, 28339), (562, 28408), (571, 28537), (579, 28636), (597, 28780), (602, 28849), (603, 28855), (604, 28861), (610, 28936), (614, 28966), (626, 29104), (635, 29164), (641, 29200), (644, 29245), (650, 29272), (658, 29311), (659, 29317), (661, 29323), (664, 29350), (668, 29386), (669, 29398),

Gene: Kwekel_30 Start: 21376, Stop: 26505, Start Num: 19
Candidate Starts for Kwekel_30:
(Start: 19 @21376 has 69 MA's), (37, 21496), (46, 21550), (53, 21583), (58, 21640), (59, 21649), (60, 21652), (72, 21733), (74, 21748), (79, 21784), (82, 21823), (83, 21829), (85, 21835), (91, 21868), (96, 21910), (98, 21919), (100, 21928), (102, 21934), (116, 22012), (119, 22030), (125, 22069), (137, 22141), (160, 22363), (164, 22405), (172, 22477), (175, 22495), (181, 22573), (185, 22606), (187, 22642), (190, 22693), (196, 22765), (197, 22789), (198, 22795), (202, 22816), (206, 22849), (211, 22900), (214, 22930), (223, 22996), (231, 23041), (238, 23098), (242, 23140), (250, 23194), (255, 23227), (265, 23305), (277, 23392), (284, 23428), (286, 23434), (296, 23464), (297, 23473), (302, 23503), (304, 23524), (309, 23575), (313, 23608), (316, 23623), (337, 23782), (345, 23857), (346, 23860), (351, 23887), (354, 23962), (355, 23965), (357, 23983), (362, 24010), (366, 24049), (372, 24088), (377, 24121), (383, 24196), (386, 24205), (389, 24214), (391, 24220), (394, 24262), (395, 24271), (402, 24304), (404, 24316), (407, 24337), (408, 24349), (413, 24382), (415, 24403), (426, 24535), (434, 24589), (460, 24796), (465, 24835), (472, 24910), (491, 25048), (494, 25066), (503, 25144), (524, 25333), (527, 25363), (546, 25534), (550, 25561), (574, 25768), (575, 25771), (577, 25789), (601, 26038), (605, 26068), (620, 26197), (640, 26356), (643, 26398), (645, 26416), (648, 26431), (656, 26470),

Gene: Kwobi_34 Start: 24389, Stop: 29404, Start Num: 19
Candidate Starts for Kwobi_34:
(Start: 19 @24389 has 69 MA's), (31, 24476), (37, 24509), (46, 24563), (52, 24587), (55, 24629), (57, 24647), (59, 24662), (69, 24734), (74, 24761), (82, 24836), (84, 24845), (92, 24902), (93, 24920), (94, 24926), (137, 25178), (145, 25238), (157, 25379), (160, 25412), (164, 25454), (172, 25526), (174, 25541), (175, 25544), (185, 25655), (187, 25691), (190, 25742), (193, 25784), (196, 25814), (198,

25844), (206, 25898), (208, 25931), (219, 26024), (226, 26057), (227, 26060), (233, 26117), (239, 26153), (240, 26168), (242, 26189), (249, 26240), (271, 26375), (272, 26384), (284, 26477), (286, 26483), (287, 26489), (290, 26498), (297, 26522), (300, 26534), (302, 26552), (308, 26609), (323, 26711), (332, 26801), (347, 26831), (359, 26879), (360, 26885), (376, 27008), (377, 27011), (379, 27017), (397, 27074), (398, 27086), (403, 27107), (405, 27113), (410, 27146), (417, 27209), (423, 27263), (430, 27326), (441, 27437), (447, 27464), (448, 27470), (462, 27572), (469, 27638), (488, 27770), (492, 27797), (502, 27878), (509, 27938), (511, 27983), (543, 28289), (546, 28298), (550, 28325), (562, 28394), (571, 28523), (579, 28622), (597, 28766), (602, 28835), (603, 28841), (604, 28847), (610, 28922), (614, 28952), (626, 29090), (635, 29150), (641, 29186), (644, 29231), (650, 29258), (658, 29297), (659, 29303), (661, 29309), (664, 29336), (668, 29372), (669, 29384),

Gene: Lennon_33 Start: 26184, Stop: 30995, Start Num: 19
Candidate Starts for Lennon_33:
(Start: 19 @26184 has 69 MA's), (46, 26358), (52, 26382), (87, 26520), (97, 26559), (99, 26565), (103, 26577), (107, 26595), (111, 26607), (113, 26634), (117, 26652), (120, 26664), (137, 26763), (153, 26883), (154, 26904), (157, 26964), (160, 26997), (164, 27039), (167, 27075), (172, 27111), (174, 27126), (175, 27129), (185, 27240), (187, 27276), (190, 27327), (193, 27369), (196, 27399), (202, 27450), (206, 27483), (208, 27516), (209, 27528), (219, 27609), (223, 27630), (226, 27642), (239, 27738), (240, 27753), (242, 27774), (249, 27825), (251, 27834), (260, 27912), (271, 27960), (272, 27969), (278, 28029), (286, 28068), (287, 28074), (290, 28083), (298, 28110), (302, 28137), (304, 28158), (308, 28194), (317, 28260), (323, 28296), (331, 28383), (332, 28386), (345, 28413), (359, 28464), (360, 28470), (377, 28596), (405, 28698), (410, 28731), (417, 28794), (423, 28848), (430, 28911), (441, 29022), (447, 29049), (448, 29055), (462, 29157), (464, 29169), (469, 29223), (472, 29250), (476, 29277), (480, 29316), (484, 29340), (492, 29382), (501, 29454), (502, 29463), (509, 29523), (511, 29568), (546, 29883), (547, 29889), (549, 29907), (564, 30003), (571, 30108), (579, 30207), (597, 30351), (602, 30414), (604, 30426), (610, 30510), (650, 30849), (658, 30888), (659, 30894), (661, 30900), (664, 30927), (668, 30963), (669, 30975),

Gene: Leonard_31 Start: 23260, Stop: 28149, Start Num: 20
Candidate Starts for Leonard_31:
(Start: 20 @23260 has 9 MA's), (37, 23380), (46, 23434), (52, 23458), (59, 23533), (60, 23536), (74, 23632), (82, 23707), (83, 23713), (85, 23719), (89, 23743), (91, 23752), (100, 23812), (102, 23818), (106, 23827), (111, 23857), (119, 23914), (125, 23953), (127, 23962), (137, 24025), (138, 24028), (148, 24103), (149, 24112), (160, 24247), (161, 24256), (164, 24289), (166, 24313), (175, 24379), (179, 24442), (187, 24526), (189, 24565), (190, 24577), (194, 24625), (196, 24649), (202, 24700), (206, 24733), (211, 24784), (214, 24814), (221, 24871), (224, 24883), (227, 24895), (236, 24970), (242, 25024), (250, 25078), (251, 25084), (255, 25111), (268, 25198), (271, 25210), (272, 25219), (278, 25279), (280, 25291), (284, 25312), (286, 25318), (287, 25324), (288, 25327), (297, 25357), (298, 25360), (300, 25369), (301, 25381), (302, 25387), (306, 25432), (310, 25468), (311, 25471), (313, 25492), (330, 25609), (342, 25666), (360, 25753), (368, 25819), (395, 25876), (396, 25879), (400, 25903), (415, 25993), (420, 26041), (435, 26170), (443, 26239), (449, 26269), (452, 26287), (472, 26461), (473, 26464), (488, 26569), (501, 26668), (502, 26677), (509, 26737), (510, 26767), (519, 26848), (544, 27079), (546, 27085), (556, 27148), (572, 27346), (581, 27475), (586, 27514), (616, 27796), (620, 27841), (622, 27868), (629, 27937), (645, 28060), (652, 28102), (656, 28114),

Gene: LilHam_30 Start: 22983, Stop: 28007, Start Num: 19
Candidate Starts for LilHam_30:
(Start: 19 @22983 has 69 MA's), (31, 23070), (37, 23103), (46, 23157), (52, 23181), (55, 23223), (57, 23241), (59, 23256), (69, 23328), (74, 23355), (82, 23430), (84, 23439), (92, 23496), (93, 23514), (94, 23520), (137, 23772), (145, 23832), (157, 23973), (160, 24006), (164, 24048), (172, 24120), (174, 24135), (175, 24138), (185, 24249), (187, 24285), (190, 24336), (193, 24378), (196, 24408), (202, 24459), (206, 24492), (208, 24525), (209, 24537), (219, 24618), (226, 24651), (227, 24654), (233, 24711), (239, 24747), (240, 24762), (242, 24783), (249, 24834), (271, 24969), (272, 24978), (284,

25071), (286, 25077), (287, 25083), (290, 25092), (295, 25104), (297, 25116), (300, 25128), (302, 25146), (308, 25203), (323, 25305), (324, 25323), (327, 25347), (332, 25395), (347, 25425), (359, 25473), (360, 25479), (376, 25602), (377, 25605), (379, 25611), (397, 25668), (398, 25680), (403, 25701), (405, 25707), (410, 25740), (417, 25803), (423, 25857), (441, 26031), (447, 26058), (448, 26064), (462, 26166), (469, 26232), (492, 26391), (502, 26472), (509, 26532), (511, 26577), (543, 26889), (546, 26898), (550, 26925), (562, 26994), (571, 27123), (579, 27222), (597, 27366), (602, 27438), (603, 27444), (604, 27450), (610, 27525), (614, 27555), (626, 27693), (635, 27753), (641, 27789), (644, 27834), (650, 27861), (658, 27900), (659, 27906), (661, 27912), (664, 27939), (668, 27975), (669, 27987),

Gene: Lilbeanie_28 Start: 18351, Stop: 23423, Start Num: 19
Candidate Starts for Lilbeanie_28:
(Start: 19 @18351 has 69 MA's), (30, 18426), (41, 18492), (46, 18525), (52, 18549), (53, 18558), (66, 18633), (73, 18663), (80, 18693), (105, 18813), (125, 18930), (129, 18948), (137, 19002), (138, 19005), (141, 19035), (149, 19089), (155, 19140), (159, 19221), (160, 19224), (173, 19347), (175, 19359), (185, 19470), (187, 19506), (189, 19545), (191, 19569), (193, 19599), (196, 19629), (206, 19713), (208, 19749), (219, 19839), (225, 19869), (230, 19902), (231, 19905), (233, 19932), (242, 20004), (249, 20055), (250, 20058), (251, 20064), (255, 20091), (256, 20112), (260, 20142), (264, 20166), (267, 20175), (284, 20292), (286, 20298), (294, 20322), (296, 20328), (300, 20349), (302, 20367), (308, 20424), (316, 20487), (323, 20526), (348, 20649), (371, 20754), (392, 20823), (409, 20898), (423, 21006), (424, 21009), (433, 21066), (436, 21108), (438, 21123), (446, 21162), (449, 21171), (460, 21231), (463, 21255), (467, 21303), (471, 21327), (488, 21408), (492, 21435), (501, 21507), (502, 21516), (506, 21567), (509, 21576), (511, 21621), (546, 21915), (550, 21942), (591, 22335), (599, 22422), (609, 22542), (630, 22785), (637, 22827), (638, 22830), (646, 22911), (660, 22974), (666, 23034), (670, 23079), (671, 23091), (672, 23118), (673, 23181), (674, 23202), (675, 23241), (676, 23265), (677, 23301), (678, 23316), (679, 23349), (680, 23376), (681, 23388),

Gene: Love_36 Start: 25948, Stop: 30777, Start Num: 19
Candidate Starts for Love_36:
(Start: 19 @25948 has 69 MA's), (46, 26122), (52, 26146), (87, 26284), (99, 26329), (103, 26341), (107, 26359), (111, 26371), (113, 26398), (117, 26416), (120, 26428), (137, 26527), (153, 26647), (154, 26668), (157, 26728), (160, 26761), (164, 26803), (167, 26839), (172, 26875), (174, 26890), (175, 26893), (185, 27004), (187, 27040), (190, 27091), (193, 27133), (196, 27163), (202, 27214), (206, 27247), (209, 27292), (219, 27373), (223, 27394), (226, 27406), (239, 27502), (240, 27517), (242, 27538), (249, 27589), (251, 27598), (271, 27724), (272, 27733), (278, 27793), (287, 27838), (290, 27847), (298, 27874), (302, 27901), (304, 27922), (308, 27958), (317, 28024), (323, 28060), (331, 28147), (332, 28150), (334, 28159), (345, 28177), (359, 28228), (360, 28234), (377, 28360), (398, 28435), (405, 28462), (410, 28495), (417, 28558), (423, 28612), (430, 28675), (441, 28786), (447, 28813), (448, 28819), (462, 28921), (464, 28933), (469, 28987), (472, 29014), (476, 29041), (480, 29080), (492, 29146), (501, 29218), (502, 29227), (509, 29287), (511, 29332), (546, 29647), (547, 29653), (549, 29671), (564, 29767), (571, 29872), (579, 29971), (597, 30115), (602, 30196), (604, 30208), (610, 30292), (621, 30382), (650, 30631), (658, 30670), (659, 30676), (661, 30682), (664, 30709), (668, 30745), (669, 30757),

Gene: MagicMan_17 Start: 10932, Stop: 16046, Start Num: 4
Candidate Starts for MagicMan_17:
(Start: 4 @10932 has 13 MA's), (6, 10941), (25, 11214), (26, 11223), (28, 11253), (29, 11262), (39, 11319), (49, 11382), (56, 11454), (59, 11475), (64, 11493), (81, 11646), (90, 11688), (95, 11742), (101, 11775), (132, 11967), (133, 11970), (139, 12006), (147, 12084), (153, 12123), (157, 12207), (160, 12240), (161, 12249), (162, 12258), (165, 12291), (166, 12303), (168, 12327), (175, 12372), (176, 12381), (177, 12417), (178, 12426), (182, 12453), (184, 12465), (185, 12483), (187, 12519), (196, 12642), (202, 12684), (216, 12819), (217, 12822), (218, 12825), (220, 12840), (229, 12894), (234, 12933), (243, 13002), (245, 13014), (248, 13029), (250, 13050), (252, 13065), (253, 13077), (257,

13113), (263, 13149), (297, 13311), (314, 13368), (321, 13380), (322, 13383), (327, 13416), (349, 13509), (350, 13515), (353, 13521), (357, 13542), (358, 13545), (359, 13548), (367, 13611), (372, 13647), (374, 13662), (379, 13686), (387, 13701), (388, 13704), (390, 13710), (402, 13764), (416, 13863), (419, 13905), (427, 13983), (432, 14007), (435, 14052), (453, 14178), (456, 14187), (457, 14205), (458, 14208), (462, 14247), (463, 14250), (464, 14259), (487, 14418), (502, 14538), (510, 14616), (514, 14664), (517, 14676), (526, 14736), (538, 14853), (540, 14880), (541, 14898), (551, 14976), (552, 14982), (554, 14991), (558, 15018), (565, 15111), (567, 15150), (569, 15192), (580, 15345), (584, 15378), (585, 15381), (590, 15438), (591, 15447), (592, 15459), (595, 15480), (598, 15501), (615, 15693), (619, 15732), (624, 15801), (628, 15855), (649, 16008),

Gene: McCrothy_33 Start: 25756, Stop: 30585, Start Num: 19
Candidate Starts for McCrothy_33:
(Start: 19 @25756 has 69 MA's), (46, 25930), (52, 25954), (87, 26092), (99, 26137), (103, 26149), (107, 26167), (111, 26179), (113, 26206), (117, 26224), (120, 26236), (137, 26335), (153, 26455), (154, 26476), (157, 26536), (160, 26569), (164, 26611), (167, 26647), (172, 26683), (174, 26698), (175, 26701), (185, 26812), (187, 26848), (190, 26899), (193, 26941), (196, 26971), (202, 27022), (206, 27055), (209, 27100), (219, 27181), (223, 27202), (226, 27214), (239, 27310), (240, 27325), (242, 27346), (249, 27397), (251, 27406), (271, 27532), (272, 27541), (278, 27601), (287, 27646), (290, 27655), (298, 27682), (302, 27709), (304, 27730), (308, 27766), (317, 27832), (323, 27868), (331, 27955), (332, 27958), (334, 27967), (345, 27985), (359, 28036), (360, 28042), (377, 28168), (398, 28243), (405, 28270), (410, 28303), (417, 28366), (423, 28420), (430, 28483), (441, 28594), (447, 28621), (448, 28627), (462, 28729), (464, 28741), (469, 28795), (472, 28822), (476, 28849), (480, 28888), (492, 28954), (501, 29026), (502, 29035), (509, 29095), (511, 29140), (546, 29455), (547, 29461), (549, 29479), (564, 29575), (571, 29680), (579, 29779), (597, 29923), (602, 30004), (604, 30016), (610, 30100), (621, 30190), (650, 30439), (658, 30478), (659, 30484), (661, 30490), (664, 30517), (668, 30553), (669, 30565),

Gene: McKinley_35 Start: 25980, Stop: 30803, Start Num: 19
Candidate Starts for McKinley_35:
(Start: 19 @25980 has 69 MA's), (46, 26154), (52, 26178), (87, 26316), (99, 26361), (103, 26373), (107, 26391), (111, 26403), (113, 26430), (117, 26448), (120, 26460), (137, 26559), (153, 26679), (154, 26700), (157, 26760), (160, 26793), (164, 26835), (167, 26871), (172, 26907), (174, 26922), (175, 26925), (185, 27036), (187, 27072), (190, 27123), (193, 27165), (196, 27195), (202, 27246), (206, 27279), (208, 27312), (209, 27324), (219, 27405), (223, 27426), (226, 27438), (239, 27534), (240, 27549), (242, 27570), (249, 27621), (251, 27630), (260, 27708), (271, 27756), (272, 27765), (278, 27825), (286, 27864), (287, 27870), (290, 27879), (298, 27906), (302, 27933), (304, 27954), (308, 27990), (317, 28056), (320, 28077), (323, 28092), (331, 28179), (332, 28182), (359, 28260), (366, 28320), (377, 28392), (405, 28494), (410, 28527), (417, 28590), (423, 28644), (430, 28707), (441, 28818), (447, 28845), (448, 28851), (462, 28953), (464, 28965), (469, 29019), (472, 29046), (476, 29073), (480, 29112), (484, 29136), (488, 29151), (492, 29178), (501, 29250), (502, 29259), (509, 29319), (511, 29364), (537, 29553), (546, 29682), (547, 29688), (549, 29706), (564, 29805), (571, 29910), (578, 29982), (579, 30009), (597, 30153), (602, 30222), (604, 30234), (610, 30318), (650, 30657), (658, 30696), (659, 30702), (661, 30708), (664, 30735), (668, 30771), (669, 30783),

Gene: MelBins_32 Start: 23406, Stop: 28298, Start Num: 20
Candidate Starts for MelBins_32:
(Start: 20 @23406 has 9 MA's), (37, 23526), (46, 23580), (52, 23604), (59, 23679), (60, 23682), (74, 23778), (82, 23853), (83, 23859), (85, 23865), (89, 23889), (91, 23898), (100, 23958), (102, 23964), (106, 23973), (111, 24003), (119, 24060), (125, 24099), (127, 24108), (128, 24111), (137, 24171), (138, 24174), (148, 24249), (149, 24258), (160, 24393), (161, 24402), (164, 24435), (166, 24459), (175, 24525), (179, 24588), (187, 24672), (189, 24711), (190, 24723), (194, 24771), (196, 24795), (206, 24879), (211, 24930), (214, 24960), (221, 25017), (224, 25029), (236, 25116), (242, 25170), (250, 25224), (251, 25230), (255, 25257), (268, 25344), (271, 25356), (272, 25365), (278, 25425),

(280, 25437), (284, 25458), (286, 25464), (287, 25470), (288, 25473), (289, 25476), (297, 25503),
(298, 25506), (300, 25515), (301, 25527), (302, 25533), (306, 25578), (310, 25614), (311, 25617),
(313, 25638), (330, 25755), (342, 25812), (360, 25899), (368, 25965), (395, 26022), (396, 26025),
(400, 26049), (415, 26139), (420, 26187), (435, 26316), (443, 26385), (449, 26415), (452, 26433),
(455, 26451), (472, 26607), (473, 26610), (488, 26715), (501, 26814), (502, 26823), (509, 26883),
(510, 26913), (519, 26994), (544, 27225), (546, 27231), (556, 27294), (568, 27471), (572, 27492),
(581, 27621), (586, 27660), (620, 27990), (629, 28086), (631, 28095), (645, 28209), (652, 28251),
(656, 28263),

Gene: MoontowerMania_32 Start: 24791, Stop: 29617, Start Num: 19
Candidate Starts for MoontowerMania_32:
(Start: 19 @24791 has 69 MA's), (46, 24965), (52, 24989), (87, 25127), (99, 25172), (103, 25184),
(107, 25202), (111, 25214), (117, 25259), (137, 25370), (153, 25490), (154, 25511), (157, 25571),
(160, 25604), (164, 25646), (172, 25718), (174, 25733), (175, 25736), (185, 25847), (187, 25883),
(190, 25934), (193, 25976), (196, 26006), (202, 26057), (206, 26090), (208, 26123), (209, 26135),
(219, 26216), (223, 26237), (226, 26249), (239, 26345), (240, 26360), (242, 26381), (249, 26432),
(251, 26441), (260, 26519), (271, 26567), (272, 26576), (278, 26636), (287, 26681), (290, 26690),
(298, 26717), (302, 26744), (304, 26765), (308, 26801), (317, 26867), (323, 26903), (331, 26990),
(332, 26993), (334, 27002), (345, 27020), (359, 27071), (360, 27077), (377, 27203), (398, 27278),
(405, 27305), (410, 27338), (417, 27401), (423, 27455), (430, 27518), (441, 27629), (447, 27656),
(448, 27662), (462, 27764), (464, 27776), (469, 27830), (472, 27857), (476, 27884), (480, 27923),
(484, 27947), (488, 27962), (492, 27989), (501, 28061), (502, 28070), (509, 28130), (511, 28175),
(546, 28493), (547, 28499), (549, 28517), (564, 28613), (571, 28718), (579, 28817), (597, 28961),
(602, 29036), (604, 29048), (610, 29132), (650, 29471), (658, 29510), (659, 29516), (661, 29522),
(664, 29549), (668, 29585), (669, 29597),

Gene: Mutzi_31 Start: 19848, Stop: 25364, Start Num: 1
Candidate Starts for Mutzi_31:
(Start: 1 @19848 has 32 MA's), (3, 19935), (6, 20022), (10, 20055), (12, 20079), (Start: 20 @20202
has 9 MA's), (22, 20223), (23, 20229), (27, 20253), (33, 20283), (43, 20322), (60, 20406), (68, 20442),
(70, 20466), (78, 20505), (118, 20793), (134, 20895), (145, 20982), (154, 21063), (157, 21123), (164,
21195), (168, 21243), (171, 21267), (181, 21366), (182, 21369), (185, 21399), (189, 21474), (190,
21486), (193, 21528), (196, 21558), (202, 21609), (206, 21642), (215, 21747), (216, 21750), (219,
21768), (221, 21780), (223, 21789), (238, 21891), (240, 21912), (242, 21933), (249, 21984), (250,
21987), (260, 22071), (264, 22095), (266, 22101), (271, 22119), (278, 22188), (284, 22221), (286,
22227), (288, 22236), (291, 22242), (302, 22296), (309, 22368), (310, 22377), (312, 22398), (323,
22455), (326, 22491), (336, 22572), (337, 22575), (341, 22629), (343, 22644), (352, 22716), (360,
22812), (368, 22878), (369, 22881), (372, 22905), (375, 22932), (376, 22935), (377, 22938), (399,
23013), (401, 23019), (402, 23022), (409, 23067), (414, 23076), (425, 23154), (431, 23208), (435,
23262), (440, 23319), (449, 23361), (462, 23460), (467, 23511), (481, 23622), (489, 23661), (500,
23742), (504, 23784), (515, 23916), (516, 23919), (520, 23949), (521, 23952), (523, 23967), (543,
24159), (546, 24168), (547, 24174), (576, 24486), (593, 24681), (594, 24693), (618, 24966), (633,
25122), (634, 25131), (635, 25137), (641, 25173), (654, 25266), (657, 25278), (663, 25308), (665,
25341), (667, 25353),

Gene: Natkenzie_33 Start: 24850, Stop: 29775, Start Num: 19
Candidate Starts for Natkenzie_33:
(Start: 19 @24850 has 69 MA's), (37, 24970), (40, 24982), (46, 25024), (52, 25048), (58, 25114), (59,
25123), (67, 25168), (69, 25195), (82, 25297), (84, 25306), (88, 25324), (98, 25390), (102, 25405),
(106, 25414), (114, 25477), (116, 25483), (121, 25510), (125, 25540), (127, 25549), (135, 25597),
(137, 25612), (140, 25624), (149, 25711), (152, 25723), (160, 25846), (163, 25870), (164, 25888),
(172, 25960), (173, 25966), (175, 25978), (185, 26089), (187, 26125), (189, 26164), (190, 26176),
(193, 26218), (196, 26248), (201, 26290), (202, 26299), (203, 26302), (206, 26332), (208, 26365),

(219, 26458), (227, 26494), (233, 26551), (238, 26581), (242, 26623), (250, 26677), (251, 26683),
(255, 26710), (260, 26761), (268, 26797), (271, 26809), (272, 26818), (278, 26878), (280, 26890),
(284, 26911), (286, 26917), (298, 26959), (299, 26965), (301, 26980), (302, 26986), (306, 27031),
(310, 27067), (311, 27070), (323, 27145), (330, 27208), (342, 27265), (359, 27346), (365, 27397),
(387, 27454), (395, 27475), (396, 27478), (400, 27502), (420, 27640), (425, 27661), (449, 27868),
(452, 27886), (459, 27943), (469, 28033), (475, 28096), (488, 28177), (492, 28204), (501, 28276),
(502, 28285), (509, 28345), (519, 28456), (543, 28687), (546, 28696), (550, 28723), (557, 28765),
(573, 28984), (576, 29011), (581, 29083), (586, 29122), (607, 29329), (613, 29401), (620, 29467),
(636, 29602), (642, 29665), (643, 29668), (645, 29686), (648, 29701), (652, 29728), (656, 29740),

Gene: Nordenberg_27 Start: 24150, Stop: 28973, Start Num: 19
Candidate Starts for Nordenberg_27:
(Start: 19 @24150 has 69 MA's), (46, 24324), (52, 24348), (87, 24486), (99, 24531), (103, 24543),
(107, 24561), (111, 24573), (113, 24600), (117, 24618), (120, 24630), (137, 24729), (153, 24849),
(154, 24870), (157, 24930), (160, 24963), (164, 25005), (167, 25041), (172, 25077), (174, 25092),
(175, 25095), (185, 25206), (187, 25242), (190, 25293), (193, 25335), (196, 25365), (202, 25416),
(206, 25449), (209, 25494), (219, 25575), (226, 25608), (239, 25704), (240, 25719), (242, 25740),
(249, 25791), (251, 25800), (271, 25926), (272, 25935), (278, 25995), (286, 26034), (287, 26040),
(290, 26049), (298, 26076), (302, 26103), (304, 26124), (308, 26160), (317, 26226), (323, 26262),
(331, 26349), (332, 26352), (334, 26361), (345, 26379), (359, 26430), (360, 26436), (377, 26562),
(398, 26637), (405, 26664), (410, 26697), (417, 26760), (423, 26814), (430, 26877), (441, 26988),
(447, 27015), (448, 27021), (462, 27123), (464, 27135), (469, 27189), (472, 27216), (476, 27243),
(480, 27282), (492, 27348), (501, 27420), (502, 27429), (509, 27489), (511, 27534), (546, 27852),
(547, 27858), (549, 27876), (564, 27969), (571, 28074), (579, 28173), (597, 28317), (602, 28392),
(604, 28404), (610, 28488), (650, 28827), (658, 28866), (659, 28872), (661, 28878), (664, 28905),
(668, 28941), (669, 28953),

Gene: Nubi_29 Start: 19412, Stop: 24925, Start Num: 1
Candidate Starts for Nubi_29:
(Start: 1 @19412 has 32 MA's), (3, 19499), (6, 19586), (10, 19619), (12, 19643), (Start: 20 @19766
has 9 MA's), (22, 19787), (23, 19793), (27, 19817), (33, 19847), (43, 19886), (60, 19970), (68, 20006),
(70, 20030), (78, 20069), (134, 20459), (154, 20627), (157, 20687), (164, 20759), (165, 20771), (168,
20807), (171, 20831), (181, 20930), (182, 20933), (185, 20963), (189, 21038), (190, 21050), (193,
21092), (196, 21122), (202, 21173), (216, 21314), (219, 21332), (221, 21344), (223, 21353), (238,
21455), (240, 21476), (242, 21497), (249, 21548), (250, 21551), (260, 21635), (266, 21665), (271,
21683), (278, 21752), (284, 21785), (286, 21791), (288, 21800), (291, 21806), (302, 21860), (309,
21932), (312, 21962), (323, 22019), (326, 22055), (336, 22136), (337, 22139), (343, 22208), (360,
22376), (368, 22442), (369, 22445), (372, 22469), (375, 22496), (376, 22499), (377, 22502), (402,
22586), (409, 22631), (414, 22640), (420, 22697), (425, 22718), (431, 22772), (435, 22826), (440,
22883), (449, 22925), (455, 22961), (461, 23006), (462, 23024), (467, 23075), (481, 23186), (489,
23225), (500, 23306), (515, 23480), (516, 23483), (521, 23516), (543, 23720), (546, 23729), (547,
23735), (576, 24044), (594, 24251), (603, 24377), (618, 24527), (626, 24638), (633, 24683), (634,
24692), (635, 24698), (641, 24734), (654, 24827), (657, 24839), (663, 24869), (665, 24902), (667,
24914),

Gene: Opie_17 Start: 10940, Stop: 16069, Start Num: 4
Candidate Starts for Opie_17:
(Start: 4 @10940 has 13 MA's), (6, 10949), (25, 11222), (26, 11231), (39, 11327), (44, 11369), (49,
11390), (59, 11483), (64, 11501), (90, 11696), (112, 11855), (132, 11975), (133, 11978), (139, 12014),
(147, 12092), (157, 12215), (160, 12248), (161, 12257), (162, 12266), (165, 12299), (166, 12311),
(168, 12335), (175, 12380), (177, 12425), (182, 12461), (184, 12473), (185, 12491), (187, 12527),
(196, 12650), (202, 12692), (216, 12827), (217, 12830), (218, 12833), (220, 12848), (229, 12902),
(234, 12941), (245, 13022), (248, 13037), (250, 13058), (252, 13073), (253, 13085), (257, 13121),

(263, 13157), (297, 13319), (305, 13352), (314, 13376), (321, 13388), (322, 13391), (327, 13424), (329, 13442), (350, 13523), (353, 13529), (357, 13550), (358, 13553), (359, 13556), (372, 13655), (374, 13670), (379, 13694), (387, 13709), (388, 13712), (390, 13718), (402, 13772), (416, 13871), (419, 13913), (422, 13946), (427, 13991), (432, 14015), (435, 14060), (437, 14078), (453, 14186), (458, 14216), (462, 14255), (463, 14258), (464, 14267), (497, 14516), (499, 14540), (514, 14684), (518, 14708), (526, 14759), (538, 14876), (540, 14903), (541, 14921), (551, 14999), (552, 15005), (554, 15014), (558, 15041), (565, 15134), (567, 15173), (569, 15215), (580, 15368), (584, 15401), (585, 15404), (590, 15461), (591, 15470), (592, 15482), (595, 15503), (598, 15524), (615, 15716), (619, 15755), (623, 15821), (624, 15824), (628, 15878), (649, 16031),

Gene: Paries_35 Start: 25616, Stop: 30439, Start Num: 19
Candidate Starts for Paries_35:
(Start: 19 @25616 has 69 MA's), (46, 25790), (52, 25814), (87, 25952), (96, 25985), (99, 25997), (103, 26009), (107, 26027), (111, 26039), (117, 26084), (137, 26195), (153, 26315), (154, 26336), (157, 26396), (160, 26429), (164, 26471), (167, 26507), (172, 26543), (174, 26558), (175, 26561), (185, 26672), (187, 26708), (190, 26759), (193, 26801), (196, 26831), (202, 26882), (206, 26915), (208, 26948), (209, 26960), (219, 27041), (223, 27062), (226, 27074), (239, 27170), (240, 27185), (242, 27206), (249, 27257), (251, 27266), (260, 27344), (271, 27392), (272, 27401), (278, 27461), (287, 27506), (290, 27515), (298, 27542), (302, 27569), (304, 27590), (308, 27626), (317, 27692), (323, 27728), (331, 27815), (332, 27818), (334, 27827), (345, 27845), (359, 27896), (360, 27902), (377, 28028), (398, 28103), (405, 28130), (410, 28163), (417, 28226), (423, 28280), (430, 28343), (441, 28454), (447, 28481), (448, 28487), (462, 28589), (464, 28601), (469, 28655), (472, 28682), (476, 28709), (480, 28748), (492, 28814), (501, 28886), (502, 28895), (509, 28955), (511, 29000), (546, 29315), (547, 29321), (549, 29339), (564, 29435), (571, 29540), (579, 29639), (597, 29783), (602, 29858), (604, 29870), (610, 29954), (650, 30293), (658, 30332), (659, 30338), (661, 30344), (664, 30371), (668, 30407), (669, 30419),

Gene: Phauci_24 Start: 19849, Stop: 24738, Start Num: 20
Candidate Starts for Phauci_24:
(Start: 20 @19849 has 9 MA's), (37, 19969), (46, 20023), (52, 20047), (59, 20122), (60, 20125), (74, 20221), (82, 20296), (83, 20302), (85, 20308), (89, 20332), (91, 20341), (100, 20401), (102, 20407), (106, 20416), (111, 20446), (119, 20503), (125, 20542), (127, 20551), (137, 20614), (138, 20617), (148, 20692), (149, 20701), (160, 20836), (161, 20845), (164, 20878), (166, 20902), (175, 20968), (179, 21031), (187, 21115), (189, 21154), (190, 21166), (194, 21214), (196, 21238), (202, 21289), (206, 21322), (211, 21373), (214, 21403), (221, 21460), (224, 21472), (227, 21484), (236, 21559), (242, 21613), (250, 21667), (255, 21700), (268, 21787), (271, 21799), (272, 21808), (278, 21868), (280, 21880), (284, 21901), (286, 21907), (287, 21913), (288, 21916), (289, 21919), (297, 21946), (298, 21949), (300, 21958), (301, 21970), (302, 21976), (306, 22021), (310, 22057), (311, 22060), (313, 22081), (330, 22198), (342, 22255), (360, 22342), (368, 22408), (395, 22465), (396, 22468), (400, 22492), (415, 22582), (420, 22630), (435, 22759), (443, 22828), (445, 22837), (449, 22858), (452, 22876), (455, 22894), (472, 23050), (473, 23053), (488, 23158), (502, 23266), (509, 23326), (510, 23356), (519, 23437), (544, 23668), (546, 23674), (553, 23722), (556, 23737), (563, 23803), (572, 23935), (581, 24064), (586, 24103), (620, 24430), (629, 24526), (645, 24649), (652, 24691), (656, 24703),

Gene: Phinally_31 Start: 23257, Stop: 28146, Start Num: 20
Candidate Starts for Phinally_31:
(Start: 20 @23257 has 9 MA's), (37, 23377), (46, 23431), (52, 23455), (59, 23530), (60, 23533), (74, 23629), (82, 23704), (83, 23710), (85, 23716), (89, 23740), (91, 23749), (100, 23809), (102, 23815), (106, 23824), (111, 23854), (119, 23911), (125, 23950), (127, 23959), (137, 24022), (138, 24025), (148, 24100), (149, 24109), (160, 24244), (161, 24253), (164, 24286), (166, 24310), (175, 24376), (179, 24439), (187, 24523), (189, 24562), (190, 24574), (194, 24622), (196, 24646), (202, 24697), (206, 24730), (211, 24781), (214, 24811), (221, 24868), (224, 24880), (227, 24892), (236, 24967),

(242, 25021), (250, 25075), (251, 25081), (255, 25108), (268, 25195), (271, 25207), (272, 25216), (278, 25276), (280, 25288), (284, 25309), (286, 25315), (287, 25321), (288, 25324), (297, 25354), (298, 25357), (300, 25366), (301, 25378), (302, 25384), (306, 25429), (310, 25465), (311, 25468), (313, 25489), (330, 25606), (342, 25663), (360, 25750), (368, 25816), (395, 25873), (396, 25876), (400, 25900), (415, 25990), (420, 26038), (435, 26167), (443, 26236), (449, 26266), (452, 26284), (472, 26458), (473, 26461), (488, 26566), (501, 26665), (502, 26674), (509, 26734), (510, 26764), (519, 26845), (544, 27076), (546, 27082), (556, 27145), (572, 27343), (581, 27472), (586, 27511), (616, 27793), (620, 27838), (622, 27865), (629, 27934), (645, 28057), (652, 28099), (656, 28111),

Gene: Phlop_29 Start: 19476, Stop: 25007, Start Num: 1
Candidate Starts for Phlop_29:
(Start: 1 @19476 has 32 MA's), (3, 19563), (6, 19650), (10, 19683), (12, 19707), (Start: 20 @19830 has 9 MA's), (22, 19851), (23, 19857), (27, 19881), (33, 19911), (43, 19950), (60, 20034), (68, 20070), (70, 20094), (78, 20133), (134, 20523), (154, 20691), (157, 20751), (164, 20823), (165, 20835), (168, 20871), (171, 20895), (181, 20994), (182, 20997), (185, 21027), (189, 21102), (190, 21114), (193, 21156), (196, 21186), (202, 21237), (216, 21378), (219, 21396), (221, 21408), (223, 21417), (238, 21519), (240, 21540), (242, 21561), (249, 21612), (250, 21615), (251, 21621), (260, 21699), (266, 21729), (271, 21747), (278, 21816), (284, 21849), (286, 21855), (288, 21864), (291, 21870), (302, 21924), (306, 21969), (309, 21996), (310, 22005), (312, 22026), (323, 22083), (326, 22119), (336, 22200), (337, 22203), (343, 22272), (352, 22344), (360, 22440), (368, 22506), (369, 22509), (372, 22533), (375, 22560), (376, 22563), (377, 22566), (379, 22572), (399, 22641), (402, 22650), (409, 22695), (414, 22704), (425, 22782), (431, 22836), (435, 22890), (440, 22947), (449, 22989), (455, 23025), (462, 23088), (467, 23139), (481, 23250), (489, 23289), (500, 23370), (515, 23544), (516, 23547), (521, 23580), (543, 23787), (546, 23796), (547, 23802), (576, 24114), (594, 24321), (603, 24459), (618, 24609), (626, 24720), (633, 24765), (634, 24774), (635, 24780), (641, 24816), (654, 24909), (657, 24921), (663, 24951), (665, 24984), (667, 24996),

Gene: PinkCoffee_31 Start: 20115, Stop: 25646, Start Num: 1
Candidate Starts for PinkCoffee_31:
(Start: 1 @20115 has 32 MA's), (3, 20202), (6, 20289), (10, 20322), (12, 20346), (Start: 20 @20469 has 9 MA's), (22, 20490), (23, 20496), (27, 20520), (33, 20550), (43, 20589), (60, 20673), (68, 20709), (70, 20733), (78, 20772), (134, 21162), (154, 21330), (157, 21390), (164, 21462), (165, 21474), (168, 21510), (171, 21534), (181, 21633), (182, 21636), (185, 21666), (189, 21741), (190, 21753), (193, 21795), (196, 21825), (202, 21876), (216, 22017), (219, 22035), (221, 22047), (223, 22056), (238, 22158), (240, 22179), (242, 22200), (249, 22251), (250, 22254), (251, 22260), (260, 22338), (266, 22368), (271, 22386), (278, 22455), (284, 22488), (286, 22494), (288, 22503), (291, 22509), (302, 22563), (306, 22608), (309, 22635), (310, 22644), (312, 22665), (323, 22722), (326, 22758), (336, 22839), (337, 22842), (343, 22911), (352, 22983), (360, 23079), (368, 23145), (369, 23148), (372, 23172), (375, 23199), (376, 23202), (377, 23205), (379, 23211), (399, 23280), (402, 23289), (409, 23334), (414, 23343), (425, 23421), (431, 23475), (435, 23529), (440, 23586), (449, 23628), (455, 23664), (462, 23727), (467, 23778), (481, 23889), (489, 23928), (500, 24009), (515, 24183), (516, 24186), (521, 24219), (543, 24426), (546, 24435), (547, 24441), (576, 24753), (594, 24960), (603, 25098), (618, 25248), (626, 25359), (633, 25404), (634, 25413), (641, 25455), (654, 25548), (657, 25560), (663, 25590), (665, 25623), (667, 25635),

Gene: Portcullis_29 Start: 19434, Stop: 24956, Start Num: 1
Candidate Starts for Portcullis_29:
(Start: 1 @19434 has 32 MA's), (3, 19521), (6, 19608), (10, 19641), (12, 19665), (Start: 20 @19788 has 9 MA's), (22, 19809), (23, 19815), (27, 19839), (33, 19869), (43, 19908), (60, 19992), (68, 20028), (70, 20052), (78, 20091), (134, 20481), (154, 20649), (157, 20709), (164, 20781), (165, 20793), (168, 20829), (171, 20853), (181, 20952), (182, 20955), (185, 20985), (189, 21060), (190, 21072), (193, 21114), (196, 21144), (202, 21195), (216, 21336), (219, 21354), (221, 21366), (223, 21375), (238, 21477), (240, 21498), (242, 21519), (249, 21570), (250, 21573), (260, 21657), (266, 21687), (271,

21705), (278, 21774), (284, 21807), (286, 21813), (288, 21822), (291, 21828), (302, 21882), (309, 21954), (310, 21963), (312, 21984), (323, 22041), (326, 22077), (336, 22158), (337, 22161), (343, 22230), (360, 22398), (368, 22464), (369, 22467), (372, 22491), (375, 22518), (376, 22521), (377, 22524), (379, 22530), (399, 22599), (402, 22608), (409, 22653), (414, 22662), (425, 22740), (431, 22794), (435, 22848), (440, 22905), (449, 22947), (455, 22983), (462, 23046), (467, 23097), (481, 23208), (489, 23247), (500, 23328), (515, 23502), (516, 23505), (521, 23538), (543, 23745), (546, 23754), (547, 23760), (550, 23781), (576, 24075), (594, 24282), (603, 24408), (618, 24558), (626, 24669), (633, 24714), (634, 24723), (635, 24729), (641, 24765), (654, 24858), (657, 24870), (663, 24900), (665, 24933), (667, 24945),

Gene: PullumCavea_29 Start: 19476, Stop: 25007, Start Num: 1
Candidate Starts for PullumCavea_29:
(Start: 1 @19476 has 32 MA's), (3, 19563), (6, 19650), (10, 19683), (12, 19707), (Start: 20 @19830 has 9 MA's), (22, 19851), (23, 19857), (27, 19881), (33, 19911), (43, 19950), (60, 20034), (68, 20070), (70, 20094), (78, 20133), (134, 20523), (154, 20691), (157, 20751), (164, 20823), (165, 20835), (168, 20871), (171, 20895), (181, 20994), (182, 20997), (185, 21027), (189, 21102), (190, 21114), (193, 21156), (196, 21186), (202, 21237), (216, 21378), (219, 21396), (221, 21408), (223, 21417), (238, 21519), (240, 21540), (242, 21561), (249, 21612), (250, 21615), (251, 21621), (260, 21699), (266, 21729), (271, 21747), (278, 21816), (284, 21849), (286, 21855), (288, 21864), (291, 21870), (302, 21924), (306, 21969), (309, 21996), (310, 22005), (312, 22026), (323, 22083), (326, 22119), (336, 22200), (337, 22203), (343, 22272), (352, 22344), (360, 22440), (368, 22506), (369, 22509), (372, 22533), (375, 22560), (376, 22563), (377, 22566), (379, 22572), (399, 22641), (402, 22650), (409, 22695), (414, 22704), (425, 22782), (431, 22836), (435, 22890), (440, 22947), (449, 22989), (455, 23025), (462, 23088), (467, 23139), (481, 23250), (489, 23289), (500, 23370), (515, 23544), (516, 23547), (521, 23580), (543, 23787), (546, 23796), (547, 23802), (576, 24114), (594, 24321), (603, 24459), (618, 24609), (626, 24720), (633, 24765), (634, 24774), (635, 24780), (641, 24816), (654, 24909), (657, 24921), (663, 24951), (665, 24984), (667, 24996),

Gene: Pumpkiney_34 Start: 22170, Stop: 27098, Start Num: 19
Candidate Starts for Pumpkiney_34:
(Start: 19 @22170 has 69 MA's), (37, 22290), (40, 22302), (46, 22344), (52, 22368), (53, 22377), (58, 22434), (59, 22443), (60, 22446), (69, 22515), (76, 22548), (82, 22617), (84, 22626), (88, 22644), (98, 22710), (102, 22725), (106, 22734), (114, 22797), (116, 22803), (121, 22830), (125, 22860), (127, 22869), (135, 22917), (137, 22932), (142, 22977), (152, 23043), (160, 23166), (163, 23190), (164, 23208), (165, 23220), (172, 23280), (175, 23298), (180, 23370), (185, 23409), (187, 23445), (189, 23484), (190, 23496), (193, 23538), (196, 23568), (206, 23652), (208, 23685), (219, 23778), (227, 23814), (233, 23871), (238, 23901), (242, 23943), (250, 23997), (255, 24030), (260, 24081), (271, 24129), (272, 24138), (278, 24198), (280, 24210), (284, 24231), (286, 24237), (298, 24279), (299, 24285), (301, 24300), (302, 24306), (310, 24387), (311, 24390), (313, 24411), (323, 24465), (330, 24528), (342, 24585), (360, 24672), (368, 24738), (395, 24795), (396, 24798), (400, 24822), (415, 24912), (420, 24960), (449, 25188), (452, 25206), (459, 25263), (469, 25353), (475, 25416), (488, 25497), (492, 25524), (501, 25596), (502, 25605), (509, 25665), (519, 25776), (543, 26007), (546, 26016), (550, 26043), (557, 26085), (573, 26304), (576, 26331), (581, 26403), (586, 26442), (607, 26649), (613, 26721), (620, 26790), (636, 26925), (642, 26988), (643, 26991), (645, 27009), (648, 27024), (652, 27051), (656, 27063),

Gene: Ribeye_33 Start: 24804, Stop: 29822, Start Num: 19
Candidate Starts for Ribeye_33:
(Start: 19 @24804 has 69 MA's), (30, 24879), (37, 24924), (46, 24978), (52, 25002), (55, 25044), (57, 25062), (59, 25077), (69, 25149), (74, 25176), (82, 25251), (84, 25260), (92, 25317), (93, 25335), (94, 25341), (97, 25359), (104, 25386), (130, 25542), (137, 25593), (140, 25605), (145, 25653), (157, 25794), (160, 25827), (164, 25869), (172, 25941), (174, 25956), (175, 25959), (185, 26070), (187, 26106), (190, 26157), (193, 26199), (196, 26229), (202, 26280), (206, 26313), (208, 26346), (209,

26358), (219, 26439), (226, 26472), (227, 26475), (233, 26532), (239, 26568), (240, 26583), (242, 26604), (249, 26655), (271, 26790), (278, 26859), (286, 26898), (287, 26904), (290, 26913), (298, 26940), (302, 26967), (304, 26988), (308, 27024), (310, 27048), (311, 27051), (316, 27087), (323, 27126), (332, 27216), (347, 27246), (359, 27294), (360, 27300), (376, 27423), (377, 27426), (379, 27432), (397, 27489), (398, 27501), (405, 27528), (410, 27561), (411, 27567), (417, 27624), (423, 27678), (430, 27741), (441, 27852), (447, 27879), (448, 27885), (462, 27987), (469, 28053), (488, 28185), (492, 28212), (502, 28293), (509, 28353), (511, 28398), (543, 28704), (546, 28713), (550, 28740), (562, 28809), (579, 29037), (597, 29181), (602, 29250), (603, 29256), (604, 29262), (610, 29340), (614, 29370), (626, 29508), (635, 29568), (641, 29604), (644, 29649), (650, 29676), (658, 29715), (659, 29721), (661, 29727), (664, 29754), (668, 29790), (669, 29802),

Gene: RiverRaider_33 Start: 23248, Stop: 28107, Start Num: 19
Candidate Starts for RiverRaider_33:
(Start: 19 @23248 has 69 MA's), (31, 23335), (37, 23368), (46, 23422), (52, 23446), (53, 23455), (61, 23500), (87, 23584), (96, 23617), (99, 23629), (103, 23641), (107, 23659), (111, 23671), (117, 23716), (124, 23755), (137, 23827), (148, 23917), (152, 23938), (157, 24028), (160, 24061), (164, 24103), (172, 24175), (174, 24190), (175, 24193), (185, 24304), (187, 24340), (190, 24391), (193, 24433), (196, 24463), (202, 24514), (206, 24547), (208, 24580), (209, 24592), (219, 24673), (223, 24694), (226, 24706), (231, 24739), (239, 24802), (240, 24817), (242, 24838), (249, 24889), (251, 24898), (260, 24976), (271, 25024), (275, 25072), (282, 25120), (284, 25126), (286, 25132), (290, 25147), (293, 25153), (297, 25171), (299, 25180), (302, 25201), (304, 25222), (308, 25258), (310, 25282), (316, 25321), (331, 25447), (347, 25480), (359, 25528), (360, 25534), (366, 25588), (369, 25603), (371, 25621), (377, 25660), (398, 25735), (405, 25762), (406, 25771), (410, 25795), (417, 25858), (423, 25912), (447, 26113), (448, 26119), (462, 26221), (464, 26233), (469, 26287), (478, 26368), (481, 26383), (485, 26407), (498, 26488), (515, 26665), (520, 26695), (522, 26698), (539, 26830), (546, 26911), (547, 26917), (550, 26938), (556, 26974), (563, 27037), (576, 27226), (581, 27298), (586, 27337), (602, 27532), (604, 27544), (610, 27616), (621, 27706), (632, 27823), (635, 27844), (650, 27961), (659, 28006), (661, 28012), (668, 28075), (669, 28087),

Gene: RoadKill_28 Start: 20943, Stop: 26069, Start Num: 19
Candidate Starts for RoadKill_28:
(Start: 19 @20943 has 69 MA's), (46, 21117), (53, 21150), (58, 21207), (59, 21216), (60, 21219), (69, 21288), (72, 21300), (74, 21315), (79, 21351), (82, 21390), (83, 21396), (85, 21402), (91, 21435), (96, 21477), (98, 21486), (100, 21495), (102, 21501), (109, 21528), (116, 21579), (119, 21597), (135, 21693), (137, 21708), (144, 21753), (151, 21801), (160, 21930), (164, 21972), (172, 22044), (175, 22062), (181, 22140), (183, 22152), (185, 22173), (187, 22209), (189, 22248), (190, 22260), (196, 22332), (197, 22356), (198, 22362), (202, 22383), (204, 22404), (206, 22416), (211, 22467), (214, 22497), (223, 22563), (238, 22665), (242, 22707), (250, 22761), (254, 22791), (255, 22794), (265, 22872), (277, 22959), (284, 22995), (286, 23001), (297, 23040), (298, 23043), (301, 23064), (302, 23070), (304, 23091), (309, 23142), (313, 23175), (316, 23190), (320, 23214), (345, 23424), (346, 23427), (355, 23532), (357, 23550), (363, 23580), (369, 23631), (377, 23688), (383, 23763), (386, 23772), (389, 23781), (391, 23787), (395, 23838), (402, 23871), (404, 23883), (407, 23904), (408, 23916), (413, 23949), (415, 23970), (426, 24102), (434, 24156), (460, 24363), (472, 24477), (474, 24489), (491, 24615), (494, 24633), (503, 24711), (524, 24900), (527, 24930), (550, 25128), (574, 25335), (575, 25338), (577, 25356), (601, 25605), (602, 25623), (605, 25635), (620, 25761), (639, 25917), (640, 25920), (643, 25962), (645, 25980), (648, 25995), (656, 26034),

Gene: Rofo_33 Start: 25011, Stop: 29837, Start Num: 19
Candidate Starts for Rofo_33:
(Start: 19 @25011 has 69 MA's), (46, 25185), (52, 25209), (87, 25347), (96, 25380), (99, 25392), (103, 25404), (107, 25422), (111, 25434), (117, 25479), (137, 25590), (153, 25710), (154, 25731), (157, 25791), (160, 25824), (164, 25866), (167, 25902), (172, 25938), (174, 25953), (175, 25956), (185, 26067), (187, 26103), (190, 26154), (193, 26196), (196, 26226), (202, 26277), (206, 26310), (208,

26343), (209, 26355), (219, 26436), (223, 26457), (226, 26469), (239, 26565), (240, 26580), (242, 26601), (249, 26652), (251, 26661), (260, 26739), (271, 26787), (272, 26796), (278, 26856), (287, 26901), (290, 26910), (298, 26937), (302, 26964), (304, 26985), (308, 27021), (317, 27087), (323, 27123), (331, 27210), (332, 27213), (334, 27222), (345, 27240), (359, 27291), (360, 27297), (377, 27423), (398, 27498), (405, 27525), (410, 27558), (417, 27621), (423, 27675), (430, 27738), (441, 27849), (447, 27876), (448, 27882), (462, 27984), (464, 27996), (469, 28050), (472, 28077), (476, 28104), (480, 28143), (492, 28209), (501, 28281), (502, 28290), (509, 28350), (511, 28395), (546, 28713), (547, 28719), (549, 28737), (564, 28833), (571, 28938), (579, 29037), (597, 29181), (602, 29256), (604, 29268), (610, 29352), (650, 29691), (658, 29730), (659, 29736), (661, 29742), (664, 29769), (668, 29805), (669, 29817),

Gene: RogerDodger_32 Start: 20284, Stop: 25797, Start Num: 1
Candidate Starts for RogerDodger_32:
(Start: 1 @20284 has 32 MA's), (3, 20371), (6, 20458), (10, 20491), (12, 20515), (Start: 20 @20638 has 9 MA's), (22, 20659), (23, 20665), (27, 20689), (33, 20719), (43, 20758), (60, 20842), (68, 20878), (70, 20902), (78, 20941), (134, 21331), (154, 21499), (157, 21559), (164, 21631), (165, 21643), (168, 21679), (171, 21703), (181, 21802), (182, 21805), (185, 21835), (189, 21910), (190, 21922), (193, 21964), (196, 21994), (202, 22045), (216, 22186), (219, 22204), (221, 22216), (223, 22225), (238, 22327), (240, 22348), (242, 22369), (249, 22420), (250, 22423), (251, 22429), (260, 22507), (266, 22537), (271, 22555), (278, 22624), (284, 22657), (286, 22663), (288, 22672), (291, 22678), (302, 22732), (306, 22777), (309, 22804), (310, 22813), (312, 22834), (323, 22891), (326, 22927), (336, 23008), (337, 23011), (343, 23080), (352, 23152), (360, 23248), (368, 23314), (369, 23317), (372, 23341), (375, 23368), (376, 23371), (377, 23374), (379, 23380), (399, 23449), (402, 23458), (409, 23503), (414, 23512), (425, 23590), (431, 23644), (435, 23698), (440, 23755), (449, 23797), (455, 23833), (462, 23896), (467, 23947), (477, 24031), (481, 24058), (489, 24097), (492, 24118), (500, 24178), (515, 24352), (516, 24355), (521, 24388), (543, 24595), (546, 24604), (547, 24610), (563, 24724), (570, 24844), (586, 25024), (603, 25249), (618, 25399), (626, 25510), (633, 25555), (634, 25564), (641, 25606), (656, 25705), (657, 25711), (663, 25741), (665, 25774), (667, 25786),

Gene: Salvador_29 Start: 19390, Stop: 24921, Start Num: 1
Candidate Starts for Salvador_29:
(Start: 1 @19390 has 32 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 9 MA's), (22, 19765), (23, 19771), (27, 19795), (33, 19825), (43, 19864), (60, 19948), (68, 19984), (70, 20008), (78, 20047), (134, 20437), (154, 20605), (157, 20665), (164, 20737), (165, 20749), (168, 20785), (171, 20809), (181, 20908), (182, 20911), (185, 20941), (189, 21016), (190, 21028), (193, 21070), (196, 21100), (202, 21151), (216, 21292), (219, 21310), (221, 21322), (223, 21331), (238, 21433), (240, 21454), (242, 21475), (249, 21526), (250, 21529), (251, 21535), (260, 21613), (266, 21643), (271, 21661), (278, 21730), (284, 21763), (286, 21769), (288, 21778), (291, 21784), (302, 21838), (306, 21883), (309, 21910), (310, 21919), (312, 21940), (323, 21997), (326, 22033), (336, 22114), (337, 22117), (343, 22186), (352, 22258), (360, 22354), (368, 22420), (369, 22423), (372, 22447), (375, 22474), (376, 22477), (377, 22480), (379, 22486), (399, 22555), (402, 22564), (409, 22609), (414, 22618), (425, 22696), (431, 22750), (435, 22804), (440, 22861), (449, 22903), (455, 22939), (462, 23002), (467, 23053), (481, 23164), (489, 23203), (500, 23284), (515, 23458), (516, 23461), (521, 23494), (543, 23701), (546, 23710), (547, 23716), (576, 24028), (594, 24235), (603, 24373), (618, 24523), (626, 24634), (633, 24679), (634, 24688), (635, 24694), (641, 24730), (654, 24823), (657, 24835), (663, 24865), (665, 24898), (667, 24910),

Gene: Sampson_33 Start: 24795, Stop: 29720, Start Num: 19
Candidate Starts for Sampson_33:
(Start: 19 @24795 has 69 MA's), (37, 24915), (40, 24927), (46, 24969), (52, 24993), (58, 25059), (59, 25068), (67, 25113), (69, 25140), (82, 25242), (84, 25251), (88, 25269), (98, 25335), (102, 25350), (106, 25359), (114, 25422), (116, 25428), (121, 25455), (125, 25485), (127, 25494), (135, 25542), (137, 25557), (140, 25569), (149, 25656), (152, 25668), (160, 25791), (163, 25815), (164, 25833),

(172, 25905), (173, 25911), (175, 25923), (185, 26034), (187, 26070), (189, 26109), (190, 26121),
(193, 26163), (196, 26193), (201, 26235), (202, 26244), (203, 26247), (206, 26277), (208, 26310),
(219, 26403), (227, 26439), (233, 26496), (238, 26526), (242, 26568), (250, 26622), (251, 26628),
(255, 26655), (260, 26706), (268, 26742), (271, 26754), (272, 26763), (278, 26823), (280, 26835),
(284, 26856), (286, 26862), (298, 26904), (299, 26910), (301, 26925), (302, 26931), (306, 26976),
(310, 27012), (311, 27015), (323, 27090), (330, 27153), (342, 27210), (359, 27291), (365, 27342),
(387, 27399), (395, 27420), (396, 27423), (400, 27447), (420, 27585), (425, 27606), (449, 27813),
(452, 27831), (459, 27888), (469, 27978), (475, 28041), (488, 28122), (492, 28149), (501, 28221),
(502, 28230), (509, 28290), (519, 28401), (543, 28632), (546, 28641), (550, 28668), (557, 28710),
(573, 28929), (576, 28956), (581, 29028), (586, 29067), (607, 29274), (613, 29346), (620, 29412),
(636, 29547), (642, 29610), (643, 29613), (645, 29631), (648, 29646), (652, 29673), (656, 29685),

Gene: Sanjuju_31 Start: 25192, Stop: 30006, Start Num: 19
Candidate Starts for Sanjuju_31:
(Start: 19 @25192 has 69 MA's), (46, 25366), (52, 25390), (87, 25528), (99, 25573), (103, 25585),
(107, 25603), (111, 25615), (113, 25642), (117, 25660), (120, 25672), (137, 25771), (153, 25891),
(154, 25912), (157, 25972), (160, 26005), (164, 26047), (167, 26083), (172, 26119), (174, 26134),
(175, 26137), (185, 26248), (187, 26284), (190, 26335), (193, 26377), (196, 26407), (202, 26458),
(206, 26491), (208, 26524), (209, 26536), (219, 26617), (223, 26638), (226, 26650), (239, 26746),
(240, 26761), (242, 26782), (249, 26833), (251, 26842), (260, 26920), (271, 26968), (272, 26977),
(278, 27037), (287, 27082), (290, 27091), (298, 27118), (302, 27145), (304, 27166), (308, 27202),
(317, 27268), (323, 27304), (331, 27391), (332, 27394), (345, 27421), (359, 27472), (360, 27478),
(377, 27604), (405, 27706), (410, 27739), (417, 27802), (423, 27856), (430, 27919), (441, 28030),
(447, 28057), (448, 28063), (462, 28165), (469, 28231), (472, 28258), (476, 28285), (480, 28324),
(484, 28348), (492, 28390), (501, 28462), (502, 28471), (509, 28531), (511, 28576), (546, 28891),
(547, 28897), (549, 28915), (564, 29011), (571, 29116), (579, 29215), (597, 29359), (602, 29434),
(604, 29446), (610, 29521), (650, 29860), (658, 29899), (659, 29905), (661, 29911), (664, 29938),
(668, 29974), (669, 29986),

Gene: Saronaya_32 Start: 23650, Stop: 28665, Start Num: 19
Candidate Starts for Saronaya_32:
(Start: 19 @23650 has 69 MA's), (31, 23737), (37, 23770), (46, 23824), (52, 23848), (55, 23890), (57,
23908), (59, 23923), (69, 23995), (74, 24022), (82, 24097), (84, 24106), (92, 24163), (93, 24181), (94,
24187), (97, 24205), (104, 24232), (137, 24439), (140, 24451), (145, 24499), (157, 24640), (160,
24673), (164, 24715), (172, 24787), (174, 24802), (175, 24805), (185, 24916), (187, 24952), (190,
25003), (193, 25045), (196, 25075), (198, 25105), (206, 25159), (208, 25192), (219, 25285), (226,
25318), (227, 25321), (233, 25378), (239, 25414), (240, 25429), (242, 25450), (249, 25501), (271,
25636), (272, 25645), (284, 25738), (286, 25744), (287, 25750), (290, 25759), (295, 25771), (297,
25783), (300, 25795), (302, 25813), (308, 25870), (323, 25972), (332, 26062), (347, 26092), (359,
26140), (360, 26146), (376, 26269), (377, 26272), (397, 26335), (398, 26347), (403, 26368), (405,
26374), (410, 26407), (417, 26470), (423, 26524), (441, 26698), (447, 26725), (448, 26731), (462,
26833), (469, 26899), (488, 27031), (492, 27058), (502, 27139), (509, 27199), (511, 27244), (543,
27550), (546, 27559), (550, 27586), (562, 27655), (571, 27784), (579, 27883), (597, 28027), (602,
28096), (603, 28102), (604, 28108), (610, 28183), (614, 28213), (625, 28318), (626, 28351), (635,
28411), (641, 28447), (644, 28492), (650, 28519), (658, 28558), (659, 28564), (661, 28570), (664,
28597), (668, 28633), (669, 28645),

Gene: Savbucketdawg_29 Start: 19171, Stop: 24702, Start Num: 1
Candidate Starts for Savbucketdawg_29:
(Start: 1 @19171 has 32 MA's), (3, 19258), (6, 19345), (10, 19378), (12, 19402), (Start: 20 @19525
has 9 MA's), (22, 19546), (23, 19552), (27, 19576), (33, 19606), (43, 19645), (60, 19729), (68, 19765),
(70, 19789), (78, 19828), (134, 20218), (154, 20386), (157, 20446), (164, 20518), (165, 20530), (168,
20566), (171, 20590), (181, 20689), (182, 20692), (185, 20722), (189, 20797), (190, 20809), (193,

20851), (196, 20881), (202, 20932), (216, 21073), (219, 21091), (221, 21103), (223, 21112), (238, 21214), (240, 21235), (242, 21256), (249, 21307), (250, 21310), (251, 21316), (260, 21394), (266, 21424), (271, 21442), (278, 21511), (284, 21544), (286, 21550), (288, 21559), (291, 21565), (302, 21619), (306, 21664), (309, 21691), (310, 21700), (312, 21721), (323, 21778), (326, 21814), (336, 21895), (337, 21898), (343, 21967), (352, 22039), (360, 22135), (368, 22201), (369, 22204), (372, 22228), (375, 22255), (376, 22258), (377, 22261), (379, 22267), (399, 22336), (402, 22345), (409, 22390), (414, 22399), (425, 22477), (431, 22531), (435, 22585), (440, 22642), (449, 22684), (455, 22720), (462, 22783), (467, 22834), (481, 22945), (489, 22984), (500, 23065), (515, 23239), (516, 23242), (521, 23275), (543, 23482), (546, 23491), (547, 23497), (576, 23809), (594, 24016), (603, 24154), (618, 24304), (626, 24415), (633, 24460), (634, 24469), (641, 24511), (654, 24604), (657, 24616), (663, 24646), (665, 24679), (667, 24691),

Gene: Schnabeltier_17 Start: 10933, Stop: 16047, Start Num: 4
Candidate Starts for Schnabeltier_17:
(Start: 4 @10933 has 13 MA's), (6, 10942), (25, 11215), (26, 11224), (28, 11254), (29, 11263), (39, 11320), (49, 11383), (56, 11455), (59, 11476), (64, 11494), (81, 11647), (90, 11689), (95, 11743), (101, 11776), (132, 11968), (133, 11971), (139, 12007), (147, 12085), (153, 12124), (157, 12208), (160, 12241), (161, 12250), (162, 12259), (165, 12292), (166, 12304), (168, 12328), (175, 12373), (176, 12382), (177, 12418), (178, 12427), (182, 12454), (184, 12466), (185, 12484), (187, 12520), (196, 12643), (202, 12685), (216, 12820), (217, 12823), (218, 12826), (220, 12841), (229, 12895), (234, 12934), (243, 13003), (245, 13015), (248, 13030), (250, 13051), (252, 13066), (253, 13078), (257, 13114), (263, 13150), (297, 13312), (314, 13369), (321, 13381), (322, 13384), (327, 13417), (349, 13510), (350, 13516), (353, 13522), (357, 13543), (358, 13546), (359, 13549), (367, 13612), (372, 13648), (374, 13663), (379, 13687), (387, 13702), (388, 13705), (390, 13711), (402, 13765), (416, 13864), (419, 13906), (427, 13984), (432, 14008), (435, 14053), (453, 14179), (456, 14188), (457, 14206), (458, 14209), (462, 14248), (463, 14251), (464, 14260), (487, 14419), (502, 14539), (510, 14617), (514, 14665), (517, 14677), (526, 14737), (538, 14854), (540, 14881), (541, 14899), (551, 14977), (552, 14983), (554, 14992), (558, 15019), (565, 15112), (567, 15151), (569, 15193), (580, 15346), (584, 15379), (585, 15382), (590, 15439), (591, 15448), (592, 15460), (595, 15481), (598, 15502), (615, 15694), (619, 15733), (624, 15802), (628, 15856), (649, 16009),

Gene: SchottB_31 Start: 24662, Stop: 29680, Start Num: 19
Candidate Starts for SchottB_31:
(Start: 19 @24662 has 69 MA's), (31, 24749), (37, 24782), (46, 24836), (52, 24860), (55, 24902), (57, 24920), (59, 24935), (69, 25007), (74, 25034), (82, 25109), (84, 25118), (92, 25175), (93, 25193), (94, 25199), (137, 25451), (145, 25511), (157, 25652), (160, 25685), (164, 25727), (172, 25799), (174, 25814), (175, 25817), (185, 25928), (187, 25964), (190, 26015), (193, 26057), (196, 26087), (202, 26138), (206, 26171), (208, 26204), (209, 26216), (219, 26297), (226, 26330), (227, 26333), (233, 26390), (239, 26426), (240, 26441), (242, 26462), (249, 26513), (271, 26648), (272, 26657), (284, 26750), (286, 26756), (287, 26762), (290, 26771), (295, 26783), (297, 26795), (300, 26807), (302, 26825), (308, 26882), (323, 26984), (324, 27002), (327, 27026), (332, 27074), (347, 27104), (359, 27152), (360, 27158), (376, 27281), (377, 27284), (379, 27290), (397, 27347), (398, 27359), (403, 27380), (405, 27386), (410, 27419), (417, 27482), (423, 27536), (441, 27710), (447, 27737), (448, 27743), (462, 27845), (469, 27911), (492, 28070), (502, 28151), (509, 28211), (511, 28256), (543, 28562), (546, 28571), (550, 28598), (562, 28667), (571, 28796), (579, 28895), (597, 29039), (602, 29111), (603, 29117), (604, 29123), (610, 29198), (614, 29228), (626, 29366), (635, 29426), (641, 29462), (644, 29507), (650, 29534), (658, 29573), (659, 29579), (661, 29585), (664, 29612), (668, 29648), (669, 29660),

Gene: Scioto_33 Start: 24850, Stop: 29775, Start Num: 19
Candidate Starts for Scioto_33:
(Start: 19 @24850 has 69 MA's), (37, 24970), (40, 24982), (46, 25024), (52, 25048), (58, 25114), (59, 25123), (67, 25168), (69, 25195), (82, 25297), (84, 25306), (88, 25324), (98, 25390), (102, 25405),

(106, 25414), (114, 25477), (116, 25483), (121, 25510), (125, 25540), (127, 25549), (135, 25597),
(137, 25612), (140, 25624), (149, 25711), (152, 25723), (160, 25846), (163, 25870), (164, 25888),
(172, 25960), (173, 25966), (175, 25978), (185, 26089), (187, 26125), (189, 26164), (190, 26176),
(193, 26218), (196, 26248), (201, 26290), (202, 26299), (203, 26302), (206, 26332), (208, 26365),
(219, 26458), (227, 26494), (233, 26551), (238, 26581), (242, 26623), (250, 26677), (251, 26683),
(255, 26710), (260, 26761), (268, 26797), (271, 26809), (272, 26818), (278, 26878), (280, 26890),
(284, 26911), (286, 26917), (298, 26959), (299, 26965), (301, 26980), (302, 26986), (306, 27031),
(310, 27067), (311, 27070), (323, 27145), (330, 27208), (342, 27265), (359, 27346), (365, 27397),
(387, 27454), (395, 27475), (396, 27478), (400, 27502), (420, 27640), (425, 27661), (449, 27868),
(452, 27886), (459, 27943), (469, 28033), (475, 28096), (488, 28177), (492, 28204), (501, 28276),
(502, 28285), (509, 28345), (519, 28456), (543, 28687), (546, 28696), (550, 28723), (557, 28765),
(573, 28984), (576, 29011), (581, 29083), (586, 29122), (607, 29329), (613, 29401), (620, 29467),
(636, 29602), (642, 29665), (643, 29668), (645, 29686), (648, 29701), (652, 29728), (656, 29740),

Gene: Sedona_33 Start: 26117, Stop: 30943, Start Num: 19
Candidate Starts for Sedona_33:
(Start: 19 @26117 has 69 MA's), (46, 26291), (52, 26315), (87, 26453), (99, 26498), (103, 26510),
(107, 26528), (111, 26540), (113, 26567), (117, 26585), (120, 26597), (137, 26696), (153, 26816),
(154, 26837), (157, 26897), (160, 26930), (164, 26972), (167, 27008), (172, 27044), (174, 27059),
(175, 27062), (185, 27173), (187, 27209), (190, 27260), (193, 27302), (196, 27332), (202, 27383),
(206, 27416), (208, 27449), (209, 27461), (219, 27542), (223, 27563), (226, 27575), (239, 27671),
(240, 27686), (242, 27707), (249, 27758), (251, 27767), (260, 27845), (271, 27893), (272, 27902),
(278, 27962), (287, 28007), (290, 28016), (298, 28043), (302, 28070), (304, 28091), (308, 28127),
(317, 28193), (323, 28229), (331, 28316), (332, 28319), (334, 28328), (345, 28346), (359, 28397),
(360, 28403), (377, 28529), (405, 28631), (410, 28664), (417, 28727), (423, 28781), (430, 28844),
(441, 28955), (447, 28982), (448, 28988), (462, 29090), (469, 29156), (472, 29183), (476, 29210),
(480, 29249), (484, 29273), (492, 29315), (501, 29387), (509, 29456), (511, 29501), (546, 29819),
(547, 29825), (549, 29843), (564, 29939), (579, 30143), (597, 30287), (602, 30362), (604, 30374),
(610, 30458), (650, 30797), (658, 30836), (659, 30842), (661, 30848), (664, 30875), (668, 30911),
(669, 30923),

Gene: Shinji_29 Start: 19375, Stop: 24897, Start Num: 1
Candidate Starts for Shinji_29:
(Start: 1 @19375 has 32 MA's), (3, 19462), (6, 19549), (10, 19582), (12, 19606), (Start: 20 @19729
has 9 MA's), (22, 19750), (23, 19756), (27, 19780), (33, 19810), (43, 19849), (60, 19933), (68, 19969),
(70, 19993), (78, 20032), (134, 20422), (154, 20590), (157, 20650), (164, 20722), (165, 20734), (168,
20770), (171, 20794), (181, 20893), (182, 20896), (185, 20926), (189, 21001), (190, 21013), (193,
21055), (196, 21085), (202, 21136), (216, 21277), (219, 21295), (221, 21307), (223, 21316), (238,
21418), (240, 21439), (242, 21460), (249, 21511), (250, 21514), (260, 21598), (266, 21628), (271,
21646), (278, 21715), (284, 21748), (286, 21754), (288, 21763), (291, 21769), (302, 21823), (309,
21895), (310, 21904), (312, 21925), (323, 21982), (326, 22018), (336, 22099), (337, 22102), (343,
22171), (360, 22339), (368, 22405), (369, 22408), (372, 22432), (375, 22459), (376, 22462), (377,
22465), (379, 22471), (399, 22540), (402, 22549), (409, 22594), (414, 22603), (425, 22681), (431,
22735), (435, 22789), (440, 22846), (449, 22888), (455, 22924), (462, 22987), (467, 23038), (481,
23149), (489, 23188), (500, 23269), (515, 23443), (516, 23446), (521, 23479), (543, 23686), (546,
23695), (547, 23701), (550, 23722), (576, 24016), (594, 24223), (603, 24349), (618, 24499), (626,
24610), (633, 24655), (634, 24664), (635, 24670), (641, 24706), (654, 24799), (657, 24811), (663,
24841), (665, 24874), (667, 24886),

Gene: Shivanishola_34 Start: 25088, Stop: 29905, Start Num: 19
Candidate Starts for Shivanishola_34:
(Start: 19 @25088 has 69 MA's), (46, 25262), (53, 25295), (87, 25424), (96, 25457), (99, 25469), (103,
25481), (111, 25511), (113, 25538), (117, 25556), (137, 25667), (153, 25787), (154, 25808), (157,

25868), (160, 25901), (164, 25943), (167, 25979), (172, 26015), (174, 26030), (175, 26033), (185, 26144), (187, 26180), (190, 26231), (193, 26273), (196, 26303), (202, 26354), (206, 26387), (208, 26420), (209, 26432), (219, 26513), (223, 26534), (226, 26546), (239, 26642), (240, 26657), (242, 26678), (249, 26729), (251, 26738), (260, 26816), (271, 26864), (272, 26873), (278, 26933), (287, 26978), (290, 26987), (298, 27014), (302, 27041), (304, 27062), (308, 27098), (317, 27164), (323, 27200), (331, 27287), (332, 27290), (334, 27299), (345, 27317), (359, 27368), (360, 27374), (377, 27500), (405, 27602), (410, 27635), (417, 27698), (423, 27752), (430, 27815), (441, 27926), (447, 27953), (448, 27959), (462, 28061), (464, 28073), (469, 28127), (472, 28154), (476, 28181), (480, 28220), (492, 28286), (501, 28358), (502, 28367), (509, 28427), (511, 28472), (546, 28787), (547, 28793), (549, 28811), (564, 28907), (579, 29111), (597, 29255), (602, 29324), (610, 29420), (650, 29759), (658, 29798), (659, 29804), (661, 29810), (664, 29837), (668, 29873), (669, 29885),

Gene: Sitar_33 Start: 26184, Stop: 30995, Start Num: 19
Candidate Starts for Sitar_33:
(Start: 19 @26184 has 69 MA's), (46, 26358), (52, 26382), (87, 26520), (97, 26559), (99, 26565), (103, 26577), (107, 26595), (111, 26607), (113, 26634), (117, 26652), (120, 26664), (137, 26763), (153, 26883), (154, 26904), (157, 26964), (160, 26997), (164, 27039), (167, 27075), (172, 27111), (174, 27126), (175, 27129), (185, 27240), (187, 27276), (190, 27327), (193, 27369), (196, 27399), (202, 27450), (206, 27483), (208, 27516), (209, 27528), (219, 27609), (223, 27630), (226, 27642), (239, 27738), (240, 27753), (242, 27774), (249, 27825), (251, 27834), (260, 27912), (271, 27960), (272, 27969), (278, 28029), (286, 28068), (287, 28074), (290, 28083), (298, 28110), (302, 28137), (304, 28158), (308, 28194), (317, 28260), (323, 28296), (331, 28383), (332, 28386), (345, 28413), (359, 28464), (360, 28470), (377, 28596), (405, 28698), (410, 28731), (417, 28794), (423, 28848), (430, 28911), (441, 29022), (447, 29049), (448, 29055), (462, 29157), (464, 29169), (469, 29223), (472, 29250), (476, 29277), (480, 29316), (484, 29340), (492, 29382), (501, 29454), (502, 29463), (509, 29523), (511, 29568), (546, 29883), (547, 29889), (549, 29907), (564, 30003), (571, 30108), (579, 30207), (597, 30351), (602, 30414), (604, 30426), (610, 30510), (650, 30849), (658, 30888), (659, 30894), (661, 30900), (664, 30927), (668, 30963), (669, 30975),

Gene: SmokingBunny_29 Start: 19390, Stop: 24912, Start Num: 1
Candidate Starts for SmokingBunny_29:
(Start: 1 @19390 has 32 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 9 MA's), (22, 19765), (23, 19771), (27, 19795), (33, 19825), (43, 19864), (60, 19948), (68, 19984), (70, 20008), (78, 20047), (134, 20437), (154, 20605), (157, 20665), (164, 20737), (165, 20749), (168, 20785), (171, 20809), (181, 20908), (182, 20911), (185, 20941), (189, 21016), (190, 21028), (193, 21070), (196, 21100), (202, 21151), (216, 21292), (219, 21310), (221, 21322), (223, 21331), (238, 21433), (240, 21454), (242, 21475), (249, 21526), (250, 21529), (260, 21613), (266, 21643), (271, 21661), (278, 21730), (284, 21763), (286, 21769), (288, 21778), (291, 21784), (302, 21838), (309, 21910), (310, 21919), (312, 21940), (323, 21997), (326, 22033), (336, 22114), (337, 22117), (343, 22186), (360, 22354), (368, 22420), (369, 22423), (372, 22447), (375, 22474), (376, 22477), (377, 22480), (379, 22486), (399, 22555), (402, 22564), (409, 22609), (414, 22618), (425, 22696), (431, 22750), (435, 22804), (440, 22861), (449, 22903), (455, 22939), (462, 23002), (467, 23053), (481, 23164), (489, 23203), (500, 23284), (515, 23458), (516, 23461), (521, 23494), (543, 23701), (546, 23710), (547, 23716), (550, 23737), (576, 24031), (594, 24238), (603, 24364), (618, 24514), (626, 24625), (633, 24670), (634, 24679), (635, 24685), (641, 24721), (654, 24814), (657, 24826), (663, 24856), (665, 24889), (667, 24901),

Gene: StorminNorm_32 Start: 23529, Stop: 28547, Start Num: 19
Candidate Starts for StorminNorm_32:
(Start: 19 @23529 has 69 MA's), (31, 23616), (37, 23649), (46, 23703), (52, 23727), (55, 23769), (57, 23787), (59, 23802), (69, 23874), (74, 23901), (82, 23976), (84, 23985), (92, 24042), (93, 24060), (94, 24066), (137, 24318), (145, 24378), (157, 24519), (160, 24552), (164, 24594), (172, 24666), (174, 24681), (175, 24684), (185, 24795), (187, 24831), (190, 24882), (193, 24924), (196, 24954), (202,

25005), (206, 25038), (208, 25071), (209, 25083), (219, 25164), (226, 25197), (227, 25200), (233, 25257), (239, 25293), (240, 25308), (242, 25329), (249, 25380), (271, 25515), (272, 25524), (284, 25617), (286, 25623), (287, 25629), (290, 25638), (297, 25662), (300, 25674), (302, 25692), (308, 25749), (323, 25851), (332, 25941), (347, 25971), (359, 26019), (360, 26025), (376, 26148), (377, 26151), (379, 26157), (397, 26214), (398, 26226), (403, 26247), (405, 26253), (410, 26286), (417, 26349), (423, 26403), (430, 26466), (441, 26577), (447, 26604), (448, 26610), (462, 26712), (469, 26778), (488, 26910), (492, 26937), (502, 27018), (509, 27078), (511, 27123), (543, 27429), (546, 27438), (550, 27465), (562, 27534), (571, 27663), (579, 27762), (597, 27906), (602, 27978), (603, 27984), (604, 27990), (610, 28065), (614, 28095), (626, 28233), (635, 28293), (641, 28329), (644, 28374), (650, 28401), (658, 28440), (659, 28446), (661, 28452), (664, 28479), (668, 28515), (669, 28527),

Gene: Stultus_31 Start: 24099, Stop: 28922, Start Num: 19
Candidate Starts for Stultus_31:
(Start: 19 @24099 has 69 MA's), (46, 24273), (52, 24297), (87, 24435), (97, 24474), (99, 24480), (103, 24492), (107, 24510), (111, 24522), (113, 24549), (117, 24567), (120, 24579), (137, 24678), (154, 24819), (157, 24879), (160, 24912), (164, 24954), (167, 24990), (172, 25026), (174, 25041), (175, 25044), (185, 25155), (187, 25191), (190, 25242), (193, 25284), (196, 25314), (202, 25365), (206, 25398), (208, 25431), (209, 25443), (219, 25524), (223, 25545), (226, 25557), (239, 25653), (240, 25668), (242, 25689), (249, 25740), (251, 25749), (260, 25827), (271, 25875), (272, 25884), (278, 25944), (287, 25989), (290, 25998), (298, 26025), (302, 26052), (304, 26073), (308, 26109), (317, 26175), (323, 26211), (331, 26298), (332, 26301), (334, 26310), (345, 26328), (359, 26379), (360, 26385), (377, 26511), (398, 26586), (405, 26613), (410, 26646), (417, 26709), (423, 26763), (430, 26826), (441, 26937), (447, 26964), (448, 26970), (462, 27072), (464, 27084), (469, 27138), (472, 27165), (476, 27192), (480, 27231), (484, 27255), (492, 27297), (501, 27369), (502, 27378), (509, 27438), (511, 27483), (546, 27798), (547, 27804), (549, 27822), (564, 27918), (571, 28023), (579, 28122), (597, 28266), (602, 28341), (604, 28353), (610, 28437), (650, 28776), (658, 28815), (659, 28821), (661, 28827), (664, 28854), (668, 28890), (669, 28902),

Gene: Tangent_33 Start: 24533, Stop: 29359, Start Num: 19
Candidate Starts for Tangent_33:
(Start: 19 @24533 has 69 MA's), (46, 24707), (52, 24731), (87, 24869), (96, 24902), (99, 24914), (103, 24926), (107, 24944), (111, 24956), (117, 25001), (137, 25112), (153, 25232), (154, 25253), (157, 25313), (160, 25346), (164, 25388), (167, 25424), (172, 25460), (174, 25475), (175, 25478), (185, 25589), (187, 25625), (190, 25676), (193, 25718), (196, 25748), (202, 25799), (206, 25832), (208, 25865), (209, 25877), (219, 25958), (226, 25991), (239, 26087), (240, 26102), (242, 26123), (249, 26174), (251, 26183), (260, 26261), (271, 26309), (272, 26318), (278, 26378), (286, 26417), (287, 26423), (290, 26432), (298, 26459), (302, 26486), (304, 26507), (308, 26543), (317, 26609), (320, 26630), (323, 26645), (331, 26732), (332, 26735), (359, 26813), (366, 26873), (377, 26945), (405, 27047), (410, 27080), (417, 27143), (423, 27197), (430, 27260), (441, 27371), (447, 27398), (448, 27404), (462, 27506), (464, 27518), (469, 27572), (472, 27599), (476, 27626), (480, 27665), (484, 27689), (488, 27704), (492, 27731), (501, 27803), (502, 27812), (509, 27872), (511, 27917), (537, 28106), (546, 28235), (547, 28241), (549, 28259), (564, 28355), (571, 28460), (579, 28559), (597, 28703), (602, 28778), (604, 28790), (610, 28874), (650, 29213), (658, 29252), (659, 29258), (661, 29264), (664, 29291), (668, 29327), (669, 29339),

Gene: Tangerine_32 Start: 23535, Stop: 28550, Start Num: 19
Candidate Starts for Tangerine_32:
(Start: 19 @23535 has 69 MA's), (31, 23622), (37, 23655), (46, 23709), (52, 23733), (55, 23775), (57, 23793), (59, 23808), (69, 23880), (74, 23907), (82, 23982), (84, 23991), (92, 24048), (93, 24066), (94, 24072), (97, 24090), (104, 24117), (137, 24324), (140, 24336), (145, 24384), (157, 24525), (160, 24558), (164, 24600), (172, 24672), (174, 24687), (175, 24690), (185, 24801), (187, 24837), (190, 24888), (193, 24930), (196, 24960), (198, 24990), (206, 25044), (208, 25077), (219, 25170), (226,

25203), (227, 25206), (233, 25263), (239, 25299), (240, 25314), (242, 25335), (249, 25386), (271, 25521), (272, 25530), (284, 25623), (286, 25629), (287, 25635), (290, 25644), (297, 25668), (300, 25680), (302, 25698), (308, 25755), (323, 25857), (332, 25947), (347, 25977), (359, 26025), (360, 26031), (376, 26154), (377, 26157), (397, 26220), (398, 26232), (403, 26253), (405, 26259), (410, 26292), (417, 26355), (423, 26409), (441, 26583), (447, 26610), (448, 26616), (462, 26718), (469, 26784), (488, 26916), (492, 26943), (502, 27024), (509, 27084), (511, 27129), (543, 27435), (546, 27444), (550, 27471), (562, 27540), (571, 27669), (579, 27768), (597, 27912), (602, 27981), (603, 27987), (604, 27993), (610, 28068), (614, 28098), (626, 28236), (635, 28296), (641, 28332), (644, 28377), (650, 28404), (658, 28443), (659, 28449), (661, 28455), (664, 28482), (668, 28518), (669, 28530),

Gene: Tardus_34 Start: 24199, Stop: 29124, Start Num: 19
Candidate Starts for Tardus_34:
(Start: 19 @24199 has 69 MA's), (37, 24319), (40, 24331), (46, 24373), (52, 24397), (53, 24406), (58, 24463), (59, 24472), (69, 24544), (76, 24577), (82, 24646), (84, 24655), (88, 24673), (102, 24754), (106, 24763), (114, 24826), (116, 24832), (121, 24859), (125, 24889), (127, 24898), (137, 24961), (140, 24973), (142, 25006), (149, 25060), (152, 25072), (156, 25114), (160, 25195), (163, 25219), (164, 25237), (165, 25249), (172, 25309), (175, 25327), (185, 25438), (187, 25474), (189, 25513), (190, 25525), (193, 25567), (196, 25597), (206, 25681), (208, 25714), (219, 25807), (223, 25828), (227, 25843), (238, 25930), (242, 25972), (250, 26026), (255, 26059), (271, 26158), (272, 26167), (278, 26227), (280, 26239), (286, 26266), (298, 26308), (299, 26314), (301, 26329), (302, 26335), (310, 26416), (311, 26419), (313, 26440), (323, 26494), (330, 26557), (342, 26614), (360, 26701), (368, 26767), (395, 26824), (396, 26827), (400, 26851), (415, 26941), (420, 26989), (449, 27217), (452, 27235), (459, 27292), (469, 27382), (475, 27445), (488, 27526), (492, 27553), (501, 27625), (502, 27634), (509, 27694), (519, 27805), (543, 28033), (546, 28042), (550, 28069), (557, 28111), (563, 28171), (573, 28333), (576, 28360), (581, 28432), (586, 28471), (607, 28678), (613, 28750), (620, 28816), (636, 28951), (642, 29014), (643, 29017), (645, 29035), (648, 29050), (652, 29077), (656, 29089),

Gene: TaronosaurasRx_17 Start: 10940, Stop: 16063, Start Num: 4
Candidate Starts for TaronosaurasRx_17:
(Start: 4 @10940 has 13 MA's), (5, 10946), (25, 11219), (26, 11228), (29, 11267), (39, 11324), (49, 11387), (59, 11480), (64, 11498), (81, 11651), (90, 11693), (101, 11780), (132, 11972), (133, 11975), (139, 12011), (143, 12059), (157, 12212), (160, 12245), (161, 12254), (162, 12263), (165, 12296), (166, 12308), (168, 12332), (175, 12377), (176, 12386), (178, 12431), (182, 12458), (184, 12470), (185, 12488), (196, 12647), (197, 12671), (199, 12680), (200, 12683), (216, 12824), (217, 12827), (218, 12830), (219, 12842), (220, 12845), (229, 12899), (234, 12938), (248, 13034), (250, 13055), (252, 13070), (253, 13082), (263, 13154), (297, 13316), (314, 13373), (321, 13385), (322, 13388), (327, 13421), (349, 13514), (350, 13520), (353, 13526), (357, 13547), (358, 13550), (359, 13553), (362, 13574), (365, 13604), (372, 13652), (373, 13658), (374, 13667), (379, 13691), (387, 13706), (388, 13709), (390, 13715), (398, 13760), (402, 13769), (416, 13868), (419, 13910), (422, 13943), (427, 13988), (432, 14012), (435, 14057), (437, 14075), (458, 14213), (461, 14234), (462, 14252), (463, 14255), (464, 14264), (495, 14495), (497, 14513), (499, 14537), (514, 14681), (518, 14705), (526, 14756), (540, 14900), (541, 14918), (545, 14957), (551, 14996), (552, 15002), (554, 15011), (560, 15053), (565, 15131), (567, 15170), (578, 15305), (584, 15398), (585, 15401), (590, 15458), (591, 15467), (592, 15479), (595, 15500), (615, 15713), (619, 15752), (624, 15821), (628, 15875), (649, 16025),

Gene: Thing3_32 Start: 25026, Stop: 29843, Start Num: 19
Candidate Starts for Thing3_32:
(Start: 19 @25026 has 69 MA's), (46, 25200), (52, 25224), (87, 25362), (99, 25407), (103, 25419), (107, 25437), (111, 25449), (113, 25476), (117, 25494), (120, 25506), (137, 25605), (153, 25725), (154, 25746), (157, 25806), (160, 25839), (164, 25881), (172, 25953), (174, 25968), (175, 25971),

(185, 26082), (187, 26118), (190, 26169), (193, 26211), (196, 26241), (202, 26292), (206, 26325), (208, 26358), (209, 26370), (219, 26451), (223, 26472), (226, 26484), (239, 26580), (240, 26595), (242, 26616), (249, 26667), (251, 26676), (260, 26754), (271, 26802), (272, 26811), (278, 26871), (287, 26916), (290, 26925), (298, 26952), (302, 26979), (304, 27000), (308, 27036), (317, 27102), (323, 27138), (331, 27225), (332, 27228), (334, 27237), (345, 27255), (359, 27306), (360, 27312), (377, 27438), (398, 27513), (405, 27540), (410, 27573), (417, 27636), (423, 27690), (430, 27753), (441, 27864), (447, 27891), (448, 27897), (462, 27999), (464, 28011), (469, 28065), (472, 28092), (476, 28119), (480, 28158), (484, 28182), (492, 28224), (501, 28296), (502, 28305), (509, 28365), (511, 28410), (546, 28728), (547, 28734), (549, 28752), (564, 28848), (571, 28953), (579, 29052), (597, 29196), (602, 29271), (604, 29283), (610, 29358), (629, 29553), (650, 29697), (658, 29736), (659, 29742), (661, 29748), (664, 29775), (668, 29811), (669, 29823),

Gene: Tiamoceli_31 Start: 22285, Stop: 27402, Start Num: 19
Candidate Starts for Tiamoceli_31:
(Start: 19 @22285 has 69 MA's), (37, 22405), (46, 22459), (53, 22492), (58, 22549), (59, 22558), (60, 22561), (69, 22630), (72, 22642), (74, 22657), (79, 22693), (82, 22732), (83, 22738), (85, 22744), (91, 22777), (96, 22819), (98, 22828), (100, 22837), (102, 22843), (116, 22921), (119, 22939), (125, 22978), (135, 23035), (137, 23050), (151, 23143), (164, 23314), (172, 23386), (175, 23404), (181, 23482), (185, 23515), (187, 23551), (189, 23590), (190, 23602), (196, 23674), (202, 23725), (204, 23746), (206, 23758), (211, 23809), (214, 23839), (223, 23905), (238, 24007), (242, 24049), (250, 24103), (254, 24133), (255, 24136), (260, 24187), (265, 24214), (271, 24235), (277, 24301), (284, 24337), (286, 24343), (297, 24382), (300, 24394), (301, 24406), (302, 24412), (304, 24433), (313, 24517), (316, 24532), (320, 24556), (337, 24691), (338, 24703), (345, 24766), (346, 24769), (355, 24874), (357, 24892), (363, 24922), (369, 24973), (377, 25030), (383, 25105), (386, 25114), (389, 25123), (391, 25129), (395, 25180), (402, 25213), (404, 25225), (407, 25246), (408, 25258), (413, 25291), (415, 25312), (426, 25444), (434, 25498), (460, 25705), (472, 25819), (474, 25831), (491, 25957), (494, 25975), (503, 26053), (524, 26242), (527, 26272), (546, 26443), (550, 26470), (574, 26677), (575, 26680), (577, 26698), (601, 26947), (602, 26965), (605, 26977), (620, 27094), (639, 27250), (640, 27253), (643, 27295), (645, 27313), (648, 27328), (656, 27367),

Gene: TillyBobJoe_29 Start: 19189, Stop: 24723, Start Num: 1
Candidate Starts for TillyBobJoe_29:
(Start: 1 @19189 has 32 MA's), (3, 19276), (6, 19363), (10, 19396), (12, 19420), (Start: 20 @19543 has 9 MA's), (22, 19564), (23, 19570), (27, 19594), (30, 19603), (33, 19624), (43, 19663), (60, 19747), (68, 19783), (70, 19807), (78, 19846), (134, 20236), (154, 20404), (157, 20464), (164, 20536), (165, 20548), (168, 20584), (171, 20608), (181, 20707), (182, 20710), (185, 20740), (189, 20815), (190, 20827), (193, 20869), (196, 20899), (202, 20950), (216, 21091), (219, 21109), (221, 21121), (223, 21130), (238, 21232), (240, 21253), (242, 21274), (249, 21325), (250, 21328), (251, 21334), (260, 21412), (266, 21442), (271, 21460), (278, 21529), (284, 21562), (286, 21568), (288, 21577), (291, 21583), (302, 21637), (309, 21709), (310, 21718), (312, 21739), (323, 21796), (326, 21832), (336, 21913), (337, 21916), (343, 21985), (352, 22057), (360, 22153), (368, 22219), (369, 22222), (372, 22246), (375, 22273), (376, 22276), (377, 22279), (379, 22285), (399, 22354), (402, 22363), (409, 22408), (414, 22417), (425, 22495), (436, 22624), (438, 22639), (443, 22681), (449, 22723), (452, 22741), (455, 22759), (462, 22822), (467, 22873), (481, 22984), (489, 23023), (500, 23104), (515, 23278), (516, 23281), (521, 23314), (523, 23329), (543, 23521), (546, 23530), (547, 23536), (563, 23650), (570, 23770), (586, 23950), (603, 24175), (618, 24325), (633, 24481), (634, 24490), (641, 24532), (656, 24631), (657, 24637), (663, 24667), (665, 24700), (667, 24712),

Gene: Togo_29 Start: 19390, Stop: 24912, Start Num: 1
Candidate Starts for Togo_29:
(Start: 1 @19390 has 32 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 9 MA's), (22, 19765), (23, 19771), (27, 19795), (33, 19825), (43, 19864), (60, 19948), (68, 19984), (70, 20008), (78, 20047), (134, 20437), (154, 20605), (157, 20665), (164, 20737), (165, 20749), (168,

20785), (171, 20809), (181, 20908), (182, 20911), (185, 20941), (189, 21016), (190, 21028), (193, 21070), (196, 21100), (202, 21151), (216, 21292), (219, 21310), (221, 21322), (223, 21331), (238, 21433), (240, 21454), (242, 21475), (249, 21526), (250, 21529), (260, 21613), (266, 21643), (271, 21661), (278, 21730), (284, 21763), (286, 21769), (288, 21778), (291, 21784), (302, 21838), (309, 21910), (310, 21919), (312, 21940), (323, 21997), (326, 22033), (336, 22114), (337, 22117), (343, 22186), (360, 22354), (368, 22420), (369, 22423), (372, 22447), (375, 22474), (376, 22477), (377, 22480), (379, 22486), (399, 22555), (402, 22564), (409, 22609), (414, 22618), (425, 22696), (431, 22750), (435, 22804), (440, 22861), (449, 22903), (455, 22939), (462, 23002), (467, 23053), (481, 23164), (489, 23203), (500, 23284), (515, 23458), (516, 23461), (521, 23494), (543, 23701), (546, 23710), (547, 23716), (550, 23737), (576, 24031), (594, 24238), (603, 24364), (618, 24514), (626, 24625), (633, 24670), (634, 24679), (635, 24685), (641, 24721), (654, 24814), (657, 24826), (663, 24856), (665, 24889), (667, 24901),

Gene: Twister6_31 Start: 19817, Stop: 25348, Start Num: 1
Candidate Starts for Twister6_31:
(Start: 1 @19817 has 32 MA's), (3, 19904), (6, 19991), (10, 20024), (12, 20048), (Start: 20 @20171 has 9 MA's), (22, 20192), (23, 20198), (27, 20222), (33, 20252), (43, 20291), (60, 20375), (68, 20411), (70, 20435), (78, 20474), (134, 20864), (154, 21032), (157, 21092), (164, 21164), (165, 21176), (168, 21212), (171, 21236), (181, 21335), (182, 21338), (185, 21368), (189, 21443), (190, 21455), (193, 21497), (196, 21527), (202, 21578), (216, 21719), (219, 21737), (221, 21749), (223, 21758), (238, 21860), (240, 21881), (242, 21902), (249, 21953), (250, 21956), (251, 21962), (260, 22040), (266, 22070), (271, 22088), (278, 22157), (284, 22190), (286, 22196), (288, 22205), (291, 22211), (302, 22265), (306, 22310), (309, 22337), (310, 22346), (312, 22367), (323, 22424), (326, 22460), (336, 22541), (337, 22544), (343, 22613), (352, 22685), (360, 22781), (368, 22847), (369, 22850), (372, 22874), (375, 22901), (376, 22904), (377, 22907), (379, 22913), (399, 22982), (402, 22991), (409, 23036), (414, 23045), (425, 23123), (431, 23177), (435, 23231), (440, 23288), (449, 23330), (455, 23366), (462, 23429), (467, 23480), (481, 23591), (489, 23630), (500, 23711), (515, 23885), (516, 23888), (521, 23921), (543, 24128), (546, 24137), (547, 24143), (576, 24455), (594, 24662), (603, 24800), (618, 24950), (626, 25061), (633, 25106), (634, 25115), (635, 25121), (641, 25157), (654, 25250), (657, 25262), (663, 25292), (665, 25325), (667, 25337),

Gene: Twonlo_28 Start: 20903, Stop: 26020, Start Num: 19
Candidate Starts for Twonlo_28:
(Start: 19 @20903 has 69 MA's), (37, 21023), (46, 21077), (53, 21110), (58, 21167), (59, 21176), (60, 21179), (69, 21248), (72, 21260), (74, 21275), (79, 21311), (82, 21350), (83, 21356), (85, 21362), (91, 21395), (96, 21437), (98, 21446), (100, 21455), (102, 21461), (116, 21539), (119, 21557), (125, 21596), (135, 21653), (137, 21668), (151, 21761), (164, 21932), (172, 22004), (175, 22022), (181, 22100), (185, 22133), (187, 22169), (189, 22208), (190, 22220), (196, 22292), (202, 22343), (204, 22364), (206, 22376), (211, 22427), (214, 22457), (223, 22523), (238, 22625), (242, 22667), (250, 22721), (254, 22751), (255, 22754), (260, 22805), (265, 22832), (271, 22853), (277, 22919), (284, 22955), (286, 22961), (297, 23000), (300, 23012), (301, 23024), (302, 23030), (304, 23051), (313, 23135), (316, 23150), (320, 23174), (337, 23309), (338, 23321), (345, 23384), (346, 23387), (355, 23492), (357, 23510), (363, 23540), (369, 23591), (377, 23648), (383, 23723), (386, 23732), (389, 23741), (391, 23747), (395, 23798), (402, 23831), (404, 23843), (407, 23864), (408, 23876), (413, 23909), (415, 23930), (426, 24062), (434, 24116), (460, 24323), (472, 24437), (474, 24449), (491, 24575), (494, 24593), (503, 24671), (524, 24860), (527, 24890), (546, 25061), (550, 25088), (574, 25295), (575, 25298), (577, 25316), (601, 25565), (602, 25583), (605, 25595), (620, 25712), (639, 25868), (640, 25871), (643, 25913), (645, 25931), (648, 25946), (656, 25985),

Gene: Tycho_32 Start: 23624, Stop: 28639, Start Num: 19
Candidate Starts for Tycho_32:
(Start: 19 @23624 has 69 MA's), (31, 23711), (37, 23744), (46, 23798), (52, 23822), (55, 23864), (57, 23882), (59, 23897), (69, 23969), (74, 23996), (82, 24071), (84, 24080), (92, 24137), (93, 24155), (94,

24161), (137, 24413), (145, 24473), (157, 24614), (160, 24647), (164, 24689), (172, 24761), (174, 24776), (175, 24779), (185, 24890), (187, 24926), (190, 24977), (193, 25019), (196, 25049), (202, 25100), (206, 25133), (208, 25166), (209, 25178), (219, 25259), (226, 25292), (227, 25295), (233, 25352), (239, 25388), (240, 25403), (242, 25424), (249, 25475), (271, 25610), (272, 25619), (284, 25712), (286, 25718), (287, 25724), (290, 25733), (295, 25745), (297, 25757), (300, 25769), (302, 25787), (308, 25844), (323, 25946), (324, 25964), (327, 25988), (332, 26036), (347, 26066), (359, 26114), (360, 26120), (376, 26243), (377, 26246), (379, 26252), (397, 26309), (398, 26321), (403, 26342), (405, 26348), (410, 26381), (417, 26444), (423, 26498), (430, 26561), (441, 26672), (447, 26699), (448, 26705), (462, 26807), (469, 26873), (488, 27005), (492, 27032), (502, 27113), (509, 27173), (511, 27218), (543, 27524), (546, 27533), (550, 27560), (562, 27629), (571, 27758), (579, 27857), (597, 28001), (602, 28070), (603, 28076), (604, 28082), (610, 28157), (614, 28187), (626, 28325), (635, 28385), (641, 28421), (644, 28466), (650, 28493), (658, 28532), (659, 28538), (661, 28544), (664, 28571), (668, 28607), (669, 28619),

Gene: Valary_32 Start: 20326, Stop: 25857, Start Num: 1
Candidate Starts for Valary_32:
(Start: 1 @20326 has 32 MA's), (3, 20413), (6, 20500), (10, 20533), (Start: 20 @20680 has 9 MA's), (22, 20701), (23, 20707), (27, 20731), (33, 20761), (43, 20800), (60, 20884), (68, 20920), (70, 20944), (78, 20983), (134, 21373), (154, 21541), (157, 21601), (164, 21673), (165, 21685), (168, 21721), (171, 21745), (181, 21844), (182, 21847), (185, 21877), (189, 21952), (190, 21964), (193, 22006), (196, 22036), (202, 22087), (216, 22228), (219, 22246), (221, 22258), (223, 22267), (238, 22369), (240, 22390), (242, 22411), (249, 22462), (250, 22465), (260, 22549), (266, 22579), (271, 22597), (278, 22666), (284, 22699), (286, 22705), (288, 22714), (291, 22720), (302, 22774), (309, 22846), (310, 22855), (312, 22876), (323, 22933), (326, 22969), (336, 23050), (337, 23053), (343, 23122), (360, 23290), (368, 23356), (369, 23359), (372, 23383), (375, 23410), (376, 23413), (377, 23416), (379, 23422), (399, 23491), (402, 23500), (409, 23545), (414, 23554), (425, 23632), (431, 23686), (435, 23740), (440, 23797), (449, 23839), (455, 23875), (462, 23938), (467, 23989), (477, 24073), (481, 24100), (489, 24139), (492, 24160), (500, 24220), (515, 24394), (516, 24397), (521, 24430), (543, 24637), (546, 24646), (547, 24652), (576, 24964), (594, 25171), (603, 25309), (618, 25459), (626, 25570), (633, 25615), (634, 25624), (635, 25630), (641, 25666), (654, 25759), (657, 25771), (663, 25801), (665, 25834), (667, 25846),

Gene: VanDeWege_32 Start: 20198, Stop: 25696, Start Num: 1
Candidate Starts for VanDeWege_32:
(Start: 1 @20198 has 32 MA's), (3, 20285), (6, 20372), (10, 20405), (12, 20429), (Start: 20 @20552 has 9 MA's), (22, 20573), (23, 20579), (27, 20603), (33, 20633), (43, 20672), (60, 20756), (68, 20792), (70, 20816), (78, 20855), (134, 21245), (154, 21413), (157, 21473), (164, 21545), (165, 21557), (168, 21593), (171, 21617), (181, 21716), (182, 21719), (185, 21749), (189, 21824), (190, 21836), (193, 21878), (196, 21908), (202, 21959), (216, 22100), (219, 22118), (221, 22130), (223, 22139), (238, 22241), (240, 22262), (242, 22283), (249, 22334), (250, 22337), (251, 22343), (260, 22421), (266, 22451), (271, 22469), (278, 22538), (284, 22571), (286, 22577), (288, 22586), (291, 22592), (302, 22646), (306, 22691), (309, 22718), (310, 22727), (312, 22748), (323, 22805), (326, 22841), (336, 22922), (337, 22925), (343, 22994), (352, 23066), (360, 23162), (368, 23228), (369, 23231), (372, 23255), (375, 23282), (376, 23285), (377, 23288), (379, 23294), (399, 23363), (402, 23372), (409, 23417), (414, 23426), (425, 23504), (431, 23558), (435, 23612), (440, 23669), (449, 23711), (455, 23747), (462, 23810), (467, 23861), (470, 23891), (481, 23972), (489, 24011), (500, 24092), (504, 24134), (515, 24266), (516, 24269), (521, 24302), (546, 24518), (547, 24524), (563, 24638), (568, 24749), (581, 24911), (589, 24992), (593, 25019), (618, 25298), (626, 25409), (633, 25454), (634, 25463), (635, 25469), (641, 25505), (654, 25598), (657, 25610), (663, 25640), (665, 25673), (667, 25685),

Gene: Verity_32 Start: 25053, Stop: 29963, Start Num: 19
Candidate Starts for Verity_32:

(Start: 19 @25053 has 69 MA's), (37, 25173), (40, 25185), (43, 25206), (46, 25227), (52, 25251), (58, 25317), (59, 25326), (60, 25329), (76, 25431), (82, 25500), (84, 25509), (106, 25617), (110, 25638), (114, 25680), (116, 25686), (125, 25743), (127, 25752), (137, 25815), (149, 25914), (152, 25926), (156, 25968), (160, 26049), (163, 26073), (165, 26103), (170, 26160), (172, 26163), (173, 26169), (175, 26181), (180, 26253), (185, 26292), (187, 26328), (189, 26367), (190, 26379), (193, 26421), (196, 26451), (206, 26535), (208, 26568), (219, 26661), (223, 26682), (227, 26697), (238, 26784), (242, 26826), (250, 26880), (251, 26886), (255, 26913), (268, 27000), (271, 27012), (272, 27021), (278, 27081), (280, 27093), (286, 27120), (298, 27162), (299, 27168), (301, 27183), (302, 27189), (306, 27234), (309, 27261), (310, 27270), (311, 27273), (330, 27411), (340, 27465), (342, 27468), (360, 27555), (387, 27657), (399, 27702), (400, 27705), (415, 27795), (449, 28071), (451, 28086), (452, 28089), (466, 28212), (469, 28236), (475, 28299), (486, 28356), (502, 28473), (505, 28515), (509, 28533), (519, 28644), (533, 28746), (544, 28878), (546, 28884), (547, 28890), (550, 28911), (557, 28953), (573, 29172), (576, 29199), (581, 29271), (586, 29310), (607, 29517), (612, 29583), (613, 29589), (620, 29655), (629, 29751), (636, 29790), (642, 29853), (643, 29856), (645, 29874), (648, 29889), (652, 29916), (656, 29928),

Gene: ViaConlectus_33 Start: 23474, Stop: 28399, Start Num: 19
Candidate Starts for ViaConlectus_33:
(Start: 19 @23474 has 69 MA's), (37, 23594), (40, 23606), (46, 23648), (52, 23672), (58, 23738), (59, 23747), (69, 23819), (76, 23852), (82, 23921), (84, 23930), (88, 23948), (98, 24014), (102, 24029), (106, 24038), (114, 24101), (116, 24107), (121, 24134), (125, 24164), (127, 24173), (137, 24236), (140, 24248), (149, 24335), (152, 24347), (160, 24470), (163, 24494), (164, 24512), (165, 24524), (172, 24584), (173, 24590), (175, 24602), (185, 24713), (187, 24749), (189, 24788), (190, 24800), (193, 24842), (196, 24872), (201, 24914), (202, 24923), (203, 24926), (206, 24956), (208, 24989), (219, 25082), (223, 25103), (227, 25118), (238, 25205), (240, 25226), (242, 25247), (250, 25301), (255, 25334), (260, 25385), (271, 25433), (272, 25442), (278, 25502), (280, 25514), (284, 25535), (286, 25541), (298, 25583), (299, 25589), (301, 25604), (302, 25610), (310, 25691), (311, 25694), (313, 25715), (323, 25769), (330, 25832), (342, 25889), (360, 25976), (368, 26042), (395, 26099), (396, 26102), (400, 26126), (415, 26216), (420, 26264), (449, 26492), (452, 26510), (459, 26567), (469, 26657), (475, 26720), (488, 26801), (492, 26828), (501, 26900), (502, 26909), (509, 26969), (519, 27080), (543, 27311), (546, 27320), (550, 27347), (557, 27389), (563, 27446), (573, 27608), (576, 27635), (581, 27707), (586, 27746), (607, 27953), (613, 28025), (620, 28091), (636, 28226), (642, 28289), (643, 28292), (645, 28310), (648, 28325), (652, 28352), (656, 28364),

Gene: Vivi2_35 Start: 25706, Stop: 30517, Start Num: 19
Candidate Starts for Vivi2_35:
(Start: 19 @25706 has 69 MA's), (46, 25880), (52, 25904), (87, 26042), (96, 26075), (99, 26087), (103, 26099), (107, 26117), (111, 26129), (117, 26174), (120, 26186), (137, 26285), (153, 26405), (154, 26426), (157, 26486), (160, 26519), (164, 26561), (167, 26597), (172, 26633), (174, 26648), (175, 26651), (185, 26762), (187, 26798), (190, 26849), (193, 26891), (196, 26921), (202, 26972), (206, 27005), (208, 27038), (209, 27050), (219, 27131), (223, 27152), (226, 27164), (239, 27260), (240, 27275), (242, 27296), (249, 27347), (251, 27356), (271, 27482), (272, 27491), (278, 27551), (287, 27596), (290, 27605), (298, 27632), (302, 27659), (304, 27680), (308, 27716), (317, 27782), (323, 27818), (331, 27905), (332, 27908), (359, 27986), (360, 27992), (377, 28118), (405, 28220), (410, 28253), (417, 28316), (423, 28370), (430, 28433), (441, 28544), (447, 28571), (448, 28577), (462, 28679), (469, 28745), (470, 28760), (472, 28772), (476, 28799), (480, 28838), (492, 28904), (502, 28985), (509, 29045), (511, 29090), (546, 29405), (547, 29411), (549, 29429), (564, 29522), (579, 29726), (597, 29870), (602, 29945), (610, 30032), (650, 30371), (658, 30410), (659, 30416), (661, 30422), (664, 30449), (668, 30485), (669, 30497),

Gene: Wizard_29 Start: 19524, Stop: 25055, Start Num: 1
Candidate Starts for Wizard_29:

(Start: 1 @19524 has 32 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 9 MA's), (22, 19899), (23, 19905), (27, 19929), (33, 19959), (43, 19998), (60, 20082), (68, 20118), (70, 20142), (78, 20181), (134, 20571), (154, 20739), (157, 20799), (164, 20871), (165, 20883), (168, 20919), (171, 20943), (181, 21042), (182, 21045), (185, 21075), (189, 21150), (190, 21162), (193, 21204), (196, 21234), (202, 21285), (216, 21426), (219, 21444), (221, 21456), (223, 21465), (238, 21567), (240, 21588), (242, 21609), (249, 21660), (250, 21663), (251, 21669), (260, 21747), (266, 21777), (271, 21795), (278, 21864), (284, 21897), (286, 21903), (288, 21912), (291, 21918), (302, 21972), (306, 22017), (309, 22044), (310, 22053), (312, 22074), (323, 22131), (326, 22167), (336, 22248), (337, 22251), (343, 22320), (352, 22392), (360, 22488), (368, 22554), (369, 22557), (372, 22581), (375, 22608), (376, 22611), (377, 22614), (379, 22620), (399, 22689), (402, 22698), (409, 22743), (414, 22752), (425, 22830), (431, 22884), (435, 22938), (440, 22995), (449, 23037), (455, 23073), (462, 23136), (467, 23187), (481, 23298), (489, 23337), (500, 23418), (515, 23592), (516, 23595), (521, 23628), (543, 23835), (546, 23844), (547, 23850), (576, 24162), (594, 24369), (603, 24507), (618, 24657), (626, 24768), (633, 24813), (634, 24822), (635, 24828), (641, 24864), (654, 24957), (657, 24969), (663, 24999), (665, 25032), (667, 25044),

Gene: YorkOnyx_33 Start: 23880, Stop: 28898, Start Num: 19
Candidate Starts for YorkOnyx_33:
(Start: 19 @23880 has 69 MA's), (30, 23955), (37, 24000), (46, 24054), (52, 24078), (55, 24120), (57, 24138), (59, 24153), (69, 24225), (74, 24252), (82, 24327), (84, 24336), (92, 24393), (93, 24411), (94, 24417), (97, 24435), (104, 24462), (126, 24600), (130, 24618), (137, 24669), (140, 24681), (145, 24729), (157, 24870), (160, 24903), (164, 24945), (172, 25017), (174, 25032), (175, 25035), (185, 25146), (187, 25182), (190, 25233), (193, 25275), (196, 25305), (206, 25389), (208, 25422), (219, 25515), (226, 25548), (227, 25551), (233, 25608), (239, 25644), (240, 25659), (242, 25680), (249, 25731), (251, 25740), (260, 25818), (271, 25866), (272, 25875), (284, 25968), (286, 25974), (287, 25980), (290, 25989), (297, 26013), (300, 26025), (302, 26043), (308, 26100), (317, 26166), (323, 26202), (327, 26244), (332, 26292), (347, 26322), (359, 26370), (360, 26376), (376, 26499), (377, 26502), (397, 26565), (398, 26577), (403, 26598), (405, 26604), (410, 26637), (417, 26700), (423, 26754), (430, 26817), (441, 26928), (447, 26955), (448, 26961), (462, 27063), (469, 27129), (488, 27261), (492, 27288), (502, 27369), (509, 27429), (511, 27474), (543, 27780), (546, 27789), (550, 27816), (571, 28014), (579, 28113), (597, 28257), (602, 28329), (603, 28335), (604, 28341), (610, 28416), (614, 28446), (626, 28584), (635, 28644), (641, 28680), (644, 28725), (650, 28752), (658, 28791), (659, 28797), (661, 28803), (664, 28830), (668, 28866), (669, 28878),

Gene: YungMoney_31 Start: 20893, Stop: 26415, Start Num: 1
Candidate Starts for YungMoney_31:
(Start: 1 @20893 has 32 MA's), (6, 21067), (10, 21100), (12, 21124), (Start: 20 @21247 has 9 MA's), (22, 21268), (23, 21274), (27, 21298), (33, 21328), (43, 21367), (68, 21487), (70, 21511), (78, 21550), (149, 22066), (154, 22108), (157, 22168), (164, 22240), (168, 22288), (176, 22342), (182, 22414), (185, 22444), (189, 22519), (190, 22531), (193, 22573), (196, 22603), (202, 22654), (212, 22747), (216, 22795), (219, 22813), (221, 22825), (223, 22834), (237, 22933), (238, 22936), (240, 22957), (242, 22978), (249, 23029), (250, 23032), (260, 23116), (266, 23146), (271, 23164), (274, 23191), (278, 23233), (297, 23311), (298, 23314), (299, 23320), (302, 23341), (303, 23344), (309, 23413), (311, 23425), (323, 23500), (336, 23617), (337, 23620), (339, 23668), (360, 23857), (368, 23923), (369, 23926), (372, 23950), (376, 23980), (377, 23983), (379, 23989), (395, 24034), (399, 24058), (402, 24067), (409, 24112), (414, 24121), (416, 24133), (420, 24178), (421, 24181), (425, 24199), (434, 24274), (444, 24382), (449, 24409), (462, 24508), (467, 24559), (481, 24670), (489, 24709), (500, 24790), (515, 24964), (516, 24967), (521, 25000), (543, 25210), (546, 25219), (555, 25267), (576, 25537), (594, 25744), (600, 25834), (603, 25867), (617, 26014), (618, 26017), (626, 26128), (634, 26182), (641, 26224), (654, 26317), (657, 26329), (663, 26359), (665, 26392), (667, 26404),

Gene: ZAYM_17 Start: 10932, Stop: 16055, Start Num: 4
Candidate Starts for ZAYM_17:

(Start: 4 @10932 has 13 MA's), (5, 10938), (25, 11211), (26, 11220), (29, 11259), (39, 11316), (49, 11379), (59, 11472), (64, 11490), (81, 11643), (90, 11685), (101, 11772), (132, 11964), (133, 11967), (139, 12003), (143, 12051), (157, 12204), (160, 12237), (161, 12246), (162, 12255), (165, 12288), (166, 12300), (168, 12324), (175, 12369), (176, 12378), (182, 12450), (184, 12462), (185, 12480), (196, 12639), (197, 12663), (199, 12672), (200, 12675), (216, 12816), (217, 12819), (218, 12822), (220, 12837), (229, 12891), (234, 12930), (248, 13026), (250, 13047), (252, 13062), (253, 13074), (263, 13146), (297, 13308), (314, 13365), (321, 13377), (322, 13380), (327, 13413), (349, 13506), (350, 13512), (353, 13518), (357, 13539), (358, 13542), (359, 13545), (362, 13566), (365, 13596), (372, 13644), (373, 13650), (374, 13659), (379, 13683), (387, 13698), (388, 13701), (390, 13707), (398, 13752), (402, 13761), (416, 13860), (419, 13902), (422, 13935), (427, 13980), (432, 14004), (435, 14049), (437, 14067), (458, 14205), (461, 14226), (462, 14244), (463, 14247), (464, 14256), (495, 14487), (497, 14505), (499, 14529), (514, 14673), (518, 14697), (526, 14748), (540, 14892), (541, 14910), (545, 14949), (551, 14988), (552, 14994), (554, 15003), (560, 15045), (565, 15123), (567, 15162), (578, 15297), (584, 15390), (585, 15393), (590, 15450), (591, 15459), (592, 15471), (595, 15492), (615, 15705), (619, 15744), (624, 15813), (628, 15867), (649, 16017),

Gene: Zipp_32 Start: 24950, Stop: 29863, Start Num: 19
Candidate Starts for Zipp_32:
(Start: 19 @24950 has 69 MA's), (37, 25070), (40, 25082), (43, 25103), (46, 25124), (52, 25148), (58, 25214), (59, 25223), (60, 25226), (69, 25295), (76, 25328), (79, 25358), (82, 25397), (84, 25406), (106, 25514), (110, 25535), (114, 25577), (116, 25583), (125, 25640), (127, 25649), (137, 25712), (149, 25811), (152, 25823), (156, 25865), (160, 25946), (163, 25970), (165, 26000), (170, 26057), (172, 26060), (173, 26066), (175, 26078), (180, 26150), (185, 26189), (187, 26225), (189, 26264), (190, 26276), (193, 26318), (196, 26348), (206, 26432), (208, 26465), (219, 26558), (223, 26579), (227, 26594), (238, 26681), (242, 26723), (250, 26777), (251, 26783), (255, 26810), (264, 26885), (271, 26909), (272, 26918), (278, 26978), (280, 26990), (285, 27014), (286, 27017), (296, 27047), (298, 27059), (299, 27065), (301, 27080), (302, 27086), (306, 27131), (309, 27158), (310, 27167), (311, 27170), (330, 27308), (340, 27362), (342, 27365), (360, 27452), (399, 27599), (400, 27602), (415, 27692), (449, 27968), (451, 27983), (452, 27986), (466, 28109), (469, 28133), (475, 28196), (486, 28253), (502, 28370), (505, 28412), (509, 28430), (519, 28541), (533, 28643), (544, 28775), (547, 28787), (550, 28808), (557, 28853), (573, 29072), (576, 29099), (581, 29171), (586, 29210), (607, 29417), (612, 29483), (613, 29489), (620, 29555), (629, 29651), (636, 29690), (642, 29753), (643, 29756), (645, 29774), (648, 29789), (652, 29816), (656, 29828),

Gene: Zitch_34 Start: 22821, Stop: 27749, Start Num: 19
Candidate Starts for Zitch_34:
(Start: 19 @22821 has 69 MA's), (37, 22941), (40, 22953), (46, 22995), (52, 23019), (53, 23028), (58, 23085), (59, 23094), (69, 23166), (82, 23268), (84, 23277), (88, 23295), (102, 23376), (106, 23385), (114, 23448), (116, 23454), (121, 23481), (125, 23511), (127, 23520), (137, 23583), (142, 23628), (152, 23694), (160, 23817), (163, 23841), (164, 23859), (172, 23931), (175, 23949), (180, 24021), (185, 24060), (187, 24096), (189, 24135), (190, 24147), (193, 24189), (196, 24219), (206, 24303), (208, 24336), (219, 24429), (227, 24465), (233, 24522), (238, 24552), (242, 24594), (250, 24648), (255, 24681), (260, 24732), (271, 24780), (272, 24789), (278, 24849), (280, 24861), (284, 24882), (286, 24888), (298, 24930), (299, 24936), (301, 24951), (302, 24957), (310, 25038), (311, 25041), (313, 25062), (323, 25116), (330, 25179), (342, 25236), (360, 25323), (368, 25389), (395, 25446), (396, 25449), (400, 25473), (415, 25563), (420, 25611), (449, 25839), (452, 25857), (459, 25914), (469, 26004), (475, 26067), (488, 26148), (492, 26175), (501, 26247), (502, 26256), (509, 26316), (519, 26427), (543, 26658), (546, 26667), (550, 26694), (557, 26736), (573, 26955), (576, 26982), (581, 27054), (586, 27093), (607, 27300), (613, 27372), (620, 27441), (636, 27576), (642, 27639), (643, 27642), (645, 27660), (648, 27675), (652, 27702), (656, 27714),