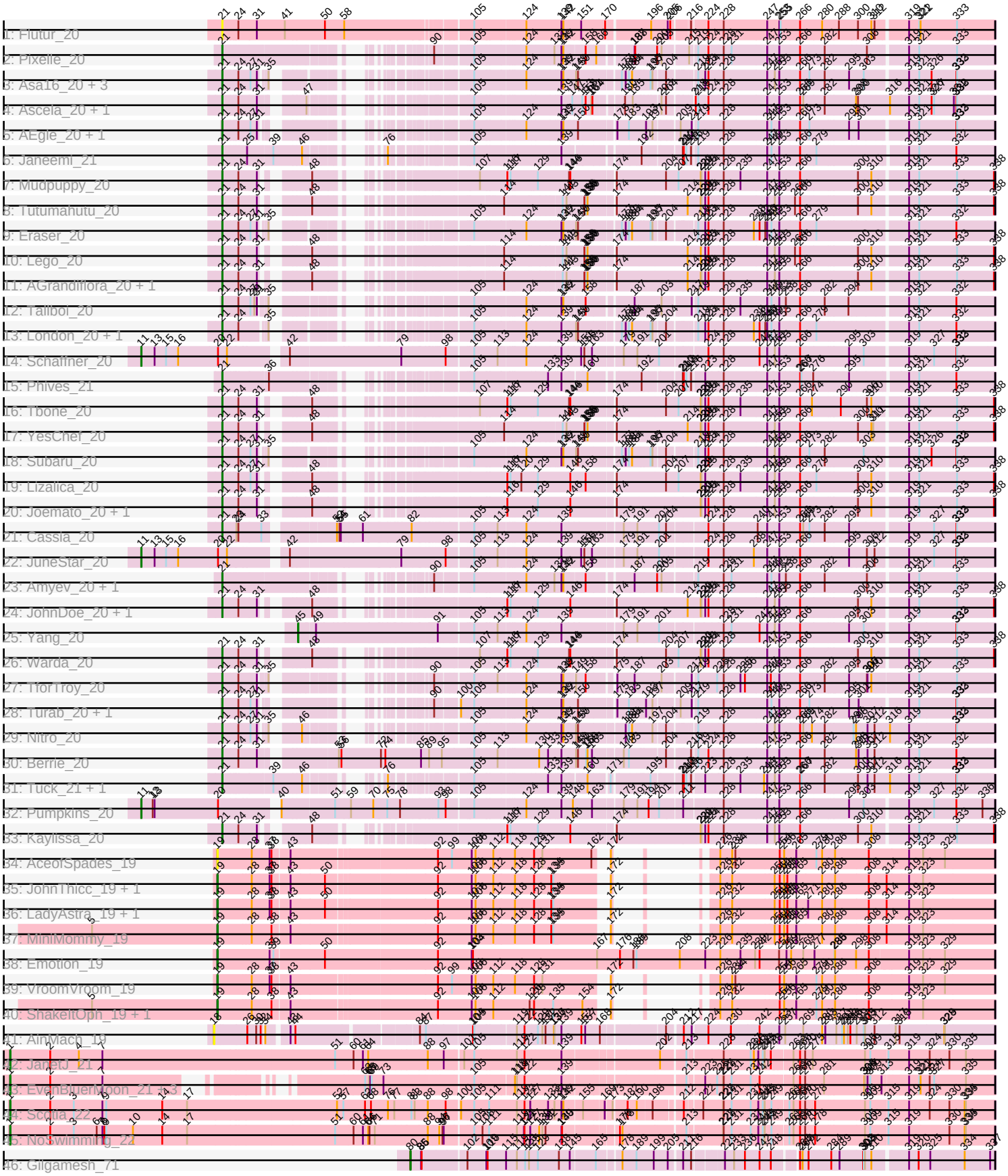
Pham 347616


1: Flutur_20
2: Pixelle_20
3: Asa16_20 + 3
4: Ascela_20 + 1
5: AEgle_20 + 1
6: Janeemi_21
7: Mudpuppy_20
8: Tutumahutu_20
9: Eraser_20
10: Lego_20
11: AGrandiflora_20 + 1
12: Tallboi_20
13: London_20 + 1
14: Schaffner_20
15: Phives_21
16: Tbone_20
17: YesChef_20
18: Subaru_20
19: Lizalica_20
20: Joemato_20 + 1
21: Cassia_20
22: JuneStar_20
23: Amyev_20 + 1
24: JohnDoe_20 + 1
25: Yang_20
26: Warda_20
27: ThorTroy_20
28: Turab_20 + 1
29: Nitro_20
30: Bernie_20
31: Tuck_21 + 1
32: Pumpkins_20
33: Kaylissa_20
34: AceofSpades_19
35: JohnThicc_19 + 1
36: LadyAstra_19 + 1
37: MiniMommy_19
38: Emotion_19
39: VroomVroom_19
40: ShakeItOph_19 + 1
41: AinMach_19
42: JanetJ_21
43: EvenBlueMoon_21 + 3
44: Scotia_22
45: NoSwimming_22
46: Gilgamesh_71

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 347616 Report

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

Pham number 347616 has 64 members, 12 are drafts.

Phages represented in each track:
- Track 1 : Flutur_20
- Track 2 : Pixelle_20
- Track 3 : Asa16_20, Skelbel_21, Jstan_21, Niobe_20
- Track 4 : Ascela_20, Iter_20
- Track 5 : AEgle_20, Amploria_20
- Track 6 : Janeemi_21
- Track 7 : Mudpuppy_20
- Track 8 : Tutumahutu_20
- Track 9 : Eraser_20
- Track 10 : Lego_20
- Track 11 : AGrandiflora_20, Powerpuff_20
- Track 12 : Tallboi_20
- Track 13 : London_20, Elezi_20
- Track 14 : Schaffner_20
- Track 15 : Phives_21
- Track 16 : Tbone_20
- Track 17 : YesChef_20
- Track 18 : Subaru_20
- Track 19 : Lizalica_20
- Track 20 : Joemato_20, Simpson_22
- Track 21 : Cassia_20
- Track 22 : JuneStar_20
- Track 23 : Amyev_20, Tian_20
- Track 24 : JohnDoe_20, Cyan_20
- Track 25 : Yang_20
- Track 26 : Warda_20
- Track 27 : TforTroy_20
- Track 28 : Turab_20, Adumb2043_20
- Track 29 : Nitro_20
- Track 30 : Berrie_20
- Track 31 : Tuck_21, Community_20
- Track 32 : Pumpkins_20
- Track 33 : Kaylissa_20
- Track 34 : AceofSpades_19
- Track 35 : JohnThicc_19, FiveHead_21
- Track 36 : LadyAstra_19, Origami_19
- Track 37 : MiniMommy_19

• Track 38 : Emotion_19
• Track 39 : VroomVroom_19
• Track 40 : ShakeItOph_19, JasmineDragon_19
• Track 41 : AinMach_19
• Track 42 : JanetJ_21
• Track 43 : EvenBluerMoon_21, Aoka_21, Morrey_32, PrairieDogTown_21
• Track 44 : Scotia_22
• Track 45 : NoSwimming_22
• Track 46 : Gilgamesh_71

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

The start number called the most often in the published annotations is 21, it was called in 33 of the 52 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AEgle_20, AGrandiflora_20, Adumb2043_20, Amploria_20, Amyev_20, Asa16_20, Ascela_20, Berrie_20, Cassia_20, Community_20, Cyan_20, Elezi_20, Eraser_20, Flutur_20, Iter_20, Janeemi_21, Joemato_20, JohnDoe_20, Jstan_21, Kaylissa_20, Lego_20, Lizalica_20, London_20, Mudpuppy_20, Niobe_20, Nitro_20, Phives_21, Pixelle_20, Powerpuff_20, Simpson_22, Skelbel_21, Subaru_20, Tallboi_20, Tbone_20, TforTroy_20, Tian_20, Tuck_21, Turab_20, Tutumahutu_20, Warda_20, YesChef_20,

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

Genes that do not have the "Most Annotated" start:
• AceofSpades_19, AinMach_19, Aoka_21, Emotion_19, EvenBluerMoon_21, FiveHead_21, Gilgamesh_71, JanetJ_21, JasmineDragon_19, JohnThicc_19, JuneStar_20, LadyAstra_19, MiniMommy_19, Morrey_32, NoSwimming_22, Origami_19, PrairieDogTown_21, Pumpkins_20, Schaffner_20, Scotia_22, ShakeItOph_19, VroomVroom_19, Yang_20,

Summary by start number:

Start 1:
• Found in 7 of 64 (10.9%) of genes in pham
• Manual Annotations of this start: 6 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aoka_21 (FO), EvenBluerMoon_21 (FO), JanetJ_21 (FO), Morrey_32 (FO), NoSwimming_22 (FO), PrairieDogTown_21 (FO), Scotia_22 (FO),

Start 11:
• Found in 3 of 64 (4.7%) of genes in pham
• Manual Annotations of this start: 3 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JuneStar_20 (AZ1), Pumpkins_20 (AZ1), Schaffner_20 (AZ1),

Start 18:
• Found in 1 of 64 (1.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AinMach_19 (AZ7),

Start 19:
• Found in 10 of 64 (15.6%) of genes in pham
• Manual Annotations of this start: 8 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AceofSpades_19 (AZ4), Emotion_19 (AZ4), FiveHead_21 (AZ4), JasmineDragon_19 (AZ4), JohnThicc_19 (AZ4), LadyAstra_19 (AZ4), MiniMommy_19 (AZ4), Origami_19 (AZ4), ShakeItOph_19 (AZ4), VroomVroom_19 (AZ4),

Start 21:
• Found in 41 of 64 (64.1%) of genes in pham
• Manual Annotations of this start: 33 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AEgle_20 (AZ1), AGrandiflora_20 (AZ1), Adumb2043_20 (AZ1), Amploria_20 (AZ1), Amyev_20 (AZ1), Asa16_20 (AZ1), Ascela_20 (AZ1), Berrie_20 (AZ1), Cassia_20 (AZ1), Community_20 (AZ1), Cyan_20 (AZ1), Elezi_20 (AZ1), Eraser_20 (AZ1), Flutur_20 (AZ), Iter_20 (AZ1), Janeemi_21 (AZ1), Joemato_20 (AZ1), JohnDoe_20 (AZ1), Jstan_21 (AZ1), Kaylissa_20 (AZ1), Lego_20 (AZ1), Lizalica_20 (AZ1), London_20 (AZ1), Mudpuppy_20 (AZ1), Niobe_20 (AZ1), Nitro_20 (AZ1), Phives_21 (AZ1), Pixelle_20 (AZ1), Powerpuff_20 (AZ1), Simpson_22 (AZ1), Skelbel_21 (AZ1), Subaru_20 (AZ1), Tallboi_20 (AZ1), Tbone_20 (AZ1), TforTroy_20 (AZ1), Tian_20 (AZ1), Tuck_21 (AZ1), Turab_20 (AZ1), Tutumahutu_20 (AZ1), Warda_20 (AZ1), YesChef_20 (AZ1),

Start 45:
• Found in 1 of 64 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yang_20 (AZ1),

Start 80:
• Found in 1 of 64 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 52
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gilgamesh_71 (singleton),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, FO, AZ1, AZ, AZ4, AZ7,

Info for manual annotations of cluster AZ1:
•Start number 11 was manually annotated 3 times for cluster AZ1.
•Start number 21 was manually annotated 33 times for cluster AZ1.
•Start number 45 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ4:
•Start number 19 was manually annotated 8 times for cluster AZ4.

Info for manual annotations of cluster FO:
•Start number 1 was manually annotated 6 times for cluster FO.

Gene Information:

Gene: AEgle_20 Start: 16059, Stop: 18917, Start Num: 21
Candidate Starts for AEgle_20:
(Start: 21 @16059 has 33 MA's), (24, 16122), (27, 16176), (31, 16206), (105, 16749), (124, 16968), (139, 17115), (142, 17124), (150, 17184), (175, 17334), (183, 17388), (193, 17457), (197, 17487), (209, 17577), (217, 17619), (219, 17637), (228, 17742), (247, 17943), (249, 17958), (253, 17994), (266, 18078), (273, 18120), (295, 18294), (301, 18333), (319, 18528), (321, 18573), (332, 18741), (333, 18744),

Gene: AGrandiflora_20 Start: 16043, Stop: 19015, Start Num: 21
Candidate Starts for AGrandiflora_20:
(Start: 21 @16043 has 33 MA's), (24, 16106), (31, 16190), (48, 16334), (114, 16928), (141, 17159), (143, 17177), (156, 17255), (158, 17261), (159, 17264), (160, 17270), (174, 17381), (214, 17693), (220, 17747), (221, 17750), (223, 17765), (224, 17780), (228, 17840), (247, 18041), (251, 18071), (253, 18092), (266, 18173), (300, 18425), (310, 18485), (319, 18626), (321, 18671), (333, 18842), (338, 19010),

Gene: AceofSpades_19 Start: 14338, Stop: 17349, Start Num: 19
Candidate Starts for AceofSpades_19:
(Start: 19 @14338 has 8 MA's), (28, 14494), (37, 14578), (38, 14587), (43, 14665), (92, 15286), (99, 15352), (103, 15445), (106, 15463), (112, 15547), (118, 15646), (128, 15736), (131, 15775), (162, 16003), (172, 16027), (226, 16096), (232, 16150), (234, 16165), (254, 16369), (256, 16390), (265, 16447), (279, 16540), (280, 16567), (286, 16627), (308, 16780), (319, 16957), (323, 17017), (329, 17116),

Gene: Adumb2043_20 Start: 16058, Stop: 18916, Start Num: 21
Candidate Starts for Adumb2043_20:
(Start: 21 @16058 has 33 MA's), (24, 16121), (27, 16175), (31, 16205), (90, 16610), (100, 16691), (105, 16748), (124, 16967), (139, 17114), (142, 17123), (150, 17183), (175, 17333), (183, 17387), (193, 17456), (197, 17486), (209, 17576), (217, 17618), (219, 17636), (228, 17741), (247, 17942), (249, 17957), (253, 17993), (266, 18077), (273, 18119), (295, 18293), (301, 18332), (319, 18527), (321, 18572), (332, 18740), (333, 18743),

Gene: AinMach_19 Start: 15227, Stop: 18562, Start Num: 18
Candidate Starts for AinMach_19:
(18, 15227), (26, 15374), (30, 15416), (32, 15437), (34, 15446), (43, 15533), (44, 15554), (84, 16064), (87, 16091), (104, 16292), (105, 16298), (119, 16472), (122, 16508), (129, 16562), (131, 16583), (132, 16598), (136, 16634), (137, 16637), (139, 16664), (152, 16757), (157, 16775), (168, 16841), (204, 17096), (212, 17153), (217, 17183), (224, 17243), (230, 17348), (242, 17480), (253, 17573), (257, 17594), (269, 17678), (280, 17765), (283, 17780), (287, 17831), (291, 17858), (292, 17867), (293, 17885), (296, 17897), (299, 17927), (303, 17960), (305, 17966), (312, 18008), (317, 18104), (318, 18122), (328, 18326), (329, 18329),

Gene: Amploria_20 Start: 16058, Stop: 18916, Start Num: 21
Candidate Starts for Amploria_20:
(Start: 21 @16058 has 33 MA's), (24, 16121), (27, 16175), (31, 16205), (105, 16748), (124, 16967), (139, 17114), (142, 17123), (150, 17183), (175, 17333), (183, 17387), (193, 17456), (197, 17486), (209, 17576), (217, 17618), (219, 17636), (228, 17741), (247, 17942), (249, 17957), (253, 17993), (266, 18077), (273, 18119), (295, 18293), (301, 18332), (319, 18527), (321, 18572), (332, 18740), (333, 18743),

Gene: Amyev_20 Start: 16398, Stop: 19307, Start Num: 21
Candidate Starts for Amyev_20:
(Start: 21 @16398 has 33 MA's), (90, 17013), (105, 17151), (124, 17370), (137, 17490), (139, 17517), (142, 17526), (158, 17607), (187, 17787), (200, 17877), (203, 17895), (219, 18027), (228, 18132), (231, 18168), (247, 18333), (249, 18348), (253, 18384), (258, 18408), (266, 18468), (282, 18579), (306, 18759), (319, 18918), (321, 18963), (333, 19134),

Gene: Aoka_21 Start: 17080, Stop: 21027, Start Num: 1
Candidate Starts for Aoka_21:
(Start: 1 @17080 has 6 MA's), (2, 17269), (7, 17515), (63, 18409), (65, 18427), (67, 18433), (69, 18439), (73, 18490), (105, 18856), (118, 19021), (119, 19030), (122, 19066), (139, 19222), (213, 19714), (223, 19777), (225, 19828), (227, 19849), (228, 19852), (231, 19888), (237, 19978), (242, 20017), (263, 20149), (266, 20170), (270, 20194), (281, 20275), (304, 20449), (305, 20452), (307, 20461), (309, 20473), (313, 20521), (319, 20632), (321, 20680), (322, 20686), (324, 20725), (327, 20746), (335, 20896),

Gene: Asa16_20 Start: 16027, Stop: 18864, Start Num: 21
Candidate Starts for Asa16_20:
(Start: 21 @16027 has 33 MA's), (24, 16090), (27, 16144), (31, 16174), (35, 16198), (105, 16696), (124, 16915), (139, 17062), (142, 17071), (149, 17122), (150, 17131), (177, 17302), (181, 17320), (183, 17335), (184, 17347), (195, 17425), (197, 17434), (204, 17476), (219, 17584), (223, 17614), (224, 17629), (228, 17689), (247, 17890), (251, 17920), (253, 17941), (266, 18022), (273, 18064), (282, 18133), (295, 18238), (303, 18301), (319, 18475), (321, 18520), (326, 18574), (332, 18688), (333, 18691),

Gene: Ascela_20 Start: 16055, Stop: 18919, Start Num: 21
Candidate Starts for Ascela_20:
(Start: 21 @16055 has 33 MA's), (24, 16118), (31, 16202), (47, 16346), (105, 16748), (139, 17114), (147, 17159), (153, 17198), (158, 17213), (161, 17237), (164, 17243), (180, 17354), (185, 17387), (203, 17480), (204, 17501), (218, 17600), (219, 17612), (224, 17657), (228, 17717), (247, 17918), (253, 17969), (266, 18053), (269, 18068), (282, 18164), (298, 18299), (300, 18305), (316, 18443), (319, 18527), (321, 18572), (326, 18626), (327, 18638), (331, 18731), (332, 18743), (333, 18746),

Gene: Berrie_20 Start: 16192, Stop: 19419, Start Num: 21
Candidate Starts for Berrie_20:
(Start: 21 @16192 has 33 MA's), (24, 16255), (31, 16339), (53, 16615), (56, 16627), (72, 16810), (74, 16831), (85, 16996), (89, 17029), (95, 17080), (105, 17227), (113, 17329), (130, 17497), (133, 17539), (139, 17593), (149, 17653), (150, 17662), (159, 17695), (160, 17701), (163, 17722), (179, 17842), (183, 17866), (204, 18007), (216, 18094), (219, 18115), (224, 18160), (228, 18220), (247, 18421), (253, 18472), (266, 18556), (282, 18667), (298, 18802), (301, 18811), (307, 18850), (312, 18883), (319, 19030), (321, 19075), (332, 19243),

Gene: Cassia_20 Start: 16153, Stop: 19350, Start Num: 21
Candidate Starts for Cassia_20:

(Start: 21 @16153 has 33 MA's), (23, 16207), (24, 16216), (33, 16321), (52, 16573), (54, 16585), (55, 16591), (61, 16690), (82, 16894), (105, 17137), (113, 17239), (124, 17356), (139, 17503), (179, 17767), (191, 17830), (201, 17920), (204, 17953), (224, 18115), (228, 18175), (240, 18331), (247, 18376), (253, 18427), (266, 18508), (269, 18523), (273, 18550), (282, 18619), (295, 18724), (319, 18961), (327, 19072), (332, 19174), (333, 19177),

Gene: Community_20 Start: 17595, Stop: 20501, Start Num: 21
Candidate Starts for Community_20:
(Start: 21 @17595 has 33 MA's), (39, 17808), (46, 17931), (76, 18093), (105, 18348), (133, 18660), (139, 18714), (160, 18810), (171, 18891), (195, 19035), (210, 19149), (212, 19152), (213, 19164), (216, 19176), (223, 19227), (228, 19302), (235, 19380), (244, 19488), (247, 19503), (251, 19533), (253, 19554), (266, 19638), (267, 19644), (282, 19749), (300, 19890), (307, 19932), (312, 19965), (316, 20028), (319, 20112), (321, 20157), (332, 20325), (333, 20328),

Gene: Cyan_20 Start: 16046, Stop: 19063, Start Num: 21
Candidate Starts for Cyan_20:
(Start: 21 @16046 has 33 MA's), (24, 16109), (31, 16193), (48, 16337), (116, 16955), (117, 16967), (129, 17087), (146, 17237), (174, 17429), (214, 17741), (220, 17795), (221, 17798), (223, 17813), (224, 17828), (228, 17888), (247, 18089), (251, 18119), (253, 18140), (266, 18221), (300, 18473), (310, 18533), (319, 18674), (321, 18719), (333, 18890), (338, 19058),

Gene: Elezi_20 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for Elezi_20:
(Start: 21 @16028 has 33 MA's), (24, 16091), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (238, 17831), (242, 17855), (246, 17882), (247, 17891), (249, 17906), (253, 17942), (266, 18026), (279, 18098), (319, 18476), (321, 18521), (332, 18689),

Gene: Emotion_19 Start: 14446, Stop: 17979, Start Num: 19
Candidate Starts for Emotion_19:
(Start: 19 @14446 has 8 MA's), (37, 14686), (39, 14704), (50, 14923), (92, 15427), (103, 15586), (104, 15592), (167, 16171), (176, 16279), (186, 16342), (189, 16357), (208, 16561), (223, 16681), (226, 16750), (235, 16843), (239, 16912), (242, 16933), (252, 17023), (259, 17056), (262, 17077), (269, 17134), (277, 17185), (285, 17275), (286, 17278), (298, 17368), (308, 17422), (319, 17587), (323, 17647), (329, 17746),

Gene: Eraser_20 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for Eraser_20:
(Start: 21 @16028 has 33 MA's), (24, 16091), (27, 16145), (31, 16175), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (142, 17072), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (238, 17831), (242, 17855), (246, 17882), (247, 17891), (249, 17906), (253, 17942), (266, 18026), (279, 18098), (319, 18476), (321, 18521), (332, 18689),

Gene: EvenBluerMoon_21 Start: 17115, Stop: 21062, Start Num: 1
Candidate Starts for EvenBluerMoon_21:
(Start: 1 @17115 has 6 MA's), (2, 17304), (7, 17550), (63, 18444), (65, 18462), (67, 18468), (69, 18474), (73, 18525), (105, 18891), (118, 19056), (119, 19065), (122, 19101), (139, 19257), (213, 19749), (223, 19812), (225, 19863), (227, 19884), (228, 19887), (231, 19923), (237, 20013), (242, 20052), (263, 20184), (266, 20205), (270, 20229), (281, 20310), (304, 20484), (305, 20487), (307, 20496), (309, 20508), (313, 20556), (319, 20667), (321, 20715), (322, 20721), (324, 20760), (327, 20781), (335, 20931),

Gene: FiveHead_21 Start: 14327, Stop: 17338, Start Num: 19
Candidate Starts for FiveHead_21:
(Start: 19 @14327 has 8 MA's), (28, 14483), (37, 14567), (38, 14576), (43, 14654), (50, 14804), (92, 15275), (103, 15434), (106, 15452), (112, 15536), (118, 15635), (128, 15725), (134, 15806), (135, 15815), (172, 16016), (226, 16085), (232, 16139), (250, 16334), (254, 16358), (256, 16379), (260, 16394), (265, 16436), (280, 16556), (286, 16616), (308, 16769), (314, 16847), (319, 16946), (323, 17006),

Gene: Flutur_20 Start: 16046, Stop: 19297, Start Num: 21
Candidate Starts for Flutur_20:
(Start: 21 @16046 has 33 MA's), (24, 16109), (31, 16193), (41, 16325), (50, 16508), (58, 16598), (105, 17117), (124, 17336), (139, 17483), (142, 17492), (151, 17567), (170, 17678), (196, 17852), (205, 17918), (206, 17930), (216, 17996), (224, 18062), (228, 18122), (247, 18323), (253, 18374), (255, 18380), (266, 18458), (280, 18557), (288, 18626), (300, 18710), (310, 18770), (312, 18785), (319, 18908), (321, 18953), (322, 18959), (333, 19124),

Gene: Gilgamesh_71 Start: 66004, Stop: 68451, Start Num: 80
Candidate Starts for Gilgamesh_71:
(Start: 80 @66004 has 1 MA's), (85, 66052), (86, 66055), (102, 66250), (109, 66334), (110, 66340), (115, 66427), (119, 66472), (123, 66511), (125, 66529), (129, 66571), (138, 66667), (145, 66712), (165, 66814), (178, 66907), (189, 66970), (199, 67045), (205, 67102), (211, 67153), (216, 67183), (229, 67303), (233, 67345), (236, 67393), (242, 67459), (248, 67507), (266, 67600), (268, 67612), (272, 67639), (284, 67732), (289, 67771), (302, 67879), (303, 67882), (305, 67888), (310, 67918), (319, 68059), (320, 68101), (325, 68152), (334, 68308), (337, 68428),

Gene: Iter_20 Start: 16055, Stop: 18919, Start Num: 21
Candidate Starts for Iter_20:
(Start: 21 @16055 has 33 MA's), (24, 16118), (31, 16202), (47, 16346), (105, 16748), (139, 17114), (147, 17159), (153, 17198), (158, 17213), (161, 17237), (164, 17243), (180, 17354), (185, 17387), (203, 17480), (204, 17501), (218, 17600), (219, 17612), (224, 17657), (228, 17717), (247, 17918), (253, 17969), (266, 18053), (269, 18068), (282, 18164), (298, 18299), (300, 18305), (316, 18443), (319, 18527), (321, 18572), (326, 18626), (327, 18638), (331, 18731), (332, 18743), (333, 18746),

Gene: Janeemi_21 Start: 17623, Stop: 20508, Start Num: 21
Candidate Starts for Janeemi_21:
(Start: 21 @17623 has 33 MA's), (25, 17725), (39, 17836), (46, 17959), (76, 18121), (105, 18376), (139, 18742), (192, 19030), (210, 19180), (212, 19183), (213, 19195), (216, 19207), (219, 19228), (228, 19333), (247, 19534), (249, 19549), (253, 19585), (266, 19669), (279, 19741), (319, 20119), (321, 20164), (332, 20332),

Gene: JanetJ_21 Start: 16898, Stop: 21157, Start Num: 1
Candidate Starts for JanetJ_21:
(Start: 1 @16898 has 6 MA's), (2, 17087), (4, 17222), (7, 17333), (51, 18398), (60, 18482), (61, 18521), (64, 18545), (88, 18797), (97, 18854), (101, 18932), (105, 18974), (119, 19160), (122, 19196), (139, 19352), (202, 19739), (213, 19844), (228, 19982), (237, 20108), (238, 20123), (241, 20141), (243, 20162), (245, 20171), (248, 20195), (263, 20279), (266, 20300), (270, 20324), (275, 20357), (305, 20582), (309, 20603), (315, 20675), (319, 20762), (324, 20858), (330, 20948), (335, 21026),

Gene: JasmineDragon_19 Start: 14321, Stop: 17332, Start Num: 19
Candidate Starts for JasmineDragon_19:
(5, 13733), (Start: 19 @14321 has 8 MA's), (28, 14477), (38, 14570), (43, 14648), (92, 15269), (103, 15428), (106, 15446), (112, 15530), (126, 15698), (128, 15719), (135, 15809), (154, 15944), (172,

16010), (226, 16079), (232, 16133), (254, 16352), (256, 16373), (265, 16430), (279, 16523), (280, 16550), (286, 16610), (308, 16763), (319, 16940), (323, 17000),

Gene: Joemato_20 Start: 16046, Stop: 19063, Start Num: 21
Candidate Starts for Joemato_20:
(Start: 21 @16046 has 33 MA's), (24, 16109), (31, 16193), (48, 16337), (116, 16955), (129, 17087), (146, 17237), (174, 17429), (220, 17795), (221, 17798), (223, 17813), (224, 17828), (228, 17888), (247, 18089), (251, 18119), (253, 18140), (266, 18221), (300, 18473), (310, 18533), (319, 18674), (321, 18719), (333, 18890), (338, 19058),

Gene: JohnDoe_20 Start: 16041, Stop: 19058, Start Num: 21
Candidate Starts for JohnDoe_20:
(Start: 21 @16041 has 33 MA's), (24, 16104), (31, 16188), (48, 16332), (116, 16950), (117, 16962), (129, 17082), (146, 17232), (174, 17424), (214, 17736), (220, 17790), (221, 17793), (223, 17808), (224, 17823), (228, 17883), (247, 18084), (251, 18114), (253, 18135), (266, 18216), (300, 18468), (310, 18528), (319, 18669), (321, 18714), (333, 18885), (338, 19053),

Gene: JohnThicc_19 Start: 14327, Stop: 17338, Start Num: 19
Candidate Starts for JohnThicc_19:
(Start: 19 @14327 has 8 MA's), (28, 14483), (37, 14567), (38, 14576), (43, 14654), (50, 14804), (92, 15275), (103, 15434), (106, 15452), (112, 15536), (118, 15635), (128, 15725), (134, 15806), (135, 15815), (172, 16016), (226, 16085), (232, 16139), (250, 16334), (254, 16358), (256, 16379), (260, 16394), (265, 16436), (280, 16556), (286, 16616), (308, 16769), (314, 16847), (319, 16946), (323, 17006),

Gene: Jstan_21 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for Jstan_21:
(Start: 21 @16028 has 33 MA's), (24, 16091), (27, 16145), (31, 16175), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (142, 17072), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (247, 17891), (251, 17921), (253, 17942), (266, 18023), (273, 18065), (282, 18134), (295, 18239), (303, 18302), (319, 18476), (321, 18521), (326, 18575), (332, 18689), (333, 18692),

Gene: JuneStar_20 Start: 16151, Stop: 19756, Start Num: 11
Candidate Starts for JuneStar_20:
(Start: 11 @16151 has 3 MA's), (13, 16214), (15, 16268), (16, 16313), (20, 16496), (22, 16532), (42, 16763), (79, 17255), (98, 17435), (105, 17546), (113, 17648), (124, 17765), (139, 17912), (151, 17996), (156, 18011), (163, 18047), (179, 18173), (191, 18236), (201, 18326), (224, 18521), (228, 18581), (238, 18722), (247, 18782), (253, 18833), (266, 18917), (295, 19133), (306, 19208), (312, 19244), (319, 19367), (327, 19478), (332, 19580), (333, 19583),

Gene: Kaylissa_20 Start: 16047, Stop: 19064, Start Num: 21
Candidate Starts for Kaylissa_20:
(Start: 21 @16047 has 33 MA's), (24, 16110), (31, 16194), (48, 16338), (116, 16956), (117, 16968), (129, 17088), (146, 17238), (174, 17430), (220, 17796), (221, 17799), (223, 17814), (224, 17829), (228, 17889), (247, 18090), (251, 18120), (253, 18141), (266, 18222), (300, 18474), (310, 18534), (319, 18675), (321, 18720), (333, 18891), (338, 19059),

Gene: LadyAstra_19 Start: 14327, Stop: 17338, Start Num: 19
Candidate Starts for LadyAstra_19:
(Start: 19 @14327 has 8 MA's), (28, 14483), (37, 14567), (38, 14576), (43, 14654), (50, 14804), (92, 15275), (103, 15434), (106, 15452), (112, 15536), (118, 15635), (128, 15725), (134, 15806), (135,

15815), (172, 16016), (226, 16085), (232, 16139), (250, 16334), (254, 16358), (256, 16379), (260, 16394), (265, 16436), (271, 16490), (280, 16556), (286, 16616), (308, 16769), (314, 16847), (319, 16946), (323, 17006),

Gene: Lego_20 Start: 16046, Stop: 19018, Start Num: 21
Candidate Starts for Lego_20:
(Start: 21 @16046 has 33 MA's), (24, 16109), (31, 16193), (48, 16337), (114, 16931), (141, 17162), (143, 17180), (156, 17258), (158, 17264), (159, 17267), (160, 17273), (174, 17384), (214, 17696), (220, 17750), (223, 17768), (224, 17783), (228, 17843), (247, 18044), (251, 18074), (253, 18095), (264, 18158), (266, 18176), (300, 18428), (310, 18488), (319, 18629), (321, 18674), (333, 18845), (338, 19013),

Gene: Lizalica_20 Start: 16031, Stop: 19048, Start Num: 21
Candidate Starts for Lizalica_20:
(Start: 21 @16031 has 33 MA's), (24, 16094), (27, 16148), (31, 16178), (48, 16322), (116, 16940), (117, 16952), (120, 16997), (129, 17072), (146, 17222), (158, 17294), (174, 17414), (204, 17633), (207, 17684), (220, 17780), (221, 17783), (223, 17798), (228, 17873), (235, 17951), (247, 18074), (251, 18104), (253, 18125), (266, 18206), (279, 18278), (300, 18458), (310, 18518), (319, 18659), (321, 18704), (333, 18875), (338, 19043),

Gene: London_20 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for London_20:
(Start: 21 @16028 has 33 MA's), (24, 16091), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (238, 17831), (242, 17855), (246, 17882), (247, 17891), (249, 17906), (253, 17942), (266, 18026), (279, 18098), (319, 18476), (321, 18521), (332, 18689),

Gene: MiniMommy_19 Start: 14322, Stop: 17333, Start Num: 19
Candidate Starts for MiniMommy_19:
(5, 13734), (Start: 19 @14322 has 8 MA's), (28, 14478), (38, 14571), (43, 14649), (92, 15270), (103, 15429), (106, 15447), (112, 15531), (118, 15630), (128, 15720), (134, 15801), (135, 15810), (172, 16011), (226, 16080), (232, 16134), (250, 16329), (254, 16353), (256, 16374), (260, 16389), (265, 16431), (280, 16551), (286, 16611), (308, 16764), (314, 16842), (319, 16941), (323, 17001),

Gene: Morrey_32 Start: 17117, Stop: 21064, Start Num: 1
Candidate Starts for Morrey_32:
(Start: 1 @17117 has 6 MA's), (2, 17306), (7, 17552), (63, 18446), (65, 18464), (67, 18470), (69, 18476), (73, 18527), (105, 18893), (118, 19058), (119, 19067), (122, 19103), (139, 19259), (213, 19751), (223, 19814), (225, 19865), (227, 19886), (228, 19889), (231, 19925), (237, 20015), (242, 20054), (263, 20186), (266, 20207), (270, 20231), (281, 20312), (304, 20486), (305, 20489), (307, 20498), (309, 20510), (313, 20558), (319, 20669), (321, 20717), (322, 20723), (324, 20762), (327, 20783), (335, 20933),

Gene: Mudpuppy_20 Start: 16045, Stop: 19062, Start Num: 21
Candidate Starts for Mudpuppy_20:
(Start: 21 @16045 has 33 MA's), (24, 16108), (31, 16192), (48, 16336), (107, 16837), (116, 16954), (117, 16966), (129, 17086), (144, 17230), (146, 17236), (174, 17428), (204, 17647), (207, 17698), (220, 17794), (221, 17797), (223, 17812), (224, 17827), (228, 17887), (235, 17965), (247, 18088), (253, 18139), (266, 18220), (300, 18472), (310, 18532), (319, 18673), (321, 18718), (333, 18889), (338, 19057),

Gene: Niobe_20 Start: 16028, Stop: 18865, Start Num: 21

Candidate Starts for Niobe_20:
(Start: 21 @16028 has 33 MA's), (24, 16091), (27, 16145), (31, 16175), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (142, 17072), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (247, 17891), (251, 17921), (253, 17942), (266, 18023), (273, 18065), (282, 18134), (295, 18239), (303, 18302), (319, 18476), (321, 18521), (326, 18575), (332, 18689), (333, 18692),

Gene: Nitro_20 Start: 16056, Stop: 18917, Start Num: 21
Candidate Starts for Nitro_20:
(Start: 21 @16056 has 33 MA's), (24, 16119), (27, 16173), (31, 16203), (35, 16227), (46, 16308), (105, 16725), (124, 16944), (139, 17091), (142, 17100), (149, 17151), (150, 17160), (181, 17349), (183, 17364), (184, 17376), (197, 17463), (204, 17505), (219, 17613), (228, 17718), (247, 17919), (251, 17949), (253, 17970), (266, 18054), (269, 18069), (274, 18108), (282, 18165), (297, 18288), (298, 18300), (307, 18348), (312, 18381), (316, 18444), (319, 18528), (332, 18741), (333, 18744),

Gene: NoSwimming_22 Start: 18041, Stop: 22300, Start Num: 1
Candidate Starts for NoSwimming_22:
(Start: 1 @18041 has 6 MA's), (2, 18230), (3, 18341), (6, 18449), (7, 18476), (8, 18485), (9, 18494), (10, 18620), (14, 18758), (17, 18875), (51, 19541), (60, 19625), (61, 19664), (64, 19688), (66, 19694), (71, 19718), (88, 19940), (94, 19976), (96, 19991), (97, 19997), (105, 20117), (108, 20156), (111, 20180), (119, 20303), (121, 20336), (122, 20339), (127, 20366), (130, 20399), (131, 20414), (132, 20429), (139, 20495), (140, 20498), (176, 20714), (178, 20726), (213, 20987), (227, 21122), (228, 21125), (231, 21161), (237, 21251), (241, 21284), (243, 21305), (245, 21314), (249, 21341), (261, 21404), (263, 21422), (266, 21443), (270, 21467), (278, 21506), (305, 21725), (309, 21746), (315, 21818), (319, 21905), (330, 22091), (334, 22163), (335, 22169),

Gene: Origami_19 Start: 14327, Stop: 17338, Start Num: 19
Candidate Starts for Origami_19:
(Start: 19 @14327 has 8 MA's), (28, 14483), (37, 14567), (38, 14576), (43, 14654), (50, 14804), (92, 15275), (103, 15434), (106, 15452), (112, 15536), (118, 15635), (128, 15725), (134, 15806), (135, 15815), (172, 16016), (226, 16085), (232, 16139), (250, 16334), (254, 16358), (256, 16379), (260, 16394), (265, 16436), (271, 16490), (280, 16556), (286, 16616), (308, 16769), (314, 16847), (319, 16946), (323, 17006),

Gene: Phives_21 Start: 17458, Stop: 20337, Start Num: 21
Candidate Starts for Phives_21:
(Start: 21 @17458 has 33 MA's), (36, 17650), (105, 18211), (133, 18523), (139, 18577), (160, 18673), (192, 18862), (210, 19012), (212, 19015), (213, 19027), (216, 19039), (223, 19090), (228, 19165), (247, 19366), (253, 19417), (266, 19498), (267, 19504), (276, 19558), (295, 19714), (319, 19948), (321, 19993), (332, 20161),

Gene: Pixelle_20 Start: 16401, Stop: 19310, Start Num: 21
Candidate Starts for Pixelle_20:
(Start: 21 @16401 has 33 MA's), (90, 17016), (105, 17154), (124, 17373), (137, 17493), (139, 17520), (142, 17529), (158, 17610), (166, 17658), (187, 17790), (188, 17793), (200, 17880), (203, 17898), (215, 18000), (219, 18030), (224, 18075), (228, 18135), (231, 18171), (247, 18336), (253, 18387), (266, 18471), (282, 18582), (306, 18762), (319, 18921), (321, 18966), (333, 19137),

Gene: Powerpuff_20 Start: 16097, Stop: 19069, Start Num: 21
Candidate Starts for Powerpuff_20:
(Start: 21 @16097 has 33 MA's), (24, 16160), (31, 16244), (48, 16388), (114, 16982), (141, 17213), (143, 17231), (156, 17309), (158, 17315), (159, 17318), (160, 17324), (174, 17435), (214, 17747),

(220, 17801), (221, 17804), (223, 17819), (224, 17834), (228, 17894), (247, 18095), (251, 18125), (253, 18146), (266, 18227), (300, 18479), (310, 18539), (319, 18680), (321, 18725), (333, 18896), (338, 19064),

Gene: PrairieDogTown_21 Start: 17117, Stop: 21064, Start Num: 1
Candidate Starts for PrairieDogTown_21:
(Start: 1 @17117 has 6 MA's), (2, 17306), (7, 17552), (63, 18446), (65, 18464), (67, 18470), (69, 18476), (73, 18527), (105, 18893), (118, 19058), (119, 19067), (122, 19103), (139, 19259), (213, 19751), (223, 19814), (225, 19865), (227, 19886), (228, 19889), (231, 19925), (237, 20015), (242, 20054), (263, 20186), (266, 20207), (270, 20231), (281, 20312), (304, 20486), (305, 20489), (307, 20498), (309, 20510), (313, 20558), (319, 20669), (321, 20717), (322, 20723), (324, 20762), (327, 20783), (335, 20933),

Gene: Pumpkins_20 Start: 16163, Stop: 19783, Start Num: 11
Candidate Starts for Pumpkins_20:
(Start: 11 @16163 has 3 MA's), (12, 16217), (13, 16226), (20, 16520), (40, 16748), (51, 16976), (59, 17048), (70, 17153), (75, 17216), (78, 17273), (93, 17432), (98, 17459), (105, 17570), (124, 17789), (139, 17936), (148, 17987), (163, 18074), (179, 18200), (191, 18263), (194, 18308), (201, 18353), (211, 18452), (228, 18608), (247, 18809), (253, 18860), (266, 18941), (295, 19157), (303, 19220), (319, 19394), (327, 19505), (332, 19607), (336, 19730),

Gene: Schaffner_20 Start: 16150, Stop: 19755, Start Num: 11
Candidate Starts for Schaffner_20:
(Start: 11 @16150 has 3 MA's), (13, 16213), (15, 16267), (16, 16312), (20, 16495), (22, 16531), (42, 16762), (79, 17254), (98, 17434), (105, 17545), (113, 17647), (124, 17764), (139, 17911), (151, 17995), (156, 18010), (163, 18046), (179, 18172), (191, 18235), (201, 18325), (224, 18520), (228, 18580), (242, 18745), (247, 18781), (251, 18811), (253, 18832), (266, 18913), (295, 19129), (303, 19192), (319, 19366), (327, 19477), (332, 19579), (333, 19582),

Gene: Scotia_22 Start: 18041, Stop: 22303, Start Num: 1
Candidate Starts for Scotia_22:
(Start: 1 @18041 has 6 MA's), (2, 18230), (3, 18341), (7, 18476), (9, 18494), (14, 18758), (17, 18875), (52, 19550), (57, 19580), (62, 19682), (68, 19709), (76, 19781), (77, 19811), (81, 19886), (83, 19901), (88, 19961), (98, 20042), (100, 20096), (105, 20153), (111, 20216), (119, 20339), (122, 20375), (127, 20402), (133, 20477), (137, 20504), (139, 20531), (142, 20540), (155, 20609), (169, 20699), (173, 20723), (182, 20771), (190, 20813), (198, 20873), (212, 20978), (222, 21047), (227, 21125), (228, 21128), (231, 21164), (237, 21254), (241, 21287), (243, 21308), (245, 21317), (249, 21344), (261, 21407), (263, 21425), (266, 21446), (270, 21470), (278, 21509), (305, 21728), (309, 21749), (315, 21821), (319, 21908), (324, 22004), (330, 22094), (334, 22166), (335, 22172),

Gene: ShakeItOph_19 Start: 14321, Stop: 17332, Start Num: 19
Candidate Starts for ShakeItOph_19:
(5, 13733), (Start: 19 @14321 has 8 MA's), (28, 14477), (38, 14570), (43, 14648), (92, 15269), (103, 15428), (106, 15446), (112, 15530), (126, 15698), (128, 15719), (135, 15809), (154, 15944), (172, 16010), (226, 16079), (232, 16133), (254, 16352), (256, 16373), (265, 16430), (279, 16523), (280, 16550), (286, 16610), (308, 16763), (319, 16940), (323, 17000),

Gene: Simpson_22 Start: 16046, Stop: 19063, Start Num: 21
Candidate Starts for Simpson_22:
(Start: 21 @16046 has 33 MA's), (24, 16109), (31, 16193), (48, 16337), (116, 16955), (129, 17087), (146, 17237), (174, 17429), (220, 17795), (221, 17798), (223, 17813), (224, 17828), (228, 17888), (247, 18089), (251, 18119), (253, 18140), (266, 18221), (300, 18473), (310, 18533), (319, 18674), (321, 18719), (333, 18890), (338, 19058),

Gene: Skelbel_21 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for Skelbel_21:
(Start: 21 @16028 has 33 MA's), (24, 16091), (27, 16145), (31, 16175), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (142, 17072), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (247, 17891), (251, 17921), (253, 17942), (266, 18023), (273, 18065), (282, 18134), (295, 18239), (303, 18302), (319, 18476), (321, 18521), (326, 18575), (332, 18689), (333, 18692),

Gene: Subaru_20 Start: 16028, Stop: 18865, Start Num: 21
Candidate Starts for Subaru_20:
(Start: 21 @16028 has 33 MA's), (24, 16091), (27, 16145), (31, 16175), (35, 16199), (105, 16697), (124, 16916), (139, 17063), (142, 17072), (149, 17123), (150, 17132), (177, 17303), (181, 17321), (183, 17336), (184, 17348), (195, 17426), (197, 17435), (204, 17477), (219, 17585), (223, 17615), (224, 17630), (228, 17690), (247, 17891), (251, 17921), (253, 17942), (266, 18023), (273, 18065), (282, 18134), (303, 18302), (319, 18476), (321, 18521), (326, 18575), (332, 18689), (333, 18692),

Gene: Tallboi_20 Start: 16061, Stop: 18886, Start Num: 21
Candidate Starts for Tallboi_20:
(Start: 21 @16061 has 33 MA's), (24, 16124), (27, 16178), (29, 16196), (31, 16208), (35, 16232), (105, 16730), (124, 16949), (139, 17096), (142, 17105), (158, 17186), (187, 17366), (203, 17474), (217, 17588), (219, 17606), (228, 17711), (235, 17789), (247, 17912), (249, 17927), (253, 17963), (258, 17987), (266, 18047), (282, 18158), (294, 18260), (319, 18497), (321, 18542), (332, 18710),

Gene: Tbone_20 Start: 16050, Stop: 19067, Start Num: 21
Candidate Starts for Tbone_20:
(Start: 21 @16050 has 33 MA's), (24, 16113), (31, 16197), (48, 16341), (107, 16842), (116, 16959), (117, 16971), (129, 17091), (144, 17235), (146, 17241), (174, 17433), (204, 17652), (207, 17703), (220, 17799), (221, 17802), (223, 17817), (224, 17832), (228, 17892), (235, 17970), (247, 18093), (253, 18144), (266, 18225), (274, 18279), (290, 18402), (306, 18516), (310, 18537), (319, 18678), (321, 18723), (333, 18894), (338, 19062),

Gene: TforTroy_20 Start: 16181, Stop: 19015, Start Num: 21
Candidate Starts for TforTroy_20:
(Start: 21 @16181 has 33 MA's), (24, 16244), (31, 16328), (35, 16352), (90, 16712), (105, 16850), (113, 16952), (124, 17069), (139, 17216), (142, 17225), (149, 17270), (158, 17306), (175, 17408), (187, 17486), (203, 17594), (217, 17708), (219, 17726), (225, 17807), (228, 17831), (235, 17909), (236, 17930), (247, 18032), (248, 18044), (253, 18083), (266, 18164), (282, 18275), (295, 18377), (306, 18449), (307, 18452), (310, 18470), (319, 18626), (321, 18671), (333, 18842),

Gene: Tian_20 Start: 16398, Stop: 19307, Start Num: 21
Candidate Starts for Tian_20:
(Start: 21 @16398 has 33 MA's), (90, 17013), (105, 17151), (124, 17370), (137, 17490), (139, 17517), (142, 17526), (158, 17607), (187, 17787), (200, 17877), (203, 17895), (219, 18027), (228, 18132), (231, 18168), (247, 18333), (249, 18348), (253, 18384), (258, 18408), (266, 18468), (282, 18579), (306, 18759), (319, 18918), (321, 18963), (333, 19134),

Gene: Tuck_21 Start: 17575, Stop: 20481, Start Num: 21
Candidate Starts for Tuck_21:
(Start: 21 @17575 has 33 MA's), (39, 17788), (46, 17911), (76, 18073), (105, 18328), (133, 18640), (139, 18694), (160, 18790), (171, 18871), (195, 19015), (210, 19129), (212, 19132), (213, 19144), (216, 19156), (223, 19207), (228, 19282), (235, 19360), (244, 19468), (247, 19483), (251, 19513),

(253, 19534), (266, 19618), (267, 19624), (282, 19729), (300, 19870), (307, 19912), (312, 19945), (316, 20008), (319, 20092), (321, 20137), (332, 20305), (333, 20308),

Gene: Turab_20 Start: 16058, Stop: 18916, Start Num: 21
Candidate Starts for Turab_20:
(Start: 21 @16058 has 33 MA's), (24, 16121), (27, 16175), (31, 16205), (90, 16610), (100, 16691), (105, 16748), (124, 16967), (139, 17114), (142, 17123), (150, 17183), (175, 17333), (183, 17387), (193, 17456), (197, 17486), (209, 17576), (217, 17618), (219, 17636), (228, 17741), (247, 17942), (249, 17957), (253, 17993), (266, 18077), (273, 18119), (295, 18293), (301, 18332), (319, 18527), (321, 18572), (332, 18740), (333, 18743),

Gene: Tutumahutu_20 Start: 16097, Stop: 19069, Start Num: 21
Candidate Starts for Tutumahutu_20:
(Start: 21 @16097 has 33 MA's), (24, 16160), (31, 16244), (48, 16388), (114, 16982), (141, 17213), (143, 17231), (156, 17309), (158, 17315), (159, 17318), (160, 17324), (174, 17435), (214, 17747), (220, 17801), (221, 17804), (223, 17819), (224, 17834), (228, 17894), (247, 18095), (251, 18125), (253, 18146), (264, 18209), (266, 18227), (300, 18479), (310, 18539), (319, 18680), (321, 18725), (333, 18896), (338, 19064),

Gene: VroomVroom_19 Start: 14338, Stop: 17349, Start Num: 19
Candidate Starts for VroomVroom_19:
(Start: 19 @14338 has 8 MA's), (28, 14494), (37, 14578), (38, 14587), (43, 14665), (92, 15286), (99, 15352), (103, 15445), (106, 15463), (112, 15547), (118, 15646), (128, 15736), (131, 15775), (172, 16027), (226, 16096), (232, 16150), (234, 16165), (254, 16369), (256, 16390), (265, 16447), (279, 16540), (280, 16567), (286, 16627), (308, 16780), (319, 16957), (323, 17017), (329, 17116),

Gene: Warda_20 Start: 16042, Stop: 19059, Start Num: 21
Candidate Starts for Warda_20:
(Start: 21 @16042 has 33 MA's), (24, 16105), (31, 16189), (48, 16333), (107, 16834), (116, 16951), (117, 16963), (129, 17083), (144, 17227), (146, 17233), (174, 17425), (204, 17644), (207, 17695), (220, 17791), (221, 17794), (223, 17809), (224, 17824), (228, 17884), (247, 18085), (253, 18136), (266, 18217), (300, 18469), (310, 18529), (319, 18670), (321, 18715), (333, 18886), (338, 19054),

Gene: Yang_20 Start: 16153, Stop: 19056, Start Num: 45
Candidate Starts for Yang_20:
(Start: 45 @16153 has 1 MA's), (49, 16216), (91, 16705), (105, 16843), (113, 16945), (124, 17062), (139, 17209), (179, 17473), (191, 17536), (201, 17626), (228, 17881), (231, 17917), (242, 18046), (247, 18082), (251, 18112), (253, 18133), (266, 18214), (295, 18430), (303, 18493), (319, 18667), (332, 18880), (333, 18883),

Gene: YesChef_20 Start: 16097, Stop: 19069, Start Num: 21
Candidate Starts for YesChef_20:
(Start: 21 @16097 has 33 MA's), (24, 16160), (31, 16244), (48, 16388), (114, 16982), (141, 17213), (143, 17231), (156, 17309), (158, 17315), (159, 17318), (160, 17324), (174, 17435), (214, 17747), (220, 17801), (221, 17804), (223, 17819), (224, 17834), (228, 17894), (247, 18095), (251, 18125), (253, 18146), (266, 18227), (300, 18479), (310, 18539), (311, 18548), (319, 18680), (321, 18725), (333, 18896), (338, 19064),