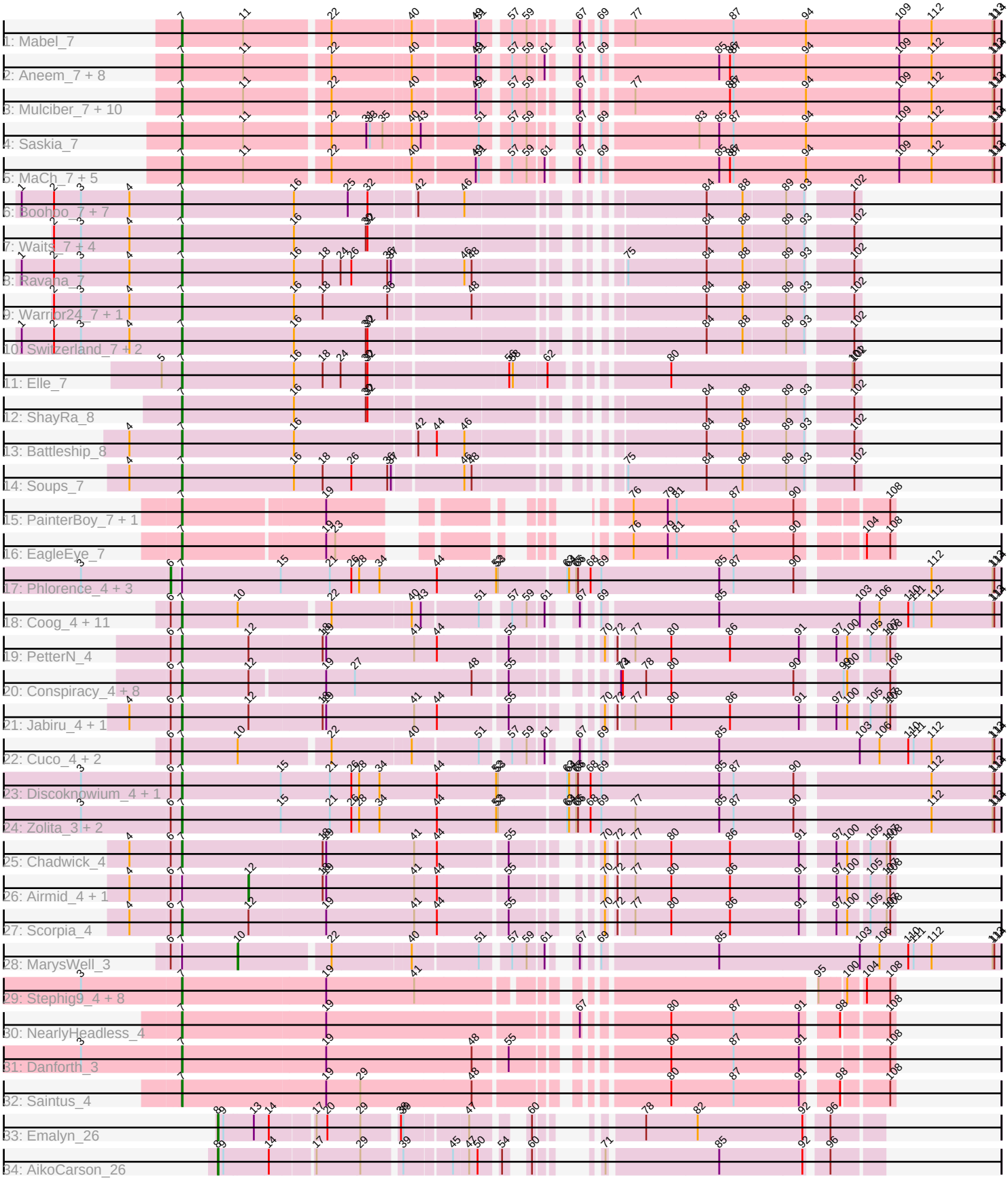
Pham 347441


1: Mabel_7
2: Aneem_7 + 8
3: Mulciber_7 + 10
4: Saskia_7
5: MaCh_7 + 5
6: Boohoo_7 + 7
7: Waits_7 + 4
8: Ravana_7
9: Warrior24_7 + 1
10: Switzerland_7 + 2
11: Elle_7
12: ShayRa_8
13: Battleship_8
14: Soups_7
15: PainterBoy_7 + 1
16: EagleEye_7
17: Phlorence_4 + 3
18: Coog_4 + 11
19: PetterN_4
20: Conspiracy_4 + 8
21: Jabiru_4 + 1
22: Cuco_4 + 2
23: Discoknowium_4 + 1
24: Zolita_3 + 2
25: Chadwick_4
26: Airmid_4 + 1
27: Scorpia_4
28: MarysWell_3
29: Stephig9_4 + 8
30: NearlyHeadless_4
31: Danforth_3
32: Saintus_4
33: Emalyn_26
34: AikoCarson_26

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 347441 Report

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

Pham number 347441 has 109 members, 2 are drafts.

Phages represented in each track:
• Track 1 : Mabel_7
• Track 2 : Aneem_7, Bowtie_7, Timothy_7, Orange_7, Munch_7, Joselito_7, Lucivia_7, Flaverint_7, Insomnia_7
• Track 3 : Mulciber_7, Salz_7, Wolpertinger_6, Bachome_7, Snape_7, Sham4_7, Bud_7, Hutc2_7, Petersenfast_7, Et2Brutus_6, Fibonacci_7
• Track 4 : Saskia_7
• Track 5 : MaCh_7, Jabith_7, Gilberta_7, TinyTimmy_7, Kimba_7, Ebony_7
• Track 6 : Boohoo_7, JSwag_7, Epsocamisio_7, Nebulosus_7, ReMo_7, Looper_7, LastResort_7, Anaysia_7
• Track 7 : Waits_7, KatherineG_7, Strosahl_7, Remus_7, DekHockey33_7
• Track 8 : Ravana_7
• Track 9 : Warrior24_7, Oofda_7
• Track 10 : Switzerland_7, Rosalind_7, MinecraftSteve_8
• Track 11 : Elle_7
• Track 12 : ShayRa_8
• Track 13 : Battleship_8
• Track 14 : Soups_7
• Track 15 : PainterBoy_7, Lucyedi_7
• Track 16 : EagleEye_7
• Track 17 : Phlorence_4, AgentM_4, Aragog_4, Jovo_4
• Track 18 : Coog_4, George_3, Milcery_4, Prinashe11_4, LittleCherry_4, Micasa_4, Tarynearal_3, Bonamassa_4, HuhtaEnerson15_4, Midas2_4, Twigg_4, Swirley_4
• Track 19 : PetterN_4
• Track 20 : Conspiracy_4, UnionJack_4, Florence1_4, Lev2_4, ForGetIt_4, Tiger_4, PickleBack_4, Florence4_4, Archetta_4
• Track 21 : Jabiru_4, ElTiger69_4
• Track 22 : Cuco_4, Theia_3, Dublin_3
• Track 23 : Discoknowium_4, Bluefalcon_3
• Track 24 : Zolita_3, Ghoulboy_4, SydNat_4
• Track 25 : Chadwick_4
• Track 26 : Airmid_4, Benedict_4
• Track 27 : Scorpia_4
• Track 28 : MarysWell_3
• Track 29 : Stephig9_4, Phillis_4, Expelliarmus_3, Dixon_4, Groundhog_3, Smeadley_4, Roary_4, Caitlin_4, Astro_4
• Track 30 : NearlyHeadless_4
• Track 31 : Danforth_3

• Track 32 : Saintus_4
• Track 33 : Emalyn_26
• Track 34 : AikoCarson_26

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

The start number called the most often in the published annotations is 7, it was called in 98 of the 107 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anaysia_7, Aneem_7, Archetta_4, Astro_4, Bachome_7, Battleship_8, Bluefalcon_3, Bonamassa_4, Boohoo_7, Bowtie_7, Bud_7, Caitlin_4, Chadwick_4, Conspiracy_4, Coog_4, Cuco_4, Danforth_3, DekHockey33_7, Discoknowium_4, Dixon_4, Dublin_3, EagleEye_7, Ebony_7, ElTiger69_4, Elle_7, Epsocamisio_7, Et2Brutus_6, Expelliarmus_3, Fibonacci_7, Flaverint_7, Florence1_4, Florence4_4, ForGetIt_4, George_3, Ghoulboy_4, Gilberta_7, Groundhog_3, HuhtaEnerson15_4, Hutc2_7, Insomnia_7, JSwag_7, Jabiru_4, Jabith_7, Joselito_7, KatherineG_7, Kimba_7, LastResort_7, Lev2_4, LittleCherry_4, Looper_7, Lucivia_7, Lucyedi_7, MaCh_7, Mabel_7, Micasa_4, Midas2_4, Milcery_4, MinecraftSteve_8, Mulciber_7, Munch_7, NearlyHeadless_4, Nebulosus_7, Oofda_7, Orange_7, PainterBoy_7, Petersenfast_7, PetterN_4, Phillis_4, PickleBack_4, Prinashe11_4, Ravana_7, ReMo_7, Remus_7, Roary_4, Rosalind_7, Saintus_4, Salz_7, Saskia_7, Scorpia_4, Sham4_7, ShayRa_8, Smeadley_4, Snape_7, Soups_7, Stephig9_4, Strosahl_7, Swirley_4, Switzerland_7, SydNat_4, Tarynearal_3, Theia_3, Tiger_4, Timothy_7, TinyTimmy_7, Twigg_4, UnionJack_4, Waits_7, Warrior24_7, Wolpertinger_6, Zolita_3,

Genes that have the "Most Annotated" start but do not call it:
• AgentM_4, Airmid_4, Aragog_4, Benedict_4, Jovo_4, MarysWell_3, Phlorence_4,

Genes that do not have the "Most Annotated" start:
• AikoCarson_26, Emalyn_26,

Summary by start number:

Start 6:
• Found in 41 of 109 (37.6%) of genes in pham
• Manual Annotations of this start: 4 of 107
• Called 9.8% of time when present
• Phage (with cluster) where this start called: AgentM_4 (A5), Aragog_4 (A5), Jovo_4 (A5), Phlorence_4 (A5),

Start 7:
• Found in 107 of 109 (98.2%) of genes in pham
• Manual Annotations of this start: 98 of 107
• Called 93.5% of time when present
• Phage (with cluster) where this start called: Anaysia_7 (A15), Aneem_7 (A11), Archetta_4 (A5), Astro_4 (A8), Bachome_7 (A11), Battleship_8 (A15), Bluefalcon_3 (A5), Bonamassa_4 (A5), Boohoo_7 (A15), Bowtie_7 (A11), Bud_7 (A11), Caitlin_4 (A8), Chadwick_4 (A5), Conspiracy_4 (A5), Coog_4 (A5), Cuco_4 (A5), Danforth_3

(A8), DekHockey33_7 (A15), Discoknowium_4 (A5), Dixon_4 (A8), Dublin_3 (A5), EagleEye_7 (A16), Ebony_7 (A11), ElTiger69_4 (A5), Elle_7 (A15), Epsocamisio_7 (A15), Et2Brutus_6 (A11), Expelliarmus_3 (A8), Fibonacci_7 (A11), Flaverint_7 (A11), Florence1_4 (A5), Florence4_4 (A5), ForGetIt_4 (A5), George_3 (A5), Ghoulboy_4 (A5), Gilberta_7 (A11), Groundhog_3 (A8), HuhtaEnerson15_4 (A5), Hutc2_7 (A11), Insomnia_7 (A11), JSwag_7 (A15), Jabiru_4 (A5), Jabith_7 (A11), Joselito_7 (A11), KatherineG_7 (A15), Kimba_7 (A11), LastResort_7 (A15), Lev2_4 (A5), LittleCherry_4 (A5), Looper_7 (A15), Lucivia_7 (A11), Lucyedi_7 (A16), MaCh_7 (A11), Mabel_7 (A11), Micasa_4 (A5), Midas2_4 (A5), Milcery_4 (A5), MinecraftSteve_8 (A15), Mulciber_7 (A11), Munch_7 (A11), NearlyHeadless_4 (A8), Nebulosus_7 (A15), Oofda_7 (A15), Orange_7 (A11), PainterBoy_7 (A16), Petersenfast_7 (A11), PetterN_4 (A5), Phillis_4 (A8), PickleBack_4 (A5), Prinashe11_4 (A5), Ravana_7 (A15), ReMo_7 (A15), Remus_7 (A15), Roary_4 (A8), Rosalind_7 (A15), Saintus_4 (A8), Salz_7 (A11), Saskia_7 (A11), Scorpia_4 (A5), Sham4_7 (A11), ShayRa_8 (A15), Smeadley_4 (A8), Snape_7 (A11), Soups_7 (A15), Stephig9_4 (A8), Strosahl_7 (A15), Swirley_4 (A5), Switzerland_7 (A15), SydNat_4 (A5), Tarynearal_3 (A5), Theia_3 (A5), Tiger_4 (A5), Timothy_7 (A11), TinyTimmy_7 (A11), Twigg_4 (A5), UnionJack_4 (A5), Waits_7 (A15), Warrior24_7 (A15), Wolpertinger_6 (A11), Zolita_3 (A5),

Start 8:
• Found in 2 of 109 (1.8%) of genes in pham
• Manual Annotations of this start: 2 of 107
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AikoCarson_26 (CT), Emalyn_26 (CT),

Start 10:
• Found in 16 of 109 (14.7%) of genes in pham
• Manual Annotations of this start: 1 of 107
• Called 6.2% of time when present
• Phage (with cluster) where this start called: MarysWell_3 (A5),

Start 12:
• Found in 15 of 109 (13.8%) of genes in pham
• Manual Annotations of this start: 2 of 107
• Called 13.3% of time when present
• Phage (with cluster) where this start called: Airmid_4 (A5), Benedict_4 (A5),

Summary by clusters:

There are 6 clusters represented in this pham: A15, A16, A11, A5, A8, CT,

Info for manual annotations of cluster A11:
•Start number 7 was manually annotated 28 times for cluster A11.

Info for manual annotations of cluster A15:
•Start number 7 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 7 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A5:
•Start number 6 was manually annotated 4 times for cluster A5.

•Start number 7 was manually annotated 32 times for cluster A5.
•Start number 10 was manually annotated 1 time for cluster A5.
•Start number 12 was manually annotated 2 times for cluster A5.

Info for manual annotations of cluster A8:
•Start number 7 was manually annotated 12 times for cluster A8.

Info for manual annotations of cluster CT:
•Start number 8 was manually annotated 2 times for cluster CT.

Gene Information:

Gene: AgentM_4 Start: 2343, Stop: 3680, Start Num: 6
Candidate Starts for AgentM_4:
(3, 2196), (Start: 6 @2343 has 4 MA's), (Start: 7 @2355 has 98 MA's), (15, 2520), (21, 2601), (26, 2637), (28, 2649), (34, 2682), (44, 2778), (52, 2874), (53, 2877), (63, 2982), (64, 2985), (65, 2997), (66, 3000), (68, 3021), (69, 3039), (85, 3234), (87, 3258), (90, 3357), (112, 3567), (113, 3669), (114, 3672),

Gene: AikoCarson_26 Start: 21241, Stop: 22128, Start Num: 8
Candidate Starts for AikoCarson_26:
(Start: 8 @21241 has 2 MA's), (9, 21250), (14, 21322), (17, 21388), (29, 21460), (39, 21517), (45, 21589), (47, 21613), (50, 21625), (54, 21652), (60, 21670), (71, 21706), (85, 21880), (92, 22018), (96, 22048),

Gene: Airmid_4 Start: 2465, Stop: 3403, Start Num: 12
Candidate Starts for Airmid_4:
(4, 2276), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (18, 2585), (19, 2591), (41, 2738), (44, 2774), (55, 2879), (70, 2972), (72, 2981), (77, 3005), (80, 3065), (86, 3161), (91, 3275), (97, 3317), (100, 3335), (105, 3362), (107, 3389), (108, 3395),

Gene: Anaysia_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Anaysia_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Aneem_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Aneem_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Aragog_4 Start: 2373, Stop: 3710, Start Num: 6
Candidate Starts for Aragog_4:
(3, 2226), (Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (15, 2550), (21, 2631), (26, 2667), (28, 2679), (34, 2712), (44, 2808), (52, 2904), (53, 2907), (63, 3012), (64, 3015), (65, 3027), (66, 3030), (68, 3051), (69, 3069), (85, 3264), (87, 3288), (90, 3387), (112, 3597), (113, 3699), (114, 3702),

Gene: Archetta_4 Start: 2385, Stop: 3440, Start Num: 7
Candidate Starts for Archetta_4:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 12 @2496 has 2 MA's), (19, 2613), (27, 2661), (48, 2853), (55, 2901), (73, 3015), (74, 3018), (78, 3057), (80, 3099), (90, 3300), (99, 3363),

(100, 3369), (108, 3432),

Gene: Astro_4 Start: 2306, Stop: 3343, Start Num: 7
Candidate Starts for Astro_4:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (41, 2690), (95, 3236), (100, 3275), (104, 3299), (108, 3335),

Gene: Bachome_7 Start: 4193, Stop: 5407, Start Num: 7
Candidate Starts for Bachome_7:
(Start: 7 @4193 has 98 MA's), (11, 4295), (22, 4427), (40, 4553), (49, 4646), (51, 4649), (57, 4685), (59, 4703), (67, 4745), (77, 4802), (86, 4958), (87, 4964), (94, 5084), (109, 5240), (112, 5294), (113, 5396), (114, 5399),

Gene: Battleship_8 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for Battleship_8:
(4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (42, 3942), (44, 3972), (46, 4017), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Benedict_4 Start: 2467, Stop: 3405, Start Num: 12
Candidate Starts for Benedict_4:
(4, 2278), (Start: 6 @2344 has 4 MA's), (Start: 7 @2356 has 98 MA's), (Start: 12 @2467 has 2 MA's), (18, 2587), (19, 2593), (41, 2740), (44, 2776), (55, 2881), (70, 2974), (72, 2983), (77, 3007), (80, 3067), (86, 3163), (91, 3277), (97, 3319), (100, 3337), (105, 3364), (107, 3391), (108, 3397),

Gene: Bluefalcon_3 Start: 2352, Stop: 3677, Start Num: 7
Candidate Starts for Bluefalcon_3:
(3, 2193), (Start: 6 @2340 has 4 MA's), (Start: 7 @2352 has 98 MA's), (15, 2517), (21, 2598), (26, 2634), (28, 2646), (34, 2679), (44, 2775), (52, 2871), (53, 2874), (63, 2979), (64, 2982), (65, 2994), (66, 2997), (68, 3018), (69, 3036), (85, 3231), (87, 3255), (90, 3354), (112, 3564), (113, 3666), (114, 3669),

Gene: Bonamassa_4 Start: 2386, Stop: 3603, Start Num: 7
Candidate Starts for Bonamassa_4:
(Start: 6 @2374 has 4 MA's), (Start: 7 @2386 has 98 MA's), (Start: 10 @2479 has 1 MA's), (22, 2620), (40, 2746), (43, 2758), (51, 2842), (57, 2878), (59, 2896), (61, 2920), (67, 2938), (69, 2950), (85, 3133), (103, 3367), (106, 3400), (110, 3448), (111, 3457), (112, 3487), (113, 3589), (114, 3592),

Gene: Boohoo_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Boohoo_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Bowtie_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Bowtie_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Bud_7 Start: 4202, Stop: 5416, Start Num: 7
Candidate Starts for Bud_7:
(Start: 7 @4202 has 98 MA's), (11, 4304), (22, 4436), (40, 4562), (49, 4655), (51, 4658), (57, 4694), (59, 4712), (67, 4754), (77, 4811), (86, 4967), (87, 4973), (94, 5093), (109, 5249), (112, 5303), (113, 5405), (114, 5408),

Gene: Caitlin_4 Start: 2306, Stop: 3343, Start Num: 7
Candidate Starts for Caitlin_4:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (41, 2690), (95, 3236), (100, 3275), (104, 3299), (108, 3335),

Gene: Chadwick_4 Start: 2353, Stop: 3402, Start Num: 7
Candidate Starts for Chadwick_4:
(4, 2275), (Start: 6 @2341 has 4 MA's), (Start: 7 @2353 has 98 MA's), (18, 2584), (19, 2590), (41, 2737), (44, 2773), (55, 2878), (70, 2971), (72, 2980), (77, 3004), (80, 3064), (86, 3160), (91, 3274), (97, 3316), (100, 3334), (105, 3361), (107, 3388), (108, 3394),

Gene: Conspiracy_4 Start: 2386, Stop: 3441, Start Num: 7
Candidate Starts for Conspiracy_4:
(Start: 6 @2374 has 4 MA's), (Start: 7 @2386 has 98 MA's), (Start: 12 @2497 has 2 MA's), (19, 2614), (27, 2662), (48, 2854), (55, 2902), (73, 3016), (74, 3019), (78, 3058), (80, 3100), (90, 3301), (99, 3364), (100, 3370), (108, 3433),

Gene: Coog_4 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Coog_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (43, 2726), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: Cuco_4 Start: 2385, Stop: 3602, Start Num: 7
Candidate Starts for Cuco_4:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 10 @2478 has 1 MA's), (22, 2619), (40, 2745), (51, 2841), (57, 2877), (59, 2895), (61, 2919), (67, 2937), (69, 2949), (85, 3132), (103, 3366), (106, 3399), (110, 3447), (111, 3456), (112, 3486), (113, 3588), (114, 3591),

Gene: Danforth_3 Start: 2306, Stop: 3358, Start Num: 7
Candidate Starts for Danforth_3:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (48, 2783), (55, 2831), (80, 3029), (87, 3131), (91, 3239), (108, 3350),

Gene: DekHockey33_7 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for DekHockey33_7:
(2, 3348), (3, 3393), (4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Discoknowium_4 Start: 2385, Stop: 3710, Start Num: 7
Candidate Starts for Discoknowium_4:
(3, 2226), (Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (15, 2550), (21, 2631), (26, 2667), (28, 2679), (34, 2712), (44, 2808), (52, 2904), (53, 2907), (63, 3012), (64, 3015), (65, 3027), (66, 3030), (68, 3051), (69, 3069), (85, 3264), (87, 3288), (90, 3387), (112, 3597), (113, 3699), (114, 3702),

Gene: Dixon_4 Start: 2307, Stop: 3344, Start Num: 7
Candidate Starts for Dixon_4:
(3, 2148), (Start: 7 @2307 has 98 MA's), (19, 2544), (41, 2691), (95, 3237), (100, 3276), (104, 3300), (108, 3336),

Gene: Dublin_3 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Dublin_3:

(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: EagleEye_7 Start: 3969, Stop: 4871, Start Num: 7
Candidate Starts for EagleEye_7:
(Start: 7 @3969 has 98 MA's), (19, 4197), (23, 4212), (76, 4479), (79, 4536), (81, 4551), (87, 4644), (90, 4743), (104, 4827), (108, 4863),

Gene: Ebony_7 Start: 4202, Stop: 5416, Start Num: 7
Candidate Starts for Ebony_7:
(Start: 7 @4202 has 98 MA's), (11, 4304), (22, 4436), (40, 4562), (49, 4655), (51, 4658), (57, 4694), (59, 4712), (61, 4736), (67, 4754), (69, 4766), (85, 4949), (86, 4967), (87, 4973), (94, 5093), (109, 5249), (112, 5303), (113, 5405), (114, 5408),

Gene: ElTiger69_4 Start: 2354, Stop: 3403, Start Num: 7
Candidate Starts for ElTiger69_4:
(4, 2276), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (18, 2585), (19, 2591), (41, 2738), (44, 2774), (55, 2879), (70, 2972), (72, 2981), (77, 3005), (80, 3065), (86, 3161), (91, 3275), (97, 3317), (100, 3335), (105, 3362), (107, 3389), (108, 3395),

Gene: Elle_7 Start: 3277, Stop: 4311, Start Num: 7
Candidate Starts for Elle_7:
(5, 3244), (Start: 7 @3277 has 98 MA's), (16, 3460), (18, 3508), (24, 3538), (30, 3580), (32, 3583), (56, 3802), (58, 3808), (62, 3862), (80, 4021), (101, 4297), (102, 4300),

Gene: Emalyn_26 Start: 21242, Stop: 22129, Start Num: 8
Candidate Starts for Emalyn_26:
(Start: 8 @21242 has 2 MA's), (9, 21251), (13, 21299), (14, 21323), (17, 21389), (20, 21407), (29, 21461), (38, 21515), (39, 21518), (47, 21614), (60, 21671), (78, 21761), (82, 21845), (92, 22019), (96, 22049),

Gene: Epsocamisio_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Epsocamisio_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Et2Brutus_6 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Et2Brutus_6:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Expelliarmus_3 Start: 2307, Stop: 3344, Start Num: 7
Candidate Starts for Expelliarmus_3:
(3, 2148), (Start: 7 @2307 has 98 MA's), (19, 2544), (41, 2691), (95, 3237), (100, 3276), (104, 3300), (108, 3336),

Gene: Fibonacci_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Fibonacci_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Flaverint_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Flaverint_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Florence1_4 Start: 2354, Stop: 3409, Start Num: 7
Candidate Starts for Florence1_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (19, 2582), (27, 2630), (48, 2822), (55, 2870), (73, 2984), (74, 2987), (78, 3026), (80, 3068), (90, 3269), (99, 3332), (100, 3338), (108, 3401),

Gene: Florence4_4 Start: 2354, Stop: 3409, Start Num: 7
Candidate Starts for Florence4_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (19, 2582), (27, 2630), (48, 2822), (55, 2870), (73, 2984), (74, 2987), (78, 3026), (80, 3068), (90, 3269), (99, 3332), (100, 3338), (108, 3401),

Gene: ForGetIt_4 Start: 2412, Stop: 3467, Start Num: 7
Candidate Starts for ForGetIt_4:
(Start: 6 @2400 has 4 MA's), (Start: 7 @2412 has 98 MA's), (Start: 12 @2523 has 2 MA's), (19, 2640), (27, 2688), (48, 2880), (55, 2928), (73, 3042), (74, 3045), (78, 3084), (80, 3126), (90, 3327), (99, 3390), (100, 3396), (108, 3459),

Gene: George_3 Start: 2385, Stop: 3602, Start Num: 7
Candidate Starts for George_3:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 10 @2478 has 1 MA's), (22, 2619), (40, 2745), (43, 2757), (51, 2841), (57, 2877), (59, 2895), (61, 2919), (67, 2937), (69, 2949), (85, 3132), (103, 3366), (106, 3399), (110, 3447), (111, 3456), (112, 3486), (113, 3588), (114, 3591),

Gene: Ghoulboy_4 Start: 2354, Stop: 3679, Start Num: 7
Candidate Starts for Ghoulboy_4:
(3, 2195), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (15, 2519), (21, 2600), (26, 2636), (28, 2648), (34, 2681), (44, 2777), (52, 2873), (53, 2876), (63, 2981), (64, 2984), (65, 2996), (66, 2999), (68, 3020), (69, 3038), (77, 3095), (85, 3233), (87, 3257), (90, 3356), (112, 3566), (113, 3668), (114, 3671),

Gene: Gilberta_7 Start: 4193, Stop: 5407, Start Num: 7
Candidate Starts for Gilberta_7:
(Start: 7 @4193 has 98 MA's), (11, 4295), (22, 4427), (40, 4553), (49, 4646), (51, 4649), (57, 4685), (59, 4703), (61, 4727), (67, 4745), (69, 4757), (85, 4940), (86, 4958), (87, 4964), (94, 5084), (109, 5240), (112, 5294), (113, 5396), (114, 5399),

Gene: Groundhog_3 Start: 2308, Stop: 3345, Start Num: 7
Candidate Starts for Groundhog_3:
(3, 2149), (Start: 7 @2308 has 98 MA's), (19, 2545), (41, 2692), (95, 3238), (100, 3277), (104, 3301), (108, 3337),

Gene: HuhtaEnerson15_4 Start: 2386, Stop: 3603, Start Num: 7
Candidate Starts for HuhtaEnerson15_4:
(Start: 6 @2374 has 4 MA's), (Start: 7 @2386 has 98 MA's), (Start: 10 @2479 has 1 MA's), (22, 2620), (40, 2746), (43, 2758), (51, 2842), (57, 2878), (59, 2896), (61, 2920), (67, 2938), (69, 2950), (85, 3133),

(103, 3367), (106, 3400), (110, 3448), (111, 3457), (112, 3487), (113, 3589), (114, 3592),

Gene: Hutc2_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Hutc2_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Insomnia_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Insomnia_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: JSwag_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for JSwag_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Jabiru_4 Start: 2354, Stop: 3403, Start Num: 7
Candidate Starts for Jabiru_4:
(4, 2276), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (18, 2585), (19, 2591), (41, 2738), (44, 2774), (55, 2879), (70, 2972), (72, 2981), (77, 3005), (80, 3065), (86, 3161), (91, 3275), (97, 3317), (100, 3335), (105, 3362), (107, 3389), (108, 3395),

Gene: Jabith_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Jabith_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Joselito_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Joselito_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Jovo_4 Start: 2374, Stop: 3711, Start Num: 6
Candidate Starts for Jovo_4:
(3, 2227), (Start: 6 @2374 has 4 MA's), (Start: 7 @2386 has 98 MA's), (15, 2551), (21, 2632), (26, 2668), (28, 2680), (34, 2713), (44, 2809), (52, 2905), (53, 2908), (63, 3013), (64, 3016), (65, 3028), (66, 3031), (68, 3052), (69, 3070), (85, 3265), (87, 3289), (90, 3388), (112, 3598), (113, 3700), (114, 3703),

Gene: KatherineG_7 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for KatherineG_7:
(2, 3348), (3, 3393), (4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Kimba_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Kimba_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: LastResort_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for LastResort_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Lev2_4 Start: 2385, Stop: 3440, Start Num: 7
Candidate Starts for Lev2_4:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 12 @2496 has 2 MA's), (19, 2613), (27, 2661), (48, 2853), (55, 2901), (73, 3015), (74, 3018), (78, 3057), (80, 3099), (90, 3300), (99, 3363), (100, 3369), (108, 3432),

Gene: LittleCherry_4 Start: 2387, Stop: 3604, Start Num: 7
Candidate Starts for LittleCherry_4:
(Start: 6 @2375 has 4 MA's), (Start: 7 @2387 has 98 MA's), (Start: 10 @2480 has 1 MA's), (22, 2621), (40, 2747), (43, 2759), (51, 2843), (57, 2879), (59, 2897), (61, 2921), (67, 2939), (69, 2951), (85, 3134), (103, 3368), (106, 3401), (110, 3449), (111, 3458), (112, 3488), (113, 3590), (114, 3593),

Gene: Looper_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Looper_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Lucivia_7 Start: 4193, Stop: 5407, Start Num: 7
Candidate Starts for Lucivia_7:
(Start: 7 @4193 has 98 MA's), (11, 4295), (22, 4427), (40, 4553), (49, 4646), (51, 4649), (57, 4685), (59, 4703), (61, 4727), (67, 4745), (69, 4757), (85, 4940), (86, 4958), (87, 4964), (94, 5084), (109, 5240), (112, 5294), (113, 5396), (114, 5399),

Gene: Lucyedi_7 Start: 3969, Stop: 4871, Start Num: 7
Candidate Starts for Lucyedi_7:
(Start: 7 @3969 has 98 MA's), (19, 4197), (76, 4479), (79, 4536), (81, 4551), (87, 4644), (90, 4743), (108, 4863),

Gene: MaCh_7 Start: 4193, Stop: 5407, Start Num: 7
Candidate Starts for MaCh_7:
(Start: 7 @4193 has 98 MA's), (11, 4295), (22, 4427), (40, 4553), (49, 4646), (51, 4649), (57, 4685), (59, 4703), (61, 4727), (67, 4745), (69, 4757), (85, 4940), (86, 4958), (87, 4964), (94, 5084), (109, 5240), (112, 5294), (113, 5396), (114, 5399),

Gene: Mabel_7 Start: 4208, Stop: 5422, Start Num: 7
Candidate Starts for Mabel_7:
(Start: 7 @4208 has 98 MA's), (11, 4310), (22, 4442), (40, 4568), (49, 4661), (51, 4664), (57, 4700), (59, 4718), (67, 4760), (69, 4772), (77, 4817), (87, 4979), (94, 5099), (109, 5255), (112, 5309), (113, 5411), (114, 5414),

Gene: MarysWell_3 Start: 2448, Stop: 3572, Start Num: 10
Candidate Starts for MarysWell_3:
(Start: 6 @2343 has 4 MA's), (Start: 7 @2355 has 98 MA's), (Start: 10 @2448 has 1 MA's), (22, 2589), (40, 2715), (51, 2811), (57, 2847), (59, 2865), (61, 2889), (67, 2907), (69, 2919), (85, 3102), (103, 3336), (106, 3369), (110, 3417), (111, 3426), (112, 3456), (113, 3558), (114, 3561),

Gene: Micasa_4 Start: 2355, Stop: 3572, Start Num: 7

Candidate Starts for Micasa_4:
(Start: 6 @2343 has 4 MA's), (Start: 7 @2355 has 98 MA's), (Start: 10 @2448 has 1 MA's), (22, 2589), (40, 2715), (43, 2727), (51, 2811), (57, 2847), (59, 2865), (61, 2889), (67, 2907), (69, 2919), (85, 3102), (103, 3336), (106, 3369), (110, 3417), (111, 3426), (112, 3456), (113, 3558), (114, 3561),

Gene: Midas2_4 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Midas2_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (43, 2726), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: Milcery_4 Start: 2385, Stop: 3602, Start Num: 7
Candidate Starts for Milcery_4:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 10 @2478 has 1 MA's), (22, 2619), (40, 2745), (43, 2757), (51, 2841), (57, 2877), (59, 2895), (61, 2919), (67, 2937), (69, 2949), (85, 3132), (103, 3366), (106, 3399), (110, 3447), (111, 3456), (112, 3486), (113, 3588), (114, 3591),

Gene: MinecraftSteve_8 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for MinecraftSteve_8:
(1, 3294), (2, 3348), (3, 3393), (4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Mulciber_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Mulciber_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Munch_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Munch_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: NearlyHeadless_4 Start: 2306, Stop: 3358, Start Num: 7
Candidate Starts for NearlyHeadless_4:
(Start: 7 @2306 has 98 MA's), (19, 2543), (67, 2912), (80, 3029), (87, 3131), (91, 3239), (98, 3284), (108, 3350),

Gene: Nebulosus_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Nebulosus_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Oofda_7 Start: 3417, Stop: 4409, Start Num: 7
Candidate Starts for Oofda_7:
(2, 3204), (3, 3249), (4, 3330), (Start: 7 @3417 has 98 MA's), (16, 3603), (18, 3651), (36, 3759), (48, 3885), (84, 4182), (88, 4239), (89, 4305), (93, 4335), (102, 4398),

Gene: Orange_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Orange_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109,

5243), (112, 5297), (113, 5399), (114, 5402),

Gene: PainterBoy_7 Start: 3969, Stop: 4871, Start Num: 7
Candidate Starts for PainterBoy_7:
(Start: 7 @3969 has 98 MA's), (19, 4197), (76, 4479), (79, 4536), (81, 4551), (87, 4644), (90, 4743), (108, 4863),

Gene: Petersenfast_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Petersenfast_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: PetterN_4 Start: 2354, Stop: 3403, Start Num: 7
Candidate Starts for PetterN_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 12 @2465 has 2 MA's), (18, 2585), (19, 2591), (41, 2738), (44, 2774), (55, 2879), (70, 2972), (72, 2981), (77, 3005), (80, 3065), (86, 3161), (91, 3275), (97, 3317), (100, 3335), (105, 3362), (107, 3389), (108, 3395),

Gene: Phillis_4 Start: 2306, Stop: 3343, Start Num: 7
Candidate Starts for Phillis_4:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (41, 2690), (95, 3236), (100, 3275), (104, 3299), (108, 3335),

Gene: Phlorence_4 Start: 2373, Stop: 3710, Start Num: 6
Candidate Starts for Phlorence_4:
(3, 2226), (Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (15, 2550), (21, 2631), (26, 2667), (28, 2679), (34, 2712), (44, 2808), (52, 2904), (53, 2907), (63, 3012), (64, 3015), (65, 3027), (66, 3030), (68, 3051), (69, 3069), (85, 3264), (87, 3288), (90, 3387), (112, 3597), (113, 3699), (114, 3702),

Gene: PickleBack_4 Start: 2386, Stop: 3441, Start Num: 7
Candidate Starts for PickleBack_4:
(Start: 6 @2374 has 4 MA's), (Start: 7 @2386 has 98 MA's), (Start: 12 @2497 has 2 MA's), (19, 2614), (27, 2662), (48, 2854), (55, 2902), (73, 3016), (74, 3019), (78, 3058), (80, 3100), (90, 3301), (99, 3364), (100, 3370), (108, 3433),

Gene: Prinashe11_4 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Prinashe11_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (43, 2726), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: Ravana_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Ravana_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (18, 3648), (24, 3678), (26, 3696), (36, 3756), (37, 3762), (46, 3870), (48, 3882), (75, 4053), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: ReMo_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for ReMo_7:
(1, 3147), (2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (25, 3690), (32, 3723), (42, 3795), (46, 3870), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Remus_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Remus_7:
(2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (30, 3720), (32, 3723), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Roary_4 Start: 2306, Stop: 3343, Start Num: 7
Candidate Starts for Roary_4:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (41, 2690), (95, 3236), (100, 3275), (104, 3299), (108, 3335),

Gene: Rosalind_7 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for Rosalind_7:
(1, 3294), (2, 3348), (3, 3393), (4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Saintus_4 Start: 2306, Stop: 3358, Start Num: 7
Candidate Starts for Saintus_4:
(Start: 7 @2306 has 98 MA's), (19, 2543), (29, 2600), (48, 2783), (80, 3029), (87, 3131), (91, 3239), (98, 3284), (108, 3350),

Gene: Salz_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Salz_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (67, 4748), (77, 4805), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Saskia_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Saskia_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (31, 4490), (33, 4496), (35, 4517), (40, 4559), (43, 4571), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (69, 4763), (83, 4913), (85, 4946), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Scorpia_4 Start: 2355, Stop: 3404, Start Num: 7
Candidate Starts for Scorpia_4:
(4, 2277), (Start: 6 @2343 has 4 MA's), (Start: 7 @2355 has 98 MA's), (Start: 12 @2466 has 2 MA's), (19, 2592), (41, 2739), (44, 2775), (55, 2880), (70, 2973), (72, 2982), (77, 3006), (80, 3066), (86, 3162), (91, 3276), (97, 3318), (100, 3336), (105, 3363), (107, 3390), (108, 3396),

Gene: Sham4_7 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Sham4_7:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: ShayRa_8 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for ShayRa_8:
(Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Smeadley_4 Start: 2306, Stop: 3343, Start Num: 7
Candidate Starts for Smeadley_4:
(3, 2147), (Start: 7 @2306 has 98 MA's), (19, 2543), (41, 2690), (95, 3236), (100, 3275), (104, 3299), (108, 3335),

Gene: Snape_7 Start: 4202, Stop: 5416, Start Num: 7
Candidate Starts for Snape_7:
(Start: 7 @4202 has 98 MA's), (11, 4304), (22, 4436), (40, 4562), (49, 4655), (51, 4658), (57, 4694), (59, 4712), (67, 4754), (77, 4811), (86, 4967), (87, 4973), (94, 5093), (109, 5249), (112, 5303), (113, 5405), (114, 5408),

Gene: Soups_7 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for Soups_7:
(4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (18, 3795), (26, 3843), (36, 3903), (37, 3909), (46, 4017), (48, 4029), (75, 4200), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: Stephig9_4 Start: 2307, Stop: 3344, Start Num: 7
Candidate Starts for Stephig9_4:
(3, 2148), (Start: 7 @2307 has 98 MA's), (19, 2544), (41, 2691), (95, 3237), (100, 3276), (104, 3300), (108, 3336),

Gene: Strosahl_7 Start: 3414, Stop: 4406, Start Num: 7
Candidate Starts for Strosahl_7:
(2, 3201), (3, 3246), (4, 3327), (Start: 7 @3414 has 98 MA's), (16, 3600), (30, 3720), (32, 3723), (84, 4179), (88, 4236), (89, 4302), (93, 4332), (102, 4395),

Gene: Swirley_4 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Swirley_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (43, 2726), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: Switzerland_7 Start: 3561, Stop: 4553, Start Num: 7
Candidate Starts for Switzerland_7:
(1, 3294), (2, 3348), (3, 3393), (4, 3474), (Start: 7 @3561 has 98 MA's), (16, 3747), (30, 3867), (32, 3870), (84, 4326), (88, 4383), (89, 4449), (93, 4479), (102, 4542),

Gene: SydNat_4 Start: 2354, Stop: 3679, Start Num: 7
Candidate Starts for SydNat_4:
(3, 2195), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (15, 2519), (21, 2600), (26, 2636), (28, 2648), (34, 2681), (44, 2777), (52, 2873), (53, 2876), (63, 2981), (64, 2984), (65, 2996), (66, 2999), (68, 3020), (69, 3038), (77, 3095), (85, 3233), (87, 3257), (90, 3356), (112, 3566), (113, 3668), (114, 3671),

Gene: Tarynearal_3 Start: 2383, Stop: 3600, Start Num: 7
Candidate Starts for Tarynearal_3:
(Start: 6 @2371 has 4 MA's), (Start: 7 @2383 has 98 MA's), (Start: 10 @2476 has 1 MA's), (22, 2617), (40, 2743), (43, 2755), (51, 2839), (57, 2875), (59, 2893), (61, 2917), (67, 2935), (69, 2947), (85, 3130), (103, 3364), (106, 3397), (110, 3445), (111, 3454), (112, 3484), (113, 3586), (114, 3589),

Gene: Theia_3 Start: 2355, Stop: 3572, Start Num: 7
Candidate Starts for Theia_3:
(Start: 6 @2343 has 4 MA's), (Start: 7 @2355 has 98 MA's), (Start: 10 @2448 has 1 MA's), (22, 2589), (40, 2715), (51, 2811), (57, 2847), (59, 2865), (61, 2889), (67, 2907), (69, 2919), (85, 3102), (103, 3336), (106, 3369), (110, 3417), (111, 3426), (112, 3456), (113, 3558), (114, 3561),

Gene: Tiger_4 Start: 2385, Stop: 3440, Start Num: 7

Candidate Starts for Tiger_4:
(Start: 6 @2373 has 4 MA's), (Start: 7 @2385 has 98 MA's), (Start: 12 @2496 has 2 MA's), (19, 2613), (27, 2661), (48, 2853), (55, 2901), (73, 3015), (74, 3018), (78, 3057), (80, 3099), (90, 3300), (99, 3363), (100, 3369), (108, 3432),

Gene: Timothy_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for Timothy_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: TinyTimmy_7 Start: 4196, Stop: 5410, Start Num: 7
Candidate Starts for TinyTimmy_7:
(Start: 7 @4196 has 98 MA's), (11, 4298), (22, 4430), (40, 4556), (49, 4649), (51, 4652), (57, 4688), (59, 4706), (61, 4730), (67, 4748), (69, 4760), (85, 4943), (86, 4961), (87, 4967), (94, 5087), (109, 5243), (112, 5297), (113, 5399), (114, 5402),

Gene: Twigg_4 Start: 2354, Stop: 3571, Start Num: 7
Candidate Starts for Twigg_4:
(Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (Start: 10 @2447 has 1 MA's), (22, 2588), (40, 2714), (43, 2726), (51, 2810), (57, 2846), (59, 2864), (61, 2888), (67, 2906), (69, 2918), (85, 3101), (103, 3335), (106, 3368), (110, 3416), (111, 3425), (112, 3455), (113, 3557), (114, 3560),

Gene: UnionJack_4 Start: 2352, Stop: 3407, Start Num: 7
Candidate Starts for UnionJack_4:
(Start: 6 @2340 has 4 MA's), (Start: 7 @2352 has 98 MA's), (Start: 12 @2463 has 2 MA's), (19, 2580), (27, 2628), (48, 2820), (55, 2868), (73, 2982), (74, 2985), (78, 3024), (80, 3066), (90, 3267), (99, 3330), (100, 3336), (108, 3399),

Gene: Waits_7 Start: 3413, Stop: 4405, Start Num: 7
Candidate Starts for Waits_7:
(2, 3200), (3, 3245), (4, 3326), (Start: 7 @3413 has 98 MA's), (16, 3599), (30, 3719), (32, 3722), (84, 4178), (88, 4235), (89, 4301), (93, 4331), (102, 4394),

Gene: Warrior24_7 Start: 3417, Stop: 4409, Start Num: 7
Candidate Starts for Warrior24_7:
(2, 3204), (3, 3249), (4, 3330), (Start: 7 @3417 has 98 MA's), (16, 3603), (18, 3651), (36, 3759), (48, 3885), (84, 4182), (88, 4239), (89, 4305), (93, 4335), (102, 4398),

Gene: Wolpertinger_6 Start: 4199, Stop: 5413, Start Num: 7
Candidate Starts for Wolpertinger_6:
(Start: 7 @4199 has 98 MA's), (11, 4301), (22, 4433), (40, 4559), (49, 4652), (51, 4655), (57, 4691), (59, 4709), (67, 4751), (77, 4808), (86, 4964), (87, 4970), (94, 5090), (109, 5246), (112, 5300), (113, 5402), (114, 5405),

Gene: Zolita_3 Start: 2354, Stop: 3679, Start Num: 7
Candidate Starts for Zolita_3:
(3, 2195), (Start: 6 @2342 has 4 MA's), (Start: 7 @2354 has 98 MA's), (15, 2519), (21, 2600), (26, 2636), (28, 2648), (34, 2681), (44, 2777), (52, 2873), (53, 2876), (63, 2981), (64, 2984), (65, 2996), (66, 2999), (68, 3020), (69, 3038), (77, 3095), (85, 3233), (87, 3257), (90, 3356), (112, 3566), (113, 3668), (114, 3671),