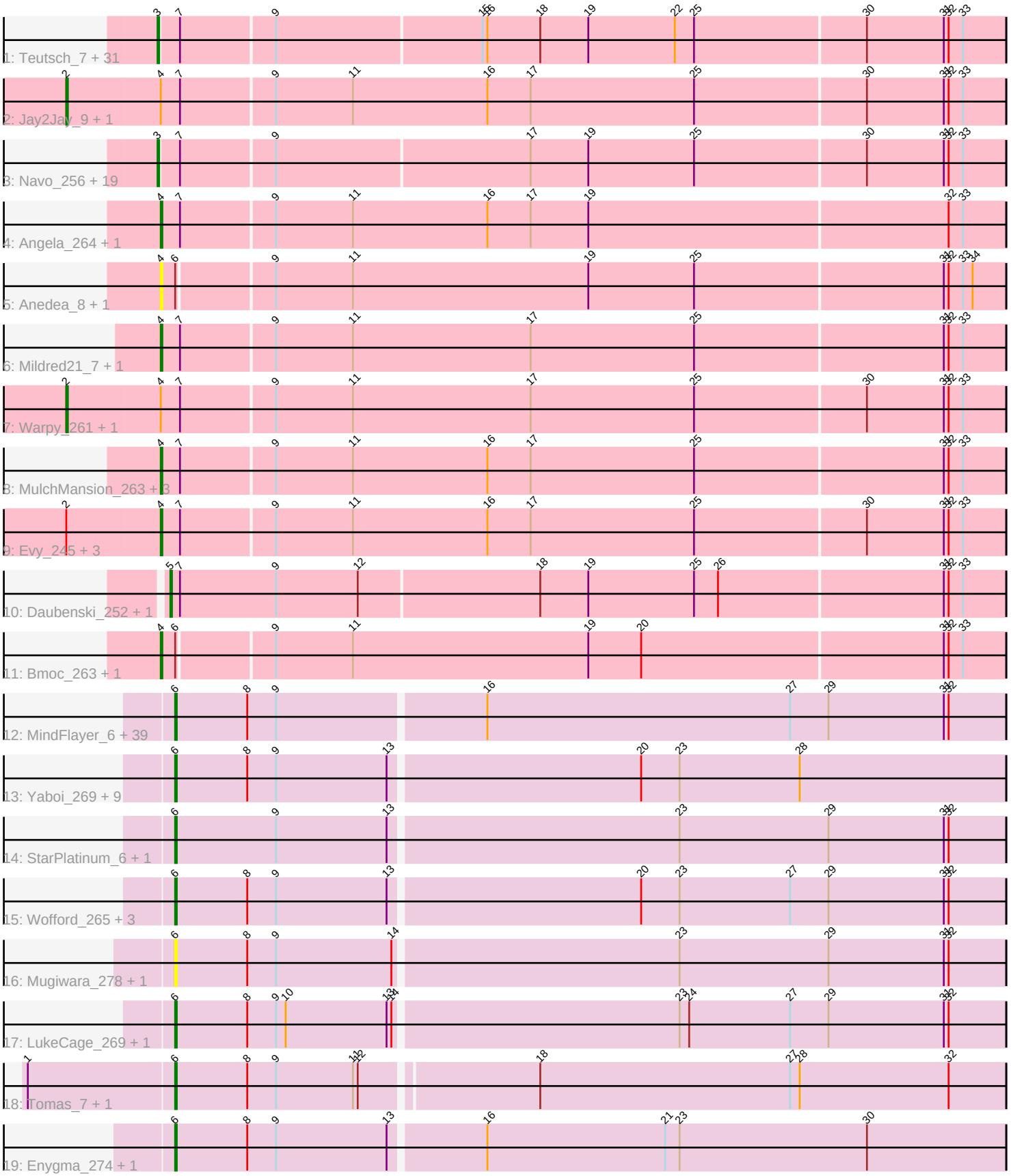
Pham 161690


1: Teutsch_7 + 31
2: Jay2Jay_9 + 1
3: Navo_256 + 19
4: Angela_264 + 1
5: Anedea_8 + 1
6: Mildred21_7 + 1
7: Warpy_261 + 1
8: MulchMansion_263 + 3
9: Evy_245 + 3
10: Daubenski_252 + 1
11: Bmoc_263 + 1
12: MindFlayer_6 + 39
13: Yaboi_269 + 9
14: StarPlatinum_6 + 1
15: Wofford_265 + 3
16: Mugiwara_278 + 1
17: LukeCage_269 + 1
18: Tomas_7 + 1
19: Enygma_274 + 1

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 161690 Report

This analysis was run 04/28/24 on database version 559.

Pham number 161690 has 138 members, 28 are drafts.

Phages represented in each track:
• Track 1 : Teutsch_7, Watermoore_7, Cursive_259, Sushi23_258, EGole_7, BlueOtter_7, HangryHippo_7, Larnav_268, Watermoore_254, Sushi23_8, HangryHippo_259, Lululemon_256, Peebs_254, Peebs_7, Leo04_258, PacManQ_257, Cross_7, Cross_255, Lululemon_6, Larnav_9, EGole_261, Leo04_7, Pepperwood_257, Cursive_5, Teutsch_254, PacManQ_6, Tribute_7, Tribute_253, BlueOtter_259, Pepperwood_8, Samisti12_258, Samisti12_7
• Track 2 : Jay2Jay_9, Jay2Jay_264
• Track 3 : Navo_256, WhereRU_7, PinkiePie_7, Braelyn_7, Bartholomune_7, Persimmon_257, Persimmon_6, Paradiddles_7, NootNoot_7, Squillium_7, Braelyn_252, Bartholomune_257, Liandry_256, NootNoot_252, WhereRU_263, Paradiddles_248, Liandry_7, PinkiePie_257, Navo_6, Squillium_259
• Track 4 : Angela_264, Angela_7
• Track 5 : Anedea_8, Anedea_270
• Track 6 : Mildred21_7, Mildred21_270
• Track 7 : Warpy_261, Warpy_9
• Track 8 : MulchMansion_263, LilMartin_259, MulchMansion_7, LilMartin_7
• Track 9 : Evy_245, Evy_7, Targaryen_258, Targaryen_7
• Track 10 : Daubenski_252, Daubenski_8
• Track 11 : Bmoc_263, Bmoc_7
• Track 12 : MindFlayer_6, Gibbi_6, Karimac_7, Starbow_7, Battuta_7, Jollison_271, Spilled_6, SaltySpitoon_7, PumpkinSpice_7, KentuckyRacer_281, PumpkinSpice_271, Starbow_264, MindFlayer_258, Quaran19_268, TomSawyer_272, JimJam_275, Wipeout_259, KentuckyRacer_7, Bordeaux_7, CeilingFan_280, Wipeout_6, Karimac_265, Spelly_273, TomSawyer_7, CeilingFan_6, Gibbi_277, Bordeaux_264, Amabiko_7, Battuta_264, Birchlyn_264, Birchlyn_4, Spilled_274, Amabiko_271, SaltySpitoon_267, Jollison_7, Spelly_7, JimJam_7, Quaran19_7, IchabodCrane_259, IchabodCrane_6
• Track 13 : Yaboi_269, Yaboi_8, Genie2_8, Stanimal_8, Stanimal_263, Sollertia_8, Genie2_263, BoomerJR_8, BoomerJR_263, Sollertia_264
• Track 14 : StarPlatinum_6, StarPlatinum_276
• Track 15 : Wofford_265, Elmer_7, Wofford_7, Elmer_283
• Track 16 : Mugiwara_278, Mugiwara_6
• Track 17 : LukeCage_269, LukeCage_6
• Track 18 : Tomas_7, Tomas_263
• Track 19 : Enygma_274, Enygma_6

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

The start number called the most often in the published annotations is 6, it was called in 52 of the 110 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Amabiko_271, Amabiko_7, Battuta_264, Battuta_7, Birchlyn_264, Birchlyn_4, BoomerJR_263, BoomerJR_8, Bordeaux_264, Bordeaux_7, CeilingFan_280, CeilingFan_6, Elmer_283, Elmer_7, Enygma_274, Enygma_6, Genie2_263, Genie2_8, Gibbi_277, Gibbi_6, IchabodCrane_259, IchabodCrane_6, JimJam_275, JimJam_7, Jollison_271, Jollison_7, Karimac_265, Karimac_7, KentuckyRacer_281, KentuckyRacer_7, LukeCage_269, LukeCage_6, MindFlayer_258, MindFlayer_6, Mugiwara_278, Mugiwara_6, PumpkinSpice_271, PumpkinSpice_7, Quaran19_268, Quaran19_7, SaltySpitoon_267, SaltySpitoon_7, Sollertia_264, Sollertia_8, Spelly_273, Spelly_7, Spilled_274, Spilled_6, Stanimal_263, Stanimal_8, StarPlatinum_276, StarPlatinum_6, Starbow_264, Starbow_7, TomSawyer_272, TomSawyer_7, Tomas_263, Tomas_7, Wipeout_259, Wipeout_6, Wofford_265, Wofford_7, Yaboi_269, Yaboi_8,

Genes that have the "Most Annotated" start but do not call it:
• Anedea_270, Anedea_8, Bmoc_263, Bmoc_7,

Genes that do not have the "Most Annotated" start:
• Angela_264, Angela_7, Bartholomune_257, Bartholomune_7, BlueOtter_259, BlueOtter_7, Braelyn_252, Braelyn_7, Cross_255, Cross_7, Cursive_259, Cursive_5, Daubenski_252, Daubenski_8, EGole_261, EGole_7, Evy_245, Evy_7, HangryHippo_259, HangryHippo_7, Jay2Jay_264, Jay2Jay_9, Larnav_268, Larnav_9, Leo04_258, Leo04_7, Liandry_256, Liandry_7, LilMartin_259, LilMartin_7, Lululemon_256, Lululemon_6, Mildred21_270, Mildred21_7, MulchMansion_263, MulchMansion_7, Navo_256, Navo_6, NootNoot_252, NootNoot_7, PacManQ_257, PacManQ_6, Paradiddles_248, Paradiddles_7, Peebs_254, Peebs_7, Pepperwood_257, Pepperwood_8, Persimmon_257, Persimmon_6, PinkiePie_257, PinkiePie_7, Samisti12_258, Samisti12_7, Squillium_259, Squillium_7, Sushi23_258, Sushi23_8, Targaryen_258, Targaryen_7, Teutsch_254, Teutsch_7, Tribute_253, Tribute_7, Warpy_261, Warpy_9, Watermoore_254, Watermoore_7, WhereRU_263, WhereRU_7,

Summary by start number:

Start 2:
• Found in 8 of 138 (5.8%) of genes in pham
• Manual Annotations of this start: 4 of 110
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Jay2Jay_264 (BE1), Jay2Jay_9 (BE1), Warpy_261 (BE1), Warpy_9 (BE1),

Start 3:
• Found in 52 of 138 (37.7%) of genes in pham
• Manual Annotations of this start: 38 of 110
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bartholomune_257 (BE1), Bartholomune_7 (BE1), BlueOtter_259 (BE1), BlueOtter_7 (BE1), Braelyn_252

(BE1), Braelyn_7 (BE1), Cross_255 (BE1), Cross_7 (BE1), Cursive_259 (BE1), Cursive_5 (BE1), EGole_261 (BE1), EGole_7 (BE1), HangryHippo_259 (BE1), HangryHippo_7 (BE1), Larnav_268 (BE1), Larnav_9 (BE1), Leo04_258 (BE1), Leo04_7 (BE1), Liandry_256 (BE1), Liandry_7 (BE1), Lululemon_256 (BE1), Lululemon_6 (BE1), Navo_256 (BE1), Navo_6 (BE1), NootNoot_252 (BE1), NootNoot_7 (BE1), PacManQ_257 (BE1), PacManQ_6 (BE1), Paradiddles_248 (BE1), Paradiddles_7 (BE1), Peebs_254 (BE1), Peebs_7 (BE1), Pepperwood_257 (BE1), Pepperwood_8 (BE1), Persimmon_257 (BE1), Persimmon_6 (BE1), PinkiePie_257 (BE1), PinkiePie_7 (BE1), Samisti12_258 (BE1), Samisti12_7 (BE1), Squillium_259 (BE1), Squillium_7 (BE1), Sushi23_258 (BE1), Sushi23_8 (BE1), Teutsch_254 (BE1), Teutsch_7 (BE1), Tribute_253 (BE1), Tribute_7 (BE1), Watermoore_254 (BE1), Watermoore_7 (BE1), WhereRU_263 (BE1), WhereRU_7 (BE1),

Start 4:
• Found in 20 of 138 (14.5%) of genes in pham
• Manual Annotations of this start: 14 of 110
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Anedea_270 (BE1), Anedea_8 (BE1), Angela_264 (BE1), Angela_7 (BE1), Bmoc_263 (BE1), Bmoc_7 (BE1), Evy_245 (BE1), Evy_7 (BE1), LilMartin_259 (BE1), LilMartin_7 (BE1), Mildred21_270 (BE1), Mildred21_7 (BE1), MulchMansion_263 (BE1), MulchMansion_7 (BE1), Targaryen_258 (BE1), Targaryen_7 (BE1),

Start 5:
• Found in 2 of 138 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 110
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Daubenski_252 (BE1), Daubenski_8 (BE1),

Start 6:
• Found in 68 of 138 (49.3%) of genes in pham
• Manual Annotations of this start: 52 of 110
• Called 94.1% of time when present
• Phage (with cluster) where this start called: Amabiko_271 (BE2), Amabiko_7 (BE2), Battuta_264 (BE2), Battuta_7 (BE2), Birchlyn_264 (BE2), Birchlyn_4 (BE2), BoomerJR_263 (BE2), BoomerJR_8 (BE2), Bordeaux_264 (BE2), Bordeaux_7 (BE2), CeilingFan_280 (BE2), CeilingFan_6 (BE2), Elmer_283 (BE2), Elmer_7 (BE2), Enygma_274 (BE2), Enygma_6 (BE2), Genie2_263 (BE2), Genie2_8 (BE2), Gibbi_277 (BE2), Gibbi_6 (BE2), IchabodCrane_259 (BE2), IchabodCrane_6 (BE2), JimJam_275 (BE2), JimJam_7 (BE2), Jollison_271 (BE2), Jollison_7 (BE2), Karimac_265 (BE2), Karimac_7 (BE2), KentuckyRacer_281 (BE2), KentuckyRacer_7 (BE2), LukeCage_269 (BE2), LukeCage_6 (BE2), MindFlayer_258 (BE2), MindFlayer_6 (BE2), Mugiwara_278 (BE2), Mugiwara_6 (BE2), PumpkinSpice_271 (BE2), PumpkinSpice_7 (BE2), Quaran19_268 (BE2), Quaran19_7 (BE2), SaltySpitoon_267 (BE2), SaltySpitoon_7 (BE2), Sollertia_264 (BE2), Sollertia_8 (BE2), Spelly_273 (BE2), Spelly_7 (BE2), Spilled_274 (BE2), Spilled_6 (BE2), Stanimal_263 (BE2), Stanimal_8 (BE2), StarPlatinum_276 (BE2), StarPlatinum_6 (BE2), Starbow_264 (BE2), Starbow_7 (BE2), TomSawyer_272 (BE2), TomSawyer_7 (BE2), Tomas_263 (BE2), Tomas_7 (BE2), Wipeout_259 (BE2), Wipeout_6 (BE2), Wofford_265 (BE2), Wofford_7 (BE2), Yaboi_269 (BE2), Yaboi_8 (BE2),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 2 was manually annotated 4 times for cluster BE1.
•Start number 3 was manually annotated 38 times for cluster BE1.
•Start number 4 was manually annotated 14 times for cluster BE1.
•Start number 5 was manually annotated 2 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 6 was manually annotated 52 times for cluster BE2.

Gene Information:

Gene: Amabiko_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Amabiko_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Amabiko_271 Start: 123250, Stop: 122738, Start Num: 6
Candidate Starts for Amabiko_271:
(Start: 6 @123250 has 52 MA's), (8, 123205), (9, 123187), (16, 123061), (27, 122872), (29, 122848), (31, 122776), (32, 122773),

Gene: Anedea_8 Start: 4666, Stop: 4148, Start Num: 4
Candidate Starts for Anedea_8:
(Start: 4 @4666 has 14 MA's), (Start: 6 @4657 has 52 MA's), (9, 4600), (11, 4552), (19, 4405), (25, 4339), (31, 4186), (32, 4183), (33, 4174), (34, 4168),

Gene: Anedea_270 Start: 127715, Stop: 127197, Start Num: 4
Candidate Starts for Anedea_270:
(Start: 4 @127715 has 14 MA's), (Start: 6 @127706 has 52 MA's), (9, 127649), (11, 127601), (19, 127454), (25, 127388), (31, 127235), (32, 127232), (33, 127223), (34, 127217),

Gene: Angela_264 Start: 127039, Stop: 126518, Start Num: 4
Candidate Starts for Angela_264:
(Start: 4 @127039 has 14 MA's), (7, 127027), (9, 126970), (11, 126922), (16, 126838), (17, 126811), (19, 126775), (32, 126553), (33, 126544),

Gene: Angela_7 Start: 4636, Stop: 4115, Start Num: 4
Candidate Starts for Angela_7:
(Start: 4 @4636 has 14 MA's), (7, 4624), (9, 4567), (11, 4519), (16, 4435), (17, 4408), (19, 4372), (32, 4150), (33, 4141),

Gene: Bartholomune_7 Start: 4222, Stop: 3704, Start Num: 3
Candidate Starts for Bartholomune_7:
(Start: 3 @4222 has 38 MA's), (7, 4210), (9, 4153), (17, 3997), (19, 3961), (25, 3895), (30, 3790), (31, 3742), (32, 3739), (33, 3730),

Gene: Bartholomune_257 Start: 125321, Stop: 124803, Start Num: 3

Candidate Starts for Bartholomune_257:
(Start: 3 @125321 has 38 MA's), (7, 125309), (9, 125252), (17, 125096), (19, 125060), (25, 124994), (30, 124889), (31, 124841), (32, 124838), (33, 124829),

Gene: Battuta_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Battuta_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Battuta_264 Start: 122579, Stop: 122067, Start Num: 6
Candidate Starts for Battuta_264:
(Start: 6 @122579 has 52 MA's), (8, 122534), (9, 122516), (16, 122390), (27, 122201), (29, 122177), (31, 122105), (32, 122102),

Gene: Birchlyn_264 Start: 118368, Stop: 117856, Start Num: 6
Candidate Starts for Birchlyn_264:
(Start: 6 @118368 has 52 MA's), (8, 118323), (9, 118305), (16, 118179), (27, 117990), (29, 117966), (31, 117894), (32, 117891),

Gene: Birchlyn_4 Start: 2277, Stop: 1765, Start Num: 6
Candidate Starts for Birchlyn_4:
(Start: 6 @2277 has 52 MA's), (8, 2232), (9, 2214), (16, 2088), (27, 1899), (29, 1875), (31, 1803), (32, 1800),

Gene: BlueOtter_7 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for BlueOtter_7:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: BlueOtter_259 Start: 125661, Stop: 125143, Start Num: 3
Candidate Starts for BlueOtter_259:
(Start: 3 @125661 has 38 MA's), (7, 125649), (9, 125592), (15, 125466), (16, 125463), (18, 125430), (19, 125400), (22, 125346), (25, 125334), (30, 125229), (31, 125181), (32, 125178), (33, 125169),

Gene: Bmoc_263 Start: 126520, Stop: 126002, Start Num: 4
Candidate Starts for Bmoc_263:
(Start: 4 @126520 has 14 MA's), (Start: 6 @126511 has 52 MA's), (9, 126454), (11, 126406), (19, 126259), (20, 126226), (31, 126040), (32, 126037), (33, 126028),

Gene: Bmoc_7 Start: 4698, Stop: 4180, Start Num: 4
Candidate Starts for Bmoc_7:
(Start: 4 @4698 has 14 MA's), (Start: 6 @4689 has 52 MA's), (9, 4632), (11, 4584), (19, 4437), (20, 4404), (31, 4218), (32, 4215), (33, 4206),

Gene: BoomerJR_8 Start: 4398, Stop: 3886, Start Num: 6
Candidate Starts for BoomerJR_8:
(Start: 6 @4398 has 52 MA's), (8, 4353), (9, 4335), (13, 4266), (20, 4113), (23, 4089), (28, 4014),

Gene: BoomerJR_263 Start: 123186, Stop: 122674, Start Num: 6
Candidate Starts for BoomerJR_263:
(Start: 6 @123186 has 52 MA's), (8, 123141), (9, 123123), (13, 123054), (20, 122901), (23, 122877), (28, 122802),

Gene: Bordeaux_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Bordeaux_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Bordeaux_264 Start: 123162, Stop: 122650, Start Num: 6
Candidate Starts for Bordeaux_264:
(Start: 6 @123162 has 52 MA's), (8, 123117), (9, 123099), (16, 122973), (27, 122784), (29, 122760), (31, 122688), (32, 122685),

Gene: Braelyn_7 Start: 4234, Stop: 3716, Start Num: 3
Candidate Starts for Braelyn_7:
(Start: 3 @4234 has 38 MA's), (7, 4222), (9, 4165), (17, 4009), (19, 3973), (25, 3907), (30, 3802), (31, 3754), (32, 3751), (33, 3742),

Gene: Braelyn_252 Start: 124644, Stop: 124126, Start Num: 3
Candidate Starts for Braelyn_252:
(Start: 3 @124644 has 38 MA's), (7, 124632), (9, 124575), (17, 124419), (19, 124383), (25, 124317), (30, 124212), (31, 124164), (32, 124161), (33, 124152),

Gene: CeilingFan_280 Start: 124642, Stop: 124130, Start Num: 6
Candidate Starts for CeilingFan_280:
(Start: 6 @124642 has 52 MA's), (8, 124597), (9, 124579), (16, 124453), (27, 124264), (29, 124240), (31, 124168), (32, 124165),

Gene: CeilingFan_6 Start: 4035, Stop: 3523, Start Num: 6
Candidate Starts for CeilingFan_6:
(Start: 6 @4035 has 52 MA's), (8, 3990), (9, 3972), (16, 3846), (27, 3657), (29, 3633), (31, 3561), (32, 3558),

Gene: Cross_7 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for Cross_7:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: Cross_255 Start: 126306, Stop: 125788, Start Num: 3
Candidate Starts for Cross_255:
(Start: 3 @126306 has 38 MA's), (7, 126294), (9, 126237), (15, 126111), (16, 126108), (18, 126075), (19, 126045), (22, 125991), (25, 125979), (30, 125874), (31, 125826), (32, 125823), (33, 125814),

Gene: Cursive_259 Start: 125401, Stop: 124883, Start Num: 3
Candidate Starts for Cursive_259:
(Start: 3 @125401 has 38 MA's), (7, 125389), (9, 125332), (15, 125206), (16, 125203), (18, 125170), (19, 125140), (22, 125086), (25, 125074), (30, 124969), (31, 124921), (32, 124918), (33, 124909),

Gene: Cursive_5 Start: 3392, Stop: 2874, Start Num: 3
Candidate Starts for Cursive_5:
(Start: 3 @3392 has 38 MA's), (7, 3380), (9, 3323), (15, 3197), (16, 3194), (18, 3161), (19, 3131), (22, 3077), (25, 3065), (30, 2960), (31, 2912), (32, 2909), (33, 2900),

Gene: Daubenski_252 Start: 126972, Stop: 126457, Start Num: 5
Candidate Starts for Daubenski_252:

(Start: 5 @126972 has 2 MA's), (7, 126966), (9, 126906), (12, 126855), (18, 126744), (19, 126714), (25, 126648), (26, 126633), (31, 126495), (32, 126492), (33, 126483),

Gene: Daubenski_8 Start: 4596, Stop: 4081, Start Num: 5
Candidate Starts for Daubenski_8:
(Start: 5 @4596 has 2 MA's), (7, 4590), (9, 4530), (12, 4479), (18, 4368), (19, 4338), (25, 4272), (26, 4257), (31, 4119), (32, 4116), (33, 4107),

Gene: EGole_7 Start: 4994, Stop: 4476, Start Num: 3
Candidate Starts for EGole_7:
(Start: 3 @4994 has 38 MA's), (7, 4982), (9, 4925), (15, 4799), (16, 4796), (18, 4763), (19, 4733), (22, 4679), (25, 4667), (30, 4562), (31, 4514), (32, 4511), (33, 4502),

Gene: EGole_261 Start: 129306, Stop: 128788, Start Num: 3
Candidate Starts for EGole_261:
(Start: 3 @129306 has 38 MA's), (7, 129294), (9, 129237), (15, 129111), (16, 129108), (18, 129075), (19, 129045), (22, 128991), (25, 128979), (30, 128874), (31, 128826), (32, 128823), (33, 128814),

Gene: Elmer_7 Start: 4303, Stop: 3791, Start Num: 6
Candidate Starts for Elmer_7:
(Start: 6 @4303 has 52 MA's), (8, 4258), (9, 4240), (13, 4171), (20, 4018), (23, 3994), (27, 3925), (29, 3901), (31, 3829), (32, 3826),

Gene: Elmer_283 Start: 126671, Stop: 126159, Start Num: 6
Candidate Starts for Elmer_283:
(Start: 6 @126671 has 52 MA's), (8, 126626), (9, 126608), (13, 126539), (20, 126386), (23, 126362), (27, 126293), (29, 126269), (31, 126197), (32, 126194),

Gene: Enygma_274 Start: 126406, Stop: 125894, Start Num: 6
Candidate Starts for Enygma_274:
(Start: 6 @126406 has 52 MA's), (8, 126361), (9, 126343), (13, 126274), (16, 126217), (21, 126106), (23, 126097), (30, 125980),

Gene: Enygma_6 Start: 3982, Stop: 3470, Start Num: 6
Candidate Starts for Enygma_6:
(Start: 6 @3982 has 52 MA's), (8, 3937), (9, 3919), (13, 3850), (16, 3793), (21, 3682), (23, 3673), (30, 3556),

Gene: Evy_245 Start: 126422, Stop: 125901, Start Num: 4
Candidate Starts for Evy_245:
(Start: 2 @126479 has 4 MA's), (Start: 4 @126422 has 14 MA's), (7, 126410), (9, 126353), (11, 126305), (16, 126221), (17, 126194), (25, 126092), (30, 125987), (31, 125939), (32, 125936), (33, 125927),

Gene: Evy_7 Start: 4693, Stop: 4172, Start Num: 4
Candidate Starts for Evy_7:
(Start: 2 @4750 has 4 MA's), (Start: 4 @4693 has 14 MA's), (7, 4681), (9, 4624), (11, 4576), (16, 4492), (17, 4465), (25, 4363), (30, 4258), (31, 4210), (32, 4207), (33, 4198),

Gene: Genie2_8 Start: 4398, Stop: 3886, Start Num: 6
Candidate Starts for Genie2_8:
(Start: 6 @4398 has 52 MA's), (8, 4353), (9, 4335), (13, 4266), (20, 4113), (23, 4089), (28, 4014),

Gene: Genie2_263 Start: 123299, Stop: 122787, Start Num: 6
Candidate Starts for Genie2_263:
(Start: 6 @123299 has 52 MA's), (8, 123254), (9, 123236), (13, 123167), (20, 123014), (23, 122990), (28, 122915),

Gene: Gibbi_6 Start: 4035, Stop: 3523, Start Num: 6
Candidate Starts for Gibbi_6:
(Start: 6 @4035 has 52 MA's), (8, 3990), (9, 3972), (16, 3846), (27, 3657), (29, 3633), (31, 3561), (32, 3558),

Gene: Gibbi_277 Start: 124135, Stop: 123623, Start Num: 6
Candidate Starts for Gibbi_277:
(Start: 6 @124135 has 52 MA's), (8, 124090), (9, 124072), (16, 123946), (27, 123757), (29, 123733), (31, 123661), (32, 123658),

Gene: HangryHippo_7 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for HangryHippo_7:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: HangryHippo_259 Start: 125661, Stop: 125143, Start Num: 3
Candidate Starts for HangryHippo_259:
(Start: 3 @125661 has 38 MA's), (7, 125649), (9, 125592), (15, 125466), (16, 125463), (18, 125430), (19, 125400), (22, 125346), (25, 125334), (30, 125229), (31, 125181), (32, 125178), (33, 125169),

Gene: IchabodCrane_259 Start: 122575, Stop: 122063, Start Num: 6
Candidate Starts for IchabodCrane_259:
(Start: 6 @122575 has 52 MA's), (8, 122530), (9, 122512), (16, 122386), (27, 122197), (29, 122173), (31, 122101), (32, 122098),

Gene: IchabodCrane_6 Start: 4032, Stop: 3520, Start Num: 6
Candidate Starts for IchabodCrane_6:
(Start: 6 @4032 has 52 MA's), (8, 3987), (9, 3969), (16, 3843), (27, 3654), (29, 3630), (31, 3558), (32, 3555),

Gene: Jay2Jay_9 Start: 4454, Stop: 3876, Start Num: 2
Candidate Starts for Jay2Jay_9:
(Start: 2 @4454 has 4 MA's), (Start: 4 @4397 has 14 MA's), (7, 4385), (9, 4328), (11, 4280), (16, 4196), (17, 4169), (25, 4067), (30, 3962), (31, 3914), (32, 3911), (33, 3902),

Gene: Jay2Jay_264 Start: 126547, Stop: 125969, Start Num: 2
Candidate Starts for Jay2Jay_264:
(Start: 2 @126547 has 4 MA's), (Start: 4 @126490 has 14 MA's), (7, 126478), (9, 126421), (11, 126373), (16, 126289), (17, 126262), (25, 126160), (30, 126055), (31, 126007), (32, 126004), (33, 125995),

Gene: JimJam_275 Start: 125959, Stop: 125447, Start Num: 6
Candidate Starts for JimJam_275:
(Start: 6 @125959 has 52 MA's), (8, 125914), (9, 125896), (16, 125770), (27, 125581), (29, 125557), (31, 125485), (32, 125482),

Gene: JimJam_7 Start: 4423, Stop: 3911, Start Num: 6
Candidate Starts for JimJam_7:

(Start: 6 @4423 has 52 MA's), (8, 4378), (9, 4360), (16, 4234), (27, 4045), (29, 4021), (31, 3949), (32, 3946),

Gene: Jollison_271 Start: 123099, Stop: 122587, Start Num: 6
Candidate Starts for Jollison_271:
(Start: 6 @123099 has 52 MA's), (8, 123054), (9, 123036), (16, 122910), (27, 122721), (29, 122697), (31, 122625), (32, 122622),

Gene: Jollison_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Jollison_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Karimac_7 Start: 4426, Stop: 3914, Start Num: 6
Candidate Starts for Karimac_7:
(Start: 6 @4426 has 52 MA's), (8, 4381), (9, 4363), (16, 4237), (27, 4048), (29, 4024), (31, 3952), (32, 3949),

Gene: Karimac_265 Start: 123745, Stop: 123233, Start Num: 6
Candidate Starts for Karimac_265:
(Start: 6 @123745 has 52 MA's), (8, 123700), (9, 123682), (16, 123556), (27, 123367), (29, 123343), (31, 123271), (32, 123268),

Gene: KentuckyRacer_281 Start: 125487, Stop: 124975, Start Num: 6
Candidate Starts for KentuckyRacer_281:
(Start: 6 @125487 has 52 MA's), (8, 125442), (9, 125424), (16, 125298), (27, 125109), (29, 125085), (31, 125013), (32, 125010),

Gene: KentuckyRacer_7 Start: 4036, Stop: 3524, Start Num: 6
Candidate Starts for KentuckyRacer_7:
(Start: 6 @4036 has 52 MA's), (8, 3991), (9, 3973), (16, 3847), (27, 3658), (29, 3634), (31, 3562), (32, 3559),

Gene: Larnav_268 Start: 126579, Stop: 126061, Start Num: 3
Candidate Starts for Larnav_268:
(Start: 3 @126579 has 38 MA's), (7, 126567), (9, 126510), (15, 126384), (16, 126381), (18, 126348), (19, 126318), (22, 126264), (25, 126252), (30, 126147), (31, 126099), (32, 126096), (33, 126087),

Gene: Larnav_9 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for Larnav_9:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: Leo04_258 Start: 126691, Stop: 126173, Start Num: 3
Candidate Starts for Leo04_258:
(Start: 3 @126691 has 38 MA's), (7, 126679), (9, 126622), (15, 126496), (16, 126493), (18, 126460), (19, 126430), (22, 126376), (25, 126364), (30, 126259), (31, 126211), (32, 126208), (33, 126199),

Gene: Leo04_7 Start: 4573, Stop: 4055, Start Num: 3
Candidate Starts for Leo04_7:
(Start: 3 @4573 has 38 MA's), (7, 4561), (9, 4504), (15, 4378), (16, 4375), (18, 4342), (19, 4312), (22, 4258), (25, 4246), (30, 4141), (31, 4093), (32, 4090), (33, 4081),

Gene: Liandry_256 Start: 125743, Stop: 125225, Start Num: 3
Candidate Starts for Liandry_256:
(Start: 3 @125743 has 38 MA's), (7, 125731), (9, 125674), (17, 125518), (19, 125482), (25, 125416), (30, 125311), (31, 125263), (32, 125260), (33, 125251),

Gene: Liandry_7 Start: 4222, Stop: 3704, Start Num: 3
Candidate Starts for Liandry_7:
(Start: 3 @4222 has 38 MA's), (7, 4210), (9, 4153), (17, 3997), (19, 3961), (25, 3895), (30, 3790), (31, 3742), (32, 3739), (33, 3730),

Gene: LilMartin_259 Start: 125954, Stop: 125433, Start Num: 4
Candidate Starts for LilMartin_259:
(Start: 4 @125954 has 14 MA's), (7, 125942), (9, 125885), (11, 125837), (16, 125753), (17, 125726), (25, 125624), (31, 125471), (32, 125468), (33, 125459),

Gene: LilMartin_7 Start: 4610, Stop: 4089, Start Num: 4
Candidate Starts for LilMartin_7:
(Start: 4 @4610 has 14 MA's), (7, 4598), (9, 4541), (11, 4493), (16, 4409), (17, 4382), (25, 4280), (31, 4127), (32, 4124), (33, 4115),

Gene: LukeCage_269 Start: 124930, Stop: 124418, Start Num: 6
Candidate Starts for LukeCage_269:
(Start: 6 @124930 has 52 MA's), (8, 124885), (9, 124867), (10, 124861), (13, 124798), (14, 124795), (23, 124621), (24, 124615), (27, 124552), (29, 124528), (31, 124456), (32, 124453),

Gene: LukeCage_6 Start: 4026, Stop: 3514, Start Num: 6
Candidate Starts for LukeCage_6:
(Start: 6 @4026 has 52 MA's), (8, 3981), (9, 3963), (10, 3957), (13, 3894), (14, 3891), (23, 3717), (24, 3711), (27, 3648), (29, 3624), (31, 3552), (32, 3549),

Gene: Lululemon_256 Start: 124846, Stop: 124328, Start Num: 3
Candidate Starts for Lululemon_256:
(Start: 3 @124846 has 38 MA's), (7, 124834), (9, 124777), (15, 124651), (16, 124648), (18, 124615), (19, 124585), (22, 124531), (25, 124519), (30, 124414), (31, 124366), (32, 124363), (33, 124354),

Gene: Lululemon_6 Start: 3954, Stop: 3436, Start Num: 3
Candidate Starts for Lululemon_6:
(Start: 3 @3954 has 38 MA's), (7, 3942), (9, 3885), (15, 3759), (16, 3756), (18, 3723), (19, 3693), (22, 3639), (25, 3627), (30, 3522), (31, 3474), (32, 3471), (33, 3462),

Gene: Mildred21_7 Start: 4196, Stop: 3675, Start Num: 4
Candidate Starts for Mildred21_7:
(Start: 4 @4196 has 14 MA's), (7, 4184), (9, 4127), (11, 4079), (17, 3968), (25, 3866), (31, 3713), (32, 3710), (33, 3701),

Gene: Mildred21_270 Start: 125354, Stop: 124833, Start Num: 4
Candidate Starts for Mildred21_270:
(Start: 4 @125354 has 14 MA's), (7, 125342), (9, 125285), (11, 125237), (17, 125126), (25, 125024), (31, 124871), (32, 124868), (33, 124859),

Gene: MindFlayer_6 Start: 4034, Stop: 3522, Start Num: 6
Candidate Starts for MindFlayer_6:

(Start: 6 @4034 has 52 MA's), (8, 3989), (9, 3971), (16, 3845), (27, 3656), (29, 3632), (31, 3560), (32, 3557),

Gene: MindFlayer_258 Start: 122094, Stop: 121582, Start Num: 6
Candidate Starts for MindFlayer_258:
(Start: 6 @122094 has 52 MA's), (8, 122049), (9, 122031), (16, 121905), (27, 121716), (29, 121692), (31, 121620), (32, 121617),

Gene: Mugiwara_278 Start: 125399, Stop: 124887, Start Num: 6
Candidate Starts for Mugiwara_278:
(Start: 6 @125399 has 52 MA's), (8, 125354), (9, 125336), (14, 125264), (23, 125090), (29, 124997), (31, 124925), (32, 124922),

Gene: Mugiwara_6 Start: 4014, Stop: 3502, Start Num: 6
Candidate Starts for Mugiwara_6:
(Start: 6 @4014 has 52 MA's), (8, 3969), (9, 3951), (14, 3879), (23, 3705), (29, 3612), (31, 3540), (32, 3537),

Gene: MulchMansion_263 Start: 127588, Stop: 127067, Start Num: 4
Candidate Starts for MulchMansion_263:
(Start: 4 @127588 has 14 MA's), (7, 127576), (9, 127519), (11, 127471), (16, 127387), (17, 127360), (25, 127258), (31, 127105), (32, 127102), (33, 127093),

Gene: MulchMansion_7 Start: 4610, Stop: 4089, Start Num: 4
Candidate Starts for MulchMansion_7:
(Start: 4 @4610 has 14 MA's), (7, 4598), (9, 4541), (11, 4493), (16, 4409), (17, 4382), (25, 4280), (31, 4127), (32, 4124), (33, 4115),

Gene: Navo_256 Start: 123645, Stop: 123127, Start Num: 3
Candidate Starts for Navo_256:
(Start: 3 @123645 has 38 MA's), (7, 123633), (9, 123576), (17, 123420), (19, 123384), (25, 123318), (30, 123213), (31, 123165), (32, 123162), (33, 123153),

Gene: Navo_6 Start: 4020, Stop: 3502, Start Num: 3
Candidate Starts for Navo_6:
(Start: 3 @4020 has 38 MA's), (7, 4008), (9, 3951), (17, 3795), (19, 3759), (25, 3693), (30, 3588), (31, 3540), (32, 3537), (33, 3528),

Gene: NootNoot_7 Start: 4232, Stop: 3714, Start Num: 3
Candidate Starts for NootNoot_7:
(Start: 3 @4232 has 38 MA's), (7, 4220), (9, 4163), (17, 4007), (19, 3971), (25, 3905), (30, 3800), (31, 3752), (32, 3749), (33, 3740),

Gene: NootNoot_252 Start: 124531, Stop: 124013, Start Num: 3
Candidate Starts for NootNoot_252:
(Start: 3 @124531 has 38 MA's), (7, 124519), (9, 124462), (17, 124306), (19, 124270), (25, 124204), (30, 124099), (31, 124051), (32, 124048), (33, 124039),

Gene: PacManQ_257 Start: 124846, Stop: 124328, Start Num: 3
Candidate Starts for PacManQ_257:
(Start: 3 @124846 has 38 MA's), (7, 124834), (9, 124777), (15, 124651), (16, 124648), (18, 124615), (19, 124585), (22, 124531), (25, 124519), (30, 124414), (31, 124366), (32, 124363), (33, 124354),

Gene: PacManQ_6 Start: 3954, Stop: 3436, Start Num: 3
Candidate Starts for PacManQ_6:
(Start: 3 @3954 has 38 MA's), (7, 3942), (9, 3885), (15, 3759), (16, 3756), (18, 3723), (19, 3693), (22, 3639), (25, 3627), (30, 3522), (31, 3474), (32, 3471), (33, 3462),

Gene: Paradiddles_7 Start: 4222, Stop: 3704, Start Num: 3
Candidate Starts for Paradiddles_7:
(Start: 3 @4222 has 38 MA's), (7, 4210), (9, 4153), (17, 3997), (19, 3961), (25, 3895), (30, 3790), (31, 3742), (32, 3739), (33, 3730),

Gene: Paradiddles_248 Start: 126930, Stop: 126412, Start Num: 3
Candidate Starts for Paradiddles_248:
(Start: 3 @126930 has 38 MA's), (7, 126918), (9, 126861), (17, 126705), (19, 126669), (25, 126603), (30, 126498), (31, 126450), (32, 126447), (33, 126438),

Gene: Peebs_254 Start: 126548, Stop: 126030, Start Num: 3
Candidate Starts for Peebs_254:
(Start: 3 @126548 has 38 MA's), (7, 126536), (9, 126479), (15, 126353), (16, 126350), (18, 126317), (19, 126287), (22, 126233), (25, 126221), (30, 126116), (31, 126068), (32, 126065), (33, 126056),

Gene: Peebs_7 Start: 4573, Stop: 4055, Start Num: 3
Candidate Starts for Peebs_7:
(Start: 3 @4573 has 38 MA's), (7, 4561), (9, 4504), (15, 4378), (16, 4375), (18, 4342), (19, 4312), (22, 4258), (25, 4246), (30, 4141), (31, 4093), (32, 4090), (33, 4081),

Gene: Pepperwood_257 Start: 126513, Stop: 125995, Start Num: 3
Candidate Starts for Pepperwood_257:
(Start: 3 @126513 has 38 MA's), (7, 126501), (9, 126444), (15, 126318), (16, 126315), (18, 126282), (19, 126252), (22, 126198), (25, 126186), (30, 126081), (31, 126033), (32, 126030), (33, 126021),

Gene: Pepperwood_8 Start: 4728, Stop: 4210, Start Num: 3
Candidate Starts for Pepperwood_8:
(Start: 3 @4728 has 38 MA's), (7, 4716), (9, 4659), (15, 4533), (16, 4530), (18, 4497), (19, 4467), (22, 4413), (25, 4401), (30, 4296), (31, 4248), (32, 4245), (33, 4236),

Gene: Persimmon_257 Start: 124831, Stop: 124313, Start Num: 3
Candidate Starts for Persimmon_257:
(Start: 3 @124831 has 38 MA's), (7, 124819), (9, 124762), (17, 124606), (19, 124570), (25, 124504), (30, 124399), (31, 124351), (32, 124348), (33, 124339),

Gene: Persimmon_6 Start: 4020, Stop: 3502, Start Num: 3
Candidate Starts for Persimmon_6:
(Start: 3 @4020 has 38 MA's), (7, 4008), (9, 3951), (17, 3795), (19, 3759), (25, 3693), (30, 3588), (31, 3540), (32, 3537), (33, 3528),

Gene: PinkiePie_7 Start: 4222, Stop: 3704, Start Num: 3
Candidate Starts for PinkiePie_7:
(Start: 3 @4222 has 38 MA's), (7, 4210), (9, 4153), (17, 3997), (19, 3961), (25, 3895), (30, 3790), (31, 3742), (32, 3739), (33, 3730),

Gene: PinkiePie_257 Start: 125743, Stop: 125225, Start Num: 3
Candidate Starts for PinkiePie_257:

(Start: 3 @125743 has 38 MA's), (7, 125731), (9, 125674), (17, 125518), (19, 125482), (25, 125416), (30, 125311), (31, 125263), (32, 125260), (33, 125251),

Gene: PumpkinSpice_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for PumpkinSpice_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: PumpkinSpice_271 Start: 124316, Stop: 123804, Start Num: 6
Candidate Starts for PumpkinSpice_271:
(Start: 6 @124316 has 52 MA's), (8, 124271), (9, 124253), (16, 124127), (27, 123938), (29, 123914), (31, 123842), (32, 123839),

Gene: Quaran19_268 Start: 123606, Stop: 123094, Start Num: 6
Candidate Starts for Quaran19_268:
(Start: 6 @123606 has 52 MA's), (8, 123561), (9, 123543), (16, 123417), (27, 123228), (29, 123204), (31, 123132), (32, 123129),

Gene: Quaran19_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Quaran19_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: SaltySpitoon_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for SaltySpitoon_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: SaltySpitoon_267 Start: 122688, Stop: 122176, Start Num: 6
Candidate Starts for SaltySpitoon_267:
(Start: 6 @122688 has 52 MA's), (8, 122643), (9, 122625), (16, 122499), (27, 122310), (29, 122286), (31, 122214), (32, 122211),

Gene: Samisti12_258 Start: 127617, Stop: 127099, Start Num: 3
Candidate Starts for Samisti12_258:
(Start: 3 @127617 has 38 MA's), (7, 127605), (9, 127548), (15, 127422), (16, 127419), (18, 127386), (19, 127356), (22, 127302), (25, 127290), (30, 127185), (31, 127137), (32, 127134), (33, 127125),

Gene: Samisti12_7 Start: 4573, Stop: 4055, Start Num: 3
Candidate Starts for Samisti12_7:
(Start: 3 @4573 has 38 MA's), (7, 4561), (9, 4504), (15, 4378), (16, 4375), (18, 4342), (19, 4312), (22, 4258), (25, 4246), (30, 4141), (31, 4093), (32, 4090), (33, 4081),

Gene: Sollertia_8 Start: 4398, Stop: 3886, Start Num: 6
Candidate Starts for Sollertia_8:
(Start: 6 @4398 has 52 MA's), (8, 4353), (9, 4335), (13, 4266), (20, 4113), (23, 4089), (28, 4014),

Gene: Sollertia_264 Start: 123288, Stop: 122776, Start Num: 6
Candidate Starts for Sollertia_264:
(Start: 6 @123288 has 52 MA's), (8, 123243), (9, 123225), (13, 123156), (20, 123003), (23, 122979), (28, 122904),

Gene: Spelly_273 Start: 123228, Stop: 122716, Start Num: 6

Candidate Starts for Spelly_273:
(Start: 6 @123228 has 52 MA's), (8, 123183), (9, 123165), (16, 123039), (27, 122850), (29, 122826), (31, 122754), (32, 122751),

Gene: Spelly_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Spelly_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Spilled_6 Start: 4034, Stop: 3522, Start Num: 6
Candidate Starts for Spilled_6:
(Start: 6 @4034 has 52 MA's), (8, 3989), (9, 3971), (16, 3845), (27, 3656), (29, 3632), (31, 3560), (32, 3557),

Gene: Spilled_274 Start: 124503, Stop: 123991, Start Num: 6
Candidate Starts for Spilled_274:
(Start: 6 @124503 has 52 MA's), (8, 124458), (9, 124440), (16, 124314), (27, 124125), (29, 124101), (31, 124029), (32, 124026),

Gene: Squillium_7 Start: 4222, Stop: 3704, Start Num: 3
Candidate Starts for Squillium_7:
(Start: 3 @4222 has 38 MA's), (7, 4210), (9, 4153), (17, 3997), (19, 3961), (25, 3895), (30, 3790), (31, 3742), (32, 3739), (33, 3730),

Gene: Squillium_259 Start: 125746, Stop: 125228, Start Num: 3
Candidate Starts for Squillium_259:
(Start: 3 @125746 has 38 MA's), (7, 125734), (9, 125677), (17, 125521), (19, 125485), (25, 125419), (30, 125314), (31, 125266), (32, 125263), (33, 125254),

Gene: Stanimal_8 Start: 4398, Stop: 3886, Start Num: 6
Candidate Starts for Stanimal_8:
(Start: 6 @4398 has 52 MA's), (8, 4353), (9, 4335), (13, 4266), (20, 4113), (23, 4089), (28, 4014),

Gene: Stanimal_263 Start: 123672, Stop: 123160, Start Num: 6
Candidate Starts for Stanimal_263:
(Start: 6 @123672 has 52 MA's), (8, 123627), (9, 123609), (13, 123540), (20, 123387), (23, 123363), (28, 123288),

Gene: StarPlatinum_6 Start: 4168, Stop: 3656, Start Num: 6
Candidate Starts for StarPlatinum_6:
(Start: 6 @4168 has 52 MA's), (9, 4105), (13, 4036), (23, 3859), (29, 3766), (31, 3694), (32, 3691),

Gene: StarPlatinum_276 Start: 125855, Stop: 125343, Start Num: 6
Candidate Starts for StarPlatinum_276:
(Start: 6 @125855 has 52 MA's), (9, 125792), (13, 125723), (23, 125546), (29, 125453), (31, 125381), (32, 125378),

Gene: Starbow_7 Start: 4424, Stop: 3912, Start Num: 6
Candidate Starts for Starbow_7:
(Start: 6 @4424 has 52 MA's), (8, 4379), (9, 4361), (16, 4235), (27, 4046), (29, 4022), (31, 3950), (32, 3947),

Gene: Starbow_264 Start: 123272, Stop: 122760, Start Num: 6

Candidate Starts for Starbow_264:
(Start: 6 @123272 has 52 MA's), (8, 123227), (9, 123209), (16, 123083), (27, 122894), (29, 122870), (31, 122798), (32, 122795),

Gene: Sushi23_258 Start: 127417, Stop: 126899, Start Num: 3
Candidate Starts for Sushi23_258:
(Start: 3 @127417 has 38 MA's), (7, 127405), (9, 127348), (15, 127222), (16, 127219), (18, 127186), (19, 127156), (22, 127102), (25, 127090), (30, 126985), (31, 126937), (32, 126934), (33, 126925),

Gene: Sushi23_8 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for Sushi23_8:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: Targaryen_258 Start: 128369, Stop: 127848, Start Num: 4
Candidate Starts for Targaryen_258:
(Start: 2 @128426 has 4 MA's), (Start: 4 @128369 has 14 MA's), (7, 128357), (9, 128300), (11, 128252), (16, 128168), (17, 128141), (25, 128039), (30, 127934), (31, 127886), (32, 127883), (33, 127874),

Gene: Targaryen_7 Start: 4693, Stop: 4172, Start Num: 4
Candidate Starts for Targaryen_7:
(Start: 2 @4750 has 4 MA's), (Start: 4 @4693 has 14 MA's), (7, 4681), (9, 4624), (11, 4576), (16, 4492), (17, 4465), (25, 4363), (30, 4258), (31, 4210), (32, 4207), (33, 4198),

Gene: Teutsch_7 Start: 4575, Stop: 4057, Start Num: 3
Candidate Starts for Teutsch_7:
(Start: 3 @4575 has 38 MA's), (7, 4563), (9, 4506), (15, 4380), (16, 4377), (18, 4344), (19, 4314), (22, 4260), (25, 4248), (30, 4143), (31, 4095), (32, 4092), (33, 4083),

Gene: Teutsch_254 Start: 126784, Stop: 126266, Start Num: 3
Candidate Starts for Teutsch_254:
(Start: 3 @126784 has 38 MA's), (7, 126772), (9, 126715), (15, 126589), (16, 126586), (18, 126553), (19, 126523), (22, 126469), (25, 126457), (30, 126352), (31, 126304), (32, 126301), (33, 126292),

Gene: TomSawyer_272 Start: 125797, Stop: 125285, Start Num: 6
Candidate Starts for TomSawyer_272:
(Start: 6 @125797 has 52 MA's), (8, 125752), (9, 125734), (16, 125608), (27, 125419), (29, 125395), (31, 125323), (32, 125320),

Gene: TomSawyer_7 Start: 4018, Stop: 3506, Start Num: 6
Candidate Starts for TomSawyer_7:
(Start: 6 @4018 has 52 MA's), (8, 3973), (9, 3955), (16, 3829), (27, 3640), (29, 3616), (31, 3544), (32, 3541),

Gene: Tomas_7 Start: 4430, Stop: 3921, Start Num: 6
Candidate Starts for Tomas_7:
(1, 4520), (Start: 6 @4430 has 52 MA's), (8, 4385), (9, 4367), (11, 4319), (12, 4316), (18, 4211), (27, 4055), (28, 4049), (32, 3956),

Gene: Tomas_263 Start: 126137, Stop: 125628, Start Num: 6
Candidate Starts for Tomas_263:

(1, 126227), (Start: 6 @126137 has 52 MA's), (8, 126092), (9, 126074), (11, 126026), (12, 126023), (18, 125918), (27, 125762), (28, 125756), (32, 125663),

Gene: Tribute_7 Start: 4574, Stop: 4056, Start Num: 3
Candidate Starts for Tribute_7:
(Start: 3 @4574 has 38 MA's), (7, 4562), (9, 4505), (15, 4379), (16, 4376), (18, 4343), (19, 4313), (22, 4259), (25, 4247), (30, 4142), (31, 4094), (32, 4091), (33, 4082),

Gene: Tribute_253 Start: 127118, Stop: 126600, Start Num: 3
Candidate Starts for Tribute_253:
(Start: 3 @127118 has 38 MA's), (7, 127106), (9, 127049), (15, 126923), (16, 126920), (18, 126887), (19, 126857), (22, 126803), (25, 126791), (30, 126686), (31, 126638), (32, 126635), (33, 126626),

Gene: Warpy_261 Start: 126013, Stop: 125435, Start Num: 2
Candidate Starts for Warpy_261:
(Start: 2 @126013 has 4 MA's), (Start: 4 @125956 has 14 MA's), (7, 125944), (9, 125887), (11, 125839), (17, 125728), (25, 125626), (30, 125521), (31, 125473), (32, 125470), (33, 125461),

Gene: Warpy_9 Start: 4475, Stop: 3897, Start Num: 2
Candidate Starts for Warpy_9:
(Start: 2 @4475 has 4 MA's), (Start: 4 @4418 has 14 MA's), (7, 4406), (9, 4349), (11, 4301), (17, 4190), (25, 4088), (30, 3983), (31, 3935), (32, 3932), (33, 3923),

Gene: Watermoore_7 Start: 4575, Stop: 4057, Start Num: 3
Candidate Starts for Watermoore_7:
(Start: 3 @4575 has 38 MA's), (7, 4563), (9, 4506), (15, 4380), (16, 4377), (18, 4344), (19, 4314), (22, 4260), (25, 4248), (30, 4143), (31, 4095), (32, 4092), (33, 4083),

Gene: Watermoore_254 Start: 127171, Stop: 126653, Start Num: 3
Candidate Starts for Watermoore_254:
(Start: 3 @127171 has 38 MA's), (7, 127159), (9, 127102), (15, 126976), (16, 126973), (18, 126940), (19, 126910), (22, 126856), (25, 126844), (30, 126739), (31, 126691), (32, 126688), (33, 126679),

Gene: WhereRU_7 Start: 4020, Stop: 3502, Start Num: 3
Candidate Starts for WhereRU_7:
(Start: 3 @4020 has 38 MA's), (7, 4008), (9, 3951), (17, 3795), (19, 3759), (25, 3693), (30, 3588), (31, 3540), (32, 3537), (33, 3528),

Gene: WhereRU_263 Start: 125165, Stop: 124647, Start Num: 3
Candidate Starts for WhereRU_263:
(Start: 3 @125165 has 38 MA's), (7, 125153), (9, 125096), (17, 124940), (19, 124904), (25, 124838), (30, 124733), (31, 124685), (32, 124682), (33, 124673),

Gene: Wipeout_259 Start: 124770, Stop: 124258, Start Num: 6
Candidate Starts for Wipeout_259:
(Start: 6 @124770 has 52 MA's), (8, 124725), (9, 124707), (16, 124581), (27, 124392), (29, 124368), (31, 124296), (32, 124293),

Gene: Wipeout_6 Start: 4039, Stop: 3527, Start Num: 6
Candidate Starts for Wipeout_6:
(Start: 6 @4039 has 52 MA's), (8, 3994), (9, 3976), (16, 3850), (27, 3661), (29, 3637), (31, 3565), (32, 3562),

Gene: Wofford_265 Start: 126101, Stop: 125589, Start Num: 6
Candidate Starts for Wofford_265:
(Start: 6 @126101 has 52 MA's), (8, 126056), (9, 126038), (13, 125969), (20, 125816), (23, 125792), (27, 125723), (29, 125699), (31, 125627), (32, 125624),

Gene: Wofford_7 Start: 4308, Stop: 3796, Start Num: 6
Candidate Starts for Wofford_7:
(Start: 6 @4308 has 52 MA's), (8, 4263), (9, 4245), (13, 4176), (20, 4023), (23, 3999), (27, 3930), (29, 3906), (31, 3834), (32, 3831),

Gene: Yaboi_269 Start: 123216, Stop: 122704, Start Num: 6
Candidate Starts for Yaboi_269:
(Start: 6 @123216 has 52 MA's), (8, 123171), (9, 123153), (13, 123084), (20, 122931), (23, 122907), (28, 122832),

Gene: Yaboi_8 Start: 4398, Stop: 3886, Start Num: 6
Candidate Starts for Yaboi_8:
(Start: 6 @4398 has 52 MA's), (8, 4353), (9, 4335), (13, 4266), (20, 4113), (23, 4089), (28, 4014),