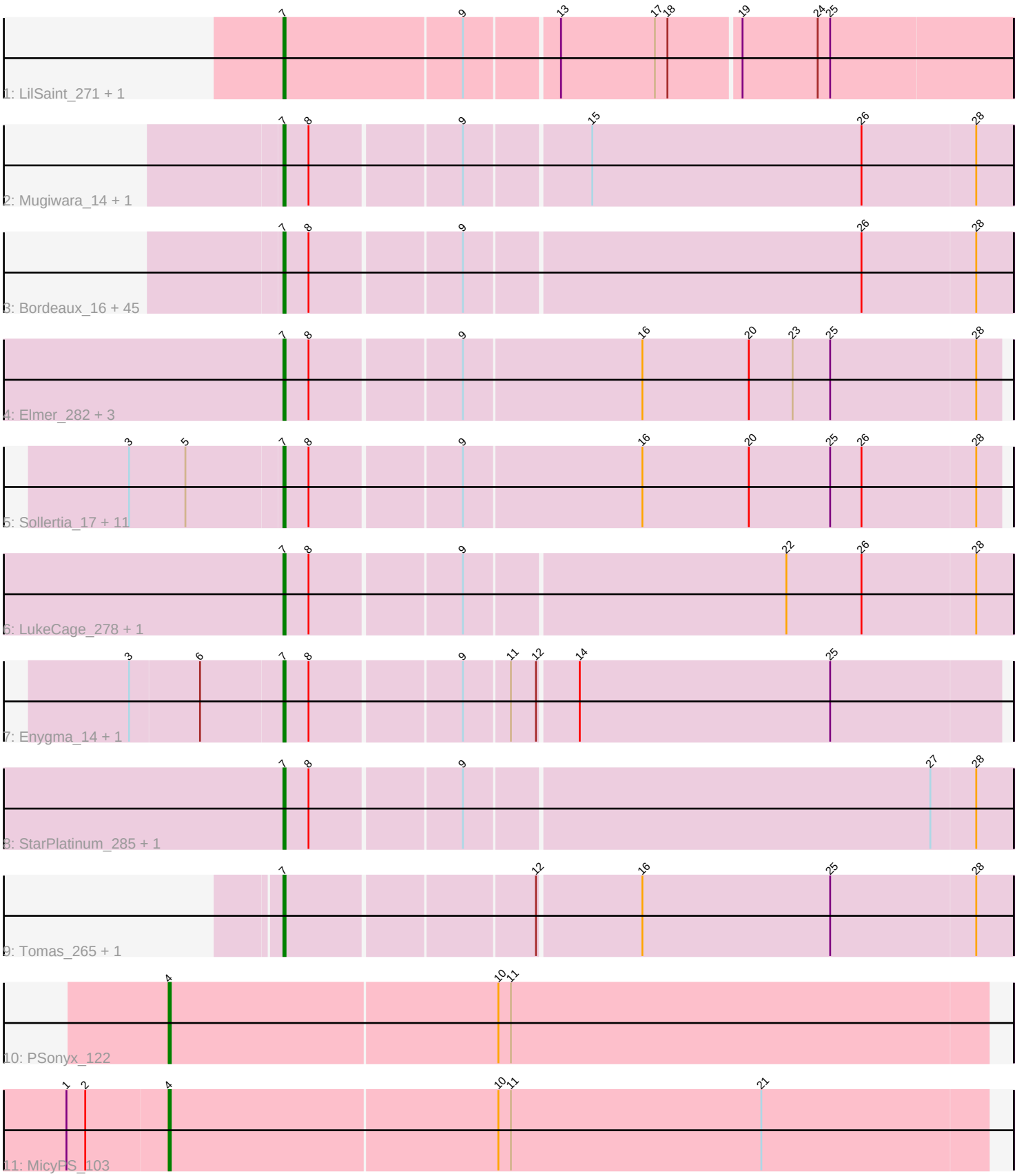
Pham 294671


7
9
13
17
18
19
24
25
1: LilSaint_271 + 1
7
8
9
15
26
28
2: Mugiwara_14 + 1
7
8
9
26
28
3: Bordeaux_16 + 45
7
8
9
16
20
23
25
28
4: Elmer_282 + 3
3
5
7
8
9
16
20
25
26
28
5: Sollertia_17 + 11
7
8
9
22
26
28
6: LukeCage_278 + 1
3
6
7
8
9
11
12
14
25
7: Enygma_14 + 1
7
8
9
27
28
8: StarPlatinum_285 + 1
7
12
16
25
28
9: Tomas_265 + 1
4
10
11
10: PSonyx_122
1
2
4
10
11
21
11: MicyPS_103

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 294671 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294671 has 76 members, 4 are drafts.

Phages represented in each track:
• Track 1 : LilSaint_271, LilSaint_18
• Track 2 : Mugiwara_14, Mugiwara_281
• Track 3 : Bordeaux_16, Wipeout_15, PumpkinSpice_16, Spelly_16, Amabiko_281, MindFlayer_15, Jollison_17, IchabodCrane_15, Starbow_16, Gibbi_288, Brizzy_273, Gibbi_17, Birchlyn_13, Battuta_16, Rikishi_16, MindFlayer_267, CeilingFan_15, Karimac_274, Quaran19_16, Battuta_273, PumpkinSpice_280, CeilingFan_281, IchabodCrane_268, Quaran19_277, KentuckyRacer_15, Spilled_15, Birchlyn_273, TomSawyer_281, Starbow_273, Spelly_282, AcciDwight_18, Rikishi_278, JimJam_284, Karimac_16, Amabiko_17, Jollison_274, KentuckyRacer_283, TomSawyer_16, Wipeout_269, Spilled_283, SaltySpitoon_276, JimJam_16, Brizzy_15, Bordeaux_273, SaltySpitoon_16, AcciDwight_288
• Track 4 : Elmer_282, Wofford_273, Wofford_15, Elmer_15
• Track 5 : Sollertia_17, Stanimal_272, BoomerJR_17, AngryGiraffe_17, Yaboi_278, BoomerJR_272, Stanimal_17, Genie2_17, Yaboi_17, AngryGiraffe_273, Sollertia_273, Genie2_272
• Track 6 : LukeCage_278, LukeCage_15
• Track 7 : Enygma_14, Enygma_282
• Track 8 : StarPlatinum_285, StarPlatinum_15
• Track 9 : Tomas_265, Tomas_9
• Track 10 : PSonyx_122
• Track 11 : MicyPS_103

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 70 of the 72 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_18, AcciDwight_288, Amabiko_17, Amabiko_281, AngryGiraffe_17, AngryGiraffe_273, Battuta_16, Battuta_273, Birchlyn_13, Birchlyn_273, BoomerJR_17, BoomerJR_272, Bordeaux_16, Bordeaux_273, Brizzy_15, Brizzy_273, CeilingFan_15, CeilingFan_281, Elmer_15, Elmer_282, Enygma_14, Enygma_282, Genie2_17, Genie2_272, Gibbi_17, Gibbi_288, IchabodCrane_15, IchabodCrane_268, JimJam_16, JimJam_284, Jollison_17, Jollison_274,

Karimac_16, Karimac_274, KentuckyRacer_15, KentuckyRacer_283, LilSaint_18, LilSaint_271, LukeCage_15, LukeCage_278, MindFlayer_15, MindFlayer_267, Mugiwara_14, Mugiwara_281, PumpkinSpice_16, PumpkinSpice_280, Quaran19_16, Quaran19_277, Rikishi_16, Rikishi_278, SaltySpitoon_16, SaltySpitoon_276, Sollertia_17, Sollertia_273, Spelly_16, Spelly_282, Spilled_15, Spilled_283, Stanimal_17, Stanimal_272, StarPlatinum_15, StarPlatinum_285, Starbow_16, Starbow_273, TomSawyer_16, TomSawyer_281, Tomas_265, Tomas_9, Wipeout_15, Wipeout_269, Wofford_15, Wofford_273, Yaboi_17, Yaboi_278,

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

Genes that do not have the "Most Annotated" start:
• MicyPS_103, PSonyx_122,

Summary by start number:

Start 4:
• Found in 2 of 76 (2.6%) of genes in pham
• Manual Annotations of this start: 2 of 72
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MicyPS_103 (EQ), PSonyx_122 (EQ),

Start 7:
• Found in 74 of 76 (97.4%) of genes in pham
• Manual Annotations of this start: 70 of 72
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AcciDwight_18 (BE2), AcciDwight_288 (BE2), Amabiko_17 (BE2), Amabiko_281 (BE2), AngryGiraffe_17 (BE2), AngryGiraffe_273 (BE2), Battuta_16 (BE2), Battuta_273 (BE2), Birchlyn_13 (BE2), Birchlyn_273 (BE2), BoomerJR_17 (BE2), BoomerJR_272 (BE2), Bordeaux_16 (BE2), Bordeaux_273 (BE2), Brizzy_15 (BE2), Brizzy_273 (BE2), CeilingFan_15 (BE2), CeilingFan_281 (BE2), Elmer_15 (BE2), Elmer_282 (BE2), Enygma_14 (BE2), Enygma_282 (BE2), Genie2_17 (BE2), Genie2_272 (BE2), Gibbi_17 (BE2), Gibbi_288 (BE2), IchabodCrane_15 (BE2), IchabodCrane_268 (BE2), JimJam_16 (BE2), JimJam_284 (BE2), Jollison_17 (BE2), Jollison_274 (BE2), Karimac_16 (BE2), Karimac_274 (BE2), KentuckyRacer_15 (BE2), KentuckyRacer_283 (BE2), LilSaint_18 (BE1), LilSaint_271 (BE1), LukeCage_15 (BE2), LukeCage_278 (BE2), MindFlayer_15 (BE2), MindFlayer_267 (BE2), Mugiwara_14 (BE2), Mugiwara_281 (BE2), PumpkinSpice_16 (BE2), PumpkinSpice_280 (BE2), Quaran19_16 (BE2), Quaran19_277 (BE2), Rikishi_16 (BE2), Rikishi_278 (BE2), SaltySpitoon_16 (BE2), SaltySpitoon_276 (BE2), Sollertia_17 (BE2), Sollertia_273 (BE2), Spelly_16 (BE2), Spelly_282 (BE2), Spilled_15 (BE2), Spilled_283 (BE2), Stanimal_17 (BE2), Stanimal_272 (BE2), StarPlatinum_15 (BE2), StarPlatinum_285 (BE2), Starbow_16 (BE2), Starbow_273 (BE2), TomSawyer_16 (BE2), TomSawyer_281 (BE2), Tomas_265 (BE2), Tomas_9 (BE2), Wipeout_15 (BE2), Wipeout_269 (BE2), Wofford_15 (BE2), Wofford_273 (BE2), Yaboi_17 (BE2), Yaboi_278 (BE2),

Summary by clusters:

There are 3 clusters represented in this pham: BE2, BE1, EQ,

Info for manual annotations of cluster BE1:

•Start number 7 was manually annotated 2 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 7 was manually annotated 68 times for cluster BE2.

Info for manual annotations of cluster EQ:
•Start number 4 was manually annotated 2 times for cluster EQ.

Gene Information:

Gene: AcciDwight_18 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for AcciDwight_18:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: AcciDwight_288 Start: 128239, Stop: 127901, Start Num: 7
Candidate Starts for AcciDwight_288:
(Start: 7 @128239 has 70 MA's), (8, 128227), (9, 128158), (26, 127972), (28, 127918),

Gene: Amabiko_281 Start: 126969, Stop: 126631, Start Num: 7
Candidate Starts for Amabiko_281:
(Start: 7 @126969 has 70 MA's), (8, 126957), (9, 126888), (26, 126702), (28, 126648),

Gene: Amabiko_17 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Amabiko_17:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: AngryGiraffe_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for AngryGiraffe_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: AngryGiraffe_273 Start: 126455, Stop: 126120, Start Num: 7
Candidate Starts for AngryGiraffe_273:
(3, 126527), (5, 126500), (Start: 7 @126455 has 70 MA's), (8, 126443), (9, 126374), (16, 126290), (20, 126239), (25, 126200), (26, 126185), (28, 126131),

Gene: Battuta_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Battuta_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Battuta_273 Start: 126298, Stop: 125960, Start Num: 7
Candidate Starts for Battuta_273:
(Start: 7 @126298 has 70 MA's), (8, 126286), (9, 126217), (26, 126031), (28, 125977),

Gene: Birchlyn_13 Start: 5996, Stop: 5658, Start Num: 7
Candidate Starts for Birchlyn_13:
(Start: 7 @5996 has 70 MA's), (8, 5984), (9, 5915), (26, 5729), (28, 5675),

Gene: Birchlyn_273 Start: 122087, Stop: 121749, Start Num: 7
Candidate Starts for Birchlyn_273:
(Start: 7 @122087 has 70 MA's), (8, 122075), (9, 122006), (26, 121820), (28, 121766),

Gene: BoomerJR_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for BoomerJR_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: BoomerJR_272 Start: 126900, Stop: 126565, Start Num: 7
Candidate Starts for BoomerJR_272:
(3, 126972), (5, 126945), (Start: 7 @126900 has 70 MA's), (8, 126888), (9, 126819), (16, 126735), (20, 126684), (25, 126645), (26, 126630), (28, 126576),

Gene: Bordeaux_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Bordeaux_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Bordeaux_273 Start: 126881, Stop: 126543, Start Num: 7
Candidate Starts for Bordeaux_273:
(Start: 7 @126881 has 70 MA's), (8, 126869), (9, 126800), (26, 126614), (28, 126560),

Gene: Brizzy_273 Start: 127000, Stop: 126662, Start Num: 7
Candidate Starts for Brizzy_273:
(Start: 7 @127000 has 70 MA's), (8, 126988), (9, 126919), (26, 126733), (28, 126679),

Gene: Brizzy_15 Start: 7732, Stop: 7394, Start Num: 7
Candidate Starts for Brizzy_15:
(Start: 7 @7732 has 70 MA's), (8, 7720), (9, 7651), (26, 7465), (28, 7411),

Gene: CeilingFan_15 Start: 7754, Stop: 7416, Start Num: 7
Candidate Starts for CeilingFan_15:
(Start: 7 @7754 has 70 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: CeilingFan_281 Start: 128361, Stop: 128023, Start Num: 7
Candidate Starts for CeilingFan_281:
(Start: 7 @128361 has 70 MA's), (8, 128349), (9, 128280), (26, 128094), (28, 128040),

Gene: Elmer_282 Start: 129612, Stop: 129277, Start Num: 7
Candidate Starts for Elmer_282:
(Start: 7 @129612 has 70 MA's), (8, 129600), (9, 129531), (16, 129447), (20, 129396), (23, 129375), (25, 129357), (28, 129288),

Gene: Elmer_15 Start: 7244, Stop: 6909, Start Num: 7
Candidate Starts for Elmer_15:
(Start: 7 @7244 has 70 MA's), (8, 7232), (9, 7163), (16, 7079), (20, 7028), (23, 7007), (25, 6989), (28, 6920),

Gene: Enygma_14 Start: 7394, Stop: 7062, Start Num: 7
Candidate Starts for Enygma_14:
(3, 7466), (6, 7433), (Start: 7 @7394 has 70 MA's), (8, 7382), (9, 7313), (11, 7292), (12, 7280), (14, 7262), (25, 7142),

Gene: Enygma_282 Start: 129818, Stop: 129486, Start Num: 7
Candidate Starts for Enygma_282:

(3, 129890), (6, 129857), (Start: 7 @129818 has 70 MA's), (8, 129806), (9, 129737), (11, 129716), (12, 129704), (14, 129686), (25, 129566),

Gene: Genie2_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for Genie2_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: Genie2_272 Start: 127013, Stop: 126678, Start Num: 7
Candidate Starts for Genie2_272:
(3, 127085), (5, 127058), (Start: 7 @127013 has 70 MA's), (8, 127001), (9, 126932), (16, 126848), (20, 126797), (25, 126758), (26, 126743), (28, 126689),

Gene: Gibbi_288 Start: 127854, Stop: 127516, Start Num: 7
Candidate Starts for Gibbi_288:
(Start: 7 @127854 has 70 MA's), (8, 127842), (9, 127773), (26, 127587), (28, 127533),

Gene: Gibbi_17 Start: 7754, Stop: 7416, Start Num: 7
Candidate Starts for Gibbi_17:
(Start: 7 @7754 has 70 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: IchabodCrane_15 Start: 7751, Stop: 7413, Start Num: 7
Candidate Starts for IchabodCrane_15:
(Start: 7 @7751 has 70 MA's), (8, 7739), (9, 7670), (26, 7484), (28, 7430),

Gene: IchabodCrane_268 Start: 126294, Stop: 125956, Start Num: 7
Candidate Starts for IchabodCrane_268:
(Start: 7 @126294 has 70 MA's), (8, 126282), (9, 126213), (26, 126027), (28, 125973),

Gene: JimJam_284 Start: 129678, Stop: 129340, Start Num: 7
Candidate Starts for JimJam_284:
(Start: 7 @129678 has 70 MA's), (8, 129666), (9, 129597), (26, 129411), (28, 129357),

Gene: JimJam_16 Start: 8142, Stop: 7804, Start Num: 7
Candidate Starts for JimJam_16:
(Start: 7 @8142 has 70 MA's), (8, 8130), (9, 8061), (26, 7875), (28, 7821),

Gene: Jollison_17 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Jollison_17:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Jollison_274 Start: 126818, Stop: 126480, Start Num: 7
Candidate Starts for Jollison_274:
(Start: 7 @126818 has 70 MA's), (8, 126806), (9, 126737), (26, 126551), (28, 126497),

Gene: Karimac_274 Start: 127464, Stop: 127126, Start Num: 7
Candidate Starts for Karimac_274:
(Start: 7 @127464 has 70 MA's), (8, 127452), (9, 127383), (26, 127197), (28, 127143),

Gene: Karimac_16 Start: 8145, Stop: 7807, Start Num: 7
Candidate Starts for Karimac_16:
(Start: 7 @8145 has 70 MA's), (8, 8133), (9, 8064), (26, 7878), (28, 7824),

Gene: KentuckyRacer_15 Start: 7755, Stop: 7417, Start Num: 7
Candidate Starts for KentuckyRacer_15:
(Start: 7 @7755 has 70 MA's), (8, 7743), (9, 7674), (26, 7488), (28, 7434),

Gene: KentuckyRacer_283 Start: 129206, Stop: 128868, Start Num: 7
Candidate Starts for KentuckyRacer_283:
(Start: 7 @129206 has 70 MA's), (8, 129194), (9, 129125), (26, 128939), (28, 128885),

Gene: LilSaint_271 Start: 130422, Stop: 130084, Start Num: 7
Candidate Starts for LilSaint_271:
(Start: 7 @130422 has 70 MA's), (9, 130338), (13, 130296), (17, 130251), (18, 130245), (19, 130212), (24, 130176), (25, 130170),

Gene: LilSaint_18 Start: 8572, Stop: 8234, Start Num: 7
Candidate Starts for LilSaint_18:
(Start: 7 @8572 has 70 MA's), (9, 8488), (13, 8446), (17, 8401), (18, 8395), (19, 8362), (24, 8326), (25, 8320),

Gene: LukeCage_278 Start: 128580, Stop: 128242, Start Num: 7
Candidate Starts for LukeCage_278:
(Start: 7 @128580 has 70 MA's), (8, 128568), (9, 128499), (22, 128349), (26, 128313), (28, 128259),

Gene: LukeCage_15 Start: 7676, Stop: 7338, Start Num: 7
Candidate Starts for LukeCage_15:
(Start: 7 @7676 has 70 MA's), (8, 7664), (9, 7595), (22, 7445), (26, 7409), (28, 7355),

Gene: MicyPS_103 Start: 60929, Stop: 60540, Start Num: 4
Candidate Starts for MicyPS_103:
(1, 60977), (2, 60968), (Start: 4 @60929 has 2 MA's), (10, 60773), (11, 60767), (21, 60647),

Gene: MindFlayer_15 Start: 7753, Stop: 7415, Start Num: 7
Candidate Starts for MindFlayer_15:
(Start: 7 @7753 has 70 MA's), (8, 7741), (9, 7672), (26, 7486), (28, 7432),

Gene: MindFlayer_267 Start: 125813, Stop: 125475, Start Num: 7
Candidate Starts for MindFlayer_267:
(Start: 7 @125813 has 70 MA's), (8, 125801), (9, 125732), (26, 125546), (28, 125492),

Gene: Mugiwara_14 Start: 7405, Stop: 7067, Start Num: 7
Candidate Starts for Mugiwara_14:
(Start: 7 @7405 has 70 MA's), (8, 7393), (9, 7324), (15, 7267), (26, 7138), (28, 7084),

Gene: Mugiwara_281 Start: 128790, Stop: 128452, Start Num: 7
Candidate Starts for Mugiwara_281:
(Start: 7 @128790 has 70 MA's), (8, 128778), (9, 128709), (15, 128652), (26, 128523), (28, 128469),

Gene: PSonyx_122 Start: 64546, Stop: 64157, Start Num: 4
Candidate Starts for PSonyx_122:
(Start: 4 @64546 has 2 MA's), (10, 64390), (11, 64384),

Gene: PumpkinSpice_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for PumpkinSpice_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: PumpkinSpice_280 Start: 128035, Stop: 127697, Start Num: 7
Candidate Starts for PumpkinSpice_280:
(Start: 7 @128035 has 70 MA's), (8, 128023), (9, 127954), (26, 127768), (28, 127714),

Gene: Quaran19_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Quaran19_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Quaran19_277 Start: 127325, Stop: 126987, Start Num: 7
Candidate Starts for Quaran19_277:
(Start: 7 @127325 has 70 MA's), (8, 127313), (9, 127244), (26, 127058), (28, 127004),

Gene: Rikishi_16 Start: 7754, Stop: 7416, Start Num: 7
Candidate Starts for Rikishi_16:
(Start: 7 @7754 has 70 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: Rikishi_278 Start: 127827, Stop: 127489, Start Num: 7
Candidate Starts for Rikishi_278:
(Start: 7 @127827 has 70 MA's), (8, 127815), (9, 127746), (26, 127560), (28, 127506),

Gene: SaltySpitoon_276 Start: 126407, Stop: 126069, Start Num: 7
Candidate Starts for SaltySpitoon_276:
(Start: 7 @126407 has 70 MA's), (8, 126395), (9, 126326), (26, 126140), (28, 126086),

Gene: SaltySpitoon_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for SaltySpitoon_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Sollertia_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for Sollertia_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: Sollertia_273 Start: 127002, Stop: 126667, Start Num: 7
Candidate Starts for Sollertia_273:
(3, 127074), (5, 127047), (Start: 7 @127002 has 70 MA's), (8, 126990), (9, 126921), (16, 126837), (20, 126786), (25, 126747), (26, 126732), (28, 126678),

Gene: Spelly_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Spelly_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Spelly_282 Start: 126947, Stop: 126609, Start Num: 7
Candidate Starts for Spelly_282:
(Start: 7 @126947 has 70 MA's), (8, 126935), (9, 126866), (26, 126680), (28, 126626),

Gene: Spilled_15 Start: 7753, Stop: 7415, Start Num: 7
Candidate Starts for Spilled_15:
(Start: 7 @7753 has 70 MA's), (8, 7741), (9, 7672), (26, 7486), (28, 7432),

Gene: Spilled_283 Start: 128222, Stop: 127884, Start Num: 7
Candidate Starts for Spilled_283:

(Start: 7 @128222 has 70 MA's), (8, 128210), (9, 128141), (26, 127955), (28, 127901),

Gene: Stanimal_272 Start: 127386, Stop: 127051, Start Num: 7
Candidate Starts for Stanimal_272:
(3, 127458), (5, 127431), (Start: 7 @127386 has 70 MA's), (8, 127374), (9, 127305), (16, 127221), (20, 127170), (25, 127131), (26, 127116), (28, 127062),

Gene: Stanimal_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for Stanimal_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: StarPlatinum_285 Start: 129523, Stop: 129185, Start Num: 7
Candidate Starts for StarPlatinum_285:
(Start: 7 @129523 has 70 MA's), (8, 129511), (9, 129442), (27, 129223), (28, 129202),

Gene: StarPlatinum_15 Start: 7836, Stop: 7498, Start Num: 7
Candidate Starts for StarPlatinum_15:
(Start: 7 @7836 has 70 MA's), (8, 7824), (9, 7755), (27, 7536), (28, 7515),

Gene: Starbow_16 Start: 8143, Stop: 7805, Start Num: 7
Candidate Starts for Starbow_16:
(Start: 7 @8143 has 70 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Starbow_273 Start: 126991, Stop: 126653, Start Num: 7
Candidate Starts for Starbow_273:
(Start: 7 @126991 has 70 MA's), (8, 126979), (9, 126910), (26, 126724), (28, 126670),

Gene: TomSawyer_281 Start: 129515, Stop: 129177, Start Num: 7
Candidate Starts for TomSawyer_281:
(Start: 7 @129515 has 70 MA's), (8, 129503), (9, 129434), (26, 129248), (28, 129194),

Gene: TomSawyer_16 Start: 7736, Stop: 7398, Start Num: 7
Candidate Starts for TomSawyer_16:
(Start: 7 @7736 has 70 MA's), (8, 7724), (9, 7655), (26, 7469), (28, 7415),

Gene: Tomas_265 Start: 126967, Stop: 126629, Start Num: 7
Candidate Starts for Tomas_265:
(Start: 7 @126967 has 70 MA's), (12, 126853), (16, 126805), (25, 126715), (28, 126646),

Gene: Tomas_9 Start: 5260, Stop: 4922, Start Num: 7
Candidate Starts for Tomas_9:
(Start: 7 @5260 has 70 MA's), (12, 5146), (16, 5098), (25, 5008), (28, 4939),

Gene: Wipeout_15 Start: 7758, Stop: 7420, Start Num: 7
Candidate Starts for Wipeout_15:
(Start: 7 @7758 has 70 MA's), (8, 7746), (9, 7677), (26, 7491), (28, 7437),

Gene: Wipeout_269 Start: 128489, Stop: 128151, Start Num: 7
Candidate Starts for Wipeout_269:
(Start: 7 @128489 has 70 MA's), (8, 128477), (9, 128408), (26, 128222), (28, 128168),

Gene: Wofford_273 Start: 129042, Stop: 128707, Start Num: 7

Candidate Starts for Wofford_273:
(Start: 7 @129042 has 70 MA's), (8, 129030), (9, 128961), (16, 128877), (20, 128826), (23, 128805), (25, 128787), (28, 128718),

Gene: Wofford_15 Start: 7249, Stop: 6914, Start Num: 7
Candidate Starts for Wofford_15:
(Start: 7 @7249 has 70 MA's), (8, 7237), (9, 7168), (16, 7084), (20, 7033), (23, 7012), (25, 6994), (28, 6925),

Gene: Yaboi_278 Start: 126930, Stop: 126595, Start Num: 7
Candidate Starts for Yaboi_278:
(3, 127002), (5, 126975), (Start: 7 @126930 has 70 MA's), (8, 126918), (9, 126849), (16, 126765), (20, 126714), (25, 126675), (26, 126660), (28, 126606),

Gene: Yaboi_17 Start: 8112, Stop: 7777, Start Num: 7
Candidate Starts for Yaboi_17:
(3, 8184), (5, 8157), (Start: 7 @8112 has 70 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),