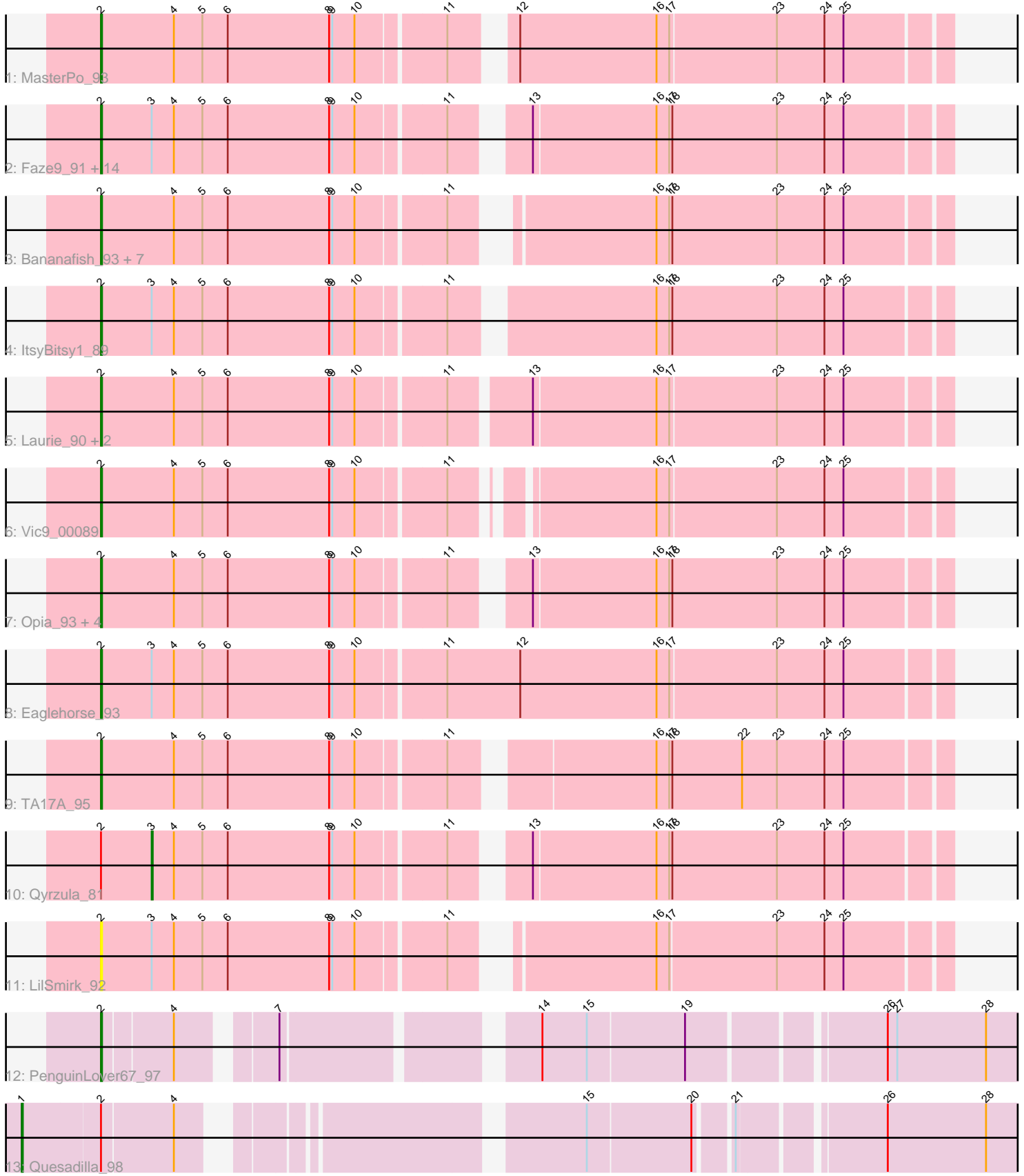


Pham 311790



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 311790 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311790 has 40 members, 1 are drafts.

Phages represented in each track:

- Track 1 : MasterPo\_93
- Track 2 : Faze9\_91, Coffee\_91, Lars\_93, Ares\_92, FrenchFry\_93, West99\_92, Glass\_94, LizLemon\_92, Rosebush\_90, Tinciduntolum\_93, Calamitous\_93, Brownie5\_92, Kaleb\_92, Hedgerow\_92, Boyle\_92
- Track 3 : Bananafish\_93, Sabella\_92, Arbiter\_88, Blocker23\_92, Godines\_91, Lephleur\_92, Kheth\_92, Kolhan\_93
- Track 4 : ItsyBitsy1\_89
- Track 5 : Laurie\_90, Holeinone\_91, Tres\_92
- Track 6 : Vic9\_00089
- Track 7 : Opia\_93, Phantasmagoria\_90, PrinceCharming\_92, Allegro\_92, Rhinoforte\_92
- Track 8 : Eaglehorse\_93
- Track 9 : TA17A\_95
- Track 10 : Qyrzula\_81
- Track 11 : LilSmirk\_92
- Track 12 : PenguinLover67\_97
- Track 13 : Quesadilla\_98

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

The start number called the most often in the published annotations is 2, it was called in 37 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Allegro\_92, Arbiter\_88, Ares\_92, Bananafish\_93, Blocker23\_92, Boyle\_92, Brownie5\_92, Calamitous\_93, Coffee\_91, Eaglehorse\_93, Faze9\_91, FrenchFry\_93, Glass\_94, Godines\_91, Hedgerow\_92, Holeinone\_91, ItsyBitsy1\_89, Kaleb\_92, Kheth\_92, Kolhan\_93, Lars\_93, Laurie\_90, Lephleur\_92, LilSmirk\_92, LizLemon\_92, MasterPo\_93, Opia\_93, PenguinLover67\_97, Phantasmagoria\_90, PrinceCharming\_92, Rhinoforte\_92, Rosebush\_90, Sabella\_92, TA17A\_95, Tinciduntolum\_93, Tres\_92, Vic9\_00089, West99\_92,

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

- Quesadilla\_98, Qyrzula\_81,

Genes that do not have the "Most Annotated" start:

- 

### Summary by start number:

Start 1:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla\_98 (B9),

Start 2:

- Found in 40 of 40 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 37 of 39
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Allegro\_92 (B2), Arbitrator\_88 (B2), Ares\_92 (B2), Bananafish\_93 (B2), Blocker23\_92 (B2), Boyle\_92 (B2), Brownie5\_92 (B2), Calamitous\_93 (B2), Coffee\_91 (B2), Eaglehorse\_93 (B2), Faze9\_91 (B2), FrenchFry\_93 (B2), Glass\_94 (B2), Godines\_91 (B2), Hedgerow\_92 (B2), Holeinone\_91 (B2), ItsyBitsy1\_89 (B2), Kaleb\_92 (B2), Kheth\_92 (B2), Kolhan\_93 (B2), Lars\_93 (B2), Laurie\_90 (B2), Lephleur\_92 (B2), LilSmirk\_92 (B2), LizLemon\_92 (B2), MasterPo\_93 (B2), Opia\_93 (B2), PenguinLover67\_97 (B9), Phantasmagoria\_90 (B2), PrinceCharming\_92 (B2), Rhinoforte\_92 (B2), Rosebush\_90 (B2), Sabella\_92 (B2), TA17A\_95 (B2), Tinciduntolum\_93 (B2), Tres\_92 (B2), Vic9\_00089 (B2), West99\_92 (B2),

Start 3:

- Found in 19 of 40 ( 47.5% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Qyrzula\_81 (B2),

### Summary by clusters:

There are 2 clusters represented in this pham: B9, B2,

Info for manual annotations of cluster B2:

- Start number 2 was manually annotated 36 times for cluster B2.
- Start number 3 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B9:

- Start number 1 was manually annotated 1 time for cluster B9.
- Start number 2 was manually annotated 1 time for cluster B9.

### Gene Information:

Gene: Allegro\_92 Start: 67275, Stop: 66520, Start Num: 2

Candidate Starts for Allegro\_92:

(Start: 2 @67275 has 37 MA's), (4, 67206), (5, 67179), (6, 67155), (8, 67059), (9, 67056), (10, 67035), (11, 66957), (13, 66903), (16, 66789), (17, 66777), (18, 66774), (23, 66675), (24, 66630), (25, 66612),

Gene: Arbiter\_88 Start: 67005, Stop: 66247, Start Num: 2

Candidate Starts for Arbiter\_88:

(Start: 2 @67005 has 37 MA's), (4, 66936), (5, 66909), (6, 66885), (8, 66789), (9, 66786), (10, 66765), (11, 66687), (16, 66516), (17, 66504), (18, 66501), (23, 66402), (24, 66357), (25, 66339),

Gene: Ares\_92 Start: 67272, Stop: 66517, Start Num: 2

Candidate Starts for Ares\_92:

(Start: 2 @67272 has 37 MA's), (Start: 3 @67224 has 1 MA's), (4, 67203), (5, 67176), (6, 67152), (8, 67056), (9, 67053), (10, 67032), (11, 66954), (13, 66900), (16, 66786), (17, 66774), (18, 66771), (23, 66672), (24, 66627), (25, 66609),

Gene: Bananafish\_93 Start: 67203, Stop: 66457, Start Num: 2

Candidate Starts for Bananafish\_93:

(Start: 2 @67203 has 37 MA's), (4, 67134), (5, 67107), (6, 67083), (8, 66987), (9, 66984), (10, 66963), (11, 66885), (16, 66726), (17, 66714), (18, 66711), (23, 66612), (24, 66567), (25, 66549),

Gene: Blocker23\_92 Start: 67238, Stop: 66522, Start Num: 2

Candidate Starts for Blocker23\_92:

(Start: 2 @67238 has 37 MA's), (4, 67169), (5, 67142), (6, 67118), (8, 67022), (9, 67019), (10, 66998), (11, 66920), (16, 66791), (17, 66779), (18, 66776), (23, 66677), (24, 66632), (25, 66614),

Gene: Boyle\_92 Start: 67327, Stop: 66572, Start Num: 2

Candidate Starts for Boyle\_92:

(Start: 2 @67327 has 37 MA's), (Start: 3 @67279 has 1 MA's), (4, 67258), (5, 67231), (6, 67207), (8, 67111), (9, 67108), (10, 67087), (11, 67009), (13, 66955), (16, 66841), (17, 66829), (18, 66826), (23, 66727), (24, 66682), (25, 66664),

Gene: Brownie5\_92 Start: 67333, Stop: 66578, Start Num: 2

Candidate Starts for Brownie5\_92:

(Start: 2 @67333 has 37 MA's), (Start: 3 @67285 has 1 MA's), (4, 67264), (5, 67237), (6, 67213), (8, 67117), (9, 67114), (10, 67093), (11, 67015), (13, 66961), (16, 66847), (17, 66835), (18, 66832), (23, 66733), (24, 66688), (25, 66670),

Gene: Calamitous\_93 Start: 67207, Stop: 66452, Start Num: 2

Candidate Starts for Calamitous\_93:

(Start: 2 @67207 has 37 MA's), (Start: 3 @67159 has 1 MA's), (4, 67138), (5, 67111), (6, 67087), (8, 66991), (9, 66988), (10, 66967), (11, 66889), (13, 66835), (16, 66721), (17, 66709), (18, 66706), (23, 66607), (24, 66562), (25, 66544),

Gene: Coffee\_91 Start: 67317, Stop: 66562, Start Num: 2

Candidate Starts for Coffee\_91:

(Start: 2 @67317 has 37 MA's), (Start: 3 @67269 has 1 MA's), (4, 67248), (5, 67221), (6, 67197), (8, 67101), (9, 67098), (10, 67077), (11, 66999), (13, 66945), (16, 66831), (17, 66819), (18, 66816), (23, 66717), (24, 66672), (25, 66654),

Gene: Eaglehorse\_93 Start: 67227, Stop: 66445, Start Num: 2

Candidate Starts for Eaglehorse\_93:

(Start: 2 @67227 has 37 MA's), (Start: 3 @67179 has 1 MA's), (4, 67158), (5, 67131), (6, 67107), (8, 67011), (9, 67008), (10, 66987), (11, 66909), (12, 66840), (16, 66711), (17, 66699), (23, 66600), (24, 66555), (25, 66537),

Gene: Faze9\_91 Start: 67339, Stop: 66584, Start Num: 2

Candidate Starts for Faze9\_91:

(Start: 2 @67339 has 37 MA's), (Start: 3 @67291 has 1 MA's), (4, 67270), (5, 67243), (6, 67219), (8, 67123), (9, 67120), (10, 67099), (11, 67021), (13, 66967), (16, 66853), (17, 66841), (18, 66838), (23, 66739), (24, 66694), (25, 66676),

Gene: FrenchFry\_93 Start: 67330, Stop: 66575, Start Num: 2

Candidate Starts for FrenchFry\_93:

(Start: 2 @67330 has 37 MA's), (Start: 3 @67282 has 1 MA's), (4, 67261), (5, 67234), (6, 67210), (8, 67114), (9, 67111), (10, 67090), (11, 67012), (13, 66958), (16, 66844), (17, 66832), (18, 66829), (23, 66730), (24, 66685), (25, 66667),

Gene: Glass\_94 Start: 67345, Stop: 66590, Start Num: 2

Candidate Starts for Glass\_94:

(Start: 2 @67345 has 37 MA's), (Start: 3 @67297 has 1 MA's), (4, 67276), (5, 67249), (6, 67225), (8, 67129), (9, 67126), (10, 67105), (11, 67027), (13, 66973), (16, 66859), (17, 66847), (18, 66844), (23, 66745), (24, 66700), (25, 66682),

Gene: Godines\_91 Start: 67113, Stop: 66382, Start Num: 2

Candidate Starts for Godines\_91:

(Start: 2 @67113 has 37 MA's), (4, 67044), (5, 67017), (6, 66993), (8, 66897), (9, 66894), (10, 66873), (11, 66795), (16, 66651), (17, 66639), (18, 66636), (23, 66537), (24, 66492), (25, 66474),

Gene: Hedgerow\_92 Start: 67287, Stop: 66532, Start Num: 2

Candidate Starts for Hedgerow\_92:

(Start: 2 @67287 has 37 MA's), (Start: 3 @67239 has 1 MA's), (4, 67218), (5, 67191), (6, 67167), (8, 67071), (9, 67068), (10, 67047), (11, 66969), (13, 66915), (16, 66801), (17, 66789), (18, 66786), (23, 66687), (24, 66642), (25, 66624),

Gene: Holeinone\_91 Start: 66880, Stop: 66101, Start Num: 2

Candidate Starts for Holeinone\_91:

(Start: 2 @66880 has 37 MA's), (4, 66811), (5, 66784), (6, 66760), (8, 66664), (9, 66661), (10, 66640), (11, 66562), (13, 66481), (16, 66367), (17, 66355), (23, 66256), (24, 66211), (25, 66193),

Gene: ItsyBitsy1\_89 Start: 67406, Stop: 66648, Start Num: 2

Candidate Starts for ItsyBitsy1\_89:

(Start: 2 @67406 has 37 MA's), (Start: 3 @67358 has 1 MA's), (4, 67337), (5, 67310), (6, 67286), (8, 67190), (9, 67187), (10, 67166), (11, 67088), (16, 66917), (17, 66905), (18, 66902), (23, 66803), (24, 66758), (25, 66740),

Gene: Kaleb\_92 Start: 67339, Stop: 66584, Start Num: 2

Candidate Starts for Kaleb\_92:

(Start: 2 @67339 has 37 MA's), (Start: 3 @67291 has 1 MA's), (4, 67270), (5, 67243), (6, 67219), (8, 67123), (9, 67120), (10, 67099), (11, 67021), (13, 66967), (16, 66853), (17, 66841), (18, 66838), (23, 66739), (24, 66694), (25, 66676),

Gene: Kheth\_92 Start: 67242, Stop: 66484, Start Num: 2

Candidate Starts for Kheth\_92:

(Start: 2 @67242 has 37 MA's), (4, 67173), (5, 67146), (6, 67122), (8, 67026), (9, 67023), (10, 67002), (11, 66924), (16, 66753), (17, 66741), (18, 66738), (23, 66639), (24, 66594), (25, 66576),

Gene: Kolhan\_93 Start: 67223, Stop: 66477, Start Num: 2

Candidate Starts for Kolhan\_93:

(Start: 2 @67223 has 37 MA's), (4, 67154), (5, 67127), (6, 67103), (8, 67007), (9, 67004), (10, 66983), (11, 66905), (16, 66746), (17, 66734), (18, 66731), (23, 66632), (24, 66587), (25, 66569),

Gene: Lars\_93 Start: 67304, Stop: 66549, Start Num: 2

Candidate Starts for Lars\_93:

(Start: 2 @67304 has 37 MA's), (Start: 3 @67256 has 1 MA's), (4, 67235), (5, 67208), (6, 67184), (8, 67088), (9, 67085), (10, 67064), (11, 66986), (13, 66932), (16, 66818), (17, 66806), (18, 66803), (23, 66704), (24, 66659), (25, 66641),

Gene: Laurie\_90 Start: 66343, Stop: 65576, Start Num: 2

Candidate Starts for Laurie\_90:

(Start: 2 @66343 has 37 MA's), (4, 66274), (5, 66247), (6, 66223), (8, 66127), (9, 66124), (10, 66103), (11, 66025), (13, 65956), (16, 65842), (17, 65830), (23, 65731), (24, 65686), (25, 65668),

Gene: Lephleur\_92 Start: 67185, Stop: 66427, Start Num: 2

Candidate Starts for Lephleur\_92:

(Start: 2 @67185 has 37 MA's), (4, 67116), (5, 67089), (6, 67065), (8, 66969), (9, 66966), (10, 66945), (11, 66867), (16, 66696), (17, 66684), (18, 66681), (23, 66582), (24, 66537), (25, 66519),

Gene: LilSmirk\_92 Start: 67196, Stop: 66453, Start Num: 2

Candidate Starts for LilSmirk\_92:

(Start: 2 @67196 has 37 MA's), (Start: 3 @67148 has 1 MA's), (4, 67127), (5, 67100), (6, 67076), (8, 66980), (9, 66977), (10, 66956), (11, 66878), (16, 66719), (17, 66707), (23, 66608), (24, 66563), (25, 66545),

Gene: LizLemon\_92 Start: 67332, Stop: 66577, Start Num: 2

Candidate Starts for LizLemon\_92:

(Start: 2 @67332 has 37 MA's), (Start: 3 @67284 has 1 MA's), (4, 67263), (5, 67236), (6, 67212), (8, 67116), (9, 67113), (10, 67092), (11, 67014), (13, 66960), (16, 66846), (17, 66834), (18, 66831), (23, 66732), (24, 66687), (25, 66669),

Gene: MasterPo\_93 Start: 67197, Stop: 66442, Start Num: 2

Candidate Starts for MasterPo\_93:

(Start: 2 @67197 has 37 MA's), (4, 67128), (5, 67101), (6, 67077), (8, 66981), (9, 66978), (10, 66957), (11, 66879), (12, 66837), (16, 66708), (17, 66696), (23, 66597), (24, 66552), (25, 66534),

Gene: Opia\_93 Start: 67237, Stop: 66482, Start Num: 2

Candidate Starts for Opia\_93:

(Start: 2 @67237 has 37 MA's), (4, 67168), (5, 67141), (6, 67117), (8, 67021), (9, 67018), (10, 66997), (11, 66919), (13, 66865), (16, 66751), (17, 66739), (18, 66736), (23, 66637), (24, 66592), (25, 66574),

Gene: PenguinLover67\_97 Start: 70072, Stop: 69290, Start Num: 2

Candidate Starts for PenguinLover67\_97:

(Start: 2 @70072 has 37 MA's), (4, 70009), (7, 69934), (14, 69727), (15, 69685), (19, 69595), (26, 69427), (27, 69418), (28, 69334),

Gene: Phantasmagoria\_90 Start: 66882, Stop: 66139, Start Num: 2

Candidate Starts for Phantasmagoria\_90:

(Start: 2 @66882 has 37 MA's), (4, 66813), (5, 66786), (6, 66762), (8, 66666), (9, 66663), (10, 66642), (11, 66564), (13, 66522), (16, 66408), (17, 66396), (18, 66393), (23, 66294), (24, 66249), (25, 66231),

Gene: PrinceCharming\_92 Start: 67265, Stop: 66495, Start Num: 2

Candidate Starts for PrinceCharming\_92:

(Start: 2 @67265 has 37 MA's), (4, 67196), (5, 67169), (6, 67145), (8, 67049), (9, 67046), (10, 67025), (11, 66947), (13, 66878), (16, 66764), (17, 66752), (18, 66749), (23, 66650), (24, 66605), (25, 66587),

Gene: Quesadilla\_98 Start: 70830, Stop: 69991, Start Num: 1

Candidate Starts for Quesadilla\_98:

(Start: 1 @70830 has 1 MA's), (Start: 2 @70758 has 37 MA's), (4, 70692), (15, 70377), (20, 70281), (21, 70251), (26, 70128), (28, 70035),

Gene: Qyrzula\_81 Start: 66976, Stop: 66269, Start Num: 3

Candidate Starts for Qyrzula\_81:

(Start: 2 @67024 has 37 MA's), (Start: 3 @66976 has 1 MA's), (4, 66955), (5, 66928), (6, 66904), (8, 66808), (9, 66805), (10, 66784), (11, 66706), (13, 66652), (16, 66538), (17, 66526), (18, 66523), (23, 66424), (24, 66379), (25, 66361),

Gene: Rhinoforte\_92 Start: 67247, Stop: 66492, Start Num: 2

Candidate Starts for Rhinoforte\_92:

(Start: 2 @67247 has 37 MA's), (4, 67178), (5, 67151), (6, 67127), (8, 67031), (9, 67028), (10, 67007), (11, 66929), (13, 66875), (16, 66761), (17, 66749), (18, 66746), (23, 66647), (24, 66602), (25, 66584),

Gene: Rosebush\_90 Start: 67316, Stop: 66561, Start Num: 2

Candidate Starts for Rosebush\_90:

(Start: 2 @67316 has 37 MA's), (Start: 3 @67268 has 1 MA's), (4, 67247), (5, 67220), (6, 67196), (8, 67100), (9, 67097), (10, 67076), (11, 66998), (13, 66944), (16, 66830), (17, 66818), (18, 66815), (23, 66716), (24, 66671), (25, 66653),

Gene: Sabella\_92 Start: 67140, Stop: 66394, Start Num: 2

Candidate Starts for Sabella\_92:

(Start: 2 @67140 has 37 MA's), (4, 67071), (5, 67044), (6, 67020), (8, 66924), (9, 66921), (10, 66900), (11, 66822), (16, 66663), (17, 66651), (18, 66648), (23, 66549), (24, 66504), (25, 66486),

Gene: TA17A\_95 Start: 67160, Stop: 66405, Start Num: 2

Candidate Starts for TA17A\_95:

(Start: 2 @67160 has 37 MA's), (4, 67091), (5, 67064), (6, 67040), (8, 66944), (9, 66941), (10, 66920), (11, 66842), (16, 66674), (17, 66662), (18, 66659), (22, 66593), (23, 66560), (24, 66515), (25, 66497),

Gene: Tinciduntolum\_93 Start: 67332, Stop: 66577, Start Num: 2

Candidate Starts for Tinciduntolum\_93:

(Start: 2 @67332 has 37 MA's), (Start: 3 @67284 has 1 MA's), (4, 67263), (5, 67236), (6, 67212), (8, 67116), (9, 67113), (10, 67092), (11, 67014), (13, 66960), (16, 66846), (17, 66834), (18, 66831), (23, 66732), (24, 66687), (25, 66669),

Gene: Tres\_92 Start: 67185, Stop: 66418, Start Num: 2

Candidate Starts for Tres\_92:

(Start: 2 @67185 has 37 MA's), (4, 67116), (5, 67089), (6, 67065), (8, 66969), (9, 66966), (10, 66945), (11, 66867), (13, 66798), (16, 66684), (17, 66672), (23, 66573), (24, 66528), (25, 66510),

Gene: Vic9\_00089 Start: 67379, Stop: 66633, Start Num: 2

Candidate Starts for Vic9\_00089:

(Start: 2 @67379 has 37 MA's), (4, 67310), (5, 67283), (6, 67259), (8, 67163), (9, 67160), (10, 67139), (11, 67061), (16, 66899), (17, 66887), (23, 66788), (24, 66743), (25, 66725),

Gene: West99\_92 Start: 67352, Stop: 66597, Start Num: 2

Candidate Starts for West99\_92:

(Start: 2 @67352 has 37 MA's), (Start: 3 @67304 has 1 MA's), (4, 67283), (5, 67256), (6, 67232), (8, 67136), (9, 67133), (10, 67112), (11, 67034), (13, 66980), (16, 66866), (17, 66854), (18, 66851), (23, 66752), (24, 66707), (25, 66689),