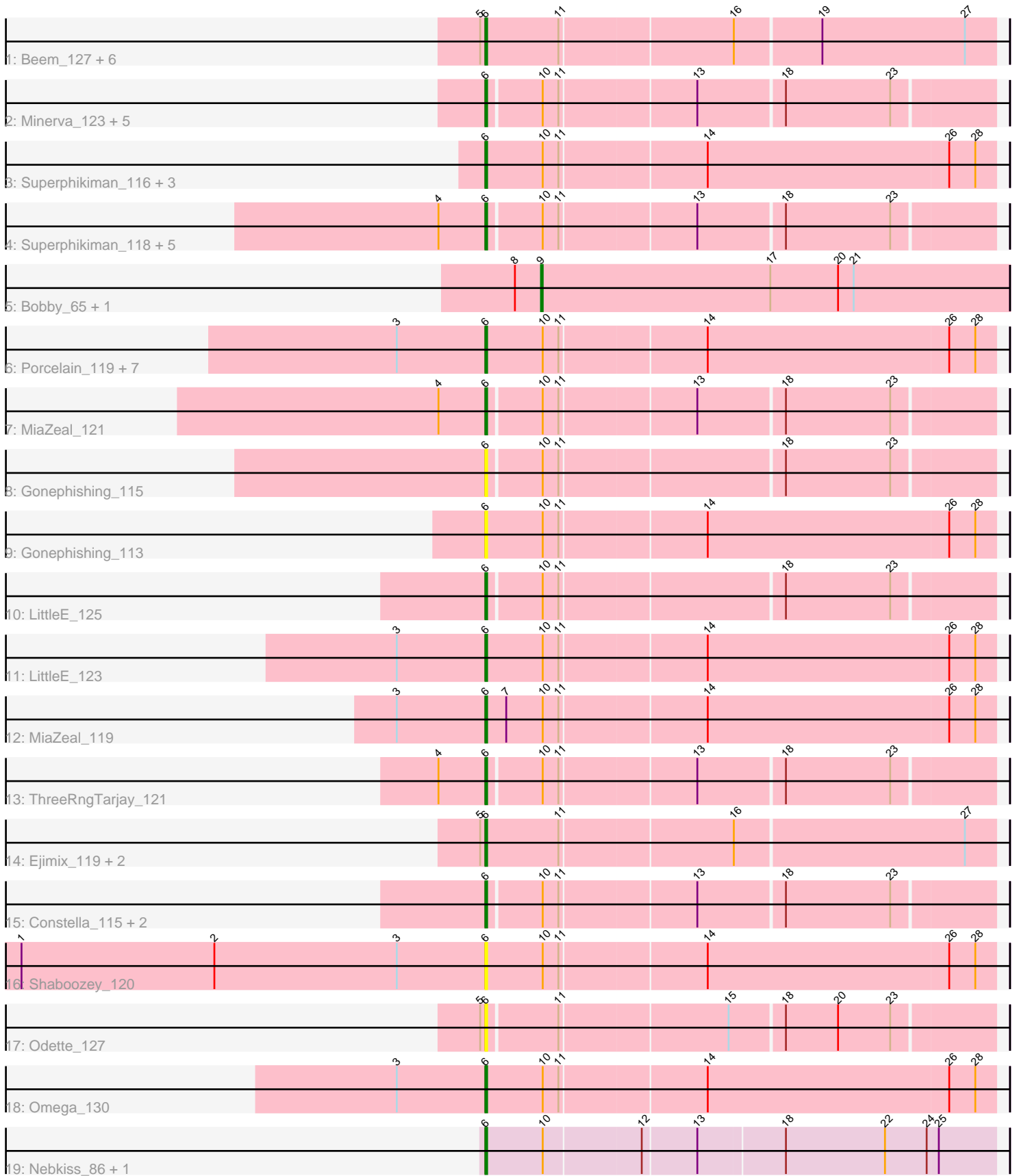


Pham 219817



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 219817 Report

This analysis was run 03/28/25 on database version 593.

Pham number 219817 has 51 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Beem\_127, JuicyJay\_122, Bobby\_117, Dove\_111, Marleymoo\_109, Phoebus\_126, HokkenD\_115
- Track 2 : Minerva\_123, EricMillard\_117, Optimus\_116, Hughesyang\_125, BAKA\_125, Zelink\_120
- Track 3 : Superphikiman\_116, Squint\_117, Courthouse\_114, Ariel\_119
- Track 4 : Superphikiman\_118, Courthouse\_116, Rearden\_119, Ariel\_121, Squint\_119, Shaboozey\_122
- Track 5 : Bobby\_65, Marleymoo\_62
- Track 6 : Porcelain\_119, Lucky2013\_116, Rearden\_117, Hannaconda\_110, Nekros\_122, Bombitas\_111, KashFlow\_116, Yeet\_115
- Track 7 : MiaZeal\_121
- Track 8 : Gonephishing\_115
- Track 9 : Gonephishing\_113
- Track 10 : LittleE\_125
- Track 11 : LittleE\_123
- Track 12 : MiaZeal\_119
- Track 13 : ThreeRngTarjay\_121
- Track 14 : Ejimix\_119, Dallas\_126, Halley\_127
- Track 15 : Constella\_115, Wanda\_124, NihilNomen\_127
- Track 16 : Shaboozey\_120
- Track 17 : Odette\_127
- Track 18 : Omega\_130
- Track 19 : Nebkiss\_86, Gaia\_87

### ***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 40 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel\_119, Ariel\_121, BAKA\_125, Beem\_127, Bobby\_117, Bombitas\_111, Constella\_115, Courthouse\_114, Courthouse\_116, Dallas\_126, Dove\_111, Ejimix\_119, EricMillard\_117, Gaia\_87, Gonephishing\_113, Gonephishing\_115, Halley\_127, Hannaconda\_110, HokkenD\_115, Hughesyang\_125, JuicyJay\_122,

KashFlow\_116, LittleE\_123, LittleE\_125, Lucky2013\_116, Marleymoo\_109, MiaZeal\_119, MiaZeal\_121, Minerva\_123, Nebkiss\_86, Nekros\_122, NihilNomen\_127, Odette\_127, Omega\_130, Optimus\_116, Phoebus\_126, Porcelain\_119, Rearden\_117, Rearden\_119, Shaboozey\_120, Shaboozey\_122, Squint\_117, Squint\_119, Superphikiman\_116, Superphikiman\_118, ThreeRngTarjay\_121, Wanda\_124, Yeet\_115, Zelink\_120,

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

- 

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

- Bobby\_65, Marleymoo\_62,

### **Summary by start number:**

Start 6:

- Found in 49 of 51 ( 96.1% ) of genes in pham
- Manual Annotations of this start: 40 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel\_119 (J), Ariel\_121 (J), BAKA\_125 (J), Beem\_127 (J), Bobby\_117 (J), Bombitas\_111 (J), Constella\_115 (J), Courthouse\_114 (J), Courthouse\_116 (J), Dallas\_126 (J), Dove\_111 (J), Ejimix\_119 (J), EricMillard\_117 (J), Gaia\_87 (X), Gonephishing\_113 (J), Gonephishing\_115 (J), Halley\_127 (J), Hannaconda\_110 (J), HokkenD\_115 (J), Hughesyang\_125 (J), JuicyJay\_122 (J), KashFlow\_116 (J), LittleE\_123 (J), LittleE\_125 (J), Lucky2013\_116 (J), Marleymoo\_109 (J), MiaZeal\_119 (J), MiaZeal\_121 (J), Minerva\_123 (J), Nebkiss\_86 (X), Nekros\_122 (J), NihilNomen\_127 (J), Odette\_127 (J), Omega\_130 (J), Optimus\_116 (J), Phoebus\_126 (J), Porcelain\_119 (J), Rearden\_117 (J), Rearden\_119 (J), Shaboozey\_120 (J), Shaboozey\_122 (J), Squint\_117 (J), Squint\_119 (J), Superphikiman\_116 (J), Superphikiman\_118 (J), ThreeRngTarjay\_121 (J), Wanda\_124 (J), Yeet\_115 (J), Zelink\_120 (J),

Start 9:

- Found in 2 of 51 ( 3.9% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobby\_65 (J), Marleymoo\_62 (J),

### **Summary by clusters:**

There are 2 clusters represented in this pham: X, J,

Info for manual annotations of cluster J:

- Start number 6 was manually annotated 38 times for cluster J.
- Start number 9 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster X:

- Start number 6 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: Ariel\_121 Start: 65103, Stop: 65381, Start Num: 6  
Candidate Starts for Ariel\_121:  
(4, 65076), (Start: 6 @65103 has 40 MA's), (10, 65133), (11, 65142), (13, 65217), (18, 65265), (23, 65325),

Gene: Ariel\_119 Start: 64508, Stop: 64795, Start Num: 6  
Candidate Starts for Ariel\_119:  
(Start: 6 @64508 has 40 MA's), (10, 64541), (11, 64550), (14, 64631), (26, 64769), (28, 64784),

Gene: BAKA\_125 Start: 68647, Stop: 68925, Start Num: 6  
Candidate Starts for BAKA\_125:  
(Start: 6 @68647 has 40 MA's), (10, 68677), (11, 68686), (13, 68761), (18, 68809), (23, 68869),

Gene: Beem\_127 Start: 70223, Stop: 70507, Start Num: 6  
Candidate Starts for Beem\_127:  
(5, 70220), (Start: 6 @70223 has 40 MA's), (11, 70265), (16, 70361), (19, 70409), (27, 70490),

Gene: Bobby\_65 Start: 48055, Stop: 47786, Start Num: 9  
Candidate Starts for Bobby\_65:  
(8, 48070), (Start: 9 @48055 has 1 MA's), (17, 47923), (20, 47884), (21, 47875),

Gene: Bobby\_117 Start: 69823, Stop: 70107, Start Num: 6  
Candidate Starts for Bobby\_117:  
(5, 69820), (Start: 6 @69823 has 40 MA's), (11, 69865), (16, 69961), (19, 70009), (27, 70090),

Gene: Bombitas\_111 Start: 66635, Stop: 66922, Start Num: 6  
Candidate Starts for Bombitas\_111:  
(3, 66584), (Start: 6 @66635 has 40 MA's), (10, 66668), (11, 66677), (14, 66758), (26, 66896), (28, 66911),

Gene: Constella\_115 Start: 65734, Stop: 66012, Start Num: 6  
Candidate Starts for Constella\_115:  
(Start: 6 @65734 has 40 MA's), (10, 65764), (11, 65773), (13, 65848), (18, 65896), (23, 65956),

Gene: Courthouse\_116 Start: 64703, Stop: 64981, Start Num: 6  
Candidate Starts for Courthouse\_116:  
(4, 64676), (Start: 6 @64703 has 40 MA's), (10, 64733), (11, 64742), (13, 64817), (18, 64865), (23, 64925),

Gene: Courthouse\_114 Start: 64108, Stop: 64395, Start Num: 6  
Candidate Starts for Courthouse\_114:  
(Start: 6 @64108 has 40 MA's), (10, 64141), (11, 64150), (14, 64231), (26, 64369), (28, 64384),

Gene: Dallas\_126 Start: 69738, Stop: 70022, Start Num: 6  
Candidate Starts for Dallas\_126:  
(5, 69735), (Start: 6 @69738 has 40 MA's), (11, 69780), (16, 69876), (27, 70005),

Gene: Dove\_111 Start: 64651, Stop: 64935, Start Num: 6  
Candidate Starts for Dove\_111:  
(5, 64648), (Start: 6 @64651 has 40 MA's), (11, 64693), (16, 64789), (19, 64837), (27, 64918),

Gene: Ejimix\_119 Start: 69806, Stop: 70090, Start Num: 6  
Candidate Starts for Ejimix\_119:

(5, 69803), (Start: 6 @69806 has 40 MA's), (11, 69848), (16, 69944), (27, 70073),

Gene: EricMillard\_117 Start: 68284, Stop: 68562, Start Num: 6

Candidate Starts for EricMillard\_117:

(Start: 6 @68284 has 40 MA's), (10, 68314), (11, 68323), (13, 68398), (18, 68446), (23, 68506),

Gene: Gaia\_87 Start: 50934, Stop: 51218, Start Num: 6

Candidate Starts for Gaia\_87:

(Start: 6 @50934 has 40 MA's), (10, 50967), (12, 51021), (13, 51051), (18, 51099), (22, 51156), (24, 51180), (25, 51186),

Gene: Gonephishing\_115 Start: 64109, Stop: 64387, Start Num: 6

Candidate Starts for Gonephishing\_115:

(Start: 6 @64109 has 40 MA's), (10, 64139), (11, 64148), (18, 64271), (23, 64331),

Gene: Gonephishing\_113 Start: 63514, Stop: 63801, Start Num: 6

Candidate Starts for Gonephishing\_113:

(Start: 6 @63514 has 40 MA's), (10, 63547), (11, 63556), (14, 63637), (26, 63775), (28, 63790),

Gene: Halley\_127 Start: 70122, Stop: 70406, Start Num: 6

Candidate Starts for Halley\_127:

(5, 70119), (Start: 6 @70122 has 40 MA's), (11, 70164), (16, 70260), (27, 70389),

Gene: Hannaconda\_110 Start: 63044, Stop: 63331, Start Num: 6

Candidate Starts for Hannaconda\_110:

(3, 62993), (Start: 6 @63044 has 40 MA's), (10, 63077), (11, 63086), (14, 63167), (26, 63305), (28, 63320),

Gene: HokkenD\_115 Start: 68452, Stop: 68736, Start Num: 6

Candidate Starts for HokkenD\_115:

(5, 68449), (Start: 6 @68452 has 40 MA's), (11, 68494), (16, 68590), (19, 68638), (27, 68719),

Gene: Hughesyang\_125 Start: 69821, Stop: 70099, Start Num: 6

Candidate Starts for Hughesyang\_125:

(Start: 6 @69821 has 40 MA's), (10, 69851), (11, 69860), (13, 69935), (18, 69983), (23, 70043),

Gene: JuicyJay\_122 Start: 71359, Stop: 71643, Start Num: 6

Candidate Starts for JuicyJay\_122:

(5, 71356), (Start: 6 @71359 has 40 MA's), (11, 71401), (16, 71497), (19, 71545), (27, 71626),

Gene: KashFlow\_116 Start: 65549, Stop: 65836, Start Num: 6

Candidate Starts for KashFlow\_116:

(3, 65498), (Start: 6 @65549 has 40 MA's), (10, 65582), (11, 65591), (14, 65672), (26, 65810), (28, 65825),

Gene: LittleE\_125 Start: 68308, Stop: 68586, Start Num: 6

Candidate Starts for LittleE\_125:

(Start: 6 @68308 has 40 MA's), (10, 68338), (11, 68347), (18, 68470), (23, 68530),

Gene: LittleE\_123 Start: 67713, Stop: 68000, Start Num: 6

Candidate Starts for LittleE\_123:

(3, 67662), (Start: 6 @67713 has 40 MA's), (10, 67746), (11, 67755), (14, 67836), (26, 67974), (28, 67989),

Gene: Lucky2013\_116 Start: 64428, Stop: 64715, Start Num: 6  
Candidate Starts for Lucky2013\_116:  
(3, 64377), (Start: 6 @64428 has 40 MA's), (10, 64461), (11, 64470), (14, 64551), (26, 64689), (28, 64704),

Gene: Marleymoo\_62 Start: 47177, Stop: 46908, Start Num: 9  
Candidate Starts for Marleymoo\_62:  
(8, 47192), (Start: 9 @47177 has 1 MA's), (17, 47045), (20, 47006), (21, 46997),

Gene: Marleymoo\_109 Start: 65569, Stop: 65853, Start Num: 6  
Candidate Starts for Marleymoo\_109:  
(5, 65566), (Start: 6 @65569 has 40 MA's), (11, 65611), (16, 65707), (19, 65755), (27, 65836),

Gene: MiaZeal\_121 Start: 65781, Stop: 66059, Start Num: 6  
Candidate Starts for MiaZeal\_121:  
(4, 65754), (Start: 6 @65781 has 40 MA's), (10, 65811), (11, 65820), (13, 65895), (18, 65943), (23, 66003),

Gene: MiaZeal\_119 Start: 65186, Stop: 65473, Start Num: 6  
Candidate Starts for MiaZeal\_119:  
(3, 65135), (Start: 6 @65186 has 40 MA's), (7, 65198), (10, 65219), (11, 65228), (14, 65309), (26, 65447), (28, 65462),

Gene: Minerva\_123 Start: 68422, Stop: 68700, Start Num: 6  
Candidate Starts for Minerva\_123:  
(Start: 6 @68422 has 40 MA's), (10, 68452), (11, 68461), (13, 68536), (18, 68584), (23, 68644),

Gene: Nebkiss\_86 Start: 49546, Stop: 49830, Start Num: 6  
Candidate Starts for Nebkiss\_86:  
(Start: 6 @49546 has 40 MA's), (10, 49579), (12, 49633), (13, 49663), (18, 49711), (22, 49768), (24, 49792), (25, 49798),

Gene: Nekros\_122 Start: 68269, Stop: 68556, Start Num: 6  
Candidate Starts for Nekros\_122:  
(3, 68218), (Start: 6 @68269 has 40 MA's), (10, 68302), (11, 68311), (14, 68392), (26, 68530), (28, 68545),

Gene: NihilNomen\_127 Start: 69311, Stop: 69589, Start Num: 6  
Candidate Starts for NihilNomen\_127:  
(Start: 6 @69311 has 40 MA's), (10, 69341), (11, 69350), (13, 69425), (18, 69473), (23, 69533),

Gene: Odette\_127 Start: 69995, Stop: 70273, Start Num: 6  
Candidate Starts for Odette\_127:  
(5, 69992), (Start: 6 @69995 has 40 MA's), (11, 70034), (15, 70127), (18, 70157), (20, 70187), (23, 70217),

Gene: Omega\_130 Start: 69533, Stop: 69820, Start Num: 6  
Candidate Starts for Omega\_130:  
(3, 69482), (Start: 6 @69533 has 40 MA's), (10, 69566), (11, 69575), (14, 69656), (26, 69794), (28, 69809),

Gene: Optimus\_116 Start: 66818, Stop: 67096, Start Num: 6

Candidate Starts for Optimus\_116:

(Start: 6 @66818 has 40 MA's), (10, 66848), (11, 66857), (13, 66932), (18, 66980), (23, 67040),

Gene: Phoebus\_126 Start: 71168, Stop: 71452, Start Num: 6

Candidate Starts for Phoebus\_126:

(5, 71165), (Start: 6 @71168 has 40 MA's), (11, 71210), (16, 71306), (19, 71354), (27, 71435),

Gene: Porcelain\_119 Start: 65374, Stop: 65661, Start Num: 6

Candidate Starts for Porcelain\_119:

(3, 65323), (Start: 6 @65374 has 40 MA's), (10, 65407), (11, 65416), (14, 65497), (26, 65635), (28, 65650),

Gene: Rearden\_117 Start: 65085, Stop: 65372, Start Num: 6

Candidate Starts for Rearden\_117:

(3, 65034), (Start: 6 @65085 has 40 MA's), (10, 65118), (11, 65127), (14, 65208), (26, 65346), (28, 65361),

Gene: Rearden\_119 Start: 65680, Stop: 65958, Start Num: 6

Candidate Starts for Rearden\_119:

(4, 65653), (Start: 6 @65680 has 40 MA's), (10, 65710), (11, 65719), (13, 65794), (18, 65842), (23, 65902),

Gene: Shaboozey\_120 Start: 65509, Stop: 65796, Start Num: 6

Candidate Starts for Shaboozey\_120:

(1, 65242), (2, 65353), (3, 65458), (Start: 6 @65509 has 40 MA's), (10, 65542), (11, 65551), (14, 65632), (26, 65770), (28, 65785),

Gene: Shaboozey\_122 Start: 66104, Stop: 66382, Start Num: 6

Candidate Starts for Shaboozey\_122:

(4, 66077), (Start: 6 @66104 has 40 MA's), (10, 66134), (11, 66143), (13, 66218), (18, 66266), (23, 66326),

Gene: Squint\_117 Start: 65299, Stop: 65586, Start Num: 6

Candidate Starts for Squint\_117:

(Start: 6 @65299 has 40 MA's), (10, 65332), (11, 65341), (14, 65422), (26, 65560), (28, 65575),

Gene: Squint\_119 Start: 65894, Stop: 66172, Start Num: 6

Candidate Starts for Squint\_119:

(4, 65867), (Start: 6 @65894 has 40 MA's), (10, 65924), (11, 65933), (13, 66008), (18, 66056), (23, 66116),

Gene: Superphikiman\_116 Start: 64390, Stop: 64677, Start Num: 6

Candidate Starts for Superphikiman\_116:

(Start: 6 @64390 has 40 MA's), (10, 64423), (11, 64432), (14, 64513), (26, 64651), (28, 64666),

Gene: Superphikiman\_118 Start: 64985, Stop: 65263, Start Num: 6

Candidate Starts for Superphikiman\_118:

(4, 64958), (Start: 6 @64985 has 40 MA's), (10, 65015), (11, 65024), (13, 65099), (18, 65147), (23, 65207),

Gene: ThreeRngTarjay\_121 Start: 69766, Stop: 70044, Start Num: 6

Candidate Starts for ThreeRngTarjay\_121:

(4, 69739), (Start: 6 @69766 has 40 MA's), (10, 69796), (11, 69805), (13, 69880), (18, 69928), (23, 69988),

Gene: Wanda\_124 Start: 66901, Stop: 67179, Start Num: 6

Candidate Starts for Wanda\_124:

(Start: 6 @66901 has 40 MA's), (10, 66931), (11, 66940), (13, 67015), (18, 67063), (23, 67123),

Gene: Yeet\_115 Start: 67515, Stop: 67802, Start Num: 6

Candidate Starts for Yeet\_115:

(3, 67464), (Start: 6 @67515 has 40 MA's), (10, 67548), (11, 67557), (14, 67638), (26, 67776), (28, 67791),

Gene: Zelink\_120 Start: 69713, Stop: 69991, Start Num: 6

Candidate Starts for Zelink\_120:

(Start: 6 @69713 has 40 MA's), (10, 69743), (11, 69752), (13, 69827), (18, 69875), (23, 69935),