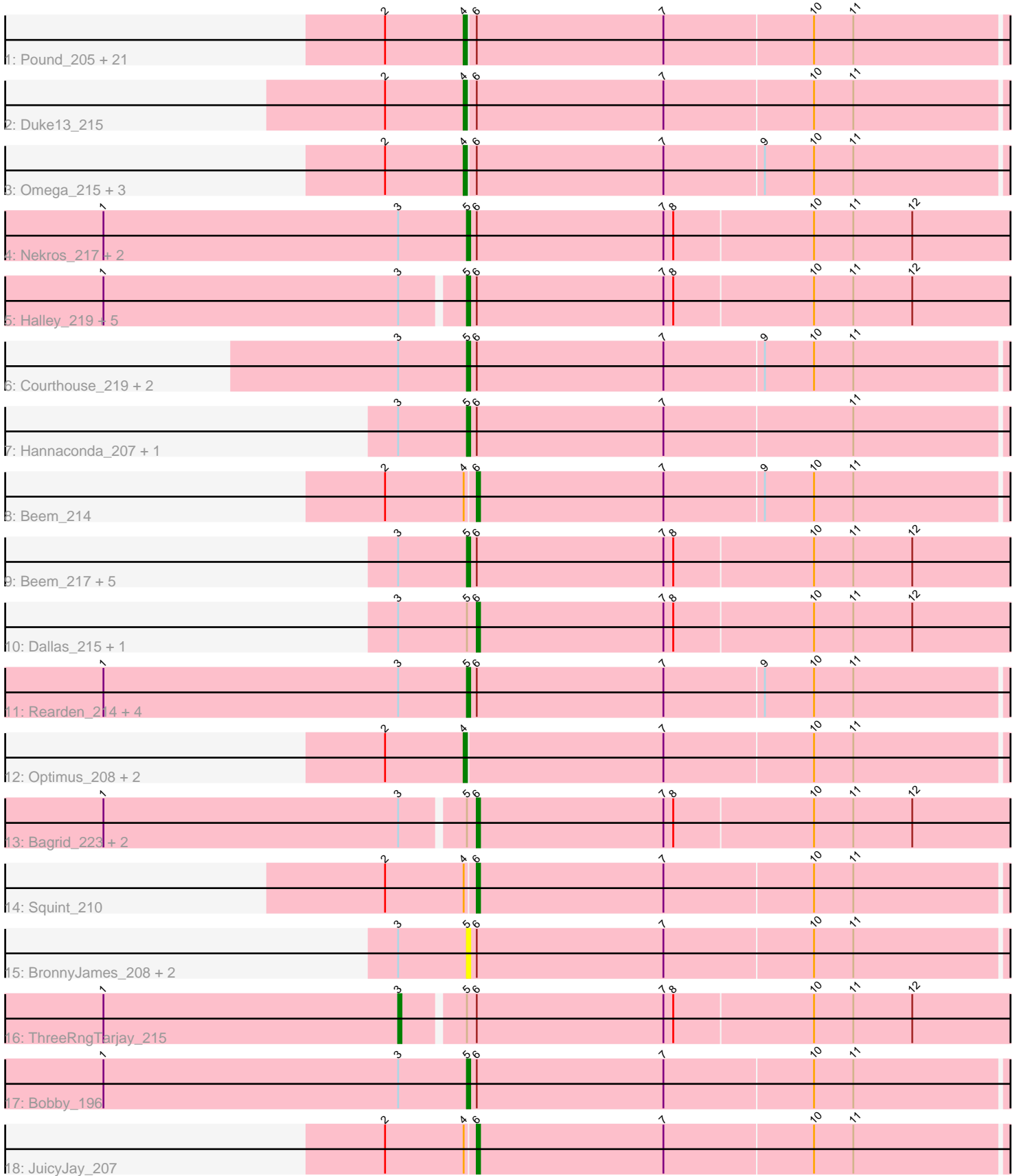


Pham 303350



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 303350 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303350 has 68 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Pound\_205, Minerva\_213, Schatzie\_208, Nekros\_214, Bagrid\_220, Kalah2\_216, MiaZeal\_223, Ejimix\_204, Porcelain\_214, DmpstrDiver\_215, Redno2\_204, Wanda\_213, Odette\_217, Hughesyang\_213, Shaboozey\_211, Yeet\_206, Klein\_221, Halley\_216, Dove\_197, Phoebus\_214, Lucky2013\_211, EricMillard\_210
- Track 2 : Duke13\_215
- Track 3 : Omega\_215, Dallas\_212, Zelink\_205, LittleE\_216
- Track 4 : Nekros\_217, Omega\_218, Shaboozey\_214
- Track 5 : Halley\_219, Ejimix\_207, Redno2\_207, EricMillard\_213, Dove\_200, Yeet\_209
- Track 6 : Courthouse\_219, Ariel\_222, Superphikiman\_215
- Track 7 : Hannaconda\_207, KashFlow\_208
- Track 8 : Beem\_214
- Track 9 : Beem\_217, Squint\_213, Zelink\_208, Bombitas\_200, NihilNomen\_218, Optimus\_211
- Track 10 : Dallas\_215, Duke13\_218
- Track 11 : Rearden\_214, Hidrated\_203, Constella\_207, Marleymoo\_199, Xiaokay\_204
- Track 12 : Optimus\_208, BAKA\_221, ThreeRngTarjay\_212
- Track 13 : Bagrid\_223, JuicyJay\_210, Hughesyang\_216
- Track 14 : Squint\_210
- Track 15 : BronnyJames\_208, Gonephishing\_212, Nibley\_206
- Track 16 : ThreeRngTarjay\_215
- Track 17 : Bobby\_196
- Track 18 : JuicyJay\_207

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

The start number called the most often in the published annotations is 4, it was called in 26 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BAKA\_221, Bagrid\_220, Dallas\_212, DmpstrDiver\_215, Dove\_197, Duke13\_215, Ejimix\_204, EricMillard\_210, Halley\_216, Hughesyang\_213, Kalah2\_216, Klein\_221,

LittleE\_216, Lucky2013\_211, MiaZeal\_223, Minerva\_213, Nekros\_214, Odette\_217, Omega\_215, Optimus\_208, Phoebus\_214, Porcelain\_214, Pound\_205, Redno2\_204, Schatzie\_208, Shaboozey\_211, ThreeRngTarjay\_212, Wanda\_213, Yeet\_206, Zelink\_205,

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

- Beem\_214, JuicyJay\_207, Squint\_210,

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

- Ariel\_222, Bagrid\_223, Beem\_217, Bobby\_196, Bombitas\_200, BronnyJames\_208, Constella\_207, Courthouse\_219, Dallas\_215, Dove\_200, Duke13\_218, Ejimix\_207, EricMillard\_213, Gonephishing\_212, Halley\_219, Hannaconda\_207, Hidrated\_203, Hughesyang\_216, JuicyJay\_210, KashFlow\_208, Marleymoo\_199, Nekros\_217, Nibley\_206, NihilNomen\_218, Omega\_218, Optimus\_211, Rearden\_214, Redno2\_207, Shaboozey\_214, Squint\_213, Superphikiman\_215, ThreeRngTarjay\_215, Xiaokay\_204, Yeet\_209, Zelink\_208,

### Summary by start number:

Start 3:

- Found in 35 of 68 ( 51.5% ) of genes in pham
- Manual Annotations of this start: 1 of 54
- Called 2.9% of time when present
- Phage (with cluster) where this start called: ThreeRngTarjay\_215 (J),

Start 4:

- Found in 33 of 68 ( 48.5% ) of genes in pham
- Manual Annotations of this start: 26 of 54
- Called 90.9% of time when present
- Phage (with cluster) where this start called: BAKA\_221 (J), Bagrid\_220 (J), Dallas\_212 (J), DmpstrDiver\_215 (J), Dove\_197 (J), Duke13\_215 (J), Ejimix\_204 (J), EricMillard\_210 (J), Halley\_216 (J), Hughesyang\_213 (J), Kalah2\_216 (J), Klein\_221 (J), LittleE\_216 (J), Lucky2013\_211 (J), MiaZeal\_223 (J), Minerva\_213 (J), Nekros\_214 (J), Odette\_217 (J), Omega\_215 (J), Optimus\_208 (J), Phoebus\_214 (J), Porcelain\_214 (J), Pound\_205 (J), Redno2\_204 (J), Schatzie\_208 (J), Shaboozey\_211 (J), ThreeRngTarjay\_212 (J), Wanda\_213 (J), Yeet\_206 (J), Zelink\_205 (J),

Start 5:

- Found in 35 of 68 ( 51.5% ) of genes in pham
- Manual Annotations of this start: 20 of 54
- Called 82.9% of time when present
- Phage (with cluster) where this start called: Ariel\_222 (J), Beem\_217 (J), Bobby\_196 (J), Bombitas\_200 (J), BronnyJames\_208 (J), Constella\_207 (J), Courthouse\_219 (J), Dove\_200 (J), Ejimix\_207 (J), EricMillard\_213 (J), Gonephishing\_212 (J), Halley\_219 (J), Hannaconda\_207 (J), Hidrated\_203 (J), KashFlow\_208 (J), Marleymoo\_199 (J), Nekros\_217 (J), Nibley\_206 (J), NihilNomen\_218 (J), Omega\_218 (J), Optimus\_211 (J), Rearden\_214 (J), Redno2\_207 (J), Shaboozey\_214 (J), Squint\_213 (J), Superphikiman\_215 (J), Xiaokay\_204 (J), Yeet\_209 (J), Zelink\_208 (J),

Start 6:

- Found in 65 of 68 ( 95.6% ) of genes in pham
- Manual Annotations of this start: 7 of 54

- Called 12.3% of time when present
- Phage (with cluster) where this start called: Bagrid\_223 (J), Beem\_214 (J), Dallas\_215 (J), Duke13\_218 (J), Hughesyang\_216 (J), JuicyJay\_207 (J), JuicyJay\_210 (J), Squint\_210 (J),

### **Summary by clusters:**

There is one cluster represented in this pham: J

Info for manual annotations of cluster J:

- Start number 3 was manually annotated 1 time for cluster J.
- Start number 4 was manually annotated 26 times for cluster J.
- Start number 5 was manually annotated 20 times for cluster J.
- Start number 6 was manually annotated 7 times for cluster J.

### **Gene Information:**

Gene: Ariel\_222 Start: 103019, Stop: 102831, Start Num: 5

Candidate Starts for Ariel\_222:

(Start: 3 @103040 has 1 MA's), (Start: 5 @103019 has 20 MA's), (Start: 6 @103016 has 7 MA's), (7, 102959), (9, 102929), (10, 102914), (11, 102902),

Gene: BAKA\_221 Start: 105931, Stop: 105743, Start Num: 4

Candidate Starts for BAKA\_221:

(2, 105955), (Start: 4 @105931 has 26 MA's), (7, 105871), (10, 105826), (11, 105814),

Gene: Bagrid\_220 Start: 106293, Stop: 106105, Start Num: 4

Candidate Starts for Bagrid\_220:

(2, 106317), (Start: 4 @106293 has 26 MA's), (Start: 6 @106290 has 7 MA's), (7, 106233), (10, 106188), (11, 106176),

Gene: Bagrid\_223 Start: 107118, Stop: 106930, Start Num: 6

Candidate Starts for Bagrid\_223:

(1, 107229), (Start: 3 @107139 has 1 MA's), (Start: 5 @107121 has 20 MA's), (Start: 6 @107118 has 7 MA's), (7, 107061), (8, 107058), (10, 107016), (11, 107004), (12, 106986),

Gene: Beem\_214 Start: 105055, Stop: 104870, Start Num: 6

Candidate Starts for Beem\_214:

(2, 105082), (Start: 4 @105058 has 26 MA's), (Start: 6 @105055 has 7 MA's), (7, 104998), (9, 104968), (10, 104953), (11, 104941),

Gene: Beem\_217 Start: 105886, Stop: 105695, Start Num: 5

Candidate Starts for Beem\_217:

(Start: 3 @105907 has 1 MA's), (Start: 5 @105886 has 20 MA's), (Start: 6 @105883 has 7 MA's), (7, 105826), (8, 105823), (10, 105781), (11, 105769), (12, 105751),

Gene: Bobby\_196 Start: 103828, Stop: 103640, Start Num: 5

Candidate Starts for Bobby\_196:

(1, 103939), (Start: 3 @103849 has 1 MA's), (Start: 5 @103828 has 20 MA's), (Start: 6 @103825 has 7 MA's), (7, 103768), (10, 103723), (11, 103711),

Gene: Bombitas\_200 Start: 102375, Stop: 102184, Start Num: 5  
Candidate Starts for Bombitas\_200:  
(Start: 3 @102396 has 1 MA's), (Start: 5 @102375 has 20 MA's), (Start: 6 @102372 has 7 MA's), (7, 102315), (8, 102312), (10, 102270), (11, 102258), (12, 102240),

Gene: BronnyJames\_208 Start: 100938, Stop: 100750, Start Num: 5  
Candidate Starts for BronnyJames\_208:  
(Start: 3 @100959 has 1 MA's), (Start: 5 @100938 has 20 MA's), (Start: 6 @100935 has 7 MA's), (7, 100878), (10, 100833), (11, 100821),

Gene: Constella\_207 Start: 104056, Stop: 103868, Start Num: 5  
Candidate Starts for Constella\_207:  
(1, 104167), (Start: 3 @104077 has 1 MA's), (Start: 5 @104056 has 20 MA's), (Start: 6 @104053 has 7 MA's), (7, 103996), (9, 103966), (10, 103951), (11, 103939),

Gene: Courthouse\_219 Start: 103879, Stop: 103691, Start Num: 5  
Candidate Starts for Courthouse\_219:  
(Start: 3 @103900 has 1 MA's), (Start: 5 @103879 has 20 MA's), (Start: 6 @103876 has 7 MA's), (7, 103819), (9, 103789), (10, 103774), (11, 103762),

Gene: Dallas\_212 Start: 103837, Stop: 103649, Start Num: 4  
Candidate Starts for Dallas\_212:  
(2, 103861), (Start: 4 @103837 has 26 MA's), (Start: 6 @103834 has 7 MA's), (7, 103777), (9, 103747), (10, 103732), (11, 103720),

Gene: Dallas\_215 Start: 104662, Stop: 104474, Start Num: 6  
Candidate Starts for Dallas\_215:  
(Start: 3 @104686 has 1 MA's), (Start: 5 @104665 has 20 MA's), (Start: 6 @104662 has 7 MA's), (7, 104605), (8, 104602), (10, 104560), (11, 104548), (12, 104530),

Gene: DmpstrDiver\_215 Start: 104540, Stop: 104352, Start Num: 4  
Candidate Starts for DmpstrDiver\_215:  
(2, 104564), (Start: 4 @104540 has 26 MA's), (Start: 6 @104537 has 7 MA's), (7, 104480), (10, 104435), (11, 104423),

Gene: Dove\_197 Start: 100172, Stop: 99984, Start Num: 4  
Candidate Starts for Dove\_197:  
(2, 100196), (Start: 4 @100172 has 26 MA's), (Start: 6 @100169 has 7 MA's), (7, 100112), (10, 100067), (11, 100055),

Gene: Dove\_200 Start: 101000, Stop: 100809, Start Num: 5  
Candidate Starts for Dove\_200:  
(1, 101108), (Start: 3 @101018 has 1 MA's), (Start: 5 @101000 has 20 MA's), (Start: 6 @100997 has 7 MA's), (7, 100940), (8, 100937), (10, 100895), (11, 100883), (12, 100865),

Gene: Duke13\_215 Start: 104509, Stop: 104321, Start Num: 4  
Candidate Starts for Duke13\_215:  
(2, 104533), (Start: 4 @104509 has 26 MA's), (Start: 6 @104506 has 7 MA's), (7, 104449), (10, 104404), (11, 104392),

Gene: Duke13\_218 Start: 105334, Stop: 105146, Start Num: 6  
Candidate Starts for Duke13\_218:

(Start: 3 @105358 has 1 MA's), (Start: 5 @105337 has 20 MA's), (Start: 6 @105334 has 7 MA's), (7, 105277), (8, 105274), (10, 105232), (11, 105220), (12, 105202),

Gene: Ejimix\_207 Start: 104294, Stop: 104103, Start Num: 5

Candidate Starts for Ejimix\_207:

(1, 104402), (Start: 3 @104312 has 1 MA's), (Start: 5 @104294 has 20 MA's), (Start: 6 @104291 has 7 MA's), (7, 104234), (8, 104231), (10, 104189), (11, 104177), (12, 104159),

Gene: Ejimix\_204 Start: 103466, Stop: 103278, Start Num: 4

Candidate Starts for Ejimix\_204:

(2, 103490), (Start: 4 @103466 has 26 MA's), (Start: 6 @103463 has 7 MA's), (7, 103406), (10, 103361), (11, 103349),

Gene: EricMillard\_213 Start: 106013, Stop: 105822, Start Num: 5

Candidate Starts for EricMillard\_213:

(1, 106121), (Start: 3 @106031 has 1 MA's), (Start: 5 @106013 has 20 MA's), (Start: 6 @106010 has 7 MA's), (7, 105953), (8, 105950), (10, 105908), (11, 105896), (12, 105878),

Gene: EricMillard\_210 Start: 105185, Stop: 104997, Start Num: 4

Candidate Starts for EricMillard\_210:

(2, 105209), (Start: 4 @105185 has 26 MA's), (Start: 6 @105182 has 7 MA's), (7, 105125), (10, 105080), (11, 105068),

Gene: Gonephishing\_212 Start: 103496, Stop: 103308, Start Num: 5

Candidate Starts for Gonephishing\_212:

(Start: 3 @103517 has 1 MA's), (Start: 5 @103496 has 20 MA's), (Start: 6 @103493 has 7 MA's), (7, 103436), (10, 103391), (11, 103379),

Gene: Halley\_219 Start: 104907, Stop: 104716, Start Num: 5

Candidate Starts for Halley\_219:

(1, 105015), (Start: 3 @104925 has 1 MA's), (Start: 5 @104907 has 20 MA's), (Start: 6 @104904 has 7 MA's), (7, 104847), (8, 104844), (10, 104802), (11, 104790), (12, 104772),

Gene: Halley\_216 Start: 104079, Stop: 103891, Start Num: 4

Candidate Starts for Halley\_216:

(2, 104103), (Start: 4 @104079 has 26 MA's), (Start: 6 @104076 has 7 MA's), (7, 104019), (10, 103974), (11, 103962),

Gene: Hannaconda\_207 Start: 104324, Stop: 104136, Start Num: 5

Candidate Starts for Hannaconda\_207:

(Start: 3 @104345 has 1 MA's), (Start: 5 @104324 has 20 MA's), (Start: 6 @104321 has 7 MA's), (7, 104264), (11, 104207),

Gene: Hidrated\_203 Start: 105563, Stop: 105375, Start Num: 5

Candidate Starts for Hidrated\_203:

(1, 105674), (Start: 3 @105584 has 1 MA's), (Start: 5 @105563 has 20 MA's), (Start: 6 @105560 has 7 MA's), (7, 105503), (9, 105473), (10, 105458), (11, 105446),

Gene: Hughesyang\_213 Start: 104739, Stop: 104551, Start Num: 4

Candidate Starts for Hughesyang\_213:

(2, 104763), (Start: 4 @104739 has 26 MA's), (Start: 6 @104736 has 7 MA's), (7, 104679), (10, 104634), (11, 104622),

Gene: Hughesyang\_216 Start: 105564, Stop: 105376, Start Num: 6  
Candidate Starts for Hughesyang\_216:  
(1, 105675), (Start: 3 @105585 has 1 MA's), (Start: 5 @105567 has 20 MA's), (Start: 6 @105564 has 7 MA's), (7, 105507), (8, 105504), (10, 105462), (11, 105450), (12, 105432),

Gene: JuicyJay\_210 Start: 105835, Stop: 105647, Start Num: 6  
Candidate Starts for JuicyJay\_210:  
(1, 105946), (Start: 3 @105856 has 1 MA's), (Start: 5 @105838 has 20 MA's), (Start: 6 @105835 has 7 MA's), (7, 105778), (8, 105775), (10, 105733), (11, 105721), (12, 105703),

Gene: JuicyJay\_207 Start: 105007, Stop: 104822, Start Num: 6  
Candidate Starts for JuicyJay\_207:  
(2, 105034), (Start: 4 @105010 has 26 MA's), (Start: 6 @105007 has 7 MA's), (7, 104950), (10, 104905), (11, 104893),

Gene: Kalah2\_216 Start: 106629, Stop: 106441, Start Num: 4  
Candidate Starts for Kalah2\_216:  
(2, 106653), (Start: 4 @106629 has 26 MA's), (Start: 6 @106626 has 7 MA's), (7, 106569), (10, 106524), (11, 106512),

Gene: KashFlow\_208 Start: 104218, Stop: 104030, Start Num: 5  
Candidate Starts for KashFlow\_208:  
(Start: 3 @104239 has 1 MA's), (Start: 5 @104218 has 20 MA's), (Start: 6 @104215 has 7 MA's), (7, 104158), (11, 104101),

Gene: Klein\_221 Start: 104637, Stop: 104449, Start Num: 4  
Candidate Starts for Klein\_221:  
(2, 104661), (Start: 4 @104637 has 26 MA's), (Start: 6 @104634 has 7 MA's), (7, 104577), (10, 104532), (11, 104520),

Gene: LittleE\_216 Start: 104819, Stop: 104631, Start Num: 4  
Candidate Starts for LittleE\_216:  
(2, 104843), (Start: 4 @104819 has 26 MA's), (Start: 6 @104816 has 7 MA's), (7, 104759), (9, 104729), (10, 104714), (11, 104702),

Gene: Lucky2013\_211 Start: 101280, Stop: 101092, Start Num: 4  
Candidate Starts for Lucky2013\_211:  
(2, 101304), (Start: 4 @101280 has 26 MA's), (Start: 6 @101277 has 7 MA's), (7, 101220), (10, 101175), (11, 101163),

Gene: Marleymoo\_199 Start: 102808, Stop: 102620, Start Num: 5  
Candidate Starts for Marleymoo\_199:  
(1, 102919), (Start: 3 @102829 has 1 MA's), (Start: 5 @102808 has 20 MA's), (Start: 6 @102805 has 7 MA's), (7, 102748), (9, 102718), (10, 102703), (11, 102691),

Gene: MiaZeal\_223 Start: 103419, Stop: 103231, Start Num: 4  
Candidate Starts for MiaZeal\_223:  
(2, 103443), (Start: 4 @103419 has 26 MA's), (Start: 6 @103416 has 7 MA's), (7, 103359), (10, 103314), (11, 103302),

Gene: Minerva\_213 Start: 103133, Stop: 102945, Start Num: 4  
Candidate Starts for Minerva\_213:

(2, 103157), (Start: 4 @103133 has 26 MA's), (Start: 6 @103130 has 7 MA's), (7, 103073), (10, 103028), (11, 103016),

Gene: Nekros\_217 Start: 105222, Stop: 105031, Start Num: 5

Candidate Starts for Nekros\_217:

(1, 105333), (Start: 3 @105243 has 1 MA's), (Start: 5 @105222 has 20 MA's), (Start: 6 @105219 has 7 MA's), (7, 105162), (8, 105159), (10, 105117), (11, 105105), (12, 105087),

Gene: Nekros\_214 Start: 104394, Stop: 104206, Start Num: 4

Candidate Starts for Nekros\_214:

(2, 104418), (Start: 4 @104394 has 26 MA's), (Start: 6 @104391 has 7 MA's), (7, 104334), (10, 104289), (11, 104277),

Gene: Nibley\_206 Start: 100515, Stop: 100327, Start Num: 5

Candidate Starts for Nibley\_206:

(Start: 3 @100536 has 1 MA's), (Start: 5 @100515 has 20 MA's), (Start: 6 @100512 has 7 MA's), (7, 100455), (10, 100410), (11, 100398),

Gene: NihilNomen\_218 Start: 104085, Stop: 103894, Start Num: 5

Candidate Starts for NihilNomen\_218:

(Start: 3 @104106 has 1 MA's), (Start: 5 @104085 has 20 MA's), (Start: 6 @104082 has 7 MA's), (7, 104025), (8, 104022), (10, 103980), (11, 103968), (12, 103950),

Gene: Odette\_217 Start: 105978, Stop: 105790, Start Num: 4

Candidate Starts for Odette\_217:

(2, 106002), (Start: 4 @105978 has 26 MA's), (Start: 6 @105975 has 7 MA's), (7, 105918), (10, 105873), (11, 105861),

Gene: Omega\_215 Start: 104786, Stop: 104598, Start Num: 4

Candidate Starts for Omega\_215:

(2, 104810), (Start: 4 @104786 has 26 MA's), (Start: 6 @104783 has 7 MA's), (7, 104726), (9, 104696), (10, 104681), (11, 104669),

Gene: Omega\_218 Start: 105614, Stop: 105423, Start Num: 5

Candidate Starts for Omega\_218:

(1, 105725), (Start: 3 @105635 has 1 MA's), (Start: 5 @105614 has 20 MA's), (Start: 6 @105611 has 7 MA's), (7, 105554), (8, 105551), (10, 105509), (11, 105497), (12, 105479),

Gene: Optimus\_208 Start: 103564, Stop: 103376, Start Num: 4

Candidate Starts for Optimus\_208:

(2, 103588), (Start: 4 @103564 has 26 MA's), (7, 103504), (10, 103459), (11, 103447),

Gene: Optimus\_211 Start: 104392, Stop: 104201, Start Num: 5

Candidate Starts for Optimus\_211:

(Start: 3 @104413 has 1 MA's), (Start: 5 @104392 has 20 MA's), (Start: 6 @104389 has 7 MA's), (7, 104332), (8, 104329), (10, 104287), (11, 104275), (12, 104257),

Gene: Phoebus\_214 Start: 107339, Stop: 107151, Start Num: 4

Candidate Starts for Phoebus\_214:

(2, 107363), (Start: 4 @107339 has 26 MA's), (Start: 6 @107336 has 7 MA's), (7, 107279), (10, 107234), (11, 107222),

Gene: Porcelain\_214 Start: 102227, Stop: 102039, Start Num: 4

Candidate Starts for Porcelain\_214:

(2, 102251), (Start: 4 @102227 has 26 MA's), (Start: 6 @102224 has 7 MA's), (7, 102167), (10, 102122), (11, 102110),

Gene: Pound\_205 Start: 103321, Stop: 103133, Start Num: 4

Candidate Starts for Pound\_205:

(2, 103345), (Start: 4 @103321 has 26 MA's), (Start: 6 @103318 has 7 MA's), (7, 103261), (10, 103216), (11, 103204),

Gene: Rearden\_214 Start: 102653, Stop: 102465, Start Num: 5

Candidate Starts for Rearden\_214:

(1, 102764), (Start: 3 @102674 has 1 MA's), (Start: 5 @102653 has 20 MA's), (Start: 6 @102650 has 7 MA's), (7, 102593), (9, 102563), (10, 102548), (11, 102536),

Gene: Redno2\_207 Start: 101728, Stop: 101537, Start Num: 5

Candidate Starts for Redno2\_207:

(1, 101836), (Start: 3 @101746 has 1 MA's), (Start: 5 @101728 has 20 MA's), (Start: 6 @101725 has 7 MA's), (7, 101668), (8, 101665), (10, 101623), (11, 101611), (12, 101593),

Gene: Redno2\_204 Start: 100900, Stop: 100712, Start Num: 4

Candidate Starts for Redno2\_204:

(2, 100924), (Start: 4 @100900 has 26 MA's), (Start: 6 @100897 has 7 MA's), (7, 100840), (10, 100795), (11, 100783),

Gene: Schatzie\_208 Start: 103855, Stop: 103667, Start Num: 4

Candidate Starts for Schatzie\_208:

(2, 103879), (Start: 4 @103855 has 26 MA's), (Start: 6 @103852 has 7 MA's), (7, 103795), (10, 103750), (11, 103738),

Gene: Shaboozey\_214 Start: 101786, Stop: 101595, Start Num: 5

Candidate Starts for Shaboozey\_214:

(1, 101897), (Start: 3 @101807 has 1 MA's), (Start: 5 @101786 has 20 MA's), (Start: 6 @101783 has 7 MA's), (7, 101726), (8, 101723), (10, 101681), (11, 101669), (12, 101651),

Gene: Shaboozey\_211 Start: 100958, Stop: 100770, Start Num: 4

Candidate Starts for Shaboozey\_211:

(2, 100982), (Start: 4 @100958 has 26 MA's), (Start: 6 @100955 has 7 MA's), (7, 100898), (10, 100853), (11, 100841),

Gene: Squint\_213 Start: 102776, Stop: 102585, Start Num: 5

Candidate Starts for Squint\_213:

(Start: 3 @102797 has 1 MA's), (Start: 5 @102776 has 20 MA's), (Start: 6 @102773 has 7 MA's), (7, 102716), (8, 102713), (10, 102671), (11, 102659), (12, 102641),

Gene: Squint\_210 Start: 101945, Stop: 101760, Start Num: 6

Candidate Starts for Squint\_210:

(2, 101972), (Start: 4 @101948 has 26 MA's), (Start: 6 @101945 has 7 MA's), (7, 101888), (10, 101843), (11, 101831),

Gene: Superphikiman\_215 Start: 102840, Stop: 102652, Start Num: 5

Candidate Starts for Superphikiman\_215:

(Start: 3 @102861 has 1 MA's), (Start: 5 @102840 has 20 MA's), (Start: 6 @102837 has 7 MA's), (7, 102780), (9, 102750), (10, 102735), (11, 102723),

Gene: ThreeRngTarjay\_215 Start: 106350, Stop: 106141, Start Num: 3

Candidate Starts for ThreeRngTarjay\_215:

(1, 106440), (Start: 3 @106350 has 1 MA's), (Start: 5 @106332 has 20 MA's), (Start: 6 @106329 has 7 MA's), (7, 106272), (8, 106269), (10, 106227), (11, 106215), (12, 106197),

Gene: ThreeRngTarjay\_212 Start: 105504, Stop: 105316, Start Num: 4

Candidate Starts for ThreeRngTarjay\_212:

(2, 105528), (Start: 4 @105504 has 26 MA's), (7, 105444), (10, 105399), (11, 105387),

Gene: Wanda\_213 Start: 102267, Stop: 102079, Start Num: 4

Candidate Starts for Wanda\_213:

(2, 102291), (Start: 4 @102267 has 26 MA's), (Start: 6 @102264 has 7 MA's), (7, 102207), (10, 102162), (11, 102150),

Gene: Xiaokay\_204 Start: 104157, Stop: 103969, Start Num: 5

Candidate Starts for Xiaokay\_204:

(1, 104268), (Start: 3 @104178 has 1 MA's), (Start: 5 @104157 has 20 MA's), (Start: 6 @104154 has 7 MA's), (7, 104097), (9, 104067), (10, 104052), (11, 104040),

Gene: Yeet\_206 Start: 103099, Stop: 102911, Start Num: 4

Candidate Starts for Yeet\_206:

(2, 103123), (Start: 4 @103099 has 26 MA's), (Start: 6 @103096 has 7 MA's), (7, 103039), (10, 102994), (11, 102982),

Gene: Yeet\_209 Start: 103927, Stop: 103736, Start Num: 5

Candidate Starts for Yeet\_209:

(1, 104035), (Start: 3 @103945 has 1 MA's), (Start: 5 @103927 has 20 MA's), (Start: 6 @103924 has 7 MA's), (7, 103867), (8, 103864), (10, 103822), (11, 103810), (12, 103792),

Gene: Zelink\_208 Start: 104062, Stop: 103871, Start Num: 5

Candidate Starts for Zelink\_208:

(Start: 3 @104083 has 1 MA's), (Start: 5 @104062 has 20 MA's), (Start: 6 @104059 has 7 MA's), (7, 104002), (8, 103999), (10, 103957), (11, 103945), (12, 103927),

Gene: Zelink\_205 Start: 103234, Stop: 103046, Start Num: 4

Candidate Starts for Zelink\_205:

(2, 103258), (Start: 4 @103234 has 26 MA's), (Start: 6 @103231 has 7 MA's), (7, 103174), (9, 103144), (10, 103129), (11, 103117),