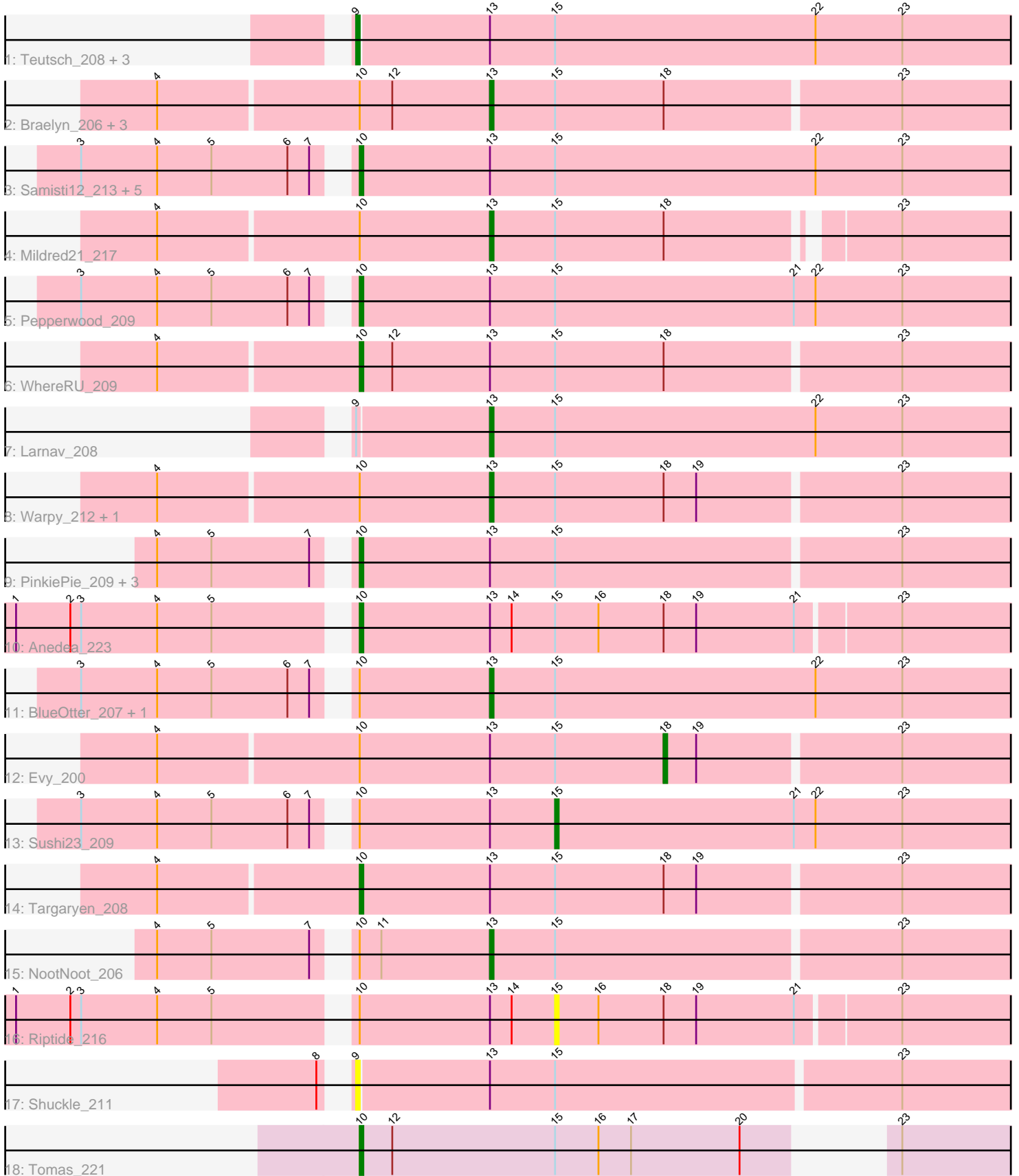


Pham 203153



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 203153 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203153 has 34 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Teutsch\_208, Peebs\_206, EGole\_212, Leo04\_210
- Track 2 : Braelyn\_206, Navo\_204, Persimmon\_212, Bartholomune\_210
- Track 3 : Samisti12\_213, Lululemon\_206, Watermoore\_208, PacManQ\_206, Cross\_208, Cursive\_211
- Track 4 : Mildred21\_217
- Track 5 : Pepperwood\_209
- Track 6 : WhereRU\_209
- Track 7 : Larnav\_208
- Track 8 : Warpy\_212, Jay2Jay\_214
- Track 9 : PinkiePie\_209, Liandry\_209, Paradiddles\_201, Squillium\_212
- Track 10 : Anedea\_223
- Track 11 : BlueOtter\_207, HangryHippo\_207
- Track 12 : Evy\_200
- Track 13 : Sushi23\_209
- Track 14 : Targaryen\_208
- Track 15 : NootNoot\_206
- Track 16 : Riptide\_216
- Track 17 : Shuckle\_211
- Track 18 : Tomas\_221

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

The start number called the most often in the published annotations is 10, it was called in 15 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea\_223, Cross\_208, Cursive\_211, Liandry\_209, Lululemon\_206, PacManQ\_206, Paradiddles\_201, Pepperwood\_209, PinkiePie\_209, Samisti12\_213, Squillium\_212, Targaryen\_208, Tomas\_221, Watermoore\_208, WhereRU\_209,

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

- Bartholomune\_210, BlueOtter\_207, Braelyn\_206, Evy\_200, HangryHippo\_207, Jay2Jay\_214, Mildred21\_217, Navo\_204, NootNoot\_206, Persimmon\_212, Riptide\_216, Sushi23\_209, Warpy\_212,

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

- EGole\_212, Larnav\_208, Leo04\_210, Peebs\_206, Shuckle\_211, Teutsch\_208,

### Summary by start number:

Start 9:

- Found in 6 of 34 ( 17.6% ) of genes in pham
- Manual Annotations of this start: 4 of 32
- Called 83.3% of time when present
- Phage (with cluster) where this start called: EGole\_212 (BE1), Leo04\_210 (BE1), Peebs\_206 (BE1), Shuckle\_211 (BE1), Teutsch\_208 (BE1),

Start 10:

- Found in 28 of 34 ( 82.4% ) of genes in pham
- Manual Annotations of this start: 15 of 32
- Called 53.6% of time when present
- Phage (with cluster) where this start called: Anedea\_223 (BE1), Cross\_208 (BE1), Cursive\_211 (BE1), Liandry\_209 (BE1), Lululemon\_206 (BE1), PacManQ\_206 (BE1), Paradiddles\_201 (BE1), Pepperwood\_209 (BE1), PinkiePie\_209 (BE1), Samisti12\_213 (BE1), Squillium\_212 (BE1), Targaryen\_208 (BE1), Tomas\_221 (BE2), Watermoore\_208 (BE1), WhereRU\_209 (BE1),

Start 13:

- Found in 33 of 34 ( 97.1% ) of genes in pham
- Manual Annotations of this start: 11 of 32
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Bartholomune\_210 (BE1), BlueOtter\_207 (BE1), Braelyn\_206 (BE1), HangryHippo\_207 (BE1), Jay2Jay\_214 (BE1), Larnav\_208 (BE1), Mildred21\_217 (BE1), Navo\_204 (BE1), NootNoot\_206 (BE1), Persimmon\_212 (BE1), Warpy\_212 (BE1),

Start 15:

- Found in 34 of 34 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Riptide\_216 (BE1), Sushi23\_209 (BE1),

Start 18:

- Found in 12 of 34 ( 35.3% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Evy\_200 (BE1),

### Summary by clusters:

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

Info for manual annotations of cluster BE1:

- Start number 9 was manually annotated 4 times for cluster BE1.
- Start number 10 was manually annotated 14 times for cluster BE1.
- Start number 13 was manually annotated 11 times for cluster BE1.
- Start number 15 was manually annotated 1 time for cluster BE1.

- Start number 18 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 10 was manually annotated 1 time for cluster BE2.

### **Gene Information:**

Gene: Anedea\_223 Start: 108049, Stop: 108228, Start Num: 10

Candidate Starts for Anedea\_223:

(1, 107962), (2, 107977), (3, 107980), (4, 108001), (5, 108016), (Start: 10 @108049 has 15 MA's), (Start: 13 @108085 has 11 MA's), (14, 108091), (Start: 15 @108103 has 1 MA's), (16, 108115), (Start: 18 @108133 has 1 MA's), (19, 108142), (21, 108169), (23, 108196),

Gene: Bartholomune\_210 Start: 105719, Stop: 105883, Start Num: 13

Candidate Starts for Bartholomune\_210:

(4, 105629), (Start: 10 @105683 has 15 MA's), (12, 105692), (Start: 13 @105719 has 11 MA's), (Start: 15 @105737 has 1 MA's), (Start: 18 @105767 has 1 MA's), (23, 105830),

Gene: BlueOtter\_207 Start: 105856, Stop: 106023, Start Num: 13

Candidate Starts for BlueOtter\_207:

(3, 105751), (4, 105772), (5, 105787), (6, 105808), (7, 105814), (Start: 10 @105820 has 15 MA's), (Start: 13 @105856 has 11 MA's), (Start: 15 @105874 has 1 MA's), (22, 105946), (23, 105970),

Gene: Braelyn\_206 Start: 105366, Stop: 105530, Start Num: 13

Candidate Starts for Braelyn\_206:

(4, 105276), (Start: 10 @105330 has 15 MA's), (12, 105339), (Start: 13 @105366 has 11 MA's), (Start: 15 @105384 has 1 MA's), (Start: 18 @105414 has 1 MA's), (23, 105477),

Gene: Cross\_208 Start: 106465, Stop: 106668, Start Num: 10

Candidate Starts for Cross\_208:

(3, 106396), (4, 106417), (5, 106432), (6, 106453), (7, 106459), (Start: 10 @106465 has 15 MA's), (Start: 13 @106501 has 11 MA's), (Start: 15 @106519 has 1 MA's), (22, 106591), (23, 106615),

Gene: Cursive\_211 Start: 106149, Stop: 106352, Start Num: 10

Candidate Starts for Cursive\_211:

(3, 106080), (4, 106101), (5, 106116), (6, 106137), (7, 106143), (Start: 10 @106149 has 15 MA's), (Start: 13 @106185 has 11 MA's), (Start: 15 @106203 has 1 MA's), (22, 106275), (23, 106299),

Gene: EGole\_212 Start: 108162, Stop: 108365, Start Num: 9

Candidate Starts for EGole\_212:

(Start: 9 @108162 has 4 MA's), (Start: 13 @108198 has 11 MA's), (Start: 15 @108216 has 1 MA's), (22, 108288), (23, 108312),

Gene: Evy\_200 Start: 106705, Stop: 106821, Start Num: 18

Candidate Starts for Evy\_200:

(4, 106567), (Start: 10 @106621 has 15 MA's), (Start: 13 @106657 has 11 MA's), (Start: 15 @106675 has 1 MA's), (Start: 18 @106705 has 1 MA's), (19, 106714), (23, 106768),

Gene: HangryHippo\_207 Start: 105856, Stop: 106023, Start Num: 13

Candidate Starts for HangryHippo\_207:

(3, 105751), (4, 105772), (5, 105787), (6, 105808), (7, 105814), (Start: 10 @105820 has 15 MA's), (Start: 13 @105856 has 11 MA's), (Start: 15 @105874 has 1 MA's), (22, 105946), (23, 105970),

Gene: Jay2Jay\_214 Start: 106812, Stop: 106976, Start Num: 13

Candidate Starts for Jay2Jay\_214:

(4, 106722), (Start: 10 @106776 has 15 MA's), (Start: 13 @106812 has 11 MA's), (Start: 15 @106830 has 1 MA's), (Start: 18 @106860 has 1 MA's), (19, 106869), (23, 106923),

Gene: Larnav\_208 Start: 106317, Stop: 106484, Start Num: 13

Candidate Starts for Larnav\_208:

(Start: 9 @106281 has 4 MA's), (Start: 13 @106317 has 11 MA's), (Start: 15 @106335 has 1 MA's), (22, 106407), (23, 106431),

Gene: Leo04\_210 Start: 106846, Stop: 107049, Start Num: 9

Candidate Starts for Leo04\_210:

(Start: 9 @106846 has 4 MA's), (Start: 13 @106882 has 11 MA's), (Start: 15 @106900 has 1 MA's), (22, 106972), (23, 106996),

Gene: Liandry\_209 Start: 105926, Stop: 106126, Start Num: 10

Candidate Starts for Liandry\_209:

(4, 105878), (5, 105893), (7, 105920), (Start: 10 @105926 has 15 MA's), (Start: 13 @105962 has 11 MA's), (Start: 15 @105980 has 1 MA's), (23, 106073),

Gene: Lululemon\_206 Start: 105201, Stop: 105404, Start Num: 10

Candidate Starts for Lululemon\_206:

(3, 105132), (4, 105153), (5, 105168), (6, 105189), (7, 105195), (Start: 10 @105201 has 15 MA's), (Start: 13 @105237 has 11 MA's), (Start: 15 @105255 has 1 MA's), (22, 105327), (23, 105351),

Gene: Mildred21\_217 Start: 104294, Stop: 104452, Start Num: 13

Candidate Starts for Mildred21\_217:

(4, 104204), (Start: 10 @104258 has 15 MA's), (Start: 13 @104294 has 11 MA's), (Start: 15 @104312 has 1 MA's), (Start: 18 @104342 has 1 MA's), (23, 104399),

Gene: Navo\_204 Start: 104570, Stop: 104734, Start Num: 13

Candidate Starts for Navo\_204:

(4, 104480), (Start: 10 @104534 has 15 MA's), (12, 104543), (Start: 13 @104570 has 11 MA's), (Start: 15 @104588 has 1 MA's), (Start: 18 @104618 has 1 MA's), (23, 104681),

Gene: NootNoot\_206 Start: 104774, Stop: 104938, Start Num: 13

Candidate Starts for NootNoot\_206:

(4, 104690), (5, 104705), (7, 104732), (Start: 10 @104738 has 15 MA's), (11, 104744), (Start: 13 @104774 has 11 MA's), (Start: 15 @104792 has 1 MA's), (23, 104885),

Gene: PacManQ\_206 Start: 105201, Stop: 105404, Start Num: 10

Candidate Starts for PacManQ\_206:

(3, 105132), (4, 105153), (5, 105168), (6, 105189), (7, 105195), (Start: 10 @105201 has 15 MA's), (Start: 13 @105237 has 11 MA's), (Start: 15 @105255 has 1 MA's), (22, 105327), (23, 105351),

Gene: Paradiddles\_201 Start: 107113, Stop: 107313, Start Num: 10

Candidate Starts for Paradiddles\_201:

(4, 107065), (5, 107080), (7, 107107), (Start: 10 @107113 has 15 MA's), (Start: 13 @107149 has 11 MA's), (Start: 15 @107167 has 1 MA's), (23, 107260),

Gene: Peebs\_206 Start: 106252, Stop: 106455, Start Num: 9

Candidate Starts for Peebs\_206:

(Start: 9 @106252 has 4 MA's), (Start: 13 @106288 has 11 MA's), (Start: 15 @106306 has 1 MA's), (22, 106378), (23, 106402),

Gene: Pepperwood\_209 Start: 106487, Stop: 106690, Start Num: 10

Candidate Starts for Pepperwood\_209:

(3, 106418), (4, 106439), (5, 106454), (6, 106475), (7, 106481), (Start: 10 @106487 has 15 MA's), (Start: 13 @106523 has 11 MA's), (Start: 15 @106541 has 1 MA's), (21, 106607), (22, 106613), (23, 106637),

Gene: Persimmon\_212 Start: 105588, Stop: 105752, Start Num: 13

Candidate Starts for Persimmon\_212:

(4, 105498), (Start: 10 @105552 has 15 MA's), (12, 105561), (Start: 13 @105588 has 11 MA's), (Start: 15 @105606 has 1 MA's), (Start: 18 @105636 has 1 MA's), (23, 105699),

Gene: PinkiePie\_209 Start: 105926, Stop: 106126, Start Num: 10

Candidate Starts for PinkiePie\_209:

(4, 105878), (5, 105893), (7, 105920), (Start: 10 @105926 has 15 MA's), (Start: 13 @105962 has 11 MA's), (Start: 15 @105980 has 1 MA's), (23, 106073),

Gene: Riptide\_216 Start: 105633, Stop: 105758, Start Num: 15

Candidate Starts for Riptide\_216:

(1, 105492), (2, 105507), (3, 105510), (4, 105531), (5, 105546), (Start: 10 @105579 has 15 MA's), (Start: 13 @105615 has 11 MA's), (14, 105621), (Start: 15 @105633 has 1 MA's), (16, 105645), (Start: 18 @105663 has 1 MA's), (19, 105672), (21, 105699), (23, 105726),

Gene: Samisti12\_213 Start: 108111, Stop: 108314, Start Num: 10

Candidate Starts for Samisti12\_213:

(3, 108042), (4, 108063), (5, 108078), (6, 108099), (7, 108105), (Start: 10 @108111 has 15 MA's), (Start: 13 @108147 has 11 MA's), (Start: 15 @108165 has 1 MA's), (22, 108237), (23, 108261),

Gene: Shuckle\_211 Start: 106484, Stop: 106684, Start Num: 9

Candidate Starts for Shuckle\_211:

(8, 106481), (Start: 9 @106484 has 4 MA's), (Start: 13 @106520 has 11 MA's), (Start: 15 @106538 has 1 MA's), (23, 106631),

Gene: Squillium\_212 Start: 105928, Stop: 106128, Start Num: 10

Candidate Starts for Squillium\_212:

(4, 105880), (5, 105895), (7, 105922), (Start: 10 @105928 has 15 MA's), (Start: 13 @105964 has 11 MA's), (Start: 15 @105982 has 1 MA's), (23, 106075),

Gene: Sushi23\_209 Start: 107175, Stop: 107324, Start Num: 15

Candidate Starts for Sushi23\_209:

(3, 107052), (4, 107073), (5, 107088), (6, 107109), (7, 107115), (Start: 10 @107121 has 15 MA's), (Start: 13 @107157 has 11 MA's), (Start: 15 @107175 has 1 MA's), (21, 107241), (22, 107247), (23, 107271),

Gene: Targaryen\_208 Start: 107305, Stop: 107505, Start Num: 10

Candidate Starts for Targaryen\_208:

(4, 107251), (Start: 10 @107305 has 15 MA's), (Start: 13 @107341 has 11 MA's), (Start: 15 @107359 has 1 MA's), (Start: 18 @107389 has 1 MA's), (19, 107398), (23, 107452),

Gene: Teutsch\_208 Start: 106940, Stop: 107143, Start Num: 9

Candidate Starts for Teutsch\_208:

(Start: 9 @106940 has 4 MA's), (Start: 13 @106976 has 11 MA's), (Start: 15 @106994 has 1 MA's), (22, 107066), (23, 107090),

Gene: Tomas\_221 Start: 107946, Stop: 108128, Start Num: 10

Candidate Starts for Tomas\_221:

(Start: 10 @107946 has 15 MA's), (12, 107955), (Start: 15 @108000 has 1 MA's), (16, 108012), (17, 108021), (20, 108051), (23, 108069),

Gene: Warpy\_212 Start: 106250, Stop: 106414, Start Num: 13

Candidate Starts for Warpy\_212:

(4, 106160), (Start: 10 @106214 has 15 MA's), (Start: 13 @106250 has 11 MA's), (Start: 15 @106268 has 1 MA's), (Start: 18 @106298 has 1 MA's), (19, 106307), (23, 106361),

Gene: Watermoore\_208 Start: 107463, Stop: 107666, Start Num: 10

Candidate Starts for Watermoore\_208:

(3, 107394), (4, 107415), (5, 107430), (6, 107451), (7, 107457), (Start: 10 @107463 has 15 MA's), (Start: 13 @107499 has 11 MA's), (Start: 15 @107517 has 1 MA's), (22, 107589), (23, 107613),

Gene: WhereRU\_209 Start: 105731, Stop: 105931, Start Num: 10

Candidate Starts for WhereRU\_209:

(4, 105677), (Start: 10 @105731 has 15 MA's), (12, 105740), (Start: 13 @105767 has 11 MA's), (Start: 15 @105785 has 1 MA's), (Start: 18 @105815 has 1 MA's), (23, 105878),