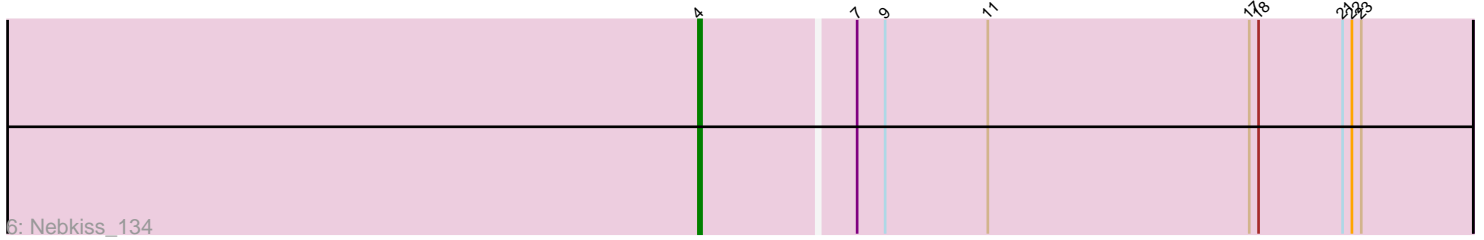
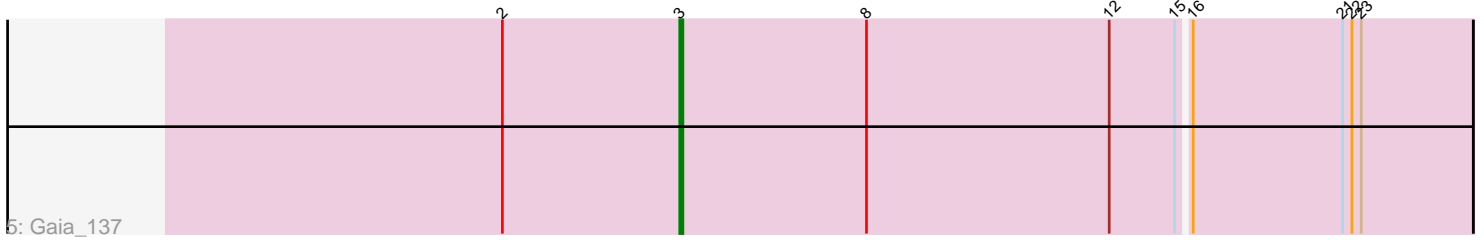
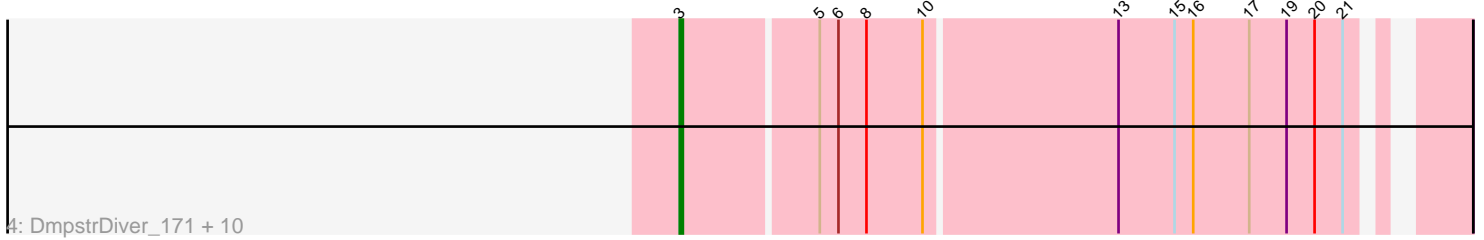
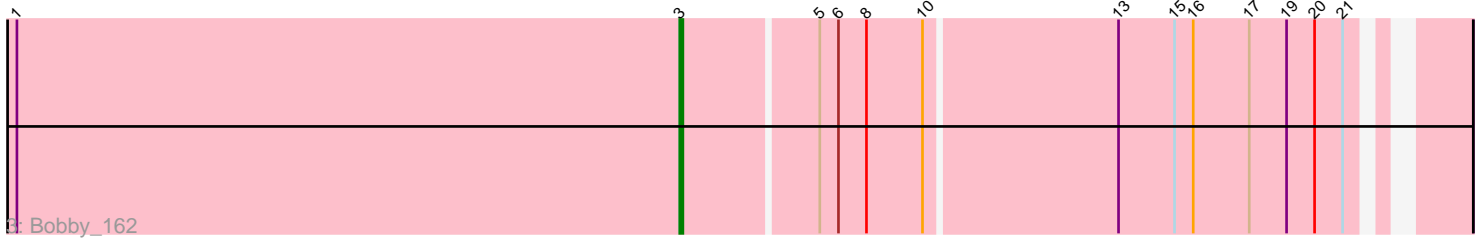
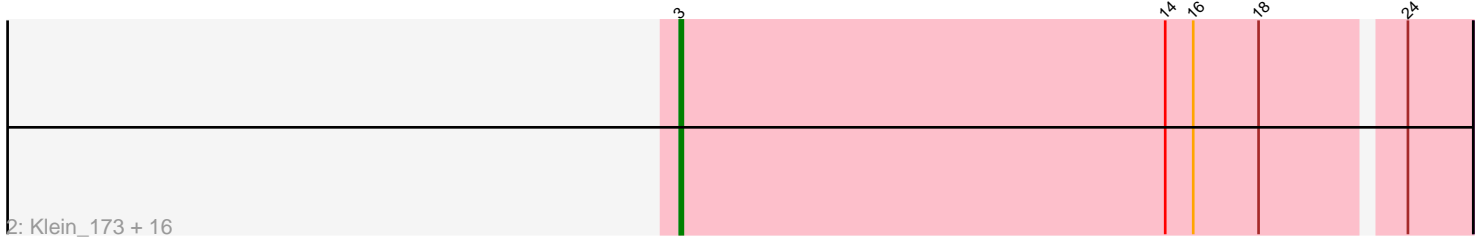
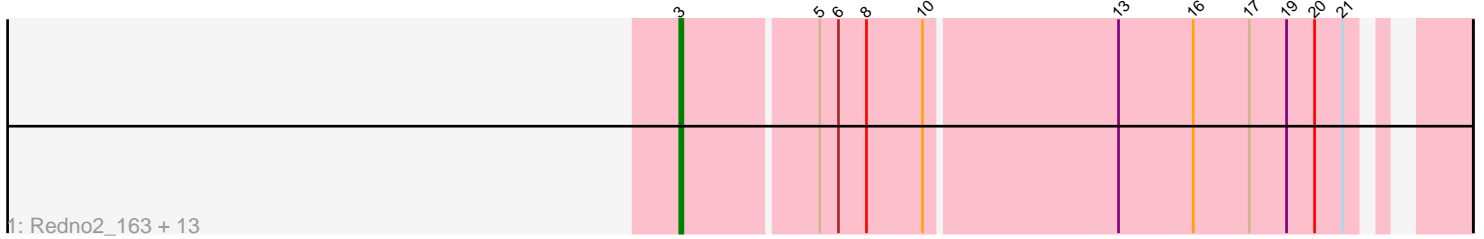


Pham 170074



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 170074 Report

This analysis was run 07/09/24 on database version 566.

Pham number 170074 has 45 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Redno2\_163, Yeet\_161, JuicyJay\_164, Dove\_164, Halley\_170, NihilNomen\_171, Phoebus\_170, Thibault\_153, Kalah2\_166, HokkenD\_164, Schatzie\_164, Dallas\_169, Minerva\_169, Bombitas\_156
- Track 2 : Klein\_173, Squint\_165, LittleE\_177, Porcelain\_170, Omega\_179, KashFlow\_167, ThreeRngTarjay\_166, MiaZeal\_173, Superphikiman\_168, Courthouse\_167, Bagrid\_178, EricMillard\_167, Lucky2013\_166, Hannaconda\_162, Ariel\_170, Wanda\_167, Gonephishing\_163
- Track 3 : Bobby\_162
- Track 4 : DmpstrDiver\_171, Ejimix\_160, Duke13\_172, Constella\_165, Pound\_163, Zelink\_162, Hughesyang\_168, Odette\_173, Beem\_170, Optimus\_168, BAKA\_175
- Track 5 : Gaia\_137
- Track 6 : Nebkiss\_134

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

The start number called the most often in the published annotations is 3, it was called in 40 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel\_170, BAKA\_175, Bagrid\_178, Beem\_170, Bobby\_162, Bombitas\_156, Constella\_165, Courthouse\_167, Dallas\_169, DmpstrDiver\_171, Dove\_164, Duke13\_172, Ejimix\_160, EricMillard\_167, Gaia\_137, Gonephishing\_163, Halley\_170, Hannaconda\_162, HokkenD\_164, Hughesyang\_168, JuicyJay\_164, Kalah2\_166, KashFlow\_167, Klein\_173, LittleE\_177, Lucky2013\_166, MiaZeal\_173, Minerva\_169, NihilNomen\_171, Odette\_173, Omega\_179, Optimus\_168, Phoebus\_170, Porcelain\_170, Pound\_163, Redno2\_163, Schatzie\_164, Squint\_165, Superphikiman\_168, Thibault\_153, ThreeRngTarjay\_166, Wanda\_167, Yeet\_161, Zelink\_162,

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

- 

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

- Nebkiss\_134,

## Summary by start number:

### Start 3:

- Found in 44 of 45 ( 97.8% ) 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\_170 (J), BAKA\_175 (J), Bagrid\_178 (J), Beem\_170 (J), Bobby\_162 (J), Bombitas\_156 (J), Constella\_165 (J), Courthouse\_167 (J), Dallas\_169 (J), DmpstrDiver\_171 (J), Dove\_164 (J), Duke13\_172 (J), Ejimix\_160 (J), EricMillard\_167 (J), Gaia\_137 (X), Gonephishing\_163 (J), Halley\_170 (J), Hannaconda\_162 (J), HokkenD\_164 (J), Hughesyang\_168 (J), JuicyJay\_164 (J), Kalah2\_166 (J), KashFlow\_167 (J), Klein\_173 (J), LittleE\_177 (J), Lucky2013\_166 (J), MiaZeal\_173 (J), Minerva\_169 (J), NihilNomen\_171 (J), Odette\_173 (J), Omega\_179 (J), Optimus\_168 (J), Phoebus\_170 (J), Porcelain\_170 (J), Pound\_163 (J), Redno2\_163 (J), Schatzie\_164 (J), Squint\_165 (J), Superphikiman\_168 (J), Thibault\_153 (J), ThreeRngTarjay\_166 (J), Wanda\_167 (J), Yeet\_161 (J), Zelink\_162 (J),

### Start 4:

- Found in 1 of 45 ( 2.2% ) 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: Nebkiss\_134 (X),

## Summary by clusters:

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

Info for manual annotations of cluster J:

- Start number 3 was manually annotated 39 times for cluster J.

Info for manual annotations of cluster X:

- Start number 3 was manually annotated 1 time for cluster X.
- Start number 4 was manually annotated 1 time for cluster X.

## Gene Information:

Gene: Ariel\_170 Start: 87126, Stop: 87374, Start Num: 3

Candidate Starts for Ariel\_170:

(Start: 3 @87126 has 40 MA's), (14, 87282), (16, 87291), (18, 87312), (24, 87354),

Gene: BAKA\_175 Start: 91948, Stop: 92181, Start Num: 3

Candidate Starts for BAKA\_175:

(Start: 3 @91948 has 40 MA's), (5, 91990), (6, 91996), (8, 92005), (10, 92023), (13, 92083), (15, 92101), (16, 92107), (17, 92125), (19, 92137), (20, 92146), (21, 92155),

Gene: Bagrid\_178 Start: 92406, Stop: 92654, Start Num: 3

Candidate Starts for Bagrid\_178:

(Start: 3 @92406 has 40 MA's), (14, 92562), (16, 92571), (18, 92592), (24, 92634),

Gene: Beem\_170 Start: 91103, Stop: 91336, Start Num: 3

Candidate Starts for Beem\_170:

(Start: 3 @91103 has 40 MA's), (5, 91145), (6, 91151), (8, 91160), (10, 91178), (13, 91238), (15, 91256), (16, 91262), (17, 91280), (19, 91292), (20, 91301), (21, 91310),

Gene: Bobby\_162 Start: 92095, Stop: 92328, Start Num: 3

Candidate Starts for Bobby\_162:

(1, 91882), (Start: 3 @92095 has 40 MA's), (5, 92137), (6, 92143), (8, 92152), (10, 92170), (13, 92230), (15, 92248), (16, 92254), (17, 92272), (19, 92284), (20, 92293), (21, 92302),

Gene: Bombitas\_156 Start: 87333, Stop: 87566, Start Num: 3

Candidate Starts for Bombitas\_156:

(Start: 3 @87333 has 40 MA's), (5, 87375), (6, 87381), (8, 87390), (10, 87408), (13, 87468), (16, 87492), (17, 87510), (19, 87522), (20, 87531), (21, 87540),

Gene: Constella\_165 Start: 89837, Stop: 90070, Start Num: 3

Candidate Starts for Constella\_165:

(Start: 3 @89837 has 40 MA's), (5, 89879), (6, 89885), (8, 89894), (10, 89912), (13, 89972), (15, 89990), (16, 89996), (17, 90014), (19, 90026), (20, 90035), (21, 90044),

Gene: Courthouse\_167 Start: 87570, Stop: 87818, Start Num: 3

Candidate Starts for Courthouse\_167:

(Start: 3 @87570 has 40 MA's), (14, 87726), (16, 87735), (18, 87756), (24, 87798),

Gene: Dallas\_169 Start: 90326, Stop: 90559, Start Num: 3

Candidate Starts for Dallas\_169:

(Start: 3 @90326 has 40 MA's), (5, 90368), (6, 90374), (8, 90383), (10, 90401), (13, 90461), (16, 90485), (17, 90503), (19, 90515), (20, 90524), (21, 90533),

Gene: DmpstrDiver\_171 Start: 90021, Stop: 90254, Start Num: 3

Candidate Starts for DmpstrDiver\_171:

(Start: 3 @90021 has 40 MA's), (5, 90063), (6, 90069), (8, 90078), (10, 90096), (13, 90156), (15, 90174), (16, 90180), (17, 90198), (19, 90210), (20, 90219), (21, 90228),

Gene: Dove\_164 Start: 85689, Stop: 85922, Start Num: 3

Candidate Starts for Dove\_164:

(Start: 3 @85689 has 40 MA's), (5, 85731), (6, 85737), (8, 85746), (10, 85764), (13, 85824), (16, 85848), (17, 85866), (19, 85878), (20, 85887), (21, 85896),

Gene: Duke13\_172 Start: 90444, Stop: 90677, Start Num: 3

Candidate Starts for Duke13\_172:

(Start: 3 @90444 has 40 MA's), (5, 90486), (6, 90492), (8, 90501), (10, 90519), (13, 90579), (15, 90597), (16, 90603), (17, 90621), (19, 90633), (20, 90642), (21, 90651),

Gene: Ejimix\_160 Start: 89314, Stop: 89547, Start Num: 3

Candidate Starts for Ejimix\_160:

(Start: 3 @89314 has 40 MA's), (5, 89356), (6, 89362), (8, 89371), (10, 89389), (13, 89449), (15, 89467), (16, 89473), (17, 89491), (19, 89503), (20, 89512), (21, 89521),

Gene: EricMillard\_167 Start: 91016, Stop: 91264, Start Num: 3

Candidate Starts for EricMillard\_167:

(Start: 3 @91016 has 40 MA's), (14, 91172), (16, 91181), (18, 91202), (24, 91244),

Gene: Gaia\_137 Start: 75003, Stop: 75254, Start Num: 3  
Candidate Starts for Gaia\_137:  
(2, 74946), (Start: 3 @75003 has 40 MA's), (8, 75063), (12, 75141), (15, 75162), (16, 75165), (21, 75213), (22, 75216), (23, 75219),

Gene: Gonephishing\_163 Start: 88387, Stop: 88635, Start Num: 3  
Candidate Starts for Gonephishing\_163:  
(Start: 3 @88387 has 40 MA's), (14, 88543), (16, 88552), (18, 88573), (24, 88615),

Gene: Halley\_170 Start: 89630, Stop: 89863, Start Num: 3  
Candidate Starts for Halley\_170:  
(Start: 3 @89630 has 40 MA's), (5, 89672), (6, 89678), (8, 89687), (10, 89705), (13, 89765), (16, 89789), (17, 89807), (19, 89819), (20, 89828), (21, 89837),

Gene: Hannaconda\_162 Start: 90308, Stop: 90556, Start Num: 3  
Candidate Starts for Hannaconda\_162:  
(Start: 3 @90308 has 40 MA's), (14, 90464), (16, 90473), (18, 90494), (24, 90536),

Gene: HokkenD\_164 Start: 91411, Stop: 91644, Start Num: 3  
Candidate Starts for HokkenD\_164:  
(Start: 3 @91411 has 40 MA's), (5, 91453), (6, 91459), (8, 91468), (10, 91486), (13, 91546), (16, 91570), (17, 91588), (19, 91600), (20, 91609), (21, 91618),

Gene: Hughesyang\_168 Start: 90112, Stop: 90345, Start Num: 3  
Candidate Starts for Hughesyang\_168:  
(Start: 3 @90112 has 40 MA's), (5, 90154), (6, 90160), (8, 90169), (10, 90187), (13, 90247), (15, 90265), (16, 90271), (17, 90289), (19, 90301), (20, 90310), (21, 90319),

Gene: JuicyJay\_164 Start: 91058, Stop: 91291, Start Num: 3  
Candidate Starts for JuicyJay\_164:  
(Start: 3 @91058 has 40 MA's), (5, 91100), (6, 91106), (8, 91115), (10, 91133), (13, 91193), (16, 91217), (17, 91235), (19, 91247), (20, 91256), (21, 91265),

Gene: Kalah2\_166 Start: 91396, Stop: 91629, Start Num: 3  
Candidate Starts for Kalah2\_166:  
(Start: 3 @91396 has 40 MA's), (5, 91438), (6, 91444), (8, 91453), (10, 91471), (13, 91531), (16, 91555), (17, 91573), (19, 91585), (20, 91594), (21, 91603),

Gene: KashFlow\_167 Start: 90121, Stop: 90369, Start Num: 3  
Candidate Starts for KashFlow\_167:  
(Start: 3 @90121 has 40 MA's), (14, 90277), (16, 90286), (18, 90307), (24, 90349),

Gene: Klein\_173 Start: 89831, Stop: 90079, Start Num: 3  
Candidate Starts for Klein\_173:  
(Start: 3 @89831 has 40 MA's), (14, 89987), (16, 89996), (18, 90017), (24, 90059),

Gene: LittleE\_177 Start: 91144, Stop: 91392, Start Num: 3  
Candidate Starts for LittleE\_177:  
(Start: 3 @91144 has 40 MA's), (14, 91300), (16, 91309), (18, 91330), (24, 91372),

Gene: Lucky2013\_166 Start: 86641, Stop: 86889, Start Num: 3  
Candidate Starts for Lucky2013\_166:  
(Start: 3 @86641 has 40 MA's), (14, 86797), (16, 86806), (18, 86827), (24, 86869),

Gene: MiaZeal\_173 Start: 87788, Stop: 88036, Start Num: 3

Candidate Starts for MiaZeal\_173:

(Start: 3 @87788 has 40 MA's), (14, 87944), (16, 87953), (18, 87974), (24, 88016),

Gene: Minerva\_169 Start: 89476, Stop: 89709, Start Num: 3

Candidate Starts for Minerva\_169:

(Start: 3 @89476 has 40 MA's), (5, 89518), (6, 89524), (8, 89533), (10, 89551), (13, 89611), (16, 89635), (17, 89653), (19, 89665), (20, 89674), (21, 89683),

Gene: Nebkiss\_134 Start: 71009, Stop: 71254, Start Num: 4

Candidate Starts for Nebkiss\_134:

(Start: 4 @71009 has 1 MA's), (7, 71057), (9, 71066), (11, 71099), (17, 71183), (18, 71186), (21, 71213), (22, 71216), (23, 71219),

Gene: NihilNomen\_171 Start: 89184, Stop: 89417, Start Num: 3

Candidate Starts for NihilNomen\_171:

(Start: 3 @89184 has 40 MA's), (5, 89226), (6, 89232), (8, 89241), (10, 89259), (13, 89319), (16, 89343), (17, 89361), (19, 89373), (20, 89382), (21, 89391),

Gene: Odette\_173 Start: 91865, Stop: 92098, Start Num: 3

Candidate Starts for Odette\_173:

(Start: 3 @91865 has 40 MA's), (5, 91907), (6, 91913), (8, 91922), (10, 91940), (13, 92000), (15, 92018), (16, 92024), (17, 92042), (19, 92054), (20, 92063), (21, 92072),

Gene: Omega\_179 Start: 92502, Stop: 92750, Start Num: 3

Candidate Starts for Omega\_179:

(Start: 3 @92502 has 40 MA's), (14, 92658), (16, 92667), (18, 92688), (24, 92730),

Gene: Optimus\_168 Start: 90391, Stop: 90624, Start Num: 3

Candidate Starts for Optimus\_168:

(Start: 3 @90391 has 40 MA's), (5, 90433), (6, 90439), (8, 90448), (10, 90466), (13, 90526), (15, 90544), (16, 90550), (17, 90568), (19, 90580), (20, 90589), (21, 90598),

Gene: Phoebus\_170 Start: 92871, Stop: 93104, Start Num: 3

Candidate Starts for Phoebus\_170:

(Start: 3 @92871 has 40 MA's), (5, 92913), (6, 92919), (8, 92928), (10, 92946), (13, 93006), (16, 93030), (17, 93048), (19, 93060), (20, 93069), (21, 93078),

Gene: Porcelain\_170 Start: 87587, Stop: 87835, Start Num: 3

Candidate Starts for Porcelain\_170:

(Start: 3 @87587 has 40 MA's), (14, 87743), (16, 87752), (18, 87773), (24, 87815),

Gene: Pound\_163 Start: 88920, Stop: 89153, Start Num: 3

Candidate Starts for Pound\_163:

(Start: 3 @88920 has 40 MA's), (5, 88962), (6, 88968), (8, 88977), (10, 88995), (13, 89055), (15, 89073), (16, 89079), (17, 89097), (19, 89109), (20, 89118), (21, 89127),

Gene: Redno2\_163 Start: 86984, Stop: 87217, Start Num: 3

Candidate Starts for Redno2\_163:

(Start: 3 @86984 has 40 MA's), (5, 87026), (6, 87032), (8, 87041), (10, 87059), (13, 87119), (16, 87143), (17, 87161), (19, 87173), (20, 87182), (21, 87191),

Gene: Schatzie\_164 Start: 89919, Stop: 90152, Start Num: 3

Candidate Starts for Schatzie\_164:

(Start: 3 @89919 has 40 MA's), (5, 89961), (6, 89967), (8, 89976), (10, 89994), (13, 90054), (16, 90078), (17, 90096), (19, 90108), (20, 90117), (21, 90126),

Gene: Squint\_165 Start: 88097, Stop: 88345, Start Num: 3

Candidate Starts for Squint\_165:

(Start: 3 @88097 has 40 MA's), (14, 88253), (16, 88262), (18, 88283), (24, 88325),

Gene: Superphikiman\_168 Start: 87266, Stop: 87514, Start Num: 3

Candidate Starts for Superphikiman\_168:

(Start: 3 @87266 has 40 MA's), (14, 87422), (16, 87431), (18, 87452), (24, 87494),

Gene: Thibault\_153 Start: 86799, Stop: 87032, Start Num: 3

Candidate Starts for Thibault\_153:

(Start: 3 @86799 has 40 MA's), (5, 86841), (6, 86847), (8, 86856), (10, 86874), (13, 86934), (16, 86958), (17, 86976), (19, 86988), (20, 86997), (21, 87006),

Gene: ThreeRngTarjay\_166 Start: 90889, Stop: 91137, Start Num: 3

Candidate Starts for ThreeRngTarjay\_166:

(Start: 3 @90889 has 40 MA's), (14, 91045), (16, 91054), (18, 91075), (24, 91117),

Gene: Wanda\_167 Start: 87480, Stop: 87728, Start Num: 3

Candidate Starts for Wanda\_167:

(Start: 3 @87480 has 40 MA's), (14, 87636), (16, 87645), (18, 87666), (24, 87708),

Gene: Yeet\_161 Start: 88772, Stop: 89005, Start Num: 3

Candidate Starts for Yeet\_161:

(Start: 3 @88772 has 40 MA's), (5, 88814), (6, 88820), (8, 88829), (10, 88847), (13, 88907), (16, 88931), (17, 88949), (19, 88961), (20, 88970), (21, 88979),

Gene: Zelink\_162 Start: 89107, Stop: 89340, Start Num: 3

Candidate Starts for Zelink\_162:

(Start: 3 @89107 has 40 MA's), (5, 89149), (6, 89155), (8, 89164), (10, 89182), (13, 89242), (15, 89260), (16, 89266), (17, 89284), (19, 89296), (20, 89305), (21, 89314),