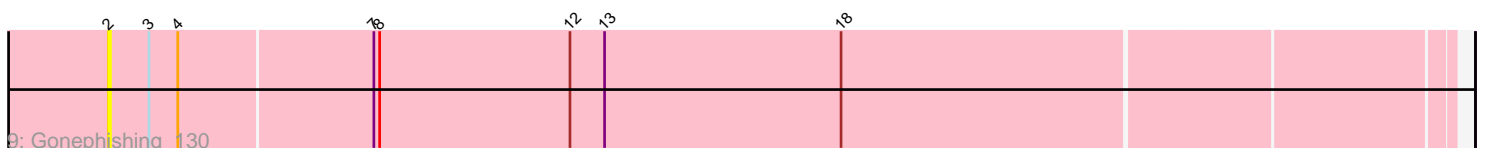
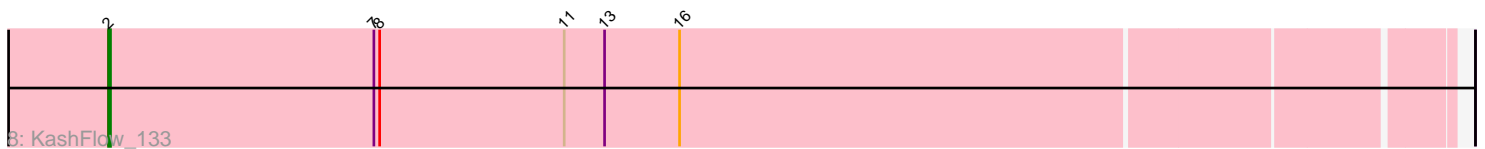
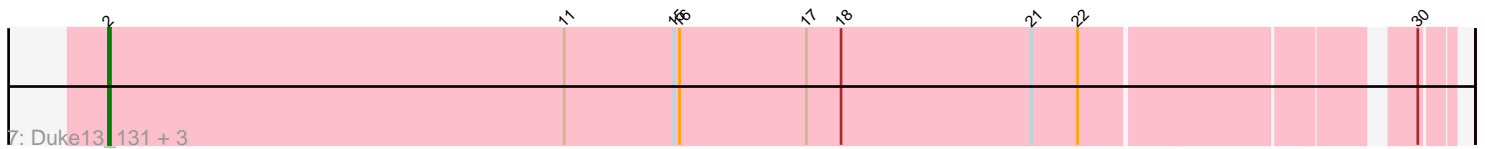
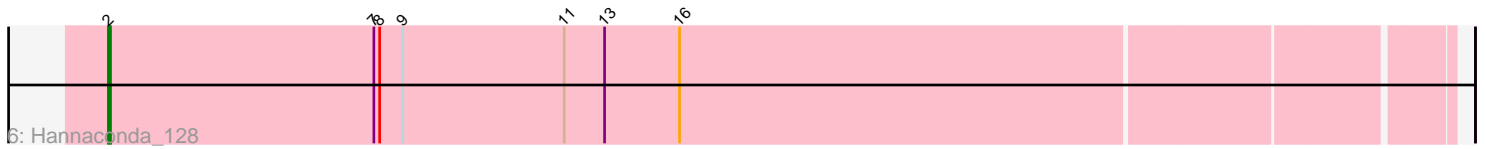
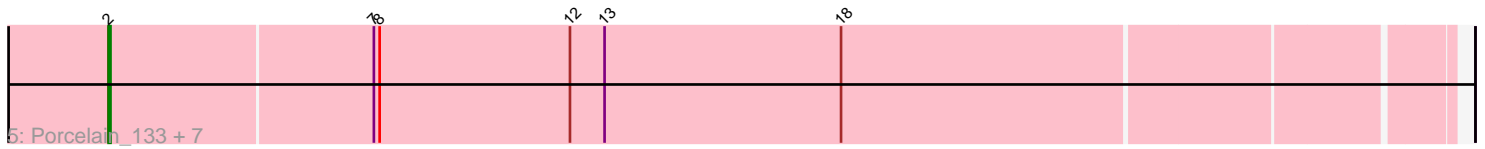
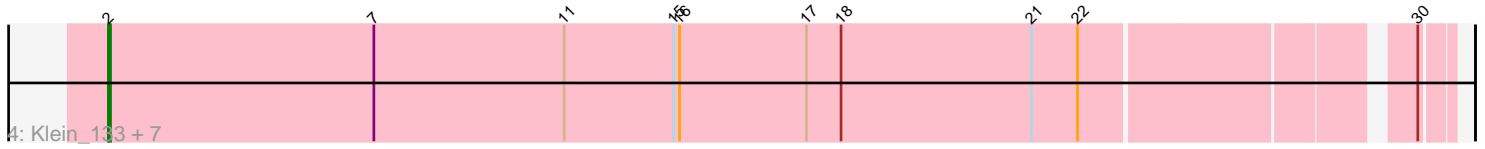
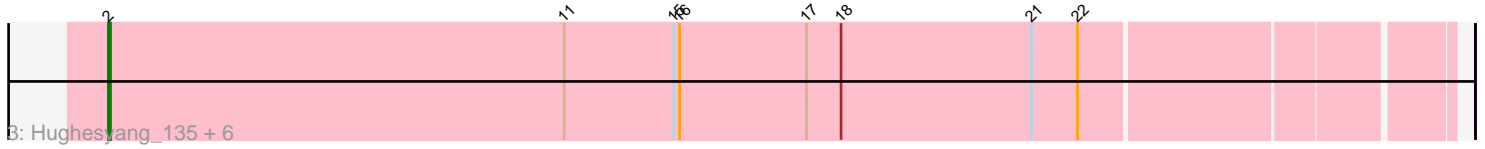
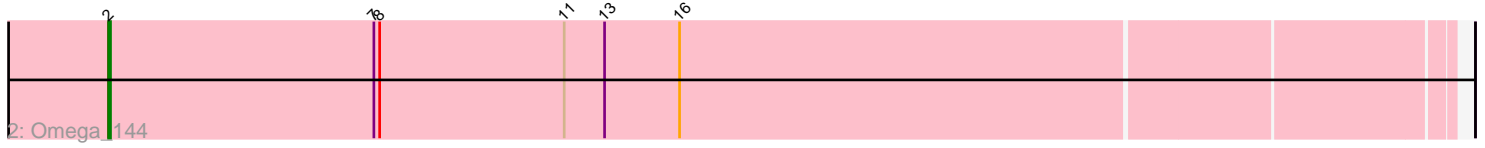
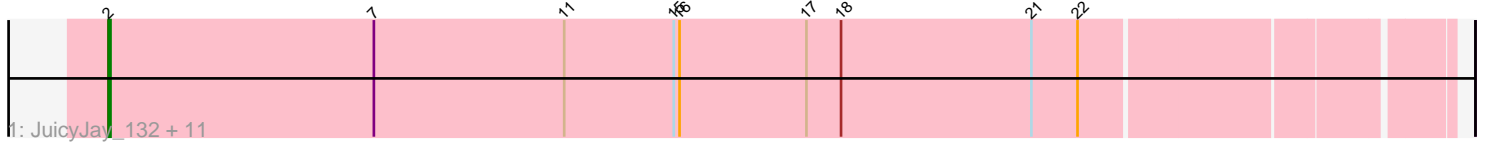


# Pham 2144



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 2144 Report

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

Pham number 2144 has 45 members, 4 are drafts.

Phages represented in each track:

- Track 1 : JuicyJay\_132, Bobby\_127, BAKA\_136, Dallas\_137, NihilNomen\_138, Bombitas\_124, Ejimix\_129, Halley\_138, Beem\_138, Constella\_130, EricMillard\_128, Optimus\_127
- Track 2 : Omega\_144
- Track 3 : Hughesyang\_135, ThreeRngTarjay\_131, Thibault\_120, Redno2\_128, Phoebus\_136, HokkenD\_128, Yeet\_129
- Track 4 : Klein\_133, Dove\_128, Pound\_123, Wanda\_135, Minerva\_135, Kalah2\_126, DmpstrDiver\_136, Bagrid\_136
- Track 5 : Porcelain\_133, Courthouse\_132, Superphikiman\_134, Squint\_133, LittleE\_139, MiaZeal\_136, Lucky2013\_129, Ariel\_136
- Track 6 : Hannaconda\_128
- Track 7 : Duke13\_131, Odette\_139, Schatzie\_131, Zelink\_130
- Track 8 : KashFlow\_133
- Track 9 : Gonephishing\_130
- Track 10 : Gaia\_93
- Track 11 : Nebkiss\_93

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

Genes that call this "Most Annotated" start:

- Ariel\_136, BAKA\_136, Bagrid\_136, Beem\_138, Bobby\_127, Bombitas\_124, Constella\_130, Courthouse\_132, Dallas\_137, DmpstrDiver\_136, Dove\_128, Duke13\_131, Ejimix\_129, EricMillard\_128, Gaia\_93, Gonephishing\_130, Halley\_138, Hannaconda\_128, HokkenD\_128, Hughesyang\_135, JuicyJay\_132, Kalah2\_126, KashFlow\_133, Klein\_133, LittleE\_139, Lucky2013\_129, MiaZeal\_136, Minerva\_135, Nebkiss\_93, NihilNomen\_138, Odette\_139, Omega\_144, Optimus\_127, Phoebus\_136, Porcelain\_133, Pound\_123, Redno2\_128, Schatzie\_131, Squint\_133, Superphikiman\_134, Thibault\_120, ThreeRngTarjay\_131, Wanda\_135, Yeet\_129, Zelink\_130,

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

- 

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

- 

### Summary by start number:

Start 2:

- Found in 45 of 45 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 41 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel\_136 (J), BAKA\_136 (J), Bagrid\_136 (J), Beem\_138 (J), Bobby\_127 (J), Bombitas\_124 (J), Constella\_130 (J), Courthouse\_132 (J), Dallas\_137 (J), DmpstrDiver\_136 (J), Dove\_128 (J), Duke13\_131 (J), Ejimix\_129 (J), EricMillard\_128 (J), Gaia\_93 (X), Gonephishing\_130 (J), Halley\_138 (J), Hannaconda\_128 (J), HokkenD\_128 (J), Hughesyang\_135 (J), JuicyJay\_132 (J), Kalah2\_126 (J), KashFlow\_133 (J), Klein\_133 (J), LittleE\_139 (J), Lucky2013\_129 (J), MiaZeal\_136 (J), Minerva\_135 (J), Nebkiss\_93 (X), NihilNomen\_138 (J), Odette\_139 (J), Omega\_144 (J), Optimus\_127 (J), Phoebus\_136 (J), Porcelain\_133 (J), Pound\_123 (J), Redno2\_128 (J), Schatzie\_131 (J), Squint\_133 (J), Superphikiman\_134 (J), Thibault\_120 (J), ThreeRngTarjay\_131 (J), Wanda\_135 (J), Yeet\_129 (J), Zelink\_130 (J),

### Summary by clusters:

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

Info for manual annotations of cluster J:

- Start number 2 was manually annotated 39 times for cluster J.

Info for manual annotations of cluster X:

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

### Gene Information:

Gene: Ariel\_136 Start: 70547, Stop: 71227, Start Num: 2

Candidate Starts for Ariel\_136:

(Start: 2 @70547 has 41 MA's), (7, 70682), (8, 70685), (12, 70784), (13, 70802), (18, 70925),

Gene: BAKA\_136 Start: 73107, Stop: 73787, Start Num: 2

Candidate Starts for BAKA\_136:

(Start: 2 @73107 has 41 MA's), (7, 73245), (11, 73344), (15, 73401), (16, 73404), (17, 73470), (18, 73488), (21, 73587), (22, 73611),

Gene: Bagrid\_136 Start: 73230, Stop: 73901, Start Num: 2

Candidate Starts for Bagrid\_136:

(Start: 2 @73230 has 41 MA's), (7, 73368), (11, 73467), (15, 73524), (16, 73527), (17, 73593), (18, 73611), (21, 73710), (22, 73734), (30, 73887),

Gene: Beem\_138 Start: 74705, Stop: 75385, Start Num: 2

Candidate Starts for Beem\_138:

(Start: 2 @74705 has 41 MA's), (7, 74843), (11, 74942), (15, 74999), (16, 75002), (17, 75068), (18, 75086), (21, 75185), (22, 75209),

Gene: Bobby\_127 Start: 74806, Stop: 75486, Start Num: 2

Candidate Starts for Bobby\_127:

(Start: 2 @74806 has 41 MA's), (7, 74944), (11, 75043), (15, 75100), (16, 75103), (17, 75169), (18, 75187), (21, 75286), (22, 75310),

Gene: Bombitas\_124 Start: 72116, Stop: 72796, Start Num: 2

Candidate Starts for Bombitas\_124:

(Start: 2 @72116 has 41 MA's), (7, 72254), (11, 72353), (15, 72410), (16, 72413), (17, 72479), (18, 72497), (21, 72596), (22, 72620),

Gene: Constella\_130 Start: 73358, Stop: 74038, Start Num: 2

Candidate Starts for Constella\_130:

(Start: 2 @73358 has 41 MA's), (7, 73496), (11, 73595), (15, 73652), (16, 73655), (17, 73721), (18, 73739), (21, 73838), (22, 73862),

Gene: Courthouse\_132 Start: 70405, Stop: 71085, Start Num: 2

Candidate Starts for Courthouse\_132:

(Start: 2 @70405 has 41 MA's), (7, 70540), (8, 70543), (12, 70642), (13, 70660), (18, 70783),

Gene: Dallas\_137 Start: 74172, Stop: 74852, Start Num: 2

Candidate Starts for Dallas\_137:

(Start: 2 @74172 has 41 MA's), (7, 74310), (11, 74409), (15, 74466), (16, 74469), (17, 74535), (18, 74553), (21, 74652), (22, 74676),

Gene: DmpstrDiver\_136 Start: 73519, Stop: 74190, Start Num: 2

Candidate Starts for DmpstrDiver\_136:

(Start: 2 @73519 has 41 MA's), (7, 73657), (11, 73756), (15, 73813), (16, 73816), (17, 73882), (18, 73900), (21, 73999), (22, 74023), (30, 74176),

Gene: Dove\_128 Start: 69118, Stop: 69789, Start Num: 2

Candidate Starts for Dove\_128:

(Start: 2 @69118 has 41 MA's), (7, 69256), (11, 69355), (15, 69412), (16, 69415), (17, 69481), (18, 69499), (21, 69598), (22, 69622), (30, 69775),

Gene: Duke13\_131 Start: 70820, Stop: 71491, Start Num: 2

Candidate Starts for Duke13\_131:

(Start: 2 @70820 has 41 MA's), (11, 71057), (15, 71114), (16, 71117), (17, 71183), (18, 71201), (21, 71300), (22, 71324), (30, 71477),

Gene: Ejimix\_129 Start: 74240, Stop: 74920, Start Num: 2

Candidate Starts for Ejimix\_129:

(Start: 2 @74240 has 41 MA's), (7, 74378), (11, 74477), (15, 74534), (16, 74537), (17, 74603), (18, 74621), (21, 74720), (22, 74744),

Gene: EricMillard\_128 Start: 72744, Stop: 73424, Start Num: 2

Candidate Starts for EricMillard\_128:

(Start: 2 @72744 has 41 MA's), (7, 72882), (11, 72981), (15, 73038), (16, 73041), (17, 73107), (18, 73125), (21, 73224), (22, 73248),

Gene: Gaia\_93 Start: 55398, Stop: 56102, Start Num: 2

Candidate Starts for Gaia\_93:

(Start: 2 @55398 has 41 MA's), (5, 55506), (6, 55512), (8, 55536), (10, 55590), (16, 55692), (19, 55845), (20, 55848), (23, 55914), (24, 55920), (25, 55935), (26, 55959), (27, 55965),

Gene: Gonephishing\_130 Start: 70590, Stop: 71273, Start Num: 2

Candidate Starts for Gonephishing\_130:

(Start: 2 @70590 has 41 MA's), (3, 70611), (4, 70626), (7, 70725), (8, 70728), (12, 70827), (13, 70845), (18, 70968),

Gene: Halley\_138 Start: 74556, Stop: 75236, Start Num: 2

Candidate Starts for Halley\_138:

(Start: 2 @74556 has 41 MA's), (7, 74694), (11, 74793), (15, 74850), (16, 74853), (17, 74919), (18, 74937), (21, 75036), (22, 75060),

Gene: Hannaconda\_128 Start: 70557, Stop: 71240, Start Num: 2

Candidate Starts for Hannaconda\_128:

(Start: 2 @70557 has 41 MA's), (7, 70695), (8, 70698), (9, 70710), (11, 70794), (13, 70815), (16, 70854),

Gene: HokkenD\_128 Start: 73440, Stop: 74120, Start Num: 2

Candidate Starts for HokkenD\_128:

(Start: 2 @73440 has 41 MA's), (11, 73677), (15, 73734), (16, 73737), (17, 73803), (18, 73821), (21, 73920), (22, 73944),

Gene: Hughesyang\_135 Start: 74326, Stop: 75006, Start Num: 2

Candidate Starts for Hughesyang\_135:

(Start: 2 @74326 has 41 MA's), (11, 74563), (15, 74620), (16, 74623), (17, 74689), (18, 74707), (21, 74806), (22, 74830),

Gene: JuicyJay\_132 Start: 75841, Stop: 76521, Start Num: 2

Candidate Starts for JuicyJay\_132:

(Start: 2 @75841 has 41 MA's), (7, 75979), (11, 76078), (15, 76135), (16, 76138), (17, 76204), (18, 76222), (21, 76321), (22, 76345),

Gene: Kalah2\_126 Start: 72875, Stop: 73546, Start Num: 2

Candidate Starts for Kalah2\_126:

(Start: 2 @72875 has 41 MA's), (7, 73013), (11, 73112), (15, 73169), (16, 73172), (17, 73238), (18, 73256), (21, 73355), (22, 73379), (30, 73532),

Gene: KashFlow\_133 Start: 72135, Stop: 72818, Start Num: 2

Candidate Starts for KashFlow\_133:

(Start: 2 @72135 has 41 MA's), (7, 72273), (8, 72276), (11, 72372), (13, 72393), (16, 72432),

Gene: Klein\_133 Start: 71477, Stop: 72148, Start Num: 2

Candidate Starts for Klein\_133:

(Start: 2 @71477 has 41 MA's), (7, 71615), (11, 71714), (15, 71771), (16, 71774), (17, 71840), (18, 71858), (21, 71957), (22, 71981), (30, 72134),

Gene: LittleE\_139 Start: 73389, Stop: 74069, Start Num: 2

Candidate Starts for LittleE\_139:

(Start: 2 @73389 has 41 MA's), (7, 73524), (8, 73527), (12, 73626), (13, 73644), (18, 73767),

Gene: Lucky2013\_129 Start: 70266, Stop: 70946, Start Num: 2

Candidate Starts for Lucky2013\_129:

(Start: 2 @70266 has 41 MA's), (7, 70401), (8, 70404), (12, 70503), (13, 70521), (18, 70644),

Gene: MiaZeal\_136 Start: 71405, Stop: 72085, Start Num: 2

Candidate Starts for MiaZeal\_136:

(Start: 2 @71405 has 41 MA's), (7, 71540), (8, 71543), (12, 71642), (13, 71660), (18, 71783),

Gene: Minerva\_135 Start: 72927, Stop: 73598, Start Num: 2

Candidate Starts for Minerva\_135:

(Start: 2 @72927 has 41 MA's), (7, 73065), (11, 73164), (15, 73221), (16, 73224), (17, 73290), (18, 73308), (21, 73407), (22, 73431), (30, 73584),

Gene: Nebkiss\_93 Start: 54414, Stop: 55106, Start Num: 2

Candidate Starts for Nebkiss\_93:

(1, 54396), (Start: 2 @54414 has 41 MA's), (5, 54522), (6, 54528), (8, 54552), (10, 54606), (14, 54684), (16, 54708), (19, 54861), (20, 54864), (23, 54930), (24, 54936), (25, 54951), (26, 54975), (28, 55005), (29, 55086),

Gene: NihilNomen\_138 Start: 73786, Stop: 74466, Start Num: 2

Candidate Starts for NihilNomen\_138:

(Start: 2 @73786 has 41 MA's), (7, 73924), (11, 74023), (15, 74080), (16, 74083), (17, 74149), (18, 74167), (21, 74266), (22, 74290),

Gene: Odette\_139 Start: 75357, Stop: 76028, Start Num: 2

Candidate Starts for Odette\_139:

(Start: 2 @75357 has 41 MA's), (11, 75594), (15, 75651), (16, 75654), (17, 75720), (18, 75738), (21, 75837), (22, 75861), (30, 76014),

Gene: Omega\_144 Start: 74928, Stop: 75614, Start Num: 2

Candidate Starts for Omega\_144:

(Start: 2 @74928 has 41 MA's), (7, 75066), (8, 75069), (11, 75165), (13, 75186), (16, 75225),

Gene: Optimus\_127 Start: 71066, Stop: 71746, Start Num: 2

Candidate Starts for Optimus\_127:

(Start: 2 @71066 has 41 MA's), (7, 71204), (11, 71303), (15, 71360), (16, 71363), (17, 71429), (18, 71447), (21, 71546), (22, 71570),

Gene: Phoebus\_136 Start: 75680, Stop: 76360, Start Num: 2

Candidate Starts for Phoebus\_136:

(Start: 2 @75680 has 41 MA's), (11, 75917), (15, 75974), (16, 75977), (17, 76043), (18, 76061), (21, 76160), (22, 76184),

Gene: Porcelain\_133 Start: 71212, Stop: 71892, Start Num: 2

Candidate Starts for Porcelain\_133:

(Start: 2 @71212 has 41 MA's), (7, 71347), (8, 71350), (12, 71449), (13, 71467), (18, 71590),

Gene: Pound\_123 Start: 71806, Stop: 72477, Start Num: 2

Candidate Starts for Pound\_123:

(Start: 2 @71806 has 41 MA's), (7, 71944), (11, 72043), (15, 72100), (16, 72103), (17, 72169), (18, 72187), (21, 72286), (22, 72310), (30, 72463),

Gene: Redno2\_128 Start: 71068, Stop: 71748, Start Num: 2

Candidate Starts for Redno2\_128:

(Start: 2 @71068 has 41 MA's), (11, 71305), (15, 71362), (16, 71365), (17, 71431), (18, 71449), (21, 71548), (22, 71572),

Gene: Schatzie\_131 Start: 73776, Stop: 74447, Start Num: 2

Candidate Starts for Schatzie\_131:

(Start: 2 @73776 has 41 MA's), (11, 74013), (15, 74070), (16, 74073), (17, 74139), (18, 74157), (21, 74256), (22, 74280), (30, 74433),

Gene: Squint\_133 Start: 71471, Stop: 72151, Start Num: 2

Candidate Starts for Squint\_133:

(Start: 2 @71471 has 41 MA's), (7, 71606), (8, 71609), (12, 71708), (13, 71726), (18, 71849),

Gene: Superphikiman\_134 Start: 70687, Stop: 71367, Start Num: 2

Candidate Starts for Superphikiman\_134:

(Start: 2 @70687 has 41 MA's), (7, 70822), (8, 70825), (12, 70924), (13, 70942), (18, 71065),

Gene: Thibault\_120 Start: 70990, Stop: 71670, Start Num: 2

Candidate Starts for Thibault\_120:

(Start: 2 @70990 has 41 MA's), (11, 71227), (15, 71284), (16, 71287), (17, 71353), (18, 71371), (21, 71470), (22, 71494),

Gene: ThreeRngTarjay\_131 Start: 74271, Stop: 74951, Start Num: 2

Candidate Starts for ThreeRngTarjay\_131:

(Start: 2 @74271 has 41 MA's), (11, 74508), (15, 74565), (16, 74568), (17, 74634), (18, 74652), (21, 74751), (22, 74775),

Gene: Wanda\_135 Start: 71406, Stop: 72077, Start Num: 2

Candidate Starts for Wanda\_135:

(Start: 2 @71406 has 41 MA's), (7, 71544), (11, 71643), (15, 71700), (16, 71703), (17, 71769), (18, 71787), (21, 71886), (22, 71910), (30, 72063),

Gene: Yeet\_129 Start: 73469, Stop: 74149, Start Num: 2

Candidate Starts for Yeet\_129:

(Start: 2 @73469 has 41 MA's), (11, 73706), (15, 73763), (16, 73766), (17, 73832), (18, 73850), (21, 73949), (22, 73973),

Gene: Zelink\_130 Start: 74218, Stop: 74889, Start Num: 2

Candidate Starts for Zelink\_130:

(Start: 2 @74218 has 41 MA's), (11, 74455), (15, 74512), (16, 74515), (17, 74581), (18, 74599), (21, 74698), (22, 74722), (30, 74875),