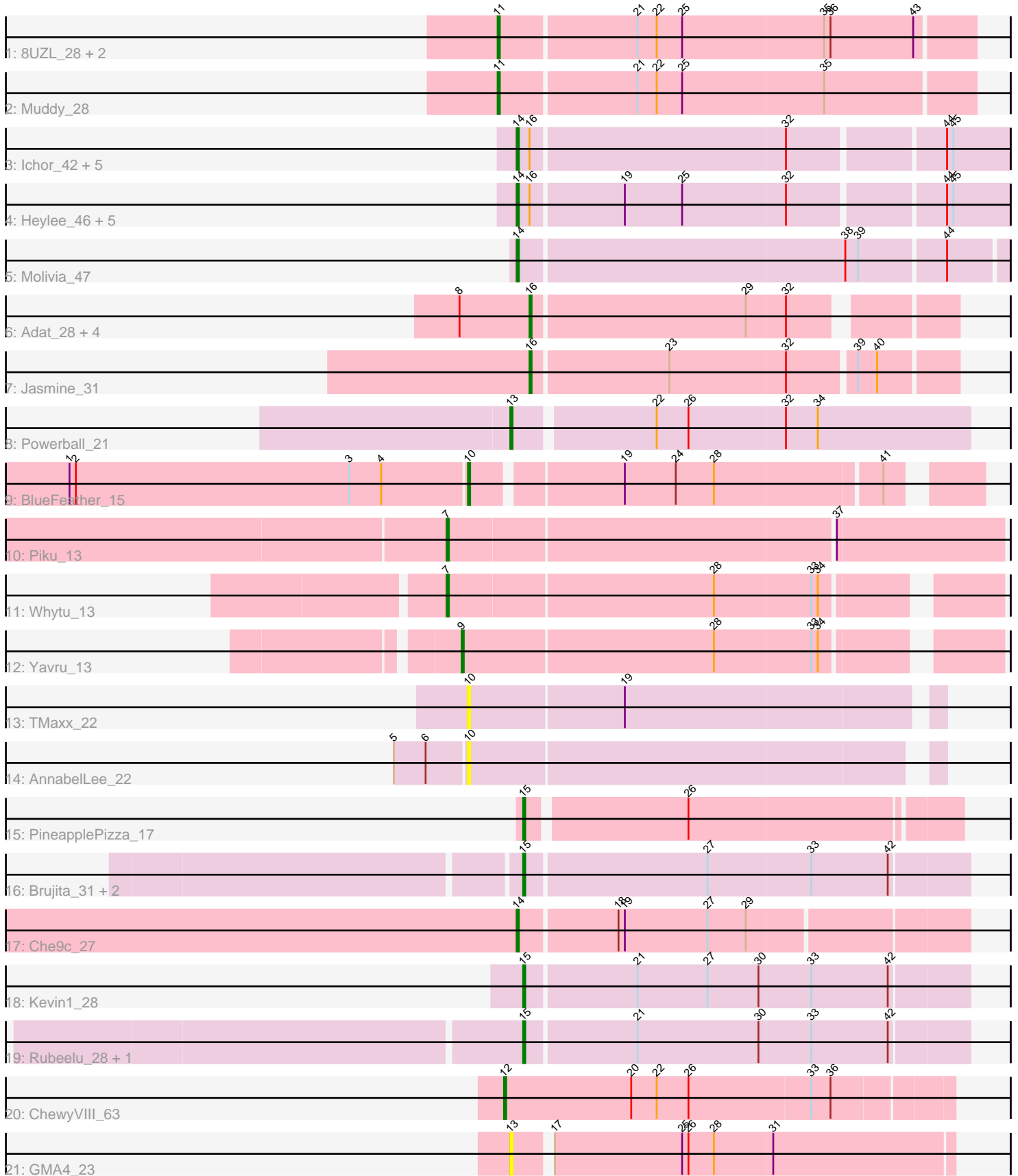


Pham 194158



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 194158 Report

This analysis was run 11/02/24 on database version 579.

Pham number 194158 has 40 members, 5 are drafts.

Phages represented in each track:

- Track 1 : 8UZL\_28, FF47\_28, Maco6\_26
- Track 2 : Muddy\_28
- Track 3 : Ichor\_42, Boersma\_44, Amigo\_43, Thunderclap\_43, Jaek\_42, Yeezus\_42
- Track 4 : Heylee\_46, Rings\_42, Gorgeous\_43, Anansi\_43, SorJuana\_43, Amavida\_46
- Track 5 : Molivia\_47
- Track 6 : Adat\_28, Brad\_28, GurgleFerb\_28, Nellie\_28, Casserole\_29
- Track 7 : Jasmine\_31
- Track 8 : Powerball\_21
- Track 9 : BlueFeather\_15
- Track 10 : Piku\_13
- Track 11 : Whytu\_13
- Track 12 : Yavru\_13
- Track 13 : TMaxx\_22
- Track 14 : AnnabelLee\_22
- Track 15 : PineapplePizza\_17
- Track 16 : Brujita\_31, Bogie\_30, Island3\_31
- Track 17 : Che9c\_27
- Track 18 : Kevin1\_28
- Track 19 : Rubeelu\_28, Butters\_28
- Track 20 : ChewyVIII\_63
- Track 21 : GMA4\_23

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

The start number called the most often in the published annotations is 14, it was called in 14 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amavida\_46, Amigo\_43, Anansi\_43, Boersma\_44, Che9c\_27, Gorgeous\_43, Heylee\_46, Ichor\_42, Jaek\_42, Molivia\_47, Rings\_42, SorJuana\_43, Thunderclap\_43, Yeezus\_42,

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

•

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

- 8UZL\_28, Adat\_28, AnnabelLee\_22, BlueFeather\_15, Bogie\_30, Brad\_28, Brujita\_31, Butters\_28, Casserole\_29, ChewyVIII\_63, FF47\_28, GMA4\_23, GurgleFerb\_28, Island3\_31, Jasmine\_31, Kevin1\_28, Maco6\_26, Muddy\_28, Nellie\_28, Piku\_13, PineapplePizza\_17, Powerball\_21, Rubeelu\_28, TMaxx\_22, Whytu\_13, Yavru\_13,

**Summary by start number:**

Start 7:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Piku\_13 (FE), Whytu\_13 (FE),

Start 9:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yavru\_13 (FE),

Start 10:

- Found in 3 of 40 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee\_22 (FR), BlueFeather\_15 (FE), TMaxx\_22 (FR),

Start 11:

- Found in 4 of 40 ( 10.0% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL\_28 (AB), FF47\_28 (AB), Maco6\_26 (AB), Muddy\_28 (AB),

Start 12:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChewyVIII\_63 (singleton),

Start 13:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_23 (singleton), Powerball\_21 (CZ4),

Start 14:

- Found in 14 of 40 ( 35.0% ) of genes in pham
- Manual Annotations of this start: 14 of 35

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amavida\_46 (AQ), Amigo\_43 (AQ), Anansi\_43 (AQ), Boersma\_44 (AQ), Che9c\_27 (I2), Gorgeous\_43 (AQ), Heylee\_46 (AQ), Ichor\_42 (AQ), Jaek\_42 (AQ), Molivia\_47 (AQ), Rings\_42 (AQ), SorJuana\_43 (AQ), Thunderclap\_43 (AQ), Yeezus\_42 (AQ),

Start 15:

- Found in 7 of 40 ( 17.5% ) of genes in pham
- Manual Annotations of this start: 7 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bogie\_30 (P1), Brujita\_31 (I1), Butters\_28 (N), Island3\_31 (I1), Kevin1\_28 (N), PineapplePizza\_17 (GI), Rubeelu\_28 (N),

Start 16:

- Found in 18 of 40 ( 45.0% ) of genes in pham
- Manual Annotations of this start: 6 of 35
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Adat\_28 (AV), Brad\_28 (AV), Casserole\_29 (AV), GurgleFerb\_28 (AV), Jasmine\_31 (AV), Nellie\_28 (AV),

### **Summary by clusters:**

There are 12 clusters represented in this pham: singleton, AB, I1, I2, FR, CZ4, N, AQ, P1, FE, AV, GI,

Info for manual annotations of cluster AB:

- Start number 11 was manually annotated 2 times for cluster AB.

Info for manual annotations of cluster AQ:

- Start number 14 was manually annotated 13 times for cluster AQ.

Info for manual annotations of cluster AV:

- Start number 16 was manually annotated 6 times for cluster AV.

Info for manual annotations of cluster CZ4:

- Start number 13 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster FE:

- Start number 7 was manually annotated 2 times for cluster FE.
- Start number 9 was manually annotated 1 time for cluster FE.
- Start number 10 was manually annotated 1 time for cluster FE.

Info for manual annotations of cluster GI:

- Start number 15 was manually annotated 1 time for cluster GI.

Info for manual annotations of cluster I1:

- Start number 15 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 14 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 15 was manually annotated 3 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 15 was manually annotated 1 time for cluster P1.

**Gene Information:**

Gene: 8UZL\_28 Start: 24083, Stop: 24301, Start Num: 11

Candidate Starts for 8UZL\_28:

(Start: 11 @24083 has 2 MA's), (21, 24146), (22, 24155), (25, 24167), (35, 24233), (36, 24236), (43, 24275),

Gene: Adat\_28 Start: 27242, Stop: 27427, Start Num: 16

Candidate Starts for Adat\_28:

(8, 27209), (Start: 16 @27242 has 6 MA's), (29, 27341), (32, 27359),

Gene: Amavida\_46 Start: 30744, Stop: 30965, Start Num: 14

Candidate Starts for Amavida\_46:

(Start: 14 @30744 has 14 MA's), (Start: 16 @30750 has 6 MA's), (19, 30792), (25, 30819), (32, 30867), (44, 30936), (45, 30939),

Gene: Amigo\_43 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Amigo\_43:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (32, 30741), (44, 30810), (45, 30813),

Gene: Anansi\_43 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Anansi\_43:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (19, 30666), (25, 30693), (32, 30741), (44, 30810), (45, 30813),

Gene: AnnabelLee\_22 Start: 15054, Stop: 15263, Start Num: 10

Candidate Starts for AnnabelLee\_22:

(5, 15021), (6, 15036), (Start: 10 @15054 has 1 MA's),

Gene: BlueFeather\_15 Start: 11595, Stop: 11813, Start Num: 10

Candidate Starts for BlueFeather\_15:

(1, 11409), (2, 11412), (3, 11541), (4, 11556), (Start: 10 @11595 has 1 MA's), (19, 11661), (24, 11685), (28, 11703), (41, 11778),

Gene: Boersma\_44 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Boersma\_44:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (32, 30741), (44, 30810), (45, 30813),

Gene: Bogie\_30 Start: 27068, Stop: 27271, Start Num: 15

Candidate Starts for Bogie\_30:

(Start: 15 @27068 has 7 MA's), (27, 27152), (33, 27200), (42, 27236),

Gene: Brad\_28 Start: 27240, Stop: 27425, Start Num: 16

Candidate Starts for Brad\_28:

(8, 27207), (Start: 16 @27240 has 6 MA's), (29, 27339), (32, 27357),

Gene: Brujita\_31 Start: 27423, Stop: 27626, Start Num: 15

Candidate Starts for Brujita\_31:

(Start: 15 @27423 has 7 MA's), (27, 27507), (33, 27555), (42, 27591),

Gene: Butters\_28 Start: 23934, Stop: 24137, Start Num: 15

Candidate Starts for Butters\_28:

(Start: 15 @23934 has 7 MA's), (21, 23985), (30, 24042), (33, 24066), (42, 24102),

Gene: Casserole\_29 Start: 28530, Stop: 28715, Start Num: 16

Candidate Starts for Casserole\_29:

(8, 28497), (Start: 16 @28530 has 6 MA's), (29, 28629), (32, 28647),

Gene: Che9c\_27 Start: 25454, Stop: 25657, Start Num: 14

Candidate Starts for Che9c\_27:

(Start: 14 @25454 has 14 MA's), (18, 25499), (19, 25502), (27, 25541), (29, 25559),

Gene: ChewyVIII\_63 Start: 44877, Stop: 45083, Start Num: 12

Candidate Starts for ChewyVIII\_63:

(Start: 12 @44877 has 1 MA's), (20, 44937), (22, 44949), (26, 44964), (33, 45021), (36, 45030),

Gene: FF47\_28 Start: 24010, Stop: 24228, Start Num: 11

Candidate Starts for FF47\_28:

(Start: 11 @24010 has 2 MA's), (21, 24073), (22, 24082), (25, 24094), (35, 24160), (36, 24163), (43, 24202),

Gene: GMA4\_23 Start: 21682, Stop: 21882, Start Num: 13

Candidate Starts for GMA4\_23:

(Start: 13 @21682 has 1 MA's), (17, 21697), (25, 21757), (26, 21760), (28, 21772), (31, 21799),

Gene: Gorgeous\_43 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Gorgeous\_43:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (19, 30666), (25, 30693), (32, 30741), (44, 30810), (45, 30813),

Gene: GurgleFerb\_28 Start: 27241, Stop: 27426, Start Num: 16

Candidate Starts for GurgleFerb\_28:

(8, 27208), (Start: 16 @27241 has 6 MA's), (29, 27340), (32, 27358),

Gene: Heylee\_46 Start: 30744, Stop: 30965, Start Num: 14

Candidate Starts for Heylee\_46:

(Start: 14 @30744 has 14 MA's), (Start: 16 @30750 has 6 MA's), (19, 30792), (25, 30819), (32, 30867), (44, 30936), (45, 30939),

Gene: Ichor\_42 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Ichor\_42:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (32, 30741), (44, 30810), (45, 30813),

Gene: Island3\_31 Start: 27423, Stop: 27626, Start Num: 15

Candidate Starts for Island3\_31:

(Start: 15 @27423 has 7 MA's), (27, 27507), (33, 27555), (42, 27591),

Gene: Jaek\_42 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for Jaek\_42:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (32, 30741), (44, 30810), (45, 30813),

Gene: Jasmine\_31 Start: 29111, Stop: 29302, Start Num: 16

Candidate Starts for Jasmine\_31:

(Start: 16 @29111 has 6 MA's), (23, 29174), (32, 29228), (39, 29258), (40, 29267),

Gene: Kevin1\_28 Start: 23931, Stop: 24134, Start Num: 15

Candidate Starts for Kevin1\_28:

(Start: 15 @23931 has 7 MA's), (21, 23982), (27, 24015), (30, 24039), (33, 24063), (42, 24099),

Gene: Maco6\_26 Start: 23344, Stop: 23565, Start Num: 11

Candidate Starts for Maco6\_26:

(Start: 11 @23344 has 2 MA's), (21, 23407), (22, 23416), (25, 23428), (35, 23494), (36, 23497), (43, 23536),

Gene: Molivia\_47 Start: 29639, Stop: 29860, Start Num: 14

Candidate Starts for Molivia\_47:

(Start: 14 @29639 has 14 MA's), (38, 29789), (39, 29795), (44, 29834),

Gene: Muddy\_28 Start: 24291, Stop: 24509, Start Num: 11

Candidate Starts for Muddy\_28:

(Start: 11 @24291 has 2 MA's), (21, 24354), (22, 24363), (25, 24375), (35, 24441),

Gene: Nellie\_28 Start: 27242, Stop: 27427, Start Num: 16

Candidate Starts for Nellie\_28:

(8, 27209), (Start: 16 @27242 has 6 MA's), (29, 27341), (32, 27359),

Gene: Piku\_13 Start: 11763, Stop: 12017, Start Num: 7

Candidate Starts for Piku\_13:

(Start: 7 @11763 has 2 MA's), (37, 11940),

Gene: PineapplePizza\_17 Start: 15012, Stop: 15206, Start Num: 15

Candidate Starts for PineapplePizza\_17:

(Start: 15 @15012 has 7 MA's), (26, 15084),

Gene: Powerball\_21 Start: 19529, Stop: 19738, Start Num: 13

Candidate Starts for Powerball\_21:

(Start: 13 @19529 has 1 MA's), (22, 19592), (26, 19607), (32, 19652), (34, 19667),

Gene: Rings\_42 Start: 30740, Stop: 30961, Start Num: 14

Candidate Starts for Rings\_42:

(Start: 14 @30740 has 14 MA's), (Start: 16 @30746 has 6 MA's), (19, 30788), (25, 30815), (32, 30863), (44, 30932), (45, 30935),

Gene: Rubeelu\_28 Start: 23934, Stop: 24137, Start Num: 15

Candidate Starts for Rubeelu\_28:

(Start: 15 @23934 has 7 MA's), (21, 23985), (30, 24042), (33, 24066), (42, 24102),

Gene: SorJuana\_43 Start: 30618, Stop: 30839, Start Num: 14

Candidate Starts for SorJuana\_43:

(Start: 14 @30618 has 14 MA's), (Start: 16 @30624 has 6 MA's), (19, 30666), (25, 30693), (32, 30741), (44, 30810), (45, 30813),

Gene: TMaxx\_22 Start: 14862, Stop: 15074, Start Num: 10

Candidate Starts for TMaxx\_22:

(Start: 10 @14862 has 1 MA's), (19, 14934),

Gene: Thunderclap\_43 Start: 30647, Stop: 30868, Start Num: 14

Candidate Starts for Thunderclap\_43:

(Start: 14 @30647 has 14 MA's), (Start: 16 @30653 has 6 MA's), (32, 30770), (44, 30839), (45, 30842),

Gene: Whytu\_13 Start: 11841, Stop: 12083, Start Num: 7

Candidate Starts for Whytu\_13:

(Start: 7 @11841 has 2 MA's), (28, 11964), (33, 12009), (34, 12012),

Gene: Yavru\_13 Start: 11742, Stop: 11978, Start Num: 9

Candidate Starts for Yavru\_13:

(Start: 9 @11742 has 1 MA's), (28, 11859), (33, 11904), (34, 11907),

Gene: Yeezus\_42 Start: 30617, Stop: 30838, Start Num: 14

Candidate Starts for Yeezus\_42:

(Start: 14 @30617 has 14 MA's), (Start: 16 @30623 has 6 MA's), (32, 30740), (44, 30809), (45, 30812),