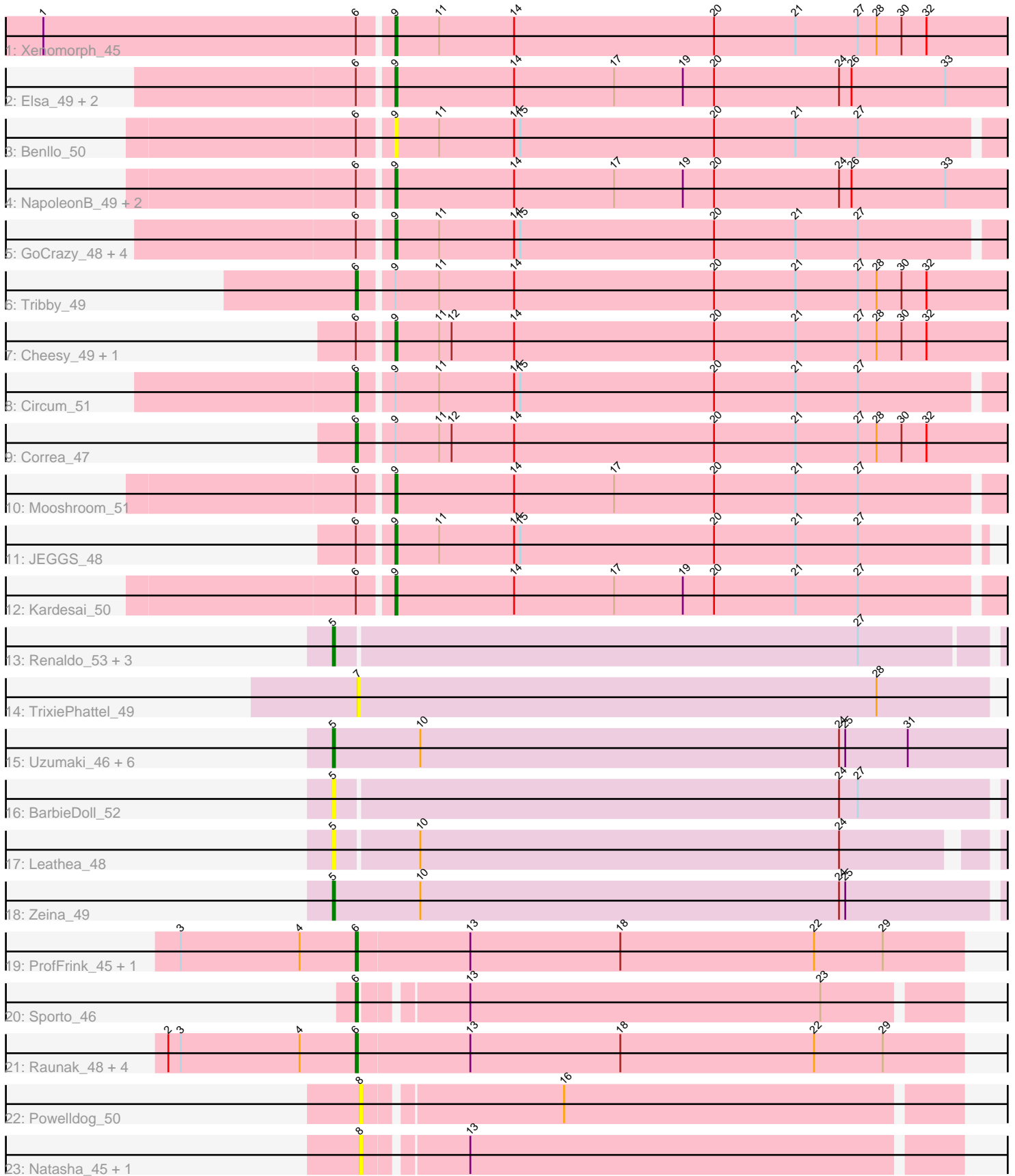


Pham 200191



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 200191 Report

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

Pham number 200191 has 47 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Xenomorph\_45
- Track 2 : Elsa\_49, Arcadia\_49, Nason\_49
- Track 3 : Benllo\_50
- Track 4 : NapoleonB\_49, Dynamite\_49, BenitoAntonio\_49
- Track 5 : GoCrazy\_48, Mudcat\_46, Hankly\_48, Heisenberger\_48, KeaneyLin\_48
- Track 6 : Tribby\_49
- Track 7 : Cheesy\_49, Bowling\_48
- Track 8 : Circum\_51
- Track 9 : Correa\_47
- Track 10 : Mooshroom\_51
- Track 11 : JEGGS\_48
- Track 12 : Kardesai\_50
- Track 13 : Renaldo\_53, Lewando\_50, Kinny\_52, Biscute\_51
- Track 14 : TrixiePhattel\_49
- Track 15 : Uzumaki\_46, Argan\_47, Navi1117\_51, GantcherGoblin\_47, Tenney120\_50, Phaila\_51, KevinMinion\_49
- Track 16 : BarbieDoll\_52
- Track 17 : Leathea\_48
- Track 18 : Zeina\_49
- Track 19 : ProfFrink\_45, Boog\_46
- Track 20 : Sporto\_46
- Track 21 : Raunak\_48, BronxBay\_45, MrAaronian\_45, Linda\_45, Djungelskog\_45
- Track 22 : PowellDog\_50
- Track 23 : Natasha\_45, RustyBoy\_45

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

The start number called the most often in the published annotations is 9, it was called in 16 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arcadia\_49, BenitoAntonio\_49, Benllo\_50, Bowling\_48, Cheesy\_49, Dynamite\_49, Elsa\_49, GoCrazy\_48, Hankly\_48, Heisenberger\_48, JEGGS\_48, Kardesai\_50, KeaneyLin\_48, Mooshroom\_51, Mudcat\_46, NapoleonB\_49, Nason\_49,

Xenomorph\_45,

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

- Circum\_51, Correa\_47, Tribby\_49,

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

- Argan\_47, BarbieDoll\_52, Biscute\_51, Boog\_46, BronxBay\_45, Djungelskog\_45, GantcherGoblin\_47, KevinMinion\_49, Kinny\_52, Leathea\_48, Lewando\_50, Linda\_45, MrAaronian\_45, Natasha\_45, Navi1117\_51, Phaila\_51, Powellldog\_50, ProfFrink\_45, Raunak\_48, Renaldo\_53, RustyBoy\_45, Sporto\_46, Tenney120\_50, TrixiePhattel\_49, Uzumaki\_46, Zeina\_49,

### Summary by start number:

Start 5:

- Found in 14 of 47 ( 29.8% ) of genes in pham
- Manual Annotations of this start: 5 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argan\_47 (AU6), BarbieDoll\_52 (AU6), Biscute\_51 (AU6), GantcherGoblin\_47 (AU6), KevinMinion\_49 (AU6), Kinny\_52 (AU6), Leathea\_48 (AU6), Lewando\_50 (AU6), Navi1117\_51 (AU6), Phaila\_51 (AU6), Renaldo\_53 (AU6), Tenney120\_50 (AU6), Uzumaki\_46 (AU6), Zeina\_49 (AU6),

Start 6:

- Found in 29 of 47 ( 61.7% ) of genes in pham
- Manual Annotations of this start: 9 of 30
- Called 37.9% of time when present
- Phage (with cluster) where this start called: Boog\_46 (AW), BronxBay\_45 (AW), Circum\_51 (AM), Correa\_47 (AM), Djungelskog\_45 (AW), Linda\_45 (AW), MrAaronian\_45 (AW), ProfFrink\_45 (AW), Raunak\_48 (AW), Sporto\_46 (AW), Tribby\_49 (AM),

Start 7:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TrixiePhattel\_49 (AU6),

Start 8:

- Found in 3 of 47 ( 6.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Natasha\_45 (AW), Powellldog\_50 (AW), RustyBoy\_45 (AW),

Start 9:

- Found in 21 of 47 ( 44.7% ) of genes in pham
- Manual Annotations of this start: 16 of 30
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Arcadia\_49 (AM), BenitoAntonio\_49 (AM), Benllo\_50 (AM), Bowling\_48 (AM), Cheesy\_49 (AM), Dynamite\_49 (AM), Elsa\_49 (AM), GoCrazy\_48 (AM), Hankly\_48 (AM), Heisenberger\_48 (AM), JEGGS\_48 (AM), Kardesai\_50 (AM), KeaneyLin\_48 (AM), Mooshroom\_51 (AM),

Mudcat\_46 (AM), NapoleonB\_49 (AM), Nason\_49 (AM), Xenomorph\_45 (AM),

### **Summary by clusters:**

There are 3 clusters represented in this pham: AM, AW, AU6,

Info for manual annotations of cluster AM:

- Start number 6 was manually annotated 3 times for cluster AM.
- Start number 9 was manually annotated 16 times for cluster AM.

Info for manual annotations of cluster AU6:

- Start number 5 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 6 was manually annotated 6 times for cluster AW.

### **Gene Information:**

Gene: Arcadia\_49 Start: 32580, Stop: 32888, Start Num: 9

Candidate Starts for Arcadia\_49:

(Start: 6 @32565 has 9 MA's), (Start: 9 @32580 has 16 MA's), (14, 32637), (17, 32685), (19, 32718), (20, 32733), (24, 32793), (26, 32799), (33, 32844),

Gene: Argan\_47 Start: 32696, Stop: 33043, Start Num: 5

Candidate Starts for Argan\_47:

(Start: 5 @32696 has 5 MA's), (10, 32738), (24, 32939), (25, 32942), (31, 32972),

Gene: BarbieDoll\_52 Start: 34320, Stop: 34643, Start Num: 5

Candidate Starts for BarbieDoll\_52:

(Start: 5 @34320 has 5 MA's), (24, 34560), (27, 34569),

Gene: BenitoAntonio\_49 Start: 32116, Stop: 32424, Start Num: 9

Candidate Starts for BenitoAntonio\_49:

(Start: 6 @32101 has 9 MA's), (Start: 9 @32116 has 16 MA's), (14, 32173), (17, 32221), (19, 32254), (20, 32269), (24, 32329), (26, 32335), (33, 32380),

Gene: Benllo\_50 Start: 32800, Stop: 33102, Start Num: 9

Candidate Starts for Benllo\_50:

(Start: 6 @32785 has 9 MA's), (Start: 9 @32800 has 16 MA's), (11, 32821), (14, 32857), (15, 32860), (20, 32953), (21, 32992), (27, 33022),

Gene: Biscute\_51 Start: 33972, Stop: 34295, Start Num: 5

Candidate Starts for Biscute\_51:

(Start: 5 @33972 has 5 MA's), (27, 34221),

Gene: Boog\_46 Start: 31539, Stop: 31829, Start Num: 6

Candidate Starts for Boog\_46:

(3, 31455), (4, 31512), (Start: 6 @31539 has 9 MA's), (13, 31593), (18, 31665), (22, 31758), (29, 31791),

Gene: Bowling\_48 Start: 32325, Stop: 32633, Start Num: 9

Candidate Starts for Bowling\_48:

(Start: 6 @32310 has 9 MA's), (Start: 9 @32325 has 16 MA's), (11, 32346), (12, 32352), (14, 32382), (20, 32478), (21, 32517), (27, 32547), (28, 32556), (30, 32568), (32, 32580),

Gene: BronxBay\_45 Start: 31837, Stop: 32127, Start Num: 6

Candidate Starts for BronxBay\_45:

(2, 31747), (3, 31753), (4, 31810), (Start: 6 @31837 has 9 MA's), (13, 31891), (18, 31963), (22, 32056), (29, 32089),

Gene: Cheesy\_49 Start: 32301, Stop: 32609, Start Num: 9

Candidate Starts for Cheesy\_49:

(Start: 6 @32286 has 9 MA's), (Start: 9 @32301 has 16 MA's), (11, 32322), (12, 32328), (14, 32358), (20, 32454), (21, 32493), (27, 32523), (28, 32532), (30, 32544), (32, 32556),

Gene: Circum\_51 Start: 32976, Stop: 33293, Start Num: 6

Candidate Starts for Circum\_51:

(Start: 6 @32976 has 9 MA's), (Start: 9 @32991 has 16 MA's), (11, 33012), (14, 33048), (15, 33051), (20, 33144), (21, 33183), (27, 33213),

Gene: Correa\_47 Start: 31432, Stop: 31755, Start Num: 6

Candidate Starts for Correa\_47:

(Start: 6 @31432 has 9 MA's), (Start: 9 @31447 has 16 MA's), (11, 31468), (12, 31474), (14, 31504), (20, 31600), (21, 31639), (27, 31669), (28, 31678), (30, 31690), (32, 31702),

Gene: Djungelskog\_45 Start: 31836, Stop: 32126, Start Num: 6

Candidate Starts for Djungelskog\_45:

(2, 31746), (3, 31752), (4, 31809), (Start: 6 @31836 has 9 MA's), (13, 31890), (18, 31962), (22, 32055), (29, 32088),

Gene: Dynamite\_49 Start: 32516, Stop: 32824, Start Num: 9

Candidate Starts for Dynamite\_49:

(Start: 6 @32501 has 9 MA's), (Start: 9 @32516 has 16 MA's), (14, 32573), (17, 32621), (19, 32654), (20, 32669), (24, 32729), (26, 32735), (33, 32780),

Gene: Elsa\_49 Start: 32580, Stop: 32888, Start Num: 9

Candidate Starts for Elsa\_49:

(Start: 6 @32565 has 9 MA's), (Start: 9 @32580 has 16 MA's), (14, 32637), (17, 32685), (19, 32718), (20, 32733), (24, 32793), (26, 32799), (33, 32844),

Gene: GantcherGoblin\_47 Start: 32895, Stop: 33227, Start Num: 5

Candidate Starts for GantcherGoblin\_47:

(Start: 5 @32895 has 5 MA's), (10, 32937), (24, 33138), (25, 33141), (31, 33171),

Gene: GoCrazy\_48 Start: 32456, Stop: 32758, Start Num: 9

Candidate Starts for GoCrazy\_48:

(Start: 6 @32441 has 9 MA's), (Start: 9 @32456 has 16 MA's), (11, 32477), (14, 32513), (15, 32516), (20, 32609), (21, 32648), (27, 32678),

Gene: Hankly\_48 Start: 31730, Stop: 32032, Start Num: 9

Candidate Starts for Hankly\_48:

(Start: 6 @31715 has 9 MA's), (Start: 9 @31730 has 16 MA's), (11, 31751), (14, 31787), (15, 31790), (20, 31883), (21, 31922), (27, 31952),

Gene: Heisenberger\_48 Start: 32020, Stop: 32313, Start Num: 9  
Candidate Starts for Heisenberger\_48:  
(Start: 6 @32005 has 9 MA's), (Start: 9 @32020 has 16 MA's), (11, 32041), (14, 32077), (15, 32080),  
(20, 32173), (21, 32212), (27, 32242),

Gene: JEGGS\_48 Start: 32075, Stop: 32368, Start Num: 9  
Candidate Starts for JEGGS\_48:  
(Start: 6 @32060 has 9 MA's), (Start: 9 @32075 has 16 MA's), (11, 32096), (14, 32132), (15, 32135),  
(20, 32228), (21, 32267), (27, 32297),

Gene: Kardesai\_50 Start: 32700, Stop: 33002, Start Num: 9  
Candidate Starts for Kardesai\_50:  
(Start: 6 @32685 has 9 MA's), (Start: 9 @32700 has 16 MA's), (14, 32757), (17, 32805), (19, 32838),  
(20, 32853), (21, 32892), (27, 32922),

Gene: KeaneyLin\_48 Start: 32456, Stop: 32758, Start Num: 9  
Candidate Starts for KeaneyLin\_48:  
(Start: 6 @32441 has 9 MA's), (Start: 9 @32456 has 16 MA's), (11, 32477), (14, 32513), (15, 32516),  
(20, 32609), (21, 32648), (27, 32678),

Gene: KevinMinion\_49 Start: 33653, Stop: 33994, Start Num: 5  
Candidate Starts for KevinMinion\_49:  
(Start: 5 @33653 has 5 MA's), (10, 33695), (24, 33896), (25, 33899), (31, 33929),

Gene: Kinny\_52 Start: 34815, Stop: 35138, Start Num: 5  
Candidate Starts for Kinny\_52:  
(Start: 5 @34815 has 5 MA's), (27, 35064),

Gene: Leathea\_48 Start: 32547, Stop: 32861, Start Num: 5  
Candidate Starts for Leathea\_48:  
(Start: 5 @32547 has 5 MA's), (10, 32586), (24, 32787),

Gene: Lewando\_50 Start: 34105, Stop: 34425, Start Num: 5  
Candidate Starts for Lewando\_50:  
(Start: 5 @34105 has 5 MA's), (27, 34354),

Gene: Linda\_45 Start: 31834, Stop: 32124, Start Num: 6  
Candidate Starts for Linda\_45:  
(2, 31744), (3, 31750), (4, 31807), (Start: 6 @31834 has 9 MA's), (13, 31888), (18, 31960), (22, 32053),  
(29, 32086),

Gene: Mooshroom\_51 Start: 32700, Stop: 33002, Start Num: 9  
Candidate Starts for Mooshroom\_51:  
(Start: 6 @32685 has 9 MA's), (Start: 9 @32700 has 16 MA's), (14, 32757), (17, 32805), (20, 32853),  
(21, 32892), (27, 32922),

Gene: MrAaronian\_45 Start: 31836, Stop: 32126, Start Num: 6  
Candidate Starts for MrAaronian\_45:  
(2, 31746), (3, 31752), (4, 31809), (Start: 6 @31836 has 9 MA's), (13, 31890), (18, 31962), (22, 32055),  
(29, 32088),

Gene: Mudcat\_46 Start: 33433, Stop: 33726, Start Num: 9  
Candidate Starts for Mudcat\_46:

(Start: 6 @33418 has 9 MA's), (Start: 9 @33433 has 16 MA's), (11, 33454), (14, 33490), (15, 33493), (20, 33586), (21, 33625), (27, 33655),

Gene: NapoleonB\_49 Start: 32516, Stop: 32824, Start Num: 9

Candidate Starts for NapoleonB\_49:

(Start: 6 @32501 has 9 MA's), (Start: 9 @32516 has 16 MA's), (14, 32573), (17, 32621), (19, 32654), (20, 32669), (24, 32729), (26, 32735), (33, 32780),

Gene: Nason\_49 Start: 32580, Stop: 32888, Start Num: 9

Candidate Starts for Nason\_49:

(Start: 6 @32565 has 9 MA's), (Start: 9 @32580 has 16 MA's), (14, 32637), (17, 32685), (19, 32718), (20, 32733), (24, 32793), (26, 32799), (33, 32844),

Gene: Natasha\_45 Start: 31568, Stop: 31843, Start Num: 8

Candidate Starts for Natasha\_45:

(8, 31568), (13, 31613),

Gene: Navi1117\_51 Start: 33598, Stop: 33939, Start Num: 5

Candidate Starts for Navi1117\_51:

(Start: 5 @33598 has 5 MA's), (10, 33640), (24, 33841), (25, 33844), (31, 33874),

Gene: Phaila\_51 Start: 32979, Stop: 33320, Start Num: 5

Candidate Starts for Phaila\_51:

(Start: 5 @32979 has 5 MA's), (10, 33021), (24, 33222), (25, 33225), (31, 33255),

Gene: Powelldog\_50 Start: 32567, Stop: 32842, Start Num: 8

Candidate Starts for Powelldog\_50:

(8, 32567), (16, 32657),

Gene: ProfFrink\_45 Start: 31837, Stop: 32127, Start Num: 6

Candidate Starts for ProfFrink\_45:

(3, 31753), (4, 31810), (Start: 6 @31837 has 9 MA's), (13, 31891), (18, 31963), (22, 32056), (29, 32089),

Gene: Raunak\_48 Start: 31534, Stop: 31824, Start Num: 6

Candidate Starts for Raunak\_48:

(2, 31444), (3, 31450), (4, 31507), (Start: 6 @31534 has 9 MA's), (13, 31588), (18, 31660), (22, 31753), (29, 31786),

Gene: Renaldo\_53 Start: 34414, Stop: 34734, Start Num: 5

Candidate Starts for Renaldo\_53:

(Start: 5 @34414 has 5 MA's), (27, 34663),

Gene: RustyBoy\_45 Start: 31549, Stop: 31824, Start Num: 8

Candidate Starts for RustyBoy\_45:

(8, 31549), (13, 31594),

Gene: Sporto\_46 Start: 33334, Stop: 33609, Start Num: 6

Candidate Starts for Sporto\_46:

(Start: 6 @33334 has 9 MA's), (13, 33379), (23, 33547),

Gene: Tenney120\_50 Start: 33195, Stop: 33536, Start Num: 5

Candidate Starts for Tenney120\_50:

(Start: 5 @33195 has 5 MA's), (10, 33237), (24, 33438), (25, 33441), (31, 33471),

Gene: Tribby\_49 Start: 32243, Stop: 32566, Start Num: 6

Candidate Starts for Tribby\_49:

(Start: 6 @32243 has 9 MA's), (Start: 9 @32258 has 16 MA's), (11, 32279), (14, 32315), (20, 32411), (21, 32450), (27, 32480), (28, 32489), (30, 32501), (32, 32513),

Gene: TrixiePhattel\_49 Start: 32839, Stop: 33141, Start Num: 7

Candidate Starts for TrixiePhattel\_49:

(7, 32839), (28, 33088),

Gene: Uzumaki\_46 Start: 32889, Stop: 33236, Start Num: 5

Candidate Starts for Uzumaki\_46:

(Start: 5 @32889 has 5 MA's), (10, 32931), (24, 33132), (25, 33135), (31, 33165),

Gene: Xenomorph\_45 Start: 31991, Stop: 32299, Start Num: 9

Candidate Starts for Xenomorph\_45:

(1, 31826), (Start: 6 @31976 has 9 MA's), (Start: 9 @31991 has 16 MA's), (11, 32012), (14, 32048), (20, 32144), (21, 32183), (27, 32213), (28, 32222), (30, 32234), (32, 32246),

Gene: Zeina\_49 Start: 33207, Stop: 33545, Start Num: 5

Candidate Starts for Zeina\_49:

(Start: 5 @33207 has 5 MA's), (10, 33249), (24, 33450), (25, 33453),