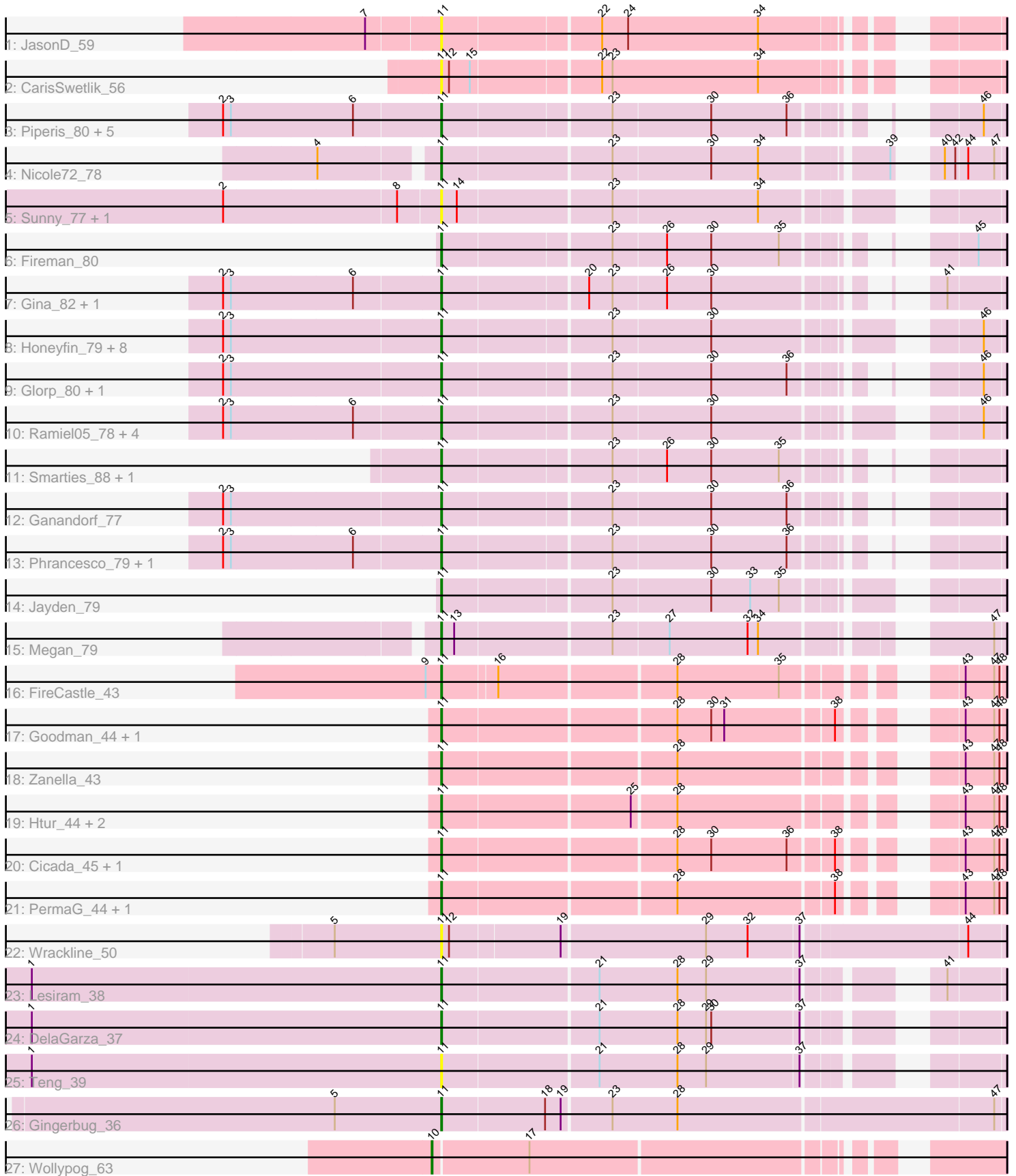


Pham 202989



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 202989 Report

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

Pham number 202989 has 54 members, 9 are drafts.

Phages represented in each track:

- Track 1 : JasonD\_59
- Track 2 : CarisSwetlik\_56
- Track 3 : Piperis\_80, Onika\_78, Jollipop\_80, Antares\_79, Busephilis\_78, Selwyn23\_80
- Track 4 : Nicole72\_78
- Track 5 : Sunny\_77, Merry\_77
- Track 6 : Fireman\_80
- Track 7 : Gina\_82, Teamocil\_82
- Track 8 : Honeyfin\_79, Hermeonysus\_79, Yeti\_80, Shotgun\_78, Cranjjs\_80, Jefe\_79, PiperSansNom\_80, Quhwah\_83, PierreOrion\_78
- Track 9 : Glorp\_80, Paschalis\_79
- Track 10 : Ramiel05\_78, Kowalski\_78, NoodlelyBoi\_79, Scumberland\_81, BrazzalePHS\_78
- Track 11 : Smarties\_88, Ariadne\_88
- Track 12 : Ganandorf\_77
- Track 13 : Phrancesco\_79, Phorgeous\_79
- Track 14 : Jayden\_79
- Track 15 : Megan\_79
- Track 16 : FireCastle\_43
- Track 17 : Goodman\_44, Johann\_44
- Track 18 : Zanella\_43
- Track 19 : Htur\_44, Rasovi\_44, Linayshia\_44
- Track 20 : Cicada\_45, SBlackberry\_43
- Track 21 : PermaG\_44, TurboVicky\_44
- Track 22 : Wrackline\_50
- Track 23 : Lesiram\_38
- Track 24 : DelaGarza\_37
- Track 25 : Teng\_39
- Track 26 : Gingerbug\_36
- Track 27 : Wollypog\_63

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

The start number called the most often in the published annotations is 11, it was called in 44 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares\_79, Ariadne\_88, BrazzalePHS\_78, Busephilis\_78, CarisSwetlik\_56, Cicada\_45, Cranjjs\_80, DelaGarza\_37, FireCastle\_43, Fireman\_80, Ganandorf\_77, Gina\_82, Gingerbug\_36, Glorp\_80, Goodman\_44, Hermeonysus\_79, Honeyfin\_79, Htur\_44, JasonD\_59, Jayden\_79, Jefe\_79, Johann\_44, Jollipop\_80, Kowalski\_78, Lesiram\_38, Linayshia\_44, Megan\_79, Merry\_77, Nicole72\_78, NoodlelyBoi\_79, Onika\_78, Paschalis\_79, PermaG\_44, Phorgeous\_79, Phrancesco\_79, PierreOrion\_78, PiperSansNom\_80, Piperis\_80, Quhwah\_83, Ramiel05\_78, Rasovi\_44, SBlackberry\_43, Scumberland\_81, Selwyn23\_80, Shotgun\_78, Smarties\_88, Sunny\_77, Teamocil\_82, Teng\_39, TurboVicky\_44, Wrackline\_50, Yeti\_80, Zanella\_43,

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

- 

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

- Wollypog\_63,

### Summary by start number:

Start 10:

- Found in 1 of 54 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog\_63 (singleton),

Start 11:

- Found in 53 of 54 ( 98.1% ) of genes in pham
- Manual Annotations of this start: 44 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares\_79 (EC), Ariadne\_88 (EC), BrazzalePHS\_78 (EC), Busephilis\_78 (EC), CarisSwetlik\_56 (EA1), Cicada\_45 (EJ), Cranjjs\_80 (EC), DelaGarza\_37 (GF), FireCastle\_43 (EJ), Fireman\_80 (EC), Ganandorf\_77 (EC), Gina\_82 (EC), Gingerbug\_36 (GF), Glorp\_80 (EC), Goodman\_44 (EJ), Hermeonysus\_79 (EC), Honeyfin\_79 (EC), Htur\_44 (EJ), JasonD\_59 (EA1), Jayden\_79 (EC), Jefe\_79 (EC), Johann\_44 (EJ), Jollipop\_80 (EC), Kowalski\_78 (EC), Lesiram\_38 (GF), Linayshia\_44 (EJ), Megan\_79 (EC), Merry\_77 (EC), Nicole72\_78 (EC), NoodlelyBoi\_79 (EC), Onika\_78 (EC), Paschalis\_79 (EC), PermaG\_44 (EJ), Phorgeous\_79 (EC), Phrancesco\_79 (EC), PierreOrion\_78 (EC), PiperSansNom\_80 (EC), Piperis\_80 (EC), Quhwah\_83 (EC), Ramiel05\_78 (EC), Rasovi\_44 (EJ), SBlackberry\_43 (EJ), Scumberland\_81 (EC), Selwyn23\_80 (EC), Shotgun\_78 (EC), Smarties\_88 (EC), Sunny\_77 (EC), Teamocil\_82 (EC), Teng\_39 (GF), TurboVicky\_44 (EJ), Wrackline\_50 (GF), Yeti\_80 (EC), Zanella\_43 (EJ),

### Summary by clusters:

There are 5 clusters represented in this pham: EA1, GF, singleton, EC, EJ,

Info for manual annotations of cluster EC:

- Start number 11 was manually annotated 31 times for cluster EC.

Info for manual annotations of cluster EJ:

- Start number 11 was manually annotated 10 times for cluster EJ.

Info for manual annotations of cluster GF:

- Start number 11 was manually annotated 3 times for cluster GF.

### **Gene Information:**

Gene: Antares\_79 Start: 46331, Stop: 46864, Start Num: 11

Candidate Starts for Antares\_79:

(2, 46088), (3, 46097), (6, 46235), (Start: 11 @46331 has 44 MA's), (23, 46517), (30, 46628), (36, 46715), (46, 46841),

Gene: Ariadne\_88 Start: 47215, Stop: 47748, Start Num: 11

Candidate Starts for Ariadne\_88:

(Start: 11 @47215 has 44 MA's), (23, 47401), (26, 47461), (30, 47512), (35, 47590),

Gene: BrazzalePHS\_78 Start: 46099, Stop: 46662, Start Num: 11

Candidate Starts for BrazzalePHS\_78:

(2, 45856), (3, 45865), (6, 46003), (Start: 11 @46099 has 44 MA's), (23, 46285), (30, 46396), (46, 46639),

Gene: Busephilis\_78 Start: 46038, Stop: 46571, Start Num: 11

Candidate Starts for Busephilis\_78:

(2, 45795), (3, 45804), (6, 45942), (Start: 11 @46038 has 44 MA's), (23, 46224), (30, 46335), (36, 46422), (46, 46548),

Gene: CarisSwetlik\_56 Start: 38442, Stop: 37879, Start Num: 11

Candidate Starts for CarisSwetlik\_56:

(Start: 11 @38442 has 44 MA's), (12, 38433), (15, 38409), (22, 38268), (23, 38256), (34, 38088),

Gene: Cicada\_45 Start: 28818, Stop: 29375, Start Num: 11

Candidate Starts for Cicada\_45:

(Start: 11 @28818 has 44 MA's), (28, 29076), (30, 29115), (36, 29202), (38, 29247), (43, 29331), (47, 29364), (48, 29370),

Gene: Cranjjs\_80 Start: 46292, Stop: 46855, Start Num: 11

Candidate Starts for Cranjjs\_80:

(2, 46049), (3, 46058), (Start: 11 @46292 has 44 MA's), (23, 46478), (30, 46589), (46, 46832),

Gene: DelaGarza\_37 Start: 24280, Stop: 23711, Start Num: 11

Candidate Starts for DelaGarza\_37:

(1, 24751), (Start: 11 @24280 has 44 MA's), (21, 24106), (28, 24016), (29, 23983), (30, 23977), (37, 23878),

Gene: FireCastle\_43 Start: 28548, Stop: 29102, Start Num: 11

Candidate Starts for FireCastle\_43:

(9, 28533), (Start: 11 @28548 has 44 MA's), (16, 28608), (28, 28803), (35, 28920), (43, 29058), (47, 29091), (48, 29097),

Gene: Fireman\_80 Start: 47379, Stop: 47912, Start Num: 11  
Candidate Starts for Fireman\_80:  
(Start: 11 @47379 has 44 MA's), (23, 47565), (26, 47625), (30, 47676), (35, 47754), (45, 47883),

Gene: Ganandorf\_77 Start: 45680, Stop: 46213, Start Num: 11  
Candidate Starts for Ganandorf\_77:  
(2, 45437), (3, 45446), (Start: 11 @45680 has 44 MA's), (23, 45866), (30, 45977), (36, 46064),

Gene: Gina\_82 Start: 45620, Stop: 46153, Start Num: 11  
Candidate Starts for Gina\_82:  
(2, 45377), (3, 45386), (6, 45524), (Start: 11 @45620 has 44 MA's), (20, 45779), (23, 45806), (26, 45866), (30, 45917), (41, 46091),

Gene: Gingerbug\_36 Start: 24786, Stop: 24157, Start Num: 11  
Candidate Starts for Gingerbug\_36:  
(5, 24909), (Start: 11 @24786 has 44 MA's), (18, 24669), (19, 24651), (23, 24597), (28, 24522), (47, 24168),

Gene: Glorp\_80 Start: 46083, Stop: 46616, Start Num: 11  
Candidate Starts for Glorp\_80:  
(2, 45840), (3, 45849), (Start: 11 @46083 has 44 MA's), (23, 46269), (30, 46380), (36, 46467), (46, 46593),

Gene: Goodman\_44 Start: 28588, Stop: 29145, Start Num: 11  
Candidate Starts for Goodman\_44:  
(Start: 11 @28588 has 44 MA's), (28, 28846), (30, 28885), (31, 28900), (38, 29017), (43, 29101), (47, 29134), (48, 29140),

Gene: Hermeonysus\_79 Start: 46007, Stop: 46570, Start Num: 11  
Candidate Starts for Hermeonysus\_79:  
(2, 45764), (3, 45773), (Start: 11 @46007 has 44 MA's), (23, 46193), (30, 46304), (46, 46547),

Gene: Honeyfin\_79 Start: 45840, Stop: 46403, Start Num: 11  
Candidate Starts for Honeyfin\_79:  
(2, 45597), (3, 45606), (Start: 11 @45840 has 44 MA's), (23, 46026), (30, 46137), (46, 46380),

Gene: Htur\_44 Start: 28989, Stop: 29546, Start Num: 11  
Candidate Starts for Htur\_44:  
(Start: 11 @28989 has 44 MA's), (25, 29199), (28, 29247), (43, 29502), (47, 29535), (48, 29541),

Gene: JasonD\_59 Start: 38474, Stop: 37911, Start Num: 11  
Candidate Starts for JasonD\_59:  
(7, 38552), (Start: 11 @38474 has 44 MA's), (22, 38300), (24, 38270), (34, 38120),

Gene: Jayden\_79 Start: 46047, Stop: 46610, Start Num: 11  
Candidate Starts for Jayden\_79:  
(Start: 11 @46047 has 44 MA's), (23, 46233), (30, 46344), (33, 46389), (35, 46422),

Gene: Jefe\_79 Start: 46068, Stop: 46631, Start Num: 11  
Candidate Starts for Jefe\_79:  
(2, 45825), (3, 45834), (Start: 11 @46068 has 44 MA's), (23, 46254), (30, 46365), (46, 46608),

Gene: Johann\_44 Start: 28588, Stop: 29145, Start Num: 11  
Candidate Starts for Johann\_44:  
(Start: 11 @28588 has 44 MA's), (28, 28846), (30, 28885), (31, 28900), (38, 29017), (43, 29101), (47, 29134), (48, 29140),

Gene: Jollipop\_80 Start: 46457, Stop: 46990, Start Num: 11  
Candidate Starts for Jollipop\_80:  
(2, 46214), (3, 46223), (6, 46361), (Start: 11 @46457 has 44 MA's), (23, 46643), (30, 46754), (36, 46841), (46, 46967),

Gene: Kowalski\_78 Start: 46094, Stop: 46657, Start Num: 11  
Candidate Starts for Kowalski\_78:  
(2, 45851), (3, 45860), (6, 45998), (Start: 11 @46094 has 44 MA's), (23, 46280), (30, 46391), (46, 46634),

Gene: Lesiram\_38 Start: 24252, Stop: 23683, Start Num: 11  
Candidate Starts for Lesiram\_38:  
(1, 24723), (Start: 11 @24252 has 44 MA's), (21, 24078), (28, 23988), (29, 23955), (37, 23850), (41, 23745),

Gene: Linayshia\_44 Start: 28957, Stop: 29514, Start Num: 11  
Candidate Starts for Linayshia\_44:  
(Start: 11 @28957 has 44 MA's), (25, 29167), (28, 29215), (43, 29470), (47, 29503), (48, 29509),

Gene: Megan\_79 Start: 50910, Stop: 51479, Start Num: 11  
Candidate Starts for Megan\_79:  
(Start: 11 @50910 has 44 MA's), (13, 50925), (23, 51099), (27, 51162), (32, 51252), (34, 51264), (47, 51468),

Gene: Merry\_77 Start: 46502, Stop: 47071, Start Num: 11  
Candidate Starts for Merry\_77:  
(2, 46262), (8, 46457), (Start: 11 @46502 has 44 MA's), (14, 46520), (23, 46691), (34, 46856),

Gene: Nicole72\_78 Start: 50493, Stop: 51062, Start Num: 11  
Candidate Starts for Nicole72\_78:  
(4, 50373), (Start: 11 @50493 has 44 MA's), (23, 50682), (30, 50793), (34, 50847), (39, 50976), (40, 50997), (42, 51009), (44, 51021), (47, 51051),

Gene: NoodlelyBoi\_79 Start: 46440, Stop: 47003, Start Num: 11  
Candidate Starts for NoodlelyBoi\_79:  
(2, 46197), (3, 46206), (6, 46344), (Start: 11 @46440 has 44 MA's), (23, 46626), (30, 46737), (46, 46980),

Gene: Onika\_78 Start: 46097, Stop: 46630, Start Num: 11  
Candidate Starts for Onika\_78:  
(2, 45854), (3, 45863), (6, 46001), (Start: 11 @46097 has 44 MA's), (23, 46283), (30, 46394), (36, 46481), (46, 46607),

Gene: Paschalis\_79 Start: 46122, Stop: 46655, Start Num: 11  
Candidate Starts for Paschalis\_79:  
(2, 45879), (3, 45888), (Start: 11 @46122 has 44 MA's), (23, 46308), (30, 46419), (36, 46506), (46, 46632),

Gene: PermaG\_44 Start: 28655, Stop: 29212, Start Num: 11  
Candidate Starts for PermaG\_44:  
(Start: 11 @28655 has 44 MA's), (28, 28913), (38, 29084), (43, 29168), (47, 29201), (48, 29207),

Gene: Phorgeous\_79 Start: 45917, Stop: 46450, Start Num: 11  
Candidate Starts for Phorgeous\_79:  
(2, 45674), (3, 45683), (6, 45821), (Start: 11 @45917 has 44 MA's), (23, 46103), (30, 46214), (36, 46301),

Gene: Phrancesco\_79 Start: 46228, Stop: 46761, Start Num: 11  
Candidate Starts for Phrancesco\_79:  
(2, 45985), (3, 45994), (6, 46132), (Start: 11 @46228 has 44 MA's), (23, 46414), (30, 46525), (36, 46612),

Gene: PierreOrion\_78 Start: 45907, Stop: 46470, Start Num: 11  
Candidate Starts for PierreOrion\_78:  
(2, 45664), (3, 45673), (Start: 11 @45907 has 44 MA's), (23, 46093), (30, 46204), (46, 46447),

Gene: PiperSansNom\_80 Start: 46407, Stop: 46970, Start Num: 11  
Candidate Starts for PiperSansNom\_80:  
(2, 46164), (3, 46173), (Start: 11 @46407 has 44 MA's), (23, 46593), (30, 46704), (46, 46947),

Gene: Piperis\_80 Start: 46030, Stop: 46563, Start Num: 11  
Candidate Starts for Piperis\_80:  
(2, 45787), (3, 45796), (6, 45934), (Start: 11 @46030 has 44 MA's), (23, 46216), (30, 46327), (36, 46414), (46, 46540),

Gene: Quhwah\_83 Start: 46721, Stop: 47284, Start Num: 11  
Candidate Starts for Quhwah\_83:  
(2, 46478), (3, 46487), (Start: 11 @46721 has 44 MA's), (23, 46907), (30, 47018), (46, 47261),

Gene: Ramiel05\_78 Start: 46094, Stop: 46657, Start Num: 11  
Candidate Starts for Ramiel05\_78:  
(2, 45851), (3, 45860), (6, 45998), (Start: 11 @46094 has 44 MA's), (23, 46280), (30, 46391), (46, 46634),

Gene: Rasovi\_44 Start: 28989, Stop: 29546, Start Num: 11  
Candidate Starts for Rasovi\_44:  
(Start: 11 @28989 has 44 MA's), (25, 29199), (28, 29247), (43, 29502), (47, 29535), (48, 29541),

Gene: SBlackberry\_43 Start: 28461, Stop: 29018, Start Num: 11  
Candidate Starts for SBlackberry\_43:  
(Start: 11 @28461 has 44 MA's), (28, 28719), (30, 28758), (36, 28845), (38, 28890), (43, 28974), (47, 29007), (48, 29013),

Gene: Scumberland\_81 Start: 46346, Stop: 46909, Start Num: 11  
Candidate Starts for Scumberland\_81:  
(2, 46103), (3, 46112), (6, 46250), (Start: 11 @46346 has 44 MA's), (23, 46532), (30, 46643), (46, 46886),

Gene: Selwyn23\_80 Start: 46257, Stop: 46790, Start Num: 11  
Candidate Starts for Selwyn23\_80:

(2, 46014), (3, 46023), (6, 46161), (Start: 11 @46257 has 44 MA's), (23, 46443), (30, 46554), (36, 46641), (46, 46767),

Gene: Shotgun\_78 Start: 45596, Stop: 46159, Start Num: 11

Candidate Starts for Shotgun\_78:

(2, 45353), (3, 45362), (Start: 11 @45596 has 44 MA's), (23, 45782), (30, 45893), (46, 46136),

Gene: Smarties\_88 Start: 47212, Stop: 47745, Start Num: 11

Candidate Starts for Smarties\_88:

(Start: 11 @47212 has 44 MA's), (23, 47398), (26, 47458), (30, 47509), (35, 47587),

Gene: Sunny\_77 Start: 46504, Stop: 47073, Start Num: 11

Candidate Starts for Sunny\_77:

(2, 46264), (8, 46459), (Start: 11 @46504 has 44 MA's), (14, 46522), (23, 46693), (34, 46858),

Gene: Teamocil\_82 Start: 45713, Stop: 46246, Start Num: 11

Candidate Starts for Teamocil\_82:

(2, 45470), (3, 45479), (6, 45617), (Start: 11 @45713 has 44 MA's), (20, 45872), (23, 45899), (26, 45959), (30, 46010), (41, 46184),

Gene: Teng\_39 Start: 24288, Stop: 23719, Start Num: 11

Candidate Starts for Teng\_39:

(1, 24759), (Start: 11 @24288 has 44 MA's), (21, 24114), (28, 24024), (29, 23991), (37, 23886),

Gene: TurboVicky\_44 Start: 28701, Stop: 29258, Start Num: 11

Candidate Starts for TurboVicky\_44:

(Start: 11 @28701 has 44 MA's), (28, 28959), (38, 29130), (43, 29214), (47, 29247), (48, 29253),

Gene: Wollypog\_63 Start: 47351, Stop: 47929, Start Num: 10

Candidate Starts for Wollypog\_63:

(Start: 10 @47351 has 1 MA's), (17, 47459),

Gene: Wrackline\_50 Start: 27845, Stop: 27225, Start Num: 11

Candidate Starts for Wrackline\_50:

(5, 27968), (Start: 11 @27845 has 44 MA's), (12, 27836), (19, 27713), (29, 27551), (32, 27503), (37, 27446), (44, 27266),

Gene: Yeti\_80 Start: 45628, Stop: 46191, Start Num: 11

Candidate Starts for Yeti\_80:

(2, 45385), (3, 45394), (Start: 11 @45628 has 44 MA's), (23, 45814), (30, 45925), (46, 46168),

Gene: Zanella\_43 Start: 28527, Stop: 29084, Start Num: 11

Candidate Starts for Zanella\_43:

(Start: 11 @28527 has 44 MA's), (28, 28785), (43, 29040), (47, 29073), (48, 29079),