



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 301204 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301204 has 115 members, 7 are drafts.

Phages represented in each track:

- Track 1 : HangryHippo\_48, Pepperwood\_48, Coogler\_48, Tribute\_46, Teutsch\_48, Peebs\_47, Sushi23\_48, EGole\_49, Cross\_48, BlueOtter\_48, PacManQ\_47, Scheme\_49, Watermoore\_48, Lululemon\_47, Samisti12\_48, Shuckle\_46, Cursive\_46, Leo04\_49
- Track 2 : NootNoot\_44, Liandry\_47, Eliot67\_45, Persimmon\_44, Squillium\_47, Davielle\_45, PinkiePie\_46, FreddyDRoo\_45, Braelyn\_47, WhereRU\_45, Paradiddles\_44
- Track 3 : LilSaint\_47
- Track 4 : Angela\_45, MulchMansion\_45, LilMartin\_45
- Track 5 : Navo\_46, Bartholomune\_46
- Track 6 : Jay2Jay\_53
- Track 7 : Marsus\_46
- Track 8 : Evy\_49
- Track 9 : Cadmus\_46, Daubenski\_49
- Track 10 : Bmoc\_46
- Track 11 : Targaryen\_49
- Track 12 : Larnav\_48
- Track 13 : Riptide\_45, Anedea\_46
- Track 14 : Mildred21\_46
- Track 15 : Warpy\_52
- Track 16 : SaltySpittoon\_50, AcciDwight\_54, Jollison\_49, TomSawyer\_48, Amabiko\_50, Wipeout\_48, Bordeaux\_48, Birchlyn\_47, Starbow\_48, Quaran19\_50, Spelly\_50, Battuta\_48
- Track 17 : MindFlayer\_48, PumpkinSpice\_49
- Track 18 : StarPlatinum\_50
- Track 19 : Karimac\_49, Brizzy\_49, IchabodCrane\_47, Spilled\_51
- Track 20 : AngryGiraffe\_49, Stanimal\_50, Genie2\_50, BoomerJR\_50, Sollertia\_50, Yaboi\_50
- Track 21 : JimJam\_50, Rikishi\_50, KentuckyRacer\_50, CeilingFan\_49, Gibbi\_54
- Track 22 : LukeCage\_49
- Track 23 : Wofford\_49, Elmer\_52
- Track 24 : Mugiwara\_49
- Track 25 : Tomas\_52
- Track 26 : Enygma\_47
- Track 27 : MeganTheeKilla\_27
- Track 28 : Forrest\_29, Jada\_27, DeluluLabubu\_27, Gilson\_29, Maupel\_29, Emma1919\_29

- Track 29 : Belfort\_27, Stigma\_26, Comrade\_26, SparkleGoddess\_26, Westy\_26, Karp\_25
- Track 30 : Patelgo\_26, Moab\_26
- Track 31 : Beuffert\_24
- Track 32 : Blueeyedbeauty\_27
- Track 33 : Sham\_23
- Track 34 : Annadreamy\_25, Limpid\_25
- Track 35 : Phredrick\_27, Kenrey\_29
- Track 36 : TunaTartare\_24
- Track 37 : SeresaTree\_25, Faust\_25
- Track 38 : Chaewon\_25
- Track 39 : BillNye\_21, Circinus\_23
- Track 40 : Wakanda\_21, Muntaha\_21
- Track 41 : Trina\_70
- Track 42 : NiceHouse\_58

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

The start number called the most often in the published annotations is 1, it was called in 75 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight\_54, Amabiko\_50, Anedea\_46, Angela\_45, AngryGiraffe\_49, Bartholomune\_46, Battuta\_48, Birchlyn\_47, BlueOtter\_48, Bmoc\_46, BoomerJR\_50, Bordeaux\_48, Braelyn\_47, Brizzy\_49, CeilingFan\_49, Coogler\_48, Cross\_48, Cursive\_46, Davielle\_45, EGole\_49, Eliot67\_45, Elmer\_52, Enygma\_47, Evy\_49, FreddyDRoo\_45, Genie2\_50, Gibbi\_54, HangryHippo\_48, IchabodCrane\_47, JimJam\_50, Jollison\_49, Karimac\_49, KentuckyRacer\_50, Larnav\_48, Leo04\_49, Liandry\_47, LilMartin\_45, LilSaint\_47, LukeCage\_49, Lululemon\_47, Marsus\_46, Mildred21\_46, MindFlayer\_48, Mugiwara\_49, MulchMansion\_45, Navo\_46, NootNoot\_44, PacManQ\_47, Paradiddles\_44, Peebs\_47, Pepperwood\_48, Persimmon\_44, PinkiePie\_46, PumpkinSpice\_49, Quarant19\_50, Rikishi\_50, Riptide\_45, SaltySpittoon\_50, Samisti12\_48, Scheme\_49, Shuckle\_46, Sollertia\_50, Spelly\_50, Spilled\_51, Squillium\_47, Stanimal\_50, StarPlatinum\_50, Starbow\_48, Sushi23\_48, Targaryen\_49, Teutsch\_48, TomSawyer\_48, Tribute\_46, Warpy\_52, Watermoore\_48, WhereRU\_45, Wipeout\_48, Wofford\_49, Yaboi\_50,

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

- 

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

- Annadreamy\_25, Belfort\_27, Beuffert\_24, BillNye\_21, Blueeyedbeauty\_27, Cadmus\_46, Chaewon\_25, Circinus\_23, Comrade\_26, Daubenski\_49, DeluluLabubu\_27, Emma1919\_29, Faust\_25, Forrest\_29, Gilson\_29, Jada\_27, Jay2Jay\_53, Karp\_25, Kenrey\_29, Limpid\_25, Maupel\_29, MeganTheeKilla\_27, Moab\_26, Muntaha\_21, NiceHouse\_58, Patelgo\_26, Phredrick\_27, SeresaTree\_25, Sham\_23, SparkleGoddess\_26, Stigma\_26, Tomas\_52, Trina\_70, TunaTartare\_24, Wakanda\_21, Westy\_26,

**Summary by start number:**

#### Start 1:

- Found in 79 of 115 ( 68.7% ) of genes in pham
- Manual Annotations of this start: 75 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AcciDwight\_54 (BE2), Amabiko\_50 (BE2), Anedeia\_46 (BE1), Angela\_45 (BE1), AngryGiraffe\_49 (BE2), Bartholomune\_46 (BE1), Battuta\_48 (BE2), Birchlyn\_47 (BE2), BlueOtter\_48 (BE1), Bmoc\_46 (BE1), BoomerJR\_50 (BE2), Bordeaux\_48 (BE2), Braelyn\_47 (BE1), Brizzy\_49 (BE2), CeilingFan\_49 (BE2), Coogler\_48 (BE1), Cross\_48 (BE1), Cursive\_46 (BE1), Davielle\_45 (BE1), EGole\_49 (BE1), Eliot67\_45 (BE1), Elmer\_52 (BE2), Enygma\_47 (BE2), Evy\_49 (BE1), FreddyDRoo\_45 (BE1), Genie2\_50 (BE2), Gibbi\_54 (BE2), HangryHippo\_48 (BE1), IchabodCrane\_47 (BE2), JimJam\_50 (BE2), Jollison\_49 (BE2), Karimac\_49 (BE2), KentuckyRacer\_50 (BE2), Larnav\_48 (BE1), Leo04\_49 (BE1), Liandry\_47 (BE1), LilMartin\_45 (BE1), LilSaint\_47 (BE1), LukeCage\_49 (BE2), Lululemon\_47 (BE1), Marsus\_46 (BE1), Mildred21\_46 (BE1), MindFlayer\_48 (BE2), Mugiwara\_49 (BE2), MulchMansion\_45 (BE1), Navo\_46 (BE1), NootNoot\_44 (BE1), PacManQ\_47 (BE1), Paradiddles\_44 (BE1), Peebs\_47 (BE1), Pepperwood\_48 (BE1), Persimmon\_44 (BE1), PinkiePie\_46 (BE1), PumpkinSpice\_49 (BE2), Quarant19\_50 (BE2), Rikishi\_50 (BE2), Riptide\_45 (BE1), SaltySpittoon\_50 (BE2), Samisti12\_48 (BE1), Scheme\_49 (BE1), Shuckle\_46 (BE1), Sollertia\_50 (BE2), Spelly\_50 (BE2), Spilled\_51 (BE2), Squillium\_47 (BE1), Stanimal\_50 (BE2), StarPlatinum\_50 (BE2), Starbow\_48 (BE2), Sushi23\_48 (BE1), Targaryen\_49 (BE1), Teutsch\_48 (BE1), TomSawyer\_48 (BE2), Tribute\_46 (BE1), Warpy\_52 (BE1), Watermoore\_48 (BE1), WhereRU\_45 (BE1), Wipeout\_48 (BE2), Wofford\_49 (BE2), Yaboi\_50 (BE2),

#### Start 2:

- Found in 5 of 115 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 5 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cadmus\_46 (BE1), Daubenski\_49 (BE1), Jay2Jay\_53 (BE1), Muntaha\_21 (BK2), Wakanda\_21 (BK2),

#### Start 3:

- Found in 24 of 115 ( 20.9% ) of genes in pham
- Manual Annotations of this start: 21 of 108
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Belfort\_27 (BK1), BillNye\_21 (BK2), Circinus\_23 (BK2), Comrade\_26 (BK1), DeluluLabubu\_27 (BK1), Emma1919\_29 (BK1), Faust\_25 (BK1), Forrest\_29 (BK1), Gilson\_29 (BK1), Jada\_27 (BK1), Karp\_25 (BK1), Kenrey\_29 (BK1), Maupel\_29 (BK1), MeganTheeKilla\_27 (BK1), Moab\_26 (BK1), Patelgo\_26 (BK1), Phredrick\_27 (BK1), SeresaTree\_25 (BK1), Sham\_23 (BK1), SparkleGoddess\_26 (BK1), Stigma\_26 (BK1), TunaTartare\_24 (BK1), Westy\_26 (BK1),

#### Start 4:

- Found in 9 of 115 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 5 of 108
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Annadreamy\_25 (BK1), Beuffert\_24 (BK1), Blueeyedbeauty\_27 (BK1), Limpid\_25 (BK1), Tomas\_52 (BE2),

Start 5:

- Found in 1 of 115 ( 0.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chaewon\_25 (BK2),

Start 6:

- Found in 3 of 115 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Trina\_70 (CE),

Start 7:

- Found in 1 of 115 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NiceHouse\_58 (CE),

**Summary by clusters:**

There are 5 clusters represented in this pham: BE2, BE1, CE, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 1 was manually annotated 42 times for cluster BE1.
- Start number 2 was manually annotated 3 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 1 was manually annotated 33 times for cluster BE2.
- Start number 4 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 3 was manually annotated 19 times for cluster BK1.
- Start number 4 was manually annotated 4 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 2 was manually annotated 2 times for cluster BK2.
- Start number 3 was manually annotated 2 times for cluster BK2.

Info for manual annotations of cluster CE:

- Start number 6 was manually annotated 1 time for cluster CE.
- Start number 7 was manually annotated 1 time for cluster CE.

**Gene Information:**

Gene: AcciDwight\_54 Start: 26237, Stop: 26695, Start Num: 1

Candidate Starts for AcciDwight\_54:

(Start: 1 @26237 has 75 MA's), (14, 26318), (17, 26336), (18, 26345), (26, 26399), (29, 26408), (36, 26441), (41, 26459), (47, 26495), (62, 26594), (65, 26630), (70, 26663),

Gene: Amabiko\_50 Start: 26282, Stop: 26740, Start Num: 1

Candidate Starts for Amabiko\_50:

(Start: 1 @26282 has 75 MA's), (14, 26363), (17, 26381), (18, 26390), (26, 26444), (29, 26453), (36, 26486), (41, 26504), (47, 26540), (62, 26639), (65, 26675), (70, 26708),

Gene: Anedea\_46 Start: 25815, Stop: 26279, Start Num: 1

Candidate Starts for Anedea\_46:

(Start: 1 @25815 has 75 MA's), (14, 25896), (17, 25914), (25, 25974), (26, 25977), (36, 26019), (47, 26073), (54, 26130), (58, 26151), (62, 26172), (63, 26175), (65, 26208), (70, 26241), (71, 26259),

Gene: Angela\_45 Start: 25295, Stop: 25759, Start Num: 1

Candidate Starts for Angela\_45:

(Start: 1 @25295 has 75 MA's), (14, 25376), (17, 25394), (18, 25403), (20, 25415), (25, 25454), (26, 25457), (36, 25499), (43, 25529), (49, 25568), (54, 25610), (62, 25652), (63, 25655), (70, 25721), (71, 25739),

Gene: AngryGiraffe\_49 Start: 26248, Stop: 26706, Start Num: 1

Candidate Starts for AngryGiraffe\_49:

(Start: 1 @26248 has 75 MA's), (14, 26329), (18, 26356), (26, 26410), (28, 26416), (35, 26446), (36, 26452), (41, 26470), (47, 26506), (62, 26605), (63, 26608), (65, 26641), (66, 26647), (70, 26674),

Gene: Annadreamy\_25 Start: 14698, Stop: 15129, Start Num: 4

Candidate Starts for Annadreamy\_25:

(Start: 4 @14698 has 5 MA's), (11, 14740), (35, 14896), (39, 14914), (41, 14920), (51, 14995), (53, 15004), (63, 15058),

Gene: Bartholomune\_46 Start: 25592, Stop: 26056, Start Num: 1

Candidate Starts for Bartholomune\_46:

(Start: 1 @25592 has 75 MA's), (11, 25637), (14, 25673), (18, 25700), (20, 25712), (26, 25754), (32, 25775), (33, 25778), (34, 25787), (36, 25796), (47, 25850), (51, 25889), (62, 25949), (65, 25985), (70, 26018), (71, 26036),

Gene: Battuta\_48 Start: 26256, Stop: 26714, Start Num: 1

Candidate Starts for Battuta\_48:

(Start: 1 @26256 has 75 MA's), (14, 26337), (17, 26355), (18, 26364), (26, 26418), (29, 26427), (36, 26460), (41, 26478), (47, 26514), (62, 26613), (65, 26649), (70, 26682),

Gene: Belfort\_27 Start: 15390, Stop: 15848, Start Num: 3

Candidate Starts for Belfort\_27:

(Start: 3 @15390 has 21 MA's), (11, 15435), (17, 15489), (18, 15498), (30, 15567), (35, 15591), (36, 15597), (41, 15615), (61, 15747), (63, 15753), (65, 15786), (70, 15816),

Gene: Beuffert\_24 Start: 14382, Stop: 14813, Start Num: 4

Candidate Starts for Beuffert\_24:

(Start: 4 @14382 has 5 MA's), (11, 14424), (35, 14580), (41, 14604), (51, 14679), (53, 14688), (63, 14742),

Gene: BillNye\_21 Start: 15104, Stop: 15553, Start Num: 3

Candidate Starts for BillNye\_21:

(Start: 3 @15104 has 21 MA's), (Start: 6 @15113 has 1 MA's), (11, 15149), (16, 15200), (17, 15203), (22, 15239), (26, 15269), (36, 15311), (41, 15329), (51, 15404), (61, 15461), (68, 15506), (70, 15521),

Gene: Birchlyn\_47 Start: 24139, Stop: 24597, Start Num: 1

Candidate Starts for Birchlyn\_47:

(Start: 1 @24139 has 75 MA's), (14, 24220), (17, 24238), (18, 24247), (26, 24301), (29, 24310), (36, 24343), (41, 24361), (47, 24397), (62, 24496), (65, 24532), (70, 24565),

Gene: BlueOtter\_48 Start: 26945, Stop: 27409, Start Num: 1

Candidate Starts for BlueOtter\_48:

(Start: 1 @26945 has 75 MA's), (8, 26978), (11, 26990), (14, 27026), (18, 27053), (25, 27104), (26, 27107), (33, 27131), (36, 27149), (41, 27167), (43, 27179), (46, 27191), (47, 27203), (55, 27263), (62, 27302), (70, 27371), (71, 27389),

Gene: Blueeyedbeauty\_27 Start: 15192, Stop: 15623, Start Num: 4

Candidate Starts for Blueeyedbeauty\_27:

(Start: 4 @15192 has 5 MA's), (11, 15234), (35, 15390), (36, 15396), (41, 15414), (50, 15486), (53, 15498), (63, 15552),

Gene: Bmoc\_46 Start: 25600, Stop: 26064, Start Num: 1

Candidate Starts for Bmoc\_46:

(Start: 1 @25600 has 75 MA's), (14, 25681), (17, 25699), (20, 25720), (25, 25759), (26, 25762), (36, 25804), (47, 25858), (54, 25915), (62, 25957), (64, 25981), (65, 25993), (70, 26026), (71, 26044),

Gene: BoomerJR\_50 Start: 26137, Stop: 26595, Start Num: 1

Candidate Starts for BoomerJR\_50:

(Start: 1 @26137 has 75 MA's), (14, 26218), (18, 26245), (26, 26299), (28, 26305), (35, 26335), (36, 26341), (41, 26359), (47, 26395), (62, 26494), (63, 26497), (65, 26530), (66, 26536), (70, 26563),

Gene: Bordeaux\_48 Start: 26411, Stop: 26869, Start Num: 1

Candidate Starts for Bordeaux\_48:

(Start: 1 @26411 has 75 MA's), (14, 26492), (17, 26510), (18, 26519), (26, 26573), (29, 26582), (36, 26615), (41, 26633), (47, 26669), (62, 26768), (65, 26804), (70, 26837),

Gene: Braelyn\_47 Start: 26359, Stop: 26823, Start Num: 1

Candidate Starts for Braelyn\_47:

(Start: 1 @26359 has 75 MA's), (11, 26404), (14, 26440), (18, 26467), (20, 26479), (26, 26521), (33, 26545), (36, 26563), (47, 26617), (51, 26656), (62, 26716), (65, 26752), (70, 26785), (71, 26803),

Gene: Brizzy\_49 Start: 25930, Stop: 26388, Start Num: 1

Candidate Starts for Brizzy\_49:

(Start: 1 @25930 has 75 MA's), (14, 26011), (17, 26029), (18, 26038), (26, 26092), (29, 26101), (36, 26134), (41, 26152), (62, 26287), (65, 26323), (70, 26356),

Gene: Cadmus\_46 Start: 25939, Stop: 26400, Start Num: 2

Candidate Starts for Cadmus\_46:

(Start: 2 @25939 has 5 MA's), (14, 26017), (17, 26035), (18, 26044), (23, 26074), (26, 26098), (36, 26140), (41, 26158), (45, 26179), (58, 26272), (62, 26293), (70, 26362),

Gene: CeilingFan\_49 Start: 26171, Stop: 26629, Start Num: 1

Candidate Starts for CeilingFan\_49:

(Start: 1 @26171 has 75 MA's), (14, 26252), (17, 26270), (18, 26279), (26, 26333), (29, 26342), (32, 26354), (35, 26369), (36, 26375), (41, 26393), (62, 26528), (64, 26552), (65, 26564), (70, 26597),

Gene: Chaewon\_25 Start: 14888, Stop: 15334, Start Num: 5

Candidate Starts for Chaewon\_25:

(Start: 3 @14882 has 21 MA's), (5, 14888), (16, 14975), (26, 15044), (37, 15089), (40, 15101), (41, 15104), (44, 15119), (50, 15176), (65, 15275), (67, 15281), (70, 15302),

Gene: Circinus\_23 Start: 15240, Stop: 15689, Start Num: 3

Candidate Starts for Circinus\_23:

(Start: 3 @15240 has 21 MA's), (Start: 6 @15249 has 1 MA's), (11, 15285), (16, 15336), (17, 15339), (22, 15375), (26, 15405), (36, 15447), (41, 15465), (51, 15540), (61, 15597), (68, 15642), (70, 15657),

Gene: Comrade\_26 Start: 15005, Stop: 15463, Start Num: 3

Candidate Starts for Comrade\_26:

(Start: 3 @15005 has 21 MA's), (11, 15050), (17, 15104), (18, 15113), (30, 15182), (35, 15206), (36, 15212), (41, 15230), (61, 15362), (63, 15368), (65, 15401), (70, 15431),

Gene: Coogler\_48 Start: 26971, Stop: 27435, Start Num: 1

Candidate Starts for Coogler\_48:

(Start: 1 @26971 has 75 MA's), (8, 27004), (11, 27016), (14, 27052), (18, 27079), (25, 27130), (26, 27133), (33, 27157), (36, 27175), (41, 27193), (43, 27205), (46, 27217), (47, 27229), (55, 27289), (62, 27328), (70, 27397), (71, 27415),

Gene: Cross\_48 Start: 26946, Stop: 27410, Start Num: 1

Candidate Starts for Cross\_48:

(Start: 1 @26946 has 75 MA's), (8, 26979), (11, 26991), (14, 27027), (18, 27054), (25, 27105), (26, 27108), (33, 27132), (36, 27150), (41, 27168), (43, 27180), (46, 27192), (47, 27204), (55, 27264), (62, 27303), (70, 27372), (71, 27390),

Gene: Cursive\_46 Start: 26471, Stop: 26935, Start Num: 1

Candidate Starts for Cursive\_46:

(Start: 1 @26471 has 75 MA's), (8, 26504), (11, 26516), (14, 26552), (18, 26579), (25, 26630), (26, 26633), (33, 26657), (36, 26675), (41, 26693), (43, 26705), (46, 26717), (47, 26729), (55, 26789), (62, 26828), (70, 26897), (71, 26915),

Gene: Daubenski\_49 Start: 26703, Stop: 27164, Start Num: 2

Candidate Starts for Daubenski\_49:

(Start: 2 @26703 has 5 MA's), (14, 26781), (17, 26799), (18, 26808), (23, 26838), (26, 26862), (36, 26904), (41, 26922), (45, 26943), (58, 27036), (62, 27057), (70, 27126),

Gene: Davielle\_45 Start: 25776, Stop: 26240, Start Num: 1

Candidate Starts for Davielle\_45:

(Start: 1 @25776 has 75 MA's), (11, 25821), (14, 25857), (18, 25884), (20, 25896), (26, 25938), (33, 25962), (36, 25980), (47, 26034), (51, 26073), (62, 26133), (65, 26169), (70, 26202), (71, 26220),

Gene: DeluluLabubu\_27 Start: 14915, Stop: 15373, Start Num: 3

Candidate Starts for DeluluLabubu\_27:

(Start: 3 @14915 has 21 MA's), (11, 14960), (18, 15023), (22, 15050), (26, 15080), (35, 15116), (36, 15122), (41, 15140), (53, 15224), (63, 15278), (65, 15311), (70, 15341),

Gene: EGole\_49 Start: 27850, Stop: 28314, Start Num: 1

Candidate Starts for EGole\_49:

(Start: 1 @27850 has 75 MA's), (8, 27883), (11, 27895), (14, 27931), (18, 27958), (25, 28009), (26, 28012), (33, 28036), (36, 28054), (41, 28072), (43, 28084), (46, 28096), (47, 28108), (55, 28168), (62, 28207), (70, 28276), (71, 28294),

Gene: Eliot67\_45 Start: 25589, Stop: 26053, Start Num: 1

Candidate Starts for Eliot67\_45:

(Start: 1 @25589 has 75 MA's), (11, 25634), (14, 25670), (18, 25697), (20, 25709), (26, 25751), (33, 25775), (36, 25793), (47, 25847), (51, 25886), (62, 25946), (65, 25982), (70, 26015), (71, 26033),

Gene: Elmer\_52 Start: 27319, Stop: 27777, Start Num: 1

Candidate Starts for Elmer\_52:

(Start: 1 @27319 has 75 MA's), (14, 27400), (18, 27427), (26, 27481), (35, 27517), (36, 27523), (41, 27541), (43, 27553), (47, 27577), (55, 27637), (61, 27673), (62, 27676), (65, 27712), (70, 27745),

Gene: Emma1919\_29 Start: 15610, Stop: 16068, Start Num: 3

Candidate Starts for Emma1919\_29:

(Start: 3 @15610 has 21 MA's), (11, 15655), (18, 15718), (22, 15745), (26, 15775), (35, 15811), (36, 15817), (41, 15835), (53, 15919), (63, 15973), (65, 16006), (70, 16036),

Gene: Enygma\_47 Start: 26232, Stop: 26690, Start Num: 1

Candidate Starts for Enygma\_47:

(Start: 1 @26232 has 75 MA's), (14, 26313), (18, 26340), (26, 26394), (32, 26415), (36, 26436), (39, 26448), (41, 26454), (62, 26589), (65, 26625), (70, 26658),

Gene: Evy\_49 Start: 26954, Stop: 27418, Start Num: 1

Candidate Starts for Evy\_49:

(Start: 1 @26954 has 75 MA's), (14, 27035), (18, 27062), (25, 27113), (26, 27116), (33, 27140), (36, 27158), (47, 27212), (51, 27251), (52, 27254), (54, 27269), (62, 27311), (70, 27380), (71, 27398),

Gene: Faust\_25 Start: 14850, Stop: 15284, Start Num: 3

Candidate Starts for Faust\_25:

(Start: 3 @14850 has 21 MA's), (Start: 4 @14853 has 5 MA's), (9, 14883), (11, 14895), (14, 14931), (15, 14937), (35, 15051), (36, 15057), (41, 15075), (53, 15159), (63, 15213),

Gene: Forrest\_29 Start: 15733, Stop: 16191, Start Num: 3

Candidate Starts for Forrest\_29:

(Start: 3 @15733 has 21 MA's), (11, 15778), (18, 15841), (22, 15868), (26, 15898), (35, 15934), (36, 15940), (41, 15958), (53, 16042), (63, 16096), (65, 16129), (70, 16159),

Gene: FreddyDRoo\_45 Start: 25589, Stop: 26053, Start Num: 1

Candidate Starts for FreddyDRoo\_45:

(Start: 1 @25589 has 75 MA's), (11, 25634), (14, 25670), (18, 25697), (20, 25709), (26, 25751), (33, 25775), (36, 25793), (47, 25847), (51, 25886), (62, 25946), (65, 25982), (70, 26015), (71, 26033),

Gene: Genie2\_50 Start: 26251, Stop: 26709, Start Num: 1

Candidate Starts for Genie2\_50:

(Start: 1 @26251 has 75 MA's), (14, 26332), (18, 26359), (26, 26413), (28, 26419), (35, 26449), (36, 26455), (41, 26473), (47, 26509), (62, 26608), (63, 26611), (65, 26644), (66, 26650), (70, 26677),

Gene: Gibbi\_54 Start: 26394, Stop: 26852, Start Num: 1

Candidate Starts for Gibbi\_54:

(Start: 1 @26394 has 75 MA's), (14, 26475), (17, 26493), (18, 26502), (26, 26556), (29, 26565), (32, 26577), (35, 26592), (36, 26598), (41, 26616), (62, 26751), (64, 26775), (65, 26787), (70, 26820),

Gene: Gilson\_29 Start: 15563, Stop: 16021, Start Num: 3

Candidate Starts for Gilson\_29:

(Start: 3 @15563 has 21 MA's), (11, 15608), (18, 15671), (22, 15698), (26, 15728), (35, 15764), (36, 15770), (41, 15788), (53, 15872), (63, 15926), (65, 15959), (70, 15989),

Gene: HangryHippo\_48 Start: 26945, Stop: 27409, Start Num: 1

Candidate Starts for HangryHippo\_48:

(Start: 1 @26945 has 75 MA's), (8, 26978), (11, 26990), (14, 27026), (18, 27053), (25, 27104), (26, 27107), (33, 27131), (36, 27149), (41, 27167), (43, 27179), (46, 27191), (47, 27203), (55, 27263), (62, 27302), (70, 27371), (71, 27389),

Gene: IchabodCrane\_47 Start: 25983, Stop: 26441, Start Num: 1

Candidate Starts for IchabodCrane\_47:

(Start: 1 @25983 has 75 MA's), (14, 26064), (17, 26082), (18, 26091), (26, 26145), (29, 26154), (36, 26187), (41, 26205), (62, 26340), (65, 26376), (70, 26409),

Gene: Jada\_27 Start: 14915, Stop: 15373, Start Num: 3

Candidate Starts for Jada\_27:

(Start: 3 @14915 has 21 MA's), (11, 14960), (18, 15023), (22, 15050), (26, 15080), (35, 15116), (36, 15122), (41, 15140), (53, 15224), (63, 15278), (65, 15311), (70, 15341),

Gene: Jay2Jay\_53 Start: 27777, Stop: 28226, Start Num: 2

Candidate Starts for Jay2Jay\_53:

(Start: 2 @27777 has 5 MA's), (14, 27855), (18, 27882), (26, 27936), (27, 27939), (36, 27978), (47, 28032), (55, 28092), (62, 28131), (65, 28167), (70, 28188),

Gene: JimJam\_50 Start: 26357, Stop: 26815, Start Num: 1

Candidate Starts for JimJam\_50:

(Start: 1 @26357 has 75 MA's), (14, 26438), (17, 26456), (18, 26465), (26, 26519), (29, 26528), (32, 26540), (35, 26555), (36, 26561), (41, 26579), (62, 26714), (64, 26738), (65, 26750), (70, 26783),

Gene: Jollison\_49 Start: 26239, Stop: 26697, Start Num: 1

Candidate Starts for Jollison\_49:

(Start: 1 @26239 has 75 MA's), (14, 26320), (17, 26338), (18, 26347), (26, 26401), (29, 26410), (36, 26443), (41, 26461), (47, 26497), (62, 26596), (65, 26632), (70, 26665),

Gene: Karimac\_49 Start: 26388, Stop: 26846, Start Num: 1

Candidate Starts for Karimac\_49:

(Start: 1 @26388 has 75 MA's), (14, 26469), (17, 26487), (18, 26496), (26, 26550), (29, 26559), (36, 26592), (41, 26610), (62, 26745), (65, 26781), (70, 26814),

Gene: Karp\_25 Start: 14606, Stop: 15064, Start Num: 3

Candidate Starts for Karp\_25:

(Start: 3 @14606 has 21 MA's), (11, 14651), (17, 14705), (18, 14714), (30, 14783), (35, 14807), (36, 14813), (41, 14831), (61, 14963), (63, 14969), (65, 15002), (70, 15032),

Gene: Kenrey\_29 Start: 15612, Stop: 16070, Start Num: 3

Candidate Starts for Kenrey\_29:

(Start: 3 @15612 has 21 MA's), (11, 15657), (15, 15699), (18, 15720), (22, 15747), (26, 15777), (35, 15813), (36, 15819), (41, 15837), (53, 15921), (63, 15975), (65, 16008), (70, 16038),

Gene: KentuckyRacer\_50 Start: 26172, Stop: 26630, Start Num: 1

Candidate Starts for KentuckyRacer\_50:

(Start: 1 @26172 has 75 MA's), (14, 26253), (17, 26271), (18, 26280), (26, 26334), (29, 26343), (32, 26355), (35, 26370), (36, 26376), (41, 26394), (62, 26529), (64, 26553), (65, 26565), (70, 26598),

Gene: Larnav\_48 Start: 26930, Stop: 27394, Start Num: 1

Candidate Starts for Larnav\_48:

(Start: 1 @26930 has 75 MA's), (8, 26963), (11, 26975), (14, 27011), (18, 27038), (25, 27089), (26, 27092), (33, 27116), (36, 27134), (41, 27152), (43, 27164), (47, 27188), (55, 27248), (62, 27287), (70, 27356), (71, 27374),

Gene: Leo04\_49 Start: 27445, Stop: 27909, Start Num: 1

Candidate Starts for Leo04\_49:

(Start: 1 @27445 has 75 MA's), (8, 27478), (11, 27490), (14, 27526), (18, 27553), (25, 27604), (26, 27607), (33, 27631), (36, 27649), (41, 27667), (43, 27679), (46, 27691), (47, 27703), (55, 27763), (62, 27802), (70, 27871), (71, 27889),

Gene: Liandry\_47 Start: 26296, Stop: 26760, Start Num: 1

Candidate Starts for Liandry\_47:

(Start: 1 @26296 has 75 MA's), (11, 26341), (14, 26377), (18, 26404), (20, 26416), (26, 26458), (33, 26482), (36, 26500), (47, 26554), (51, 26593), (62, 26653), (65, 26689), (70, 26722), (71, 26740),

Gene: LilMartin\_45 Start: 25243, Stop: 25707, Start Num: 1

Candidate Starts for LilMartin\_45:

(Start: 1 @25243 has 75 MA's), (14, 25324), (17, 25342), (18, 25351), (20, 25363), (25, 25402), (26, 25405), (36, 25447), (43, 25477), (49, 25516), (54, 25558), (62, 25600), (63, 25603), (70, 25669), (71, 25687),

Gene: LilSaint\_47 Start: 25487, Stop: 25951, Start Num: 1

Candidate Starts for LilSaint\_47:

(Start: 1 @25487 has 75 MA's), (14, 25568), (17, 25586), (19, 25601), (25, 25646), (26, 25649), (36, 25691), (47, 25745), (54, 25802), (58, 25823), (62, 25844), (65, 25880), (70, 25913), (71, 25931),

Gene: Limpid\_25 Start: 14697, Stop: 15128, Start Num: 4

Candidate Starts for Limpid\_25:

(Start: 4 @14697 has 5 MA's), (11, 14739), (35, 14895), (39, 14913), (41, 14919), (51, 14994), (53, 15003), (63, 15057),

Gene: LukeCage\_49 Start: 26136, Stop: 26594, Start Num: 1

Candidate Starts for LukeCage\_49:

(Start: 1 @26136 has 75 MA's), (14, 26217), (18, 26244), (26, 26298), (29, 26307), (32, 26319), (33, 26322), (35, 26334), (36, 26340), (41, 26358), (47, 26394), (62, 26493), (65, 26529), (70, 26562),

Gene: Lululemon\_47 Start: 26326, Stop: 26790, Start Num: 1

Candidate Starts for Lululemon\_47:

(Start: 1 @26326 has 75 MA's), (8, 26359), (11, 26371), (14, 26407), (18, 26434), (25, 26485), (26, 26488), (33, 26512), (36, 26530), (41, 26548), (43, 26560), (46, 26572), (47, 26584), (55, 26644), (62, 26683), (70, 26752), (71, 26770),

Gene: Marsus\_46 Start: 25515, Stop: 25979, Start Num: 1

Candidate Starts for Marsus\_46:

(Start: 1 @25515 has 75 MA's), (14, 25596), (17, 25614), (18, 25623), (20, 25635), (25, 25674), (26, 25677), (36, 25719), (40, 25734), (41, 25737), (43, 25749), (47, 25773), (54, 25830), (62, 25872), (70, 25941), (71, 25959),

Gene: Maupel\_29 Start: 15563, Stop: 16021, Start Num: 3

Candidate Starts for Maupel\_29:

(Start: 3 @15563 has 21 MA's), (11, 15608), (18, 15671), (22, 15698), (26, 15728), (35, 15764), (36, 15770), (41, 15788), (53, 15872), (63, 15926), (65, 15959), (70, 15989),

Gene: MeganTheeKilla\_27 Start: 14924, Stop: 15382, Start Num: 3

Candidate Starts for MeganTheeKilla\_27:

(Start: 3 @14924 has 21 MA's), (11, 14969), (22, 15059), (26, 15089), (35, 15125), (36, 15131), (41, 15149), (53, 15233), (63, 15287), (65, 15320), (70, 15350),

Gene: Mildred21\_46 Start: 25428, Stop: 25892, Start Num: 1

Candidate Starts for Mildred21\_46:

(Start: 1 @25428 has 75 MA's), (11, 25473), (14, 25509), (18, 25536), (20, 25548), (25, 25587), (26, 25590), (36, 25632), (47, 25686), (54, 25743), (62, 25785), (70, 25854), (71, 25872),

Gene: MindFlayer\_48 Start: 25890, Stop: 26348, Start Num: 1

Candidate Starts for MindFlayer\_48:

(Start: 1 @25890 has 75 MA's), (14, 25971), (17, 25989), (18, 25998), (26, 26052), (29, 26061), (32, 26073), (35, 26088), (36, 26094), (41, 26112), (62, 26247), (65, 26283), (70, 26316),

Gene: Moab\_26 Start: 14949, Stop: 15407, Start Num: 3

Candidate Starts for Moab\_26:

(Start: 3 @14949 has 21 MA's), (9, 14982), (10, 14988), (11, 14994), (18, 15057), (22, 15084), (36, 15156), (41, 15174), (47, 15210), (63, 15312), (65, 15345), (70, 15375),

Gene: Mugiwara\_49 Start: 26635, Stop: 27093, Start Num: 1

Candidate Starts for Mugiwara\_49:

(Start: 1 @26635 has 75 MA's), (14, 26716), (17, 26734), (18, 26743), (26, 26797), (36, 26839), (39, 26851), (41, 26857), (62, 26992), (64, 27016), (65, 27028), (70, 27061),

Gene: MulchMansion\_45 Start: 25243, Stop: 25707, Start Num: 1

Candidate Starts for MulchMansion\_45:

(Start: 1 @25243 has 75 MA's), (14, 25324), (17, 25342), (18, 25351), (20, 25363), (25, 25402), (26, 25405), (36, 25447), (43, 25477), (49, 25516), (54, 25558), (62, 25600), (63, 25603), (70, 25669), (71, 25687),

Gene: Muntaha\_21 Start: 14529, Stop: 14978, Start Num: 2

Candidate Starts for Muntaha\_21:

(Start: 2 @14529 has 5 MA's), (9, 14562), (16, 14625), (26, 14694), (35, 14730), (38, 14742), (41, 14754), (57, 14862), (63, 14892), (68, 14931), (70, 14946),

Gene: Navo\_46 Start: 26254, Stop: 26718, Start Num: 1

Candidate Starts for Navo\_46:

(Start: 1 @26254 has 75 MA's), (11, 26299), (14, 26335), (18, 26362), (20, 26374), (26, 26416), (32, 26437), (33, 26440), (34, 26449), (36, 26458), (47, 26512), (51, 26551), (62, 26611), (65, 26647), (70, 26680), (71, 26698),

Gene: NiceHouse\_58 Start: 32121, Stop: 32525, Start Num: 7

Candidate Starts for NiceHouse\_58:

(Start: 7 @32121 has 1 MA's), (9, 32136), (12, 32178), (13, 32181), (14, 32184), (21, 32223), (24, 32244), (29, 32262), (31, 32268), (33, 32277), (36, 32295), (38, 32301), (48, 32361), (52, 32391), (54, 32406), (56, 32418), (59, 32439), (60, 32442), (65, 32484),

Gene: NootNoot\_44 Start: 25210, Stop: 25674, Start Num: 1

Candidate Starts for NootNoot\_44:

(Start: 1 @25210 has 75 MA's), (11, 25255), (14, 25291), (18, 25318), (20, 25330), (26, 25372), (33, 25396), (36, 25414), (47, 25468), (51, 25507), (62, 25567), (65, 25603), (70, 25636), (71, 25654),

Gene: PacManQ\_47 Start: 26326, Stop: 26790, Start Num: 1

Candidate Starts for PacManQ\_47:

(Start: 1 @26326 has 75 MA's), (8, 26359), (11, 26371), (14, 26407), (18, 26434), (25, 26485), (26, 26488), (33, 26512), (36, 26530), (41, 26548), (43, 26560), (46, 26572), (47, 26584), (55, 26644), (62, 26683), (70, 26752), (71, 26770),

Gene: Paradiddles\_44 Start: 25471, Stop: 25935, Start Num: 1

Candidate Starts for Paradiddles\_44:

(Start: 1 @25471 has 75 MA's), (11, 25516), (14, 25552), (18, 25579), (20, 25591), (26, 25633), (33, 25657), (36, 25675), (47, 25729), (51, 25768), (62, 25828), (65, 25864), (70, 25897), (71, 25915),

Gene: Patelgo\_26 Start: 14563, Stop: 15021, Start Num: 3

Candidate Starts for Patelgo\_26:

(Start: 3 @14563 has 21 MA's), (9, 14596), (10, 14602), (11, 14608), (18, 14671), (22, 14698), (36, 14770), (41, 14788), (47, 14824), (63, 14926), (65, 14959), (70, 14989),

Gene: Peebs\_47 Start: 26683, Stop: 27147, Start Num: 1

Candidate Starts for Peebs\_47:

(Start: 1 @26683 has 75 MA's), (8, 26716), (11, 26728), (14, 26764), (18, 26791), (25, 26842), (26, 26845), (33, 26869), (36, 26887), (41, 26905), (43, 26917), (46, 26929), (47, 26941), (55, 27001), (62, 27040), (70, 27109), (71, 27127),

Gene: Pepperwood\_48 Start: 26816, Stop: 27280, Start Num: 1

Candidate Starts for Pepperwood\_48:

(Start: 1 @26816 has 75 MA's), (8, 26849), (11, 26861), (14, 26897), (18, 26924), (25, 26975), (26, 26978), (33, 27002), (36, 27020), (41, 27038), (43, 27050), (46, 27062), (47, 27074), (55, 27134), (62, 27173), (70, 27242), (71, 27260),

Gene: Persimmon\_44 Start: 25185, Stop: 25649, Start Num: 1

Candidate Starts for Persimmon\_44:

(Start: 1 @25185 has 75 MA's), (11, 25230), (14, 25266), (18, 25293), (20, 25305), (26, 25347), (33, 25371), (36, 25389), (47, 25443), (51, 25482), (62, 25542), (65, 25578), (70, 25611), (71, 25629),

Gene: Phredrick\_27 Start: 14818, Stop: 15276, Start Num: 3

Candidate Starts for Phredrick\_27:

(Start: 3 @14818 has 21 MA's), (11, 14863), (15, 14905), (18, 14926), (22, 14953), (26, 14983), (35, 15019), (36, 15025), (41, 15043), (53, 15127), (63, 15181), (65, 15214), (70, 15244),

Gene: PinkiePie\_46 Start: 26296, Stop: 26760, Start Num: 1

Candidate Starts for PinkiePie\_46:

(Start: 1 @26296 has 75 MA's), (11, 26341), (14, 26377), (18, 26404), (20, 26416), (26, 26458), (33, 26482), (36, 26500), (47, 26554), (51, 26593), (62, 26653), (65, 26689), (70, 26722), (71, 26740),

Gene: PumpkinSpice\_49 Start: 26282, Stop: 26740, Start Num: 1

Candidate Starts for PumpkinSpice\_49:

(Start: 1 @26282 has 75 MA's), (14, 26363), (17, 26381), (18, 26390), (26, 26444), (29, 26453), (32, 26465), (35, 26480), (36, 26486), (41, 26504), (62, 26639), (65, 26675), (70, 26708),

Gene: Quaran19\_50 Start: 26273, Stop: 26731, Start Num: 1

Candidate Starts for Quaran19\_50:

(Start: 1 @26273 has 75 MA's), (14, 26354), (17, 26372), (18, 26381), (26, 26435), (29, 26444), (36, 26477), (41, 26495), (47, 26531), (62, 26630), (65, 26666), (70, 26699),

Gene: Rikishi\_50 Start: 26188, Stop: 26646, Start Num: 1

Candidate Starts for Rikishi\_50:

(Start: 1 @26188 has 75 MA's), (14, 26269), (17, 26287), (18, 26296), (26, 26350), (29, 26359), (32, 26371), (35, 26386), (36, 26392), (41, 26410), (62, 26545), (64, 26569), (65, 26581), (70, 26614),

Gene: Riptide\_45 Start: 25036, Stop: 25500, Start Num: 1

Candidate Starts for Riptide\_45:

(Start: 1 @25036 has 75 MA's), (14, 25117), (17, 25135), (25, 25195), (26, 25198), (36, 25240), (47, 25294), (54, 25351), (58, 25372), (62, 25393), (63, 25396), (65, 25429), (70, 25462), (71, 25480),

Gene: SaltySpittoon\_50 Start: 26282, Stop: 26740, Start Num: 1

Candidate Starts for SaltySpittoon\_50:

(Start: 1 @26282 has 75 MA's), (14, 26363), (17, 26381), (18, 26390), (26, 26444), (29, 26453), (36, 26486), (41, 26504), (47, 26540), (62, 26639), (65, 26675), (70, 26708),

Gene: Samisti12\_48 Start: 28119, Stop: 28583, Start Num: 1

Candidate Starts for Samisti12\_48:

(Start: 1 @28119 has 75 MA's), (8, 28152), (11, 28164), (14, 28200), (18, 28227), (25, 28278), (26, 28281), (33, 28305), (36, 28323), (41, 28341), (43, 28353), (46, 28365), (47, 28377), (55, 28437), (62, 28476), (70, 28545), (71, 28563),

Gene: Scheme\_49 Start: 27530, Stop: 27994, Start Num: 1

Candidate Starts for Scheme\_49:

(Start: 1 @27530 has 75 MA's), (8, 27563), (11, 27575), (14, 27611), (18, 27638), (25, 27689), (26, 27692), (33, 27716), (36, 27734), (41, 27752), (43, 27764), (46, 27776), (47, 27788), (55, 27848), (62, 27887), (70, 27956), (71, 27974),

Gene: SeresaTree\_25 Start: 14240, Stop: 14674, Start Num: 3

Candidate Starts for SeresaTree\_25:

(Start: 3 @14240 has 21 MA's), (Start: 4 @14243 has 5 MA's), (9, 14273), (11, 14285), (14, 14321), (15, 14327), (35, 14441), (36, 14447), (41, 14465), (53, 14549), (63, 14603),

Gene: Sham\_23 Start: 15299, Stop: 15733, Start Num: 3

Candidate Starts for Sham\_23:

(Start: 3 @15299 has 21 MA's), (Start: 4 @15302 has 5 MA's), (9, 15332), (11, 15344), (14, 15380), (35, 15500), (36, 15506), (41, 15524), (53, 15608), (63, 15662),

Gene: Shuckle\_46 Start: 27136, Stop: 27600, Start Num: 1

Candidate Starts for Shuckle\_46:

(Start: 1 @27136 has 75 MA's), (8, 27169), (11, 27181), (14, 27217), (18, 27244), (25, 27295), (26, 27298), (33, 27322), (36, 27340), (41, 27358), (43, 27370), (46, 27382), (47, 27394), (55, 27454), (62, 27493), (70, 27562), (71, 27580),

Gene: Sollertia\_50 Start: 26251, Stop: 26709, Start Num: 1

Candidate Starts for Sollertia\_50:

(Start: 1 @26251 has 75 MA's), (14, 26332), (18, 26359), (26, 26413), (28, 26419), (35, 26449), (36, 26455), (41, 26473), (47, 26509), (62, 26608), (63, 26611), (65, 26644), (66, 26650), (70, 26677),

Gene: SparkleGoddess\_26 Start: 15007, Stop: 15465, Start Num: 3

Candidate Starts for SparkleGoddess\_26:

(Start: 3 @15007 has 21 MA's), (11, 15052), (17, 15106), (18, 15115), (30, 15184), (35, 15208), (36, 15214), (41, 15232), (61, 15364), (63, 15370), (65, 15403), (70, 15433),

Gene: Spelly\_50 Start: 26237, Stop: 26695, Start Num: 1  
Candidate Starts for Spelly\_50:  
(Start: 1 @26237 has 75 MA's), (14, 26318), (17, 26336), (18, 26345), (26, 26399), (29, 26408), (36, 26441), (41, 26459), (47, 26495), (62, 26594), (65, 26630), (70, 26663),

Gene: Spilled\_51 Start: 26354, Stop: 26812, Start Num: 1  
Candidate Starts for Spilled\_51:  
(Start: 1 @26354 has 75 MA's), (14, 26435), (17, 26453), (18, 26462), (26, 26516), (29, 26525), (36, 26558), (41, 26576), (62, 26711), (65, 26747), (70, 26780),

Gene: Squillium\_47 Start: 26297, Stop: 26761, Start Num: 1  
Candidate Starts for Squillium\_47:  
(Start: 1 @26297 has 75 MA's), (11, 26342), (14, 26378), (18, 26405), (20, 26417), (26, 26459), (33, 26483), (36, 26501), (47, 26555), (51, 26594), (62, 26654), (65, 26690), (70, 26723), (71, 26741),

Gene: Stanimal\_50 Start: 26140, Stop: 26598, Start Num: 1  
Candidate Starts for Stanimal\_50:  
(Start: 1 @26140 has 75 MA's), (14, 26221), (18, 26248), (26, 26302), (28, 26308), (35, 26338), (36, 26344), (41, 26362), (47, 26398), (62, 26497), (63, 26500), (65, 26533), (66, 26539), (70, 26566),

Gene: StarPlatinum\_50 Start: 26778, Stop: 27236, Start Num: 1  
Candidate Starts for StarPlatinum\_50:  
(Start: 1 @26778 has 75 MA's), (14, 26859), (17, 26877), (18, 26886), (26, 26940), (36, 26982), (39, 26994), (41, 27000), (47, 27036), (62, 27135), (63, 27138), (65, 27171), (70, 27204),

Gene: Starbow\_48 Start: 26258, Stop: 26716, Start Num: 1  
Candidate Starts for Starbow\_48:  
(Start: 1 @26258 has 75 MA's), (14, 26339), (17, 26357), (18, 26366), (26, 26420), (29, 26429), (36, 26462), (41, 26480), (47, 26516), (62, 26615), (65, 26651), (70, 26684),

Gene: Stigma\_26 Start: 15008, Stop: 15466, Start Num: 3  
Candidate Starts for Stigma\_26:  
(Start: 3 @15008 has 21 MA's), (11, 15053), (17, 15107), (18, 15116), (30, 15185), (35, 15209), (36, 15215), (41, 15233), (61, 15365), (63, 15371), (65, 15404), (70, 15434),

Gene: Sushi23\_48 Start: 27041, Stop: 27505, Start Num: 1  
Candidate Starts for Sushi23\_48:  
(Start: 1 @27041 has 75 MA's), (8, 27074), (11, 27086), (14, 27122), (18, 27149), (25, 27200), (26, 27203), (33, 27227), (36, 27245), (41, 27263), (43, 27275), (46, 27287), (47, 27299), (55, 27359), (62, 27398), (70, 27467), (71, 27485),

Gene: Targaryen\_49 Start: 27811, Stop: 28275, Start Num: 1  
Candidate Starts for Targaryen\_49:  
(Start: 1 @27811 has 75 MA's), (14, 27892), (18, 27919), (25, 27970), (26, 27973), (33, 27997), (36, 28015), (47, 28069), (52, 28111), (54, 28126), (62, 28168), (70, 28237), (71, 28255),

Gene: Teutsch\_48 Start: 27310, Stop: 27774, Start Num: 1  
Candidate Starts for Teutsch\_48:  
(Start: 1 @27310 has 75 MA's), (8, 27343), (11, 27355), (14, 27391), (18, 27418), (25, 27469), (26, 27472), (33, 27496), (36, 27514), (41, 27532), (43, 27544), (46, 27556), (47, 27568), (55, 27628), (62, 27667), (70, 27736), (71, 27754),

Gene: TomSawyer\_48 Start: 25876, Stop: 26334, Start Num: 1

Candidate Starts for TomSawyer\_48:

(Start: 1 @25876 has 75 MA's), (14, 25957), (17, 25975), (18, 25984), (26, 26038), (29, 26047), (36, 26080), (41, 26098), (47, 26134), (62, 26233), (65, 26269), (70, 26302),

Gene: Tomas\_52 Start: 28603, Stop: 29055, Start Num: 4

Candidate Starts for Tomas\_52:

(Start: 4 @28603 has 5 MA's), (11, 28642), (14, 28678), (17, 28696), (18, 28705), (26, 28759), (33, 28783), (41, 28819), (43, 28831), (47, 28855), (49, 28870), (62, 28954), (70, 29023),

Gene: Tribute\_46 Start: 26510, Stop: 26974, Start Num: 1

Candidate Starts for Tribute\_46:

(Start: 1 @26510 has 75 MA's), (8, 26543), (11, 26555), (14, 26591), (18, 26618), (25, 26669), (26, 26672), (33, 26696), (36, 26714), (41, 26732), (43, 26744), (46, 26756), (47, 26768), (55, 26828), (62, 26867), (70, 26936), (71, 26954),

Gene: Trina\_70 Start: 35890, Stop: 36291, Start Num: 6

Candidate Starts for Trina\_70:

(Start: 6 @35890 has 1 MA's), (11, 35923), (41, 36091), (42, 36094), (48, 36139), (56, 36196), (60, 36220),

Gene: TunaTartare\_24 Start: 15589, Stop: 16023, Start Num: 3

Candidate Starts for TunaTartare\_24:

(Start: 3 @15589 has 21 MA's), (Start: 4 @15592 has 5 MA's), (9, 15622), (11, 15634), (14, 15670), (22, 15724), (36, 15796), (41, 15814), (53, 15898), (63, 15952), (69, 16003),

Gene: Wakanda\_21 Start: 14455, Stop: 14904, Start Num: 2

Candidate Starts for Wakanda\_21:

(Start: 2 @14455 has 5 MA's), (9, 14488), (16, 14551), (26, 14620), (35, 14656), (38, 14668), (41, 14680), (57, 14788), (63, 14818), (68, 14857), (70, 14872),

Gene: Warpy\_52 Start: 27275, Stop: 27739, Start Num: 1

Candidate Starts for Warpy\_52:

(Start: 1 @27275 has 75 MA's), (14, 27356), (18, 27383), (26, 27437), (33, 27461), (36, 27479), (47, 27533), (52, 27575), (54, 27590), (62, 27632), (70, 27701), (71, 27719),

Gene: Watermoore\_48 Start: 27517, Stop: 27981, Start Num: 1

Candidate Starts for Watermoore\_48:

(Start: 1 @27517 has 75 MA's), (8, 27550), (11, 27562), (14, 27598), (18, 27625), (25, 27676), (26, 27679), (33, 27703), (36, 27721), (41, 27739), (43, 27751), (46, 27763), (47, 27775), (55, 27835), (62, 27874), (70, 27943), (71, 27961),

Gene: Westy\_26 Start: 15008, Stop: 15466, Start Num: 3

Candidate Starts for Westy\_26:

(Start: 3 @15008 has 21 MA's), (11, 15053), (17, 15107), (18, 15116), (30, 15185), (35, 15209), (36, 15215), (41, 15233), (61, 15365), (63, 15371), (65, 15404), (70, 15434),

Gene: WhereRU\_45 Start: 25776, Stop: 26240, Start Num: 1

Candidate Starts for WhereRU\_45:

(Start: 1 @25776 has 75 MA's), (11, 25821), (14, 25857), (18, 25884), (20, 25896), (26, 25938), (33, 25962), (36, 25980), (47, 26034), (51, 26073), (62, 26133), (65, 26169), (70, 26202), (71, 26220),

Gene: Wipeout\_48 Start: 26627, Stop: 27085, Start Num: 1

Candidate Starts for Wipeout\_48:

(Start: 1 @26627 has 75 MA's), (14, 26708), (17, 26726), (18, 26735), (26, 26789), (29, 26798), (36, 26831), (41, 26849), (47, 26885), (62, 26984), (65, 27020), (70, 27053),

Gene: Wofford\_49 Start: 27282, Stop: 27740, Start Num: 1

Candidate Starts for Wofford\_49:

(Start: 1 @27282 has 75 MA's), (14, 27363), (18, 27390), (26, 27444), (35, 27480), (36, 27486), (41, 27504), (43, 27516), (47, 27540), (55, 27600), (61, 27636), (62, 27639), (65, 27675), (70, 27708),

Gene: Yaboi\_50 Start: 26228, Stop: 26686, Start Num: 1

Candidate Starts for Yaboi\_50:

(Start: 1 @26228 has 75 MA's), (14, 26309), (18, 26336), (26, 26390), (28, 26396), (35, 26426), (36, 26432), (41, 26450), (47, 26486), (62, 26585), (63, 26588), (65, 26621), (66, 26627), (70, 26654),