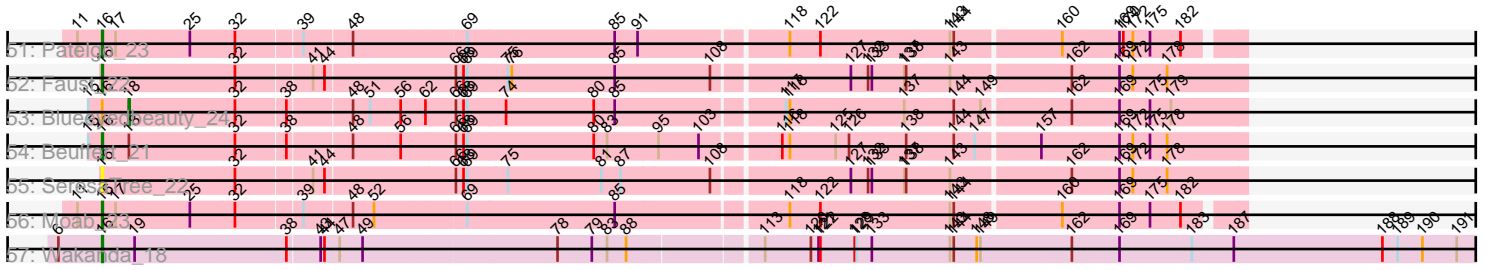




Pham 308315



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 308315 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308315 has 112 members, 10 are drafts.

Phages represented in each track:

- Track 1 : HangryHippo\_45, PacManQ\_44, Cross\_45, BlueOtter\_45, Watermoore\_45, Lululemon\_44, Cursive\_43, Leo04\_46
- Track 2 : Pepperwood\_45, WashU\_48
- Track 3 : Coogler\_45, Larnav\_45, ArianaSWT\_48
- Track 4 : Tribute\_43
- Track 5 : Teutsch\_45, Samisti12\_45
- Track 6 : LilSaint\_44
- Track 7 : Liandry\_44, Eliot67\_42, Squillum\_44, PinkiePie\_43, FreddyDRoo\_42, Braelyn\_44, PynkPanther\_50, NootNoot\_41
- Track 8 : Sushi23\_45
- Track 9 : EGole\_46
- Track 10 : Persimmon\_41
- Track 11 : Riptide\_42
- Track 12 : Angela\_42
- Track 13 : Bmoc\_43
- Track 14 : Warpy\_49
- Track 15 : Marsus\_43
- Track 16 : Evy\_46
- Track 17 : Bartholomune\_43, Davielle\_42, WhereRU\_42
- Track 18 : Peebs\_44, Shuckle\_43
- Track 19 : Jay2Jay\_50
- Track 20 : MulchMansion\_42, LilMartin\_42
- Track 21 : Scheme\_46
- Track 22 : Cadmus\_43, Daubenski\_46
- Track 23 : Mildred21\_43
- Track 24 : Targaryen\_46
- Track 25 : Navo\_43
- Track 26 : Paradiddles\_41
- Track 27 : Anedea\_43
- Track 28 : SaltySpittoon\_47, Jollison\_46, Rikishi\_47, Bordeaux\_45, Starbow\_45, Daisy123\_51, Quarant19\_47, PumpkinSpice\_46
- Track 29 : Spilled\_48, Brizzy\_46, IchabodCrane\_44
- Track 30 : AcciDwight\_51
- Track 31 : Karimac\_46
- Track 32 : StarPlatinum\_47
- Track 33 : AngryGiraffe\_46, Stanimal\_47, Yaboi\_47, Genie2\_47, Sollertia\_47, BoomerJR\_47

- Track 34 : Gibbi\_51
- Track 35 : KentuckyRacer\_47, CeilingFan\_46
- Track 36 : TomSawyer\_45, Wipeout\_45, Birchlyn\_44, Amabiko\_47
- Track 37 : Wofford\_46, Elmer\_49
- Track 38 : Spelly\_47
- Track 39 : JimJam\_47, Battuta\_45
- Track 40 : Tomas\_49
- Track 41 : Mugiwara\_46
- Track 42 : MindFlayer\_45
- Track 43 : LukeCage\_46
- Track 44 : Enygma\_44
- Track 45 : Phredrick\_24, Kenrey\_26
- Track 46 : SparkleGoddess\_23, Karp\_22, Belfort\_24, Stigma\_23, Westy\_23, Comrade\_23
- Track 47 : MeganTheeKilla\_24, Forrest\_26, Jada\_24, Gilson\_26, DeluluLabubu\_24, Emma1919\_26
- Track 48 : Maupel\_26
- Track 49 : Francob\_22
- Track 50 : Limpid\_22, Annadreamy\_22
- Track 51 : Patelgo\_23
- Track 52 : Faust\_22
- Track 53 : Blueeyedbeauty\_24
- Track 54 : Beuffert\_21
- Track 55 : SeresaTree\_22
- Track 56 : Moab\_23
- Track 57 : Wakanda\_18

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

The start number called the most often in the published annotations is 16, it was called in 100 of the 102 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko\_47, Anedeaa\_43, Angela\_42, AngryGiraffe\_46, Annadreamy\_22, ArianaSWT\_48, Bartholomune\_43, Battuta\_45, Belfort\_24, Beuffert\_21, Birchlyn\_44, BlueOtter\_45, Bmoc\_43, BoomerJR\_47, Bordeaux\_45, Braelyn\_44, Brizzy\_46, Cadmus\_43, CeilingFan\_46, Comrade\_23, Coogler\_45, Cross\_45, Cursive\_43, Daisy123\_51, Daubenski\_46, Davielle\_42, DeluluLabubu\_24, EGole\_46, Eliot67\_42, Elmer\_49, Emma1919\_26, Enygma\_44, Evy\_46, Faust\_22, Forrest\_26, Francob\_22, FreddyDRoo\_42, Genie2\_47, Gibbi\_51, Gilson\_26, HangryHippo\_45, IchabodCrane\_44, Jada\_24, Jay2Jay\_50, JimJam\_47, Jollison\_46, Karimac\_46, Karp\_22, Kenrey\_26, KentuckyRacer\_47, Larnav\_45, Leo04\_46, Liandry\_44, LilMartin\_42, LilSaint\_44, Limpid\_22, LukeCage\_46, Lululemon\_44, MeganTheeKilla\_24, Mildred21\_43, MindFlayer\_45, Moab\_23, Mugiwara\_46, MulchMansion\_42, Navo\_43, NootNoot\_41, PacManQ\_44, Paradiddles\_41, Patelgo\_23, Peebs\_44, Pepperwood\_45, Persimmon\_41, Phredrick\_24, PinkiePie\_43, PumpkinSpice\_46, PynkPanther\_50, Quaran19\_47, Rikishi\_47, Riptide\_42, SaltySpittoon\_47, Samisti12\_45, Scheme\_46, SeresaTree\_22, Shuckle\_43, Sollertia\_47, SparkleGoddess\_23, Spelly\_47, Spilled\_48, Squillium\_44, Stanimal\_47, StarPlatinum\_47, Starbow\_45, Stigma\_23, Sushi23\_45, Targaryen\_46,

Teutsch\_45, TomSawyer\_45, Tomas\_49, Tribute\_43, Wakanda\_18, Warpy\_49, WashU\_48, Watermoore\_45, Westy\_23, WhereRU\_42, Wipeout\_45, Wofford\_46, Yaboi\_47,

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

- AcciDwight\_51, Blueeyedbeauty\_24, Marsus\_43, Maupel\_26,

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

- 

### Summary by start number:

Start 8:

- Found in 9 of 112 ( 8.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Maupel\_26 (BK1),

Start 14:

- Found in 17 of 112 ( 15.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: AcciDwight\_51 (BE2),

Start 16:

- Found in 112 of 112 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 100 of 102
- Called 96.4% of time when present
- Phage (with cluster) where this start called: Amabiko\_47 (BE2), Anedea\_43 (BE1), Angela\_42 (BE1), AngryGiraffe\_46 (BE2), Annadreamy\_22 (BK1), ArianaSWT\_48 (BE1), Bartholomune\_43 (BE1), Battuta\_45 (BE2), Belfort\_24 (BK1), Beuffert\_21 (BK1), Birchlyn\_44 (BE2), BlueOtter\_45 (BE1), Bmoc\_43 (BE1), BoomerJR\_47 (BE2), Bordeaux\_45 (BE2), Braelyn\_44 (BE1), Brizzy\_46 (BE2), Cadmus\_43 (BE1), CeilingFan\_46 (BE2), Comrade\_23 (BK1), Coogler\_45 (BE1), Cross\_45 (BE1), Cursive\_43 (BE1), Daisy123\_51 (BE2), Daubenski\_46 (BE1), Davielle\_42 (BE1), DeluluLabubu\_24 (BK1), EGole\_46 (BE1), Eliot67\_42 (BE1), Elmer\_49 (BE2), Emma1919\_26 (BK1), Enygma\_44 (BE2), Evy\_46 (BE1), Faust\_22 (BK1), Forrest\_26 (BK1), Francob\_22 (BK1), FreddyDRoo\_42 (BE1), Genie2\_47 (BE2), Gibbi\_51 (BE2), Gilson\_26 (BK1), HangryHippo\_45 (BE1), IchabodCrane\_44 (BE2), Jada\_24 (BK1), Jay2Jay\_50 (BE1), JimJam\_47 (BE2), Jollison\_46 (BE2), Karimac\_46 (BE2), Karp\_22 (BK1), Kenrey\_26 (BK1), KentuckyRacer\_47 (BE2), Larnav\_45 (BE1), Leo04\_46 (BE1), Liandry\_44 (BE1), LilMartin\_42 (BE1), LilSaint\_44 (BE1), Limpid\_22 (BK1), LukeCage\_46 (BE2), Lululemon\_44 (BE1), MeganTheeKilla\_24 (BK1), Mildred21\_43 (BE1), MindFlayer\_45 (BE2), Moab\_23 (BK1), Mugiwara\_46 (BE2), MulchMansion\_42 (BE1), Navo\_43 (BE1), NootNoot\_41 (BE1), PacManQ\_44 (BE1), Paradiddles\_41 (BE1), Patelgo\_23 (BK1), Peebs\_44 (BE1), Pepperwood\_45 (BE1), Persimmon\_41 (BE1), Phredrick\_24 (BK1), PinkiePie\_43 (BE1), PumpkinSpice\_46 (BE2), PynkPanther\_50 (BE1), Quarant19\_47 (BE2), Rikishi\_47 (BE2), Riptide\_42 (BE1), SaltySpittoon\_47 (BE2), Samisti12\_45 (BE1), Scheme\_46 (BE1), SeresaTree\_22 (BK1), Shuckle\_43 (BE1), Sollertia\_47 (BE2), SparkleGoddess\_23 (BK1), Spelly\_47 (BE2), Spilled\_48 (BE2), Squillium\_44 (BE1), Stanimal\_47 (BE2), StarPlatinum\_47 (BE2), Starbow\_45 (BE2), Stigma\_23 (BK1), Sushi23\_45 (BE1), Targaryen\_46 (BE1), Teutsch\_45 (BE1), TomSawyer\_45 (BE2), Tomas\_49 (BE2),

Tribute\_43 (BE1), Wakanda\_18 (BK2), Warpy\_49 (BE1), WashU\_48 (BE1), Watermoore\_45 (BE1), Westy\_23 (BK1), WhereRU\_42 (BE1), Wipeout\_45 (BE2), Wofford\_46 (BE2), Yaboi\_47 (BE2),

Start 18:

- Found in 4 of 112 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Blueeyedbeauty\_24 (BK1),

Start 23:

- Found in 31 of 112 ( 27.7% ) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Marsus\_43 (BE1),

### **Summary by clusters:**

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 16 was manually annotated 44 times for cluster BE1.
- Start number 23 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 16 was manually annotated 34 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 16 was manually annotated 21 times for cluster BK1.
- Start number 18 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 16 was manually annotated 1 time for cluster BK2.

### **Gene Information:**

Gene: AcciDwight\_51 Start: 22526, Stop: 24280, Start Num: 14

Candidate Starts for AcciDwight\_51:

(2, 22433), (5, 22466), (7, 22484), (12, 22520), (14, 22526), (Start: 16 @22544 has 100 MA's), (20, 22613), (29, 22712), (31, 22736), (33, 22796), (38, 22832), (59, 23027), (64, 23075), (80, 23309), (99, 23441), (100, 23447), (101, 23453), (117, 23606), (119, 23627), (120, 23645), (129, 23717), (133, 23735), (142, 23810), (145, 23876), (147, 23891), (158, 24011), (177, 24155), (186, 24242),

Gene: Amabiko\_47 Start: 22589, Stop: 24325, Start Num: 16

Candidate Starts for Amabiko\_47:

(2, 22478), (5, 22511), (7, 22529), (12, 22565), (14, 22571), (Start: 16 @22589 has 100 MA's), (20, 22658), (29, 22757), (31, 22781), (33, 22841), (38, 22877), (46, 22958), (59, 23072), (64, 23120), (80, 23354), (99, 23486), (100, 23492), (101, 23498), (117, 23651), (119, 23672), (120, 23690), (133, 23780), (142, 23855), (145, 23921), (147, 23936), (158, 24056), (177, 24200), (186, 24287),

Gene: Anedea\_43 Start: 22107, Stop: 23849, Start Num: 16

Candidate Starts for Anedeia\_43:

(Start: 16 @22107 has 100 MA's), (21, 22200), (Start: 23 @22218 has 1 MA's), (29, 22275), (31, 22299), (33, 22359), (38, 22395), (82, 22890), (96, 22983), (100, 23013), (103, 23037), (105, 23046), (110, 23094), (129, 23286), (143, 23424), (145, 23445), (152, 23520), (154, 23541), (157, 23562), (165, 23643), (169, 23670), (174, 23706), (176, 23715),

Gene: Angela\_42 Start: 21587, Stop: 23329, Start Num: 16

Candidate Starts for Angela\_42:

(Start: 16 @21587 has 100 MA's), (21, 21680), (Start: 23 @21698 has 1 MA's), (29, 21755), (31, 21779), (33, 21839), (36, 21866), (37, 21872), (38, 21875), (56, 22052), (69, 22157), (90, 22418), (105, 22526), (110, 22574), (129, 22766), (145, 22925), (151, 22976), (156, 23036), (157, 23042), (173, 23180), (176, 23195), (181, 23237),

Gene: AngryGiraffe\_46 Start: 22555, Stop: 24291, Start Num: 16

Candidate Starts for AngryGiraffe\_46:

(9, 22513), (15, 22537), (Start: 16 @22555 has 100 MA's), (20, 22624), (29, 22723), (31, 22747), (33, 22807), (34, 22816), (38, 22843), (64, 23086), (72, 23155), (80, 23320), (86, 23353), (99, 23452), (111, 23563), (124, 23692), (133, 23746), (143, 23866), (147, 23902), (157, 24004), (163, 24058), (166, 24091), (177, 24166), (186, 24253),

Gene: Annadreamy\_22 Start: 10975, Stop: 12696, Start Num: 16

Candidate Starts for Annadreamy\_22:

(15, 10954), (Start: 16 @10975 has 100 MA's), (Start: 18 @11017 has 1 MA's), (32, 11179), (38, 11254), (48, 11347), (53, 11404), (54, 11410), (56, 11422), (60, 11452), (62, 11458), (66, 11500), (68, 11512), (69, 11518), (71, 11533), (80, 11716), (85, 11749), (103, 11878), (125, 12067), (126, 12088), (137, 12175), (153, 12346), (169, 12496), (175, 12544),

Gene: ArianaSWT\_48 Start: 23205, Stop: 24941, Start Num: 16

Candidate Starts for ArianaSWT\_48:

(Start: 16 @23205 has 100 MA's), (21, 23298), (27, 23349), (29, 23373), (31, 23397), (33, 23457), (38, 23493), (57, 23673), (83, 23985), (94, 24045), (122, 24321), (128, 24375), (129, 24378), (140, 24462), (143, 24516), (145, 24537), (155, 24639), (165, 24735), (168, 24759), (171, 24771), (177, 24816), (186, 24903),

Gene: Bartholomune\_43 Start: 21893, Stop: 23629, Start Num: 16

Candidate Starts for Bartholomune\_43:

(Start: 16 @21893 has 100 MA's), (21, 21986), (Start: 23 @22004 has 1 MA's), (29, 22061), (31, 22085), (37, 22178), (38, 22181), (56, 22358), (57, 22361), (80, 22655), (94, 22733), (100, 22793), (128, 23063), (135, 23123), (138, 23138), (145, 23225), (146, 23231), (157, 23342), (165, 23423), (179, 23525),

Gene: Battuta\_45 Start: 22563, Stop: 24299, Start Num: 16

Candidate Starts for Battuta\_45:

(15, 22545), (Start: 16 @22563 has 100 MA's), (20, 22632), (29, 22731), (31, 22755), (33, 22815), (38, 22851), (59, 23046), (64, 23094), (80, 23328), (99, 23460), (100, 23466), (101, 23472), (117, 23625), (119, 23646), (120, 23664), (129, 23736), (133, 23754), (142, 23829), (145, 23895), (147, 23910), (158, 24030), (177, 24174), (186, 24261),

Gene: Belfort\_24 Start: 11726, Stop: 13420, Start Num: 16

Candidate Starts for Belfort\_24:

(1, 11609), (3, 11615), (4, 11624), (Start: 16 @11726 has 100 MA's), (25, 11861), (28, 11888), (32, 11930), (44, 12059), (48, 12098), (65, 12239), (85, 12500), (93, 12545), (98, 12596), (102, 12626), (125, 12815), (136, 12920), (137, 12923), (143, 12992), (149, 13040), (160, 13154), (164, 13199),

(169, 13241), (175, 13289), (182, 13337),

Gene: Beuffert\_21 Start: 10658, Stop: 12379, Start Num: 16

Candidate Starts for Beuffert\_21:

(15, 10637), (Start: 16 @10658 has 100 MA's), (Start: 18 @10700 has 1 MA's), (32, 10862), (38, 10937), (48, 11030), (56, 11105), (66, 11183), (68, 11195), (69, 11201), (80, 11399), (83, 11420), (95, 11498), (103, 11561), (116, 11669), (118, 11681), (125, 11750), (126, 11771), (138, 11861), (144, 11933), (147, 11966), (157, 12059), (169, 12179), (172, 12200), (175, 12227), (178, 12254),

Gene: Birchlyn\_44 Start: 20446, Stop: 22182, Start Num: 16

Candidate Starts for Birchlyn\_44:

(2, 20335), (5, 20368), (7, 20386), (12, 20422), (14, 20428), (Start: 16 @20446 has 100 MA's), (20, 20515), (29, 20614), (31, 20638), (33, 20698), (38, 20734), (46, 20815), (59, 20929), (64, 20977), (80, 21211), (99, 21343), (100, 21349), (101, 21355), (117, 21508), (119, 21529), (120, 21547), (133, 21637), (142, 21712), (145, 21778), (147, 21793), (158, 21913), (177, 22057), (186, 22144),

Gene: BlueOtter\_45 Start: 23243, Stop: 24979, Start Num: 16

Candidate Starts for BlueOtter\_45:

(Start: 16 @23243 has 100 MA's), (21, 23336), (29, 23411), (31, 23435), (33, 23495), (38, 23531), (57, 23711), (83, 24023), (94, 24083), (122, 24359), (128, 24413), (129, 24416), (140, 24500), (143, 24554), (145, 24575), (155, 24677), (165, 24773), (168, 24797), (171, 24809), (177, 24854), (186, 24941),

Gene: Blueeyedbeauty\_24 Start: 11510, Stop: 13189, Start Num: 18

Candidate Starts for Blueeyedbeauty\_24:

(15, 11447), (Start: 16 @11468 has 100 MA's), (Start: 18 @11510 has 1 MA's), (32, 11672), (38, 11747), (48, 11840), (51, 11867), (56, 11915), (62, 11951), (66, 11993), (68, 12005), (69, 12011), (74, 12071), (80, 12209), (85, 12242), (117, 12485), (118, 12491), (137, 12668), (144, 12743), (149, 12785), (162, 12914), (169, 12989), (175, 13037), (179, 13070),

Gene: Bmoc\_43 Start: 21892, Stop: 23634, Start Num: 16

Candidate Starts for Bmoc\_43:

(Start: 16 @21892 has 100 MA's), (21, 21985), (Start: 23 @22003 has 1 MA's), (29, 22060), (31, 22084), (33, 22144), (38, 22180), (82, 22675), (96, 22768), (100, 22798), (105, 22831), (110, 22879), (114, 22930), (129, 23071), (139, 23146), (143, 23209), (145, 23230), (154, 23326), (157, 23347), (165, 23428), (166, 23434), (169, 23455), (176, 23500), (179, 23530), (182, 23545),

Gene: BoomerJR\_47 Start: 22444, Stop: 24180, Start Num: 16

Candidate Starts for BoomerJR\_47:

(9, 22402), (15, 22426), (Start: 16 @22444 has 100 MA's), (20, 22513), (29, 22612), (31, 22636), (33, 22696), (34, 22705), (38, 22732), (64, 22975), (72, 23044), (80, 23209), (86, 23242), (99, 23341), (111, 23452), (124, 23581), (133, 23635), (143, 23755), (147, 23791), (157, 23893), (163, 23947), (166, 23980), (177, 24055), (186, 24142),

Gene: Bordeaux\_45 Start: 22718, Stop: 24454, Start Num: 16

Candidate Starts for Bordeaux\_45:

(2, 22607), (5, 22640), (7, 22658), (12, 22694), (14, 22700), (Start: 16 @22718 has 100 MA's), (20, 22787), (29, 22886), (31, 22910), (33, 22970), (38, 23006), (59, 23201), (64, 23249), (80, 23483), (99, 23615), (100, 23621), (101, 23627), (117, 23780), (119, 23801), (120, 23819), (129, 23891), (133, 23909), (142, 23984), (145, 24050), (147, 24065), (158, 24185), (177, 24329), (186, 24416),

Gene: Braelyn\_44 Start: 22660, Stop: 24396, Start Num: 16

Candidate Starts for Braelyn\_44:

(Start: 16 @22660 has 100 MA's), (21, 22753), (Start: 23 @22771 has 1 MA's), (29, 22828), (31, 22852), (33, 22912), (35, 22927), (37, 22945), (38, 22948), (56, 23125), (57, 23128), (80, 23422), (94, 23500), (99, 23554), (128, 23830), (135, 23890), (138, 23905), (145, 23992), (146, 23998), (157, 24109), (165, 24190), (179, 24292),

Gene: Brizzy\_46 Start: 22237, Stop: 23973, Start Num: 16

Candidate Starts for Brizzy\_46:

(15, 22219), (Start: 16 @22237 has 100 MA's), (20, 22306), (24, 22360), (29, 22405), (31, 22429), (33, 22489), (38, 22525), (59, 22720), (64, 22768), (80, 23002), (99, 23134), (101, 23146), (119, 23320), (133, 23428), (142, 23503), (145, 23569), (147, 23584), (158, 23704), (167, 23779), (177, 23848), (186, 23935),

Gene: Cadmus\_43 Start: 22231, Stop: 23973, Start Num: 16

Candidate Starts for Cadmus\_43:

(Start: 16 @22231 has 100 MA's), (19, 22282), (Start: 23 @22342 has 1 MA's), (29, 22399), (31, 22423), (33, 22483), (37, 22516), (38, 22519), (96, 23107), (110, 23218), (129, 23410), (136, 23476), (138, 23482), (145, 23569), (150, 23614), (157, 23686), (165, 23767), (177, 23848), (179, 23869), (186, 23935),

Gene: CeilingFan\_46 Start: 22478, Stop: 24214, Start Num: 16

Candidate Starts for CeilingFan\_46:

(2, 22367), (5, 22400), (7, 22418), (12, 22454), (14, 22460), (Start: 16 @22478 has 100 MA's), (20, 22547), (29, 22646), (31, 22670), (33, 22730), (38, 22766), (59, 22961), (64, 23009), (80, 23243), (99, 23375), (100, 23381), (101, 23387), (117, 23540), (119, 23561), (120, 23579), (133, 23669), (142, 23744), (145, 23810), (147, 23825), (158, 23945), (177, 24089), (186, 24176),

Gene: Comrade\_23 Start: 11341, Stop: 13035, Start Num: 16

Candidate Starts for Comrade\_23:

(1, 11224), (3, 11230), (4, 11239), (Start: 16 @11341 has 100 MA's), (25, 11476), (28, 11503), (32, 11545), (44, 11674), (48, 11713), (65, 11854), (85, 12115), (93, 12160), (98, 12211), (102, 12241), (125, 12430), (136, 12535), (137, 12538), (143, 12607), (149, 12655), (160, 12769), (164, 12814), (169, 12856), (175, 12904), (182, 12952),

Gene: Coogler\_45 Start: 23269, Stop: 25005, Start Num: 16

Candidate Starts for Coogler\_45:

(Start: 16 @23269 has 100 MA's), (21, 23362), (27, 23413), (29, 23437), (31, 23461), (33, 23521), (38, 23557), (57, 23737), (83, 24049), (94, 24109), (122, 24385), (128, 24439), (129, 24442), (140, 24526), (143, 24580), (145, 24601), (155, 24703), (165, 24799), (168, 24823), (171, 24835), (177, 24880), (186, 24967),

Gene: Cross\_45 Start: 23244, Stop: 24980, Start Num: 16

Candidate Starts for Cross\_45:

(Start: 16 @23244 has 100 MA's), (21, 23337), (29, 23412), (31, 23436), (33, 23496), (38, 23532), (57, 23712), (83, 24024), (94, 24084), (122, 24360), (128, 24414), (129, 24417), (140, 24501), (143, 24555), (145, 24576), (155, 24678), (165, 24774), (168, 24798), (171, 24810), (177, 24855), (186, 24942),

Gene: Cursive\_43 Start: 22769, Stop: 24505, Start Num: 16

Candidate Starts for Cursive\_43:

(Start: 16 @22769 has 100 MA's), (21, 22862), (29, 22937), (31, 22961), (33, 23021), (38, 23057), (57, 23237), (83, 23549), (94, 23609), (122, 23885), (128, 23939), (129, 23942), (140, 24026), (143, 24080), (145, 24101), (155, 24203), (165, 24299), (168, 24323), (171, 24335), (177, 24380), (186, 24467),

Gene: Daisy123\_51 Start: 22337, Stop: 24073, Start Num: 16

Candidate Starts for Daisy123\_51:

(2, 22226), (5, 22259), (7, 22277), (12, 22313), (14, 22319), (Start: 16 @22337 has 100 MA's), (20, 22406), (29, 22505), (31, 22529), (33, 22589), (38, 22625), (59, 22820), (64, 22868), (80, 23102), (99, 23234), (100, 23240), (101, 23246), (117, 23399), (119, 23420), (120, 23438), (129, 23510), (133, 23528), (142, 23603), (145, 23669), (147, 23684), (158, 23804), (177, 23948), (186, 24035),

Gene: Daubenski\_46 Start: 22995, Stop: 24737, Start Num: 16

Candidate Starts for Daubenski\_46:

(Start: 16 @22995 has 100 MA's), (19, 23046), (Start: 23 @23106 has 1 MA's), (29, 23163), (31, 23187), (33, 23247), (37, 23280), (38, 23283), (96, 23871), (110, 23982), (129, 24174), (136, 24240), (138, 24246), (145, 24333), (150, 24378), (157, 24450), (165, 24531), (177, 24612), (179, 24633), (186, 24699),

Gene: Davielle\_42 Start: 22077, Stop: 23813, Start Num: 16

Candidate Starts for Davielle\_42:

(Start: 16 @22077 has 100 MA's), (21, 22170), (Start: 23 @22188 has 1 MA's), (29, 22245), (31, 22269), (37, 22362), (38, 22365), (56, 22542), (57, 22545), (80, 22839), (94, 22917), (100, 22977), (128, 23247), (135, 23307), (138, 23322), (145, 23409), (146, 23415), (157, 23526), (165, 23607), (179, 23709),

Gene: DeluluLabubu\_24 Start: 11228, Stop: 12922, Start Num: 16

Candidate Starts for DeluluLabubu\_24:

(8, 11180), (10, 11189), (Start: 16 @11228 has 100 MA's), (30, 11408), (32, 11432), (38, 11507), (40, 11534), (41, 11543), (48, 11600), (54, 11663), (80, 11969), (81, 11981), (85, 12002), (93, 12047), (112, 12200), (113, 12215), (130, 12353), (132, 12368), (137, 12425), (142, 12446), (143, 12494), (144, 12500), (160, 12656), (161, 12668), (169, 12743), (175, 12791),

Gene: EGole\_46 Start: 24148, Stop: 25884, Start Num: 16

Candidate Starts for EGole\_46:

(Start: 16 @24148 has 100 MA's), (21, 24241), (Start: 23 @24259 has 1 MA's), (26, 24289), (29, 24316), (31, 24340), (36, 24427), (38, 24436), (57, 24616), (83, 24928), (94, 24988), (110, 25129), (122, 25264), (128, 25318), (129, 25321), (140, 25405), (143, 25459), (145, 25480), (155, 25582), (165, 25678), (168, 25702), (171, 25714), (177, 25759), (186, 25846),

Gene: Eliot67\_42 Start: 21891, Stop: 23627, Start Num: 16

Candidate Starts for Eliot67\_42:

(Start: 16 @21891 has 100 MA's), (21, 21984), (Start: 23 @22002 has 1 MA's), (29, 22059), (31, 22083), (33, 22143), (35, 22158), (37, 22176), (38, 22179), (56, 22356), (57, 22359), (80, 22653), (94, 22731), (99, 22785), (128, 23061), (135, 23121), (138, 23136), (145, 23223), (146, 23229), (157, 23340), (165, 23421), (179, 23523),

Gene: Elmer\_49 Start: 23620, Stop: 25359, Start Num: 16

Candidate Starts for Elmer\_49:

(Start: 16 @23620 has 100 MA's), (20, 23689), (29, 23788), (31, 23812), (38, 23908), (72, 24220), (100, 24526), (101, 24532), (114, 24655), (117, 24685), (145, 24955), (154, 25051), (163, 25126), (185, 25318),

Gene: Emma1919\_26 Start: 11923, Stop: 13617, Start Num: 16

Candidate Starts for Emma1919\_26:

(8, 11875), (10, 11884), (Start: 16 @11923 has 100 MA's), (30, 12103), (32, 12127), (38, 12202), (40, 12229), (41, 12238), (48, 12295), (54, 12358), (80, 12664), (81, 12676), (85, 12697), (93, 12742), (112,

12895), (113, 12910), (130, 13048), (132, 13063), (137, 13120), (142, 13141), (143, 13189), (144, 13195), (160, 13351), (161, 13363), (169, 13438), (175, 13486),

Gene: Enygma\_44 Start: 22539, Stop: 24275, Start Num: 16

Candidate Starts for Enygma\_44:

(Start: 16 @22539 has 100 MA's), (20, 22608), (29, 22707), (31, 22731), (38, 22827), (46, 22908), (58, 23016), (80, 23304), (96, 23412), (99, 23436), (101, 23448), (113, 23568), (129, 23712), (145, 23871), (147, 23886), (165, 24069), (167, 24081), (177, 24150), (178, 24165), (186, 24237),

Gene: Evy\_46 Start: 23255, Stop: 24991, Start Num: 16

Candidate Starts for Evy\_46:

(Start: 16 @23255 has 100 MA's), (21, 23348), (Start: 23 @23366 has 1 MA's), (29, 23423), (31, 23447), (33, 23507), (36, 23534), (38, 23543), (39, 23570), (56, 23720), (96, 24125), (123, 24383), (129, 24428), (141, 24515), (145, 24587), (152, 24662), (165, 24785),

Gene: Faust\_22 Start: 11130, Stop: 12848, Start Num: 16

Candidate Starts for Faust\_22:

(Start: 16 @11130 has 100 MA's), (32, 11334), (41, 11445), (44, 11463), (66, 11655), (68, 11667), (69, 11673), (75, 11736), (76, 11742), (85, 11904), (108, 12051), (127, 12246), (132, 12273), (133, 12279), (137, 12330), (138, 12333), (143, 12399), (162, 12576), (169, 12648), (172, 12669), (178, 12723),

Gene: Forrest\_26 Start: 12046, Stop: 13740, Start Num: 16

Candidate Starts for Forrest\_26:

(8, 11998), (10, 12007), (Start: 16 @12046 has 100 MA's), (30, 12226), (32, 12250), (38, 12325), (40, 12352), (41, 12361), (48, 12418), (54, 12481), (80, 12787), (81, 12799), (85, 12820), (93, 12865), (112, 13018), (113, 13033), (130, 13171), (132, 13186), (137, 13243), (142, 13264), (143, 13312), (144, 13318), (160, 13474), (161, 13486), (169, 13561), (175, 13609),

Gene: Francob\_22 Start: 10713, Stop: 12398, Start Num: 16

Candidate Starts for Francob\_22:

(Start: 16 @10713 has 100 MA's), (32, 10917), (41, 11028), (42, 11034), (50, 11109), (51, 11112), (68, 11241), (69, 11247), (85, 11478), (106, 11619), (127, 11817), (134, 11865), (137, 11901), (143, 11970), (149, 12018), (153, 12072), (160, 12132), (169, 12219), (172, 12240), (175, 12267), (182, 12315),

Gene: FreddyDRoo\_42 Start: 21891, Stop: 23627, Start Num: 16

Candidate Starts for FreddyDRoo\_42:

(Start: 16 @21891 has 100 MA's), (21, 21984), (Start: 23 @22002 has 1 MA's), (29, 22059), (31, 22083), (33, 22143), (35, 22158), (37, 22176), (38, 22179), (56, 22356), (57, 22359), (80, 22653), (94, 22731), (99, 22785), (128, 23061), (135, 23121), (138, 23136), (145, 23223), (146, 23229), (157, 23340), (165, 23421), (179, 23523),

Gene: Genie2\_47 Start: 22558, Stop: 24294, Start Num: 16

Candidate Starts for Genie2\_47:

(9, 22516), (15, 22540), (Start: 16 @22558 has 100 MA's), (20, 22627), (29, 22726), (31, 22750), (33, 22810), (34, 22819), (38, 22846), (64, 23089), (72, 23158), (80, 23323), (86, 23356), (99, 23455), (111, 23566), (124, 23695), (133, 23749), (143, 23869), (147, 23905), (157, 24007), (163, 24061), (166, 24094), (177, 24169), (186, 24256),

Gene: Gibbi\_51 Start: 22701, Stop: 24437, Start Num: 16

Candidate Starts for Gibbi\_51:

(15, 22683), (Start: 16 @22701 has 100 MA's), (20, 22770), (29, 22869), (31, 22893), (33, 22953), (38, 22989), (46, 23070), (59, 23184), (64, 23232), (80, 23466), (99, 23598), (100, 23604), (101, 23610),

(117, 23763), (119, 23784), (120, 23802), (133, 23892), (142, 23967), (145, 24033), (147, 24048), (158, 24168), (177, 24312), (186, 24399),

Gene: Gilson\_26 Start: 11876, Stop: 13570, Start Num: 16

Candidate Starts for Gilson\_26:

(8, 11828), (10, 11837), (Start: 16 @11876 has 100 MA's), (30, 12056), (32, 12080), (38, 12155), (40, 12182), (41, 12191), (48, 12248), (54, 12311), (80, 12617), (81, 12629), (85, 12650), (93, 12695), (112, 12848), (113, 12863), (130, 13001), (132, 13016), (137, 13073), (142, 13094), (143, 13142), (144, 13148), (160, 13304), (161, 13316), (169, 13391), (175, 13439),

Gene: HangryHippo\_45 Start: 23243, Stop: 24979, Start Num: 16

Candidate Starts for HangryHippo\_45:

(Start: 16 @23243 has 100 MA's), (21, 23336), (29, 23411), (31, 23435), (33, 23495), (38, 23531), (57, 23711), (83, 24023), (94, 24083), (122, 24359), (128, 24413), (129, 24416), (140, 24500), (143, 24554), (145, 24575), (155, 24677), (165, 24773), (168, 24797), (171, 24809), (177, 24854), (186, 24941),

Gene: IchabodCrane\_44 Start: 22290, Stop: 24026, Start Num: 16

Candidate Starts for IchabodCrane\_44:

(15, 22272), (Start: 16 @22290 has 100 MA's), (20, 22359), (24, 22413), (29, 22458), (31, 22482), (33, 22542), (38, 22578), (59, 22773), (64, 22821), (80, 23055), (99, 23187), (101, 23199), (119, 23373), (133, 23481), (142, 23556), (145, 23622), (147, 23637), (158, 23757), (167, 23832), (177, 23901), (186, 23988),

Gene: Jada\_24 Start: 11228, Stop: 12922, Start Num: 16

Candidate Starts for Jada\_24:

(8, 11180), (10, 11189), (Start: 16 @11228 has 100 MA's), (30, 11408), (32, 11432), (38, 11507), (40, 11534), (41, 11543), (48, 11600), (54, 11663), (80, 11969), (81, 11981), (85, 12002), (93, 12047), (112, 12200), (113, 12215), (130, 12353), (132, 12368), (137, 12425), (142, 12446), (143, 12494), (144, 12500), (160, 12656), (161, 12668), (169, 12743), (175, 12791),

Gene: Jay2Jay\_50 Start: 24078, Stop: 25814, Start Num: 16

Candidate Starts for Jay2Jay\_50:

(Start: 16 @24078 has 100 MA's), (21, 24171), (Start: 23 @24189 has 1 MA's), (29, 24246), (31, 24270), (33, 24330), (36, 24357), (38, 24366), (39, 24393), (56, 24543), (76, 24711), (82, 24855), (86, 24873), (90, 24903), (96, 24948), (109, 25026), (114, 25110), (123, 25206), (129, 25251), (145, 25410), (152, 25485), (165, 25608),

Gene: JimJam\_47 Start: 22664, Stop: 24400, Start Num: 16

Candidate Starts for JimJam\_47:

(15, 22646), (Start: 16 @22664 has 100 MA's), (20, 22733), (29, 22832), (31, 22856), (33, 22916), (38, 22952), (59, 23147), (64, 23195), (80, 23429), (99, 23561), (100, 23567), (101, 23573), (117, 23726), (119, 23747), (120, 23765), (129, 23837), (133, 23855), (142, 23930), (145, 23996), (147, 24011), (158, 24131), (177, 24275), (186, 24362),

Gene: Jollison\_46 Start: 22546, Stop: 24282, Start Num: 16

Candidate Starts for Jollison\_46:

(2, 22435), (5, 22468), (7, 22486), (12, 22522), (14, 22528), (Start: 16 @22546 has 100 MA's), (20, 22615), (29, 22714), (31, 22738), (33, 22798), (38, 22834), (59, 23029), (64, 23077), (80, 23311), (99, 23443), (100, 23449), (101, 23455), (117, 23608), (119, 23629), (120, 23647), (129, 23719), (133, 23737), (142, 23812), (145, 23878), (147, 23893), (158, 24013), (177, 24157), (186, 24244),

Gene: Karimac\_46 Start: 22695, Stop: 24431, Start Num: 16

Candidate Starts for Karimac\_46:

(2, 22584), (5, 22617), (7, 22635), (12, 22671), (14, 22677), (Start: 16 @22695 has 100 MA's), (20, 22764), (24, 22818), (29, 22863), (31, 22887), (33, 22947), (38, 22983), (46, 23064), (59, 23178), (64, 23226), (80, 23460), (99, 23592), (101, 23604), (119, 23778), (133, 23886), (142, 23961), (145, 24027), (147, 24042), (158, 24162), (167, 24237), (177, 24306), (186, 24393),

Gene: Karp\_22 Start: 10942, Stop: 12636, Start Num: 16

Candidate Starts for Karp\_22:

(1, 10825), (3, 10831), (4, 10840), (Start: 16 @10942 has 100 MA's), (25, 11077), (28, 11104), (32, 11146), (44, 11275), (48, 11314), (65, 11455), (85, 11716), (93, 11761), (98, 11812), (102, 11842), (125, 12031), (136, 12136), (137, 12139), (143, 12208), (149, 12256), (160, 12370), (164, 12415), (169, 12457), (175, 12505), (182, 12553),

Gene: Kenrey\_26 Start: 11925, Stop: 13619, Start Num: 16

Candidate Starts for Kenrey\_26:

(4, 11826), (8, 11877), (10, 11886), (Start: 16 @11925 has 100 MA's), (32, 12129), (41, 12240), (48, 12297), (57, 12375), (79, 12663), (80, 12666), (85, 12699), (104, 12834), (109, 12852), (110, 12876), (113, 12912), (116, 12936), (126, 13035), (130, 13050), (131, 13059), (133, 13071), (138, 13125), (142, 13143), (143, 13191), (159, 13341), (160, 13353), (161, 13365), (169, 13440), (172, 13461), (175, 13488), (182, 13536),

Gene: KentuckyRacer\_47 Start: 22479, Stop: 24215, Start Num: 16

Candidate Starts for KentuckyRacer\_47:

(2, 22368), (5, 22401), (7, 22419), (12, 22455), (14, 22461), (Start: 16 @22479 has 100 MA's), (20, 22548), (29, 22647), (31, 22671), (33, 22731), (38, 22767), (59, 22962), (64, 23010), (80, 23244), (99, 23376), (100, 23382), (101, 23388), (117, 23541), (119, 23562), (120, 23580), (133, 23670), (142, 23745), (145, 23811), (147, 23826), (158, 23946), (177, 24090), (186, 24177),

Gene: Larnav\_45 Start: 23228, Stop: 24964, Start Num: 16

Candidate Starts for Larnav\_45:

(Start: 16 @23228 has 100 MA's), (21, 23321), (27, 23372), (29, 23396), (31, 23420), (33, 23480), (38, 23516), (57, 23696), (83, 24008), (94, 24068), (122, 24344), (128, 24398), (129, 24401), (140, 24485), (143, 24539), (145, 24560), (155, 24662), (165, 24758), (168, 24782), (171, 24794), (177, 24839), (186, 24926),

Gene: Leo04\_46 Start: 23743, Stop: 25479, Start Num: 16

Candidate Starts for Leo04\_46:

(Start: 16 @23743 has 100 MA's), (21, 23836), (29, 23911), (31, 23935), (33, 23995), (38, 24031), (57, 24211), (83, 24523), (94, 24583), (122, 24859), (128, 24913), (129, 24916), (140, 25000), (143, 25054), (145, 25075), (155, 25177), (165, 25273), (168, 25297), (171, 25309), (177, 25354), (186, 25441),

Gene: Liandry\_44 Start: 22598, Stop: 24334, Start Num: 16

Candidate Starts for Liandry\_44:

(Start: 16 @22598 has 100 MA's), (21, 22691), (Start: 23 @22709 has 1 MA's), (29, 22766), (31, 22790), (33, 22850), (35, 22865), (37, 22883), (38, 22886), (56, 23063), (57, 23066), (80, 23360), (94, 23438), (99, 23492), (128, 23768), (135, 23828), (138, 23843), (145, 23930), (146, 23936), (157, 24047), (165, 24128), (179, 24230),

Gene: LilMartin\_42 Start: 21535, Stop: 23277, Start Num: 16

Candidate Starts for LilMartin\_42:

(Start: 16 @21535 has 100 MA's), (21, 21628), (Start: 23 @21646 has 1 MA's), (29, 21703), (31, 21727), (33, 21787), (36, 21814), (37, 21820), (38, 21823), (56, 22000), (90, 22366), (105, 22474),

(110, 22522), (129, 22714), (145, 22873), (151, 22924), (156, 22984), (157, 22990), (173, 23128), (176, 23143), (181, 23185),

Gene: LilSaint\_44 Start: 21779, Stop: 23521, Start Num: 16

Candidate Starts for LilSaint\_44:

(Start: 16 @21779 has 100 MA's), (21, 21872), (Start: 23 @21890 has 1 MA's), (29, 21947), (31, 21971), (33, 22031), (38, 22067), (63, 22298), (82, 22562), (100, 22685), (105, 22718), (110, 22766), (122, 22901), (129, 22958), (143, 23096), (145, 23117), (152, 23192), (153, 23204), (154, 23213), (157, 23234), (165, 23315), (169, 23342), (174, 23378), (176, 23387),

Gene: Limpid\_22 Start: 10974, Stop: 12695, Start Num: 16

Candidate Starts for Limpid\_22:

(15, 10953), (Start: 16 @10974 has 100 MA's), (Start: 18 @11016 has 1 MA's), (32, 11178), (38, 11253), (48, 11346), (53, 11403), (54, 11409), (56, 11421), (60, 11451), (62, 11457), (66, 11499), (68, 11511), (69, 11517), (71, 11532), (80, 11715), (85, 11748), (103, 11877), (125, 12066), (126, 12087), (137, 12174), (153, 12345), (169, 12495), (175, 12543),

Gene: LukeCage\_46 Start: 22443, Stop: 24179, Start Num: 16

Candidate Starts for LukeCage\_46:

(13, 22422), (15, 22425), (Start: 16 @22443 has 100 MA's), (20, 22512), (29, 22611), (31, 22635), (38, 22731), (39, 22758), (46, 22812), (51, 22860), (59, 22926), (77, 23088), (80, 23208), (84, 23235), (96, 23316), (99, 23340), (101, 23352), (114, 23475), (116, 23499), (129, 23616), (133, 23634), (142, 23709), (145, 23775), (147, 23790), (165, 23973), (166, 23979), (167, 23985), (177, 24054),

Gene: Lululemon\_44 Start: 22624, Stop: 24360, Start Num: 16

Candidate Starts for Lululemon\_44:

(Start: 16 @22624 has 100 MA's), (21, 22717), (29, 22792), (31, 22816), (33, 22876), (38, 22912), (57, 23092), (83, 23404), (94, 23464), (122, 23740), (128, 23794), (129, 23797), (140, 23881), (143, 23935), (145, 23956), (155, 24058), (165, 24154), (168, 24178), (171, 24190), (177, 24235), (186, 24322),

Gene: Marsus\_43 Start: 21918, Stop: 23549, Start Num: 23

Candidate Starts for Marsus\_43:

(Start: 16 @21807 has 100 MA's), (21, 21900), (Start: 23 @21918 has 1 MA's), (29, 21975), (31, 21999), (33, 22059), (36, 22086), (37, 22092), (38, 22095), (97, 22692), (105, 22746), (110, 22794), (129, 22986), (139, 23061), (145, 23145), (151, 23196), (173, 23400), (176, 23415), (181, 23457),

Gene: Maupel\_26 Start: 11828, Stop: 13570, Start Num: 8

Candidate Starts for Maupel\_26:

(8, 11828), (10, 11837), (Start: 16 @11876 has 100 MA's), (30, 12056), (32, 12080), (38, 12155), (40, 12182), (41, 12191), (48, 12248), (54, 12311), (80, 12617), (81, 12629), (85, 12650), (93, 12695), (112, 12848), (113, 12863), (130, 13001), (132, 13016), (137, 13073), (142, 13094), (143, 13142), (144, 13148), (160, 13304), (161, 13316), (169, 13391), (175, 13439),

Gene: MeganTheeKilla\_24 Start: 11237, Stop: 12931, Start Num: 16

Candidate Starts for MeganTheeKilla\_24:

(8, 11189), (10, 11198), (Start: 16 @11237 has 100 MA's), (30, 11417), (32, 11441), (38, 11516), (40, 11543), (41, 11552), (48, 11609), (54, 11672), (80, 11978), (81, 11990), (85, 12011), (93, 12056), (112, 12209), (113, 12224), (130, 12362), (132, 12377), (137, 12434), (142, 12455), (143, 12503), (144, 12509), (160, 12665), (161, 12677), (169, 12752), (175, 12800),

Gene: Mildred21\_43 Start: 21720, Stop: 23462, Start Num: 16

Candidate Starts for Mildred21\_43:

(Start: 16 @21720 has 100 MA's), (21, 21813), (Start: 23 @21831 has 1 MA's), (29, 21888), (31, 21912), (33, 21972), (38, 22008), (80, 22488), (100, 22626), (105, 22659), (115, 22773), (129, 22899), (145, 23058), (151, 23109), (165, 23256), (168, 23280), (176, 23328), (179, 23358), (182, 23373), (186, 23424),

Gene: MindFlayer\_45 Start: 22197, Stop: 23933, Start Num: 16

Candidate Starts for MindFlayer\_45:

(15, 22179), (Start: 16 @22197 has 100 MA's), (20, 22266), (29, 22365), (31, 22389), (33, 22449), (38, 22485), (59, 22680), (64, 22728), (80, 22962), (99, 23094), (100, 23100), (101, 23106), (117, 23259), (119, 23280), (120, 23298), (133, 23388), (142, 23463), (145, 23529), (147, 23544), (158, 23664), (177, 23808), (186, 23895),

Gene: Moab\_23 Start: 11265, Stop: 12956, Start Num: 16

Candidate Starts for Moab\_23:

(11, 11226), (Start: 16 @11265 has 100 MA's), (17, 11286), (25, 11400), (32, 11469), (39, 11565), (48, 11637), (52, 11670), (69, 11808), (85, 12036), (118, 12285), (122, 12327), (143, 12528), (144, 12534), (160, 12690), (169, 12777), (175, 12825), (182, 12873),

Gene: Mugiwara\_46 Start: 22942, Stop: 24678, Start Num: 16

Candidate Starts for Mugiwara\_46:

(13, 22921), (15, 22924), (Start: 16 @22942 has 100 MA's), (20, 23011), (29, 23110), (31, 23134), (33, 23194), (38, 23230), (39, 23257), (46, 23311), (59, 23425), (64, 23473), (72, 23542), (80, 23707), (96, 23815), (101, 23851), (114, 23974), (117, 24004), (133, 24133), (142, 24208), (145, 24274), (147, 24289), (165, 24472), (167, 24484), (177, 24553), (180, 24583), (184, 24613), (186, 24640),

Gene: MulchMansion\_42 Start: 21535, Stop: 23277, Start Num: 16

Candidate Starts for MulchMansion\_42:

(Start: 16 @21535 has 100 MA's), (21, 21628), (Start: 23 @21646 has 1 MA's), (29, 21703), (31, 21727), (33, 21787), (36, 21814), (37, 21820), (38, 21823), (56, 22000), (90, 22366), (105, 22474), (110, 22522), (129, 22714), (145, 22873), (151, 22924), (156, 22984), (157, 22990), (173, 23128), (176, 23143), (181, 23185),

Gene: Navo\_43 Start: 22555, Stop: 24291, Start Num: 16

Candidate Starts for Navo\_43:

(Start: 16 @22555 has 100 MA's), (21, 22648), (Start: 23 @22666 has 1 MA's), (29, 22723), (31, 22747), (35, 22822), (37, 22840), (38, 22843), (56, 23020), (57, 23023), (80, 23317), (94, 23395), (99, 23449), (128, 23725), (135, 23785), (138, 23800), (145, 23887), (146, 23893), (157, 24004), (165, 24085), (179, 24187),

Gene: NootNoot\_41 Start: 21512, Stop: 23248, Start Num: 16

Candidate Starts for NootNoot\_41:

(Start: 16 @21512 has 100 MA's), (21, 21605), (Start: 23 @21623 has 1 MA's), (29, 21680), (31, 21704), (33, 21764), (35, 21779), (37, 21797), (38, 21800), (56, 21977), (57, 21980), (80, 22274), (94, 22352), (99, 22406), (128, 22682), (135, 22742), (138, 22757), (145, 22844), (146, 22850), (157, 22961), (165, 23042), (179, 23144),

Gene: PacManQ\_44 Start: 22624, Stop: 24360, Start Num: 16

Candidate Starts for PacManQ\_44:

(Start: 16 @22624 has 100 MA's), (21, 22717), (29, 22792), (31, 22816), (33, 22876), (38, 22912), (57, 23092), (83, 23404), (94, 23464), (122, 23740), (128, 23794), (129, 23797), (140, 23881), (143, 23935), (145, 23956), (155, 24058), (165, 24154), (168, 24178), (171, 24190), (177, 24235), (186, 24322),

Gene: Paradiddles\_41 Start: 21772, Stop: 23508, Start Num: 16

Candidate Starts for Paradiddles\_41:

(Start: 16 @21772 has 100 MA's), (21, 21865), (22, 21880), (Start: 23 @21883 has 1 MA's), (29, 21940), (31, 21964), (35, 22039), (38, 22060), (45, 22129), (57, 22240), (58, 22249), (59, 22255), (61, 22273), (67, 22327), (82, 22549), (91, 22600), (97, 22651), (129, 22945), (145, 23104), (151, 23155), (158, 23239), (165, 23302), (171, 23338), (173, 23359), (177, 23383),

Gene: Patelgo\_23 Start: 10879, Stop: 12570, Start Num: 16

Candidate Starts for Patelgo\_23:

(11, 10840), (Start: 16 @10879 has 100 MA's), (17, 10900), (25, 11014), (32, 11083), (39, 11179), (48, 11251), (69, 11422), (85, 11650), (91, 11686), (118, 11899), (122, 11941), (143, 12142), (144, 12148), (160, 12304), (169, 12391), (170, 12397), (172, 12412), (175, 12439), (182, 12487),

Gene: Peebs\_44 Start: 22981, Stop: 24717, Start Num: 16

Candidate Starts for Peebs\_44:

(Start: 16 @22981 has 100 MA's), (21, 23074), (29, 23149), (31, 23173), (33, 23233), (38, 23269), (57, 23449), (83, 23761), (94, 23821), (128, 24151), (129, 24154), (140, 24238), (143, 24292), (145, 24313), (155, 24415), (165, 24511), (168, 24535), (171, 24547), (177, 24592), (179, 24613), (186, 24679),

Gene: Pepperwood\_45 Start: 23114, Stop: 24850, Start Num: 16

Candidate Starts for Pepperwood\_45:

(Start: 16 @23114 has 100 MA's), (21, 23207), (29, 23282), (31, 23306), (33, 23366), (38, 23402), (57, 23582), (80, 23876), (94, 23954), (128, 24284), (129, 24287), (140, 24371), (143, 24425), (145, 24446), (155, 24548), (165, 24644), (168, 24668), (171, 24680), (177, 24725), (186, 24812),

Gene: Persimmon\_41 Start: 21487, Stop: 23223, Start Num: 16

Candidate Starts for Persimmon\_41:

(Start: 16 @21487 has 100 MA's), (21, 21580), (Start: 23 @21598 has 1 MA's), (29, 21655), (31, 21679), (37, 21772), (38, 21775), (56, 21952), (57, 21955), (80, 22249), (94, 22327), (99, 22381), (128, 22657), (135, 22717), (138, 22732), (145, 22819), (146, 22825), (157, 22936), (165, 23017), (179, 23119),

Gene: Phredrick\_24 Start: 11131, Stop: 12825, Start Num: 16

Candidate Starts for Phredrick\_24:

(4, 11032), (8, 11083), (10, 11092), (Start: 16 @11131 has 100 MA's), (32, 11335), (41, 11446), (48, 11503), (57, 11581), (79, 11869), (80, 11872), (85, 11905), (104, 12040), (109, 12058), (110, 12082), (113, 12118), (116, 12142), (126, 12241), (130, 12256), (131, 12265), (133, 12277), (138, 12331), (142, 12349), (143, 12397), (159, 12547), (160, 12559), (161, 12571), (169, 12646), (172, 12667), (175, 12694), (182, 12742),

Gene: PinkiePie\_43 Start: 22598, Stop: 24334, Start Num: 16

Candidate Starts for PinkiePie\_43:

(Start: 16 @22598 has 100 MA's), (21, 22691), (Start: 23 @22709 has 1 MA's), (29, 22766), (31, 22790), (33, 22850), (35, 22865), (37, 22883), (38, 22886), (56, 23063), (57, 23066), (80, 23360), (94, 23438), (99, 23492), (128, 23768), (135, 23828), (138, 23843), (145, 23930), (146, 23936), (157, 24047), (165, 24128), (179, 24230),

Gene: PumpkinSpice\_46 Start: 22589, Stop: 24325, Start Num: 16

Candidate Starts for PumpkinSpice\_46:

(2, 22478), (5, 22511), (7, 22529), (12, 22565), (14, 22571), (Start: 16 @22589 has 100 MA's), (20, 22658), (29, 22757), (31, 22781), (33, 22841), (38, 22877), (59, 23072), (64, 23120), (80, 23354), (99, 23486), (100, 23492), (101, 23498), (117, 23651), (119, 23672), (120, 23690), (129, 23762), (133,

23780), (142, 23855), (145, 23921), (147, 23936), (158, 24056), (177, 24200), (186, 24287),

Gene: PynkPanther\_50 Start: 22626, Stop: 24362, Start Num: 16

Candidate Starts for PynkPanther\_50:

(Start: 16 @22626 has 100 MA's), (21, 22719), (Start: 23 @22737 has 1 MA's), (29, 22794), (31, 22818), (33, 22878), (35, 22893), (37, 22911), (38, 22914), (56, 23091), (57, 23094), (80, 23388), (94, 23466), (99, 23520), (128, 23796), (135, 23856), (138, 23871), (145, 23958), (146, 23964), (157, 24075), (165, 24156), (179, 24258),

Gene: Quaran19\_47 Start: 22580, Stop: 24316, Start Num: 16

Candidate Starts for Quaran19\_47:

(2, 22469), (5, 22502), (7, 22520), (12, 22556), (14, 22562), (Start: 16 @22580 has 100 MA's), (20, 22649), (29, 22748), (31, 22772), (33, 22832), (38, 22868), (59, 23063), (64, 23111), (80, 23345), (99, 23477), (100, 23483), (101, 23489), (117, 23642), (119, 23663), (120, 23681), (129, 23753), (133, 23771), (142, 23846), (145, 23912), (147, 23927), (158, 24047), (177, 24191), (186, 24278),

Gene: Rikishi\_47 Start: 22495, Stop: 24231, Start Num: 16

Candidate Starts for Rikishi\_47:

(2, 22384), (5, 22417), (7, 22435), (12, 22471), (14, 22477), (Start: 16 @22495 has 100 MA's), (20, 22564), (29, 22663), (31, 22687), (33, 22747), (38, 22783), (59, 22978), (64, 23026), (80, 23260), (99, 23392), (100, 23398), (101, 23404), (117, 23557), (119, 23578), (120, 23596), (129, 23668), (133, 23686), (142, 23761), (145, 23827), (147, 23842), (158, 23962), (177, 24106), (186, 24193),

Gene: Riptide\_42 Start: 21328, Stop: 23070, Start Num: 16

Candidate Starts for Riptide\_42:

(Start: 16 @21328 has 100 MA's), (21, 21421), (Start: 23 @21439 has 1 MA's), (29, 21496), (31, 21520), (33, 21580), (38, 21616), (82, 22111), (96, 22204), (100, 22234), (103, 22258), (105, 22267), (110, 22315), (129, 22507), (143, 22645), (145, 22666), (152, 22741), (153, 22753), (154, 22762), (157, 22783), (165, 22864), (169, 22891), (174, 22927), (176, 22936),

Gene: SaltySpittoon\_47 Start: 22589, Stop: 24325, Start Num: 16

Candidate Starts for SaltySpittoon\_47:

(2, 22478), (5, 22511), (7, 22529), (12, 22565), (14, 22571), (Start: 16 @22589 has 100 MA's), (20, 22658), (29, 22757), (31, 22781), (33, 22841), (38, 22877), (59, 23072), (64, 23120), (80, 23354), (99, 23486), (100, 23492), (101, 23498), (117, 23651), (119, 23672), (120, 23690), (129, 23762), (133, 23780), (142, 23855), (145, 23921), (147, 23936), (158, 24056), (177, 24200), (186, 24287),

Gene: Samisti12\_45 Start: 24417, Stop: 26153, Start Num: 16

Candidate Starts for Samisti12\_45:

(Start: 16 @24417 has 100 MA's), (21, 24510), (29, 24585), (31, 24609), (33, 24669), (38, 24705), (57, 24885), (76, 25050), (80, 25179), (83, 25197), (94, 25257), (122, 25533), (128, 25587), (129, 25590), (140, 25674), (143, 25728), (145, 25749), (155, 25851), (165, 25947), (168, 25971), (171, 25983), (177, 26028), (186, 26115),

Gene: Scheme\_46 Start: 23828, Stop: 25564, Start Num: 16

Candidate Starts for Scheme\_46:

(Start: 16 @23828 has 100 MA's), (21, 23921), (Start: 23 @23939 has 1 MA's), (29, 23996), (31, 24020), (33, 24080), (38, 24116), (57, 24296), (80, 24590), (94, 24668), (128, 24998), (129, 25001), (140, 25085), (143, 25139), (145, 25160), (155, 25262), (165, 25358), (168, 25382), (171, 25394), (177, 25439), (179, 25460), (186, 25526),

Gene: SeresaTree\_22 Start: 10520, Stop: 12238, Start Num: 16

Candidate Starts for SeresaTree\_22:

(Start: 16 @10520 has 100 MA's), (32, 10724), (41, 10835), (44, 10853), (66, 11045), (68, 11057), (69, 11063), (75, 11126), (81, 11273), (87, 11303), (108, 11441), (127, 11636), (132, 11663), (133, 11669), (137, 11720), (138, 11723), (143, 11789), (162, 11966), (169, 12038), (172, 12059), (178, 12113),

Gene: Shuckle\_43 Start: 23434, Stop: 25170, Start Num: 16

Candidate Starts for Shuckle\_43:

(Start: 16 @23434 has 100 MA's), (21, 23527), (29, 23602), (31, 23626), (33, 23686), (38, 23722), (57, 23902), (83, 24214), (94, 24274), (128, 24604), (129, 24607), (140, 24691), (143, 24745), (145, 24766), (155, 24868), (165, 24964), (168, 24988), (171, 25000), (177, 25045), (179, 25066), (186, 25132),

Gene: Sollertia\_47 Start: 22558, Stop: 24294, Start Num: 16

Candidate Starts for Sollertia\_47:

(9, 22516), (15, 22540), (Start: 16 @22558 has 100 MA's), (20, 22627), (29, 22726), (31, 22750), (33, 22810), (34, 22819), (38, 22846), (64, 23089), (72, 23158), (80, 23323), (86, 23356), (99, 23455), (111, 23566), (124, 23695), (133, 23749), (143, 23869), (147, 23905), (157, 24007), (163, 24061), (166, 24094), (177, 24169), (186, 24256),

Gene: SparkleGoddess\_23 Start: 11343, Stop: 13037, Start Num: 16

Candidate Starts for SparkleGoddess\_23:

(1, 11226), (3, 11232), (4, 11241), (Start: 16 @11343 has 100 MA's), (25, 11478), (28, 11505), (32, 11547), (44, 11676), (48, 11715), (65, 11856), (85, 12117), (93, 12162), (98, 12213), (102, 12243), (125, 12432), (136, 12537), (137, 12540), (143, 12609), (149, 12657), (160, 12771), (164, 12816), (169, 12858), (175, 12906), (182, 12954),

Gene: Spelly\_47 Start: 22544, Stop: 24280, Start Num: 16

Candidate Starts for Spelly\_47:

(2, 22433), (5, 22466), (7, 22484), (12, 22520), (14, 22526), (Start: 16 @22544 has 100 MA's), (20, 22613), (29, 22712), (31, 22736), (33, 22796), (38, 22832), (58, 23021), (59, 23027), (64, 23075), (80, 23309), (99, 23441), (100, 23447), (101, 23453), (117, 23606), (119, 23627), (120, 23645), (133, 23735), (142, 23810), (145, 23876), (147, 23891), (158, 24011), (177, 24155), (186, 24242),

Gene: Spilled\_48 Start: 22661, Stop: 24397, Start Num: 16

Candidate Starts for Spilled\_48:

(15, 22643), (Start: 16 @22661 has 100 MA's), (20, 22730), (24, 22784), (29, 22829), (31, 22853), (33, 22913), (38, 22949), (59, 23144), (64, 23192), (80, 23426), (99, 23558), (101, 23570), (119, 23744), (133, 23852), (142, 23927), (145, 23993), (147, 24008), (158, 24128), (167, 24203), (177, 24272), (186, 24359),

Gene: Squillium\_44 Start: 22599, Stop: 24335, Start Num: 16

Candidate Starts for Squillium\_44:

(Start: 16 @22599 has 100 MA's), (21, 22692), (Start: 23 @22710 has 1 MA's), (29, 22767), (31, 22791), (33, 22851), (35, 22866), (37, 22884), (38, 22887), (56, 23064), (57, 23067), (80, 23361), (94, 23439), (99, 23493), (128, 23769), (135, 23829), (138, 23844), (145, 23931), (146, 23937), (157, 24048), (165, 24129), (179, 24231),

Gene: Stanimal\_47 Start: 22447, Stop: 24183, Start Num: 16

Candidate Starts for Stanimal\_47:

(9, 22405), (15, 22429), (Start: 16 @22447 has 100 MA's), (20, 22516), (29, 22615), (31, 22639), (33, 22699), (34, 22708), (38, 22735), (64, 22978), (72, 23047), (80, 23212), (86, 23245), (99, 23344), (111, 23455), (124, 23584), (133, 23638), (143, 23758), (147, 23794), (157, 23896), (163, 23950), (166, 23983), (177, 24058), (186, 24145),

Gene: StarPlatinum\_47 Start: 23085, Stop: 24821, Start Num: 16

Candidate Starts for StarPlatinum\_47:

(13, 23064), (15, 23067), (Start: 16 @23085 has 100 MA's), (20, 23154), (29, 23253), (31, 23277), (38, 23373), (39, 23400), (59, 23568), (64, 23616), (80, 23850), (84, 23877), (96, 23958), (99, 23982), (101, 23994), (111, 24093), (114, 24117), (116, 24141), (117, 24147), (124, 24222), (129, 24258), (133, 24276), (143, 24396), (145, 24417), (147, 24432), (165, 24615), (166, 24621), (167, 24627), (177, 24696),

Gene: Starbow\_45 Start: 22565, Stop: 24301, Start Num: 16

Candidate Starts for Starbow\_45:

(2, 22454), (5, 22487), (7, 22505), (12, 22541), (14, 22547), (Start: 16 @22565 has 100 MA's), (20, 22634), (29, 22733), (31, 22757), (33, 22817), (38, 22853), (59, 23048), (64, 23096), (80, 23330), (99, 23462), (100, 23468), (101, 23474), (117, 23627), (119, 23648), (120, 23666), (129, 23738), (133, 23756), (142, 23831), (145, 23897), (147, 23912), (158, 24032), (177, 24176), (186, 24263),

Gene: Stigma\_23 Start: 11344, Stop: 13038, Start Num: 16

Candidate Starts for Stigma\_23:

(1, 11227), (3, 11233), (4, 11242), (Start: 16 @11344 has 100 MA's), (25, 11479), (28, 11506), (32, 11548), (44, 11677), (48, 11716), (65, 11857), (85, 12118), (93, 12163), (98, 12214), (102, 12244), (125, 12433), (136, 12538), (137, 12541), (143, 12610), (149, 12658), (160, 12772), (164, 12817), (169, 12859), (175, 12907), (182, 12955),

Gene: Sushi23\_45 Start: 23339, Stop: 25075, Start Num: 16

Candidate Starts for Sushi23\_45:

(Start: 16 @23339 has 100 MA's), (21, 23432), (29, 23507), (31, 23531), (33, 23591), (38, 23627), (57, 23807), (80, 24101), (94, 24179), (128, 24509), (129, 24512), (140, 24596), (143, 24650), (145, 24671), (155, 24773), (165, 24869), (168, 24893), (171, 24905), (177, 24950), (179, 24971), (186, 25037),

Gene: Targaryen\_46 Start: 24112, Stop: 25848, Start Num: 16

Candidate Starts for Targaryen\_46:

(Start: 16 @24112 has 100 MA's), (21, 24205), (Start: 23 @24223 has 1 MA's), (29, 24280), (31, 24304), (33, 24364), (36, 24391), (38, 24400), (39, 24427), (56, 24577), (82, 24889), (90, 24937), (96, 24982), (119, 25195), (129, 25285), (145, 25444), (152, 25519), (165, 25642),

Gene: Teutsch\_45 Start: 23608, Stop: 25344, Start Num: 16

Candidate Starts for Teutsch\_45:

(Start: 16 @23608 has 100 MA's), (21, 23701), (29, 23776), (31, 23800), (33, 23860), (38, 23896), (57, 24076), (76, 24241), (80, 24370), (83, 24388), (94, 24448), (122, 24724), (128, 24778), (129, 24781), (140, 24865), (143, 24919), (145, 24940), (155, 25042), (165, 25138), (168, 25162), (171, 25174), (177, 25219), (186, 25306),

Gene: TomSawyer\_45 Start: 22183, Stop: 23919, Start Num: 16

Candidate Starts for TomSawyer\_45:

(2, 22072), (5, 22105), (7, 22123), (12, 22159), (14, 22165), (Start: 16 @22183 has 100 MA's), (20, 22252), (29, 22351), (31, 22375), (33, 22435), (38, 22471), (46, 22552), (59, 22666), (64, 22714), (80, 22948), (99, 23080), (100, 23086), (101, 23092), (117, 23245), (119, 23266), (120, 23284), (133, 23374), (142, 23449), (145, 23515), (147, 23530), (158, 23650), (177, 23794), (186, 23881),

Gene: Tomas\_49 Start: 24898, Stop: 26640, Start Num: 16

Candidate Starts for Tomas\_49:

(Start: 16 @24898 has 100 MA's), (24, 25021), (26, 25039), (29, 25066), (31, 25090), (33, 25150), (38, 25186), (56, 25363), (64, 25429), (70, 25480), (73, 25516), (80, 25666), (89, 25717), (92, 25735), (101,

25810), (107, 25843), (117, 25966), (136, 26143), (163, 26407), (165, 26434), (176, 26506), (177, 26515), (180, 26545), (186, 26602),

Gene: Tribute\_43 Start: 22808, Stop: 24544, Start Num: 16

Candidate Starts for Tribute\_43:

(Start: 16 @22808 has 100 MA's), (21, 22901), (29, 22976), (31, 23000), (33, 23060), (38, 23096), (57, 23276), (80, 23570), (83, 23588), (94, 23648), (122, 23924), (128, 23978), (129, 23981), (140, 24065), (143, 24119), (145, 24140), (155, 24242), (165, 24338), (168, 24362), (171, 24374), (177, 24419), (179, 24440), (186, 24506),

Gene: Wakanda\_18 Start: 10264, Stop: 12462, Start Num: 16

Candidate Starts for Wakanda\_18:

(6, 10195), (Start: 16 @10264 has 100 MA's), (19, 10315), (38, 10546), (43, 10594), (44, 10600), (47, 10624), (49, 10660), (78, 10957), (79, 11011), (83, 11035), (88, 11065), (113, 11257), (120, 11323), (121, 11335), (122, 11338), (128, 11392), (129, 11395), (133, 11419), (143, 11542), (144, 11548), (148, 11584), (149, 11590), (162, 11731), (169, 11803), (183, 11917), (187, 11983), (188, 12217), (189, 12241), (190, 12280), (191, 12334),

Gene: Warpy\_49 Start: 23576, Stop: 25312, Start Num: 16

Candidate Starts for Warpy\_49:

(Start: 16 @23576 has 100 MA's), (21, 23669), (Start: 23 @23687 has 1 MA's), (29, 23744), (31, 23768), (33, 23828), (36, 23855), (38, 23864), (39, 23891), (55, 24038), (56, 24041), (82, 24353), (90, 24401), (96, 24446), (129, 24749), (145, 24908), (152, 24983), (165, 25106),

Gene: WashU\_48 Start: 23117, Stop: 24853, Start Num: 16

Candidate Starts for WashU\_48:

(Start: 16 @23117 has 100 MA's), (21, 23210), (29, 23285), (31, 23309), (33, 23369), (38, 23405), (57, 23585), (80, 23879), (94, 23957), (128, 24287), (129, 24290), (140, 24374), (143, 24428), (145, 24449), (155, 24551), (165, 24647), (168, 24671), (171, 24683), (177, 24728), (186, 24815),

Gene: Watermoore\_45 Start: 23815, Stop: 25551, Start Num: 16

Candidate Starts for Watermoore\_45:

(Start: 16 @23815 has 100 MA's), (21, 23908), (29, 23983), (31, 24007), (33, 24067), (38, 24103), (57, 24283), (83, 24595), (94, 24655), (122, 24931), (128, 24985), (129, 24988), (140, 25072), (143, 25126), (145, 25147), (155, 25249), (165, 25345), (168, 25369), (171, 25381), (177, 25426), (186, 25513),

Gene: Westy\_23 Start: 11344, Stop: 13038, Start Num: 16

Candidate Starts for Westy\_23:

(1, 11227), (3, 11233), (4, 11242), (Start: 16 @11344 has 100 MA's), (25, 11479), (28, 11506), (32, 11548), (44, 11677), (48, 11716), (65, 11857), (85, 12118), (93, 12163), (98, 12214), (102, 12244), (125, 12433), (136, 12538), (137, 12541), (143, 12610), (149, 12658), (160, 12772), (164, 12817), (169, 12859), (175, 12907), (182, 12955),

Gene: WhereRU\_42 Start: 22077, Stop: 23813, Start Num: 16

Candidate Starts for WhereRU\_42:

(Start: 16 @22077 has 100 MA's), (21, 22170), (Start: 23 @22188 has 1 MA's), (29, 22245), (31, 22269), (37, 22362), (38, 22365), (56, 22542), (57, 22545), (80, 22839), (94, 22917), (100, 22977), (128, 23247), (135, 23307), (138, 23322), (145, 23409), (146, 23415), (157, 23526), (165, 23607), (179, 23709),

Gene: Wipeout\_45 Start: 22934, Stop: 24670, Start Num: 16

Candidate Starts for Wipeout\_45:

(2, 22823), (5, 22856), (7, 22874), (12, 22910), (14, 22916), (Start: 16 @22934 has 100 MA's), (20, 23003), (29, 23102), (31, 23126), (33, 23186), (38, 23222), (46, 23303), (59, 23417), (64, 23465), (80, 23699), (99, 23831), (100, 23837), (101, 23843), (117, 23996), (119, 24017), (120, 24035), (133, 24125), (142, 24200), (145, 24266), (147, 24281), (158, 24401), (177, 24545), (186, 24632),

Gene: Wofford\_46 Start: 23583, Stop: 25322, Start Num: 16

Candidate Starts for Wofford\_46:

(Start: 16 @23583 has 100 MA's), (20, 23652), (29, 23751), (31, 23775), (38, 23871), (72, 24183), (100, 24489), (101, 24495), (114, 24618), (117, 24648), (145, 24918), (154, 25014), (163, 25089), (185, 25281),

Gene: Yaboi\_47 Start: 22535, Stop: 24271, Start Num: 16

Candidate Starts for Yaboi\_47:

(9, 22493), (15, 22517), (Start: 16 @22535 has 100 MA's), (20, 22604), (29, 22703), (31, 22727), (33, 22787), (34, 22796), (38, 22823), (64, 23066), (72, 23135), (80, 23300), (86, 23333), (99, 23432), (111, 23543), (124, 23672), (133, 23726), (143, 23846), (147, 23882), (157, 23984), (163, 24038), (166, 24071), (177, 24146), (186, 24233),