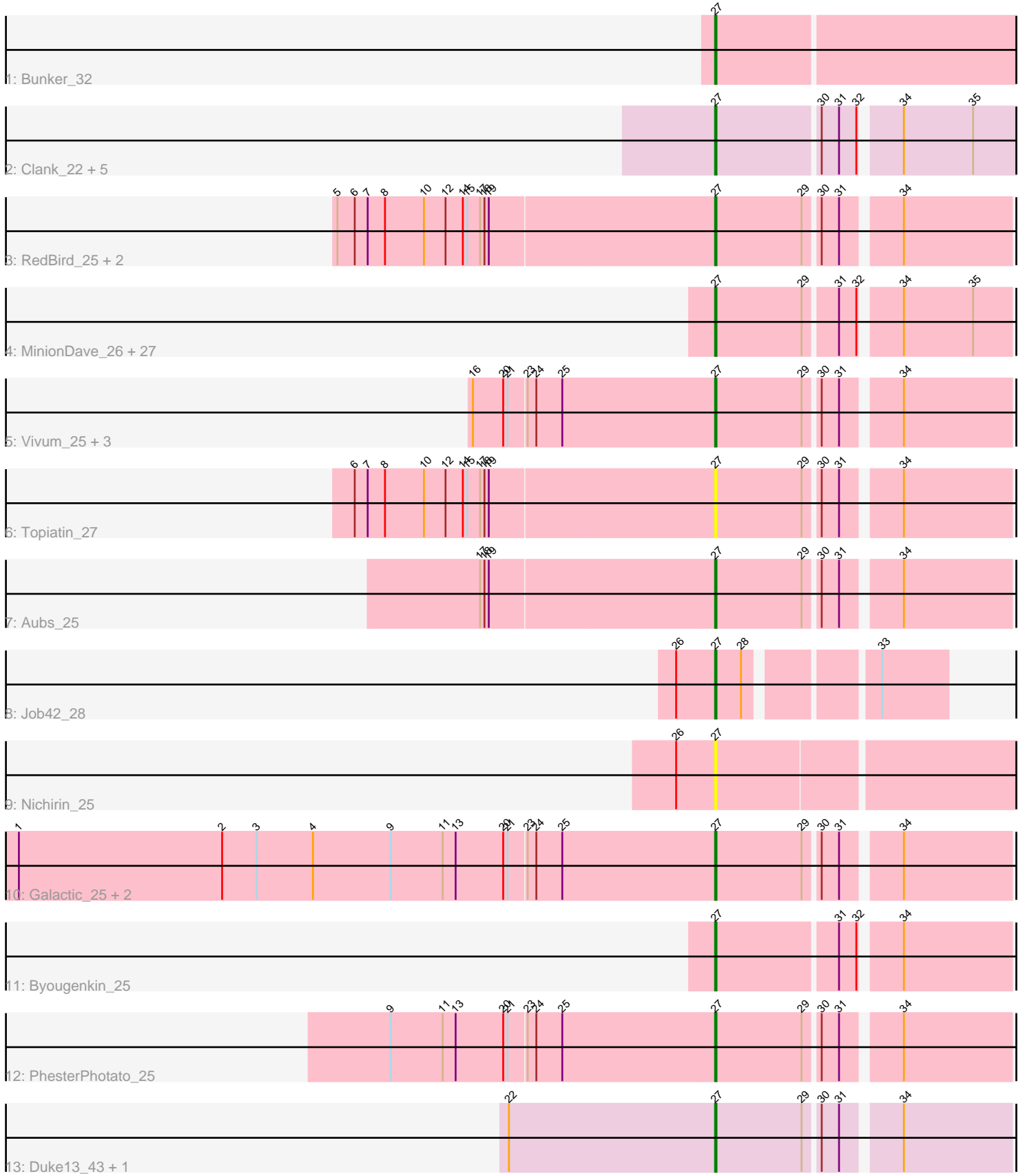


Pham 311666



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 311666 Report

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

Pham number 311666 has 53 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Bunker\_32
- Track 2 : Clank\_22, Nibley\_35, KashFlow\_34, Shaboozey\_34, BronnyJames\_34, Hannaconda\_37
- Track 3 : RedBird\_25, BAKA\_43, LittleE\_46
- Track 4 : MinionDave\_26, Brushbloom\_26, MisterCuddles\_25, Whatsapiecost\_25, KingJulian\_25, CaptainTrips\_26, Girr\_25, Tweety\_26, Sassafras\_25, Taj\_25, PopTart\_25, MilleniumForce\_26, SassyB\_25, Gonephishing\_41, Bobi\_27, Mutaforma13\_25, Wee\_26, BodEinwohner17\_25, Hegedechwinu\_26, Empress\_26, JalFarm20\_27, Wachhund\_25, OldBen\_25, Donkeykong\_25, Flathead\_26, Ruby\_25, Seagreen\_26, Juice456\_27
- Track 5 : Vivum\_25, WillSterrel\_26, Optimus\_44, IrishSherpFalk\_26
- Track 6 : Topiatin\_27
- Track 7 : Aubs\_25
- Track 8 : Job42\_28
- Track 9 : Nichirin\_25
- Track 10 : Galactic\_25, Batiatus\_25, Krakatau\_26
- Track 11 : Byougenkin\_25
- Track 12 : PhesterPhotato\_25
- Track 13 : Duke13\_43, Wanda\_46

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

The start number called the most often in the published annotations is 27, it was called in 46 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aubs\_25, BAKA\_43, Batiatus\_25, Bobi\_27, BodEinwohner17\_25, BronnyJames\_34, Brushbloom\_26, Bunker\_32, Byougenkin\_25, CaptainTrips\_26, Clank\_22, Donkeykong\_25, Duke13\_43, Empress\_26, Flathead\_26, Galactic\_25, Girr\_25, Gonephishing\_41, Hannaconda\_37, Hegedechwinu\_26, IrishSherpFalk\_26, JalFarm20\_27, Job42\_28, Juice456\_27, KashFlow\_34, KingJulian\_25, Krakatau\_26, LittleE\_46, MilleniumForce\_26, MinionDave\_26, MisterCuddles\_25, Mutaforma13\_25, Nibley\_35, Nichirin\_25, OldBen\_25, Optimus\_44, PhesterPhotato\_25, PopTart\_25, RedBird\_25, Ruby\_25, Sassafras\_25, SassyB\_25, Seagreen\_26, Shaboozey\_34,

Taj\_25, Topiatin\_27, Tweety\_26, Vivum\_25, Wachhund\_25, Wanda\_46, Wee\_26, Whatsapiecost\_25, WillSterrel\_26,

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

- 

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

- 

### Summary by start number:

Start 27:

- Found in 53 of 53 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 46 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aubs\_25 (F1), BAKA\_43 (J), Batiatus\_25 (F1), Bobi\_27 (F1), BodEinwohner17\_25 (F1), BronnyJames\_34 (J), Brushbloom\_26 (F1), Bunker\_32 (DB), Byougenkin\_25 (F1), CaptainTrips\_26 (F1), Clank\_22 (F), Donkeykong\_25 (F1), Duke13\_43 (J), Empress\_26 (F1), Flathead\_26 (F1), Galactic\_25 (F1), Girr\_25 (F1), Gonephishing\_41 (J), Hannaconda\_37 (J), Hegedechwinu\_26 (F1), IrishSherpFalk\_26 (F1), JalFarm20\_27 (F1), Job42\_28 (F1), Juice456\_27 (F1), KashFlow\_34 (J), KingJulian\_25 (F1), Krakatau\_26 (F1), LittleE\_46 (J), MilleniumForce\_26 (F1), MinionDave\_26 (F1), MisterCuddles\_25 (F1), Mutaforma13\_25 (F1), Nibley\_35 (J), Nichirin\_25 (F1), OldBen\_25 (F1), Optimus\_44 (J), PhesterPhotato\_25 (F1), PopTart\_25 (F1), RedBird\_25 (F1), Ruby\_25 (F1), Sassafras\_25 (F1), SassyB\_25 (F1), Seagreen\_26 (F1), Shaboozey\_34 (J), Taj\_25 (F1), Topiatin\_27 (F1), Tweety\_26 (F1), Vivum\_25 (F1), Wachhund\_25 (F1), Wanda\_46 (J), Wee\_26 (F1), Whatsapiecost\_25 (F1), WillSterrel\_26 (F1),

### Summary by clusters:

There are 4 clusters represented in this pham: F1, J, DB, F,

Info for manual annotations of cluster DB:

- Start number 27 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster F1:

- Start number 27 was manually annotated 38 times for cluster F1.

Info for manual annotations of cluster J:

- Start number 27 was manually annotated 7 times for cluster J.

### Gene Information:

Gene: Aubs\_25 Start: 25430, Stop: 25239, Start Num: 27

Candidate Starts for Aubs\_25:

(17, 25589), (18, 25586), (19, 25583), (Start: 27 @25430 has 46 MA's), (29, 25370), (30, 25361), (31, 25349), (34, 25313),

Gene: BAKA\_43 Start: 37783, Stop: 37592, Start Num: 27

Candidate Starts for BAKA\_43:

(5, 38041), (6, 38029), (7, 38020), (8, 38008), (10, 37981), (12, 37966), (14, 37954), (15, 37951), (17, 37942), (18, 37939), (19, 37936), (Start: 27 @37783 has 46 MA's), (29, 37723), (30, 37714), (31, 37702), (34, 37666),

Gene: Batiatus\_25 Start: 25321, Stop: 25130, Start Num: 27

Candidate Starts for Batiatus\_25:

(1, 25801), (2, 25660), (3, 25636), (4, 25597), (9, 25543), (11, 25507), (13, 25498), (20, 25465), (21, 25462), (23, 25450), (24, 25444), (25, 25426), (Start: 27 @25321 has 46 MA's), (29, 25261), (30, 25252), (31, 25240), (34, 25204),

Gene: Bobi\_27 Start: 26029, Stop: 25838, Start Num: 27

Candidate Starts for Bobi\_27:

(Start: 27 @26029 has 46 MA's), (29, 25969), (31, 25948), (32, 25936), (34, 25912), (35, 25864),

Gene: BodEinwohner17\_25 Start: 25613, Stop: 25422, Start Num: 27

Candidate Starts for BodEinwohner17\_25:

(Start: 27 @25613 has 46 MA's), (29, 25553), (31, 25532), (32, 25520), (34, 25496), (35, 25448),

Gene: BronnyJames\_34 Start: 32872, Stop: 32678, Start Num: 27

Candidate Starts for BronnyJames\_34:

(Start: 27 @32872 has 46 MA's), (30, 32803), (31, 32791), (32, 32779), (34, 32755), (35, 32707),

Gene: Brushbloom\_26 Start: 25324, Stop: 25133, Start Num: 27

Candidate Starts for Brushbloom\_26:

(Start: 27 @25324 has 46 MA's), (29, 25264), (31, 25243), (32, 25231), (34, 25207), (35, 25159),

Gene: Bunker\_32 Start: 28246, Stop: 28043, Start Num: 27

Candidate Starts for Bunker\_32:

(Start: 27 @28246 has 46 MA's),

Gene: Byougenkin\_25 Start: 25308, Stop: 25117, Start Num: 27

Candidate Starts for Byougenkin\_25:

(Start: 27 @25308 has 46 MA's), (31, 25227), (32, 25215), (34, 25191),

Gene: CaptainTrips\_26 Start: 25686, Stop: 25495, Start Num: 27

Candidate Starts for CaptainTrips\_26:

(Start: 27 @25686 has 46 MA's), (29, 25626), (31, 25605), (32, 25593), (34, 25569), (35, 25521),

Gene: Clank\_22 Start: 24484, Stop: 24290, Start Num: 27

Candidate Starts for Clank\_22:

(Start: 27 @24484 has 46 MA's), (30, 24415), (31, 24403), (32, 24391), (34, 24367), (35, 24319),

Gene: Donkeykong\_25 Start: 25459, Stop: 25268, Start Num: 27

Candidate Starts for Donkeykong\_25:

(Start: 27 @25459 has 46 MA's), (29, 25399), (31, 25378), (32, 25366), (34, 25342), (35, 25294),

Gene: Duke13\_43 Start: 37672, Stop: 37481, Start Num: 27

Candidate Starts for Duke13\_43:

(22, 37813), (Start: 27 @37672 has 46 MA's), (29, 37612), (30, 37603), (31, 37591), (34, 37555),

Gene: Empress\_26 Start: 26632, Stop: 26441, Start Num: 27

Candidate Starts for Empress\_26:

(Start: 27 @26632 has 46 MA's), (29, 26572), (31, 26551), (32, 26539), (34, 26515), (35, 26467),

Gene: Flathead\_26 Start: 25308, Stop: 25117, Start Num: 27

Candidate Starts for Flathead\_26:

(Start: 27 @25308 has 46 MA's), (29, 25248), (31, 25227), (32, 25215), (34, 25191), (35, 25143),

Gene: Galactic\_25 Start: 25267, Stop: 25076, Start Num: 27

Candidate Starts for Galactic\_25:

(1, 25747), (2, 25606), (3, 25582), (4, 25543), (9, 25489), (11, 25453), (13, 25444), (20, 25411), (21, 25408), (23, 25396), (24, 25390), (25, 25372), (Start: 27 @25267 has 46 MA's), (29, 25207), (30, 25198), (31, 25186), (34, 25150),

Gene: Girr\_25 Start: 25258, Stop: 25067, Start Num: 27

Candidate Starts for Girr\_25:

(Start: 27 @25258 has 46 MA's), (29, 25198), (31, 25177), (32, 25165), (34, 25141), (35, 25093),

Gene: Gonephishing\_41 Start: 35953, Stop: 35762, Start Num: 27

Candidate Starts for Gonephishing\_41:

(Start: 27 @35953 has 46 MA's), (29, 35893), (31, 35872), (32, 35860), (34, 35836), (35, 35788),

Gene: Hannaconda\_37 Start: 33327, Stop: 33133, Start Num: 27

Candidate Starts for Hannaconda\_37:

(Start: 27 @33327 has 46 MA's), (30, 33258), (31, 33246), (32, 33234), (34, 33210), (35, 33162),

Gene: Hegedechwinu\_26 Start: 25289, Stop: 25098, Start Num: 27

Candidate Starts for Hegedechwinu\_26:

(Start: 27 @25289 has 46 MA's), (29, 25229), (31, 25208), (32, 25196), (34, 25172), (35, 25124),

Gene: IrishSherpFalk\_26 Start: 26630, Stop: 26439, Start Num: 27

Candidate Starts for IrishSherpFalk\_26:

(16, 26795), (20, 26774), (21, 26771), (23, 26759), (24, 26753), (25, 26735), (Start: 27 @26630 has 46 MA's), (29, 26570), (30, 26561), (31, 26549), (34, 26513),

Gene: JalFarm20\_27 Start: 25810, Stop: 25619, Start Num: 27

Candidate Starts for JalFarm20\_27:

(Start: 27 @25810 has 46 MA's), (29, 25750), (31, 25729), (32, 25717), (34, 25693), (35, 25645),

Gene: Job42\_28 Start: 27005, Stop: 26865, Start Num: 27

Candidate Starts for Job42\_28:

(26, 27032), (Start: 27 @27005 has 46 MA's), (28, 26987), (33, 26909),

Gene: Juice456\_27 Start: 26560, Stop: 26369, Start Num: 27

Candidate Starts for Juice456\_27:

(Start: 27 @26560 has 46 MA's), (29, 26500), (31, 26479), (32, 26467), (34, 26443), (35, 26395),

Gene: KashFlow\_34 Start: 32948, Stop: 32754, Start Num: 27

Candidate Starts for KashFlow\_34:

(Start: 27 @32948 has 46 MA's), (30, 32879), (31, 32867), (32, 32855), (34, 32831), (35, 32783),

Gene: KingJulian\_25 Start: 25480, Stop: 25289, Start Num: 27

Candidate Starts for KingJulian\_25:

(Start: 27 @25480 has 46 MA's), (29, 25420), (31, 25399), (32, 25387), (34, 25363), (35, 25315),

Gene: Krakatau\_26 Start: 25968, Stop: 25777, Start Num: 27

Candidate Starts for Krakatau\_26:

(1, 26448), (2, 26307), (3, 26283), (4, 26244), (9, 26190), (11, 26154), (13, 26145), (20, 26112), (21, 26109), (23, 26097), (24, 26091), (25, 26073), (Start: 27 @25968 has 46 MA's), (29, 25908), (30, 25899), (31, 25887), (34, 25851),

Gene: LittleE\_46 Start: 38863, Stop: 38672, Start Num: 27

Candidate Starts for LittleE\_46:

(5, 39121), (6, 39109), (7, 39100), (8, 39088), (10, 39061), (12, 39046), (14, 39034), (15, 39031), (17, 39022), (18, 39019), (19, 39016), (Start: 27 @38863 has 46 MA's), (29, 38803), (30, 38794), (31, 38782), (34, 38746),

Gene: MilleniumForce\_26 Start: 26251, Stop: 26060, Start Num: 27

Candidate Starts for MilleniumForce\_26:

(Start: 27 @26251 has 46 MA's), (29, 26191), (31, 26170), (32, 26158), (34, 26134), (35, 26086),

Gene: MinionDave\_26 Start: 25673, Stop: 25482, Start Num: 27

Candidate Starts for MinionDave\_26:

(Start: 27 @25673 has 46 MA's), (29, 25613), (31, 25592), (32, 25580), (34, 25556), (35, 25508),

Gene: MisterCuddles\_25 Start: 25258, Stop: 25067, Start Num: 27

Candidate Starts for MisterCuddles\_25:

(Start: 27 @25258 has 46 MA's), (29, 25198), (31, 25177), (32, 25165), (34, 25141), (35, 25093),

Gene: Mutaforma13\_25 Start: 25488, Stop: 25297, Start Num: 27

Candidate Starts for Mutaforma13\_25:

(Start: 27 @25488 has 46 MA's), (29, 25428), (31, 25407), (32, 25395), (34, 25371), (35, 25323),

Gene: Nibley\_35 Start: 33385, Stop: 33191, Start Num: 27

Candidate Starts for Nibley\_35:

(Start: 27 @33385 has 46 MA's), (30, 33316), (31, 33304), (32, 33292), (34, 33268), (35, 33220),

Gene: Nichirin\_25 Start: 25459, Stop: 25247, Start Num: 27

Candidate Starts for Nichirin\_25:

(26, 25486), (Start: 27 @25459 has 46 MA's),

Gene: OldBen\_25 Start: 25253, Stop: 25062, Start Num: 27

Candidate Starts for OldBen\_25:

(Start: 27 @25253 has 46 MA's), (29, 25193), (31, 25172), (32, 25160), (34, 25136), (35, 25088),

Gene: Optimus\_44 Start: 38666, Stop: 38475, Start Num: 27

Candidate Starts for Optimus\_44:

(16, 38831), (20, 38810), (21, 38807), (23, 38795), (24, 38789), (25, 38771), (Start: 27 @38666 has 46 MA's), (29, 38606), (30, 38597), (31, 38585), (34, 38549),

Gene: PhesterPhotato\_25 Start: 25291, Stop: 25100, Start Num: 27

Candidate Starts for PhesterPhotato\_25:

(9, 25513), (11, 25477), (13, 25468), (20, 25435), (21, 25432), (23, 25420), (24, 25414), (25, 25396), (Start: 27 @25291 has 46 MA's), (29, 25231), (30, 25222), (31, 25210), (34, 25174),

Gene: PopTart\_25 Start: 25487, Stop: 25296, Start Num: 27

Candidate Starts for PopTart\_25:

(Start: 27 @25487 has 46 MA's), (29, 25427), (31, 25406), (32, 25394), (34, 25370), (35, 25322),

Gene: RedBird\_25 Start: 25230, Stop: 25039, Start Num: 27

Candidate Starts for RedBird\_25:

(5, 25488), (6, 25476), (7, 25467), (8, 25455), (10, 25428), (12, 25413), (14, 25401), (15, 25398), (17, 25389), (18, 25386), (19, 25383), (Start: 27 @25230 has 46 MA's), (29, 25170), (30, 25161), (31, 25149), (34, 25113),

Gene: Ruby\_25 Start: 25258, Stop: 25067, Start Num: 27

Candidate Starts for Ruby\_25:

(Start: 27 @25258 has 46 MA's), (29, 25198), (31, 25177), (32, 25165), (34, 25141), (35, 25093),

Gene: Sassafras\_25 Start: 25414, Stop: 25223, Start Num: 27

Candidate Starts for Sassafras\_25:

(Start: 27 @25414 has 46 MA's), (29, 25354), (31, 25333), (32, 25321), (34, 25297), (35, 25249),

Gene: SassyB\_25 Start: 25487, Stop: 25296, Start Num: 27

Candidate Starts for SassyB\_25:

(Start: 27 @25487 has 46 MA's), (29, 25427), (31, 25406), (32, 25394), (34, 25370), (35, 25322),

Gene: Seagreen\_26 Start: 25284, Stop: 25093, Start Num: 27

Candidate Starts for Seagreen\_26:

(Start: 27 @25284 has 46 MA's), (29, 25224), (31, 25203), (32, 25191), (34, 25167), (35, 25119),

Gene: Shaboozey\_34 Start: 32872, Stop: 32678, Start Num: 27

Candidate Starts for Shaboozey\_34:

(Start: 27 @32872 has 46 MA's), (30, 32803), (31, 32791), (32, 32779), (34, 32755), (35, 32707),

Gene: Taj\_25 Start: 25474, Stop: 25283, Start Num: 27

Candidate Starts for Taj\_25:

(Start: 27 @25474 has 46 MA's), (29, 25414), (31, 25393), (32, 25381), (34, 25357), (35, 25309),

Gene: Topiatin\_27 Start: 25971, Stop: 25780, Start Num: 27

Candidate Starts for Topiatin\_27:

(6, 26217), (7, 26208), (8, 26196), (10, 26169), (12, 26154), (14, 26142), (15, 26139), (17, 26130), (18, 26127), (19, 26124), (Start: 27 @25971 has 46 MA's), (29, 25911), (30, 25902), (31, 25890), (34, 25854),

Gene: Tweety\_26 Start: 25492, Stop: 25301, Start Num: 27

Candidate Starts for Tweety\_26:

(Start: 27 @25492 has 46 MA's), (29, 25432), (31, 25411), (32, 25399), (34, 25375), (35, 25327),

Gene: Vivum\_25 Start: 25217, Stop: 25026, Start Num: 27

Candidate Starts for Vivum\_25:

(16, 25382), (20, 25361), (21, 25358), (23, 25346), (24, 25340), (25, 25322), (Start: 27 @25217 has 46 MA's), (29, 25157), (30, 25148), (31, 25136), (34, 25100),

Gene: Wachhund\_25 Start: 25465, Stop: 25274, Start Num: 27

Candidate Starts for Wachhund\_25:

(Start: 27 @25465 has 46 MA's), (29, 25405), (31, 25384), (32, 25372), (34, 25348), (35, 25300),

Gene: Wanda\_46 Start: 37698, Stop: 37507, Start Num: 27

Candidate Starts for Wanda\_46:

(22, 37839), (Start: 27 @37698 has 46 MA's), (29, 37638), (30, 37629), (31, 37617), (34, 37581),

Gene: Wee\_26 Start: 26013, Stop: 25822, Start Num: 27

Candidate Starts for Wee\_26:

(Start: 27 @26013 has 46 MA's), (29, 25953), (31, 25932), (32, 25920), (34, 25896), (35, 25848),

Gene: Whatsapiecost\_25 Start: 25487, Stop: 25296, Start Num: 27

Candidate Starts for Whatsapiecost\_25:

(Start: 27 @25487 has 46 MA's), (29, 25427), (31, 25406), (32, 25394), (34, 25370), (35, 25322),

Gene: WillSterrel\_26 Start: 26663, Stop: 26472, Start Num: 27

Candidate Starts for WillSterrel\_26:

(16, 26828), (20, 26807), (21, 26804), (23, 26792), (24, 26786), (25, 26768), (Start: 27 @26663 has 46 MA's), (29, 26603), (30, 26594), (31, 26582), (34, 26546),