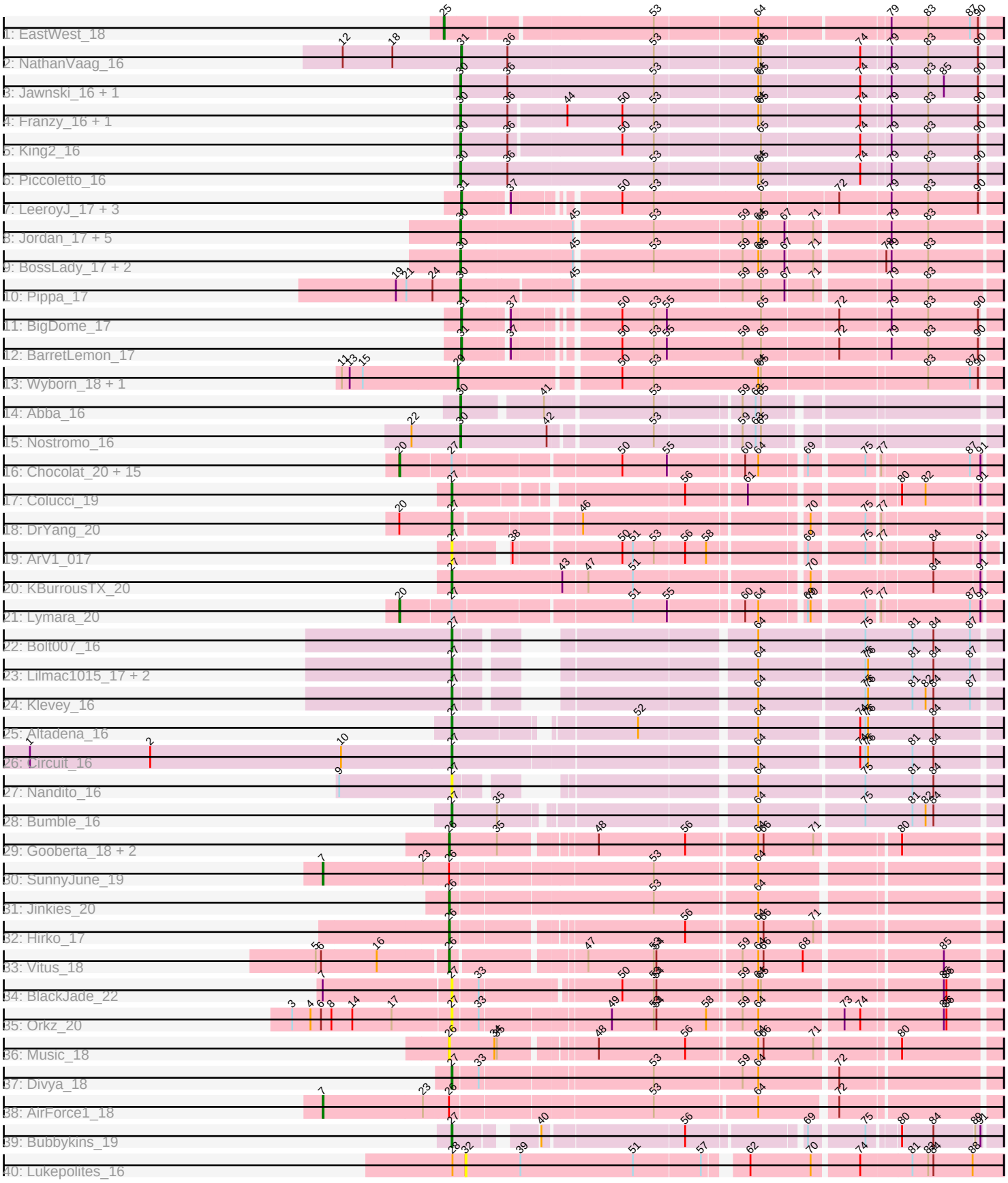
Pham 343956


1: EastWest_18
2: NathanVaag_16
3: Jawnski_16 + 1
4: Franzy_16 + 1
5: King2_16
6: Piccoletto_16
7: LeeroyJ_17 + 3
8: Jordan_17 + 5
9: BossLady_17 + 2
10: Pippa_17
11: BigDome_17
12: BarretLemon_17
13: Wyborn_18 + 1
14: Abba_16
15: Nostromo_16
16: Chocolat_20 + 15
17: Colucci_19
18: DrYang_20
19: ArV1_017
20: KBurrousTX_20
21: Lymara_20
22: Bolt007_16
23: Lilmac1015_17 + 2
24: Klevey_16
25: Altadena_16
26: Circuit_16
27: Nandito_16
28: Bumble_16
29: Gooberta_18 + 2
30: SunnyJune_19
31: Jinkies_20
32: Hirko_17
33: Vitus_18
34: BlackJade_22
35: Orkz_20
36: Music_18
37: Divya_18
38: AirForce1_18
39: Bubbykins_19
40: Lukepolites_16

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 343956 Report

This analysis was run 11/14/26 on database version 672.

Pham number 343956 has 72 members, 8 are drafts.

Phages represented in each track:
- Track 1 : EastWest_18
- Track 2 : NathanVaag_16
- Track 3 : Jawnski_16, Beans_16
- Track 4 : Franzy_16, Brent_16
- Track 5 : King2_16
- Track 6 : Piccoletto_16
- Track 7 : LeeroyJ_17, StevieBAY_17, Timinator_17, GravityBall_17
- Track 8 : Jordan_17, Shade_17, Zartrosa_17, Sonny_17, TaeYoung_17, JKerns_17
- Track 9 : BossLady_17, Martha_17, Grekaycon_17
- Track 10 : Pippa_17
- Track 11 : BigDome_17
- Track 12 : BarretLemon_17
- Track 13 : Wyborn_18, Sicarius2_18
- Track 14 : Abba_16
- Track 15 : Nostromo_16
- Track 16 : Chocolat_20, Kabreeze_20, Scavito_20, Conboy_20, Chipper1996_200, PrincessTrina_20, JaNo_20, RosiePosie_20, HumptyDumpty_20, Chubster_20, MoyaNatalis_20, Mordred_20, Tophat_20, Linus_20, JayCookie_20, EdgarPoe_20
- Track 17 : Colucci_19
- Track 18 : DrYang_20
- Track 19 : ArV1_017
- Track 20 : KBurrousTX_20
- Track 21 : Lymara_20
- Track 22 : Bolt007_16
- Track 23 : Lilmac1015_17, Prairie_16, CalWood4100_17
- Track 24 : Klevey_16
- Track 25 : Altadena_16
- Track 26 : Circuit_16
- Track 27 : Nandito_16
- Track 28 : Bumble_16
- Track 29 : Gooberta_18, GoldDust_18, Vibaki_18
- Track 30 : SunnyJune_19
- Track 31 : Jinkies_20
- Track 32 : Hirko_17
- Track 33 : Vitus_18
- Track 34 : BlackJade_22
- Track 35 : Orkz_20

• Track 36 : Music_18
• Track 37 : Divya_18
• Track 38 : AirForce1_18
• Track 39 : Bubbykins_19
• Track 40 : Lukepolites_16

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

The start number called the most often in the published annotations is 30, it was called in 18 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abba_16, Beans_16, BossLady_17, Brent_16, Franzy_16, Grekaycon_17, JKerns_17, Jawnski_16, Jordan_17, King2_16, Martha_17, Nostromo_16, Piccoletto_16, Pippa_17, Shade_17, Sonny_17, TaeYoung_17, Zartrosa_17,

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

Genes that do not have the "Most Annotated" start:
• AirForce1_18, Altadena_16, ArV1_017, BarretLemon_17, BigDome_17, BlackJade_22, Bolt007_16, Bubbykins_19, Bumble_16, CalWood4100_17, Chipper1996_200, Chocolat_20, Chubster_20, Circuit_16, Colucci_19, Conboy_20, Divya_18, DrYang_20, EastWest_18, EdgarPoe_20, GoldDust_18, Gooberta_18, GravityBall_17, Hirko_17, HumptyDumpty_20, JaNo_20, JayCookie_20, Jinkies_20, KBurrousTX_20, Kabreeze_20, Klevey_16, LeeroyJ_17, Lilmac1015_17, Linus_20, Lukepolites_16, Lymara_20, Mordred_20, MoyaNatalis_20, Music_18, Nandito_16, NathanVaag_16, Orkz_20, Prairie_16, PrincessTrina_20, RosiePosie_20, Scavito_20, Sicarius2_18, StevieBAY_17, SunnyJune_19, Timinator_17, Tophat_20, Vibaki_18, Vitus_18, Wyborn_18,

Summary by start number:

Start 7:
• Found in 3 of 72 (4.2%) of genes in pham
• Manual Annotations of this start: 2 of 64
• Called 66.7% of time when present
• Phage (with cluster) where this start called: AirForce1_18 (FL), SunnyJune_19 (FL),

Start 20:
• Found in 18 of 72 (25.0%) of genes in pham
• Manual Annotations of this start: 16 of 64
• Called 94.4% of time when present
• Phage (with cluster) where this start called: Chipper1996_200 (AR), Chocolat_20 (AR), Chubster_20 (AR), Conboy_20 (AR), EdgarPoe_20 (AR), HumptyDumpty_20 (AR), JaNo_20 (AR), JayCookie_20 (AR), Kabreeze_20 (AR), Linus_20 (AR), Lymara_20 (AR), Mordred_20 (AR), MoyaNatalis_20 (AR), PrincessTrina_20 (AR), RosiePosie_20 (AR), Scavito_20 (AR), Tophat_20 (AR),

Start 25:

• Found in 1 of 72 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 64
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EastWest_18 (AO),

Start 26:
• Found in 9 of 72 (12.5%) of genes in pham
• Manual Annotations of this start: 6 of 64
• Called 77.8% of time when present
• Phage (with cluster) where this start called: GoldDust_18 (FL), Gooberta_18 (FL), Hirko_17 (FL), Jinkies_20 (FL), Music_18 (FL), Vibaki_18 (FL), Vitus_18 (FL),

Start 27:
• Found in 34 of 72 (47.2%) of genes in pham
• Manual Annotations of this start: 12 of 64
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Altadena_16 (FH), ArV1_017 (AR), BlackJade_22 (FL), Bolt007_16 (FH), Bubbykins_19 (UNK), Bumble_16 (FH), CalWood4100_17 (FH), Circuit_16 (FH), Colucci_19 (AR), Divya_18 (FL), DrYang_20 (AR), KBurrousTX_20 (AR), Klevey_16 (FH), Lilmac1015_17 (FH), Nandito_16 (FH), Orkz_20 (FL), Prairie_16 (FH),

Start 29:
• Found in 2 of 72 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 64
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sicarius2_18 (AO2), Wyborn_18 (AO2),

Start 30:
• Found in 18 of 72 (25.0%) of genes in pham
• Manual Annotations of this start: 18 of 64
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abba_16 (AO3), Beans_16 (AO1), BossLady_17 (AO2), Brent_16 (AO1), Franzy_16 (AO1), Grekaycon_17 (AO2), JKerns_17 (AO2), Jawnski_16 (AO1), Jordan_17 (AO2), King2_16 (AO1), Martha_17 (AO2), Nostromo_16 (AO3), Piccoletto_16 (AO1), Pippa_17 (AO2), Shade_17 (AO2), Sonny_17 (AO2), TaeYoung_17 (AO2), Zartrosa_17 (AO2),

Start 31:
• Found in 7 of 72 (9.7%) of genes in pham
• Manual Annotations of this start: 7 of 64
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BarretLemon_17 (AO2), BigDome_17 (AO2), GravityBall_17 (AO2), LeeroyJ_17 (AO2), NathanVaag_16 (AO1), StevieBAY_17 (AO2), Timinator_17 (AO2),

Start 32:
• Found in 1 of 72 (1.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_16 (singleton),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, AO, AR, AO3, AO2, AO1, FH, UNK, FL,

Info for manual annotations of cluster AO:
•Start number 25 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 30 was manually annotated 6 times for cluster AO1.
•Start number 31 was manually annotated 1 time for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 29 was manually annotated 2 times for cluster AO2.
•Start number 30 was manually annotated 10 times for cluster AO2.
•Start number 31 was manually annotated 6 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 30 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AR:
•Start number 20 was manually annotated 16 times for cluster AR.
•Start number 27 was manually annotated 3 times for cluster AR.

Info for manual annotations of cluster FH:
•Start number 27 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FL:
•Start number 7 was manually annotated 2 times for cluster FL.
•Start number 26 was manually annotated 6 times for cluster FL.
•Start number 27 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster UNK:
•Start number 27 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: Abba_16 Start: 12747, Stop: 13298, Start Num: 30
Candidate Starts for Abba_16:
(Start: 30 @12747 has 18 MA's), (41, 12828), (53, 12945), (59, 13035), (63, 13050), (65, 13056),

Gene: AirForce1_18 Start: 12516, Stop: 13238, Start Num: 7
Candidate Starts for AirForce1_18:
(Start: 7 @12516 has 2 MA's), (23, 12630), (Start: 26 @12657 has 6 MA's), (53, 12876), (64, 12987), (72, 13068),

Gene: Altadena_16 Start: 12369, Stop: 12935, Start Num: 27
Candidate Starts for Altadena_16:
(Start: 27 @12369 has 12 MA's), (52, 12549), (64, 12672), (74, 12780), (75, 12786), (76, 12789), (84, 12864),

Gene: ArV1_017 Start: 13308, Stop: 13847, Start Num: 27

Candidate Starts for ArV1_017:
(Start: 27 @13308 has 12 MA's), (38, 13356), (50, 13470), (51, 13482), (53, 13506), (56, 13539), (58, 13563), (69, 13659), (75, 13716), (77, 13728), (84, 13782), (91, 13833),

Gene: BarretLemon_17 Start: 12966, Stop: 13523, Start Num: 31
Candidate Starts for BarretLemon_17:
(Start: 31 @12966 has 7 MA's), (37, 13011), (50, 13110), (53, 13146), (55, 13161), (59, 13242), (65, 13263), (72, 13347), (79, 13404), (83, 13446), (90, 13503),

Gene: Beans_16 Start: 12640, Stop: 13233, Start Num: 30
Candidate Starts for Beans_16:
(Start: 30 @12640 has 18 MA's), (36, 12691), (53, 12856), (64, 12970), (65, 12973), (74, 13084), (79, 13114), (83, 13156), (85, 13174), (90, 13213),

Gene: BigDome_17 Start: 12954, Stop: 13511, Start Num: 31
Candidate Starts for BigDome_17:
(Start: 31 @12954 has 7 MA's), (37, 12999), (50, 13098), (53, 13134), (55, 13149), (65, 13251), (72, 13335), (79, 13392), (83, 13434), (90, 13491),

Gene: BlackJade_22 Start: 14610, Stop: 15185, Start Num: 27
Candidate Starts for BlackJade_22:
(Start: 7 @14469 has 2 MA's), (Start: 27 @14610 has 12 MA's), (33, 14637), (50, 14784), (53, 14820), (54, 14823), (59, 14913), (64, 14931), (65, 14934), (85, 15126), (86, 15129),

Gene: Bolt007_16 Start: 12245, Stop: 12781, Start Num: 27
Candidate Starts for Bolt007_16:
(Start: 27 @12245 has 12 MA's), (64, 12515), (75, 12632), (81, 12686), (84, 12710), (87, 12752),

Gene: BossLady_17 Start: 12960, Stop: 13541, Start Num: 30
Candidate Starts for BossLady_17:
(Start: 30 @12960 has 18 MA's), (45, 13080), (53, 13164), (59, 13263), (64, 13281), (65, 13284), (67, 13311), (71, 13341), (78, 13413), (79, 13419), (83, 13461),

Gene: Brent_16 Start: 12623, Stop: 13210, Start Num: 30
Candidate Starts for Brent_16:
(Start: 30 @12623 has 18 MA's), (36, 12674), (44, 12734), (50, 12797), (53, 12833), (64, 12947), (65, 12950), (74, 13061), (79, 13091), (83, 13133), (90, 13190),

Gene: Bubbykins_19 Start: 14513, Stop: 15055, Start Num: 27
Candidate Starts for Bubbykins_19:
(Start: 27 @14513 has 12 MA's), (40, 14588), (56, 14741), (69, 14861), (75, 14918), (80, 14948), (84, 14984), (89, 15029), (91, 15035),

Gene: Bumble_16 Start: 12365, Stop: 12937, Start Num: 27
Candidate Starts for Bumble_16:
(Start: 27 @12365 has 12 MA's), (35, 12416), (64, 12674), (75, 12788), (81, 12842), (82, 12857), (84, 12866),

Gene: CalWood4100_17 Start: 12225, Stop: 12761, Start Num: 27
Candidate Starts for CalWood4100_17:
(Start: 27 @12225 has 12 MA's), (64, 12495), (75, 12612), (76, 12615), (81, 12666), (84, 12690), (87, 12732),

Gene: Chipper1996_200 Start: 14908, Stop: 15531, Start Num: 20
Candidate Starts for Chipper1996_200:
(Start: 20 @14908 has 16 MA's), (Start: 27 @14965 has 12 MA's), (50, 15145), (55, 15196), (60, 15274), (64, 15289), (69, 15334), (75, 15391), (77, 15403), (87, 15499), (91, 15511),

Gene: Chocolat_20 Start: 14909, Stop: 15532, Start Num: 20
Candidate Starts for Chocolat_20:
(Start: 20 @14909 has 16 MA's), (Start: 27 @14966 has 12 MA's), (50, 15146), (55, 15197), (60, 15275), (64, 15290), (69, 15335), (75, 15392), (77, 15404), (87, 15500), (91, 15512),

Gene: Chubster_20 Start: 14679, Stop: 15302, Start Num: 20
Candidate Starts for Chubster_20:
(Start: 20 @14679 has 16 MA's), (Start: 27 @14736 has 12 MA's), (50, 14916), (55, 14967), (60, 15045), (64, 15060), (69, 15105), (75, 15162), (77, 15174), (87, 15270), (91, 15282),

Gene: Circuit_16 Start: 12357, Stop: 12947, Start Num: 27
Candidate Starts for Circuit_16:
(1, 11874), (2, 12012), (10, 12231), (Start: 27 @12357 has 12 MA's), (64, 12684), (74, 12792), (75, 12798), (76, 12801), (81, 12852), (84, 12876),

Gene: Colucci_19 Start: 14456, Stop: 15007, Start Num: 27
Candidate Starts for Colucci_19:
(Start: 27 @14456 has 12 MA's), (56, 14693), (61, 14756), (80, 14900), (82, 14927), (91, 14987),

Gene: Conboy_20 Start: 14907, Stop: 15530, Start Num: 20
Candidate Starts for Conboy_20:
(Start: 20 @14907 has 16 MA's), (Start: 27 @14964 has 12 MA's), (50, 15144), (55, 15195), (60, 15273), (64, 15288), (69, 15333), (75, 15390), (77, 15402), (87, 15498), (91, 15510),

Gene: Divya_18 Start: 12931, Stop: 13515, Start Num: 27
Candidate Starts for Divya_18:
(Start: 27 @12931 has 12 MA's), (33, 12958), (53, 13144), (59, 13243), (64, 13261), (72, 13345),

Gene: DrYang_20 Start: 14938, Stop: 15498, Start Num: 27
Candidate Starts for DrYang_20:
(Start: 20 @14878 has 16 MA's), (Start: 27 @14938 has 12 MA's), (46, 15067), (70, 15304), (75, 15358), (77, 15370),

Gene: EastWest_18 Start: 12936, Stop: 13532, Start Num: 25
Candidate Starts for EastWest_18:
(Start: 25 @12936 has 1 MA's), (53, 13161), (64, 13275), (79, 13413), (83, 13455), (87, 13503), (90, 13512),

Gene: EdgarPoe_20 Start: 14907, Stop: 15530, Start Num: 20
Candidate Starts for EdgarPoe_20:
(Start: 20 @14907 has 16 MA's), (Start: 27 @14964 has 12 MA's), (50, 15144), (55, 15195), (60, 15273), (64, 15288), (69, 15333), (75, 15390), (77, 15402), (87, 15498), (91, 15510),

Gene: Franzy_16 Start: 12623, Stop: 13210, Start Num: 30
Candidate Starts for Franzy_16:
(Start: 30 @12623 has 18 MA's), (36, 12674), (44, 12734), (50, 12797), (53, 12833), (64, 12947), (65, 12950), (74, 13061), (79, 13091), (83, 13133), (90, 13190),

Gene: GoldDust_18 Start: 14535, Stop: 15113, Start Num: 26
Candidate Starts for GoldDust_18:
(Start: 26 @14535 has 6 MA's), (35, 14589), (48, 14685), (56, 14784), (64, 14859), (66, 14865), (71, 14922), (80, 15006),

Gene: Gooberta_18 Start: 14534, Stop: 15112, Start Num: 26
Candidate Starts for Gooberta_18:
(Start: 26 @14534 has 6 MA's), (35, 14588), (48, 14684), (56, 14783), (64, 14858), (66, 14864), (71, 14921), (80, 15005),

Gene: GravityBall_17 Start: 12965, Stop: 13522, Start Num: 31
Candidate Starts for GravityBall_17:
(Start: 31 @12965 has 7 MA's), (37, 13010), (50, 13109), (53, 13145), (65, 13262), (72, 13346), (79, 13403), (83, 13445), (90, 13502),

Gene: Grekaycon_17 Start: 12969, Stop: 13550, Start Num: 30
Candidate Starts for Grekaycon_17:
(Start: 30 @12969 has 18 MA's), (45, 13089), (53, 13173), (59, 13272), (64, 13290), (65, 13293), (67, 13320), (71, 13350), (78, 13422), (79, 13428), (83, 13470),

Gene: Hirko_17 Start: 13972, Stop: 14544, Start Num: 26
Candidate Starts for Hirko_17:
(Start: 26 @13972 has 6 MA's), (56, 14215), (64, 14290), (66, 14296), (71, 14353),

Gene: HumptyDumpty_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for HumptyDumpty_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: JKerns_17 Start: 12996, Stop: 13577, Start Num: 30
Candidate Starts for JKerns_17:
(Start: 30 @12996 has 18 MA's), (45, 13116), (53, 13200), (59, 13299), (64, 13317), (65, 13320), (67, 13347), (71, 13377), (79, 13455), (83, 13497),

Gene: JaNo_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for JaNo_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: Jawnski_16 Start: 12635, Stop: 13228, Start Num: 30
Candidate Starts for Jawnski_16:
(Start: 30 @12635 has 18 MA's), (36, 12686), (53, 12851), (64, 12965), (65, 12968), (74, 13079), (79, 13109), (83, 13151), (85, 13169), (90, 13208),

Gene: JayCookie_20 Start: 14909, Stop: 15532, Start Num: 20
Candidate Starts for JayCookie_20:
(Start: 20 @14909 has 16 MA's), (Start: 27 @14966 has 12 MA's), (50, 15146), (55, 15197), (60, 15275), (64, 15290), (69, 15335), (75, 15392), (77, 15404), (87, 15500), (91, 15512),

Gene: Jinkies_20 Start: 15297, Stop: 15881, Start Num: 26
Candidate Starts for Jinkies_20:
(Start: 26 @15297 has 6 MA's), (53, 15519), (64, 15630),

Gene: Jordan_17 Start: 12966, Stop: 13547, Start Num: 30
Candidate Starts for Jordan_17:
(Start: 30 @12966 has 18 MA's), (45, 13086), (53, 13170), (59, 13269), (64, 13287), (65, 13290), (67, 13317), (71, 13347), (79, 13425), (83, 13467),

Gene: KBurrousTX_20 Start: 14758, Stop: 15333, Start Num: 27
Candidate Starts for KBurrousTX_20:
(Start: 27 @14758 has 12 MA's), (43, 14881), (47, 14908), (51, 14959), (70, 15139), (84, 15262), (91, 15313),

Gene: Kabreeze_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for Kabreeze_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: King2_16 Start: 12625, Stop: 13212, Start Num: 30
Candidate Starts for King2_16:
(Start: 30 @12625 has 18 MA's), (36, 12676), (50, 12799), (53, 12835), (65, 12952), (74, 13063), (79, 13093), (83, 13135), (90, 13192),

Gene: Klevey_16 Start: 12235, Stop: 12771, Start Num: 27
Candidate Starts for Klevey_16:
(Start: 27 @12235 has 12 MA's), (64, 12505), (75, 12622), (76, 12625), (81, 12676), (82, 12691), (84, 12700), (87, 12742),

Gene: LeeroyJ_17 Start: 12965, Stop: 13522, Start Num: 31
Candidate Starts for LeeroyJ_17:
(Start: 31 @12965 has 7 MA's), (37, 13010), (50, 13109), (53, 13145), (65, 13262), (72, 13346), (79, 13403), (83, 13445), (90, 13502),

Gene: Lilmac1015_17 Start: 12225, Stop: 12761, Start Num: 27
Candidate Starts for Lilmac1015_17:
(Start: 27 @12225 has 12 MA's), (64, 12495), (75, 12612), (76, 12615), (81, 12666), (84, 12690), (87, 12732),

Gene: Linus_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for Linus_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: Lukepolites_16 Start: 12548, Stop: 13129, Start Num: 32
Candidate Starts for Lukepolites_16:
(28, 12533), (32, 12548), (39, 12611), (51, 12740), (57, 12815), (62, 12851), (70, 12920), (74, 12968), (81, 13025), (83, 13043), (84, 13049), (88, 13094),

Gene: Lymara_20 Start: 14907, Stop: 15530, Start Num: 20
Candidate Starts for Lymara_20:
(Start: 20 @14907 has 16 MA's), (Start: 27 @14964 has 12 MA's), (51, 15156), (55, 15195), (60, 15273), (64, 15288), (69, 15333), (70, 15336), (75, 15390), (77, 15402), (87, 15498), (91, 15510),

Gene: Martha_17 Start: 12907, Stop: 13488, Start Num: 30
Candidate Starts for Martha_17:

(Start: 30 @12907 has 18 MA's), (45, 13027), (53, 13111), (59, 13210), (64, 13228), (65, 13231), (67, 13258), (71, 13288), (78, 13360), (79, 13366), (83, 13408),

Gene: Mordred_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for Mordred_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: MoyaNatalis_20 Start: 14909, Stop: 15532, Start Num: 20
Candidate Starts for MoyaNatalis_20:
(Start: 20 @14909 has 16 MA's), (Start: 27 @14966 has 12 MA's), (50, 15146), (55, 15197), (60, 15275), (64, 15290), (69, 15335), (75, 15392), (77, 15404), (87, 15500), (91, 15512),

Gene: Music_18 Start: 14404, Stop: 14982, Start Num: 26
Candidate Starts for Music_18:
(Start: 26 @14404 has 6 MA's), (34, 14455), (35, 14458), (48, 14554), (56, 14653), (64, 14728), (66, 14734), (71, 14791), (80, 14875),

Gene: Nandito_16 Start: 12328, Stop: 12861, Start Num: 27
Candidate Starts for Nandito_16:
(9, 12199), (Start: 27 @12328 has 12 MA's), (64, 12595), (75, 12712), (81, 12766), (84, 12790),

Gene: NathanVaag_16 Start: 12628, Stop: 13221, Start Num: 31
Candidate Starts for NathanVaag_16:
(12, 12493), (18, 12550), (Start: 31 @12628 has 7 MA's), (36, 12679), (53, 12844), (64, 12958), (65, 12961), (74, 13072), (79, 13102), (83, 13144), (90, 13201),

Gene: Nostromo_16 Start: 12952, Stop: 13509, Start Num: 30
Candidate Starts for Nostromo_16:
(22, 12898), (Start: 30 @12952 has 18 MA's), (42, 13048), (53, 13156), (59, 13246), (63, 13261), (65, 13267),

Gene: Orkz_20 Start: 13023, Stop: 13601, Start Num: 27
Candidate Starts for Orkz_20:
(3, 12846), (4, 12867), (6, 12879), (8, 12891), (14, 12915), (17, 12960), (Start: 27 @13023 has 12 MA's), (33, 13050), (49, 13188), (53, 13236), (54, 13239), (58, 13296), (59, 13329), (64, 13347), (73, 13437), (74, 13455), (85, 13542), (86, 13545),

Gene: Piccoletto_16 Start: 12628, Stop: 13221, Start Num: 30
Candidate Starts for Piccoletto_16:
(Start: 30 @12628 has 18 MA's), (36, 12679), (53, 12844), (64, 12958), (65, 12961), (74, 13072), (79, 13102), (83, 13144), (90, 13201),

Gene: Pippa_17 Start: 13004, Stop: 13579, Start Num: 30
Candidate Starts for Pippa_17:
(19, 12932), (21, 12944), (24, 12974), (Start: 30 @13004 has 18 MA's), (45, 13118), (59, 13301), (65, 13322), (67, 13349), (71, 13379), (79, 13457), (83, 13499),

Gene: Prairie_16 Start: 12232, Stop: 12768, Start Num: 27
Candidate Starts for Prairie_16:
(Start: 27 @12232 has 12 MA's), (64, 12502), (75, 12619), (76, 12622), (81, 12673), (84, 12697), (87, 12739),

Gene: PrincessTrina_20 Start: 14909, Stop: 15532, Start Num: 20
Candidate Starts for PrincessTrina_20:
(Start: 20 @14909 has 16 MA's), (Start: 27 @14966 has 12 MA's), (50, 15146), (55, 15197), (60, 15275), (64, 15290), (69, 15335), (75, 15392), (77, 15404), (87, 15500), (91, 15512),

Gene: RosiePosie_20 Start: 14909, Stop: 15532, Start Num: 20
Candidate Starts for RosiePosie_20:
(Start: 20 @14909 has 16 MA's), (Start: 27 @14966 has 12 MA's), (50, 15146), (55, 15197), (60, 15275), (64, 15290), (69, 15335), (75, 15392), (77, 15404), (87, 15500), (91, 15512),

Gene: Scavito_20 Start: 14906, Stop: 15529, Start Num: 20
Candidate Starts for Scavito_20:
(Start: 20 @14906 has 16 MA's), (Start: 27 @14963 has 12 MA's), (50, 15143), (55, 15194), (60, 15272), (64, 15287), (69, 15332), (75, 15389), (77, 15401), (87, 15497), (91, 15509),

Gene: Shade_17 Start: 12945, Stop: 13526, Start Num: 30
Candidate Starts for Shade_17:
(Start: 30 @12945 has 18 MA's), (45, 13065), (53, 13149), (59, 13248), (64, 13266), (65, 13269), (67, 13296), (71, 13326), (79, 13404), (83, 13446),

Gene: Sicarius2_18 Start: 13443, Stop: 14027, Start Num: 29
Candidate Starts for Sicarius2_18:
(11, 13314), (13, 13323), (15, 13338), (Start: 29 @13443 has 2 MA's), (50, 13614), (53, 13650), (64, 13767), (65, 13770), (83, 13950), (87, 13998), (90, 14007),

Gene: Sonny_17 Start: 12966, Stop: 13547, Start Num: 30
Candidate Starts for Sonny_17:
(Start: 30 @12966 has 18 MA's), (45, 13086), (53, 13170), (59, 13269), (64, 13287), (65, 13290), (67, 13317), (71, 13347), (79, 13425), (83, 13467),

Gene: StevieBAY_17 Start: 12965, Stop: 13522, Start Num: 31
Candidate Starts for StevieBAY_17:
(Start: 31 @12965 has 7 MA's), (37, 13010), (50, 13109), (53, 13145), (65, 13262), (72, 13346), (79, 13403), (83, 13445), (90, 13502),

Gene: SunnyJune_19 Start: 14298, Stop: 15020, Start Num: 7
Candidate Starts for SunnyJune_19:
(Start: 7 @14298 has 2 MA's), (23, 14412), (Start: 26 @14439 has 6 MA's), (53, 14658), (64, 14769),

Gene: TaeYoung_17 Start: 12970, Stop: 13551, Start Num: 30
Candidate Starts for TaeYoung_17:
(Start: 30 @12970 has 18 MA's), (45, 13090), (53, 13174), (59, 13273), (64, 13291), (65, 13294), (67, 13321), (71, 13351), (79, 13429), (83, 13471),

Gene: Timinator_17 Start: 12965, Stop: 13522, Start Num: 31
Candidate Starts for Timinator_17:
(Start: 31 @12965 has 7 MA's), (37, 13010), (50, 13109), (53, 13145), (65, 13262), (72, 13346), (79, 13403), (83, 13445), (90, 13502),

Gene: Tophat_20 Start: 14908, Stop: 15531, Start Num: 20
Candidate Starts for Tophat_20:
(Start: 20 @14908 has 16 MA's), (Start: 27 @14965 has 12 MA's), (50, 15145), (55, 15196), (60, 15274), (64, 15289), (69, 15334), (75, 15391), (77, 15403), (87, 15499), (91, 15511),

Gene: Vibaki_18 Start: 14416, Stop: 14994, Start Num: 26
Candidate Starts for Vibaki_18:
(Start: 26 @14416 has 6 MA's), (35, 14470), (48, 14566), (56, 14665), (64, 14740), (66, 14746), (71, 14803), (80, 14887),

Gene: Vitus_18 Start: 14206, Stop: 14781, Start Num: 26
Candidate Starts for Vitus_18:
(5, 14062), (6, 14068), (16, 14131), (Start: 26 @14206 has 6 MA's), (47, 14341), (53, 14416), (54, 14419), (59, 14509), (64, 14527), (66, 14533), (68, 14578), (85, 14722),

Gene: Wyborn_18 Start: 13304, Stop: 13888, Start Num: 29
Candidate Starts for Wyborn_18:
(11, 13175), (13, 13184), (15, 13199), (Start: 29 @13304 has 2 MA's), (50, 13475), (53, 13511), (64, 13628), (65, 13631), (83, 13811), (87, 13859), (90, 13868),

Gene: Zartrosa_17 Start: 12969, Stop: 13550, Start Num: 30
Candidate Starts for Zartrosa_17:
(Start: 30 @12969 has 18 MA's), (45, 13089), (53, 13173), (59, 13272), (64, 13290), (65, 13293), (67, 13320), (71, 13350), (79, 13428), (83, 13470),