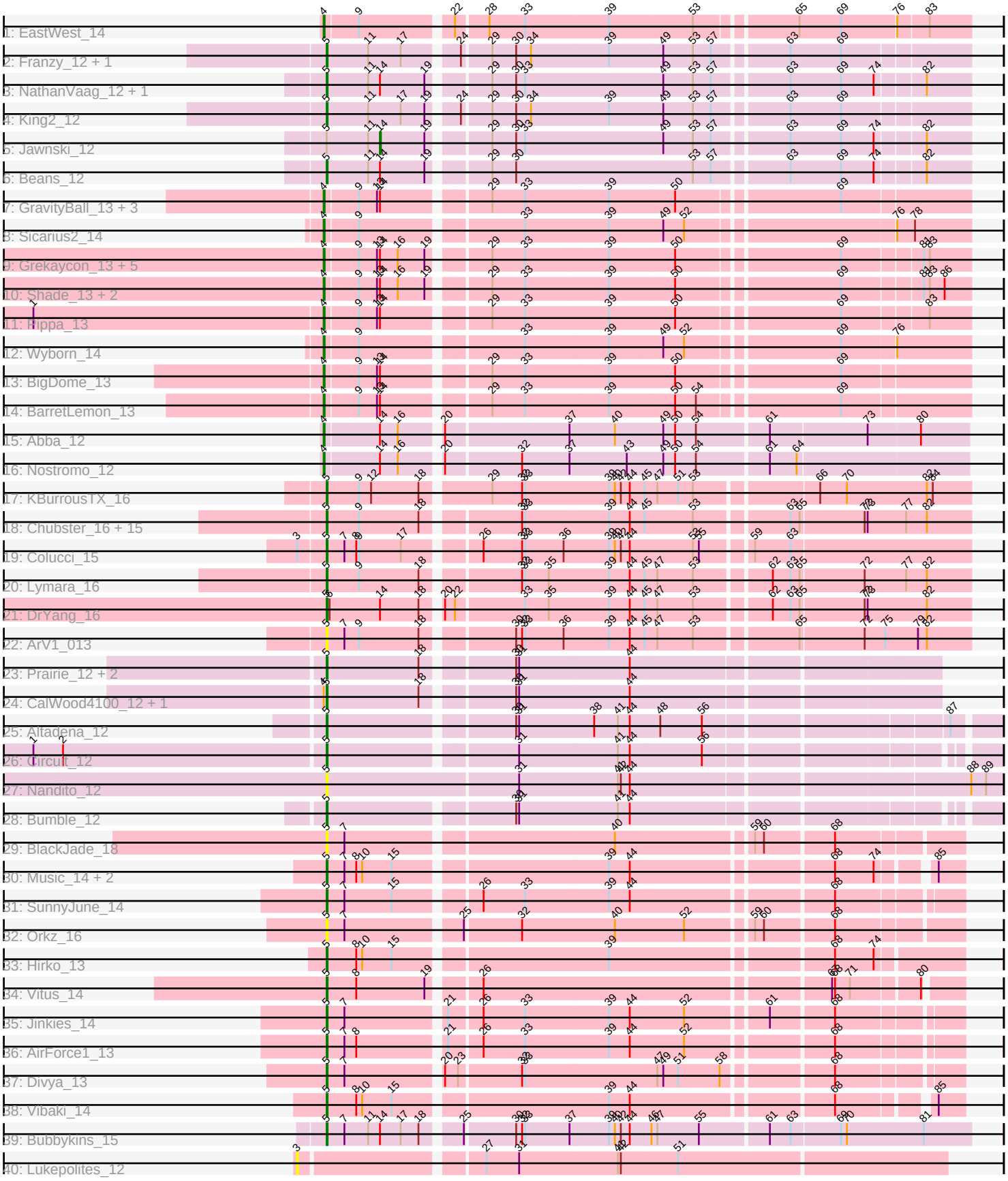
Pham 345692


1: EastWest_14
2: Franzy_12 + 1
3: NathanVaag_12 + 1
4: King2_12
5: Jawnski_12
6: Beans_12
7: GravityBall_13 + 3
8: Sicarius2_14
9: Grekaycon_13 + 5
10: Shade_13 + 2
11: Pippa_13
12: Wyborn_14
13: BigDome_13
14: BarretLemon_13
15: Abba_12
16: Nostromo_12
17: KBurrousTX_16
18: Chubster_16 + 15
19: Colucci_15
20: Lymara_16
21: DrYang_16
22: ArV1_013
23: Prairie_12 + 2
24: CalWood4100_12 + 1
25: Altadena_12
26: Circuit_12
27: Nandito_12
28: Bumble_12
29: BlackJade_18
30: Music_14 + 2
31: SunnyJune_14
32: Orkz_16
33: Hirko_13
34: Vitus_14
35: Jinkies_14
36: AirForce1_13
37: Divya_13
38: Vibaki_14
39: Bubbykins_15
40: Lukepolites_12

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 345692 Report

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

Pham number 345692 has 72 members, 8 are drafts.

Phages represented in each track:
- Track 1 : EastWest_14
- Track 2 : Franzy_12, Brent_12
- Track 3 : NathanVaag_12, Piccoletto_12
- Track 4 : King2_12
- Track 5 : Jawnski_12
- Track 6 : Beans_12
- Track 7 : GravityBall_13, LeeroyJ_13, StevieBAY_13, Timinator_13
- Track 8 : Sicarius2_14
- Track 9 : Grekaycon_13, Jordan_13, BossLady_13, Martha_13, Zartrosa_13, TaeYoung_13
- Track 10 : Shade_13, JKerns_13, Sonny_13
- Track 11 : Pippa_13
- Track 12 : Wyborn_14
- Track 13 : BigDome_13
- Track 14 : BarretLemon_13
- Track 15 : Abba_12
- Track 16 : Nostromo_12
- Track 17 : KBurrousTX_16
- Track 18 : Chubster_16, JaNo_16, RosiePosie_16, Chipper1996_160, EdgarPoe_16, Linus_16, Tophat_16, Mordred_16, HumptyDumpty_16, JayCookie_16, MoyaNatalis_16, Chocolat_16, Kabreeze_16, PrincessTrina_16, Scavito_16, Conboy_16
- Track 19 : Colucci_15
- Track 20 : Lymara_16
- Track 21 : DrYang_16
- Track 22 : ArV1_013
- Track 23 : Prairie_12, Bolt007_12, Klevey_12
- Track 24 : CalWood4100_12, Lilmac1015_12
- Track 25 : Altadena_12
- Track 26 : Circuit_12
- Track 27 : Nandito_12
- Track 28 : Bumble_12
- Track 29 : BlackJade_18
- Track 30 : Music_14, Gooberta_14, GoldDust_14
- Track 31 : SunnyJune_14
- Track 32 : Orkz_16
- Track 33 : Hirko_13

• Track 34 : Vitus_14
• Track 35 : Jinkies_14
• Track 36 : AirForce1_13
• Track 37 : Divya_13
• Track 38 : Vibaki_14
• Track 39 : Bubbykins_15
• Track 40 : Lukepolites_12

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

The start number called the most often in the published annotations is 5, it was called in 42 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AirForce1_13, Altadena_12, ArV1_013, Beans_12, BlackJade_18, Bolt007_12, Brent_12, Bubbykins_15, Bumble_12, CalWood4100_12, Chipper1996_160, Chocolat_16, Chubster_16, Circuit_12, Colucci_15, Conboy_16, Divya_13, DrYang_16, EdgarPoe_16, Franzy_12, GoldDust_14, Gooberta_14, Hirko_13, HumptyDumpty_16, JaNo_16, JayCookie_16, Jinkies_14, KBurrousTX_16, Kabreeze_16, King2_12, Klevey_12, Lilmac1015_12, Linus_16, Lymara_16, Mordred_16, MoyaNatalis_16, Music_14, Nandito_12, NathanVaag_12, Orkz_16, Piccoletto_12, Prairie_12, PrincessTrina_16, RosiePosie_16, Scavito_16, SunnyJune_14, Tophat_16, Vibaki_14, Vitus_14,

Genes that have the "Most Annotated" start but do not call it:
• Jawnski_12,

Genes that do not have the "Most Annotated" start:
• Abba_12, BarretLemon_13, BigDome_13, BossLady_13, EastWest_14, GravityBall_13, Grekaycon_13, JKerns_13, Jordan_13, LeeroyJ_13, Lukepolites_12, Martha_13, Nostromo_12, Pippa_13, Shade_13, Sicarius2_14, Sonny_13, StevieBAY_13, TaeYoung_13, Timinator_13, Wyborn_14, Zartrosa_13,

Summary by start number:

Start 3:
• Found in 2 of 72 (2.8%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_12 (singleton),

Start 4:
• Found in 23 of 72 (31.9%) of genes in pham
• Manual Annotations of this start: 21 of 64
• Called 91.3% of time when present
• Phage (with cluster) where this start called: Abba_12 (AO3), BarretLemon_13 (AO2), BigDome_13 (AO2), BossLady_13 (AO2), EastWest_14 (AO), GravityBall_13 (AO2), Grekaycon_13 (AO2), JKerns_13 (AO2), Jordan_13 (AO2), LeeroyJ_13 (AO2), Martha_13 (AO2), Nostromo_12 (AO3), Pippa_13 (AO2), Shade_13 (AO2), Sicarius2_14 (AO2), Sonny_13 (AO2), StevieBAY_13 (AO2), TaeYoung_13 (AO2),

Timinator_13 (AO2), Wyborn_14 (AO2), Zartrosa_13 (AO2),

Start 5:
• Found in 50 of 72 (69.4%) of genes in pham
• Manual Annotations of this start: 42 of 64
• Called 98.0% of time when present
• Phage (with cluster) where this start called: AirForce1_13 (FL), Altadena_12 (FH), ArV1_013 (AR), Beans_12 (AO1), BlackJade_18 (FL), Bolt007_12 (FH), Brent_12 (AO1), Bubbykins_15 (UNK), Bumble_12 (FH), CalWood4100_12 (FH), Chipper1996_160 (AR), Chocolat_16 (AR), Chubster_16 (AR), Circuit_12 (FH), Colucci_15 (AR), Conboy_16 (AR), Divya_13 (FL), DrYang_16 (AR), EdgarPoe_16 (AR), Franzy_12 (AO1), GoldDust_14 (FL), Gooberta_14 (FL), Hirko_13 (FL), HumptyDumpty_16 (AR), JaNo_16 (AR), JayCookie_16 (AR), Jinkies_14 (FL), KBurrousTX_16 (AR), Kabreeze_16 (AR), King2_12 (AO1), Klevey_12 (FH), Lilmac1015_12 (FH), Linus_16 (AR), Lymara_16 (AR), Mordred_16 (AR), MoyaNatalis_16 (AR), Music_14 (FL), Nandito_12 (FH), NathanVaag_12 (AO1), Orkz_16 (FL), Piccoletto_12 (AO1), Prairie_12 (FH), PrincessTrina_16 (AR), RosiePosie_16 (AR), Scavito_16 (AR), SunnyJune_14 (FL), Tophat_16 (AR), Vibaki_14 (FL), Vitus_14 (FL),

Start 14:
• Found in 24 of 72 (33.3%) of genes in pham
• Manual Annotations of this start: 1 of 64
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Jawnski_12 (AO1),

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 4 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 5 was manually annotated 6 times for cluster AO1.
•Start number 14 was manually annotated 1 time for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 4 was manually annotated 18 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 4 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AR:
•Start number 5 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster FH:
•Start number 5 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FL:
•Start number 5 was manually annotated 9 times for cluster FL.

Info for manual annotations of cluster UNK:
•Start number 5 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: Abba_12 Start: 9766, Stop: 10383, Start Num: 4
Candidate Starts for Abba_12:
(Start: 4 @9766 has 21 MA's), (Start: 14 @9820 has 1 MA's), (16, 9838), (20, 9874), (37, 9994), (40, 10039), (49, 10087), (50, 10099), (54, 10120), (61, 10189), (73, 10285), (80, 10336),

Gene: AirForce1_13 Start: 9296, Stop: 9889, Start Num: 5
Candidate Starts for AirForce1_13:
(Start: 5 @9296 has 42 MA's), (7, 9314), (8, 9326), (21, 9407), (26, 9437), (33, 9479), (39, 9563), (44, 9584), (52, 9638), (68, 9773),

Gene: Altadena_12 Start: 9444, Stop: 10073, Start Num: 5
Candidate Starts for Altadena_12:
(Start: 5 @9444 has 42 MA's), (30, 9618), (31, 9621), (38, 9696), (41, 9720), (44, 9732), (48, 9762), (56, 9804), (87, 10029),

Gene: ArV1_013 Start: 10331, Stop: 10948, Start Num: 5
Candidate Starts for ArV1_013:
(Start: 5 @10331 has 42 MA's), (7, 10349), (9, 10364), (18, 10424), (30, 10505), (32, 10511), (33, 10514), (36, 10553), (39, 10598), (44, 10619), (45, 10634), (47, 10646), (53, 10682), (65, 10778), (72, 10841), (75, 10862), (79, 10895), (82, 10904),

Gene: BarretLemon_13 Start: 9981, Stop: 10592, Start Num: 4
Candidate Starts for BarretLemon_13:
(Start: 4 @9981 has 21 MA's), (9, 10014), (13, 10032), (Start: 14 @10035 has 1 MA's), (29, 10131), (33, 10164), (39, 10248), (50, 10314), (54, 10335), (69, 10467),

Gene: Beans_12 Start: 9671, Stop: 10282, Start Num: 5
Candidate Starts for Beans_12:
(Start: 5 @9671 has 42 MA's), (11, 9713), (Start: 14 @9725 has 1 MA's), (19, 9770), (29, 9821), (30, 9845), (53, 10022), (57, 10040), (63, 10109), (69, 10160), (74, 10193), (82, 10238),

Gene: BigDome_13 Start: 9969, Stop: 10580, Start Num: 4
Candidate Starts for BigDome_13:
(Start: 4 @9969 has 21 MA's), (9, 10002), (13, 10020), (Start: 14 @10023 has 1 MA's), (29, 10119), (33, 10152), (39, 10236), (50, 10302), (69, 10455),

Gene: BlackJade_18 Start: 11634, Stop: 12230, Start Num: 5
Candidate Starts for BlackJade_18:
(Start: 5 @11634 has 42 MA's), (7, 11652), (40, 11907), (59, 12036), (60, 12045), (68, 12111),

Gene: Bolt007_12 Start: 9386, Stop: 9970, Start Num: 5
Candidate Starts for Bolt007_12:
(Start: 5 @9386 has 42 MA's), (18, 9479), (30, 9560), (31, 9563), (44, 9674),

Gene: BossLady_13 Start: 9985, Stop: 10593, Start Num: 4
Candidate Starts for BossLady_13:

(Start: 4 @9985 has 21 MA's), (9, 10018), (13, 10036), (Start: 14 @10039 has 1 MA's), (16, 10057), (19, 10084), (29, 10135), (33, 10168), (39, 10252), (50, 10318), (69, 10471), (81, 10546), (83, 10552),

Gene: Brent_12 Start: 9653, Stop: 10264, Start Num: 5
Candidate Starts for Brent_12:
(Start: 5 @9653 has 42 MA's), (11, 9695), (17, 9728), (24, 9776), (29, 9803), (30, 9827), (34, 9842), (39, 9920), (49, 9974), (53, 10004), (57, 10022), (63, 10091), (69, 10142),

Gene: Bubbykins_15 Start: 11542, Stop: 12165, Start Num: 5
Candidate Starts for Bubbykins_15:
(Start: 5 @11542 has 42 MA's), (7, 11560), (11, 11584), (Start: 14 @11596 has 1 MA's), (17, 11617), (18, 11635), (25, 11668), (30, 11716), (32, 11722), (33, 11725), (37, 11770), (39, 11809), (40, 11815), (42, 11821), (44, 11830), (46, 11851), (47, 11857), (55, 11899), (61, 11965), (63, 11986), (69, 12034), (70, 12040), (81, 12118),

Gene: Bumble_12 Start: 9451, Stop: 10071, Start Num: 5
Candidate Starts for Bumble_12:
(Start: 5 @9451 has 42 MA's), (30, 9625), (31, 9628), (41, 9727), (44, 9739),

Gene: CalWood4100_12 Start: 9369, Stop: 9953, Start Num: 5
Candidate Starts for CalWood4100_12:
(Start: 4 @9366 has 21 MA's), (Start: 5 @9369 has 42 MA's), (18, 9462), (30, 9543), (31, 9546), (44, 9657),

Gene: Chipper1996_160 Start: 11980, Stop: 12597, Start Num: 5
Candidate Starts for Chipper1996_160:
(Start: 5 @11980 has 42 MA's), (9, 12013), (18, 12073), (32, 12160), (33, 12163), (39, 12247), (44, 12268), (45, 12283), (53, 12331), (63, 12418), (65, 12427), (72, 12490), (73, 12493), (77, 12532), (82, 12553),

Gene: Chocolat_16 Start: 11981, Stop: 12598, Start Num: 5
Candidate Starts for Chocolat_16:
(Start: 5 @11981 has 42 MA's), (9, 12014), (18, 12074), (32, 12161), (33, 12164), (39, 12248), (44, 12269), (45, 12284), (53, 12332), (63, 12419), (65, 12428), (72, 12491), (73, 12494), (77, 12533), (82, 12554),

Gene: Chubster_16 Start: 11751, Stop: 12368, Start Num: 5
Candidate Starts for Chubster_16:
(Start: 5 @11751 has 42 MA's), (9, 11784), (18, 11844), (32, 11931), (33, 11934), (39, 12018), (44, 12039), (45, 12054), (53, 12102), (63, 12189), (65, 12198), (72, 12261), (73, 12264), (77, 12303), (82, 12324),

Gene: Circuit_12 Start: 9437, Stop: 10057, Start Num: 5
Candidate Starts for Circuit_12:
(1, 9146), (2, 9176), (Start: 5 @9437 has 42 MA's), (31, 9614), (41, 9713), (44, 9725), (56, 9797),

Gene: Colucci_15 Start: 11482, Stop: 12099, Start Num: 5
Candidate Starts for Colucci_15:
(3, 11455), (Start: 5 @11482 has 42 MA's), (7, 11500), (8, 11512), (9, 11515), (17, 11557), (26, 11623), (32, 11662), (33, 11665), (36, 11704), (39, 11749), (40, 11755), (42, 11761), (44, 11770), (53, 11833), (55, 11839), (59, 11884), (63, 11920),

Gene: Conboy_16 Start: 11979, Stop: 12596, Start Num: 5

Candidate Starts for Conboy_16:
(Start: 5 @11979 has 42 MA's), (9, 12012), (18, 12072), (32, 12159), (33, 12162), (39, 12246), (44, 12267), (45, 12282), (53, 12330), (63, 12417), (65, 12426), (72, 12489), (73, 12492), (77, 12531), (82, 12552),

Gene: Divya_13 Start: 9185, Stop: 9778, Start Num: 5
Candidate Starts for Divya_13:
(Start: 5 @9185 has 42 MA's), (7, 9203), (20, 9293), (23, 9305), (32, 9365), (33, 9368), (47, 9500), (49, 9506), (51, 9521), (58, 9563), (68, 9662),

Gene: DrYang_16 Start: 11935, Stop: 12552, Start Num: 5
Candidate Starts for DrYang_16:
(Start: 5 @11935 has 42 MA's), (6, 11938), (Start: 14 @11989 has 1 MA's), (18, 12028), (20, 12043), (22, 12052), (33, 12118), (35, 12142), (39, 12202), (44, 12223), (45, 12238), (47, 12250), (53, 12286), (62, 12355), (63, 12373), (65, 12382), (72, 12445), (73, 12448), (82, 12508),

Gene: EastWest_14 Start: 10015, Stop: 10626, Start Num: 4
Candidate Starts for EastWest_14:
(Start: 4 @10015 has 21 MA's), (9, 10048), (22, 10132), (28, 10162), (33, 10198), (39, 10282), (53, 10366), (65, 10459), (69, 10501), (76, 10555), (83, 10585),

Gene: EdgarPoe_16 Start: 11979, Stop: 12596, Start Num: 5
Candidate Starts for EdgarPoe_16:
(Start: 5 @11979 has 42 MA's), (9, 12012), (18, 12072), (32, 12159), (33, 12162), (39, 12246), (44, 12267), (45, 12282), (53, 12330), (63, 12417), (65, 12426), (72, 12489), (73, 12492), (77, 12531), (82, 12552),

Gene: Franzy_12 Start: 9653, Stop: 10264, Start Num: 5
Candidate Starts for Franzy_12:
(Start: 5 @9653 has 42 MA's), (11, 9695), (17, 9728), (24, 9776), (29, 9803), (30, 9827), (34, 9842), (39, 9920), (49, 9974), (53, 10004), (57, 10022), (63, 10091), (69, 10142),

Gene: GoldDust_14 Start: 11572, Stop: 12159, Start Num: 5
Candidate Starts for GoldDust_14:
(Start: 5 @11572 has 42 MA's), (7, 11590), (8, 11602), (10, 11608), (15, 11638), (39, 11839), (44, 11860), (68, 12049), (74, 12088), (85, 12133),

Gene: Gooberta_14 Start: 11572, Stop: 12159, Start Num: 5
Candidate Starts for Gooberta_14:
(Start: 5 @11572 has 42 MA's), (7, 11590), (8, 11602), (10, 11608), (15, 11638), (39, 11839), (44, 11860), (68, 12049), (74, 12088), (85, 12133),

Gene: GravityBall_13 Start: 9980, Stop: 10591, Start Num: 4
Candidate Starts for GravityBall_13:
(Start: 4 @9980 has 21 MA's), (9, 10013), (13, 10031), (Start: 14 @10034 has 1 MA's), (29, 10130), (33, 10163), (39, 10247), (50, 10313), (69, 10466),

Gene: Grekaycon_13 Start: 9994, Stop: 10602, Start Num: 4
Candidate Starts for Grekaycon_13:
(Start: 4 @9994 has 21 MA's), (9, 10027), (13, 10045), (Start: 14 @10048 has 1 MA's), (16, 10066), (19, 10093), (29, 10144), (33, 10177), (39, 10261), (50, 10327), (69, 10480), (81, 10555), (83, 10561),

Gene: Hirko_13 Start: 10995, Stop: 11594, Start Num: 5

Candidate Starts for Hirko_13:
(Start: 5 @10995 has 42 MA's), (8, 11025), (10, 11031), (15, 11061), (39, 11262), (68, 11472), (74, 11511),

Gene: HumptyDumpty_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for HumptyDumpty_16:
(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: JKerns_13 Start: 10021, Stop: 10629, Start Num: 4
Candidate Starts for JKerns_13:
(Start: 4 @10021 has 21 MA's), (9, 10054), (13, 10072), (Start: 14 @10075 has 1 MA's), (16, 10093), (19, 10120), (29, 10171), (33, 10204), (39, 10288), (50, 10354), (69, 10507), (81, 10582), (83, 10588), (86, 10603),

Gene: JaNo_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for JaNo_16:
(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: Jawnski_12 Start: 9720, Stop: 10277, Start Num: 14
Candidate Starts for Jawnski_12:
(Start: 5 @9666 has 42 MA's), (11, 9708), (Start: 14 @9720 has 1 MA's), (19, 9765), (29, 9816), (30, 9840), (33, 9849), (49, 9987), (53, 10017), (57, 10035), (63, 10104), (69, 10155), (74, 10188), (82, 10233),

Gene: JayCookie_16 Start: 11981, Stop: 12598, Start Num: 5
Candidate Starts for JayCookie_16:
(Start: 5 @11981 has 42 MA's), (9, 12014), (18, 12074), (32, 12161), (33, 12164), (39, 12248), (44, 12269), (45, 12284), (53, 12332), (63, 12419), (65, 12428), (72, 12491), (73, 12494), (77, 12533), (82, 12554),

Gene: Jinkies_14 Start: 10297, Stop: 10890, Start Num: 5
Candidate Starts for Jinkies_14:
(Start: 5 @10297 has 42 MA's), (7, 10315), (21, 10408), (26, 10438), (33, 10480), (39, 10564), (44, 10585), (52, 10639), (61, 10714), (68, 10774),

Gene: Jordan_13 Start: 9991, Stop: 10599, Start Num: 4
Candidate Starts for Jordan_13:
(Start: 4 @9991 has 21 MA's), (9, 10024), (13, 10042), (Start: 14 @10045 has 1 MA's), (16, 10063), (19, 10090), (29, 10141), (33, 10174), (39, 10258), (50, 10324), (69, 10477), (81, 10552), (83, 10558),

Gene: KBurrousTX_16 Start: 11752, Stop: 12375, Start Num: 5
Candidate Starts for KBurrousTX_16:
(Start: 5 @11752 has 42 MA's), (9, 11785), (12, 11797), (18, 11845), (29, 11908), (32, 11938), (33, 11941), (39, 12025), (40, 12031), (42, 12037), (44, 12046), (45, 12061), (47, 12073), (51, 12094), (53, 12109), (66, 12223), (70, 12250), (82, 12331), (84, 12337),

Gene: Kabreeze_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for Kabreeze_16:

(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: King2_12 Start: 9655, Stop: 10266, Start Num: 5
Candidate Starts for King2_12:
(Start: 5 @9655 has 42 MA's), (11, 9697), (17, 9730), (19, 9754), (24, 9778), (29, 9805), (30, 9829), (34, 9844), (39, 9922), (49, 9976), (53, 10006), (57, 10024), (63, 10093), (69, 10144),

Gene: Klevey_12 Start: 9379, Stop: 9963, Start Num: 5
Candidate Starts for Klevey_12:
(Start: 5 @9379 has 42 MA's), (18, 9472), (30, 9553), (31, 9556), (44, 9667),

Gene: LeeroyJ_13 Start: 9980, Stop: 10591, Start Num: 4
Candidate Starts for LeeroyJ_13:
(Start: 4 @9980 has 21 MA's), (9, 10013), (13, 10031), (Start: 14 @10034 has 1 MA's), (29, 10130), (33, 10163), (39, 10247), (50, 10313), (69, 10466),

Gene: Lilmac1015_12 Start: 9369, Stop: 9953, Start Num: 5
Candidate Starts for Lilmac1015_12:
(Start: 4 @9366 has 21 MA's), (Start: 5 @9369 has 42 MA's), (18, 9462), (30, 9543), (31, 9546), (44, 9657),

Gene: Linus_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for Linus_16:
(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: Lukepolites_12 Start: 9685, Stop: 10311, Start Num: 3
Candidate Starts for Lukepolites_12:
(3, 9685), (27, 9853), (31, 9886), (41, 9985), (42, 9988), (51, 10045),

Gene: Lymara_16 Start: 11980, Stop: 12597, Start Num: 5
Candidate Starts for Lymara_16:
(Start: 5 @11980 has 42 MA's), (9, 12013), (18, 12073), (32, 12160), (33, 12163), (35, 12187), (39, 12247), (44, 12268), (45, 12283), (47, 12295), (53, 12331), (62, 12400), (63, 12418), (65, 12427), (72, 12490), (77, 12532), (82, 12553),

Gene: Martha_13 Start: 9932, Stop: 10540, Start Num: 4
Candidate Starts for Martha_13:
(Start: 4 @9932 has 21 MA's), (9, 9965), (13, 9983), (Start: 14 @9986 has 1 MA's), (16, 10004), (19, 10031), (29, 10082), (33, 10115), (39, 10199), (50, 10265), (69, 10418), (81, 10493), (83, 10499),

Gene: Mordred_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for Mordred_16:
(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: MoyaNatalis_16 Start: 11981, Stop: 12598, Start Num: 5
Candidate Starts for MoyaNatalis_16:

(Start: 5 @11981 has 42 MA's), (9, 12014), (18, 12074), (32, 12161), (33, 12164), (39, 12248), (44, 12269), (45, 12284), (53, 12332), (63, 12419), (65, 12428), (72, 12491), (73, 12494), (77, 12533), (82, 12554),

Gene: Music_14 Start: 11442, Stop: 12029, Start Num: 5
Candidate Starts for Music_14:
(Start: 5 @11442 has 42 MA's), (7, 11460), (8, 11472), (10, 11478), (15, 11508), (39, 11709), (44, 11730), (68, 11919), (74, 11958), (85, 12003),

Gene: Nandito_12 Start: 9394, Stop: 10050, Start Num: 5
Candidate Starts for Nandito_12:
(Start: 5 @9394 has 42 MA's), (31, 9583), (41, 9682), (42, 9685), (44, 9694), (88, 10018), (89, 10033),

Gene: NathanVaag_12 Start: 9659, Stop: 10270, Start Num: 5
Candidate Starts for NathanVaag_12:
(Start: 5 @9659 has 42 MA's), (11, 9701), (Start: 14 @9713 has 1 MA's), (19, 9758), (29, 9809), (30, 9833), (33, 9842), (49, 9980), (53, 10010), (57, 10028), (63, 10097), (69, 10148), (74, 10181), (82, 10226),

Gene: Nostromo_12 Start: 9970, Stop: 10587, Start Num: 4
Candidate Starts for Nostromo_12:
(Start: 4 @9970 has 21 MA's), (Start: 14 @10024 has 1 MA's), (16, 10042), (20, 10078), (32, 10150), (37, 10198), (43, 10255), (49, 10291), (50, 10303), (54, 10324), (61, 10393), (64, 10420),

Gene: Orkz_16 Start: 10061, Stop: 10657, Start Num: 5
Candidate Starts for Orkz_16:
(Start: 5 @10061 has 42 MA's), (7, 10079), (25, 10187), (32, 10241), (40, 10334), (52, 10403), (59, 10463), (60, 10472), (68, 10538),

Gene: Piccoletto_12 Start: 9660, Stop: 10271, Start Num: 5
Candidate Starts for Piccoletto_12:
(Start: 5 @9660 has 42 MA's), (11, 9702), (Start: 14 @9714 has 1 MA's), (19, 9759), (29, 9810), (30, 9834), (33, 9843), (49, 9981), (53, 10011), (57, 10029), (63, 10098), (69, 10149), (74, 10182), (82, 10227),

Gene: Pippa_13 Start: 10030, Stop: 10638, Start Num: 4
Candidate Starts for Pippa_13:
(1, 9739), (Start: 4 @10030 has 21 MA's), (9, 10063), (13, 10081), (Start: 14 @10084 has 1 MA's), (29, 10180), (33, 10213), (39, 10297), (50, 10363), (69, 10516), (83, 10597),

Gene: Prairie_12 Start: 9376, Stop: 9960, Start Num: 5
Candidate Starts for Prairie_12:
(Start: 5 @9376 has 42 MA's), (18, 9469), (30, 9550), (31, 9553), (44, 9664),

Gene: PrincessTrina_16 Start: 11981, Stop: 12598, Start Num: 5
Candidate Starts for PrincessTrina_16:
(Start: 5 @11981 has 42 MA's), (9, 12014), (18, 12074), (32, 12161), (33, 12164), (39, 12248), (44, 12269), (45, 12284), (53, 12332), (63, 12419), (65, 12428), (72, 12491), (73, 12494), (77, 12533), (82, 12554),

Gene: RosiePosie_16 Start: 11981, Stop: 12598, Start Num: 5
Candidate Starts for RosiePosie_16:

(Start: 5 @11981 has 42 MA's), (9, 12014), (18, 12074), (32, 12161), (33, 12164), (39, 12248), (44, 12269), (45, 12284), (53, 12332), (63, 12419), (65, 12428), (72, 12491), (73, 12494), (77, 12533), (82, 12554),

Gene: Scavito_16 Start: 11978, Stop: 12595, Start Num: 5
Candidate Starts for Scavito_16:
(Start: 5 @11978 has 42 MA's), (9, 12011), (18, 12071), (32, 12158), (33, 12161), (39, 12245), (44, 12266), (45, 12281), (53, 12329), (63, 12416), (65, 12425), (72, 12488), (73, 12491), (77, 12530), (82, 12551),

Gene: Shade_13 Start: 9970, Stop: 10578, Start Num: 4
Candidate Starts for Shade_13:
(Start: 4 @9970 has 21 MA's), (9, 10003), (13, 10021), (Start: 14 @10024 has 1 MA's), (16, 10042), (19, 10069), (29, 10120), (33, 10153), (39, 10237), (50, 10303), (69, 10456), (81, 10531), (83, 10537), (86, 10552),

Gene: Sicarius2_14 Start: 10472, Stop: 11083, Start Num: 4
Candidate Starts for Sicarius2_14:
(Start: 4 @10472 has 21 MA's), (9, 10505), (33, 10655), (39, 10739), (49, 10793), (52, 10814), (76, 11009), (78, 11027),

Gene: Sonny_13 Start: 9991, Stop: 10599, Start Num: 4
Candidate Starts for Sonny_13:
(Start: 4 @9991 has 21 MA's), (9, 10024), (13, 10042), (Start: 14 @10045 has 1 MA's), (16, 10063), (19, 10090), (29, 10141), (33, 10174), (39, 10258), (50, 10324), (69, 10477), (81, 10552), (83, 10558), (86, 10573),

Gene: StevieBAY_13 Start: 9980, Stop: 10591, Start Num: 4
Candidate Starts for StevieBAY_13:
(Start: 4 @9980 has 21 MA's), (9, 10013), (13, 10031), (Start: 14 @10034 has 1 MA's), (29, 10130), (33, 10163), (39, 10247), (50, 10313), (69, 10466),

Gene: SunnyJune_14 Start: 10679, Stop: 11272, Start Num: 5
Candidate Starts for SunnyJune_14:
(Start: 5 @10679 has 42 MA's), (7, 10697), (15, 10745), (26, 10820), (33, 10862), (39, 10946), (44, 10967), (68, 11156),

Gene: TaeYoung_13 Start: 9995, Stop: 10603, Start Num: 4
Candidate Starts for TaeYoung_13:
(Start: 4 @9995 has 21 MA's), (9, 10028), (13, 10046), (Start: 14 @10049 has 1 MA's), (16, 10067), (19, 10094), (29, 10145), (33, 10178), (39, 10262), (50, 10328), (69, 10481), (81, 10556), (83, 10562),

Gene: Timinator_13 Start: 9980, Stop: 10591, Start Num: 4
Candidate Starts for Timinator_13:
(Start: 4 @9980 has 21 MA's), (9, 10013), (13, 10031), (Start: 14 @10034 has 1 MA's), (29, 10130), (33, 10163), (39, 10247), (50, 10313), (69, 10466),

Gene: Tophat_16 Start: 11980, Stop: 12597, Start Num: 5
Candidate Starts for Tophat_16:
(Start: 5 @11980 has 42 MA's), (9, 12013), (18, 12073), (32, 12160), (33, 12163), (39, 12247), (44, 12268), (45, 12283), (53, 12331), (63, 12418), (65, 12427), (72, 12490), (73, 12493), (77, 12532), (82, 12553),

Gene: Vibaki_14 Start: 11451, Stop: 12038, Start Num: 5
Candidate Starts for Vibaki_14:
(Start: 5 @11451 has 42 MA's), (8, 11481), (10, 11487), (15, 11517), (39, 11718), (44, 11739), (68, 11928), (85, 12012),

Gene: Vitus_14 Start: 11253, Stop: 11843, Start Num: 5
Candidate Starts for Vitus_14:
(Start: 5 @11253 has 42 MA's), (8, 11283), (19, 11352), (26, 11394), (67, 11727), (68, 11730), (71, 11745), (80, 11808),

Gene: Wyborn_14 Start: 10333, Stop: 10944, Start Num: 4
Candidate Starts for Wyborn_14:
(Start: 4 @10333 has 21 MA's), (9, 10366), (33, 10516), (39, 10600), (49, 10654), (52, 10675), (69, 10819), (76, 10870),

Gene: Zartrosa_13 Start: 9994, Stop: 10602, Start Num: 4
Candidate Starts for Zartrosa_13:
(Start: 4 @9994 has 21 MA's), (9, 10027), (13, 10045), (Start: 14 @10048 has 1 MA's), (16, 10066), (19, 10093), (29, 10144), (33, 10177), (39, 10261), (50, 10327), (69, 10480), (81, 10555), (83, 10561),