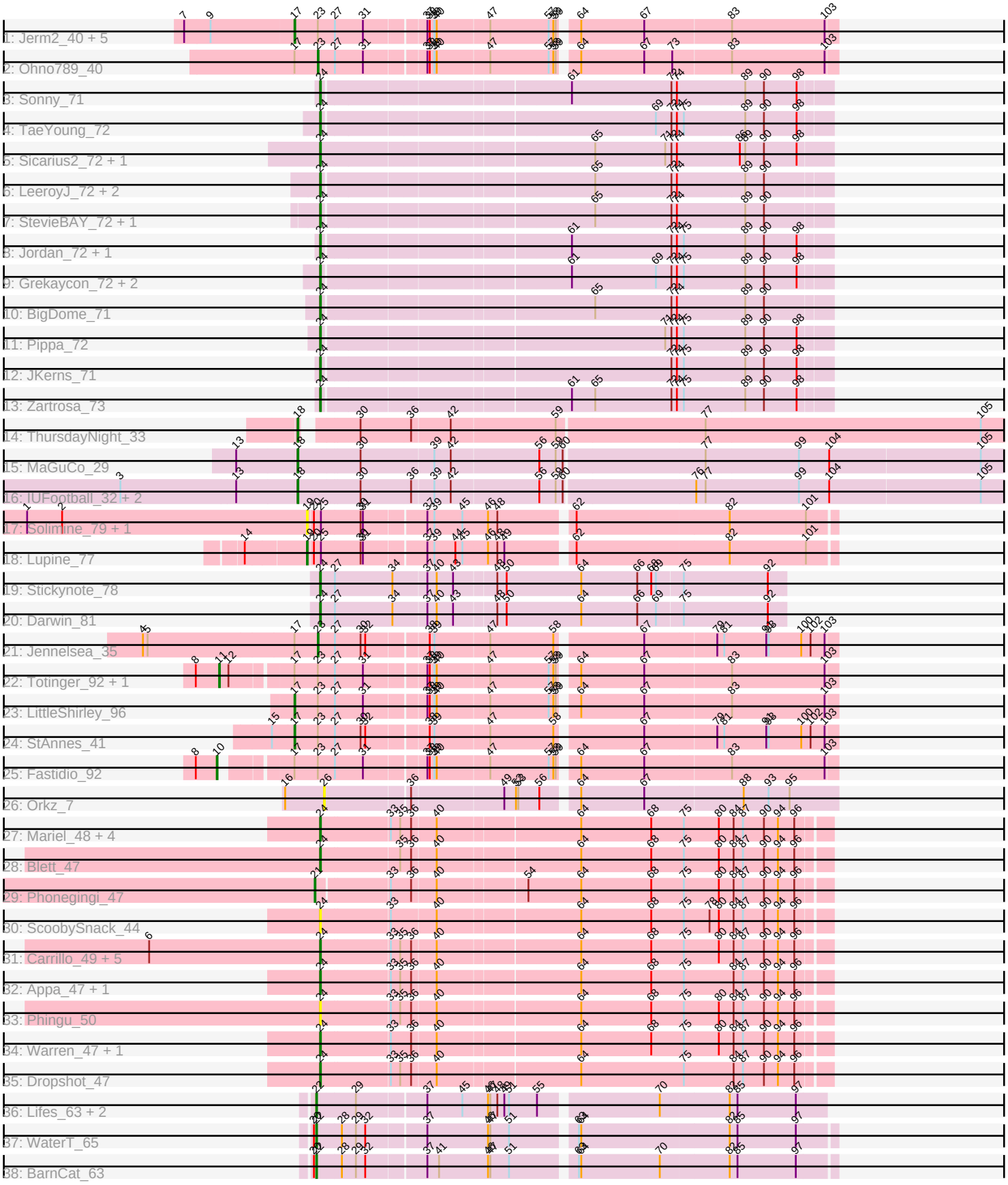
Pham 347594


1: Jerm2_40 + 5
2: Ohno789_40
3: Sonny_71
4: TaeYoung_72
5: Sicarius2_72 + 1
6: LeeroyJ_72 + 2
7: StevieBAY_72 + 1
8: Jordan_72 + 1
9: Grekaycon_72 + 2
10: BigDome_71
11: Pippa_72
12: JKerns_71
13: Zartrosa_73
14: ThursdayNight_33
15: MaGuCo_29
16: IUFootball_32 + 2
17: Solimine_79 + 1
18: Lupine_77
19: Stickynote_78
20: Darwin_81
21: Jennelsea_35
22: Totinger_92 + 1
23: LittleShirley_96
24: StAnnes_41
25: Fastidio_92
26: Orkz_7
27: Mariel_48 + 4
28: Blett_47
29: Phonegingi_47
30: ScoobySnack_44
31: Carrillo_49 + 5
32: Appa_47 + 1
33: Phingu_50
34: Warren_47 + 1
35: Dropshot_47
36: Lifes_63 + 2
37: WaterT_65
38: BarnCat_63

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 347594 Report

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

Pham number 347594 has 67 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Jerm2_40, BaconJack_42, Sorpresa_39, HermioneGrange_39, Sandaddy_39, Rohr_40
• Track 2 : Ohno789_40
• Track 3 : Sonny_71
• Track 4 : TaeYoung_72
• Track 5 : Sicarius2_72, Wyborn_71
• Track 6 : LeeroyJ_72, GravityBall_71, Timinator_72
• Track 7 : StevieBAY_72, BarretLemon_71
• Track 8 : Jordan_72, Shade_71
• Track 9 : Grekaycon_72, Martha_71, BossLady_73
• Track 10 : BigDome_71
• Track 11 : Pippa_72
• Track 12 : JKerns_71
• Track 13 : Zartrosa_73
• Track 14 : ThursdayNight_33
• Track 15 : MaGuCo_29
• Track 16 : IUFootball_32, Liebe_32, Maureen_32
• Track 17 : Solimine_79, Solimine_119
• Track 18 : Lupine_77
• Track 19 : Stickynote_78
• Track 20 : Darwin_81
• Track 21 : Jennelsea_35
• Track 22 : Totinger_92, DillTech15_95
• Track 23 : LittleShirley_96
• Track 24 : StAnnes_41
• Track 25 : Fastidio_92
• Track 26 : Orkz_7
• Track 27 : Mariel_48, Losacky_49, Bush_48, NCRodriguez_49, MenE_49
• Track 28 : Blett_47
• Track 29 : Phonegingi_47
• Track 30 : ScoobySnack_44
• Track 31 : Carrillo_49, Jakelyne_49, Violeta_49, Guzman_47, CookieDog_47, Antuna_49
• Track 32 : Appa_47, PhillyJawn_48
• Track 33 : Phingu_50
• Track 34 : Warren_47, Pickles13_46
• Track 35 : Dropshot_47

• Track 36 : Lifes_63, LeeroyJenkins_70, Cassita_67
• Track 37 : WaterT_65
• Track 38 : BarnCat_63

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

The start number called the most often in the published annotations is 24, it was called in 35 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Antuna_49, Appa_47, BarretLemon_71, BigDome_71, Blett_47, BossLady_73, Bush_48, Carrillo_49, CookieDog_47, Darwin_81, Dropshot_47, GravityBall_71, Grekaycon_72, Guzman_47, JKerns_71, Jakelyne_49, Jordan_72, LeeroyJ_72, Losacky_49, Mariel_48, Martha_71, MenE_49, NCRodriguez_49, PhillyJawn_48, Phingu_50, Pickles13_46, Pippa_72, ScoobySnack_44, Shade_71, Sicarius2_72, Sonny_71, StevieBAY_72, Stickynote_78, TaeYoung_72, Timinator_72, Violeta_49, Warren_47, Wyborn_71, Zartrosa_73,

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

Genes that do not have the "Most Annotated" start:
• BaconJack_42, BarnCat_63, Cassita_67, DillTech15_95, Fastidio_92, HermioneGrange_39, IUFootball_32, Jennelsea_35, Jerm2_40, LeeroyJenkins_70, Liebe_32, Lifes_63, LittleShirley_96, Lupine_77, MaGuCo_29, Maureen_32, Ohno789_40, Orkz_7, Phonegingi_47, Rohr_40, Sandaddy_39, Solimine_119, Solimine_79, Sorpresa_39, StAnnes_41, ThursdayNight_33, Totinger_92, WaterT_65,

Summary by start number:

Start 10:
• Found in 1 of 67 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fastidio_92 (F1),

Start 11:
• Found in 2 of 67 (3.0%) of genes in pham
• Manual Annotations of this start: 2 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DillTech15_95 (F1), Totinger_92 (F1),

Start 17:
• Found in 13 of 67 (19.4%) of genes in pham
• Manual Annotations of this start: 7 of 59
• Called 61.5% of time when present
• Phage (with cluster) where this start called: BaconJack_42 (A1), HermioneGrange_39 (A1), Jerm2_40 (A1), LittleShirley_96 (F1), Rohr_40 (A1), Sandaddy_39 (A1), Sorpresa_39 (A1), StAnnes_41 (F1),

Start 18:
• Found in 5 of 67 (7.5%) of genes in pham
• Manual Annotations of this start: 5 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: IUFootball_32 (AZ2), Liebe_32 (AZ2), MaGuCo_29 (AZ2), Maureen_32 (AZ2), ThursdayNight_33 (AZ),

Start 19:
• Found in 3 of 67 (4.5%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lupine_77 (ED1), Solimine_119 (ED1), Solimine_79 (ED1),

Start 21:
• Found in 1 of 67 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phonegingi_47 (GA),

Start 22:
• Found in 5 of 67 (7.5%) of genes in pham
• Manual Annotations of this start: 5 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BarnCat_63 (GB), Cassita_67 (GB), LeeroyJenkins_70 (GB), Lifes_63 (GB), WaterT_65 (GB),

Start 23:
• Found in 13 of 67 (19.4%) of genes in pham
• Manual Annotations of this start: 2 of 59
• Called 15.4% of time when present
• Phage (with cluster) where this start called: Jennelsea_35 (F1), Ohno789_40 (A1),

Start 24:
• Found in 39 of 67 (58.2%) of genes in pham
• Manual Annotations of this start: 35 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Antuna_49 (GA), Appa_47 (GA), BarretLemon_71 (AO2), BigDome_71 (AO2), Blett_47 (GA), BossLady_73 (AO2), Bush_48 (GA), Carrillo_49 (GA), CookieDog_47 (GA), Darwin_81 (EN), Dropshot_47 (GA), GravityBall_71 (AO2), Grekaycon_72 (AO2), Guzman_47 (GA), JKerns_71 (AO2), Jakelyne_49 (GA), Jordan_72 (AO2), LeeroyJ_72 (AO2), Losacky_49 (GA), Mariel_48 (GA), Martha_71 (AO2), MenE_49 (GA), NCRodriguez_49 (GA), PhillyJawn_48 (GA), Phingu_50 (GA), Pickles13_46 (GA), Pippa_72 (AO2), ScoobySnack_44 (GA), Shade_71 (AO2), Sicarius2_72 (AO2), Sonny_71 (AO2), StevieBAY_72 (AO2), Stickynote_78 (EN), TaeYoung_72 (AO2), Timinator_72 (AO2), Violeta_49 (GA), Warren_47 (GA), Wyborn_71 (AO2), Zartrosa_73 (AO2),

Start 26:
• Found in 1 of 67 (1.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Orkz_7 (FL),

Summary by clusters:

There are 10 clusters represented in this pham: F1, EN, A1, ED1, AO2, GA, AZ2, AZ, FL, GB,

Info for manual annotations of cluster A1:
•Start number 17 was manually annotated 5 times for cluster A1.
•Start number 23 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AO2:
•Start number 24 was manually annotated 18 times for cluster AO2.

Info for manual annotations of cluster AZ:
•Start number 18 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ2:
•Start number 18 was manually annotated 4 times for cluster AZ2.

Info for manual annotations of cluster ED1:
•Start number 19 was manually annotated 1 time for cluster ED1.

Info for manual annotations of cluster EN:
•Start number 24 was manually annotated 2 times for cluster EN.

Info for manual annotations of cluster F1:
•Start number 10 was manually annotated 1 time for cluster F1.
•Start number 11 was manually annotated 2 times for cluster F1.
•Start number 17 was manually annotated 2 times for cluster F1.
•Start number 23 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster GA:
•Start number 21 was manually annotated 1 time for cluster GA.
•Start number 24 was manually annotated 15 times for cluster GA.

Info for manual annotations of cluster GB:
•Start number 22 was manually annotated 5 times for cluster GB.

Gene Information:

Gene: Antuna_49 Start: 29896, Stop: 30522, Start Num: 24
Candidate Starts for Antuna_49:
(6, 29677), (Start: 24 @29896 has 35 MA's), (33, 29980), (35, 29992), (36, 30004), (40, 30034), (64, 30208), (68, 30298), (75, 30340), (80, 30385), (84, 30403), (87, 30415), (90, 30442), (94, 30460), (96, 30481),

Gene: Appa_47 Start: 29661, Stop: 30287, Start Num: 24
Candidate Starts for Appa_47:

(Start: 24 @29661 has 35 MA's), (33, 29745), (35, 29757), (36, 29769), (40, 29799), (64, 29973), (68, 30063), (75, 30105), (84, 30168), (87, 30180), (90, 30207), (94, 30225), (96, 30246),

Gene: BaconJack_42 Start: 32551, Stop: 31895, Start Num: 17
Candidate Starts for BaconJack_42:
(7, 32689), (9, 32656), (Start: 17 @32551 has 7 MA's), (Start: 23 @32521 has 2 MA's), (27, 32503), (31, 32467), (37, 32395), (38, 32392), (39, 32386), (40, 32383), (47, 32317), (57, 32242), (58, 32236), (59, 32233), (64, 32215), (67, 32134), (83, 32026), (103, 31909),

Gene: BarnCat_63 Start: 38116, Stop: 37484, Start Num: 22
Candidate Starts for BarnCat_63:
(20, 38119), (Start: 22 @38116 has 5 MA's), (28, 38086), (29, 38068), (32, 38056), (37, 37984), (41, 37969), (46, 37906), (47, 37903), (51, 37879), (63, 37804), (64, 37801), (70, 37702), (82, 37615), (85, 37606), (97, 37531),

Gene: BarretLemon_71 Start: 45350, Stop: 45970, Start Num: 24
Candidate Starts for BarretLemon_71:
(Start: 24 @45350 has 35 MA's), (65, 45677), (72, 45773), (74, 45779), (89, 45863), (90, 45887),

Gene: BigDome_71 Start: 45592, Stop: 46212, Start Num: 24
Candidate Starts for BigDome_71:
(Start: 24 @45592 has 35 MA's), (65, 45919), (72, 46015), (74, 46021), (89, 46105), (90, 46129),

Gene: Blett_47 Start: 29847, Stop: 30473, Start Num: 24
Candidate Starts for Blett_47:
(Start: 24 @29847 has 35 MA's), (35, 29943), (36, 29955), (40, 29985), (64, 30159), (68, 30249), (75, 30291), (80, 30336), (84, 30354), (87, 30366), (90, 30393), (94, 30411), (96, 30432),

Gene: BossLady_73 Start: 45907, Stop: 46527, Start Num: 24
Candidate Starts for BossLady_73:
(Start: 24 @45907 has 35 MA's), (61, 46204), (69, 46312), (72, 46330), (74, 46336), (75, 46345), (89, 46420), (90, 46444), (98, 46486),

Gene: Bush_48 Start: 29795, Stop: 30421, Start Num: 24
Candidate Starts for Bush_48:
(Start: 24 @29795 has 35 MA's), (33, 29879), (35, 29891), (36, 29903), (40, 29933), (64, 30107), (68, 30197), (75, 30239), (80, 30284), (84, 30302), (87, 30314), (90, 30341), (94, 30359), (96, 30380),

Gene: Carrillo_49 Start: 29769, Stop: 30395, Start Num: 24
Candidate Starts for Carrillo_49:
(6, 29550), (Start: 24 @29769 has 35 MA's), (33, 29853), (35, 29865), (36, 29877), (40, 29907), (64, 30081), (68, 30171), (75, 30213), (80, 30258), (84, 30276), (87, 30288), (90, 30315), (94, 30333), (96, 30354),

Gene: Cassita_67 Start: 38892, Stop: 38269, Start Num: 22
Candidate Starts for Cassita_67:
(Start: 22 @38892 has 5 MA's), (29, 38844), (37, 38760), (45, 38715), (46, 38682), (47, 38679), (48, 38670), (49, 38661), (51, 38655), (55, 38619), (70, 38478), (82, 38391), (85, 38382), (97, 38307),

Gene: CookieDog_47 Start: 29769, Stop: 30395, Start Num: 24
Candidate Starts for CookieDog_47:
(6, 29550), (Start: 24 @29769 has 35 MA's), (33, 29853), (35, 29865), (36, 29877), (40, 29907), (64, 30081), (68, 30171), (75, 30213), (80, 30258), (84, 30276), (87, 30288), (90, 30315), (94, 30333), (96,

30354),

Gene: Darwin_81 Start: 59286, Stop: 58708, Start Num: 24
Candidate Starts for Darwin_81:
(Start: 24 @59286 has 35 MA's), (27, 59268), (34, 59196), (37, 59154), (40, 59142), (43, 59121), (48, 59070), (50, 59058), (64, 58965), (66, 58893), (69, 58869), (75, 58836), (92, 58728),

Gene: DillTech15_95 Start: 50659, Stop: 51399, Start Num: 11
Candidate Starts for DillTech15_95:
(8, 50629), (Start: 11 @50659 has 2 MA's), (12, 50671), (Start: 17 @50743 has 7 MA's), (Start: 23 @50773 has 2 MA's), (27, 50791), (31, 50827), (37, 50899), (38, 50902), (39, 50908), (40, 50911), (47, 50977), (57, 51052), (58, 51058), (59, 51061), (64, 51079), (67, 51160), (83, 51268), (103, 51385),

Gene: Dropshot_47 Start: 29496, Stop: 30122, Start Num: 24
Candidate Starts for Dropshot_47:
(Start: 24 @29496 has 35 MA's), (33, 29580), (35, 29592), (36, 29604), (40, 29634), (64, 29808), (75, 29940), (84, 30003), (87, 30015), (90, 30042), (94, 30060), (96, 30081),

Gene: Fastidio_92 Start: 48551, Stop: 49279, Start Num: 10
Candidate Starts for Fastidio_92:
(8, 48524), (Start: 10 @48551 has 1 MA's), (Start: 17 @48623 has 7 MA's), (Start: 23 @48653 has 2 MA's), (27, 48671), (31, 48707), (37, 48779), (38, 48782), (39, 48788), (40, 48791), (47, 48857), (57, 48932), (58, 48938), (59, 48941), (64, 48959), (67, 49040), (83, 49148), (103, 49265),

Gene: GravityBall_71 Start: 45608, Stop: 46228, Start Num: 24
Candidate Starts for GravityBall_71:
(Start: 24 @45608 has 35 MA's), (65, 45935), (72, 46031), (74, 46037), (89, 46121), (90, 46145),

Gene: Grekaycon_72 Start: 45820, Stop: 46440, Start Num: 24
Candidate Starts for Grekaycon_72:
(Start: 24 @45820 has 35 MA's), (61, 46117), (69, 46225), (72, 46243), (74, 46249), (75, 46258), (89, 46333), (90, 46357), (98, 46399),

Gene: Guzman_47 Start: 29752, Stop: 30378, Start Num: 24
Candidate Starts for Guzman_47:
(6, 29533), (Start: 24 @29752 has 35 MA's), (33, 29836), (35, 29848), (36, 29860), (40, 29890), (64, 30064), (68, 30154), (75, 30196), (80, 30241), (84, 30259), (87, 30271), (90, 30298), (94, 30316), (96, 30337),

Gene: HermioneGrange_39 Start: 31927, Stop: 31271, Start Num: 17
Candidate Starts for HermioneGrange_39:
(7, 32065), (9, 32032), (Start: 17 @31927 has 7 MA's), (Start: 23 @31897 has 2 MA's), (27, 31879), (31, 31843), (37, 31771), (38, 31768), (39, 31762), (40, 31759), (47, 31693), (57, 31618), (58, 31612), (59, 31609), (64, 31591), (67, 31510), (83, 31402), (103, 31285),

Gene: IUFootball_32 Start: 24584, Stop: 25471, Start Num: 18
Candidate Starts for IUFootball_32:
(3, 24359), (13, 24506), (Start: 18 @24584 has 5 MA's), (30, 24662), (36, 24725), (39, 24752), (42, 24773), (56, 24884), (59, 24905), (60, 24914), (76, 25076), (77, 25088), (99, 25205), (104, 25244), (105, 25436),

Gene: JKerns_71 Start: 45847, Stop: 46467, Start Num: 24
Candidate Starts for JKerns_71:

(Start: 24 @45847 has 35 MA's), (72, 46270), (74, 46276), (75, 46285), (89, 46360), (90, 46384), (98, 46426),

Gene: Jakelyne_49 Start: 29862, Stop: 30488, Start Num: 24
Candidate Starts for Jakelyne_49:
(6, 29643), (Start: 24 @29862 has 35 MA's), (33, 29946), (35, 29958), (36, 29970), (40, 30000), (64, 30174), (68, 30264), (75, 30306), (80, 30351), (84, 30369), (87, 30381), (90, 30408), (94, 30426), (96, 30447),

Gene: Jennelsea_35 Start: 28423, Stop: 27797, Start Num: 23
Candidate Starts for Jennelsea_35:
(4, 28645), (5, 28639), (Start: 17 @28453 has 7 MA's), (Start: 23 @28423 has 2 MA's), (27, 28405), (30, 28372), (32, 28366), (38, 28294), (39, 28288), (47, 28219), (58, 28138), (67, 28036), (79, 27946), (81, 27937), (91, 27886), (93, 27883), (100, 27841), (102, 27829), (103, 27811),

Gene: Jerm2_40 Start: 32182, Stop: 31526, Start Num: 17
Candidate Starts for Jerm2_40:
(7, 32320), (9, 32287), (Start: 17 @32182 has 7 MA's), (Start: 23 @32152 has 2 MA's), (27, 32134), (31, 32098), (37, 32026), (38, 32023), (39, 32017), (40, 32014), (47, 31948), (57, 31873), (58, 31867), (59, 31864), (64, 31846), (67, 31765), (83, 31657), (103, 31540),

Gene: Jordan_72 Start: 45972, Stop: 46592, Start Num: 24
Candidate Starts for Jordan_72:
(Start: 24 @45972 has 35 MA's), (61, 46269), (72, 46395), (74, 46401), (75, 46410), (89, 46485), (90, 46509), (98, 46551),

Gene: LeeroyJ_72 Start: 45537, Stop: 46157, Start Num: 24
Candidate Starts for LeeroyJ_72:
(Start: 24 @45537 has 35 MA's), (65, 45864), (72, 45960), (74, 45966), (89, 46050), (90, 46074),

Gene: LeeroyJenkins_70 Start: 39980, Stop: 39357, Start Num: 22
Candidate Starts for LeeroyJenkins_70:
(Start: 22 @39980 has 5 MA's), (29, 39932), (37, 39848), (45, 39803), (46, 39770), (47, 39767), (48, 39758), (49, 39749), (51, 39743), (55, 39707), (70, 39566), (82, 39479), (85, 39470), (97, 39395),

Gene: Liebe_32 Start: 24584, Stop: 25471, Start Num: 18
Candidate Starts for Liebe_32:
(3, 24359), (13, 24506), (Start: 18 @24584 has 5 MA's), (30, 24662), (36, 24725), (39, 24752), (42, 24773), (56, 24884), (59, 24905), (60, 24914), (76, 25076), (77, 25088), (99, 25205), (104, 25244), (105, 25436),

Gene: Lifes_63 Start: 36824, Stop: 36201, Start Num: 22
Candidate Starts for Lifes_63:
(Start: 22 @36824 has 5 MA's), (29, 36776), (37, 36692), (45, 36647), (46, 36614), (47, 36611), (48, 36602), (49, 36593), (51, 36587), (55, 36551), (70, 36410), (82, 36323), (85, 36314), (97, 36239),

Gene: LittleShirley_96 Start: 51914, Stop: 52570, Start Num: 17
Candidate Starts for LittleShirley_96:
(Start: 17 @51914 has 7 MA's), (Start: 23 @51944 has 2 MA's), (27, 51962), (31, 51998), (37, 52070), (38, 52073), (39, 52079), (40, 52082), (47, 52148), (57, 52223), (58, 52229), (59, 52232), (64, 52250), (67, 52331), (83, 52439), (103, 52556),

Gene: Losacky_49 Start: 30027, Stop: 30653, Start Num: 24

Candidate Starts for Losacky_49:
(Start: 24 @30027 has 35 MA's), (33, 30111), (35, 30123), (36, 30135), (40, 30165), (64, 30339), (68, 30429), (75, 30471), (80, 30516), (84, 30534), (87, 30546), (90, 30573), (94, 30591), (96, 30612),

Gene: Lupine_77 Start: 47746, Stop: 47105, Start Num: 19
Candidate Starts for Lupine_77:
(14, 47821), (Start: 19 @47746 has 1 MA's), (20, 47740), (25, 47731), (30, 47683), (31, 47680), (37, 47605), (39, 47596), (44, 47569), (45, 47560), (46, 47527), (48, 47515), (49, 47506), (62, 47428), (82, 47236), (101, 47140),

Gene: MaGuCo_29 Start: 23232, Stop: 24119, Start Num: 18
Candidate Starts for MaGuCo_29:
(13, 23154), (Start: 18 @23232 has 5 MA's), (30, 23310), (39, 23400), (42, 23421), (56, 23532), (59, 23553), (60, 23562), (77, 23736), (99, 23853), (104, 23892), (105, 24084),

Gene: Mariel_48 Start: 30234, Stop: 30860, Start Num: 24
Candidate Starts for Mariel_48:
(Start: 24 @30234 has 35 MA's), (33, 30318), (35, 30330), (36, 30342), (40, 30372), (64, 30546), (68, 30636), (75, 30678), (80, 30723), (84, 30741), (87, 30753), (90, 30780), (94, 30798), (96, 30819),

Gene: Martha_71 Start: 45756, Stop: 46376, Start Num: 24
Candidate Starts for Martha_71:
(Start: 24 @45756 has 35 MA's), (61, 46053), (69, 46161), (72, 46179), (74, 46185), (75, 46194), (89, 46269), (90, 46293), (98, 46335),

Gene: Maureen_32 Start: 24584, Stop: 25471, Start Num: 18
Candidate Starts for Maureen_32:
(3, 24359), (13, 24506), (Start: 18 @24584 has 5 MA's), (30, 24662), (36, 24725), (39, 24752), (42, 24773), (56, 24884), (59, 24905), (60, 24914), (76, 25076), (77, 25088), (99, 25205), (104, 25244), (105, 25436),

Gene: MenE_49 Start: 29918, Stop: 30544, Start Num: 24
Candidate Starts for MenE_49:
(Start: 24 @29918 has 35 MA's), (33, 30002), (35, 30014), (36, 30026), (40, 30056), (64, 30230), (68, 30320), (75, 30362), (80, 30407), (84, 30425), (87, 30437), (90, 30464), (94, 30482), (96, 30503),

Gene: NCRodriguez_49 Start: 29988, Stop: 30614, Start Num: 24
Candidate Starts for NCRodriguez_49:
(Start: 24 @29988 has 35 MA's), (33, 30072), (35, 30084), (36, 30096), (40, 30126), (64, 30300), (68, 30390), (75, 30432), (80, 30477), (84, 30495), (87, 30507), (90, 30534), (94, 30552), (96, 30573),

Gene: Ohno789_40 Start: 32400, Stop: 31774, Start Num: 23
Candidate Starts for Ohno789_40:
(Start: 17 @32430 has 7 MA's), (Start: 23 @32400 has 2 MA's), (27, 32382), (31, 32346), (37, 32274), (38, 32271), (39, 32265), (40, 32262), (47, 32196), (57, 32121), (58, 32115), (59, 32112), (64, 32094), (67, 32013), (73, 31977), (83, 31905), (103, 31788),

Gene: Orkz_7 Start: 4957, Stop: 5580, Start Num: 26
Candidate Starts for Orkz_7:
(16, 4909), (26, 4957), (36, 5059), (49, 5173), (52, 5188), (53, 5191), (56, 5218), (64, 5257), (67, 5338), (88, 5461), (93, 5491), (95, 5518),

Gene: PhillyJawn_48 Start: 29658, Stop: 30284, Start Num: 24

Candidate Starts for PhillyJawn_48:
(Start: 24 @29658 has 35 MA's), (33, 29742), (35, 29754), (36, 29766), (40, 29796), (64, 29970), (68, 30060), (75, 30102), (84, 30165), (87, 30177), (90, 30204), (94, 30222), (96, 30243),

Gene: Phingu_50 Start: 29883, Stop: 30509, Start Num: 24
Candidate Starts for Phingu_50:
(Start: 24 @29883 has 35 MA's), (33, 29967), (35, 29979), (36, 29991), (40, 30021), (64, 30195), (68, 30285), (75, 30327), (80, 30372), (84, 30390), (87, 30402), (90, 30429), (94, 30447), (96, 30468),

Gene: Phonegingi_47 Start: 29697, Stop: 30326, Start Num: 21
Candidate Starts for Phonegingi_47:
(Start: 21 @29697 has 1 MA's), (33, 29784), (36, 29808), (40, 29838), (54, 29946), (64, 30012), (68, 30102), (75, 30144), (80, 30189), (84, 30207), (87, 30219), (90, 30246), (94, 30264), (96, 30285),

Gene: Pickles13_46 Start: 29965, Stop: 30591, Start Num: 24
Candidate Starts for Pickles13_46:
(Start: 24 @29965 has 35 MA's), (33, 30049), (36, 30073), (40, 30103), (64, 30277), (68, 30367), (75, 30409), (80, 30454), (84, 30472), (87, 30484), (90, 30511), (94, 30529), (96, 30550),

Gene: Pippa_72 Start: 45803, Stop: 46423, Start Num: 24
Candidate Starts for Pippa_72:
(Start: 24 @45803 has 35 MA's), (71, 46220), (72, 46226), (74, 46232), (75, 46241), (89, 46316), (90, 46340), (98, 46382),

Gene: Rohr_40 Start: 32228, Stop: 31572, Start Num: 17
Candidate Starts for Rohr_40:
(7, 32366), (9, 32333), (Start: 17 @32228 has 7 MA's), (Start: 23 @32198 has 2 MA's), (27, 32180), (31, 32144), (37, 32072), (38, 32069), (39, 32063), (40, 32060), (47, 31994), (57, 31919), (58, 31913), (59, 31910), (64, 31892), (67, 31811), (83, 31703), (103, 31586),

Gene: Sandaddy_39 Start: 32135, Stop: 31479, Start Num: 17
Candidate Starts for Sandaddy_39:
(7, 32273), (9, 32240), (Start: 17 @32135 has 7 MA's), (Start: 23 @32105 has 2 MA's), (27, 32087), (31, 32051), (37, 31979), (38, 31976), (39, 31970), (40, 31967), (47, 31901), (57, 31826), (58, 31820), (59, 31817), (64, 31799), (67, 31718), (83, 31610), (103, 31493),

Gene: ScoobySnack_44 Start: 29458, Stop: 30084, Start Num: 24
Candidate Starts for ScoobySnack_44:
(Start: 24 @29458 has 35 MA's), (33, 29542), (40, 29596), (64, 29770), (68, 29860), (75, 29902), (78, 29935), (80, 29947), (84, 29965), (87, 29977), (90, 30004), (94, 30022), (96, 30043),

Gene: Shade_71 Start: 45610, Stop: 46230, Start Num: 24
Candidate Starts for Shade_71:
(Start: 24 @45610 has 35 MA's), (61, 45907), (72, 46033), (74, 46039), (75, 46048), (89, 46123), (90, 46147), (98, 46189),

Gene: Sicarius2_72 Start: 43729, Stop: 44355, Start Num: 24
Candidate Starts for Sicarius2_72:
(Start: 24 @43729 has 35 MA's), (65, 44059), (71, 44149), (72, 44155), (74, 44161), (86, 44239), (89, 44245), (90, 44269), (98, 44311),

Gene: Solimine_79 Start: 48358, Stop: 47717, Start Num: 19
Candidate Starts for Solimine_79:

(1, 48718), (2, 48673), (Start: 19 @48358 has 1 MA's), (20, 48352), (25, 48343), (30, 48295), (31, 48292), (37, 48217), (39, 48208), (45, 48172), (46, 48139), (48, 48127), (62, 48040), (82, 47848), (101, 47752),

Gene: Solimine_119 Start: 62477, Stop: 61836, Start Num: 19
Candidate Starts for Solimine_119:
(1, 62837), (2, 62792), (Start: 19 @62477 has 1 MA's), (20, 62471), (25, 62462), (30, 62414), (31, 62411), (37, 62336), (39, 62327), (45, 62291), (46, 62258), (48, 62246), (62, 62159), (82, 61967), (101, 61871),

Gene: Sonny_71 Start: 45533, Stop: 46153, Start Num: 24
Candidate Starts for Sonny_71:
(Start: 24 @45533 has 35 MA's), (61, 45830), (72, 45956), (74, 45962), (89, 46046), (90, 46070), (98, 46112),

Gene: Sorpresa_39 Start: 32137, Stop: 31481, Start Num: 17
Candidate Starts for Sorpresa_39:
(7, 32275), (9, 32242), (Start: 17 @32137 has 7 MA's), (Start: 23 @32107 has 2 MA's), (27, 32089), (31, 32053), (37, 31981), (38, 31978), (39, 31972), (40, 31969), (47, 31903), (57, 31828), (58, 31822), (59, 31819), (64, 31801), (67, 31720), (83, 31612), (103, 31495),

Gene: StAnnes_41 Start: 33295, Stop: 32639, Start Num: 17
Candidate Starts for StAnnes_41:
(15, 33322), (Start: 17 @33295 has 7 MA's), (Start: 23 @33265 has 2 MA's), (27, 33247), (30, 33214), (32, 33208), (38, 33136), (39, 33130), (47, 33061), (58, 32980), (67, 32878), (79, 32788), (81, 32779), (91, 32728), (93, 32725), (100, 32683), (102, 32671), (103, 32653),

Gene: StevieBAY_72 Start: 45827, Stop: 46447, Start Num: 24
Candidate Starts for StevieBAY_72:
(Start: 24 @45827 has 35 MA's), (65, 46154), (72, 46250), (74, 46256), (89, 46340), (90, 46364),

Gene: Stickynote_78 Start: 58516, Stop: 57938, Start Num: 24
Candidate Starts for Stickynote_78:
(Start: 24 @58516 has 35 MA's), (27, 58498), (34, 58426), (37, 58384), (40, 58372), (43, 58351), (48, 58300), (50, 58288), (64, 58195), (66, 58123), (68, 58105), (69, 58099), (75, 58066), (92, 57958),

Gene: TaeYoung_72 Start: 45728, Stop: 46348, Start Num: 24
Candidate Starts for TaeYoung_72:
(Start: 24 @45728 has 35 MA's), (69, 46133), (72, 46151), (74, 46157), (75, 46166), (89, 46241), (90, 46265), (98, 46307),

Gene: ThursdayNight_33 Start: 24017, Stop: 24895, Start Num: 18
Candidate Starts for ThursdayNight_33:
(Start: 18 @24017 has 5 MA's), (30, 24074), (36, 24137), (42, 24185), (59, 24317), (77, 24500), (105, 24851),

Gene: Timinator_72 Start: 45650, Stop: 46270, Start Num: 24
Candidate Starts for Timinator_72:
(Start: 24 @45650 has 35 MA's), (65, 45977), (72, 46073), (74, 46079), (89, 46163), (90, 46187),

Gene: Totinger_92 Start: 50907, Stop: 51647, Start Num: 11
Candidate Starts for Totinger_92:

(8, 50877), (Start: 11 @50907 has 2 MA's), (12, 50919), (Start: 17 @50991 has 7 MA's), (Start: 23 @51021 has 2 MA's), (27, 51039), (31, 51075), (37, 51147), (38, 51150), (39, 51156), (40, 51159), (47, 51225), (57, 51300), (58, 51306), (59, 51309), (64, 51327), (67, 51408), (83, 51516), (103, 51633),

Gene: Violeta_49 Start: 29760, Stop: 30386, Start Num: 24
Candidate Starts for Violeta_49:
(6, 29541), (Start: 24 @29760 has 35 MA's), (33, 29844), (35, 29856), (36, 29868), (40, 29898), (64, 30072), (68, 30162), (75, 30204), (80, 30249), (84, 30267), (87, 30279), (90, 30306), (94, 30324), (96, 30345),

Gene: Warren_47 Start: 29704, Stop: 30330, Start Num: 24
Candidate Starts for Warren_47:
(Start: 24 @29704 has 35 MA's), (33, 29788), (36, 29812), (40, 29842), (64, 30016), (68, 30106), (75, 30148), (80, 30193), (84, 30211), (87, 30223), (90, 30250), (94, 30268), (96, 30289),

Gene: WaterT_65 Start: 38924, Stop: 38292, Start Num: 22
Candidate Starts for WaterT_65:
(20, 38927), (Start: 22 @38924 has 5 MA's), (28, 38894), (29, 38876), (32, 38864), (37, 38792), (46, 38714), (47, 38711), (51, 38687), (63, 38612), (64, 38609), (82, 38423), (85, 38414), (97, 38339),

Gene: Wyborn_71 Start: 44464, Stop: 45090, Start Num: 24
Candidate Starts for Wyborn_71:
(Start: 24 @44464 has 35 MA's), (65, 44794), (71, 44884), (72, 44890), (74, 44896), (86, 44974), (89, 44980), (90, 45004), (98, 45046),

Gene: Zartrosa_73 Start: 45863, Stop: 46483, Start Num: 24
Candidate Starts for Zartrosa_73:
(Start: 24 @45863 has 35 MA's), (61, 46160), (65, 46190), (72, 46286), (74, 46292), (75, 46301), (89, 46376), (90, 46400), (98, 46442),