Pham 289156

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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 289156 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289156 has 149 members, 29 are drafts.

Phages represented in each track:
• Track 1 : Mabel_3, Aneem_3, Munch_3, Gilberta_3, Salz_3, Wolpertinger_3, Bachome_3, MaCh_3, Lucivia_3, Sham4_3, Snape_3, Jabith_3, Joselito_3, Flaverint_3, TinyTimmy_3, Hutc2_3, Kimba_3, Petersenfast_3, Et2Brutus_3, Bowtie_3, Insomnia_3, Fibonacci_3, Ebony_3, Timothy_3
• Track 2 : Mulciber_3
• Track 3 : Saskia_3, Orange_3
• Track 4 : Bud_3
• Track 5 : Luchador_3
• Track 6 : SororFago_3
• Track 7 : Sunhee_3
• Track 8 : Gail_3
• Track 9 : Jeeves_3
• Track 10 : Fameo_4, Heffalump_4, QueenB2_4
• Track 11 : Terrific_5, Piro94_3, NaSiaTalie_4, Flare16_4, Centaur_4, Drake55_4, MiculUcigas_4, WideWale_4, HarryHoudini_4, Equemioh13_4, Gratitude_4, Sknot_4, Updawg_4, Baehexic_4
• Track 12 : HippoHollow_3, LionsBait_3
• Track 13 : Dalmatian_4, Retro23_4, Anselm_4, DudeLittle_4
• Track 14 : Echild_4
• Track 15 : Benvolio_4
• Track 16 : Nergal_8
• Track 17 : EastWest_5
• Track 18 : Beans_5
• Track 19 : Brent_5, Jawnski_5, King2_5, Franzy_5
• Track 20 : NathanVaag_5, Piccoletto_5
• Track 21 : BarretLemon_5, BigDome_5, Timinator_5, StevieBAY_5, LeeroyJ_5
• Track 22 : Wyborn_5
• Track 23 : GravityBall_5
• Track 24 : JKerns_5, Jordan_5, BossLady_5, Zartrosa_5, Sonny_5, Shade_5
• Track 25 : TaeYoung_5, Martha_5, Grekaycon_5
• Track 26 : Pippa_5
• Track 27 : Sicarius2_5
• Track 28 : Abba_5
• Track 29 : Nostromo_5
• Track 30 : DrYang_6
• Track 31 : MoyaNatalis_6, JayCookie_6, Linus_6, PrincessTrina_6
• Track 32 : ArV1_004

• Track 33 : Colucci_6
• Track 34 : Tophat_6, Chipper1996_60, EdgarPoe_6, Conboy_6
• Track 35 : Scavito_6, JaNo_6, Chubster_6, HumptyDumpty_6, RosiePosie_6, Mordred_6, Kabreeze_6, Chocolat_6
• Track 36 : Lymara_6
• Track 37 : KBurrousTX_6
• Track 38 : Mabodamaca_5
• Track 39 : GardenState_5
• Track 40 : CalWood4100_5, Lilmac1015_5, Bolt007_5, Prairie_5
• Track 41 : Circuit_5
• Track 42 : Altadena_5
• Track 43 : Klevey_5
• Track 44 : Nandito_5
• Track 45 : Bumble_5
• Track 46 : GoldDust_7, Gooberta_7, Music_7, Hirko_6, Vibaki_7
• Track 47 : Vitus_7
• Track 48 : BlackJade_7
• Track 49 : Warren_10
• Track 50 : CookieDog_10, Bush_10
• Track 51 : Mariel_13, Antuna_10, Guzman_11
• Track 52 : Phingu_12, Blett_10
• Track 53 : MenE_10, Jakelyne_12, Violeta_11
• Track 54 : PhillyJawn_10
• Track 55 : Carrillo_11
• Track 56 : Losacky_11
• Track 57 : ScoobySnack_8
• Track 58 : Dropshot_9, Appa_9
• Track 59 : NCRodriguez_11
• Track 60 : Phonegingi_9
• Track 61 : Winchester007_25
• Track 62 : Pickles13_9
• Track 63 : Bubbykins_6
• Track 64 : Lukepolites_5

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

The start number called the most often in the published annotations is 18, it was called in 37 of the 120 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aneem_3, Bachome_3, Beans_5, Bowtie_3, Brent_5, Bud_3, Circuit_5, Ebony_3, Et2Brutus_3, Fibonacci_3, Flaverint_3, Franzy_5, Gail_3, Gilberta_3, Hutc2_3, Insomnia_3, Jabith_3, Jawnski_5, Jeeves_3, Joselito_3, Kimba_3, King2_5, Lucivia_3, MaCh_3, Mabel_3, Munch_3, NathanVaag_5, Nergal_8, Orange_3, Petersenfast_3, PhillyJawn_10, Piccoletto_5, Salz_3, Saskia_3, Sham4_3, Sicarius2_5, Snape_3, SororFago_3, Sunhee_3, Timothy_3, TinyTimmy_3, Wolpertinger_3, Wyborn_5,

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

• Antuna_10, Appa_9, Blett_10, Bumble_5, Bush_10, Carrillo_11, CookieDog_10, Dropshot_9, Guzman_11, Jakelyne_12, Losacky_11, Mariel_13, MenE_10, Mulciber_3, NCRodriguez_11, Phingu_12, Phonegingi_9, Pickles13_9, ScoobySnack_8, Violeta_11, Warren_10, Winchester007_25,

Genes that do not have the "Most Annotated" start:
• Abba_5, Altadena_5, Anselm_4, ArV1_004, Baehexic_4, BarretLemon_5, Benvolio_4, BigDome_5, BlackJade_7, Bolt007_5, BossLady_5, Bubbykins_6, CalWood4100_5, Centaur_4, Chipper1996_60, Chocolat_6, Chubster_6, Colucci_6, Conboy_6, Dalmatian_4, DrYang_6, Drake55_4, DudeLittle_4, EastWest_5, Echild_4, EdgarPoe_6, Equemioh13_4, Fameo_4, Flare16_4, GardenState_5, GoldDust_7, Gooberta_7, Gratitude_4, GravityBall_5, Grekaycon_5, HarryHoudini_4, Heffalump_4, HippoHollow_3, Hirko_6, HumptyDumpty_6, JKerns_5, JaNo_6, JayCookie_6, Jordan_5, KBurrousTX_6, Kabreeze_6, Klevey_5, LeeroyJ_5, Lilmac1015_5, Linus_6, LionsBait_3, Luchador_3, Lukepolites_5, Lymara_6, Mabodamaca_5, Martha_5, MiculUcigas_4, Mordred_6, MoyaNatalis_6, Music_7, NaSiaTalie_4, Nandito_5, Nostromo_5, Pippa_5, Piro94_3, Prairie_5, PrincessTrina_6, QueenB2_4, Retro23_4, RosiePosie_6, Scavito_6, Shade_5, Sknot_4, Sonny_5, StevieBAY_5, TaeYoung_5, Terrific_5, Timinator_5, Tophat_6, Updawg_4, Vibaki_7, Vitus_7, WideWale_4, Zartrosa_5,

Summary by start number:

Start 12:
• Found in 21 of 149 (14.1%) of genes in pham
• Manual Annotations of this start: 11 of 120
• Called 95.2% of time when present
• Phage (with cluster) where this start called: Antuna_10 (GA), Appa_9 (GA), Blett_10 (GA), Bush_10 (GA), Carrillo_11 (GA), CookieDog_10 (GA), Dropshot_9 (GA), Guzman_11 (GA), Jakelyne_12 (GA), Losacky_11 (GA), Mariel_13 (GA), MenE_10 (GA), NCRodriguez_11 (GA), Phingu_12 (GA), Phonegingi_9 (GA), Pickles13_9 (GA), ScoobySnack_8 (GA), Violeta_11 (GA), Warren_10 (GA), Winchester007_25 (GA),

Start 13:
• Found in 58 of 149 (38.9%) of genes in pham
• Manual Annotations of this start: 3 of 120
• Called 5.2% of time when present
• Phage (with cluster) where this start called: Echild_4 (A2), Luchador_3 (A14), Mulciber_3 (A11),

Start 14:
• Found in 1 of 149 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlackJade_7 (FL),

Start 15:
• Found in 6 of 149 (4.0%) of genes in pham
• Manual Annotations of this start: 4 of 120
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abba_5 (AO3), GoldDust_7 (FL), Gooberta_7 (FL), Hirko_6 (FL), Music_7 (FL), Vibaki_7 (FL),

Start 17:
• Found in 34 of 149 (22.8%) of genes in pham
• Manual Annotations of this start: 27 of 120
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Altadena_5 (FH), ArV1_004 (AR), Bolt007_5 (FH), Bubbykins_6 (UNK), Bumble_5 (FH), CalWood4100_5 (FH), Chipper1996_60 (AR), Chocolat_6 (AR), Chubster_6 (AR), Colucci_6 (AR), Conboy_6 (AR), DrYang_6 (AR), EdgarPoe_6 (AR), HumptyDumpty_6 (AR), JaNo_6 (AR), JayCookie_6 (AR), KBurrousTX_6 (AR), Kabreeze_6 (AR), Klevey_5 (FH), Lilmac1015_5 (FH), Linus_6 (AR), Lukepolites_5 (singleton), Lymara_6 (AR), Mordred_6 (AR), MoyaNatalis_6 (AR), Nandito_5 (FH), Nostromo_5 (AO3), Prairie_5 (FH), PrincessTrina_6 (AR), RosiePosie_6 (AR), Scavito_6 (AR), Tophat_6 (AR), Vitus_7 (FL),

Start 18:
• Found in 65 of 149 (43.6%) of genes in pham
• Manual Annotations of this start: 37 of 120
• Called 66.2% of time when present
• Phage (with cluster) where this start called: Aneem_3 (A11), Bachome_3 (A11), Beans_5 (AO1), Bowtie_3 (A11), Brent_5 (AO1), Bud_3 (A11), Circuit_5 (FH), Ebony_3 (A11), Et2Brutus_3 (A11), Fibonacci_3 (A11), Flaverint_3 (A11), Franzy_5 (AO1), Gail_3 (A14), Gilberta_3 (A11), Hutc2_3 (A11), Insomnia_3 (A11), Jabith_3 (A11), Jawnski_5 (AO1), Jeeves_3 (A14), Joselito_3 (A11), Kimba_3 (A11), King2_5 (AO1), Lucivia_3 (A11), MaCh_3 (A11), Mabel_3 (A11), Munch_3 (A11), NathanVaag_5 (AO1), Nergal_8 (AG), Orange_3 (A11), Petersenfast_3 (A11), PhillyJawn_10 (GA), Piccoletto_5 (AO1), Salz_3 (A11), Saskia_3 (A11), Sham4_3 (A11), Sicarius2_5 (AO2), Snape_3 (A11), SororFago_3 (A14), Sunhee_3 (A14), Timothy_3 (A11), TinyTimmy_3 (A11), Wolpertinger_3 (A11), Wyborn_5 (AO2),

Start 19:
• Found in 46 of 149 (30.9%) of genes in pham
• Manual Annotations of this start: 37 of 120
• Called 91.3% of time when present
• Phage (with cluster) where this start called: Anselm_4 (A2), Baehexic_4 (A2), BarretLemon_5 (AO2), Benvolio_4 (A2), BigDome_5 (AO2), BossLady_5 (AO2), Centaur_4 (A2), Dalmatian_4 (A2), Drake55_4 (A2), DudeLittle_4 (A2), EastWest_5 (AO), Equemioh13_4 (A2), Fameo_4 (A2), Flare16_4 (A2), GardenState_5 (EH), Gratitude_4 (A2), Grekaycon_5 (AO2), HarryHoudini_4 (A2), Heffalump_4 (A2), HippoHollow_3 (A2), JKerns_5 (AO2), Jordan_5 (AO2), LeeroyJ_5 (AO2), LionsBait_3 (A2), Mabodamaca_5 (EH), Martha_5 (AO2), MiculUcigas_4 (A2), NaSiaTalie_4 (A2), Pippa_5 (AO2), Piro94_3 (A2), QueenB2_4 (A2), Retro23_4 (A2), Shade_5 (AO2), Sknot_4 (A2), Sonny_5 (AO2), StevieBAY_5 (AO2), TaeYoung_5 (AO2), Terrific_5 (A2), Timinator_5 (AO2), Updawg_4 (A2), WideWale_4 (A2), Zartrosa_5 (AO2),

Start 20:
• Found in 15 of 149 (10.1%) of genes in pham
• Manual Annotations of this start: 1 of 120
• Called 6.7% of time when present
• Phage (with cluster) where this start called: GravityBall_5 (AO2),

Summary by clusters:

There are 15 clusters represented in this pham: A14, singleton, A11, EH, AG, AO1, AO, AR, AO3, AO2, GA, FH, UNK, FL, A2,

Info for manual annotations of cluster A11:
•Start number 13 was manually annotated 1 time for cluster A11.
•Start number 18 was manually annotated 23 times for cluster A11.

Info for manual annotations of cluster A14:
•Start number 13 was manually annotated 1 time for cluster A14.
•Start number 18 was manually annotated 3 times for cluster A14.

Info for manual annotations of cluster A2:
•Start number 13 was manually annotated 1 time for cluster A2.
•Start number 19 was manually annotated 20 times for cluster A2.

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

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

Info for manual annotations of cluster AO1:
•Start number 18 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 18 was manually annotated 2 times for cluster AO2.
•Start number 19 was manually annotated 14 times for cluster AO2.
•Start number 20 was manually annotated 1 time for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 15 was manually annotated 1 time for cluster AO3.
•Start number 17 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster AR:
•Start number 17 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster EH:
•Start number 19 was manually annotated 2 times for cluster EH.

Info for manual annotations of cluster FH:
•Start number 17 was manually annotated 6 times for cluster FH.
•Start number 18 was manually annotated 1 time for cluster FH.

Info for manual annotations of cluster FL:
•Start number 15 was manually annotated 3 times for cluster FL.
•Start number 17 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster GA:
•Start number 12 was manually annotated 11 times for cluster GA.

Gene Information:

Gene: Abba_5 Start: 5434, Stop: 5739, Start Num: 15
Candidate Starts for Abba_5:
(Start: 15 @5434 has 4 MA's), (29, 5521), (56, 5641), (62, 5668), (71, 5704),

Gene: Altadena_5 Start: 5253, Stop: 5561, Start Num: 17
Candidate Starts for Altadena_5:
(Start: 17 @5253 has 27 MA's), (62, 5484), (65, 5493),

Gene: Aneem_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Aneem_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Anselm_4 Start: 2360, Stop: 2677, Start Num: 19
Candidate Starts for Anselm_4:
(Start: 13 @2339 has 3 MA's), (Start: 19 @2360 has 37 MA's), (Start: 20 @2363 has 1 MA's), (23, 2390), (38, 2498),

Gene: Antuna_10 Start: 5629, Stop: 5952, Start Num: 12
Candidate Starts for Antuna_10:
(2, 5161), (3, 5188), (4, 5206), (6, 5350), (7, 5410), (Start: 12 @5629 has 11 MA's), (Start: 18 @5662 has 37 MA's), (25, 5707), (30, 5743), (33, 5782), (36, 5794), (68, 5911), (72, 5929), (75, 5938),

Gene: Appa_9 Start: 5494, Stop: 5811, Start Num: 12
Candidate Starts for Appa_9:
(6, 5215), (7, 5275), (Start: 12 @5494 has 11 MA's), (Start: 18 @5527 has 37 MA's), (23, 5560), (25, 5572), (32, 5644), (72, 5791),

Gene: ArV1_004 Start: 4864, Stop: 5190, Start Num: 17
Candidate Starts for ArV1_004:
(Start: 17 @4864 has 27 MA's), (29, 4954), (34, 4999), (47, 5044), (48, 5047), (49, 5050), (53, 5065), (55, 5071), (58, 5092), (71, 5137),

Gene: Bachome_3 Start: 2054, Stop: 2356, Start Num: 18
Candidate Starts for Bachome_3:
(Start: 13 @2036 has 3 MA's), (Start: 18 @2054 has 37 MA's), (34, 2174), (38, 2192), (40, 2201), (54, 2258),

Gene: Baehexic_4 Start: 2314, Stop: 2628, Start Num: 19
Candidate Starts for Baehexic_4:
(Start: 13 @2293 has 3 MA's), (Start: 19 @2314 has 37 MA's), (55, 2521),

Gene: BarretLemon_5 Start: 5150, Stop: 5470, Start Num: 19
Candidate Starts for BarretLemon_5:
(Start: 19 @5150 has 37 MA's), (Start: 20 @5153 has 1 MA's), (33, 5267), (55, 5342), (65, 5381), (70, 5405),

Gene: Beans_5 Start: 5184, Stop: 5465, Start Num: 18
Candidate Starts for Beans_5:
(Start: 18 @5184 has 37 MA's), (32, 5301), (33, 5304), (47, 5352), (49, 5358), (51, 5367), (65, 5418), (72, 5451), (75, 5460),

Gene: Benvolio_4 Start: 2358, Stop: 2675, Start Num: 19
Candidate Starts for Benvolio_4:
(Start: 13 @2337 has 3 MA's), (Start: 19 @2358 has 37 MA's), (Start: 20 @2361 has 1 MA's), (23, 2388), (38, 2496),

Gene: BigDome_5 Start: 5147, Stop: 5467, Start Num: 19
Candidate Starts for BigDome_5:
(Start: 19 @5147 has 37 MA's), (Start: 20 @5150 has 1 MA's), (33, 5264), (55, 5339), (65, 5378), (70, 5402),

Gene: BlackJade_7 Start: 6653, Stop: 6967, Start Num: 14
Candidate Starts for BlackJade_7:
(14, 6653), (29, 6731), (30, 6734), (44, 6806), (52, 6839), (54, 6845), (71, 6914), (77, 6932),

Gene: Blett_10 Start: 5646, Stop: 5966, Start Num: 12
Candidate Starts for Blett_10:
(Start: 12 @5646 has 11 MA's), (Start: 18 @5679 has 37 MA's), (23, 5712), (25, 5724), (32, 5796), (60, 5898), (72, 5943), (75, 5952),

Gene: Bolt007_5 Start: 5214, Stop: 5522, Start Num: 17
Candidate Starts for Bolt007_5:
(Start: 17 @5214 has 27 MA's), (32, 5337), (41, 5364), (49, 5394),

Gene: BossLady_5 Start: 5158, Stop: 5448, Start Num: 19
Candidate Starts for BossLady_5:
(Start: 19 @5158 has 37 MA's), (30, 5239), (34, 5278), (55, 5350), (65, 5389),

Gene: Bowtie_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Bowtie_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Brent_5 Start: 5178, Stop: 5459, Start Num: 18
Candidate Starts for Brent_5:
(Start: 18 @5178 has 37 MA's), (21, 5202), (22, 5208), (32, 5295), (33, 5298), (49, 5352), (55, 5373), (72, 5445), (75, 5454),

Gene: Bubbykins_6 Start: 6312, Stop: 6632, Start Num: 17
Candidate Starts for Bubbykins_6:
(Start: 17 @6312 has 27 MA's), (30, 6405), (49, 6498), (55, 6519), (58, 6540), (71, 6585), (73, 6594),

Gene: Bud_3 Start: 2063, Stop: 2365, Start Num: 18
Candidate Starts for Bud_3:
(Start: 13 @2045 has 3 MA's), (Start: 18 @2063 has 37 MA's), (34, 2183), (37, 2198), (38, 2201), (40, 2210), (54, 2267),

Gene: Bumble_5 Start: 5268, Stop: 5576, Start Num: 17
Candidate Starts for Bumble_5:
(Start: 17 @5268 has 27 MA's), (Start: 18 @5271 has 37 MA's), (49, 5448),

Gene: Bush_10 Start: 5649, Stop: 5960, Start Num: 12
Candidate Starts for Bush_10:

(Start: 12 @5649 has 11 MA's), (Start: 18 @5682 has 37 MA's), (23, 5715), (25, 5727), (57, 5880), (60, 5892), (72, 5937), (76, 5946),

Gene: CalWood4100_5 Start: 5208, Stop: 5516, Start Num: 17
Candidate Starts for CalWood4100_5:
(Start: 17 @5208 has 27 MA's), (32, 5331), (41, 5358), (49, 5388),

Gene: Carrillo_11 Start: 5599, Stop: 5919, Start Num: 12
Candidate Starts for Carrillo_11:
(2, 5131), (3, 5158), (4, 5176), (7, 5380), (Start: 12 @5599 has 11 MA's), (Start: 18 @5632 has 37 MA's), (23, 5665), (25, 5677), (33, 5752), (45, 5791), (50, 5809), (72, 5896), (75, 5905),

Gene: Centaur_4 Start: 2310, Stop: 2624, Start Num: 19
Candidate Starts for Centaur_4:
(Start: 13 @2289 has 3 MA's), (Start: 19 @2310 has 37 MA's), (55, 2517),

Gene: Chipper1996_60 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Chipper1996_60:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (59, 6484), (71, 6526),

Gene: Chocolat_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Chocolat_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (71, 6526),

Gene: Chubster_6 Start: 6247, Stop: 6573, Start Num: 17
Candidate Starts for Chubster_6:
(Start: 17 @6247 has 27 MA's), (29, 6337), (34, 6382), (53, 6448), (55, 6454), (58, 6475), (59, 6478), (71, 6520),

Gene: Circuit_5 Start: 5259, Stop: 5564, Start Num: 18
Candidate Starts for Circuit_5:
(Start: 17 @5256 has 27 MA's), (Start: 18 @5259 has 37 MA's), (49, 5436),

Gene: Colucci_6 Start: 6229, Stop: 6546, Start Num: 17
Candidate Starts for Colucci_6:
(Start: 17 @6229 has 27 MA's), (23, 6262), (29, 6316), (30, 6319), (32, 6355), (47, 6406), (48, 6409), (49, 6412), (53, 6427), (55, 6433), (71, 6499),

Gene: Conboy_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Conboy_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (59, 6484), (71, 6526),

Gene: CookieDog_10 Start: 5649, Stop: 5960, Start Num: 12
Candidate Starts for CookieDog_10:
(Start: 12 @5649 has 11 MA's), (Start: 18 @5682 has 37 MA's), (23, 5715), (25, 5727), (57, 5880), (60, 5892), (72, 5937), (76, 5946),

Gene: Dalmatian_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for Dalmatian_4:
(Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1 MA's), (23, 2387), (38, 2495),

Gene: DrYang_6 Start: 6196, Stop: 6501, Start Num: 17
Candidate Starts for DrYang_6:
(Start: 17 @6196 has 27 MA's), (30, 6283), (33, 6322), (48, 6373), (49, 6376), (53, 6391), (55, 6397), (67, 6442), (71, 6463),

Gene: Drake55_4 Start: 2316, Stop: 2630, Start Num: 19
Candidate Starts for Drake55_4:
(Start: 13 @2295 has 3 MA's), (Start: 19 @2316 has 37 MA's), (55, 2523),

Gene: Dropshot_9 Start: 5494, Stop: 5811, Start Num: 12
Candidate Starts for Dropshot_9:
(6, 5215), (7, 5275), (Start: 12 @5494 has 11 MA's), (Start: 18 @5527 has 37 MA's), (23, 5560), (25, 5572), (32, 5644), (72, 5791),

Gene: DudeLittle_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for DudeLittle_4:
(Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1 MA's), (23, 2387), (38, 2495),

Gene: EastWest_5 Start: 5085, Stop: 5375, Start Num: 19
Candidate Starts for EastWest_5:
(Start: 19 @5085 has 37 MA's), (33, 5208), (55, 5283), (64, 5319), (72, 5355),

Gene: Ebony_3 Start: 2063, Stop: 2365, Start Num: 18
Candidate Starts for Ebony_3:
(Start: 13 @2045 has 3 MA's), (Start: 18 @2063 has 37 MA's), (34, 2183), (38, 2201), (40, 2210), (54, 2267),

Gene: Echild_4 Start: 2337, Stop: 2675, Start Num: 13
Candidate Starts for Echild_4:
(Start: 13 @2337 has 3 MA's), (Start: 19 @2358 has 37 MA's), (Start: 20 @2361 has 1 MA's), (23, 2388), (38, 2496),

Gene: EdgarPoe_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for EdgarPoe_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (59, 6484), (71, 6526),

Gene: Equemioh13_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for Equemioh13_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Et2Brutus_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Et2Brutus_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Fameo_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for Fameo_4:
(10, 2246), (Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1 MA's), (23, 2387), (38, 2495),

Gene: Fibonacci_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Fibonacci_3:

(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Flare16_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for Flare16_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Flaverint_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Flaverint_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Franzy_5 Start: 5178, Stop: 5459, Start Num: 18
Candidate Starts for Franzy_5:
(Start: 18 @5178 has 37 MA's), (21, 5202), (22, 5208), (32, 5295), (33, 5298), (49, 5352), (55, 5373), (72, 5445), (75, 5454),

Gene: Gail_3 Start: 2082, Stop: 2399, Start Num: 18
Candidate Starts for Gail_3:
(10, 1977), (Start: 13 @2064 has 3 MA's), (Start: 18 @2082 has 37 MA's), (47, 2259), (48, 2262),

Gene: GardenState_5 Start: 5292, Stop: 5564, Start Num: 19
Candidate Starts for GardenState_5:
(9, 5148), (Start: 19 @5292 has 37 MA's), (21, 5313), (30, 5370), (33, 5409), (71, 5544),

Gene: Gilberta_3 Start: 2054, Stop: 2356, Start Num: 18
Candidate Starts for Gilberta_3:
(Start: 13 @2036 has 3 MA's), (Start: 18 @2054 has 37 MA's), (34, 2174), (38, 2192), (40, 2201), (54, 2258),

Gene: GoldDust_7 Start: 7302, Stop: 7616, Start Num: 15
Candidate Starts for GoldDust_7:
(Start: 15 @7302 has 4 MA's), (29, 7389), (48, 7482), (58, 7527), (68, 7560), (71, 7572),

Gene: Gooberta_7 Start: 7302, Stop: 7616, Start Num: 15
Candidate Starts for Gooberta_7:
(Start: 15 @7302 has 4 MA's), (29, 7389), (48, 7482), (58, 7527), (68, 7560), (71, 7572),

Gene: Gratitude_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for Gratitude_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: GravityBall_5 Start: 5153, Stop: 5470, Start Num: 20
Candidate Starts for GravityBall_5:
(Start: 19 @5150 has 37 MA's), (Start: 20 @5153 has 1 MA's), (33, 5267), (55, 5342), (65, 5381), (70, 5405),

Gene: Grekaycon_5 Start: 5158, Stop: 5448, Start Num: 19
Candidate Starts for Grekaycon_5:
(Start: 19 @5158 has 37 MA's), (30, 5239), (32, 5272), (34, 5278), (55, 5350), (65, 5389),

Gene: Guzman_11 Start: 5907, Stop: 6230, Start Num: 12
Candidate Starts for Guzman_11:

(2, 5439), (3, 5466), (4, 5484), (6, 5628), (7, 5688), (Start: 12 @5907 has 11 MA's), (Start: 18 @5940 has 37 MA's), (25, 5985), (30, 6021), (33, 6060), (36, 6072), (68, 6189), (72, 6207), (75, 6216),

Gene: HarryHoudini_4 Start: 2316, Stop: 2630, Start Num: 19
Candidate Starts for HarryHoudini_4:
(Start: 13 @2295 has 3 MA's), (Start: 19 @2316 has 37 MA's), (55, 2523),

Gene: Heffalump_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for Heffalump_4:
(10, 2246), (Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1 MA's), (23, 2387), (38, 2495),

Gene: HippoHollow_3 Start: 2058, Stop: 2375, Start Num: 19
Candidate Starts for HippoHollow_3:
(Start: 13 @2037 has 3 MA's), (Start: 19 @2058 has 37 MA's), (23, 2088), (38, 2196),

Gene: Hirko_6 Start: 6777, Stop: 7094, Start Num: 15
Candidate Starts for Hirko_6:
(Start: 15 @6777 has 4 MA's), (29, 6864), (48, 6957), (58, 7002), (68, 7035), (71, 7047),

Gene: HumptyDumpty_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for HumptyDumpty_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (71, 6526),

Gene: Hutc2_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Hutc2_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Insomnia_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Insomnia_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: JKerns_5 Start: 5155, Stop: 5445, Start Num: 19
Candidate Starts for JKerns_5:
(Start: 19 @5155 has 37 MA's), (30, 5236), (34, 5275), (55, 5347), (65, 5386),

Gene: JaNo_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for JaNo_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (71, 6526),

Gene: Jabith_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Jabith_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Jakelyne_12 Start: 5643, Stop: 5963, Start Num: 12
Candidate Starts for Jakelyne_12:
(2, 5175), (3, 5202), (4, 5220), (7, 5424), (Start: 12 @5643 has 11 MA's), (Start: 18 @5676 has 37 MA's), (23, 5709), (25, 5721), (32, 5793), (60, 5895), (72, 5940), (75, 5949),

Gene: Jawnski_5 Start: 5178, Stop: 5459, Start Num: 18
Candidate Starts for Jawnski_5:
(Start: 18 @5178 has 37 MA's), (21, 5202), (22, 5208), (32, 5295), (33, 5298), (49, 5352), (55, 5373), (72, 5445), (75, 5454),

Gene: JayCookie_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for JayCookie_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (61, 6487), (71, 6526),

Gene: Jeeves_3 Start: 2107, Stop: 2421, Start Num: 18
Candidate Starts for Jeeves_3:
(Start: 13 @2089 has 3 MA's), (Start: 18 @2107 has 37 MA's), (23, 2137), (33, 2224), (55, 2314), (70, 2377),

Gene: Jordan_5 Start: 5155, Stop: 5445, Start Num: 19
Candidate Starts for Jordan_5:
(Start: 19 @5155 has 37 MA's), (30, 5236), (34, 5275), (55, 5347), (65, 5386),

Gene: Joselito_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Joselito_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: KBurrousTX_6 Start: 6280, Stop: 6585, Start Num: 17
Candidate Starts for KBurrousTX_6:
(Start: 17 @6280 has 27 MA's), (30, 6367), (33, 6406), (43, 6433), (49, 6460), (55, 6481), (67, 6526), (71, 6547),

Gene: Kabreeze_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Kabreeze_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (71, 6526),

Gene: Kimba_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Kimba_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: King2_5 Start: 5178, Stop: 5459, Start Num: 18
Candidate Starts for King2_5:
(Start: 18 @5178 has 37 MA's), (21, 5202), (22, 5208), (32, 5295), (33, 5298), (49, 5352), (55, 5373), (72, 5445), (75, 5454),

Gene: Klevey_5 Start: 5208, Stop: 5516, Start Num: 17
Candidate Starts for Klevey_5:
(Start: 17 @5208 has 27 MA's), (32, 5331), (41, 5358), (49, 5388), (64, 5445),

Gene: LeeroyJ_5 Start: 5150, Stop: 5470, Start Num: 19
Candidate Starts for LeeroyJ_5:
(Start: 19 @5150 has 37 MA's), (Start: 20 @5153 has 1 MA's), (33, 5267), (55, 5342), (65, 5381), (70, 5405),

Gene: Lilmac1015_5 Start: 5208, Stop: 5516, Start Num: 17
Candidate Starts for Lilmac1015_5:
(Start: 17 @5208 has 27 MA's), (32, 5331), (41, 5358), (49, 5388),

Gene: Linus_6 Start: 6250, Stop: 6576, Start Num: 17
Candidate Starts for Linus_6:
(Start: 17 @6250 has 27 MA's), (29, 6340), (34, 6385), (53, 6451), (55, 6457), (58, 6478), (59, 6481), (61, 6484), (71, 6523),

Gene: LionsBait_3 Start: 2052, Stop: 2369, Start Num: 19
Candidate Starts for LionsBait_3:
(Start: 13 @2031 has 3 MA's), (Start: 19 @2052 has 37 MA's), (23, 2082), (38, 2190),

Gene: Losacky_11 Start: 5793, Stop: 6101, Start Num: 12
Candidate Starts for Losacky_11:
(Start: 12 @5793 has 11 MA's), (Start: 18 @5826 has 37 MA's), (25, 5871), (33, 5946), (42, 5973), (72, 6081), (75, 6090),

Gene: Luchador_3 Start: 2067, Stop: 2405, Start Num: 13
Candidate Starts for Luchador_3:
(8, 1857), (Start: 13 @2067 has 3 MA's), (Start: 19 @2088 has 37 MA's), (55, 2295), (70, 2358), (74, 2373),

Gene: Lucivia_3 Start: 2054, Stop: 2356, Start Num: 18
Candidate Starts for Lucivia_3:
(Start: 13 @2036 has 3 MA's), (Start: 18 @2054 has 37 MA's), (34, 2174), (38, 2192), (40, 2201), (54, 2258),

Gene: Lukepolites_5 Start: 5338, Stop: 5628, Start Num: 17
Candidate Starts for Lukepolites_5:
(Start: 17 @5338 has 27 MA's), (31, 5458), (49, 5521), (55, 5542), (69, 5599), (73, 5617),

Gene: Lymara_6 Start: 6247, Stop: 6573, Start Num: 17
Candidate Starts for Lymara_6:
(Start: 17 @6247 has 27 MA's), (29, 6337), (47, 6427), (48, 6430), (53, 6448), (55, 6454), (58, 6475), (59, 6478), (71, 6520),

Gene: MaCh_3 Start: 2054, Stop: 2356, Start Num: 18
Candidate Starts for MaCh_3:
(Start: 13 @2036 has 3 MA's), (Start: 18 @2054 has 37 MA's), (34, 2174), (38, 2192), (40, 2201), (54, 2258),

Gene: Mabel_3 Start: 2069, Stop: 2371, Start Num: 18
Candidate Starts for Mabel_3:
(Start: 13 @2051 has 3 MA's), (Start: 18 @2069 has 37 MA's), (34, 2189), (38, 2207), (40, 2216), (54, 2273),

Gene: Mabodamaca_5 Start: 5406, Stop: 5678, Start Num: 19
Candidate Starts for Mabodamaca_5:
(Start: 19 @5406 has 37 MA's), (21, 5427), (29, 5481), (35, 5529), (46, 5565), (71, 5658), (73, 5667),

Gene: Mariel_13 Start: 5802, Stop: 6125, Start Num: 12

Candidate Starts for Mariel_13:
(2, 5334), (3, 5361), (4, 5379), (6, 5523), (7, 5583), (Start: 12 @5802 has 11 MA's), (Start: 18 @5835 has 37 MA's), (25, 5880), (30, 5916), (33, 5955), (36, 5967), (68, 6084), (72, 6102), (75, 6111),

Gene: Martha_5 Start: 5158, Stop: 5448, Start Num: 19
Candidate Starts for Martha_5:
(Start: 19 @5158 has 37 MA's), (30, 5239), (32, 5272), (34, 5278), (55, 5350), (65, 5389),

Gene: MenE_10 Start: 5760, Stop: 6080, Start Num: 12
Candidate Starts for MenE_10:
(2, 5292), (3, 5319), (4, 5337), (7, 5541), (Start: 12 @5760 has 11 MA's), (Start: 18 @5793 has 37 MA's), (23, 5826), (25, 5838), (32, 5910), (60, 6012), (72, 6057), (75, 6066),

Gene: MiculUcigas_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for MiculUcigas_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Mordred_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Mordred_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (71, 6526),

Gene: MoyaNatalis_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for MoyaNatalis_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484), (61, 6487), (71, 6526),

Gene: Mulciber_3 Start: 2042, Stop: 2362, Start Num: 13
Candidate Starts for Mulciber_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Munch_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Munch_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Music_7 Start: 7172, Stop: 7486, Start Num: 15
Candidate Starts for Music_7:
(Start: 15 @7172 has 4 MA's), (29, 7259), (48, 7352), (58, 7397), (68, 7430), (71, 7442),

Gene: NCRodriguez_11 Start: 5763, Stop: 6083, Start Num: 12
Candidate Starts for NCRodriguez_11:
(Start: 12 @5763 has 11 MA's), (Start: 18 @5796 has 37 MA's), (23, 5829), (25, 5841), (33, 5916), (72, 6060), (75, 6069),

Gene: NaSiaTalie_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for NaSiaTalie_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Nandito_5 Start: 5204, Stop: 5512, Start Num: 17
Candidate Starts for Nandito_5:
(Start: 17 @5204 has 27 MA's), (30, 5291), (32, 5327), (41, 5354), (49, 5384), (59, 5429),

Gene: NathanVaag_5 Start: 5184, Stop: 5465, Start Num: 18
Candidate Starts for NathanVaag_5:
(Start: 18 @5184 has 37 MA's), (33, 5304), (47, 5352), (49, 5358), (51, 5367), (65, 5418), (72, 5451),

Gene: Nergal_8 Start: 6878, Stop: 7195, Start Num: 18
Candidate Starts for Nergal_8:
(16, 6872), (Start: 18 @6878 has 37 MA's), (Start: 19 @6881 has 37 MA's), (26, 6926), (27, 6935), (31, 6989), (32, 6995), (37, 7016), (40, 7022), (48, 7055), (66, 7118), (77, 7160),

Gene: Nostromo_5 Start: 5605, Stop: 5910, Start Num: 17
Candidate Starts for Nostromo_5:
(11, 5524), (Start: 17 @5605 has 27 MA's), (29, 5692), (48, 5785), (56, 5812), (62, 5839), (71, 5875),

Gene: Orange_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Orange_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261), (55, 2264),

Gene: Petersenfast_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Petersenfast_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: PhillyJawn_10 Start: 5527, Stop: 5811, Start Num: 18
Candidate Starts for PhillyJawn_10:
(6, 5215), (7, 5275), (Start: 12 @5494 has 11 MA's), (Start: 18 @5527 has 37 MA's), (23, 5560), (25, 5572), (32, 5644), (72, 5791),

Gene: Phingu_12 Start: 5652, Stop: 5972, Start Num: 12
Candidate Starts for Phingu_12:
(Start: 12 @5652 has 11 MA's), (Start: 18 @5685 has 37 MA's), (23, 5718), (25, 5730), (32, 5802), (60, 5904), (72, 5949), (75, 5958),

Gene: Phonegingi_9 Start: 5483, Stop: 5809, Start Num: 12
Candidate Starts for Phonegingi_9:
(1, 4913), (3, 5042), (4, 5060), (7, 5264), (Start: 12 @5483 has 11 MA's), (Start: 18 @5516 has 37 MA's), (23, 5549), (25, 5561), (29, 5594), (30, 5597), (39, 5654), (60, 5741), (63, 5747), (72, 5786), (75, 5795),

Gene: Piccoletto_5 Start: 5184, Stop: 5465, Start Num: 18
Candidate Starts for Piccoletto_5:
(Start: 18 @5184 has 37 MA's), (33, 5304), (47, 5352), (49, 5358), (51, 5367), (65, 5418), (72, 5451),

Gene: Pickles13_9 Start: 5631, Stop: 5948, Start Num: 12
Candidate Starts for Pickles13_9:
(1, 5061), (3, 5190), (6, 5352), (Start: 12 @5631 has 11 MA's), (Start: 18 @5664 has 37 MA's), (23, 5697), (25, 5709), (32, 5781), (72, 5928),

Gene: Pippa_5 Start: 5154, Stop: 5477, Start Num: 19
Candidate Starts for Pippa_5:
(Start: 19 @5154 has 37 MA's), (30, 5235), (34, 5274), (65, 5385),

Gene: Piro94_3 Start: 2317, Stop: 2631, Start Num: 19
Candidate Starts for Piro94_3:
(Start: 13 @2296 has 3 MA's), (Start: 19 @2317 has 37 MA's), (55, 2524),

Gene: Prairie_5 Start: 5208, Stop: 5516, Start Num: 17
Candidate Starts for Prairie_5:
(Start: 17 @5208 has 27 MA's), (32, 5331), (41, 5358), (49, 5388),

Gene: PrincessTrina_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for PrincessTrina_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484),
(61, 6487), (71, 6526),

Gene: QueenB2_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for QueenB2_4:
(10, 2246), (Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1
MA's), (23, 2387), (38, 2495),

Gene: Retro23_4 Start: 2357, Stop: 2674, Start Num: 19
Candidate Starts for Retro23_4:
(Start: 13 @2336 has 3 MA's), (Start: 19 @2357 has 37 MA's), (Start: 20 @2360 has 1 MA's), (23,
2387), (38, 2495),

Gene: RosiePosie_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for RosiePosie_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484),
(71, 6526),

Gene: Salz_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Salz_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54,
2261),

Gene: Saskia_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Saskia_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54,
2264), (55, 2267),

Gene: Scavito_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Scavito_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (58, 6481), (59, 6484),
(71, 6526),

Gene: ScoobySnack_8 Start: 5351, Stop: 5674, Start Num: 12
Candidate Starts for ScoobySnack_8:
(Start: 12 @5351 has 11 MA's), (Start: 18 @5384 has 37 MA's), (25, 5429), (28, 5456), (30, 5465), (36,
5516), (40, 5522), (68, 5633), (72, 5651), (75, 5660),

Gene: Shade_5 Start: 5155, Stop: 5445, Start Num: 19
Candidate Starts for Shade_5:
(Start: 19 @5155 has 37 MA's), (30, 5236), (34, 5275), (55, 5347), (65, 5386),

Gene: Sham4_3 Start: 2060, Stop: 2362, Start Num: 18

Candidate Starts for Sham4_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Sicarius2_5 Start: 5199, Stop: 5504, Start Num: 18
Candidate Starts for Sicarius2_5:
(Start: 18 @5199 has 37 MA's), (55, 5400), (64, 5436), (72, 5472),

Gene: Sknot_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for Sknot_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Snape_3 Start: 2063, Stop: 2365, Start Num: 18
Candidate Starts for Snape_3:
(Start: 13 @2045 has 3 MA's), (Start: 18 @2063 has 37 MA's), (34, 2183), (38, 2201), (40, 2210), (54, 2267),

Gene: Sonny_5 Start: 5155, Stop: 5445, Start Num: 19
Candidate Starts for Sonny_5:
(Start: 19 @5155 has 37 MA's), (30, 5236), (34, 5275), (55, 5347), (65, 5386),

Gene: SororFago_3 Start: 2085, Stop: 2402, Start Num: 18
Candidate Starts for SororFago_3:
(5, 1758), (6, 1776), (8, 1857), (Start: 13 @2067 has 3 MA's), (Start: 18 @2085 has 37 MA's), (30, 2163), (55, 2292), (70, 2355), (74, 2370),

Gene: StevieBAY_5 Start: 5150, Stop: 5470, Start Num: 19
Candidate Starts for StevieBAY_5:
(Start: 19 @5150 has 37 MA's), (Start: 20 @5153 has 1 MA's), (33, 5267), (55, 5342), (65, 5381), (70, 5405),

Gene: Sunhee_3 Start: 2105, Stop: 2419, Start Num: 18
Candidate Starts for Sunhee_3:
(10, 2000), (Start: 13 @2087 has 3 MA's), (Start: 18 @2105 has 37 MA's), (30, 2183), (33, 2222), (34, 2225), (55, 2312),

Gene: TaeYoung_5 Start: 5158, Stop: 5448, Start Num: 19
Candidate Starts for TaeYoung_5:
(Start: 19 @5158 has 37 MA's), (30, 5239), (32, 5272), (34, 5278), (55, 5350), (65, 5389),

Gene: Terrific_5 Start: 2309, Stop: 2623, Start Num: 19
Candidate Starts for Terrific_5:
(Start: 13 @2288 has 3 MA's), (Start: 19 @2309 has 37 MA's), (55, 2516),

Gene: Timinator_5 Start: 5150, Stop: 5470, Start Num: 19
Candidate Starts for Timinator_5:
(Start: 19 @5150 has 37 MA's), (Start: 20 @5153 has 1 MA's), (33, 5267), (55, 5342), (65, 5381), (70, 5405),

Gene: Timothy_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for Timothy_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: TinyTimmy_3 Start: 2057, Stop: 2359, Start Num: 18
Candidate Starts for TinyTimmy_3:
(Start: 13 @2039 has 3 MA's), (Start: 18 @2057 has 37 MA's), (34, 2177), (38, 2195), (40, 2204), (54, 2261),

Gene: Tophat_6 Start: 6253, Stop: 6579, Start Num: 17
Candidate Starts for Tophat_6:
(Start: 17 @6253 has 27 MA's), (29, 6343), (34, 6388), (53, 6454), (55, 6460), (59, 6484), (71, 6526),

Gene: Updawg_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for Updawg_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Vibaki_7 Start: 7199, Stop: 7516, Start Num: 15
Candidate Starts for Vibaki_7:
(Start: 15 @7199 has 4 MA's), (29, 7286), (48, 7379), (58, 7424), (68, 7457), (71, 7469),

Gene: Violeta_11 Start: 5590, Stop: 5910, Start Num: 12
Candidate Starts for Violeta_11:
(2, 5122), (3, 5149), (4, 5167), (7, 5371), (Start: 12 @5590 has 11 MA's), (Start: 18 @5623 has 37 MA's), (23, 5656), (25, 5668), (32, 5740), (60, 5842), (72, 5887), (75, 5896),

Gene: Vitus_7 Start: 7057, Stop: 7371, Start Num: 17
Candidate Starts for Vitus_7:
(11, 6982), (Start: 17 @7057 has 27 MA's), (24, 7093), (29, 7144), (55, 7261), (62, 7291), (71, 7327),

Gene: Warren_10 Start: 5673, Stop: 5990, Start Num: 12
Candidate Starts for Warren_10:
(1, 5103), (3, 5232), (4, 5250), (7, 5454), (Start: 12 @5673 has 11 MA's), (Start: 18 @5706 has 37 MA's), (23, 5739), (25, 5751), (32, 5823), (60, 5925), (72, 5970),

Gene: WideWale_4 Start: 2313, Stop: 2627, Start Num: 19
Candidate Starts for WideWale_4:
(Start: 13 @2292 has 3 MA's), (Start: 19 @2313 has 37 MA's), (55, 2520),

Gene: Winchester007_25 Start: 11610, Stop: 11933, Start Num: 12
Candidate Starts for Winchester007_25:
(1, 11040), (3, 11169), (4, 11187), (6, 11331), (7, 11391), (Start: 12 @11610 has 11 MA's), (Start: 18 @11643 has 37 MA's), (25, 11688), (30, 11724), (33, 11763), (36, 11775), (68, 11892), (72, 11910), (75, 11919),

Gene: Wolpertinger_3 Start: 2060, Stop: 2362, Start Num: 18
Candidate Starts for Wolpertinger_3:
(Start: 13 @2042 has 3 MA's), (Start: 18 @2060 has 37 MA's), (34, 2180), (38, 2198), (40, 2207), (54, 2264),

Gene: Wyborn_5 Start: 5205, Stop: 5510, Start Num: 18
Candidate Starts for Wyborn_5:
(Start: 18 @5205 has 37 MA's), (43, 5358), (55, 5406), (64, 5442), (68, 5460), (72, 5478),

Gene: Zartrosa_5 Start: 5155, Stop: 5445, Start Num: 19
Candidate Starts for Zartrosa_5:

(Start: 19 @5155 has 37 MA's), (30, 5236), (34, 5275), (55, 5347), (65, 5386),