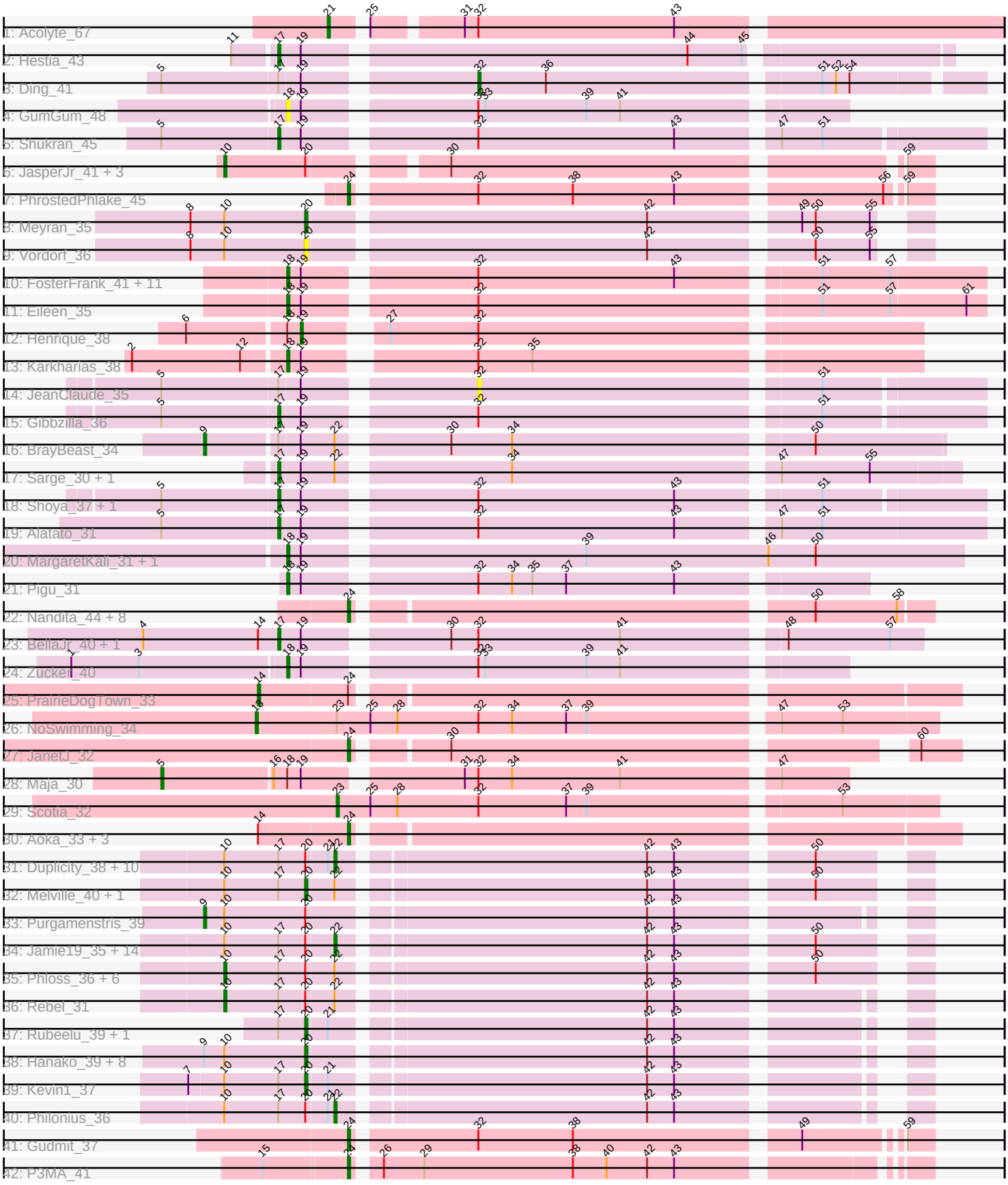
Pham 347431


1: Acolyte_67
2: Hestia_43
3: Ding_41
4: GumGum_48
5: Shukran_45
6: JasperJr_41 + 3
7: PhrostedPhlake_45
8: Meyran_35
9: Vordorf_36
10: FosterFrank_41 + 11
11: Eileen_35
12: Henrique_38
13: Karkharias_38
14: JeanClaude_35
15: Gibbzilla_36
16: BrayBeast_34
17: Sarge_30 + 1
18: Shoya_37 + 1
19: Alatato_31
20: MargaretKali_31 + 1
21: Pigu_31
22: Nandita_44 + 8
23: BellaJr_40 + 1
24: Zucker_40
25: PrairieDogTown_33
26: NoSwimming_34
27: JanetJ_32
28: Maja_30
29: Scotia_32
30: Aoka_33 + 3
31: Duplicity_38 + 10
32: Melville_40 + 1
33: Purgamenstris_39
34: Jamie19_35 + 14
35: Phloss_36 + 6
36: Rebel_31
37: Rubeelu_39 + 1
38: Hanako_39 + 8
39: Kevin1_37
40: Philonius_36
41: Gudmit_37
42: P3MA_41

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 347431 Report

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

Pham number 347431 has 111 members, 14 are drafts.

Phages represented in each track:
- Track 1 : Acolyte_67
- Track 2 : Hestia_43
- Track 3 : Ding_41
- Track 4 : GumGum_48
- Track 5 : Shukran_45
- Track 6 : JasperJr_41, Walrus_42, Hitter_44, Guacamole_41
- Track 7 : PhrostedPhlake_45
- Track 8 : Meyran_35
- Track 9 : Vordorf_36
- Track 10 : FosterFrank_41, NidoQ_34, ChuckDuck_40, KayMoney_39, LittleRon_37, LilyBell_39, Judy_40, Constance_39, Peas_36, GlobiWarming_39, RootBeer_30, Bridgette_39
- Track 11 : Eileen_35
- Track 12 : Henrique_38
- Track 13 : Karkharias_38
- Track 14 : JeanClaude_35
- Track 15 : Gibbzilla_36
- Track 16 : BrayBeast_34
- Track 17 : Sarge_30, Bauer_41
- Track 18 : Shoya_37, Rooter_33
- Track 19 : Alatato_31
- Track 20 : MargaretKali_31, Kumotta_31
- Track 21 : Pigu_31
- Track 22 : Nandita_44, Saintcarr_43, Donatella_42, Ryan_44, BigSherm_43, Toodles_43, Lenoxika_44, Yonex_44, ToastyOats_45
- Track 23 : BellaJr_40, BlackSpider_37
- Track 24 : Zucker_40
- Track 25 : PrairieDogTown_33
- Track 26 : NoSwimming_34
- Track 27 : JanetJ_32
- Track 28 : Maja_30
- Track 29 : Scotia_32
- Track 30 : Aoka_33, EvenBluerMoon_32, Hereford_33, Morrey_48
- Track 31 : Duplicity_38, Tapioca_39, Tessdabest_39, Cubone_36, Silvy_36, Charlie_36, Gex_38, Aggie_36, Journey_36, Scitech_35, Xeno_35
- Track 32 : Melville_40, Shweta_35
- Track 33 : Purgamenstris_39

• Track 34 : Jamie19_35, Phrann_39, Parmesanjohn_38, Panchino_34, Smurph_38, Silvafighter_39, Magsby_38, SpongeBob_35, MichelleMyBell_36, Pipsqueaks_38, SkinnyPete_33, Fulbright_37, Xerxes_38, Snekmaggedon_35, EGUnicorn_36
• Track 35 : Phloss_36, Andies_35, Chewbacca_39, Tortoise12_36, Schnauzer_38, Bosection6_36, Carcharodon_38
• Track 36 : Rebel_31
• Track 37 : Rubeelu_39, Butters_39
• Track 38 : Hanako_39, PhancyPhin_39, Impisi_41, Nenae_39, BabeRuth_40, Redi_39, ShrimpFriedEgg_39, Spinach_39, Raymond7_33
• Track 39 : Kevin1_37
• Track 40 : Philonius_36
• Track 41 : Gudmit_37
• Track 42 : P3MA_41

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

The start number called the most often in the published annotations is 22, it was called in 25 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aggie_36, Charlie_36, Cubone_36, Duplicity_38, EGUnicorn_36, Fulbright_37, Gex_38, Jamie19_35, Journey_36, Magsby_38, MichelleMyBell_36, Panchino_34, Parmesanjohn_38, Philonius_36, Phrann_39, Pipsqueaks_38, Scitech_35, Silvafighter_39, Silvy_36, SkinnyPete_33, Smurph_38, Snekmaggedon_35, SpongeBob_35, Tapioca_39, Tessdabest_39, Xeno_35, Xerxes_38,

Genes that have the "Most Annotated" start but do not call it:
• Andies_35, Bauer_41, Bosection6_36, BrayBeast_34, Carcharodon_38, Chewbacca_39, Melville_40, Phloss_36, Rebel_31, Sarge_30, Schnauzer_38, Shweta_35, Tortoise12_36,

Genes that do not have the "Most Annotated" start:
• Acolyte_67, Alatato_31, Aoka_33, BabeRuth_40, BellaJr_40, BigSherm_43, BlackSpider_37, Bridgette_39, Butters_39, ChuckDuck_40, Constance_39, Ding_41, Donatella_42, Eileen_35, EvenBluerMoon_32, FosterFrank_41, Gibbzilla_36, GlobiWarming_39, Guacamole_41, Gudmit_37, GumGum_48, Hanako_39, Henrique_38, Hereford_33, Hestia_43, Hitter_44, Impisi_41, JanetJ_32, JasperJr_41, JeanClaude_35, Judy_40, Karkharias_38, KayMoney_39, Kevin1_37, Kumotta_31, Lenoxika_44, LilyBell_39, LittleRon_37, Maja_30, MargaretKali_31, Meyran_35, Morrey_48, Nandita_44, Nenae_39, NidoQ_34, NoSwimming_34, P3MA_41, Peas_36, PhancyPhin_39, PhrostedPhlake_45, Pigu_31, PrairieDogTown_33, Purgamenstris_39, Raymond7_33, Redi_39, RootBeer_30, Rooter_33, Rubeelu_39, Ryan_44, Saintcarr_43, Scotia_32, Shoya_37, ShrimpFriedEgg_39, Shukran_45, Spinach_39, ToastyOats_45, Toodles_43, Vordorf_36, Walrus_42, Yonex_44, Zucker_40,

Summary by start number:

Start 5:
• Found in 8 of 111 (7.2%) of genes in pham

• Manual Annotations of this start: 1 of 97
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Maja_30 (FO),

Start 9:
• Found in 11 of 111 (9.9%) of genes in pham
• Manual Annotations of this start: 2 of 97
• Called 18.2% of time when present
• Phage (with cluster) where this start called: BrayBeast_34 (FB), Purgamenstris_39 (N),

Start 10:
• Found in 54 of 111 (48.6%) of genes in pham
• Manual Annotations of this start: 12 of 97
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Andies_35 (N), Bosection6_36 (N), Carcharodon_38 (N), Chewbacca_39 (N), Guacamole_41 (CV), Hitter_44 (CV), JasperJr_41 (CV), Phloss_36 (N), Rebel_31 (N), Schnauzer_38 (N), Tortoise12_36 (N), Walrus_42 (CV),

Start 13:
• Found in 1 of 111 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NoSwimming_34 (FO),

Start 14:
• Found in 7 of 111 (6.3%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 14.3% of time when present
• Phage (with cluster) where this start called: PrairieDogTown_33 (FO),

Start 17:
• Found in 53 of 111 (47.7%) of genes in pham
• Manual Annotations of this start: 9 of 97
• Called 18.9% of time when present
• Phage (with cluster) where this start called: Alatato_31 (FB), Bauer_41 (FN), BellaJr_40 (FN), BlackSpider_37 (FN), Gibbzilla_36 (FB), Hestia_43 (AY), Rooter_33 (FB), Sarge_30 (FB), Shoya_37 (FB), Shukran_45 (AY),

Start 18:
• Found in 21 of 111 (18.9%) of genes in pham
• Manual Annotations of this start: 15 of 97
• Called 90.5% of time when present
• Phage (with cluster) where this start called: Bridgette_39 (FA), ChuckDuck_40 (FA), Constance_39 (FA), Eileen_35 (FA), FosterFrank_41 (FA), GlobiWarming_39 (FA), GumGum_48 (AY), Judy_40 (FA), Karkharias_38 (FA), KayMoney_39 (FA), Kumotta_31 (FB), LilyBell_39 (FA), LittleRon_37 (FA), MargaretKali_31 (FB), NidoQ_34 (FA), Peas_36 (FA), Pigu_31 (FB), RootBeer_30 (FA), Zucker_40 (FN),

Start 19:
• Found in 34 of 111 (30.6%) of genes in pham
• Manual Annotations of this start: 1 of 97

• Called 2.9% of time when present
• Phage (with cluster) where this start called: Henrique_38 (FA),

Start 20:
• Found in 56 of 111 (50.5%) of genes in pham
• Manual Annotations of this start: 14 of 97
• Called 28.6% of time when present
• Phage (with cluster) where this start called: BabeRuth_40 (N), Butters_39 (N), Hanako_39 (N), Impisi_41 (N), Kevin1_37 (N), Melville_40 (N), Meyran_35 (DT), Nenae_39 (N), PhancyPhin_39 (N), Raymond7_33 (N), Redi_39 (N), Rubeelu_39 (N), ShrimpFriedEgg_39 (N), Shweta_35 (N), Spinach_39 (N), Vordorf_36 (DT),

Start 21:
• Found in 16 of 111 (14.4%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Acolyte_67 (A2),

Start 22:
• Found in 40 of 111 (36.0%) of genes in pham
• Manual Annotations of this start: 25 of 97
• Called 67.5% of time when present
• Phage (with cluster) where this start called: Aggie_36 (N), Charlie_36 (N), Cubone_36 (N), Duplicity_38 (N), EGUnicorn_36 (N), Fulbright_37 (N), Gex_38 (N), Jamie19_35 (N), Journey_36 (N), Magsby_38 (N), MichelleMyBell_36 (N), Panchino_34 (N), Parmesanjohn_38 (N), Philonius_36 (N), Phrann_39 (N), Pipsqueaks_38 (N), Scitech_35 (N), Silvafighter_39 (N), Silvy_36 (N), SkinnyPete_33 (N), Smurph_38 (N), Snekmaggedon_35 (N), SpongeBob_35 (N), Tapioca_39 (N), Tessdabest_39 (N), Xeno_35 (N), Xerxes_38 (N),

Start 23:
• Found in 2 of 111 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Scotia_32 (FO),

Start 24:
• Found in 18 of 111 (16.2%) of genes in pham
• Manual Annotations of this start: 13 of 97
• Called 94.4% of time when present
• Phage (with cluster) where this start called: Aoka_33 (FO), BigSherm_43 (FF), Donatella_42 (FF), EvenBluerMoon_32 (FO), Gudmit_37 (singleton), Hereford_33 (FO), JanetJ_32 (FO), Lenoxika_44 (FF), Morrey_48 (FO), Nandita_44 (FF), P3MA_41 (singleton), PhrostedPhlake_45 (CV), Ryan_44 (FF), Saintcarr_43 (FF), ToastyOats_45 (FF), Toodles_43 (FF), Yonex_44 (FF),

Start 32:
• Found in 33 of 111 (29.7%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 6.1% of time when present
• Phage (with cluster) where this start called: Ding_41 (AY), JeanClaude_35 (FB),

Summary by clusters:

There are 11 clusters represented in this pham: singleton, N, FA, FB, A2, FF, AY, DT, CV, FN, FO,

Info for manual annotations of cluster A2:
•Start number 21 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster AY:
•Start number 17 was manually annotated 2 times for cluster AY.
•Start number 32 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster CV:
•Start number 10 was manually annotated 4 times for cluster CV.
•Start number 24 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DT:
•Start number 20 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster FA:
•Start number 18 was manually annotated 11 times for cluster FA.
•Start number 19 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:
•Start number 9 was manually annotated 1 time for cluster FB.
•Start number 17 was manually annotated 5 times for cluster FB.
•Start number 18 was manually annotated 3 times for cluster FB.

Info for manual annotations of cluster FF:
•Start number 24 was manually annotated 6 times for cluster FF.

Info for manual annotations of cluster FN:
•Start number 17 was manually annotated 2 times for cluster FN.
•Start number 18 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FO:
•Start number 5 was manually annotated 1 time for cluster FO.
•Start number 13 was manually annotated 1 time for cluster FO.
•Start number 14 was manually annotated 1 time for cluster FO.
•Start number 23 was manually annotated 1 time for cluster FO.
•Start number 24 was manually annotated 4 times for cluster FO.

Info for manual annotations of cluster N:
•Start number 9 was manually annotated 1 time for cluster N.
•Start number 10 was manually annotated 8 times for cluster N.
•Start number 20 was manually annotated 13 times for cluster N.
•Start number 22 was manually annotated 25 times for cluster N.

Gene Information:

Gene: Acolyte_67 Start: 43619, Stop: 43897, Start Num: 21
Candidate Starts for Acolyte_67:

(Start: 21 @43619 has 1 MA's), (25, 43631), (31, 43667), (Start: 32 @43673 has 1 MA's), (43, 43760),

Gene: Aggie_36 Start: 27900, Stop: 28133, Start Num: 22
Candidate Starts for Aggie_36:
(Start: 10 @27852 has 12 MA's), (Start: 17 @27876 has 9 MA's), (Start: 20 @27888 has 14 MA's), (Start: 21 @27897 has 1 MA's), (Start: 22 @27900 has 25 MA's), (42, 28029), (43, 28041), (50, 28095),

Gene: Alatato_31 Start: 24615, Stop: 24322, Start Num: 17
Candidate Starts for Alatato_31:
(Start: 5 @24666 has 1 MA's), (Start: 17 @24615 has 9 MA's), (Start: 19 @24606 has 1 MA's), (Start: 32 @24537 has 1 MA's), (43, 24450), (47, 24411), (51, 24393),

Gene: Andies_35 Start: 28370, Stop: 28651, Start Num: 10
Candidate Starts for Andies_35:
(Start: 10 @28370 has 12 MA's), (Start: 17 @28394 has 9 MA's), (Start: 20 @28406 has 14 MA's), (Start: 22 @28418 has 25 MA's), (42, 28547), (43, 28559), (50, 28613),

Gene: Aoka_33 Start: 26261, Stop: 26512, Start Num: 24
Candidate Starts for Aoka_33:
(Start: 14 @26222 has 1 MA's), (Start: 24 @26261 has 13 MA's),

Gene: BabeRuth_40 Start: 29534, Stop: 29776, Start Num: 20
Candidate Starts for BabeRuth_40:
(Start: 9 @29489 has 2 MA's), (Start: 10 @29498 has 12 MA's), (Start: 20 @29534 has 14 MA's), (42, 29675), (43, 29687),

Gene: Bauer_41 Start: 28925, Stop: 28644, Start Num: 17
Candidate Starts for Bauer_41:
(Start: 17 @28925 has 9 MA's), (Start: 19 @28916 has 1 MA's), (Start: 22 @28901 has 25 MA's), (34, 28832), (47, 28721), (55, 28682),

Gene: BellaJr_40 Start: 29513, Stop: 29247, Start Num: 17
Candidate Starts for BellaJr_40:
(4, 29573), (Start: 14 @29522 has 1 MA's), (Start: 17 @29513 has 9 MA's), (Start: 19 @29504 has 1 MA's), (30, 29447), (Start: 32 @29435 has 1 MA's), (41, 29372), (48, 29306), (57, 29261),

Gene: BigSherm_43 Start: 29987, Stop: 30226, Start Num: 24
Candidate Starts for BigSherm_43:
(Start: 24 @29987 has 13 MA's), (50, 30176), (58, 30212),

Gene: BlackSpider_37 Start: 28105, Stop: 27839, Start Num: 17
Candidate Starts for BlackSpider_37:
(4, 28165), (Start: 14 @28114 has 1 MA's), (Start: 17 @28105 has 9 MA's), (Start: 19 @28096 has 1 MA's), (30, 28039), (Start: 32 @28027 has 1 MA's), (41, 27964), (48, 27898), (57, 27853),

Gene: Bosection6_36 Start: 27873, Stop: 28154, Start Num: 10
Candidate Starts for Bosection6_36:
(Start: 10 @27873 has 12 MA's), (Start: 17 @27897 has 9 MA's), (Start: 20 @27909 has 14 MA's), (Start: 22 @27921 has 25 MA's), (42, 28050), (43, 28062), (50, 28116),

Gene: BrayBeast_34 Start: 25453, Stop: 25148, Start Num: 9
Candidate Starts for BrayBeast_34:

(Start: 9 @25453 has 2 MA's), (Start: 17 @25423 has 9 MA's), (Start: 19 @25414 has 1 MA's), (Start: 22 @25399 has 25 MA's), (30, 25357), (34, 25330), (50, 25204),

Gene: Bridgette_39 Start: 28174, Stop: 27884, Start Num: 18
Candidate Starts for Bridgette_39:
(Start: 18 @28174 has 15 MA's), (Start: 19 @28168 has 1 MA's), (Start: 32 @28099 has 1 MA's), (43, 28012), (51, 27955), (57, 27925),

Gene: Butters_39 Start: 29960, Stop: 30202, Start Num: 20
Candidate Starts for Butters_39:
(Start: 17 @29948 has 9 MA's), (Start: 20 @29960 has 14 MA's), (Start: 21 @29969 has 1 MA's), (42, 30101), (43, 30113),

Gene: Carcharodon_38 Start: 29181, Stop: 29462, Start Num: 10
Candidate Starts for Carcharodon_38:
(Start: 10 @29181 has 12 MA's), (Start: 17 @29205 has 9 MA's), (Start: 20 @29217 has 14 MA's), (Start: 22 @29229 has 25 MA's), (42, 29358), (43, 29370), (50, 29424),

Gene: Charlie_36 Start: 27920, Stop: 28153, Start Num: 22
Candidate Starts for Charlie_36:
(Start: 10 @27872 has 12 MA's), (Start: 17 @27896 has 9 MA's), (Start: 20 @27908 has 14 MA's), (Start: 21 @27917 has 1 MA's), (Start: 22 @27920 has 25 MA's), (42, 28049), (43, 28061), (50, 28115),

Gene: Chewbacca_39 Start: 29181, Stop: 29462, Start Num: 10
Candidate Starts for Chewbacca_39:
(Start: 10 @29181 has 12 MA's), (Start: 17 @29205 has 9 MA's), (Start: 20 @29217 has 14 MA's), (Start: 22 @29229 has 25 MA's), (42, 29358), (43, 29370), (50, 29424),

Gene: ChuckDuck_40 Start: 27998, Stop: 27708, Start Num: 18
Candidate Starts for ChuckDuck_40:
(Start: 18 @27998 has 15 MA's), (Start: 19 @27992 has 1 MA's), (Start: 32 @27923 has 1 MA's), (43, 27836), (51, 27779), (57, 27749),

Gene: Constance_39 Start: 28327, Stop: 28037, Start Num: 18
Candidate Starts for Constance_39:
(Start: 18 @28327 has 15 MA's), (Start: 19 @28321 has 1 MA's), (Start: 32 @28252 has 1 MA's), (43, 28165), (51, 28108), (57, 28078),

Gene: Cubone_36 Start: 27942, Stop: 28175, Start Num: 22
Candidate Starts for Cubone_36:
(Start: 10 @27894 has 12 MA's), (Start: 17 @27918 has 9 MA's), (Start: 20 @27930 has 14 MA's), (Start: 21 @27939 has 1 MA's), (Start: 22 @27942 has 25 MA's), (42, 28071), (43, 28083), (50, 28137),

Gene: Ding_41 Start: 29827, Stop: 29618, Start Num: 32
Candidate Starts for Ding_41:
(Start: 5 @29956 has 1 MA's), (Start: 17 @29905 has 9 MA's), (Start: 19 @29896 has 1 MA's), (Start: 32 @29827 has 1 MA's), (36, 29797), (51, 29683), (52, 29677), (54, 29671),

Gene: Donatella_42 Start: 30460, Stop: 30699, Start Num: 24
Candidate Starts for Donatella_42:
(Start: 24 @30460 has 13 MA's), (50, 30649), (58, 30685),

Gene: Duplicity_38 Start: 29238, Stop: 29471, Start Num: 22
Candidate Starts for Duplicity_38:
(Start: 10 @29190 has 12 MA's), (Start: 17 @29214 has 9 MA's), (Start: 20 @29226 has 14 MA's), (Start: 21 @29235 has 1 MA's), (Start: 22 @29238 has 25 MA's), (42, 29367), (43, 29379), (50, 29433),

Gene: EGUnicorn_36 Start: 27921, Stop: 28154, Start Num: 22
Candidate Starts for EGUnicorn_36:
(Start: 10 @27873 has 12 MA's), (Start: 17 @27897 has 9 MA's), (Start: 20 @27909 has 14 MA's), (Start: 22 @27921 has 25 MA's), (42, 28050), (43, 28062), (50, 28116),

Gene: Eileen_35 Start: 26405, Stop: 26115, Start Num: 18
Candidate Starts for Eileen_35:
(Start: 18 @26405 has 15 MA's), (Start: 19 @26399 has 1 MA's), (Start: 32 @26330 has 1 MA's), (51, 26186), (57, 26156), (61, 26123),

Gene: EvenBluerMoon_32 Start: 26499, Stop: 26750, Start Num: 24
Candidate Starts for EvenBluerMoon_32:
(Start: 14 @26460 has 1 MA's), (Start: 24 @26499 has 13 MA's),

Gene: FosterFrank_41 Start: 28057, Stop: 27767, Start Num: 18
Candidate Starts for FosterFrank_41:
(Start: 18 @28057 has 15 MA's), (Start: 19 @28051 has 1 MA's), (Start: 32 @27982 has 1 MA's), (43, 27895), (51, 27838), (57, 27808),

Gene: Fulbright_37 Start: 28318, Stop: 28551, Start Num: 22
Candidate Starts for Fulbright_37:
(Start: 10 @28270 has 12 MA's), (Start: 17 @28294 has 9 MA's), (Start: 20 @28306 has 14 MA's), (Start: 22 @28318 has 25 MA's), (42, 28447), (43, 28459), (50, 28513),

Gene: Gex_38 Start: 29245, Stop: 29478, Start Num: 22
Candidate Starts for Gex_38:
(Start: 10 @29197 has 12 MA's), (Start: 17 @29221 has 9 MA's), (Start: 20 @29233 has 14 MA's), (Start: 21 @29242 has 1 MA's), (Start: 22 @29245 has 25 MA's), (42, 29374), (43, 29386), (50, 29440),

Gene: Gibbzilla_36 Start: 25888, Stop: 25598, Start Num: 17
Candidate Starts for Gibbzilla_36:
(Start: 5 @25939 has 1 MA's), (Start: 17 @25888 has 9 MA's), (Start: 19 @25879 has 1 MA's), (Start: 32 @25810 has 1 MA's), (51, 25666),

Gene: GlobiWarming_39 Start: 27581, Stop: 27291, Start Num: 18
Candidate Starts for GlobiWarming_39:
(Start: 18 @27581 has 15 MA's), (Start: 19 @27575 has 1 MA's), (Start: 32 @27506 has 1 MA's), (43, 27419), (51, 27362), (57, 27332),

Gene: Guacamole_41 Start: 33011, Stop: 33295, Start Num: 10
Candidate Starts for Guacamole_41:
(Start: 10 @33011 has 12 MA's), (Start: 20 @33047 has 14 MA's), (30, 33098), (59, 33284),

Gene: Gudmit_37 Start: 27130, Stop: 27366, Start Num: 24
Candidate Starts for Gudmit_37:

(Start: 24 @27130 has 13 MA's), (Start: 32 @27181 has 1 MA's), (38, 27223), (49, 27316), (59, 27355),

Gene: GumGum_48 Start: 30386, Stop: 30156, Start Num: 18
Candidate Starts for GumGum_48:
(Start: 18 @30386 has 15 MA's), (Start: 19 @30380 has 1 MA's), (Start: 32 @30311 has 1 MA's), (33, 30308), (39, 30263), (41, 30248),

Gene: Hanako_39 Start: 29533, Stop: 29775, Start Num: 20
Candidate Starts for Hanako_39:
(Start: 9 @29488 has 2 MA's), (Start: 10 @29497 has 12 MA's), (Start: 20 @29533 has 14 MA's), (42, 29674), (43, 29686),

Gene: Henrique_38 Start: 27540, Stop: 27286, Start Num: 19
Candidate Starts for Henrique_38:
(6, 27588), (Start: 18 @27546 has 15 MA's), (Start: 19 @27540 has 1 MA's), (27, 27513), (Start: 32 @27474 has 1 MA's),

Gene: Hereford_33 Start: 26333, Stop: 26584, Start Num: 24
Candidate Starts for Hereford_33:
(Start: 14 @26294 has 1 MA's), (Start: 24 @26333 has 13 MA's),

Gene: Hestia_43 Start: 28715, Stop: 28437, Start Num: 17
Candidate Starts for Hestia_43:
(11, 28733), (Start: 17 @28715 has 9 MA's), (Start: 19 @28706 has 1 MA's), (44, 28544), (45, 28520),

Gene: Hitter_44 Start: 32655, Stop: 32939, Start Num: 10
Candidate Starts for Hitter_44:
(Start: 10 @32655 has 12 MA's), (Start: 20 @32691 has 14 MA's), (30, 32742), (59, 32928),

Gene: Impisi_41 Start: 30089, Stop: 30331, Start Num: 20
Candidate Starts for Impisi_41:
(Start: 9 @30044 has 2 MA's), (Start: 10 @30053 has 12 MA's), (Start: 20 @30089 has 14 MA's), (42, 30230), (43, 30242),

Gene: Jamie19_35 Start: 28299, Stop: 28532, Start Num: 22
Candidate Starts for Jamie19_35:
(Start: 10 @28251 has 12 MA's), (Start: 17 @28275 has 9 MA's), (Start: 20 @28287 has 14 MA's), (Start: 22 @28299 has 25 MA's), (42, 28428), (43, 28440), (50, 28494),

Gene: JanetJ_32 Start: 26887, Stop: 27126, Start Num: 24
Candidate Starts for JanetJ_32:
(Start: 24 @26887 has 13 MA's), (30, 26923), (60, 27109),

Gene: JasperJr_41 Start: 33011, Stop: 33295, Start Num: 10
Candidate Starts for JasperJr_41:
(Start: 10 @33011 has 12 MA's), (Start: 20 @33047 has 14 MA's), (30, 33098), (59, 33284),

Gene: JeanClaude_35 Start: 24303, Stop: 24091, Start Num: 32
Candidate Starts for JeanClaude_35:
(Start: 5 @24432 has 1 MA's), (Start: 17 @24381 has 9 MA's), (Start: 19 @24372 has 1 MA's), (Start: 32 @24303 has 1 MA's), (51, 24159),

Gene: Journey_36 Start: 27920, Stop: 28153, Start Num: 22

Candidate Starts for Journey_36:
(Start: 10 @27872 has 12 MA's), (Start: 17 @27896 has 9 MA's), (Start: 20 @27908 has 14 MA's), (Start: 21 @27917 has 1 MA's), (Start: 22 @27920 has 25 MA's), (42, 28049), (43, 28061), (50, 28115),

Gene: Judy_40 Start: 28493, Stop: 28203, Start Num: 18
Candidate Starts for Judy_40:
(Start: 18 @28493 has 15 MA's), (Start: 19 @28487 has 1 MA's), (Start: 32 @28418 has 1 MA's), (43, 28331), (51, 28274), (57, 28244),

Gene: Karkharias_38 Start: 28017, Stop: 27757, Start Num: 18
Candidate Starts for Karkharias_38:
(2, 28083), (12, 28035), (Start: 18 @28017 has 15 MA's), (Start: 19 @28011 has 1 MA's), (Start: 32 @27945 has 1 MA's), (35, 27921),

Gene: KayMoney_39 Start: 27670, Stop: 27380, Start Num: 18
Candidate Starts for KayMoney_39:
(Start: 18 @27670 has 15 MA's), (Start: 19 @27664 has 1 MA's), (Start: 32 @27595 has 1 MA's), (43, 27508), (51, 27451), (57, 27421),

Gene: Kevin1_37 Start: 29139, Stop: 29381, Start Num: 20
Candidate Starts for Kevin1_37:
(7, 29088), (Start: 10 @29103 has 12 MA's), (Start: 17 @29127 has 9 MA's), (Start: 20 @29139 has 14 MA's), (Start: 21 @29148 has 1 MA's), (42, 29280), (43, 29292),

Gene: Kumotta_31 Start: 25315, Stop: 25025, Start Num: 18
Candidate Starts for Kumotta_31:
(Start: 18 @25315 has 15 MA's), (Start: 19 @25309 has 1 MA's), (39, 25192), (46, 25111), (50, 25090),

Gene: Lenoxika_44 Start: 30350, Stop: 30589, Start Num: 24
Candidate Starts for Lenoxika_44:
(Start: 24 @30350 has 13 MA's), (50, 30539), (58, 30575),

Gene: LilyBell_39 Start: 27899, Stop: 27609, Start Num: 18
Candidate Starts for LilyBell_39:
(Start: 18 @27899 has 15 MA's), (Start: 19 @27893 has 1 MA's), (Start: 32 @27824 has 1 MA's), (43, 27737), (51, 27680), (57, 27650),

Gene: LittleRon_37 Start: 27279, Stop: 26989, Start Num: 18
Candidate Starts for LittleRon_37:
(Start: 18 @27279 has 15 MA's), (Start: 19 @27273 has 1 MA's), (Start: 32 @27204 has 1 MA's), (43, 27117), (51, 27060), (57, 27030),

Gene: Magsby_38 Start: 29246, Stop: 29479, Start Num: 22
Candidate Starts for Magsby_38:
(Start: 10 @29198 has 12 MA's), (Start: 17 @29222 has 9 MA's), (Start: 20 @29234 has 14 MA's), (Start: 22 @29246 has 25 MA's), (42, 29375), (43, 29387), (50, 29441),

Gene: Maja_30 Start: 25873, Stop: 25589, Start Num: 5
Candidate Starts for Maja_30:
(Start: 5 @25873 has 1 MA's), (16, 25825), (Start: 18 @25819 has 15 MA's), (Start: 19 @25813 has 1 MA's), (31, 25750), (Start: 32 @25744 has 1 MA's), (34, 25729), (41, 25681), (47, 25618),

Gene: MargaretKali_31 Start: 24950, Stop: 24660, Start Num: 18
Candidate Starts for MargaretKali_31:
(Start: 18 @24950 has 15 MA's), (Start: 19 @24944 has 1 MA's), (39, 24827), (46, 24746), (50, 24725),

Gene: Melville_40 Start: 29218, Stop: 29463, Start Num: 20
Candidate Starts for Melville_40:
(Start: 10 @29182 has 12 MA's), (Start: 17 @29206 has 9 MA's), (Start: 20 @29218 has 14 MA's), (Start: 22 @29230 has 25 MA's), (42, 29359), (43, 29371), (50, 29425),

Gene: Meyran_35 Start: 31028, Stop: 31276, Start Num: 20
Candidate Starts for Meyran_35:
(8, 30977), (Start: 10 @30992 has 12 MA's), (Start: 20 @31028 has 14 MA's), (42, 31172), (49, 31232), (50, 31238), (55, 31262),

Gene: MichelleMyBell_36 Start: 28237, Stop: 28470, Start Num: 22
Candidate Starts for MichelleMyBell_36:
(Start: 10 @28189 has 12 MA's), (Start: 17 @28213 has 9 MA's), (Start: 20 @28225 has 14 MA's), (Start: 22 @28237 has 25 MA's), (42, 28366), (43, 28378), (50, 28432),

Gene: Morrey_48 Start: 26501, Stop: 26752, Start Num: 24
Candidate Starts for Morrey_48:
(Start: 14 @26462 has 1 MA's), (Start: 24 @26501 has 13 MA's),

Gene: Nandita_44 Start: 30213, Stop: 30452, Start Num: 24
Candidate Starts for Nandita_44:
(Start: 24 @30213 has 13 MA's), (50, 30402), (58, 30438),

Gene: Nenae_39 Start: 29536, Stop: 29778, Start Num: 20
Candidate Starts for Nenae_39:
(Start: 9 @29491 has 2 MA's), (Start: 10 @29500 has 12 MA's), (Start: 20 @29536 has 14 MA's), (42, 29677), (43, 29689),

Gene: NidoQ_34 Start: 27004, Stop: 26714, Start Num: 18
Candidate Starts for NidoQ_34:
(Start: 18 @27004 has 15 MA's), (Start: 19 @26998 has 1 MA's), (Start: 32 @26929 has 1 MA's), (43, 26842), (51, 26785), (57, 26755),

Gene: NoSwimming_34 Start: 27843, Stop: 27550, Start Num: 13
Candidate Starts for NoSwimming_34:
(Start: 13 @27843 has 1 MA's), (Start: 23 @27807 has 1 MA's), (25, 27792), (28, 27780), (Start: 32 @27744 has 1 MA's), (34, 27729), (37, 27705), (39, 27696), (47, 27618), (53, 27591),

Gene: P3MA_41 Start: 31039, Stop: 31272, Start Num: 24
Candidate Starts for P3MA_41:
(15, 31003), (Start: 24 @31039 has 13 MA's), (26, 31048), (29, 31066), (38, 31132), (40, 31147), (42, 31165), (43, 31177),

Gene: Panchino_34 Start: 29645, Stop: 29878, Start Num: 22
Candidate Starts for Panchino_34:
(Start: 10 @29597 has 12 MA's), (Start: 17 @29621 has 9 MA's), (Start: 20 @29633 has 14 MA's), (Start: 22 @29645 has 25 MA's), (42, 29774), (43, 29786), (50, 29840),

Gene: Parmesanjohn_38 Start: 29249, Stop: 29482, Start Num: 22

Candidate Starts for Parmesanjohn_38:
(Start: 10 @29201 has 12 MA's), (Start: 17 @29225 has 9 MA's), (Start: 20 @29237 has 14 MA's), (Start: 22 @29249 has 25 MA's), (42, 29378), (43, 29390), (50, 29444),

Gene: Peas_36 Start: 28552, Stop: 28262, Start Num: 18
Candidate Starts for Peas_36:
(Start: 18 @28552 has 15 MA's), (Start: 19 @28546 has 1 MA's), (Start: 32 @28477 has 1 MA's), (43, 28390), (51, 28333), (57, 28303),

Gene: PhancyPhin_39 Start: 29530, Stop: 29772, Start Num: 20
Candidate Starts for PhancyPhin_39:
(Start: 9 @29485 has 2 MA's), (Start: 10 @29494 has 12 MA's), (Start: 20 @29530 has 14 MA's), (42, 29671), (43, 29683),

Gene: Philonius_36 Start: 27911, Stop: 28141, Start Num: 22
Candidate Starts for Philonius_36:
(Start: 10 @27863 has 12 MA's), (Start: 17 @27887 has 9 MA's), (Start: 20 @27899 has 14 MA's), (Start: 21 @27908 has 1 MA's), (Start: 22 @27911 has 25 MA's), (42, 28040), (43, 28052),

Gene: Phloss_36 Start: 28608, Stop: 28889, Start Num: 10
Candidate Starts for Phloss_36:
(Start: 10 @28608 has 12 MA's), (Start: 17 @28632 has 9 MA's), (Start: 20 @28644 has 14 MA's), (Start: 22 @28656 has 25 MA's), (42, 28785), (43, 28797), (50, 28851),

Gene: Phrann_39 Start: 30325, Stop: 30558, Start Num: 22
Candidate Starts for Phrann_39:
(Start: 10 @30277 has 12 MA's), (Start: 17 @30301 has 9 MA's), (Start: 20 @30313 has 14 MA's), (Start: 22 @30325 has 25 MA's), (42, 30454), (43, 30466), (50, 30520),

Gene: PhrostedPhlake_45 Start: 32973, Stop: 33212, Start Num: 24
Candidate Starts for PhrostedPhlake_45:
(Start: 24 @32973 has 13 MA's), (Start: 32 @33024 has 1 MA's), (38, 33066), (43, 33111), (56, 33195), (59, 33201),

Gene: Pigu_31 Start: 24557, Stop: 24318, Start Num: 18
Candidate Starts for Pigu_31:
(Start: 18 @24557 has 15 MA's), (Start: 19 @24551 has 1 MA's), (Start: 32 @24482 has 1 MA's), (34, 24467), (35, 24458), (37, 24443), (43, 24395),

Gene: Pipsqueaks_38 Start: 29226, Stop: 29459, Start Num: 22
Candidate Starts for Pipsqueaks_38:
(Start: 10 @29178 has 12 MA's), (Start: 17 @29202 has 9 MA's), (Start: 20 @29214 has 14 MA's), (Start: 22 @29226 has 25 MA's), (42, 29355), (43, 29367), (50, 29421),

Gene: PrairieDogTown_33 Start: 26462, Stop: 26752, Start Num: 14
Candidate Starts for PrairieDogTown_33:
(Start: 14 @26462 has 1 MA's), (Start: 24 @26501 has 13 MA's),

Gene: Purgamenstris_39 Start: 29489, Stop: 29776, Start Num: 9
Candidate Starts for Purgamenstris_39:
(Start: 9 @29489 has 2 MA's), (Start: 10 @29498 has 12 MA's), (Start: 20 @29534 has 14 MA's), (42, 29675), (43, 29687),

Gene: Raymond7_33 Start: 29346, Stop: 29588, Start Num: 20
Candidate Starts for Raymond7_33:
(Start: 9 @29301 has 2 MA's), (Start: 10 @29310 has 12 MA's), (Start: 20 @29346 has 14 MA's), (42, 29487), (43, 29499),

Gene: Rebel_31 Start: 25628, Stop: 25906, Start Num: 10
Candidate Starts for Rebel_31:
(Start: 10 @25628 has 12 MA's), (Start: 17 @25652 has 9 MA's), (Start: 20 @25664 has 14 MA's), (Start: 22 @25676 has 25 MA's), (42, 25805), (43, 25817),

Gene: Redi_39 Start: 29533, Stop: 29775, Start Num: 20
Candidate Starts for Redi_39:
(Start: 9 @29488 has 2 MA's), (Start: 10 @29497 has 12 MA's), (Start: 20 @29533 has 14 MA's), (42, 29674), (43, 29686),

Gene: RootBeer_30 Start: 24454, Stop: 24164, Start Num: 18
Candidate Starts for RootBeer_30:
(Start: 18 @24454 has 15 MA's), (Start: 19 @24448 has 1 MA's), (Start: 32 @24379 has 1 MA's), (43, 24292), (51, 24235), (57, 24205),

Gene: Rooter_33 Start: 24872, Stop: 24582, Start Num: 17
Candidate Starts for Rooter_33:
(Start: 5 @24923 has 1 MA's), (Start: 17 @24872 has 9 MA's), (Start: 19 @24863 has 1 MA's), (Start: 32 @24794 has 1 MA's), (43, 24707), (51, 24650),

Gene: Rubeelu_39 Start: 29960, Stop: 30202, Start Num: 20
Candidate Starts for Rubeelu_39:
(Start: 17 @29948 has 9 MA's), (Start: 20 @29960 has 14 MA's), (Start: 21 @29969 has 1 MA's), (42, 30101), (43, 30113),

Gene: Ryan_44 Start: 30762, Stop: 31001, Start Num: 24
Candidate Starts for Ryan_44:
(Start: 24 @30762 has 13 MA's), (50, 30951), (58, 30987),

Gene: Saintcarr_43 Start: 30533, Stop: 30772, Start Num: 24
Candidate Starts for Saintcarr_43:
(Start: 24 @30533 has 13 MA's), (50, 30722), (58, 30758),

Gene: Sarge_30 Start: 23262, Stop: 22981, Start Num: 17
Candidate Starts for Sarge_30:
(Start: 17 @23262 has 9 MA's), (Start: 19 @23253 has 1 MA's), (Start: 22 @23238 has 25 MA's), (34, 23169), (47, 23058), (55, 23019),

Gene: Schnauzer_38 Start: 29201, Stop: 29482, Start Num: 10
Candidate Starts for Schnauzer_38:
(Start: 10 @29201 has 12 MA's), (Start: 17 @29225 has 9 MA's), (Start: 20 @29237 has 14 MA's), (Start: 22 @29249 has 25 MA's), (42, 29378), (43, 29390), (50, 29444),

Gene: Scitech_35 Start: 27097, Stop: 27330, Start Num: 22
Candidate Starts for Scitech_35:
(Start: 10 @27049 has 12 MA's), (Start: 17 @27073 has 9 MA's), (Start: 20 @27085 has 14 MA's), (Start: 21 @27094 has 1 MA's), (Start: 22 @27097 has 25 MA's), (42, 27226), (43, 27238), (50, 27292),

Gene: Scotia_32 Start: 26848, Stop: 26591, Start Num: 23
Candidate Starts for Scotia_32:
(Start: 23 @26848 has 1 MA's), (25, 26833), (28, 26821), (Start: 32 @26785 has 1 MA's), (37, 26746), (39, 26737), (53, 26632),

Gene: Shoya_37 Start: 25648, Stop: 25358, Start Num: 17
Candidate Starts for Shoya_37:
(Start: 5 @25699 has 1 MA's), (Start: 17 @25648 has 9 MA's), (Start: 19 @25639 has 1 MA's), (Start: 32 @25570 has 1 MA's), (43, 25483), (51, 25426),

Gene: ShrimpFriedEgg_39 Start: 29533, Stop: 29775, Start Num: 20
Candidate Starts for ShrimpFriedEgg_39:
(Start: 9 @29488 has 2 MA's), (Start: 10 @29497 has 12 MA's), (Start: 20 @29533 has 14 MA's), (42, 29674), (43, 29686),

Gene: Shukran_45 Start: 29468, Stop: 29178, Start Num: 17
Candidate Starts for Shukran_45:
(Start: 5 @29519 has 1 MA's), (Start: 17 @29468 has 9 MA's), (Start: 19 @29459 has 1 MA's), (Start: 32 @29390 has 1 MA's), (43, 29303), (47, 29264), (51, 29246),

Gene: Shweta_35 Start: 28417, Stop: 28662, Start Num: 20
Candidate Starts for Shweta_35:
(Start: 10 @28381 has 12 MA's), (Start: 17 @28405 has 9 MA's), (Start: 20 @28417 has 14 MA's), (Start: 22 @28429 has 25 MA's), (42, 28558), (43, 28570), (50, 28624),

Gene: Silvafighter_39 Start: 29222, Stop: 29455, Start Num: 22
Candidate Starts for Silvafighter_39:
(Start: 10 @29174 has 12 MA's), (Start: 17 @29198 has 9 MA's), (Start: 20 @29210 has 14 MA's), (Start: 22 @29222 has 25 MA's), (42, 29351), (43, 29363), (50, 29417),

Gene: Silvy_36 Start: 27900, Stop: 28133, Start Num: 22
Candidate Starts for Silvy_36:
(Start: 10 @27852 has 12 MA's), (Start: 17 @27876 has 9 MA's), (Start: 20 @27888 has 14 MA's), (Start: 21 @27897 has 1 MA's), (Start: 22 @27900 has 25 MA's), (42, 28029), (43, 28041), (50, 28095),

Gene: SkinnyPete_33 Start: 26960, Stop: 27193, Start Num: 22
Candidate Starts for SkinnyPete_33:
(Start: 10 @26912 has 12 MA's), (Start: 17 @26936 has 9 MA's), (Start: 20 @26948 has 14 MA's), (Start: 22 @26960 has 25 MA's), (42, 27089), (43, 27101), (50, 27155),

Gene: Smurph_38 Start: 29249, Stop: 29482, Start Num: 22
Candidate Starts for Smurph_38:
(Start: 10 @29201 has 12 MA's), (Start: 17 @29225 has 9 MA's), (Start: 20 @29237 has 14 MA's), (Start: 22 @29249 has 25 MA's), (42, 29378), (43, 29390), (50, 29444),

Gene: Snekmaggedon_35 Start: 28299, Stop: 28532, Start Num: 22
Candidate Starts for Snekmaggedon_35:
(Start: 10 @28251 has 12 MA's), (Start: 17 @28275 has 9 MA's), (Start: 20 @28287 has 14 MA's), (Start: 22 @28299 has 25 MA's), (42, 28428), (43, 28440), (50, 28494),

Gene: Spinach_39 Start: 29533, Stop: 29775, Start Num: 20

Candidate Starts for Spinach_39:
(Start: 9 @29488 has 2 MA's), (Start: 10 @29497 has 12 MA's), (Start: 20 @29533 has 14 MA's), (42, 29674), (43, 29686),

Gene: SpongeBob_35 Start: 28299, Stop: 28532, Start Num: 22
Candidate Starts for SpongeBob_35:
(Start: 10 @28251 has 12 MA's), (Start: 17 @28275 has 9 MA's), (Start: 20 @28287 has 14 MA's), (Start: 22 @28299 has 25 MA's), (42, 28428), (43, 28440), (50, 28494),

Gene: Tapioca_39 Start: 29215, Stop: 29448, Start Num: 22
Candidate Starts for Tapioca_39:
(Start: 10 @29167 has 12 MA's), (Start: 17 @29191 has 9 MA's), (Start: 20 @29203 has 14 MA's), (Start: 21 @29212 has 1 MA's), (Start: 22 @29215 has 25 MA's), (42, 29344), (43, 29356), (50, 29410),

Gene: Tessdabest_39 Start: 29246, Stop: 29479, Start Num: 22
Candidate Starts for Tessdabest_39:
(Start: 10 @29198 has 12 MA's), (Start: 17 @29222 has 9 MA's), (Start: 20 @29234 has 14 MA's), (Start: 21 @29243 has 1 MA's), (Start: 22 @29246 has 25 MA's), (42, 29375), (43, 29387), (50, 29441),

Gene: ToastyOats_45 Start: 30537, Stop: 30776, Start Num: 24
Candidate Starts for ToastyOats_45:
(Start: 24 @30537 has 13 MA's), (50, 30726), (58, 30762),

Gene: Toodles_43 Start: 31153, Stop: 31392, Start Num: 24
Candidate Starts for Toodles_43:
(Start: 24 @31153 has 13 MA's), (50, 31342), (58, 31378),

Gene: Tortoise12_36 Start: 27884, Stop: 28165, Start Num: 10
Candidate Starts for Tortoise12_36:
(Start: 10 @27884 has 12 MA's), (Start: 17 @27908 has 9 MA's), (Start: 20 @27920 has 14 MA's), (Start: 22 @27932 has 25 MA's), (42, 28061), (43, 28073), (50, 28127),

Gene: Vordorf_36 Start: 30303, Stop: 30551, Start Num: 20
Candidate Starts for Vordorf_36:
(8, 30252), (Start: 10 @30267 has 12 MA's), (Start: 20 @30303 has 14 MA's), (42, 30447), (50, 30513), (55, 30537),

Gene: Walrus_42 Start: 32790, Stop: 33074, Start Num: 10
Candidate Starts for Walrus_42:
(Start: 10 @32790 has 12 MA's), (Start: 20 @32826 has 14 MA's), (30, 32877), (59, 33063),

Gene: Xeno_35 Start: 27686, Stop: 27919, Start Num: 22
Candidate Starts for Xeno_35:
(Start: 10 @27638 has 12 MA's), (Start: 17 @27662 has 9 MA's), (Start: 20 @27674 has 14 MA's), (Start: 21 @27683 has 1 MA's), (Start: 22 @27686 has 25 MA's), (42, 27815), (43, 27827), (50, 27881),

Gene: Xerxes_38 Start: 29246, Stop: 29479, Start Num: 22
Candidate Starts for Xerxes_38:
(Start: 10 @29198 has 12 MA's), (Start: 17 @29222 has 9 MA's), (Start: 20 @29234 has 14 MA's), (Start: 22 @29246 has 25 MA's), (42, 29375), (43, 29387), (50, 29441),

Gene: Yonex_44 Start: 30762, Stop: 31001, Start Num: 24
Candidate Starts for Yonex_44:
(Start: 24 @30762 has 13 MA's), (50, 30951), (58, 30987),

Gene: Zucker_40 Start: 29401, Stop: 29171, Start Num: 18
Candidate Starts for Zucker_40:
(1, 29494), (3, 29464), (Start: 18 @29401 has 15 MA's), (Start: 19 @29395 has 1 MA's), (Start: 32 @29326 has 1 MA's), (33, 29323), (39, 29278), (41, 29263),