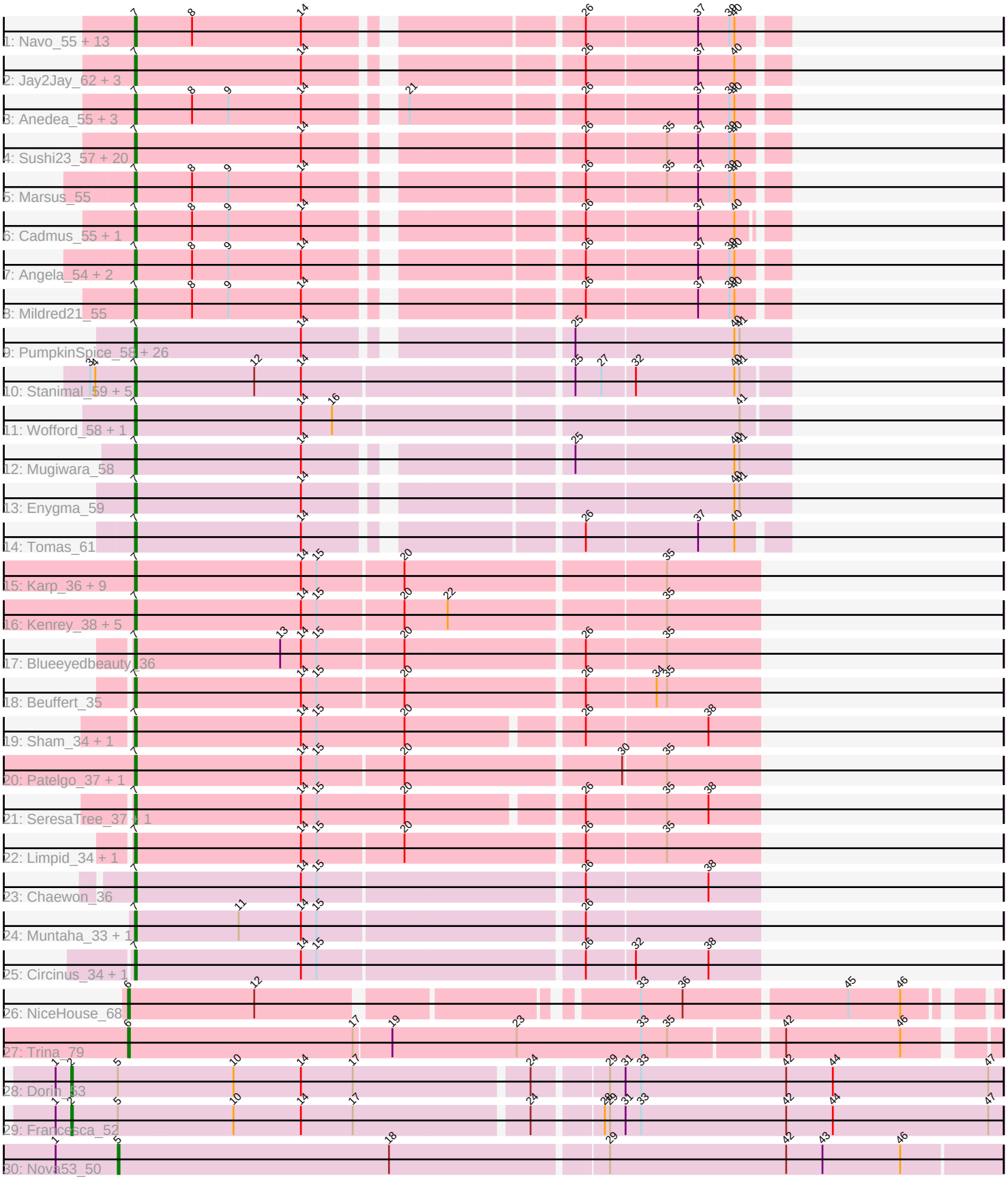
Pham 336528


1: Navo_55 + 13
2: Jay2Jay_62 + 3
3: Anedea_55 + 3
4: Sushi23_57 + 20
5: Marsus_55
6: Cadmus_55 + 1
7: Angela_54 + 2
8: Mildred21_55
9: PumpkinSpice_58 + 26
10: Stanimal_59 + 5
11: Wofford_58 + 1
12: Mugiwara_58
13: Enygma_59
14: Tomas_61
15: Karp_36 + 9
16: Kenrey_38 + 5
17: Blueeyedbeauty136
18: Beuffert_35
19: Sham_34 + 1
20: Patelgo_37 + 1
21: SeresaTree_37 + 1
22: Limpid_34 + 1
23: Chaewon_36
24: Muntaha_33 + 1
25: Circinus_34 + 1
26: NiceHouse_68
27: Trina_79
28: Dorin_53
29: Francesca_52
30: Nova53_50

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 336528 Report

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

Pham number 336528 has 124 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Navo_55, WhereRU_54, Liandry_56, Squillium_56, Eliot67_54, Persimmon_53, Bartholomune_55, Braelyn_56, FreddyDRoo_55, Davielle_54, NootNoot_53, PinkiePie_55, Paradiddles_53, PynkPanther_55
• Track 2 : Jay2Jay_62, Evy_58, Targaryen_58, Warpy_61
• Track 3 : Anedea_55, LilSaint_56, Riptide_54, Bmoc_55
• Track 4 : Sushi23_57, Leo04_58, Teutsch_57, EGole_58, Scheme_58, Watermoore_57, Lululemon_56, Samisti12_57, BlueOtter_57, Cross_57, Shuckle_55, WashU_57, Cursive_55, Larnav_57, ArianaSWT_57, HangryHippo_57, Coogler_57, Tribute_55, Peebs_56, PacManQ_56, Pepperwood_57
• Track 5 : Marsus_55
• Track 6 : Cadmus_55, Daubenski_58
• Track 7 : Angela_54, LilMartin_54, MulchMansion_54
• Track 8 : Mildred21_55
• Track 9 : PumpkinSpice_58, TomSawyer_57, Rikishi_59, Jollison_58, Tuesday_63, LukeCage_58, Karimac_58, StarPlatinum_59, Wipeout_57, Brizzy_58, Birchlyn_56, KentuckyRacer_59, JimJam_59, Gibbi_63, Bordeaux_57, MindFlayer_57, Spelly_59, Amabiko_59, IchabodCrane_56, Daisy123_58, Starbow_57, CeilingFan_58, Battuta_57, Quaran19_59, Spilled_60, SaltySpitoon_59, AcciDwight_63
• Track 10 : Stanimal_59, Yaboi_60, Sollertia_59, Genie2_59, BoomerJR_59, AngryGiraffe_58
• Track 11 : Wofford_58, Elmer_61
• Track 12 : Mugiwara_58
• Track 13 : Enygma_59
• Track 14 : Tomas_61
• Track 15 : Karp_36, Stigma_37, Jada_36, Belfort_38, Comrade_37, Westy_37, Phredrick_36, SparkleGoddess_37, Francob_36, Forrest_38
• Track 16 : Kenrey_38, Maupel_38, Gilson_38, DeluluLabubu_36, Emma1919_38, MeganTheeKilla_36
• Track 17 : Blueeyedbeauty_36
• Track 18 : Beuffert_35
• Track 19 : Sham_34, TunaTartare_36
• Track 20 : Patelgo_37, Moab_37
• Track 21 : SeresaTree_37, Faust_37
• Track 22 : Limpid_34, Annadreamy_34
• Track 23 : Chaewon_36
• Track 24 : Muntaha_33, Wakanda_33
• Track 25 : Circinus_34, BillNye_32

• Track 26 : NiceHouse_68
• Track 27 : Trina_79
• Track 28 : Dorin_53
• Track 29 : Francesca_52
• Track 30 : Nova53_50

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

The start number called the most often in the published annotations is 7, it was called in 113 of the 118 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_63, Amabiko_59, Anedea_55, Angela_54, AngryGiraffe_58, Annadreamy_34, ArianaSWT_57, Bartholomune_55, Battuta_57, Belfort_38, Beuffert_35, BillNye_32, Birchlyn_56, BlueOtter_57, Blueeyedbeauty_36, Bmoc_55, BoomerJR_59, Bordeaux_57, Braelyn_56, Brizzy_58, Cadmus_55, CeilingFan_58, Chaewon_36, Circinus_34, Comrade_37, Coogler_57, Cross_57, Cursive_55, Daisy123_58, Daubenski_58, Davielle_54, DeluluLabubu_36, EGole_58, Eliot67_54, Elmer_61, Emma1919_38, Enygma_59, Evy_58, Faust_37, Forrest_38, Francob_36, FreddyDRoo_55, Genie2_59, Gibbi_63, Gilson_38, HangryHippo_57, IchabodCrane_56, Jada_36, Jay2Jay_62, JimJam_59, Jollison_58, Karimac_58, Karp_36, Kenrey_38, KentuckyRacer_59, Larnav_57, Leo04_58, Liandry_56, LilMartin_54, LilSaint_56, Limpid_34, LukeCage_58, Lululemon_56, Marsus_55, Maupel_38, MeganTheeKilla_36, Mildred21_55, MindFlayer_57, Moab_37, Mugiwara_58, MulchMansion_54, Muntaha_33, Navo_55, NootNoot_53, PacManQ_56, Paradiddles_53, Patelgo_37, Peebs_56, Pepperwood_57, Persimmon_53, Phredrick_36, PinkiePie_55, PumpkinSpice_58, PynkPanther_55, Quaran19_59, Rikishi_59, Riptide_54, SaltySpitoon_59, Samisti12_57, Scheme_58, SeresaTree_37, Sham_34, Shuckle_55, Sollertia_59, SparkleGoddess_37, Spelly_59, Spilled_60, Squillium_56, Stanimal_59, StarPlatinum_59, Starbow_57, Stigma_37, Sushi23_57, Targaryen_58, Teutsch_57, TomSawyer_57, Tomas_61, Tribute_55, Tuesday_63, TunaTartare_36, Wakanda_33, Warpy_61, WashU_57, Watermoore_57, Westy_37, WhereRU_54, Wipeout_57, Wofford_58, Yaboi_60,

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

Genes that do not have the "Most Annotated" start:
• Dorin_53, Francesca_52, NiceHouse_68, Nova53_50, Trina_79,

Summary by start number:

Start 2:
• Found in 2 of 124 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dorin_53 (CG), Francesca_52 (CG),

Start 5:
• Found in 3 of 124 (2.4%) of genes in pham

• Manual Annotations of this start: 1 of 118
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Nova53_50 (CG),

Start 6:
• Found in 2 of 124 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NiceHouse_68 (CE), Trina_79 (CE),

Start 7:
• Found in 119 of 124 (96.0%) of genes in pham
• Manual Annotations of this start: 113 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AcciDwight_63 (BE2), Amabiko_59 (BE2), Anedea_55 (BE1), Angela_54 (BE1), AngryGiraffe_58 (BE2), Annadreamy_34 (BK1), ArianaSWT_57 (BE1), Bartholomune_55 (BE1), Battuta_57 (BE2), Belfort_38 (BK1), Beuffert_35 (BK1), BillNye_32 (BK2), Birchlyn_56 (BE2), BlueOtter_57 (BE1), Blueeyedbeauty_36 (BK1), Bmoc_55 (BE1), BoomerJR_59 (BE2), Bordeaux_57 (BE2), Braelyn_56 (BE1), Brizzy_58 (BE2), Cadmus_55 (BE1), CeilingFan_58 (BE2), Chaewon_36 (BK2), Circinus_34 (BK2), Comrade_37 (BK1), Coogler_57 (BE1), Cross_57 (BE1), Cursive_55 (BE1), Daisy123_58 (BE2), Daubenski_58 (BE1), Davielle_54 (BE1), DeluluLabubu_36 (BK1), EGole_58 (BE1), Eliot67_54 (BE1), Elmer_61 (BE2), Emma1919_38 (BK1), Enygma_59 (BE2), Evy_58 (BE1), Faust_37 (BK1), Forrest_38 (BK1), Francob_36 (BK1), FreddyDRoo_55 (BE1), Genie2_59 (BE2), Gibbi_63 (BE2), Gilson_38 (BK1), HangryHippo_57 (BE1), IchabodCrane_56 (BE2), Jada_36 (BK1), Jay2Jay_62 (BE1), JimJam_59 (BE2), Jollison_58 (BE2), Karimac_58 (BE2), Karp_36 (BK1), Kenrey_38 (BK1), KentuckyRacer_59 (BE2), Larnav_57 (BE1), Leo04_58 (BE1), Liandry_56 (BE1), LilMartin_54 (BE1), LilSaint_56 (BE1), Limpid_34 (BK1), LukeCage_58 (BE2), Lululemon_56 (BE1), Marsus_55 (BE1), Maupel_38 (BK1), MeganTheeKilla_36 (BK1), Mildred21_55 (BE1), MindFlayer_57 (BE2), Moab_37 (BK1), Mugiwara_58 (BE2), MulchMansion_54 (BE1), Muntaha_33 (BK2), Navo_55 (BE1), NootNoot_53 (BE1), PacManQ_56 (BE1), Paradiddles_53 (BE1), Patelgo_37 (BK1), Peebs_56 (BE1), Pepperwood_57 (BE1), Persimmon_53 (BE1), Phredrick_36 (BK1), PinkiePie_55 (BE1), PumpkinSpice_58 (BE2), PynkPanther_55 (BE1), Quaran19_59 (BE2), Rikishi_59 (BE2), Riptide_54 (BE1), SaltySpitoon_59 (BE2), Samisti12_57 (BE1), Scheme_58 (BE1), SeresaTree_37 (BK1), Sham_34 (BK1), Shuckle_55 (BE1), Sollertia_59 (BE2), SparkleGoddess_37 (BK1), Spelly_59 (BE2), Spilled_60 (BE2), Squillium_56 (BE1), Stanimal_59 (BE2), StarPlatinum_59 (BE2), Starbow_57 (BE2), Stigma_37 (BK1), Sushi23_57 (BE1), Targaryen_58 (BE1), Teutsch_57 (BE1), TomSawyer_57 (BE2), Tomas_61 (BE2), Tribute_55 (BE1), Tuesday_63 (BE2), TunaTartare_36 (BK1), Wakanda_33 (BK2), Warpy_61 (BE1), WashU_57 (BE1), Watermoore_57 (BE1), Westy_37 (BK1), WhereRU_54 (BE1), Wipeout_57 (BE2), Wofford_58 (BE2), Yaboi_60 (BE2),

Summary by clusters:

There are 6 clusters represented in this pham: CG, CE, BK1, BK2, BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 7 was manually annotated 49 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 7 was manually annotated 35 times for cluster BE2.

Info for manual annotations of cluster BK1:
•Start number 7 was manually annotated 24 times for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 7 was manually annotated 5 times for cluster BK2.

Info for manual annotations of cluster CE:
•Start number 6 was manually annotated 2 times for cluster CE.

Info for manual annotations of cluster CG:
•Start number 2 was manually annotated 2 times for cluster CG.
•Start number 5 was manually annotated 1 time for cluster CG.

Gene Information:

Gene: AcciDwight_63 Start: 33006, Stop: 33356, Start Num: 7
Candidate Starts for AcciDwight_63:
(Start: 7 @33006 has 113 MA's), (14, 33102), (25, 33234), (40, 33324), (41, 33327),

Gene: Amabiko_59 Start: 33051, Stop: 33401, Start Num: 7
Candidate Starts for Amabiko_59:
(Start: 7 @33051 has 113 MA's), (14, 33147), (25, 33279), (40, 33369), (41, 33372),

Gene: Anedea_55 Start: 32571, Stop: 32915, Start Num: 7
Candidate Starts for Anedea_55:
(Start: 7 @32571 has 113 MA's), (8, 32604), (9, 32625), (14, 32667), (21, 32712), (26, 32805), (37, 32868), (39, 32886), (40, 32889),

Gene: Angela_54 Start: 32044, Stop: 32388, Start Num: 7
Candidate Starts for Angela_54:
(Start: 7 @32044 has 113 MA's), (8, 32077), (9, 32098), (14, 32140), (26, 32278), (37, 32341), (39, 32359), (40, 32362),

Gene: AngryGiraffe_58 Start: 33024, Stop: 33386, Start Num: 7
Candidate Starts for AngryGiraffe_58:
(3, 33000), (4, 33003), (Start: 7 @33024 has 113 MA's), (12, 33093), (14, 33120), (25, 33267), (27, 33282), (32, 33300), (40, 33357), (41, 33360),

Gene: Annadreamy_34 Start: 21709, Stop: 22059, Start Num: 7
Candidate Starts for Annadreamy_34:
(Start: 7 @21709 has 113 MA's), (14, 21805), (15, 21814), (20, 21862), (26, 21961), (35, 22006),

Gene: ArianaSWT_57 Start: 33688, Stop: 34032, Start Num: 7
Candidate Starts for ArianaSWT_57:
(Start: 7 @33688 has 113 MA's), (14, 33784), (26, 33922), (35, 33967), (37, 33985), (39, 34003), (40, 34006),

Gene: Bartholomune_55 Start: 32360, Stop: 32704, Start Num: 7

Candidate Starts for Bartholomune_55:
(Start: 7 @32360 has 113 MA's), (8, 32393), (14, 32456), (26, 32594), (37, 32657), (39, 32675), (40, 32678),

Gene: Battuta_57 Start: 33025, Stop: 33375, Start Num: 7
Candidate Starts for Battuta_57:
(Start: 7 @33025 has 113 MA's), (14, 33121), (25, 33253), (40, 33343), (41, 33346),

Gene: Belfort_38 Start: 24214, Stop: 24564, Start Num: 7
Candidate Starts for Belfort_38:
(Start: 7 @24214 has 113 MA's), (14, 24310), (15, 24319), (20, 24367), (35, 24511),

Gene: Beuffert_35 Start: 22804, Stop: 23154, Start Num: 7
Candidate Starts for Beuffert_35:
(Start: 7 @22804 has 113 MA's), (14, 22900), (15, 22909), (20, 22957), (26, 23056), (34, 23095), (35, 23101),

Gene: BillNye_32 Start: 25085, Stop: 25435, Start Num: 7
Candidate Starts for BillNye_32:
(Start: 7 @25085 has 113 MA's), (14, 25181), (15, 25190), (26, 25337), (32, 25364), (38, 25406),

Gene: Birchlyn_56 Start: 30908, Stop: 31258, Start Num: 7
Candidate Starts for Birchlyn_56:
(Start: 7 @30908 has 113 MA's), (14, 31004), (25, 31136), (40, 31226), (41, 31229),

Gene: BlueOtter_57 Start: 33725, Stop: 34069, Start Num: 7
Candidate Starts for BlueOtter_57:
(Start: 7 @33725 has 113 MA's), (14, 33821), (26, 33959), (35, 34004), (37, 34022), (39, 34040), (40, 34043),

Gene: Blueeyedbeauty_36 Start: 22200, Stop: 22550, Start Num: 7
Candidate Starts for Blueeyedbeauty_36:
(Start: 7 @22200 has 113 MA's), (13, 22284), (14, 22296), (15, 22305), (20, 22353), (26, 22452), (35, 22497),

Gene: Bmoc_55 Start: 32356, Stop: 32700, Start Num: 7
Candidate Starts for Bmoc_55:
(Start: 7 @32356 has 113 MA's), (8, 32389), (9, 32410), (14, 32452), (21, 32497), (26, 32590), (37, 32653), (39, 32671), (40, 32674),

Gene: BoomerJR_59 Start: 32913, Stop: 33275, Start Num: 7
Candidate Starts for BoomerJR_59:
(3, 32889), (4, 32892), (Start: 7 @32913 has 113 MA's), (12, 32982), (14, 33009), (25, 33156), (27, 33171), (32, 33189), (40, 33246), (41, 33249),

Gene: Bordeaux_57 Start: 33180, Stop: 33530, Start Num: 7
Candidate Starts for Bordeaux_57:
(Start: 7 @33180 has 113 MA's), (14, 33276), (25, 33408), (40, 33498), (41, 33501),

Gene: Braelyn_56 Start: 33127, Stop: 33471, Start Num: 7
Candidate Starts for Braelyn_56:
(Start: 7 @33127 has 113 MA's), (8, 33160), (14, 33223), (26, 33361), (37, 33424), (39, 33442), (40, 33445),

Gene: Brizzy_58 Start: 32699, Stop: 33049, Start Num: 7
Candidate Starts for Brizzy_58:
(Start: 7 @32699 has 113 MA's), (14, 32795), (25, 32927), (40, 33017), (41, 33020),

Gene: Cadmus_55 Start: 32706, Stop: 33047, Start Num: 7
Candidate Starts for Cadmus_55:
(Start: 7 @32706 has 113 MA's), (8, 32739), (9, 32760), (14, 32802), (26, 32940), (37, 33003), (40, 33024),

Gene: CeilingFan_58 Start: 32940, Stop: 33290, Start Num: 7
Candidate Starts for CeilingFan_58:
(Start: 7 @32940 has 113 MA's), (14, 33036), (25, 33168), (40, 33258), (41, 33261),

Gene: Chaewon_36 Start: 25210, Stop: 25560, Start Num: 7
Candidate Starts for Chaewon_36:
(Start: 7 @25210 has 113 MA's), (14, 25306), (15, 25315), (26, 25462), (38, 25531),

Gene: Circinus_34 Start: 25221, Stop: 25571, Start Num: 7
Candidate Starts for Circinus_34:
(Start: 7 @25221 has 113 MA's), (14, 25317), (15, 25326), (26, 25473), (32, 25500), (38, 25542),

Gene: Comrade_37 Start: 23829, Stop: 24179, Start Num: 7
Candidate Starts for Comrade_37:
(Start: 7 @23829 has 113 MA's), (14, 23925), (15, 23934), (20, 23982), (35, 24126),

Gene: Coogler_57 Start: 33751, Stop: 34095, Start Num: 7
Candidate Starts for Coogler_57:
(Start: 7 @33751 has 113 MA's), (14, 33847), (26, 33985), (35, 34030), (37, 34048), (39, 34066), (40, 34069),

Gene: Cross_57 Start: 33726, Stop: 34070, Start Num: 7
Candidate Starts for Cross_57:
(Start: 7 @33726 has 113 MA's), (14, 33822), (26, 33960), (35, 34005), (37, 34023), (39, 34041), (40, 34044),

Gene: Cursive_55 Start: 33251, Stop: 33595, Start Num: 7
Candidate Starts for Cursive_55:
(Start: 7 @33251 has 113 MA's), (14, 33347), (26, 33485), (35, 33530), (37, 33548), (39, 33566), (40, 33569),

Gene: Daisy123_58 Start: 32799, Stop: 33149, Start Num: 7
Candidate Starts for Daisy123_58:
(Start: 7 @32799 has 113 MA's), (14, 32895), (25, 33027), (40, 33117), (41, 33120),

Gene: Daubenski_58 Start: 33470, Stop: 33811, Start Num: 7
Candidate Starts for Daubenski_58:
(Start: 7 @33470 has 113 MA's), (8, 33503), (9, 33524), (14, 33566), (26, 33704), (37, 33767), (40, 33788),

Gene: Davielle_54 Start: 32544, Stop: 32888, Start Num: 7
Candidate Starts for Davielle_54:

(Start: 7 @32544 has 113 MA's), (8, 32577), (14, 32640), (26, 32778), (37, 32841), (39, 32859), (40, 32862),

Gene: DeluluLabubu_36 Start: 21920, Stop: 22270, Start Num: 7
Candidate Starts for DeluluLabubu_36:
(Start: 7 @21920 has 113 MA's), (14, 22016), (15, 22025), (20, 22073), (22, 22097), (35, 22217),

Gene: Dorin_53 Start: 32756, Stop: 33280, Start Num: 2
Candidate Starts for Dorin_53:
(1, 32747), (Start: 2 @32756 has 2 MA's), (Start: 5 @32783 has 1 MA's), (10, 32849), (14, 32888), (17, 32918), (24, 33014), (29, 33053), (31, 33062), (33, 33071), (42, 33155), (44, 33182), (47, 33272),

Gene: EGole_58 Start: 34681, Stop: 35025, Start Num: 7
Candidate Starts for EGole_58:
(Start: 7 @34681 has 113 MA's), (14, 34777), (26, 34915), (35, 34960), (37, 34978), (39, 34996), (40, 34999),

Gene: Eliot67_54 Start: 32402, Stop: 32746, Start Num: 7
Candidate Starts for Eliot67_54:
(Start: 7 @32402 has 113 MA's), (8, 32435), (14, 32498), (26, 32636), (37, 32699), (39, 32717), (40, 32720),

Gene: Elmer_61 Start: 34098, Stop: 34460, Start Num: 7
Candidate Starts for Elmer_61:
(Start: 7 @34098 has 113 MA's), (14, 34194), (16, 34212), (41, 34434),

Gene: Emma1919_38 Start: 22615, Stop: 22965, Start Num: 7
Candidate Starts for Emma1919_38:
(Start: 7 @22615 has 113 MA's), (14, 22711), (15, 22720), (20, 22768), (22, 22792), (35, 22912),

Gene: Enygma_59 Start: 34858, Stop: 35208, Start Num: 7
Candidate Starts for Enygma_59:
(Start: 7 @34858 has 113 MA's), (14, 34954), (40, 35176), (41, 35179),

Gene: Evy_58 Start: 33726, Stop: 34070, Start Num: 7
Candidate Starts for Evy_58:
(Start: 7 @33726 has 113 MA's), (14, 33822), (26, 33960), (37, 34023), (40, 34044),

Gene: Faust_37 Start: 23192, Stop: 23539, Start Num: 7
Candidate Starts for Faust_37:
(Start: 7 @23192 has 113 MA's), (14, 23288), (15, 23297), (20, 23348), (26, 23441), (35, 23486), (38, 23510),

Gene: Forrest_38 Start: 22738, Stop: 23088, Start Num: 7
Candidate Starts for Forrest_38:
(Start: 7 @22738 has 113 MA's), (14, 22834), (15, 22843), (20, 22891), (35, 23035),

Gene: Francesca_52 Start: 32888, Stop: 33412, Start Num: 2
Candidate Starts for Francesca_52:
(1, 32879), (Start: 2 @32888 has 2 MA's), (Start: 5 @32915 has 1 MA's), (10, 32981), (14, 33020), (17, 33050), (24, 33146), (28, 33182), (29, 33185), (31, 33194), (33, 33203), (42, 33287), (44, 33314), (47, 33404),

Gene: Francob_36 Start: 22750, Stop: 23100, Start Num: 7
Candidate Starts for Francob_36:
(Start: 7 @22750 has 113 MA's), (14, 22846), (15, 22855), (20, 22903), (35, 23047),

Gene: FreddyDRoo_55 Start: 32402, Stop: 32746, Start Num: 7
Candidate Starts for FreddyDRoo_55:
(Start: 7 @32402 has 113 MA's), (8, 32435), (14, 32498), (26, 32636), (37, 32699), (39, 32717), (40, 32720),

Gene: Genie2_59 Start: 33027, Stop: 33389, Start Num: 7
Candidate Starts for Genie2_59:
(3, 33003), (4, 33006), (Start: 7 @33027 has 113 MA's), (12, 33096), (14, 33123), (25, 33270), (27, 33285), (32, 33303), (40, 33360), (41, 33363),

Gene: Gibbi_63 Start: 33163, Stop: 33513, Start Num: 7
Candidate Starts for Gibbi_63:
(Start: 7 @33163 has 113 MA's), (14, 33259), (25, 33391), (40, 33481), (41, 33484),

Gene: Gilson_38 Start: 22568, Stop: 22918, Start Num: 7
Candidate Starts for Gilson_38:
(Start: 7 @22568 has 113 MA's), (14, 22664), (15, 22673), (20, 22721), (22, 22745), (35, 22865),

Gene: HangryHippo_57 Start: 33725, Stop: 34069, Start Num: 7
Candidate Starts for HangryHippo_57:
(Start: 7 @33725 has 113 MA's), (14, 33821), (26, 33959), (35, 34004), (37, 34022), (39, 34040), (40, 34043),

Gene: IchabodCrane_56 Start: 32752, Stop: 33102, Start Num: 7
Candidate Starts for IchabodCrane_56:
(Start: 7 @32752 has 113 MA's), (14, 32848), (25, 32980), (40, 33070), (41, 33073),

Gene: Jada_36 Start: 21920, Stop: 22270, Start Num: 7
Candidate Starts for Jada_36:
(Start: 7 @21920 has 113 MA's), (14, 22016), (15, 22025), (20, 22073), (35, 22217),

Gene: Jay2Jay_62 Start: 34579, Stop: 34923, Start Num: 7
Candidate Starts for Jay2Jay_62:
(Start: 7 @34579 has 113 MA's), (14, 34675), (26, 34813), (37, 34876), (40, 34897),

Gene: JimJam_59 Start: 33126, Stop: 33476, Start Num: 7
Candidate Starts for JimJam_59:
(Start: 7 @33126 has 113 MA's), (14, 33222), (25, 33354), (40, 33444), (41, 33447),

Gene: Jollison_58 Start: 33008, Stop: 33358, Start Num: 7
Candidate Starts for Jollison_58:
(Start: 7 @33008 has 113 MA's), (14, 33104), (25, 33236), (40, 33326), (41, 33329),

Gene: Karimac_58 Start: 33157, Stop: 33507, Start Num: 7
Candidate Starts for Karimac_58:
(Start: 7 @33157 has 113 MA's), (14, 33253), (25, 33385), (40, 33475), (41, 33478),

Gene: Karp_36 Start: 23429, Stop: 23779, Start Num: 7
Candidate Starts for Karp_36:

(Start: 7 @23429 has 113 MA's), (14, 23525), (15, 23534), (20, 23582), (35, 23726),

Gene: Kenrey_38 Start: 22617, Stop: 22967, Start Num: 7
Candidate Starts for Kenrey_38:
(Start: 7 @22617 has 113 MA's), (14, 22713), (15, 22722), (20, 22770), (22, 22794), (35, 22914),

Gene: KentuckyRacer_59 Start: 32941, Stop: 33291, Start Num: 7
Candidate Starts for KentuckyRacer_59:
(Start: 7 @32941 has 113 MA's), (14, 33037), (25, 33169), (40, 33259), (41, 33262),

Gene: Larnav_57 Start: 33710, Stop: 34054, Start Num: 7
Candidate Starts for Larnav_57:
(Start: 7 @33710 has 113 MA's), (14, 33806), (26, 33944), (35, 33989), (37, 34007), (39, 34025), (40, 34028),

Gene: Leo04_58 Start: 34225, Stop: 34569, Start Num: 7
Candidate Starts for Leo04_58:
(Start: 7 @34225 has 113 MA's), (14, 34321), (26, 34459), (35, 34504), (37, 34522), (39, 34540), (40, 34543),

Gene: Liandry_56 Start: 33109, Stop: 33453, Start Num: 7
Candidate Starts for Liandry_56:
(Start: 7 @33109 has 113 MA's), (8, 33142), (14, 33205), (26, 33343), (37, 33406), (39, 33424), (40, 33427),

Gene: LilMartin_54 Start: 31992, Stop: 32336, Start Num: 7
Candidate Starts for LilMartin_54:
(Start: 7 @31992 has 113 MA's), (8, 32025), (9, 32046), (14, 32088), (26, 32226), (37, 32289), (39, 32307), (40, 32310),

Gene: LilSaint_56 Start: 32243, Stop: 32587, Start Num: 7
Candidate Starts for LilSaint_56:
(Start: 7 @32243 has 113 MA's), (8, 32276), (9, 32297), (14, 32339), (21, 32384), (26, 32477), (37, 32540), (39, 32558), (40, 32561),

Gene: Limpid_34 Start: 21708, Stop: 22058, Start Num: 7
Candidate Starts for Limpid_34:
(Start: 7 @21708 has 113 MA's), (14, 21804), (15, 21813), (20, 21861), (26, 21960), (35, 22005),

Gene: LukeCage_58 Start: 32907, Stop: 33257, Start Num: 7
Candidate Starts for LukeCage_58:
(Start: 7 @32907 has 113 MA's), (14, 33003), (25, 33135), (40, 33225), (41, 33228),

Gene: Lululemon_56 Start: 33106, Stop: 33450, Start Num: 7
Candidate Starts for Lululemon_56:
(Start: 7 @33106 has 113 MA's), (14, 33202), (26, 33340), (35, 33385), (37, 33403), (39, 33421), (40, 33424),

Gene: Marsus_55 Start: 32264, Stop: 32608, Start Num: 7
Candidate Starts for Marsus_55:
(Start: 7 @32264 has 113 MA's), (8, 32297), (9, 32318), (14, 32360), (26, 32498), (35, 32543), (37, 32561), (39, 32579), (40, 32582),

Gene: Maupel_38 Start: 22568, Stop: 22918, Start Num: 7
Candidate Starts for Maupel_38:
(Start: 7 @22568 has 113 MA's), (14, 22664), (15, 22673), (20, 22721), (22, 22745), (35, 22865),

Gene: MeganTheeKilla_36 Start: 21929, Stop: 22279, Start Num: 7
Candidate Starts for MeganTheeKilla_36:
(Start: 7 @21929 has 113 MA's), (14, 22025), (15, 22034), (20, 22082), (22, 22106), (35, 22226),

Gene: Mildred21_55 Start: 32188, Stop: 32532, Start Num: 7
Candidate Starts for Mildred21_55:
(Start: 7 @32188 has 113 MA's), (8, 32221), (9, 32242), (14, 32284), (26, 32422), (37, 32485), (39, 32503), (40, 32506),

Gene: MindFlayer_57 Start: 32659, Stop: 33009, Start Num: 7
Candidate Starts for MindFlayer_57:
(Start: 7 @32659 has 113 MA's), (14, 32755), (25, 32887), (40, 32977), (41, 32980),

Gene: Moab_37 Start: 23759, Stop: 24109, Start Num: 7
Candidate Starts for Moab_37:
(Start: 7 @23759 has 113 MA's), (14, 23855), (15, 23864), (20, 23912), (30, 24032), (35, 24056),

Gene: Mugiwara_58 Start: 33407, Stop: 33757, Start Num: 7
Candidate Starts for Mugiwara_58:
(Start: 7 @33407 has 113 MA's), (14, 33503), (25, 33635), (40, 33725), (41, 33728),

Gene: MulchMansion_54 Start: 31992, Stop: 32336, Start Num: 7
Candidate Starts for MulchMansion_54:
(Start: 7 @31992 has 113 MA's), (8, 32025), (9, 32046), (14, 32088), (26, 32226), (37, 32289), (39, 32307), (40, 32310),

Gene: Muntaha_33 Start: 23550, Stop: 23900, Start Num: 7
Candidate Starts for Muntaha_33:
(Start: 7 @23550 has 113 MA's), (11, 23610), (14, 23646), (15, 23655), (26, 23802),

Gene: Navo_55 Start: 33028, Stop: 33372, Start Num: 7
Candidate Starts for Navo_55:
(Start: 7 @33028 has 113 MA's), (8, 33061), (14, 33124), (26, 33262), (37, 33325), (39, 33343), (40, 33346),

Gene: NiceHouse_68 Start: 39207, Stop: 39659, Start Num: 6
Candidate Starts for NiceHouse_68:
(Start: 6 @39207 has 2 MA's), (12, 39279), (33, 39474), (36, 39498), (45, 39588), (46, 39618),

Gene: NootNoot_53 Start: 32023, Stop: 32367, Start Num: 7
Candidate Starts for NootNoot_53:
(Start: 7 @32023 has 113 MA's), (8, 32056), (14, 32119), (26, 32257), (37, 32320), (39, 32338), (40, 32341),

Gene: Nova53_50 Start: 32912, Stop: 33412, Start Num: 5
Candidate Starts for Nova53_50:
(1, 32876), (Start: 5 @32912 has 1 MA's), (18, 33068), (29, 33188), (42, 33290), (43, 33311), (46, 33356),

Gene: PacManQ_56 Start: 33106, Stop: 33450, Start Num: 7
Candidate Starts for PacManQ_56:
(Start: 7 @33106 has 113 MA's), (14, 33202), (26, 33340), (35, 33385), (37, 33403), (39, 33421), (40, 33424),

Gene: Paradiddles_53 Start: 32284, Stop: 32628, Start Num: 7
Candidate Starts for Paradiddles_53:
(Start: 7 @32284 has 113 MA's), (8, 32317), (14, 32380), (26, 32518), (37, 32581), (39, 32599), (40, 32602),

Gene: Patelgo_37 Start: 23949, Stop: 24299, Start Num: 7
Candidate Starts for Patelgo_37:
(Start: 7 @23949 has 113 MA's), (14, 24045), (15, 24054), (20, 24102), (30, 24222), (35, 24246),

Gene: Peebs_56 Start: 33463, Stop: 33807, Start Num: 7
Candidate Starts for Peebs_56:
(Start: 7 @33463 has 113 MA's), (14, 33559), (26, 33697), (35, 33742), (37, 33760), (39, 33778), (40, 33781),

Gene: Pepperwood_57 Start: 33596, Stop: 33940, Start Num: 7
Candidate Starts for Pepperwood_57:
(Start: 7 @33596 has 113 MA's), (14, 33692), (26, 33830), (35, 33875), (37, 33893), (39, 33911), (40, 33914),

Gene: Persimmon_53 Start: 31953, Stop: 32297, Start Num: 7
Candidate Starts for Persimmon_53:
(Start: 7 @31953 has 113 MA's), (8, 31986), (14, 32049), (26, 32187), (37, 32250), (39, 32268), (40, 32271),

Gene: Phredrick_36 Start: 21823, Stop: 22173, Start Num: 7
Candidate Starts for Phredrick_36:
(Start: 7 @21823 has 113 MA's), (14, 21919), (15, 21928), (20, 21976), (35, 22120),

Gene: PinkiePie_55 Start: 33109, Stop: 33453, Start Num: 7
Candidate Starts for PinkiePie_55:
(Start: 7 @33109 has 113 MA's), (8, 33142), (14, 33205), (26, 33343), (37, 33406), (39, 33424), (40, 33427),

Gene: PumpkinSpice_58 Start: 33051, Stop: 33401, Start Num: 7
Candidate Starts for PumpkinSpice_58:
(Start: 7 @33051 has 113 MA's), (14, 33147), (25, 33279), (40, 33369), (41, 33372),

Gene: PynkPanther_55 Start: 33092, Stop: 33436, Start Num: 7
Candidate Starts for PynkPanther_55:
(Start: 7 @33092 has 113 MA's), (8, 33125), (14, 33188), (26, 33326), (37, 33389), (39, 33407), (40, 33410),

Gene: Quaran19_59 Start: 33042, Stop: 33392, Start Num: 7
Candidate Starts for Quaran19_59:
(Start: 7 @33042 has 113 MA's), (14, 33138), (25, 33270), (40, 33360), (41, 33363),

Gene: Rikishi_59 Start: 32957, Stop: 33307, Start Num: 7
Candidate Starts for Rikishi_59:

(Start: 7 @32957 has 113 MA's), (14, 33053), (25, 33185), (40, 33275), (41, 33278),

Gene: Riptide_54 Start: 31793, Stop: 32137, Start Num: 7
Candidate Starts for Riptide_54:
(Start: 7 @31793 has 113 MA's), (8, 31826), (9, 31847), (14, 31889), (21, 31934), (26, 32027), (37, 32090), (39, 32108), (40, 32111),

Gene: SaltySpitoon_59 Start: 33051, Stop: 33401, Start Num: 7
Candidate Starts for SaltySpitoon_59:
(Start: 7 @33051 has 113 MA's), (14, 33147), (25, 33279), (40, 33369), (41, 33372),

Gene: Samisti12_57 Start: 34899, Stop: 35243, Start Num: 7
Candidate Starts for Samisti12_57:
(Start: 7 @34899 has 113 MA's), (14, 34995), (26, 35133), (35, 35178), (37, 35196), (39, 35214), (40, 35217),

Gene: Scheme_58 Start: 34310, Stop: 34654, Start Num: 7
Candidate Starts for Scheme_58:
(Start: 7 @34310 has 113 MA's), (14, 34406), (26, 34544), (35, 34589), (37, 34607), (39, 34625), (40, 34628),

Gene: SeresaTree_37 Start: 22582, Stop: 22929, Start Num: 7
Candidate Starts for SeresaTree_37:
(Start: 7 @22582 has 113 MA's), (14, 22678), (15, 22687), (20, 22738), (26, 22831), (35, 22876), (38, 22900),

Gene: Sham_34 Start: 23683, Stop: 24030, Start Num: 7
Candidate Starts for Sham_34:
(Start: 7 @23683 has 113 MA's), (14, 23779), (15, 23788), (20, 23839), (26, 23932), (38, 24001),

Gene: Shuckle_55 Start: 33916, Stop: 34260, Start Num: 7
Candidate Starts for Shuckle_55:
(Start: 7 @33916 has 113 MA's), (14, 34012), (26, 34150), (35, 34195), (37, 34213), (39, 34231), (40, 34234),

Gene: Sollertia_59 Start: 33027, Stop: 33389, Start Num: 7
Candidate Starts for Sollertia_59:
(3, 33003), (4, 33006), (Start: 7 @33027 has 113 MA's), (12, 33096), (14, 33123), (25, 33270), (27, 33285), (32, 33303), (40, 33360), (41, 33363),

Gene: SparkleGoddess_37 Start: 23831, Stop: 24181, Start Num: 7
Candidate Starts for SparkleGoddess_37:
(Start: 7 @23831 has 113 MA's), (14, 23927), (15, 23936), (20, 23984), (35, 24128),

Gene: Spelly_59 Start: 33006, Stop: 33356, Start Num: 7
Candidate Starts for Spelly_59:
(Start: 7 @33006 has 113 MA's), (14, 33102), (25, 33234), (40, 33324), (41, 33327),

Gene: Spilled_60 Start: 33123, Stop: 33473, Start Num: 7
Candidate Starts for Spilled_60:
(Start: 7 @33123 has 113 MA's), (14, 33219), (25, 33351), (40, 33441), (41, 33444),

Gene: Squillium_56 Start: 33110, Stop: 33454, Start Num: 7

Candidate Starts for Squillium_56:
(Start: 7 @33110 has 113 MA's), (8, 33143), (14, 33206), (26, 33344), (37, 33407), (39, 33425), (40, 33428),

Gene: Stanimal_59 Start: 32916, Stop: 33278, Start Num: 7
Candidate Starts for Stanimal_59:
(3, 32892), (4, 32895), (Start: 7 @32916 has 113 MA's), (12, 32985), (14, 33012), (25, 33159), (27, 33174), (32, 33192), (40, 33249), (41, 33252),

Gene: StarPlatinum_59 Start: 33547, Stop: 33897, Start Num: 7
Candidate Starts for StarPlatinum_59:
(Start: 7 @33547 has 113 MA's), (14, 33643), (25, 33775), (40, 33865), (41, 33868),

Gene: Starbow_57 Start: 33027, Stop: 33377, Start Num: 7
Candidate Starts for Starbow_57:
(Start: 7 @33027 has 113 MA's), (14, 33123), (25, 33255), (40, 33345), (41, 33348),

Gene: Stigma_37 Start: 23832, Stop: 24182, Start Num: 7
Candidate Starts for Stigma_37:
(Start: 7 @23832 has 113 MA's), (14, 23928), (15, 23937), (20, 23985), (35, 24129),

Gene: Sushi23_57 Start: 33821, Stop: 34165, Start Num: 7
Candidate Starts for Sushi23_57:
(Start: 7 @33821 has 113 MA's), (14, 33917), (26, 34055), (35, 34100), (37, 34118), (39, 34136), (40, 34139),

Gene: Targaryen_58 Start: 34628, Stop: 34972, Start Num: 7
Candidate Starts for Targaryen_58:
(Start: 7 @34628 has 113 MA's), (14, 34724), (26, 34862), (37, 34925), (40, 34946),

Gene: Teutsch_57 Start: 34090, Stop: 34434, Start Num: 7
Candidate Starts for Teutsch_57:
(Start: 7 @34090 has 113 MA's), (14, 34186), (26, 34324), (35, 34369), (37, 34387), (39, 34405), (40, 34408),

Gene: TomSawyer_57 Start: 32645, Stop: 32995, Start Num: 7
Candidate Starts for TomSawyer_57:
(Start: 7 @32645 has 113 MA's), (14, 32741), (25, 32873), (40, 32963), (41, 32966),

Gene: Tomas_61 Start: 35379, Stop: 35723, Start Num: 7
Candidate Starts for Tomas_61:
(Start: 7 @35379 has 113 MA's), (14, 35475), (26, 35613), (37, 35676), (40, 35697),

Gene: Tribute_55 Start: 33290, Stop: 33634, Start Num: 7
Candidate Starts for Tribute_55:
(Start: 7 @33290 has 113 MA's), (14, 33386), (26, 33524), (35, 33569), (37, 33587), (39, 33605), (40, 33608),

Gene: Trina_79 Start: 42702, Stop: 43184, Start Num: 6
Candidate Starts for Trina_79:
(Start: 6 @42702 has 2 MA's), (17, 42831), (19, 42852), (23, 42924), (33, 42996), (35, 43011), (42, 43071), (46, 43137),

Gene: Tuesday_63 Start: 33189, Stop: 33539, Start Num: 7
Candidate Starts for Tuesday_63:
(Start: 7 @33189 has 113 MA's), (14, 33285), (25, 33417), (40, 33507), (41, 33510),

Gene: TunaTartare_36 Start: 23978, Stop: 24325, Start Num: 7
Candidate Starts for TunaTartare_36:
(Start: 7 @23978 has 113 MA's), (14, 24074), (15, 24083), (20, 24134), (26, 24227), (38, 24296),

Gene: Wakanda_33 Start: 23488, Stop: 23838, Start Num: 7
Candidate Starts for Wakanda_33:
(Start: 7 @23488 has 113 MA's), (11, 23548), (14, 23584), (15, 23593), (26, 23740),

Gene: Warpy_61 Start: 34092, Stop: 34436, Start Num: 7
Candidate Starts for Warpy_61:
(Start: 7 @34092 has 113 MA's), (14, 34188), (26, 34326), (37, 34389), (40, 34410),

Gene: WashU_57 Start: 33599, Stop: 33943, Start Num: 7
Candidate Starts for WashU_57:
(Start: 7 @33599 has 113 MA's), (14, 33695), (26, 33833), (35, 33878), (37, 33896), (39, 33914), (40, 33917),

Gene: Watermoore_57 Start: 34297, Stop: 34641, Start Num: 7
Candidate Starts for Watermoore_57:
(Start: 7 @34297 has 113 MA's), (14, 34393), (26, 34531), (35, 34576), (37, 34594), (39, 34612), (40, 34615),

Gene: Westy_37 Start: 23832, Stop: 24182, Start Num: 7
Candidate Starts for Westy_37:
(Start: 7 @23832 has 113 MA's), (14, 23928), (15, 23937), (20, 23985), (35, 24129),

Gene: WhereRU_54 Start: 32544, Stop: 32888, Start Num: 7
Candidate Starts for WhereRU_54:
(Start: 7 @32544 has 113 MA's), (8, 32577), (14, 32640), (26, 32778), (37, 32841), (39, 32859), (40, 32862),

Gene: Wipeout_57 Start: 33396, Stop: 33746, Start Num: 7
Candidate Starts for Wipeout_57:
(Start: 7 @33396 has 113 MA's), (14, 33492), (25, 33624), (40, 33714), (41, 33717),

Gene: Wofford_58 Start: 34061, Stop: 34423, Start Num: 7
Candidate Starts for Wofford_58:
(Start: 7 @34061 has 113 MA's), (14, 34157), (16, 34175), (41, 34397),

Gene: Yaboi_60 Start: 33004, Stop: 33366, Start Num: 7
Candidate Starts for Yaboi_60:
(3, 32980), (4, 32983), (Start: 7 @33004 has 113 MA's), (12, 33073), (14, 33100), (25, 33247), (27, 33262), (32, 33280), (40, 33337), (41, 33340),