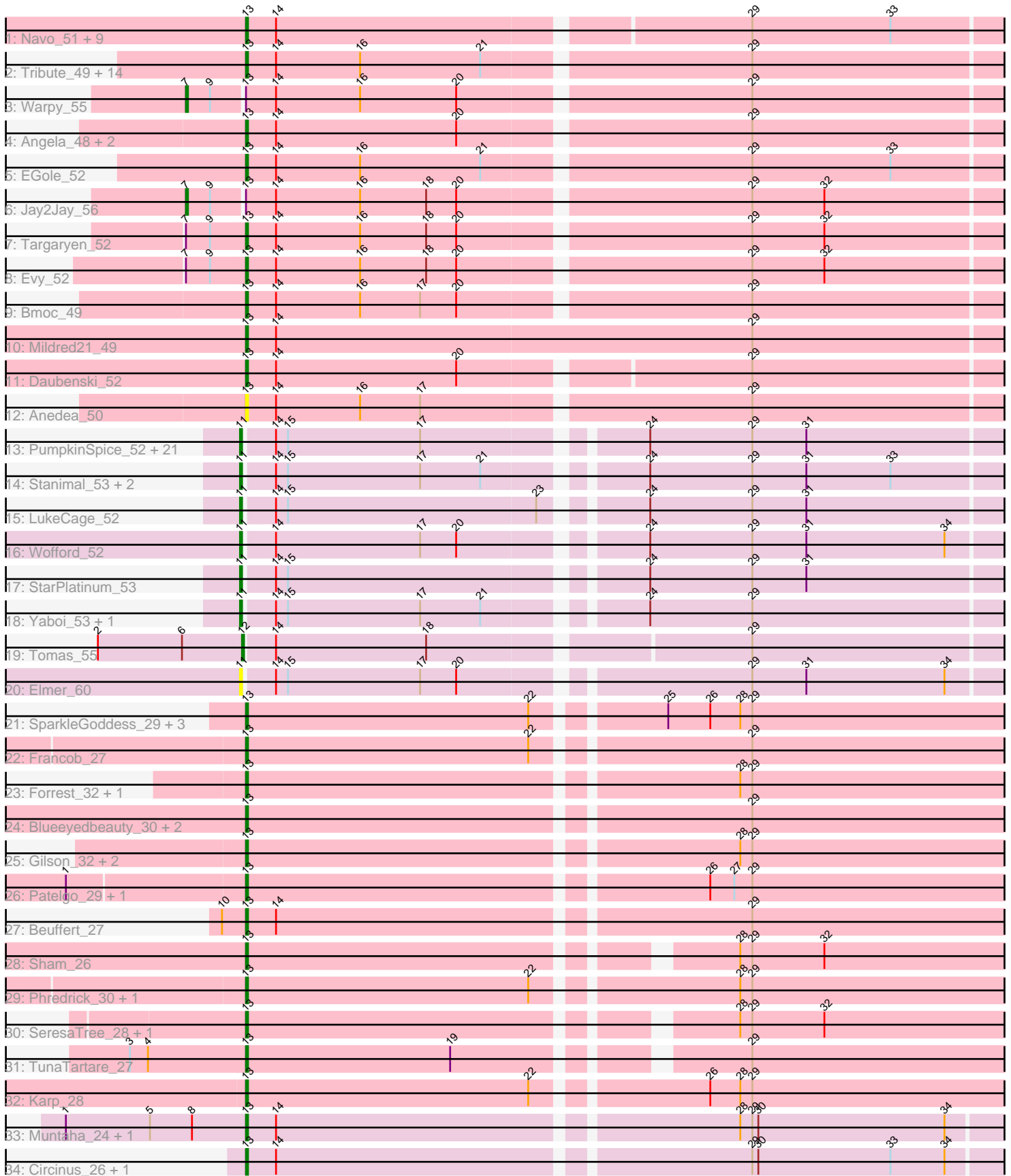


Pham 1313



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 1313 Report

This analysis was run 04/28/24 on database version 559.

Pham number 1313 has 96 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Navo_51, NootNoot_47, Liandry_50, Persimmon_47, Squillium_50, Bartholomune_49, PinkiePie_49, Braelyn_50, WhereRU_50, Paradiddles_47
- Track 2 : Tribute_49, Sushi23_51, Leo04_52, Teutsch_51, Peebs_50, Cross_51, Watermoore_51, Lululemon_52, Samisti12_51, BlueOtter_53, Larnav_56, HangryHippo_53, Cursive_49, PacManQ_52, Pepperwood_51
- Track 3 : Warpy_55
- Track 4 : Angela_48, MulchMansion_48, LilMartin_48
- Track 5 : EGole_52
- Track 6 : Jay2Jay_56
- Track 7 : Targaryen_52
- Track 8 : Evy_52
- Track 9 : Bmoc_49
- Track 10 : Mildred21_49
- Track 11 : Daubenski_52
- Track 12 : Anedea_50
- Track 13 : PumpkinSpice_52, TomSawyer_51, Gibbi_57, Jollison_58, Karimac_52, Wipeout_51, SaltySpitoon_53, KentuckyRacer_57, Birchlyn_50, Mugiwara_54, Bordeaux_51, MindFlayer_51, Spelly_53, Amabiko_53, Starbow_51, Battuta_51, IchabodCrane_50, CeilingFan_55, Quarant19_53, Spilled_54, JimJam_53, Enygma_50
- Track 14 : Stanimal_53, Sollertia_53, Genie2_53
- Track 15 : LukeCage_52
- Track 16 : Wofford_52
- Track 17 : StarPlatinum_53
- Track 18 : Yaboi_53, BoomerJR_53
- Track 19 : Tomas_55
- Track 20 : Elmer_60
- Track 21 : SparkleGoddess_29, Belfort_30, Stigma_29, Comrade_29
- Track 22 : Francob_27
- Track 23 : Forrest_32, Jada_30
- Track 24 : Blueeyedbeauty_30, Annadreamy_28, Limpid_28
- Track 25 : Gilson_32, Emma1919_32, MeganTheeKilla_30
- Track 26 : Patelgo_29, Moab_29
- Track 27 : Beuffert_27
- Track 28 : Sham_26
- Track 29 : Phredrick_30, Kenrey_32
- Track 30 : SeresaTree_28, Faust_28

- Track 31 : TunaTartare_27
- Track 32 : Karp_28
- Track 33 : Muntaha_24, Wakanda_24
- Track 34 : Circinus_26, BillNye_24

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

The start number called the most often in the published annotations is 13, it was called in 53 of the 81 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea_50, Angela_48, Annadreamy_28, Bartholomune_49, Belfort_30, Beuffert_27, BillNye_24, BlueOtter_53, Blueeyedbeauty_30, Bmoc_49, Braelyn_50, Circinus_26, Comrade_29, Cross_51, Cursive_49, Daubenski_52, EGole_52, Emma1919_32, Evy_52, Faust_28, Forrest_32, Francob_27, Gilson_32, HangryHippo_53, Jada_30, Karp_28, Kenrey_32, Larnav_56, Leo04_52, Liandry_50, LilMartin_48, Limpid_28, Lululemon_52, MeganTheeKilla_30, Mildred21_49, Moab_29, MulchMansion_48, Muntaha_24, Navo_51, NootNoot_47, PacManQ_52, Paradiddles_47, Patelgo_29, Peebs_50, Pepperwood_51, Persimmon_47, Phredrick_30, PinkiePie_49, Samisti12_51, SeresaTree_28, Sham_26, SparkleGoddess_29, Squillium_50, Stigma_29, Sushi23_51, Targaryen_52, Teutsch_51, Tribute_49, TunaTartare_27, Wakanda_24, Watermoore_51, WhereRU_50,

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

- Jay2Jay_56, Warpy_55,

Genes that do not have the "Most Annotated" start:

- Amabiko_53, Battuta_51, Birchlyn_50, BoomerJR_53, Bordeaux_51, CeilingFan_55, Elmer_60, Enygma_50, Genie2_53, Gibbi_57, IchabodCrane_50, JimJam_53, Jollison_58, Karimac_52, KentuckyRacer_57, LukeCage_52, MindFlayer_51, Mugiwara_54, PumpkinSpice_52, Quarant19_53, SaltySpittoon_53, Sollertia_53, Spelly_53, Spilled_54, Stanimal_53, StarPlatinum_53, Starbow_51, TomSawyer_51, Tomas_55, Wipeout_51, Wofford_52, Yaboi_53,

Summary by start number:

Start 7:

- Found in 4 of 96 (4.2%) of genes in pham
- Manual Annotations of this start: 2 of 81
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jay2Jay_56 (BE1), Warpy_55 (BE1),

Start 11:

- Found in 31 of 96 (32.3%) of genes in pham
- Manual Annotations of this start: 25 of 81
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amabiko_53 (BE2), Battuta_51 (BE2), Birchlyn_50 (BE2), BoomerJR_53 (BE2), Bordeaux_51 (BE2), CeilingFan_55 (BE2), Elmer_60 (BE2), Enygma_50 (BE2), Genie2_53 (BE2), Gibbi_57 (BE2),

IchabodCrane_50 (BE2), JimJam_53 (BE2), Jollison_58 (BE2), Karimac_52 (BE2), KentuckyRacer_57 (BE2), LukeCage_52 (BE2), MindFlayer_51 (BE2), Mugiwarra_54 (BE2), PumpkinSpice_52 (BE2), Quarant19_53 (BE2), SaltySpittoon_53 (BE2), Sollertia_53 (BE2), Spelly_53 (BE2), Spilled_54 (BE2), Stanimal_53 (BE2), StarPlatinum_53 (BE2), Starbow_51 (BE2), TomSawyer_51 (BE2), Wipeout_51 (BE2), Wofford_52 (BE2), Yaboi_53 (BE2),

Start 12:

- Found in 1 of 96 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 81
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tomas_55 (BE2),

Start 13:

- Found in 64 of 96 (66.7%) of genes in pham
- Manual Annotations of this start: 53 of 81
- Called 96.9% of time when present
- Phage (with cluster) where this start called: Anedea_50 (BE1), Angela_48 (BE1), Annadreamy_28 (BK1), Bartholomune_49 (BE1), Belfort_30 (BK1), Beuffert_27 (BK1), BillNye_24 (BK2), BlueOtter_53 (BE1), Blueeyedbeauty_30 (BK1), Bmoc_49 (BE1), Braelyn_50 (BE1), Circinus_26 (BK2), Comrade_29 (BK1), Cross_51 (BE1), Cursive_49 (BE1), Daubenski_52 (BE1), EGole_52 (BE1), Emma1919_32 (BK1), Evy_52 (BE1), Faust_28 (BK1), Forrest_32 (BK1), Francob_27 (BK1), Gilson_32 (BK1), HangryHippo_53 (BE1), Jada_30 (BK1), Karp_28 (BK1), Kenrey_32 (BK1), Larnav_56 (BE1), Leo04_52 (BE1), Liandry_50 (BE1), LilMartin_48 (BE1), Limpid_28 (BK1), Lululemon_52 (BE1), MeganTheeKilla_30 (BK1), Mildred21_49 (BE1), Moab_29 (BK1), MulchMansion_48 (BE1), Muntaha_24 (BK2), Navo_51 (BE1), NootNoot_47 (BE1), PacManQ_52 (BE1), Paradiddles_47 (BE1), Patelgo_29 (BK1), Peebs_50 (BE1), Pepperwood_51 (BE1), Persimmon_47 (BE1), Phredrick_30 (BK1), PinkiePie_49 (BE1), Samisti12_51 (BE1), SeresaTree_28 (BK1), Sham_26 (BK1), SparkleGoddess_29 (BK1), Squillium_50 (BE1), Stigma_29 (BK1), Sushi23_51 (BE1), Targaryen_52 (BE1), Teutsch_51 (BE1), Tribute_49 (BE1), TunaTartare_27 (BK1), Wakanda_24 (BK2), Watermoore_51 (BE1), WhereRU_50 (BE1),

Summary by clusters:

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 7 was manually annotated 2 times for cluster BE1.
- Start number 13 was manually annotated 27 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 11 was manually annotated 25 times for cluster BE2.
- Start number 12 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 13 was manually annotated 22 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 13 was manually annotated 4 times for cluster BK2.

Gene Information:

Gene: Amabiko_53 Start: 29130, Stop: 29525, Start Num: 11

Candidate Starts for Amabiko_53:

(Start: 11 @29130 has 25 MA's), (14, 29145), (15, 29151), (17, 29217), (24, 29316), (29, 29367), (31, 29394),

Gene: Anedea_50 Start: 28655, Stop: 29056, Start Num: 13

Candidate Starts for Anedea_50:

(Start: 13 @28655 has 53 MA's), (14, 28670), (16, 28712), (17, 28742), (29, 28898),

Gene: Angela_48 Start: 28136, Stop: 28537, Start Num: 13

Candidate Starts for Angela_48:

(Start: 13 @28136 has 53 MA's), (14, 28151), (20, 28241), (29, 28379),

Gene: Annadreamy_28 Start: 17617, Stop: 18018, Start Num: 13

Candidate Starts for Annadreamy_28:

(Start: 13 @17617 has 53 MA's), (29, 17857),

Gene: Bartholomune_49 Start: 28440, Stop: 28838, Start Num: 13

Candidate Starts for Bartholomune_49:

(Start: 13 @28440 has 53 MA's), (14, 28455), (29, 28680), (33, 28749),

Gene: Battuta_51 Start: 29104, Stop: 29499, Start Num: 11

Candidate Starts for Battuta_51:

(Start: 11 @29104 has 25 MA's), (14, 29119), (15, 29125), (17, 29191), (24, 29290), (29, 29341), (31, 29368),

Gene: Belfort_30 Start: 18302, Stop: 18703, Start Num: 13

Candidate Starts for Belfort_30:

(Start: 13 @18302 has 53 MA's), (22, 18443), (25, 18500), (26, 18521), (28, 18536), (29, 18542),

Gene: Beuffert_27 Start: 17299, Stop: 17700, Start Num: 13

Candidate Starts for Beuffert_27:

(10, 17287), (Start: 13 @17299 has 53 MA's), (14, 17314), (29, 17539),

Gene: BillNye_24 Start: 18045, Stop: 18443, Start Num: 13

Candidate Starts for BillNye_24:

(Start: 13 @18045 has 53 MA's), (14, 18060), (29, 18285), (30, 18288), (33, 18354), (34, 18381),

Gene: Birchlyn_50 Start: 26987, Stop: 27382, Start Num: 11

Candidate Starts for Birchlyn_50:

(Start: 11 @26987 has 25 MA's), (14, 27002), (15, 27008), (17, 27074), (24, 27173), (29, 27224), (31, 27251),

Gene: BlueOtter_53 Start: 29804, Stop: 30205, Start Num: 13

Candidate Starts for BlueOtter_53:

(Start: 13 @29804 has 53 MA's), (14, 29819), (16, 29861), (21, 29921), (29, 30047),

Gene: Blueeyedbeauty_30 Start: 18108, Stop: 18509, Start Num: 13

Candidate Starts for Blueeyedbeauty_30:

(Start: 13 @18108 has 53 MA's), (29, 18348),

Gene: Bmoc_49 Start: 28440, Stop: 28841, Start Num: 13

Candidate Starts for Bmoc_49:

(Start: 13 @28440 has 53 MA's), (14, 28455), (16, 28497), (17, 28527), (20, 28545), (29, 28683),

Gene: BoomerJR_53 Start: 28991, Stop: 29386, Start Num: 11

Candidate Starts for BoomerJR_53:

(Start: 11 @28991 has 25 MA's), (14, 29006), (15, 29012), (17, 29078), (21, 29108), (24, 29177), (29, 29228),

Gene: Bordeaux_51 Start: 29259, Stop: 29654, Start Num: 11

Candidate Starts for Bordeaux_51:

(Start: 11 @29259 has 25 MA's), (14, 29274), (15, 29280), (17, 29346), (24, 29445), (29, 29496), (31, 29523),

Gene: Braelyn_50 Start: 29207, Stop: 29605, Start Num: 13

Candidate Starts for Braelyn_50:

(Start: 13 @29207 has 53 MA's), (14, 29222), (29, 29447), (33, 29516),

Gene: CeilingFan_55 Start: 29019, Stop: 29414, Start Num: 11

Candidate Starts for CeilingFan_55:

(Start: 11 @29019 has 25 MA's), (14, 29034), (15, 29040), (17, 29106), (24, 29205), (29, 29256), (31, 29283),

Gene: Circinus_26 Start: 18181, Stop: 18579, Start Num: 13

Candidate Starts for Circinus_26:

(Start: 13 @18181 has 53 MA's), (14, 18196), (29, 18421), (30, 18424), (33, 18490), (34, 18517),

Gene: Comrade_29 Start: 17917, Stop: 18318, Start Num: 13

Candidate Starts for Comrade_29:

(Start: 13 @17917 has 53 MA's), (22, 18058), (25, 18115), (26, 18136), (28, 18151), (29, 18157),

Gene: Cross_51 Start: 29805, Stop: 30206, Start Num: 13

Candidate Starts for Cross_51:

(Start: 13 @29805 has 53 MA's), (14, 29820), (16, 29862), (21, 29922), (29, 30048),

Gene: Cursive_49 Start: 29330, Stop: 29731, Start Num: 13

Candidate Starts for Cursive_49:

(Start: 13 @29330 has 53 MA's), (14, 29345), (16, 29387), (21, 29447), (29, 29573),

Gene: Daubenski_52 Start: 29556, Stop: 29954, Start Num: 13

Candidate Starts for Daubenski_52:

(Start: 13 @29556 has 53 MA's), (14, 29571), (20, 29661), (29, 29796),

Gene: EGole_52 Start: 30709, Stop: 31110, Start Num: 13

Candidate Starts for EGole_52:

(Start: 13 @30709 has 53 MA's), (14, 30724), (16, 30766), (21, 30826), (29, 30952), (33, 31021),

Gene: Elmer_60 Start: 30167, Stop: 30562, Start Num: 11

Candidate Starts for Elmer_60:

(Start: 11 @30167 has 25 MA's), (14, 30182), (15, 30188), (17, 30254), (20, 30272), (29, 30404), (31, 30431), (34, 30500),

Gene: Emma1919_32 Start: 18535, Stop: 18936, Start Num: 13

Candidate Starts for Emma1919_32:

(Start: 13 @18535 has 53 MA's), (28, 18769), (29, 18775),

Gene: Enygma_50 Start: 29081, Stop: 29476, Start Num: 11

Candidate Starts for Enygma_50:

(Start: 11 @29081 has 25 MA's), (14, 29096), (15, 29102), (17, 29168), (24, 29267), (29, 29318), (31, 29345),

Gene: Evy_52 Start: 29801, Stop: 30202, Start Num: 13

Candidate Starts for Evy_52:

(Start: 7 @29774 has 2 MA's), (9, 29786), (Start: 13 @29801 has 53 MA's), (14, 29816), (16, 29858), (18, 29891), (20, 29906), (29, 30044), (32, 30080),

Gene: Faust_28 Start: 17765, Stop: 18154, Start Num: 13

Candidate Starts for Faust_28:

(Start: 13 @17765 has 53 MA's), (28, 17987), (29, 17993), (32, 18029),

Gene: Forrest_32 Start: 18658, Stop: 19059, Start Num: 13

Candidate Starts for Forrest_32:

(Start: 13 @18658 has 53 MA's), (28, 18892), (29, 18898),

Gene: Francob_27 Start: 16914, Stop: 17315, Start Num: 13

Candidate Starts for Francob_27:

(Start: 13 @16914 has 53 MA's), (22, 17055), (29, 17154),

Gene: Genie2_53 Start: 29105, Stop: 29500, Start Num: 11

Candidate Starts for Genie2_53:

(Start: 11 @29105 has 25 MA's), (14, 29120), (15, 29126), (17, 29192), (21, 29222), (24, 29291), (29, 29342), (31, 29369), (33, 29411),

Gene: Gibbi_57 Start: 29242, Stop: 29637, Start Num: 11

Candidate Starts for Gibbi_57:

(Start: 11 @29242 has 25 MA's), (14, 29257), (15, 29263), (17, 29329), (24, 29428), (29, 29479), (31, 29506),

Gene: Gilson_32 Start: 18488, Stop: 18889, Start Num: 13

Candidate Starts for Gilson_32:

(Start: 13 @18488 has 53 MA's), (28, 18722), (29, 18728),

Gene: HangryHippo_53 Start: 29804, Stop: 30205, Start Num: 13

Candidate Starts for HangryHippo_53:

(Start: 13 @29804 has 53 MA's), (14, 29819), (16, 29861), (21, 29921), (29, 30047),

Gene: IchabodCrane_50 Start: 28831, Stop: 29226, Start Num: 11

Candidate Starts for IchabodCrane_50:

(Start: 11 @28831 has 25 MA's), (14, 28846), (15, 28852), (17, 28918), (24, 29017), (29, 29068), (31, 29095),

Gene: Jada_30 Start: 17840, Stop: 18241, Start Num: 13

Candidate Starts for Jada_30:

(Start: 13 @17840 has 53 MA's), (28, 18074), (29, 18080),

Gene: Jay2Jay_56 Start: 30582, Stop: 31010, Start Num: 7

Candidate Starts for Jay2Jay_56:

(Start: 7 @30582 has 2 MA's), (9, 30594), (Start: 13 @30609 has 53 MA's), (14, 30624), (16, 30666), (18, 30699), (20, 30714), (29, 30852), (32, 30888),

Gene: JimJam_53 Start: 29205, Stop: 29600, Start Num: 11

Candidate Starts for JimJam_53:

(Start: 11 @29205 has 25 MA's), (14, 29220), (15, 29226), (17, 29292), (24, 29391), (29, 29442), (31, 29469),

Gene: Jollison_58 Start: 29087, Stop: 29482, Start Num: 11

Candidate Starts for Jollison_58:

(Start: 11 @29087 has 25 MA's), (14, 29102), (15, 29108), (17, 29174), (24, 29273), (29, 29324), (31, 29351),

Gene: Karimac_52 Start: 29236, Stop: 29631, Start Num: 11

Candidate Starts for Karimac_52:

(Start: 11 @29236 has 25 MA's), (14, 29251), (15, 29257), (17, 29323), (24, 29422), (29, 29473), (31, 29500),

Gene: Karp_28 Start: 17517, Stop: 17918, Start Num: 13

Candidate Starts for Karp_28:

(Start: 13 @17517 has 53 MA's), (22, 17658), (26, 17736), (28, 17751), (29, 17757),

Gene: Kenrey_32 Start: 18537, Stop: 18938, Start Num: 13

Candidate Starts for Kenrey_32:

(Start: 13 @18537 has 53 MA's), (22, 18678), (28, 18771), (29, 18777),

Gene: KentuckyRacer_57 Start: 29020, Stop: 29415, Start Num: 11

Candidate Starts for KentuckyRacer_57:

(Start: 11 @29020 has 25 MA's), (14, 29035), (15, 29041), (17, 29107), (24, 29206), (29, 29257), (31, 29284),

Gene: Larnav_56 Start: 29789, Stop: 30190, Start Num: 13

Candidate Starts for Larnav_56:

(Start: 13 @29789 has 53 MA's), (14, 29804), (16, 29846), (21, 29906), (29, 30032),

Gene: Leo04_52 Start: 30304, Stop: 30705, Start Num: 13

Candidate Starts for Leo04_52:

(Start: 13 @30304 has 53 MA's), (14, 30319), (16, 30361), (21, 30421), (29, 30547),

Gene: Liandry_50 Start: 29144, Stop: 29542, Start Num: 13

Candidate Starts for Liandry_50:

(Start: 13 @29144 has 53 MA's), (14, 29159), (29, 29384), (33, 29453),

Gene: LilMartin_48 Start: 28084, Stop: 28485, Start Num: 13

Candidate Starts for LilMartin_48:

(Start: 13 @28084 has 53 MA's), (14, 28099), (20, 28189), (29, 28327),

Gene: Limpid_28 Start: 17616, Stop: 18017, Start Num: 13

Candidate Starts for Limpid_28:

(Start: 13 @17616 has 53 MA's), (29, 17856),

Gene: LukeCage_52 Start: 28984, Stop: 29379, Start Num: 11

Candidate Starts for LukeCage_52:

(Start: 11 @28984 has 25 MA's), (14, 28999), (15, 29005), (23, 29128), (24, 29170), (29, 29221), (31, 29248),

Gene: Lululemon_52 Start: 29185, Stop: 29586, Start Num: 13

Candidate Starts for Lululemon_52:

(Start: 13 @29185 has 53 MA's), (14, 29200), (16, 29242), (21, 29302), (29, 29428),

Gene: MeganTheeKilla_30 Start: 17849, Stop: 18250, Start Num: 13

Candidate Starts for MeganTheeKilla_30:

(Start: 13 @17849 has 53 MA's), (28, 18083), (29, 18089),

Gene: Mildred21_49 Start: 28268, Stop: 28678, Start Num: 13

Candidate Starts for Mildred21_49:

(Start: 13 @28268 has 53 MA's), (14, 28283), (29, 28520),

Gene: MindFlayer_51 Start: 28738, Stop: 29133, Start Num: 11

Candidate Starts for MindFlayer_51:

(Start: 11 @28738 has 25 MA's), (14, 28753), (15, 28759), (17, 28825), (24, 28924), (29, 28975), (31, 29002),

Gene: Moab_29 Start: 17856, Stop: 18257, Start Num: 13

Candidate Starts for Moab_29:

(1, 17769), (Start: 13 @17856 has 53 MA's), (26, 18075), (27, 18087), (29, 18096),

Gene: Mugiwara_54 Start: 29484, Stop: 29879, Start Num: 11

Candidate Starts for Mugiwara_54:

(Start: 11 @29484 has 25 MA's), (14, 29499), (15, 29505), (17, 29571), (24, 29670), (29, 29721), (31, 29748),

Gene: MulchMansion_48 Start: 28084, Stop: 28485, Start Num: 13

Candidate Starts for MulchMansion_48:

(Start: 13 @28084 has 53 MA's), (14, 28099), (20, 28189), (29, 28327),

Gene: Muntaha_24 Start: 17449, Stop: 17847, Start Num: 13

Candidate Starts for Muntaha_24:

(1, 17359), (5, 17401), (8, 17422), (Start: 13 @17449 has 53 MA's), (14, 17464), (28, 17683), (29, 17689), (30, 17692), (34, 17785),

Gene: Navo_51 Start: 29102, Stop: 29500, Start Num: 13

Candidate Starts for Navo_51:

(Start: 13 @29102 has 53 MA's), (14, 29117), (29, 29342), (33, 29411),

Gene: NootNoot_47 Start: 28058, Stop: 28456, Start Num: 13

Candidate Starts for NootNoot_47:

(Start: 13 @28058 has 53 MA's), (14, 28073), (29, 28298), (33, 28367),

Gene: PacManQ_52 Start: 29185, Stop: 29586, Start Num: 13

Candidate Starts for PacManQ_52:

(Start: 13 @29185 has 53 MA's), (14, 29200), (16, 29242), (21, 29302), (29, 29428),

Gene: Paradiddles_47 Start: 28319, Stop: 28717, Start Num: 13

Candidate Starts for Paradiddles_47:

(Start: 13 @28319 has 53 MA's), (14, 28334), (29, 28559), (33, 28628),

Gene: Patelgo_29 Start: 17470, Stop: 17871, Start Num: 13

Candidate Starts for Patelgo_29:

(1, 17383), (Start: 13 @17470 has 53 MA's), (26, 17689), (27, 17701), (29, 17710),

Gene: Peebs_50 Start: 29542, Stop: 29943, Start Num: 13

Candidate Starts for Peebs_50:

(Start: 13 @29542 has 53 MA's), (14, 29557), (16, 29599), (21, 29659), (29, 29785),

Gene: Pepperwood_51 Start: 29675, Stop: 30076, Start Num: 13

Candidate Starts for Pepperwood_51:

(Start: 13 @29675 has 53 MA's), (14, 29690), (16, 29732), (21, 29792), (29, 29918),

Gene: Persimmon_47 Start: 28033, Stop: 28431, Start Num: 13

Candidate Starts for Persimmon_47:

(Start: 13 @28033 has 53 MA's), (14, 28048), (29, 28273), (33, 28342),

Gene: Phredrick_30 Start: 17743, Stop: 18144, Start Num: 13

Candidate Starts for Phredrick_30:

(Start: 13 @17743 has 53 MA's), (22, 17884), (28, 17977), (29, 17983),

Gene: PinkiePie_49 Start: 29144, Stop: 29542, Start Num: 13

Candidate Starts for PinkiePie_49:

(Start: 13 @29144 has 53 MA's), (14, 29159), (29, 29384), (33, 29453),

Gene: PumpkinSpice_52 Start: 29130, Stop: 29525, Start Num: 11

Candidate Starts for PumpkinSpice_52:

(Start: 11 @29130 has 25 MA's), (14, 29145), (15, 29151), (17, 29217), (24, 29316), (29, 29367), (31, 29394),

Gene: Quaran19_53 Start: 29121, Stop: 29516, Start Num: 11

Candidate Starts for Quaran19_53:

(Start: 11 @29121 has 25 MA's), (14, 29136), (15, 29142), (17, 29208), (24, 29307), (29, 29358), (31, 29385),

Gene: SaltySpittoon_53 Start: 29130, Stop: 29525, Start Num: 11

Candidate Starts for SaltySpittoon_53:

(Start: 11 @29130 has 25 MA's), (14, 29145), (15, 29151), (17, 29217), (24, 29316), (29, 29367), (31, 29394),

Gene: Samisti12_51 Start: 30978, Stop: 31379, Start Num: 13

Candidate Starts for Samisti12_51:

(Start: 13 @30978 has 53 MA's), (14, 30993), (16, 31035), (21, 31095), (29, 31221),

Gene: SeresaTree_28 Start: 17155, Stop: 17544, Start Num: 13

Candidate Starts for SeresaTree_28:

(Start: 13 @17155 has 53 MA's), (28, 17377), (29, 17383), (32, 17419),

Gene: Sham_26 Start: 18213, Stop: 18602, Start Num: 13

Candidate Starts for Sham_26:

(Start: 13 @18213 has 53 MA's), (28, 18435), (29, 18441), (32, 18477),

Gene: Sollertia_53 Start: 29105, Stop: 29500, Start Num: 11

Candidate Starts for Sollertia_53:

(Start: 11 @29105 has 25 MA's), (14, 29120), (15, 29126), (17, 29192), (21, 29222), (24, 29291), (29, 29342), (31, 29369), (33, 29411),

Gene: SparkleGoddess_29 Start: 17919, Stop: 18320, Start Num: 13

Candidate Starts for SparkleGoddess_29:

(Start: 13 @17919 has 53 MA's), (22, 18060), (25, 18117), (26, 18138), (28, 18153), (29, 18159),

Gene: Spelly_53 Start: 29085, Stop: 29480, Start Num: 11

Candidate Starts for Spelly_53:

(Start: 11 @29085 has 25 MA's), (14, 29100), (15, 29106), (17, 29172), (24, 29271), (29, 29322), (31, 29349),

Gene: Spilled_54 Start: 29202, Stop: 29597, Start Num: 11

Candidate Starts for Spilled_54:

(Start: 11 @29202 has 25 MA's), (14, 29217), (15, 29223), (17, 29289), (24, 29388), (29, 29439), (31, 29466),

Gene: Squillium_50 Start: 29145, Stop: 29543, Start Num: 13

Candidate Starts for Squillium_50:

(Start: 13 @29145 has 53 MA's), (14, 29160), (29, 29385), (33, 29454),

Gene: Stanimal_53 Start: 28994, Stop: 29389, Start Num: 11

Candidate Starts for Stanimal_53:

(Start: 11 @28994 has 25 MA's), (14, 29009), (15, 29015), (17, 29081), (21, 29111), (24, 29180), (29, 29231), (31, 29258), (33, 29300),

Gene: StarPlatinum_53 Start: 29627, Stop: 30022, Start Num: 11

Candidate Starts for StarPlatinum_53:

(Start: 11 @29627 has 25 MA's), (14, 29642), (15, 29648), (24, 29813), (29, 29864), (31, 29891),

Gene: Starbow_51 Start: 29106, Stop: 29501, Start Num: 11

Candidate Starts for Starbow_51:

(Start: 11 @29106 has 25 MA's), (14, 29121), (15, 29127), (17, 29193), (24, 29292), (29, 29343), (31, 29370),

Gene: Stigma_29 Start: 17920, Stop: 18321, Start Num: 13

Candidate Starts for Stigma_29:

(Start: 13 @17920 has 53 MA's), (22, 18061), (25, 18118), (26, 18139), (28, 18154), (29, 18160),

Gene: Sushi23_51 Start: 29900, Stop: 30301, Start Num: 13

Candidate Starts for Sushi23_51:

(Start: 13 @29900 has 53 MA's), (14, 29915), (16, 29957), (21, 30017), (29, 30143),

Gene: Targaryen_52 Start: 30658, Stop: 31059, Start Num: 13

Candidate Starts for Targaryen_52:

(Start: 7 @30631 has 2 MA's), (9, 30643), (Start: 13 @30658 has 53 MA's), (14, 30673), (16, 30715), (18, 30748), (20, 30763), (29, 30901), (32, 30937),

Gene: Deutsch_51 Start: 30169, Stop: 30570, Start Num: 13

Candidate Starts for Deutsch_51:

(Start: 13 @30169 has 53 MA's), (14, 30184), (16, 30226), (21, 30286), (29, 30412),

Gene: TomSawyer_51 Start: 28724, Stop: 29119, Start Num: 11

Candidate Starts for TomSawyer_51:

(Start: 11 @28724 has 25 MA's), (14, 28739), (15, 28745), (17, 28811), (24, 28910), (29, 28961), (31, 28988),

Gene: Tomas_55 Start: 31442, Stop: 31840, Start Num: 12

Candidate Starts for Tomas_55:

(2, 31370), (6, 31412), (Start: 12 @31442 has 1 MA's), (14, 31457), (18, 31532), (29, 31682),

Gene: Tribute_49 Start: 29369, Stop: 29770, Start Num: 13

Candidate Starts for Tribute_49:

(Start: 13 @29369 has 53 MA's), (14, 29384), (16, 29426), (21, 29486), (29, 29612),

Gene: TunaTartare_27 Start: 18506, Stop: 18895, Start Num: 13

Candidate Starts for TunaTartare_27:

(3, 18452), (4, 18461), (Start: 13 @18506 has 53 MA's), (19, 18608), (29, 18734),

Gene: Wakanda_24 Start: 17387, Stop: 17785, Start Num: 13

Candidate Starts for Wakanda_24:

(1, 17297), (5, 17339), (8, 17360), (Start: 13 @17387 has 53 MA's), (14, 17402), (28, 17621), (29, 17627), (30, 17630), (34, 17723),

Gene: Warpy_55 Start: 30095, Stop: 30523, Start Num: 7

Candidate Starts for Warpy_55:

(Start: 7 @30095 has 2 MA's), (9, 30107), (Start: 13 @30122 has 53 MA's), (14, 30137), (16, 30179), (20, 30227), (29, 30365),

Gene: Watermoore_51 Start: 30376, Stop: 30777, Start Num: 13

Candidate Starts for Watermoore_51:

(Start: 13 @30376 has 53 MA's), (14, 30391), (16, 30433), (21, 30493), (29, 30619),

Gene: WhereRU_50 Start: 28624, Stop: 29022, Start Num: 13

Candidate Starts for WhereRU_50:

(Start: 13 @28624 has 53 MA's), (14, 28639), (29, 28864), (33, 28933),

Gene: Wipeout_51 Start: 29475, Stop: 29870, Start Num: 11

Candidate Starts for Wipeout_51:

(Start: 11 @29475 has 25 MA's), (14, 29490), (15, 29496), (17, 29562), (24, 29661), (29, 29712), (31, 29739),

Gene: Wofford_52 Start: 30130, Stop: 30525, Start Num: 11

Candidate Starts for Wofford_52:

(Start: 11 @30130 has 25 MA's), (14, 30145), (17, 30217), (20, 30235), (24, 30316), (29, 30367), (31, 30394), (34, 30463),

Gene: Yaboi_53 Start: 29082, Stop: 29477, Start Num: 11

Candidate Starts for Yaboi_53:

(Start: 11 @29082 has 25 MA's), (14, 29097), (15, 29103), (17, 29169), (21, 29199), (24, 29268), (29, 29319),