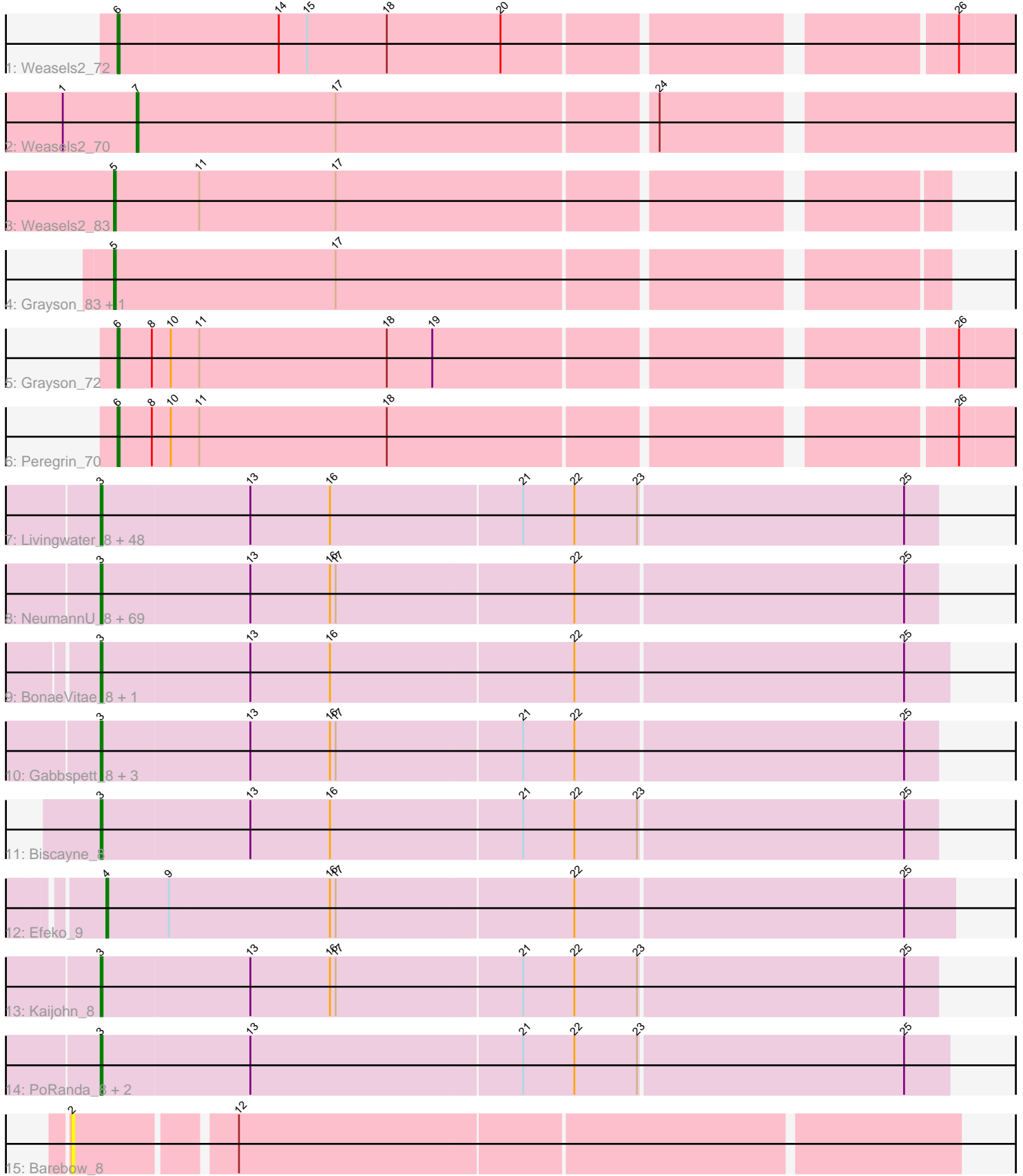


Pham 175982



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 175982 Report

This analysis was run 11/02/24 on database version 579.

Pham number 175982 has 139 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Weasels2_72
- Track 2 : Weasels2_70
- Track 3 : Weasels2_83
- Track 4 : Grayson_83, Peregrin_81
- Track 5 : Grayson_72
- Track 6 : Peregrin_70
- Track 7 : Livingwater_8, KillerTomato_8, Namsahir_8, Nobel_8, Baine_8, Lola20_8, TinyTruffula_8, HarperAnne_8, Slizam_8, MrGreen_8, JRok_8, McShie_8, Ekko14_8, Elspeth_8, Cayde6_8, Lunatic_8, JooneeDee_8, BrokMonster_8, Concrete_8, Quaker_8, Miaurora_8, MelBee03_8, Belthelas_8, Bri160_8, TomBrady12_8, Niffler_8, Bodhi17_8, Bintii_8, Bullzi2019_8, Oaklynn_8, Anseraureola_8, Noelani_8, Kevanna_8, Yami_8, Snuffles_9, Cazares_8, Sippinontea_8, PuffyCat_8, Stem_8, Loca_8, Duggie_8, Leafy_8, Publix_8, Clownery_8, Wolfpack_8, BoomRoasted_8, KayPaulus_8, Azizam_8, Trireme_8
- Track 8 : NeumannU_8, KyriosFaba_8, Goobery_8, Luxx_8, Majesty_8, Alucard_8, SeaWolves_8, Erin_8, Minima_8, Scamander_8, Ciel_8, ManAs_8, JoBros_8, Yasuo_8, Jahseh_8, Eightball_8, Horacetta_8, RoscoWindex_8, Aztec_8, Vanisius_8, TimoTea_8, Owens_8, Avvas_8, Gillker_8, SantasSleigh_8, Gardevoir_8, Bradley2_8, Dooby_8, Dongwon_8, Jannah_8, TeddyBoy_8, GoldenBlanche_8, MasterPitts_8, LionelHutz_8, Otwor_8, Charbie_8, JaimeB_8, Astro16_8, Picnic_8, LaviMo_8, Sara_8, DaftyDuck_8, Rhogar_8, Slentz_8, PaoPu_8, Puddles3_8, LemonPepper_8, Maneater_8, Josuke_8, Yubaba_8, BarBear_8, Burgy_8, BurtonThePup_8, YertPhresh_8, Hulk_8, Danimal_8, Godfather_8, Octopus_8, Rhysand_8, Chatham_8, Sage7_8, BinkBonk_8, EdElric_8, Scrunchy_8, Aries55_8, Danno_8, Pondwater_8, Witch_8, Kojax4_8, Cheesecake_8
- Track 9 : BonaeVitae_8, Naby_8
- Track 10 : Gabbspett_8, VitulaEligans_8, Jerky_8, Hernandez44_8
- Track 11 : Biscayne_8
- Track 12 : Efeko_9
- Track 13 : Kaijohn_8
- Track 14 : PoRanda_8, MirimarMandM_8, Upsilon_8
- Track 15 : Barebow_8

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

The start number called the most often in the published annotations is 3, it was called in 124 of the 132 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alucard_8, Anseraureola_8, Aries55_8, Astro16_8, Avvas_8, Azizam_8, Aztec_8, Baine_8, BarBear_8, Belthelas_8, BinkBonk_8, Bintii_8, Biscayne_8, Bodhi17_8, BonaeVitae_8, BoomRoasted_8, Bradley2_8, Bri160_8, BrokMonster_8, Bullzi2019_8, Burgy_8, BurtonThePup_8, Cayde6_8, Cazares_8, Charbie_8, Chatham_8, Cheesecake_8, Ciel_8, Clownery_8, Concrete_8, DaftyDuck_8, Danimal_8, Danno_8, Dongwon_8, Dooby_8, Douggie_8, EdElric_8, Eightball_8, Ekko14_8, Elspeth_8, Erin_8, Gabbspett_8, Gardevoir_8, Gillker_8, Godfather_8, GoldenBlanche_8, Goobery_8, HarperAnne_8, Hernandez44_8, Horacetta_8, Hulk_8, JRok_8, Jahseh_8, JaimeB_8, Jannah_8, Jerky_8, JoBros_8, JooneeDee_8, Josuke_8, Kaijohn_8, KayPaulus_8, Kevanna_8, KillerTomato_8, Kojax4_8, KyriosFaba_8, LaviMo_8, Leafy_8, LemonPepper_8, LionelHutz_8, Livingwater_8, Loca_8, Lola20_8, Lunatic_8, Luxx_8, Majesty_8, ManAs_8, Maneater_8, MasterPitts_8, McShie_8, MelBee03_8, Miaurora_8, Minima_8, MirimarMandM_8, MrGreen_8, Naby_8, Namsahir_8, NeumannU_8, Niffler_8, Nobel_8, Noelani_8, Oaklynn_8, Octopus_8, Otwor_8, Owens_8, PaoPu_8, Picnic_8, PoRanda_8, Pondwater_8, Publix_8, Puddles3_8, PuffyCat_8, Quaker_8, Rhogar_8, Rhysand_8, RoscoWindex_8, Sage7_8, SantasSleigh_8, Sara_8, Scamander_8, Scrunchy_8, SeaWolves_8, Sippinontea_8, Slentz_8, Slizam_8, Snuffles_9, Stem_8, TeddyBoy_8, TimoTea_8, TinyTruffula_8, TomBrady12_8, Trireme_8, Upsilon_8, Vanisius_8, VitulaEligans_8, Witch_8, Wolfpack_8, Yami_8, Yasuo_8, YertPhresh_8, Yubaba_8,

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

-

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

- Barebow_8, Efeke_9, Grayson_72, Grayson_83, Peregrin_70, Peregrin_81, Weasels2_70, Weasels2_72, Weasels2_83,

Summary by start number:

Start 2:

- Found in 1 of 139 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barebow_8 (singleton),

Start 3:

- Found in 130 of 139 (93.5%) of genes in pham
- Manual Annotations of this start: 124 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alucard_8 (EE), Anseraureola_8 (EE), Aries55_8 (EE), Astro16_8 (EE), Avvas_8 (EE), Azizam_8 (EE), Aztec_8 (EE), Baine_8 (EE), BarBear_8 (EE), Belthelas_8 (EE), BinkBonk_8 (EE), Bintii_8 (EE), Biscayne_8 (EE), Bodhi17_8 (EE), BonaeVitae_8 (EE), BoomRoasted_8 (EE), Bradley2_8 (EE), Bri160_8 (EE), BrokMonster_8 (EE), Bullzi2019_8 (EE), Burgy_8 (EE), BurtonThePup_8 (EE), Cayde6_8 (EE), Cazares_8 (EE), Charbie_8 (EE), Chatham_8 (EE), Cheesecake_8 (EE), Ciel_8 (EE), Clownery_8 (EE), Concrete_8 (EE), DaftyDuck_8 (EE), Danimal_8 (EE), Danno_8 (EE), Dongwon_8 (EE), Dooby_8

(EE), Douggie_8 (EE), EdElric_8 (EE), Eightball_8 (EE), Ekko14_8 (EE), Elspeth_8 (EE), Erin_8 (EE), Gabbspett_8 (EE), Gardevoir_8 (EE), Gillker_8 (EE), Godfather_8 (EE), GoldenBlanche_8 (EE), Goobery_8 (EE), HarperAnne_8 (EE), Hernandez44_8 (EE), Horacetta_8 (EE), Hulk_8 (EE), JRok_8 (EE), Jahseh_8 (EE), JaimeB_8 (EE), Jannah_8 (EE), Jerky_8 (EE), JoBros_8 (EE), JooneeDee_8 (EE), Josuke_8 (EE), Kaijohn_8 (EE), KayPaulus_8 (EE), Kevanna_8 (EE), KillerTomato_8 (EE), Kojax4_8 (EE), KyriosFaba_8 (EE), LaviMo_8 (EE), Leafy_8 (EE), LemonPepper_8 (EE), LionelHutz_8 (EE), Livingwater_8 (EE), Loca_8 (EE), Lola20_8 (EE), Lunatic_8 (EE), Luxx_8 (EE), Majesty_8 (EE), ManAs_8 (EE), Maneater_8 (EE), MasterPitts_8 (EE), McShie_8 (EE), MelBee03_8 (EE), Miaurora_8 (EE), Minima_8 (EE), MirimarMandM_8 (EE), MrGreen_8 (EE), Naby_8 (EE), Namsahir_8 (EE), NeumannU_8 (EE), Niffler_8 (EE), Nobel_8 (EE), Noelani_8 (EE), Oaklynn_8 (EE), Octopus_8 (EE), Otwor_8 (EE), Owens_8 (EE), PaoPu_8 (EE), Picnic_8 (EE), PoRanda_8 (EE), Pondwater_8 (EE), Publix_8 (EE), Puddles3_8 (EE), PuffyCat_8 (EE), Quaker_8 (EE), Rhogar_8 (EE), Rhysand_8 (EE), RoscoWindex_8 (EE), Sage7_8 (EE), SantasSleigh_8 (EE), Sara_8 (EE), Scamander_8 (EE), Scrunchy_8 (EE), SeaWolves_8 (EE), Sipinontea_8 (EE), Slentz_8 (EE), Slizam_8 (EE), Snuffles_9 (EE), Stem_8 (EE), TeddyBoy_8 (EE), TimoTea_8 (EE), TinyTruffula_8 (EE), TomBrady12_8 (EE), Trireme_8 (EE), Upsilon_8 (EE), Vanisius_8 (EE), VitulaEligans_8 (EE), Witch_8 (EE), Wolfpack_8 (EE), Yami_8 (EE), Yasuo_8 (EE), YertPhresh_8 (EE), Yubaba_8 (EE),

Start 4:

- Found in 1 of 139 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Efeke_9 (EE),

Start 5:

- Found in 3 of 139 (2.2%) of genes in pham
- Manual Annotations of this start: 3 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Grayson_83 (CB), Peregrin_81 (CB), Weasels2_83 (CB),

Start 6:

- Found in 3 of 139 (2.2%) of genes in pham
- Manual Annotations of this start: 3 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Grayson_72 (CB), Peregrin_70 (CB), Weasels2_72 (CB),

Start 7:

- Found in 1 of 139 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weasels2_70 (CB),

Summary by clusters:

There are 3 clusters represented in this pham: EE, CB, singleton,

Info for manual annotations of cluster CB:

- Start number 5 was manually annotated 3 times for cluster CB.
- Start number 6 was manually annotated 3 times for cluster CB.
- Start number 7 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster EE:

- Start number 3 was manually annotated 124 times for cluster EE.
- Start number 4 was manually annotated 1 time for cluster EE.

Gene Information:

Gene: Alucard_8 Start: 6143, Stop: 6577, Start Num: 3

Candidate Starts for Alucard_8:

(Start: 3 @6143 has 124 MA's), (13, 6221), (16, 6263), (17, 6266), (22, 6389), (25, 6560),

Gene: Anseraureola_8 Start: 6166, Stop: 6600, Start Num: 3

Candidate Starts for Anseraureola_8:

(Start: 3 @6166 has 124 MA's), (13, 6244), (16, 6286), (21, 6385), (22, 6412), (23, 6445), (25, 6583),

Gene: Aries55_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Aries55_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Astro16_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Astro16_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Avvas_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Avvas_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Azizam_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Azizam_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (21, 6361), (22, 6388), (23, 6421), (25, 6559),

Gene: Aztec_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Aztec_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Baine_8 Start: 6139, Stop: 6573, Start Num: 3

Candidate Starts for Baine_8:

(Start: 3 @6139 has 124 MA's), (13, 6217), (16, 6259), (21, 6358), (22, 6385), (23, 6418), (25, 6556),

Gene: BarBear_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for BarBear_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Barebow_8 Start: 5720, Stop: 6166, Start Num: 2

Candidate Starts for Barebow_8:

(2, 5720), (12, 5798),

Gene: Belthelas_8 Start: 6193, Stop: 6627, Start Num: 3

Candidate Starts for Belthelas_8:

(Start: 3 @6193 has 124 MA's), (13, 6271), (16, 6313), (21, 6412), (22, 6439), (23, 6472), (25, 6610),

Gene: BinkBonk_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for BinkBonk_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Bintii_8 Start: 6169, Stop: 6609, Start Num: 3

Candidate Starts for Bintii_8:

(Start: 3 @6169 has 124 MA's), (13, 6247), (16, 6289), (21, 6388), (22, 6415), (23, 6448), (25, 6586),

Gene: Biscayne_8 Start: 6202, Stop: 6636, Start Num: 3

Candidate Starts for Biscayne_8:

(Start: 3 @6202 has 124 MA's), (13, 6280), (16, 6322), (21, 6421), (22, 6448), (23, 6481), (25, 6619),

Gene: Bodhi17_8 Start: 6136, Stop: 6570, Start Num: 3

Candidate Starts for Bodhi17_8:

(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: BonaeVitae_8 Start: 5865, Stop: 6305, Start Num: 3

Candidate Starts for BonaeVitae_8:

(Start: 3 @5865 has 124 MA's), (13, 5943), (16, 5985), (22, 6111), (25, 6282),

Gene: BoomRoasted_8 Start: 6190, Stop: 6624, Start Num: 3

Candidate Starts for BoomRoasted_8:

(Start: 3 @6190 has 124 MA's), (13, 6268), (16, 6310), (21, 6409), (22, 6436), (23, 6469), (25, 6607),

Gene: Bradley2_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Bradley2_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Bri160_8 Start: 6190, Stop: 6624, Start Num: 3

Candidate Starts for Bri160_8:

(Start: 3 @6190 has 124 MA's), (13, 6268), (16, 6310), (21, 6409), (22, 6436), (23, 6469), (25, 6607),

Gene: BrokMonster_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for BrokMonster_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (21, 6361), (22, 6388), (23, 6421), (25, 6559),

Gene: Bullzi2019_8 Start: 6160, Stop: 6597, Start Num: 3

Candidate Starts for Bullzi2019_8:

(Start: 3 @6160 has 124 MA's), (13, 6238), (16, 6280), (21, 6379), (22, 6406), (23, 6439), (25, 6577),

Gene: Burgy_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Burgy_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: BurtonThePup_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for BurtonThePup_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Cayde6_8 Start: 6139, Stop: 6573, Start Num: 3

Candidate Starts for Cayde6_8:

(Start: 3 @6139 has 124 MA's), (13, 6217), (16, 6259), (21, 6358), (22, 6385), (23, 6418), (25, 6556),

Gene: Cazares_8 Start: 6130, Stop: 6567, Start Num: 3

Candidate Starts for Cazares_8:

(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (21, 6349), (22, 6376), (23, 6409), (25, 6547),

Gene: Charbie_8 Start: 6130, Stop: 6564, Start Num: 3

Candidate Starts for Charbie_8:

(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (17, 6253), (22, 6376), (25, 6547),

Gene: Chatham_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Chatham_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Cheesecake_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Cheesecake_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Ciel_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Ciel_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Clownery_8 Start: 6247, Stop: 6684, Start Num: 3

Candidate Starts for Clownery_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (21, 6466), (22, 6493), (23, 6526), (25, 6664),

Gene: Concrete_8 Start: 6190, Stop: 6624, Start Num: 3

Candidate Starts for Concrete_8:

(Start: 3 @6190 has 124 MA's), (13, 6268), (16, 6310), (21, 6409), (22, 6436), (23, 6469), (25, 6607),

Gene: DaftyDuck_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for DaftyDuck_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Danimal_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Danimal_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Danno_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Danno_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Dongwon_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Dongwon_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Dooby_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Dooby_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Douggie_8 Start: 6136, Stop: 6570, Start Num: 3

Candidate Starts for Douggie_8:

(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: EdElric_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for EdElric_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Efeko_9 Start: 6030, Stop: 6470, Start Num: 4

Candidate Starts for Efeko_9:

(Start: 4 @6030 has 1 MA's), (9, 6063), (16, 6147), (17, 6150), (22, 6273), (25, 6444),

Gene: Eightball_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Eightball_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Ekko14_8 Start: 6127, Stop: 6564, Start Num: 3

Candidate Starts for Ekko14_8:

(Start: 3 @6127 has 124 MA's), (13, 6205), (16, 6247), (21, 6346), (22, 6373), (23, 6406), (25, 6544),

Gene: Elspeth_8 Start: 6127, Stop: 6564, Start Num: 3

Candidate Starts for Elspeth_8:

(Start: 3 @6127 has 124 MA's), (13, 6205), (16, 6247), (21, 6346), (22, 6373), (23, 6406), (25, 6544),

Gene: Erin_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Erin_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Gabbspett_8 Start: 6247, Stop: 6681, Start Num: 3

Candidate Starts for Gabbspett_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (17, 6370), (21, 6466), (22, 6493), (25, 6664),

Gene: Gardevoir_8 Start: 6143, Stop: 6577, Start Num: 3

Candidate Starts for Gardevoir_8:

(Start: 3 @6143 has 124 MA's), (13, 6221), (16, 6263), (17, 6266), (22, 6389), (25, 6560),

Gene: Gillker_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Gillker_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Godfather_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Godfather_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: GoldenBlanche_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for GoldenBlanche_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Goobery_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Goobery_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Grayson_83 Start: 43154, Stop: 43570, Start Num: 5

Candidate Starts for Grayson_83:

(Start: 5 @43154 has 3 MA's), (17, 43271),

Gene: Grayson_72 Start: 32748, Stop: 33194, Start Num: 6

Candidate Starts for Grayson_72:

(Start: 6 @32748 has 3 MA's), (8, 32766), (10, 32775), (11, 32790), (18, 32889), (19, 32913), (26, 33165),

Gene: HarperAnne_8 Start: 6127, Stop: 6564, Start Num: 3

Candidate Starts for HarperAnne_8:

(Start: 3 @6127 has 124 MA's), (13, 6205), (16, 6247), (21, 6346), (22, 6373), (23, 6406), (25, 6544),

Gene: Hernandez44_8 Start: 6247, Stop: 6681, Start Num: 3

Candidate Starts for Hernandez44_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (17, 6370), (21, 6466), (22, 6493), (25, 6664),

Gene: Horacetta_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Horacetta_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Hulk_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Hulk_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: JRok_8 Start: 6139, Stop: 6573, Start Num: 3

Candidate Starts for JRok_8:

(Start: 3 @6139 has 124 MA's), (13, 6217), (16, 6259), (21, 6358), (22, 6385), (23, 6418), (25, 6556),

Gene: Jahseh_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Jahseh_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: JaimeB_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for JaimeB_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Jannah_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Jannah_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Jerky_8 Start: 6226, Stop: 6660, Start Num: 3

Candidate Starts for Jerky_8:

(Start: 3 @6226 has 124 MA's), (13, 6304), (16, 6346), (17, 6349), (21, 6445), (22, 6472), (25, 6643),

Gene: JoBros_8 Start: 6143, Stop: 6577, Start Num: 3

Candidate Starts for JoBros_8:

(Start: 3 @6143 has 124 MA's), (13, 6221), (16, 6263), (17, 6266), (22, 6389), (25, 6560),

Gene: JooneeDee_8 Start: 6169, Stop: 6609, Start Num: 3

Candidate Starts for JooneeDee_8:

(Start: 3 @6169 has 124 MA's), (13, 6247), (16, 6289), (21, 6388), (22, 6415), (23, 6448), (25, 6586),

Gene: Josuke_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Josuke_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Kaijohn_8 Start: 6145, Stop: 6579, Start Num: 3
Candidate Starts for Kaijohn_8:
(Start: 3 @6145 has 124 MA's), (13, 6223), (16, 6265), (17, 6268), (21, 6364), (22, 6391), (23, 6424),
(25, 6562),

Gene: KayPaulus_8 Start: 6136, Stop: 6570, Start Num: 3
Candidate Starts for KayPaulus_8:
(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Kevanna_8 Start: 6136, Stop: 6570, Start Num: 3
Candidate Starts for Kevanna_8:
(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: KillerTomato_8 Start: 6190, Stop: 6624, Start Num: 3
Candidate Starts for KillerTomato_8:
(Start: 3 @6190 has 124 MA's), (13, 6268), (16, 6310), (21, 6409), (22, 6436), (23, 6469), (25, 6607),

Gene: Kojax4_8 Start: 6154, Stop: 6588, Start Num: 3
Candidate Starts for Kojax4_8:
(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: KyriosFaba_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for KyriosFaba_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: LaviMo_8 Start: 6154, Stop: 6588, Start Num: 3
Candidate Starts for LaviMo_8:
(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Leafy_8 Start: 6160, Stop: 6594, Start Num: 3
Candidate Starts for Leafy_8:
(Start: 3 @6160 has 124 MA's), (13, 6238), (16, 6280), (21, 6379), (22, 6406), (23, 6439), (25, 6577),

Gene: LemonPepper_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for LemonPepper_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: LionelHutz_8 Start: 6154, Stop: 6588, Start Num: 3
Candidate Starts for LionelHutz_8:
(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Livingwater_8 Start: 6136, Stop: 6570, Start Num: 3
Candidate Starts for Livingwater_8:
(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Loca_8 Start: 6163, Stop: 6597, Start Num: 3
Candidate Starts for Loca_8:
(Start: 3 @6163 has 124 MA's), (13, 6241), (16, 6283), (21, 6382), (22, 6409), (23, 6442), (25, 6580),

Gene: Lola20_8 Start: 6139, Stop: 6573, Start Num: 3
Candidate Starts for Lola20_8:
(Start: 3 @6139 has 124 MA's), (13, 6217), (16, 6259), (21, 6358), (22, 6385), (23, 6418), (25, 6556),

Gene: Lunatic_8 Start: 6130, Stop: 6567, Start Num: 3
Candidate Starts for Lunatic_8:
(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (21, 6349), (22, 6376), (23, 6409), (25, 6547),

Gene: Luxx_8 Start: 6166, Stop: 6600, Start Num: 3
Candidate Starts for Luxx_8:
(Start: 3 @6166 has 124 MA's), (13, 6244), (16, 6286), (17, 6289), (22, 6412), (25, 6583),

Gene: Majesty_8 Start: 6154, Stop: 6588, Start Num: 3
Candidate Starts for Majesty_8:
(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: ManAs_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for ManAs_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Maneater_8 Start: 6130, Stop: 6564, Start Num: 3
Candidate Starts for Maneater_8:
(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (17, 6253), (22, 6376), (25, 6547),

Gene: MasterPitts_8 Start: 6154, Stop: 6588, Start Num: 3
Candidate Starts for MasterPitts_8:
(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: McShie_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for McShie_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (21, 6361), (22, 6388), (23, 6421), (25, 6559),

Gene: MelBee03_8 Start: 6136, Stop: 6570, Start Num: 3
Candidate Starts for MelBee03_8:
(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Miaurora_8 Start: 6247, Stop: 6684, Start Num: 3
Candidate Starts for Miaurora_8:
(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (21, 6466), (22, 6493), (23, 6526), (25, 6664),

Gene: Minima_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for Minima_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: MirimarMandM_8 Start: 6211, Stop: 6651, Start Num: 3
Candidate Starts for MirimarMandM_8:
(Start: 3 @6211 has 124 MA's), (13, 6289), (21, 6430), (22, 6457), (23, 6490), (25, 6628),

Gene: MrGreen_8 Start: 6157, Stop: 6591, Start Num: 3
Candidate Starts for MrGreen_8:
(Start: 3 @6157 has 124 MA's), (13, 6235), (16, 6277), (21, 6376), (22, 6403), (23, 6436), (25, 6574),

Gene: Naby_8 Start: 5865, Stop: 6305, Start Num: 3
Candidate Starts for Naby_8:
(Start: 3 @5865 has 124 MA's), (13, 5943), (16, 5985), (22, 6111), (25, 6282),

Gene: Namsahir_8 Start: 6202, Stop: 6639, Start Num: 3

Candidate Starts for Namsahir_8:

(Start: 3 @6202 has 124 MA's), (13, 6280), (16, 6322), (21, 6421), (22, 6448), (23, 6481), (25, 6619),

Gene: NeumannU_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for NeumannU_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Niffler_8 Start: 6220, Stop: 6657, Start Num: 3

Candidate Starts for Niffler_8:

(Start: 3 @6220 has 124 MA's), (13, 6298), (16, 6340), (21, 6439), (22, 6466), (23, 6499), (25, 6637),

Gene: Nobel_8 Start: 6247, Stop: 6684, Start Num: 3

Candidate Starts for Nobel_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (21, 6466), (22, 6493), (23, 6526), (25, 6664),

Gene: Noelani_8 Start: 6127, Stop: 6561, Start Num: 3

Candidate Starts for Noelani_8:

(Start: 3 @6127 has 124 MA's), (13, 6205), (16, 6247), (21, 6346), (22, 6373), (23, 6406), (25, 6544),

Gene: Oaklynn_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Oaklynn_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (21, 6361), (22, 6388), (23, 6421), (25, 6559),

Gene: Octopus_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Octopus_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Otwor_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Otwor_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Owens_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Owens_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: PaoPu_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for PaoPu_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Peregrin_81 Start: 41934, Stop: 42350, Start Num: 5

Candidate Starts for Peregrin_81:

(Start: 5 @41934 has 3 MA's), (17, 42051),

Gene: Peregrin_70 Start: 31530, Stop: 31976, Start Num: 6

Candidate Starts for Peregrin_70:

(Start: 6 @31530 has 3 MA's), (8, 31548), (10, 31557), (11, 31572), (18, 31671), (26, 31947),

Gene: Picnic_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Picnic_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: PoRanda_8 Start: 6211, Stop: 6651, Start Num: 3

Candidate Starts for PoRanda_8:

(Start: 3 @6211 has 124 MA's), (13, 6289), (21, 6430), (22, 6457), (23, 6490), (25, 6628),

Gene: Pondwater_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Pondwater_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Publix_8 Start: 6202, Stop: 6639, Start Num: 3

Candidate Starts for Publix_8:

(Start: 3 @6202 has 124 MA's), (13, 6280), (16, 6322), (21, 6421), (22, 6448), (23, 6481), (25, 6619),

Gene: Puddles3_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Puddles3_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: PuffyCat_8 Start: 6172, Stop: 6609, Start Num: 3

Candidate Starts for PuffyCat_8:

(Start: 3 @6172 has 124 MA's), (13, 6250), (16, 6292), (21, 6391), (22, 6418), (23, 6451), (25, 6589),

Gene: Quaker_8 Start: 6136, Stop: 6570, Start Num: 3

Candidate Starts for Quaker_8:

(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Rhogar_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Rhogar_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Rhysand_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Rhysand_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: RoscoWindex_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for RoscoWindex_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Sage7_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Sage7_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: SantasSleigh_8 Start: 6178, Stop: 6612, Start Num: 3

Candidate Starts for SantasSleigh_8:

(Start: 3 @6178 has 124 MA's), (13, 6256), (16, 6298), (17, 6301), (22, 6424), (25, 6595),

Gene: Sara_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for Sara_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Scamander_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Scamander_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Scrunchy_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Scrunchy_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: SeaWolves_8 Start: 6142, Stop: 6576, Start Num: 3

Candidate Starts for SeaWolves_8:

(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Sippinontea_8 Start: 6136, Stop: 6570, Start Num: 3

Candidate Starts for Sippinontea_8:

(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Slentz_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Slentz_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: Slizam_8 Start: 6178, Stop: 6615, Start Num: 3

Candidate Starts for Slizam_8:

(Start: 3 @6178 has 124 MA's), (13, 6256), (16, 6298), (21, 6397), (22, 6424), (23, 6457), (25, 6595),

Gene: Snuffles_9 Start: 6348, Stop: 6785, Start Num: 3

Candidate Starts for Snuffles_9:

(Start: 3 @6348 has 124 MA's), (13, 6426), (16, 6468), (21, 6567), (22, 6594), (23, 6627), (25, 6765),

Gene: Stem_8 Start: 6178, Stop: 6615, Start Num: 3

Candidate Starts for Stem_8:

(Start: 3 @6178 has 124 MA's), (13, 6256), (16, 6298), (21, 6397), (22, 6424), (23, 6457), (25, 6595),

Gene: TeddyBoy_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for TeddyBoy_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: TimoTea_8 Start: 6130, Stop: 6564, Start Num: 3

Candidate Starts for TimoTea_8:

(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (17, 6253), (22, 6376), (25, 6547),

Gene: TinyTruffula_8 Start: 6247, Stop: 6684, Start Num: 3

Candidate Starts for TinyTruffula_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (21, 6466), (22, 6493), (23, 6526), (25, 6664),

Gene: TomBrady12_8 Start: 6178, Stop: 6615, Start Num: 3

Candidate Starts for TomBrady12_8:

(Start: 3 @6178 has 124 MA's), (13, 6256), (16, 6298), (21, 6397), (22, 6424), (23, 6457), (25, 6595),

Gene: Trireme_8 Start: 6247, Stop: 6684, Start Num: 3

Candidate Starts for Trireme_8:

(Start: 3 @6247 has 124 MA's), (13, 6325), (16, 6367), (21, 6466), (22, 6493), (23, 6526), (25, 6664),

Gene: Upsilon_8 Start: 6211, Stop: 6651, Start Num: 3

Candidate Starts for Upsilon_8:

(Start: 3 @6211 has 124 MA's), (13, 6289), (21, 6430), (22, 6457), (23, 6490), (25, 6628),

Gene: Vanisius_8 Start: 6154, Stop: 6588, Start Num: 3

Candidate Starts for Vanisius_8:

(Start: 3 @6154 has 124 MA's), (13, 6232), (16, 6274), (17, 6277), (22, 6400), (25, 6571),

Gene: VitulaEligans_8 Start: 6226, Stop: 6660, Start Num: 3
Candidate Starts for VitulaEligans_8:
(Start: 3 @6226 has 124 MA's), (13, 6304), (16, 6346), (17, 6349), (21, 6445), (22, 6472), (25, 6643),

Gene: Weasels2_72 Start: 32356, Stop: 32802, Start Num: 6
Candidate Starts for Weasels2_72:
(Start: 6 @32356 has 3 MA's), (14, 32440), (15, 32455), (18, 32497), (20, 32557), (26, 32773),

Gene: Weasels2_70 Start: 30153, Stop: 30596, Start Num: 7
Candidate Starts for Weasels2_70:
(1, 30114), (Start: 7 @30153 has 1 MA's), (17, 30258), (24, 30420),

Gene: Weasels2_83 Start: 42792, Stop: 43208, Start Num: 5
Candidate Starts for Weasels2_83:
(Start: 5 @42792 has 3 MA's), (11, 42837), (17, 42909),

Gene: Witch_8 Start: 6143, Stop: 6577, Start Num: 3
Candidate Starts for Witch_8:
(Start: 3 @6143 has 124 MA's), (13, 6221), (16, 6263), (17, 6266), (22, 6389), (25, 6560),

Gene: Wolfpack_8 Start: 6136, Stop: 6570, Start Num: 3
Candidate Starts for Wolfpack_8:
(Start: 3 @6136 has 124 MA's), (13, 6214), (16, 6256), (21, 6355), (22, 6382), (23, 6415), (25, 6553),

Gene: Yami_8 Start: 6130, Stop: 6567, Start Num: 3
Candidate Starts for Yami_8:
(Start: 3 @6130 has 124 MA's), (13, 6208), (16, 6250), (21, 6349), (22, 6376), (23, 6409), (25, 6547),

Gene: Yasuo_8 Start: 6139, Stop: 6573, Start Num: 3
Candidate Starts for Yasuo_8:
(Start: 3 @6139 has 124 MA's), (13, 6217), (16, 6259), (17, 6262), (22, 6385), (25, 6556),

Gene: YertPhresh_8 Start: 6142, Stop: 6576, Start Num: 3
Candidate Starts for YertPhresh_8:
(Start: 3 @6142 has 124 MA's), (13, 6220), (16, 6262), (17, 6265), (22, 6388), (25, 6559),

Gene: Yubaba_8 Start: 6143, Stop: 6577, Start Num: 3
Candidate Starts for Yubaba_8:
(Start: 3 @6143 has 124 MA's), (13, 6221), (16, 6263), (17, 6266), (22, 6389), (25, 6560),