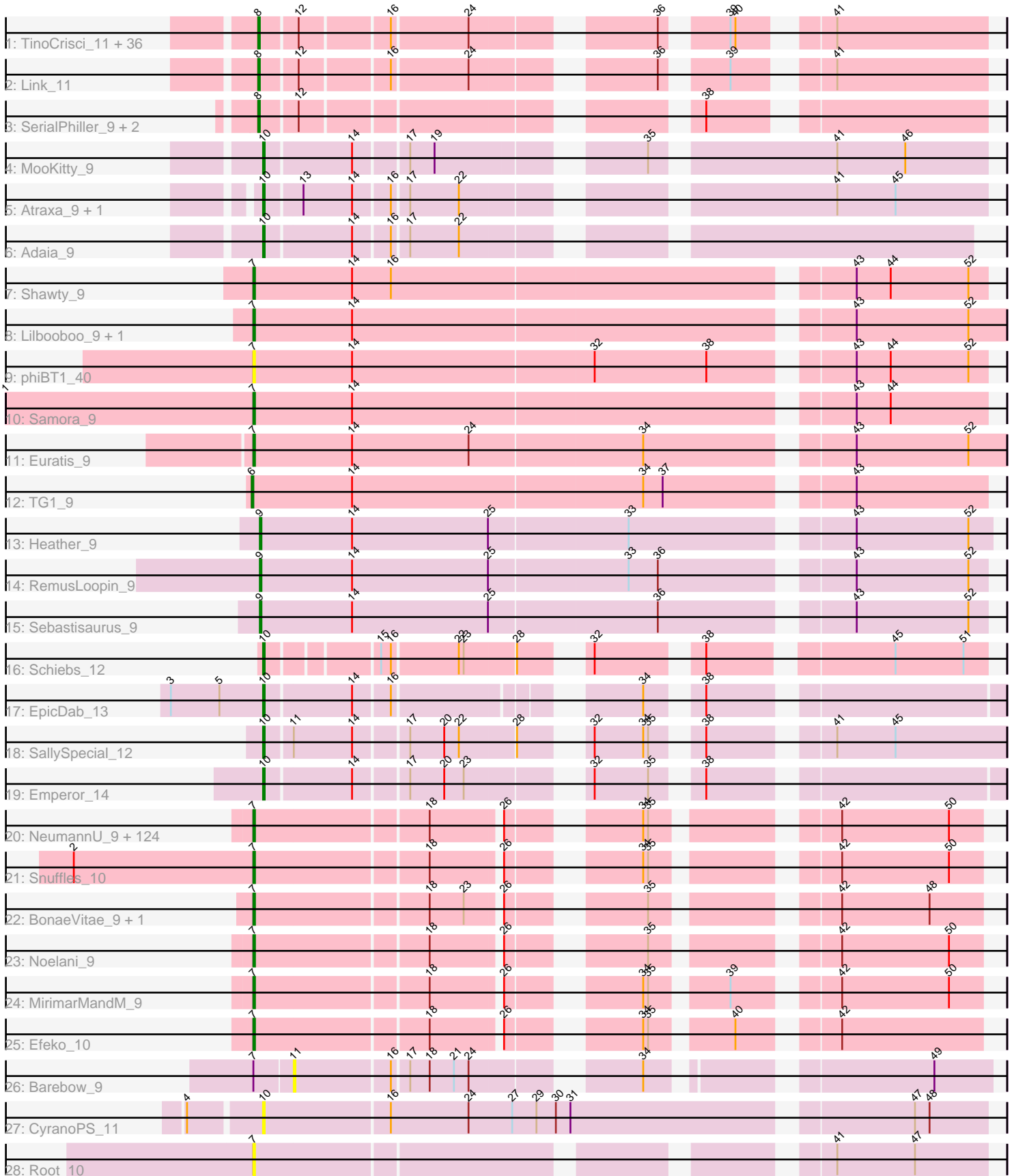


Pham 178879



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 178879 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 178879 has 193 members, 10 are drafts.

Phages represented in each track:

- Track 1 : TinoCrisci_11, Massimo_11, Decurro_11, Saphira_11, Ronnie_11, Elkhorn_11, Arby_11, CGermain_11, Jessica_12, Mariposa_11, Guntur_11, Toulouse_10, Dewayne_11, Courtney3_11, Taj14_11, StewieGriff_11, Moloch_11, Copper_11, KylieMac_12, Prospero_11, Hunnie_11, Swenson_11, Chestnut_11, Seume_11, Laila_12, LouisXIV_11, Blair_11, Lore_11, Muttie_11, TymAbreu_11, Stratus_11, Yank_11, Maggie_11, Sourignavong_12, Sandman_11, Inspire2_11, Azathoth_11
- Track 2 : Link_11
- Track 3 : SerialPhiller_9, Kels_9, Arielagos_9
- Track 4 : MooKitty_9
- Track 5 : Atraxa_9, Sputnik_9
- Track 6 : Adai_9
- Track 7 : Shawty_9
- Track 8 : Lilbooboo_9, Vash_9
- Track 9 : phiBT1_40
- Track 10 : Samora_9
- Track 11 : Euratis_9
- Track 12 : TG1_9
- Track 13 : Heather_9
- Track 14 : RemusLoopin_9
- Track 15 : Sebastisaurus_9
- Track 16 : Schiebs_12
- Track 17 : EpicDab_13
- Track 18 : SallySpecial_12
- Track 19 : Emperor_14
- Track 20 : NeumannU_9, Livingwater_9, KillerTomato_9, Goobery_9, Luxx_9, Majesty_9, Alucard_9, Namsahir_9, Erin_9, Nobel_9, Charbie_9, Minima_9, Duggie_9, Scamander_9, Baine_9, ManAs_9, JoBros_9, Lola20_9, Yasuo_9, Jahseh_9, Slizam_9, Eightball_9, MrGreen_9, Vanisius_9, RoscoWindex_9, JRok_9, BarBear_9, Aztec_9, Owens_9, TimoTea_9, Avvas_9, Gillker_9, Gabbspett_9, Biscayne_9, JooneeDee_9, McShie_9, SantasSleigh_9, Gardevoir_9, Ekko14_9, Elspeth_9, Bradley2_9, Dooby_9, Cayde6_9, Dongwon_9, Astro16_9, Jannah_9, Lunatic_9, TeddyBoy_9, BrokMonster_9, GoldenBlanche_9, Concrete_9,

MasterPitts_9, Quaker_9, LionelHutz_9, Sippinontea_9, MelBee03_9, Miaurora_9, Belthelas_9, Otwor_9, JaimeB_9, Trireme_9, TomBrady12_9, Kaijohn_9, Picnic_9, TinyTruffula_9, Bodhi17_9, LaviMo_9, Sara_9, Slentz_9, DaftyDuck_9, PoRanda_9, Rhogar_9, Bintii_9, Godfather_9, HarperAnne_9, VitulaEligans_9, Oaklynn_9, PaoPu_9, KyriosFaba_9, Puddles3_9, Bullzi2019_9, Anseraureola_9, BinkBonk_9, Maneater_9, Josuke_9, Pondwater_9, Yubaba_9, Yami_9, BurtonThePup_9, Burgy_9, Cazares_9, YertPhresh_9, Chatham_9, Hulk_9, PuffyCat_9, Octopus_9, Danimal_9, Rhysand_9, Sage7_9, Stem_9, LemonPepper_9, EdElric_9, Jerky_9, SeaWolves_9, Loca_9, Ciel_9, Leafy_9, Publix_9, Scrunchy_9, Upsilon_9, Hernandez44_9, Clownery_9, Horacetta_9, Aries55_9, Danno_9, Wolfpack_9, Kevanna_9, Niffler_9, BoomRoasted_9, Kojax4_9, Cheesecake_9, Bri160_9, KayPaulus_9, Azizam_9, Witch_9

- Track 21 : Snuffles_10
- Track 22 : BonaeVitae_9, Naby_9
- Track 23 : Noelani_9
- Track 24 : MirimarMandM_9
- Track 25 : Efeko_10
- Track 26 : Barebow_9
- Track 27 : CyranoPS_11
- Track 28 : Root_10

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 130 of the 183 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Alucard_9, Anseraureola_9, Aries55_9, Astro16_9, Avvas_9, Azizam_9, Aztec_9, Baine_9, BarBear_9, Belthelas_9, BinkBonk_9, Bintii_9, Biscayne_9, Bodhi17_9, BonaeVitae_9, BoomRoasted_9, Bradley2_9, Bri160_9, BrokMonster_9, Bullzi2019_9, Burgy_9, BurtonThePup_9, Cayde6_9, Cazares_9, Charbie_9, Chatham_9, Cheesecake_9, Ciel_9, Clownery_9, Concrete_9, DaftyDuck_9, Danimal_9, Danno_9, Dongwon_9, Dooby_9, Douggie_9, EdElric_9, Efeko_10, Eightball_9, Ekko14_9, Elspeth_9, Erin_9, Euratis_9, Gabbspett_9, Gardevoir_9, Gillker_9, Godfather_9, GoldenBlanche_9, Goobery_9, HarperAnne_9, Hernandez44_9, Horacetta_9, Hulk_9, JRok_9, Jahseh_9, JaimeB_9, Jannah_9, Jerky_9, JoBros_9, JooneeDee_9, Josuke_9, Kaijohn_9, KayPaulus_9, Kevanna_9, KillerTomato_9, Kojax4_9, KyriosFaba_9, LaviMo_9, Leafy_9, LemonPepper_9, Lilbooboo_9, LionelHutz_9, Livingwater_9, Loca_9, Lola20_9, Lunatic_9, Luxx_9, Majesty_9, ManAs_9, Maneater_9, MasterPitts_9, McShie_9, MelBee03_9, Miaurora_9, Minima_9, MirimarMandM_9, MrGreen_9, Naby_9, Namsahir_9, NeumannU_9, Niffler_9, Nobel_9, Noelani_9, Oaklynn_9, Octopus_9, Otwor_9, Owens_9, PaoPu_9, Picnic_9, PoRanda_9, Pondwater_9, Publix_9, Puddles3_9, PuffyCat_9, Quaker_9, Rhogar_9, Rhysand_9, Root_10, RoscoWindex_9, Sage7_9, Samora_9, SantasSleigh_9, Sara_9, Scamander_9, Scrunchy_9, SeaWolves_9, Shawty_9, Sippinontea_9, Slentz_9, Slizam_9, Snuffles_10, Stem_9, TeddyBoy_9, TimoTea_9, TinyTruffula_9, TomBrady12_9, Trireme_9, Upsilon_9, Vanisius_9, Vash_9, VitulaEligans_9, Witch_9, Wolfpack_9, Yami_9, Yasuo_9, YertPhresh_9, Yubaba_9, phiBT1_40,

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

- Barebow_9,

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

- Adaia_9, Arby_11, Arielagos_9, Atraxa_9, Azathoth_11, Blair_11, CGermain_11, Chestnut_11, Copper_11, Courtney3_11, CyranoPS_11, Decurro_11, Dewayne_11, Elkhorn_11, Emperor_14, EpicDab_13, Guntur_11, Heather_9, Hunnie_11, Inspire2_11, Jessica_12, Kels_9, KylieMac_12, Laila_12, Link_11, Lore_11, LouisXIV_11, Maggie_11, Mariposa_11, Massimo_11, Moloch_11, MooKitty_9, Muttie_11, Prospero_11, RemusLoopin_9, Ronnie_11, SallySpecial_12, Sandman_11, Saphira_11, Schiebs_12, Sebastisaurus_9, SerialPhiller_9, Seume_11, Sourignavong_12, Sputnik_9, StewieGriff_11, Stratus_11, Swenson_11, TG1_9, Taj14_11, TinoCrisci_11, Toulouse_10, TymAbreu_11, Yank_11,

Summary by start number:

Start 6:

- Found in 1 of 193 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 183
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TG1_9 (BB1),

Start 7:

- Found in 139 of 193 (72.0%) of genes in pham
- Manual Annotations of this start: 130 of 183
- Called 99.3% of time when present
- Phage (with cluster) where this start called: Alucard_9 (EE), Anseraureola_9 (EE), Aries55_9 (EE), Astro16_9 (EE), Avvas_9 (EE), Azizam_9 (EE), Aztec_9 (EE), Baine_9 (EE), BarBear_9 (EE), Belthelas_9 (EE), BinkBonk_9 (EE), Bintii_9 (EE), Biscayne_9 (EE), Bodhi17_9 (EE), BonaeVitae_9 (EE), BoomRoasted_9 (EE), Bradley2_9 (EE), Bri160_9 (EE), BrokMonster_9 (EE), Bullzi2019_9 (EE), Burgy_9 (EE), BurtonThePup_9 (EE), Cayde6_9 (EE), Cazares_9 (EE), Charbie_9 (EE), Chatham_9 (EE), Cheesecake_9 (EE), Ciel_9 (EE), Clownery_9 (EE), Concrete_9 (EE), DaftyDuck_9 (EE), Danimal_9 (EE), Danno_9 (EE), Dongwon_9 (EE), Dooby_9 (EE), Duggie_9 (EE), EdElric_9 (EE), Efeko_10 (EE), Eightball_9 (EE), Ekko14_9 (EE), Elspeth_9 (EE), Erin_9 (EE), Euratis_9 (BB1), Gabbspett_9 (EE), Gardevoir_9 (EE), Gillker_9 (EE), Godfather_9 (EE), GoldenBlanche_9 (EE), Goobery_9 (EE), HarperAnne_9 (EE), Hernandez44_9 (EE), Horacetta_9 (EE), Hulk_9 (EE), JRok_9 (EE), Jahseh_9 (EE), JaimeB_9 (EE), Jannah_9 (EE), Jerky_9 (EE), JoBros_9 (EE), JooneeDee_9 (EE), Josuke_9 (EE), Kaijohn_9 (EE), KayPaulus_9 (EE), Kevanna_9 (EE), KillerTomato_9 (EE), Kojax4_9 (EE), KyriosFaba_9 (EE), LaviMo_9 (EE), Leafy_9 (EE), LemonPepper_9 (EE), Lilbooboo_9 (BB1), LionelHutz_9 (EE), Livingwater_9 (EE), Loca_9 (EE), Lola20_9 (EE), Lunatic_9 (EE), Luxx_9 (EE), Majesty_9 (EE), ManAs_9 (EE), Maneater_9 (EE), MasterPitts_9 (EE), McShie_9 (EE), MelBee03_9 (EE), Miaurora_9 (EE), Minima_9 (EE), MirimarMandM_9 (EE), MrGreen_9 (EE), Naby_9 (EE), Namsahir_9 (EE), NeumannU_9 (EE), Niffler_9 (EE), Nobel_9 (EE), Noelani_9 (EE), Oaklynn_9 (EE), Octopus_9 (EE), Otwor_9 (EE), Owens_9 (EE), PaoPu_9 (EE), Picnic_9 (EE), PoRanda_9 (EE), Pondwater_9 (EE), Publix_9 (EE), Puddles3_9 (EE), PuffyCat_9 (EE), Quaker_9 (EE), Rhogar_9 (EE), Rhysand_9 (EE), Root_10 (singleton), RoscoWindex_9 (EE), Sage7_9 (EE), Samora_9 (BB1), SantasSleigh_9 (EE), Sara_9 (EE), Scamander_9 (EE), Scrunchy_9 (EE), SeaWolves_9 (EE), Shawty_9 (BB1), Sippinontea_9 (EE), Slentz_9 (EE), Slizam_9 (EE), Snuffles_10 (EE), Stem_9 (EE), TeddyBoy_9 (EE),

TimoTea_9 (EE), TinyTruffula_9 (EE), TomBrady12_9 (EE), Trireme_9 (EE), Upsilon_9 (EE), Vanisius_9 (EE), Vash_9 (BB1), VitulaEligans_9 (EE), Witch_9 (EE), Wolfpack_9 (EE), Yami_9 (EE), Yasuo_9 (EE), YertPhresh_9 (EE), Yubaba_9 (EE), phiBT1_40 (BB1),

Start 8:

- Found in 41 of 193 (21.2%) of genes in pham
- Manual Annotations of this start: 41 of 183
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arby_11 (AN), Arielagos_9 (AN), Azathoth_11 (AN), Blair_11 (AN), CGermain_11 (AN), Chestnut_11 (AN), Copper_11 (AN), Courtney3_11 (AN), Decurro_11 (AN), Dewayne_11 (AN), Elkhorn_11 (AN), Guntur_11 (AN), Hunnie_11 (AN), Inspire2_11 (AN), Jessica_12 (AN), Kels_9 (AN), KylieMac_12 (AN), Laila_12 (AN), Link_11 (AN), Lore_11 (AN), LouisXIV_11 (AN), Maggie_11 (AN), Mariposa_11 (AN), Massimo_11 (AN), Moloch_11 (AN), Muttie_11 (AN), Prospero_11 (AN), Ronnie_11 (AN), Sandman_11 (AN), Saphira_11 (AN), SerialPhiller_9 (AN), Seume_11 (AN), Sourignavong_12 (AN), StewieGriff_11 (AN), Stratus_11 (AN), Swenson_11 (AN), Taj14_11 (AN), TinoCrisci_11 (AN), Toulouse_10 (AN), TymAbreu_11 (AN), Yank_11 (AN),

Start 9:

- Found in 3 of 193 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 183
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Heather_9 (BB2), RemusLoopin_9 (BB2), Sebastisaurus_9 (BB2),

Start 10:

- Found in 9 of 193 (4.7%) of genes in pham
- Manual Annotations of this start: 8 of 183
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adaia_9 (AX), Atraxa_9 (AX), CyranoPS_11 (singleton), Emperor_14 (DM), EpicDab_13 (DM), MooKitty_9 (AX), SallySpecial_12 (DM), Schiebs_12 (CW3), Sputnik_9 (AX),

Start 11:

- Found in 2 of 193 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Barebow_9 (singleton),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, DM, EE, CW3, AN, AX, BB2, BB1,

Info for manual annotations of cluster AN:

- Start number 8 was manually annotated 41 times for cluster AN.

Info for manual annotations of cluster AX:

- Start number 10 was manually annotated 4 times for cluster AX.

Info for manual annotations of cluster BB1:

- Start number 6 was manually annotated 1 time for cluster BB1.
- Start number 7 was manually annotated 5 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 9 was manually annotated 3 times for cluster BB2.

Info for manual annotations of cluster CW3:

- Start number 10 was manually annotated 1 time for cluster CW3.

Info for manual annotations of cluster DM:

- Start number 10 was manually annotated 3 times for cluster DM.

Info for manual annotations of cluster EE:

- Start number 7 was manually annotated 125 times for cluster EE.

Gene Information:

Gene: Adaia_9 Start: 6008, Stop: 6397, Start Num: 10

Candidate Starts for Adaia_9:

(Start: 10 @6008 has 8 MA's), (14, 6059), (16, 6080), (17, 6089), (22, 6119),

Gene: Alucard_9 Start: 6590, Stop: 6973, Start Num: 7

Candidate Starts for Alucard_9:

(Start: 7 @6590 has 130 MA's), (18, 6692), (26, 6731), (34, 6794), (35, 6797), (42, 6887), (50, 6953),

Gene: Anseraureola_9 Start: 6613, Stop: 6996, Start Num: 7

Candidate Starts for Anseraureola_9:

(Start: 7 @6613 has 130 MA's), (18, 6715), (26, 6754), (34, 6817), (35, 6820), (42, 6910), (50, 6976),

Gene: Arby_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Arby_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Arielagos_9 Start: 6075, Stop: 6452, Start Num: 8

Candidate Starts for Arielagos_9:

(Start: 8 @6075 has 41 MA's), (12, 6096), (38, 6300),

Gene: Aries55_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Aries55_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Astro16_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Astro16_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Atraxa_9 Start: 6088, Stop: 6486, Start Num: 10

Candidate Starts for Atraxa_9:

(Start: 10 @6088 has 8 MA's), (13, 6109), (14, 6139), (16, 6160), (17, 6169), (22, 6199), (41, 6394), (45, 6430),

Gene: Avvas_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Avvas_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Azathoth_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Azathoth_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679),
(41, 6721),

Gene: Azizam_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Azizam_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Aztec_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Aztec_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Baine_9 Start: 6586, Stop: 6969, Start Num: 7
Candidate Starts for Baine_9:
(Start: 7 @6586 has 130 MA's), (18, 6688), (26, 6727), (34, 6790), (35, 6793), (42, 6883), (50, 6949),

Gene: BarBear_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for BarBear_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Barebow_9 Start: 6190, Stop: 6558, Start Num: 11
Candidate Starts for Barebow_9:
(Start: 7 @6169 has 130 MA's), (11, 6190), (16, 6247), (17, 6256), (18, 6268), (21, 6283), (24, 6292),
(34, 6376), (49, 6523),

Gene: Belthelas_9 Start: 6640, Stop: 7023, Start Num: 7
Candidate Starts for Belthelas_9:
(Start: 7 @6640 has 130 MA's), (18, 6742), (26, 6781), (34, 6844), (35, 6847), (42, 6937), (50, 7003),

Gene: BinkBonk_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for BinkBonk_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Bintii_9 Start: 6622, Stop: 7005, Start Num: 7
Candidate Starts for Bintii_9:
(Start: 7 @6622 has 130 MA's), (18, 6724), (26, 6763), (34, 6826), (35, 6829), (42, 6919), (50, 6985),

Gene: Biscayne_9 Start: 6649, Stop: 7032, Start Num: 7
Candidate Starts for Biscayne_9:
(Start: 7 @6649 has 130 MA's), (18, 6751), (26, 6790), (34, 6853), (35, 6856), (42, 6946), (50, 7012),

Gene: Blair_11 Start: 6435, Stop: 6812, Start Num: 8
Candidate Starts for Blair_11:
(Start: 8 @6435 has 41 MA's), (12, 6456), (16, 6507), (24, 6552), (36, 6645), (39, 6675), (40, 6678),
(41, 6720),

Gene: Bodhi17_9 Start: 6583, Stop: 6966, Start Num: 7
Candidate Starts for Bodhi17_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: BonaeVitae_9 Start: 6322, Stop: 6705, Start Num: 7

Candidate Starts for BonaeVitae_9:

(Start: 7 @6322 has 130 MA's), (18, 6424), (23, 6445), (26, 6463), (35, 6529), (42, 6619), (48, 6673),

Gene: BoomRoasted_9 Start: 6637, Stop: 7020, Start Num: 7

Candidate Starts for BoomRoasted_9:

(Start: 7 @6637 has 130 MA's), (18, 6739), (26, 6778), (34, 6841), (35, 6844), (42, 6934), (50, 7000),

Gene: Bradley2_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Bradley2_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Bri160_9 Start: 6637, Stop: 7020, Start Num: 7

Candidate Starts for Bri160_9:

(Start: 7 @6637 has 130 MA's), (18, 6739), (26, 6778), (34, 6841), (35, 6844), (42, 6934), (50, 7000),

Gene: BrokMonster_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for BrokMonster_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Bullzi2019_9 Start: 6610, Stop: 6993, Start Num: 7

Candidate Starts for Bullzi2019_9:

(Start: 7 @6610 has 130 MA's), (18, 6712), (26, 6751), (34, 6814), (35, 6817), (42, 6907), (50, 6973),

Gene: Burgy_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Burgy_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: BurtonThePup_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for BurtonThePup_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: CGermain_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for CGermain_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Cayde6_9 Start: 6586, Stop: 6969, Start Num: 7

Candidate Starts for Cayde6_9:

(Start: 7 @6586 has 130 MA's), (18, 6688), (26, 6727), (34, 6790), (35, 6793), (42, 6883), (50, 6949),

Gene: Cazares_9 Start: 6580, Stop: 6963, Start Num: 7

Candidate Starts for Cazares_9:

(Start: 7 @6580 has 130 MA's), (18, 6682), (26, 6721), (34, 6784), (35, 6787), (42, 6877), (50, 6943),

Gene: Charbie_9 Start: 6577, Stop: 6960, Start Num: 7

Candidate Starts for Charbie_9:

(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: Chatham_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Chatham_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Cheesecake_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Cheesecake_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Chestnut_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Chestnut_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Ciel_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Ciel_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Clownery_9 Start: 6697, Stop: 7080, Start Num: 7

Candidate Starts for Clownery_9:

(Start: 7 @6697 has 130 MA's), (18, 6799), (26, 6838), (34, 6901), (35, 6904), (42, 6994), (50, 7060),

Gene: Concrete_9 Start: 6637, Stop: 7020, Start Num: 7

Candidate Starts for Concrete_9:

(Start: 7 @6637 has 130 MA's), (18, 6739), (26, 6778), (34, 6841), (35, 6844), (42, 6934), (50, 7000),

Gene: Copper_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Copper_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Courtney3_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Courtney3_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: CyranoPS_11 Start: 6740, Stop: 7165, Start Num: 10

Candidate Starts for CyranoPS_11:

(4, 6698), (Start: 10 @6740 has 8 MA's), (16, 6815), (24, 6863), (27, 6890), (29, 6905), (30, 6917), (31, 6926), (47, 7121), (48, 7130),

Gene: DaftyDuck_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for DaftyDuck_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Danimal_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Danimal_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Danno_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Danno_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Decurro_11 Start: 6437, Stop: 6814, Start Num: 8

Candidate Starts for Decurro_11:

(Start: 8 @6437 has 41 MA's), (12, 6458), (16, 6509), (24, 6554), (36, 6647), (39, 6677), (40, 6680), (41, 6722),

Gene: Dewayne_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Dewayne_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Dongwon_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Dongwon_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Dooby_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Dooby_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Douggie_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for Douggie_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: EdElric_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for EdElric_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Efeko_10 Start: 6490, Stop: 6873, Start Num: 7

Candidate Starts for Efeko_10:

(Start: 7 @6490 has 130 MA's), (18, 6592), (26, 6631), (34, 6694), (35, 6697), (40, 6739), (42, 6787),

Gene: Eightball_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Eightball_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Ekko14_9 Start: 6577, Stop: 6960, Start Num: 7

Candidate Starts for Ekko14_9:

(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: Elkhorn_11 Start: 6435, Stop: 6812, Start Num: 8

Candidate Starts for Elkhorn_11:

(Start: 8 @6435 has 41 MA's), (12, 6456), (16, 6507), (24, 6552), (36, 6645), (39, 6675), (40, 6678), (41, 6720),

Gene: Elspeth_9 Start: 6577, Stop: 6960, Start Num: 7

Candidate Starts for Elspeth_9:

(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: Emperor_14 Start: 8556, Stop: 8945, Start Num: 10

Candidate Starts for Emperor_14:

(Start: 10 @8556 has 8 MA's), (14, 8607), (17, 8637), (20, 8658), (23, 8670), (32, 8727), (35, 8760), (38, 8781),

Gene: EpicDab_13 Start: 8521, Stop: 8904, Start Num: 10

Candidate Starts for EpicDab_13:

(3, 8464), (5, 8494), (Start: 10 @8521 has 8 MA's), (14, 8572), (16, 8593), (34, 8716), (38, 8740),

Gene: Erin_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Erin_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Euratis_9 Start: 7251, Stop: 7694, Start Num: 7
Candidate Starts for Euratis_9:
(Start: 7 @7251 has 130 MA's), (14, 7311), (24, 7383), (34, 7488), (43, 7602), (52, 7671),

Gene: Gabbspett_9 Start: 6694, Stop: 7077, Start Num: 7
Candidate Starts for Gabbspett_9:
(Start: 7 @6694 has 130 MA's), (18, 6796), (26, 6835), (34, 6898), (35, 6901), (42, 6991), (50, 7057),

Gene: Gardevoir_9 Start: 6590, Stop: 6973, Start Num: 7
Candidate Starts for Gardevoir_9:
(Start: 7 @6590 has 130 MA's), (18, 6692), (26, 6731), (34, 6794), (35, 6797), (42, 6887), (50, 6953),

Gene: Gillker_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Gillker_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Godfather_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Godfather_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: GoldenBlanche_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for GoldenBlanche_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Goobery_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Goobery_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Guntur_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Guntur_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679),
(41, 6721),

Gene: HarperAnne_9 Start: 6577, Stop: 6960, Start Num: 7
Candidate Starts for HarperAnne_9:
(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: Heather_9 Start: 7289, Stop: 7720, Start Num: 9
Candidate Starts for Heather_9:
(Start: 9 @7289 has 3 MA's), (14, 7346), (25, 7430), (33, 7514), (43, 7637), (52, 7706),

Gene: Hernandez44_9 Start: 6694, Stop: 7077, Start Num: 7
Candidate Starts for Hernandez44_9:
(Start: 7 @6694 has 130 MA's), (18, 6796), (26, 6835), (34, 6898), (35, 6901), (42, 6991), (50, 7057),

Gene: Horacetta_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Horacetta_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Hulk_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Hulk_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Hunnie_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Hunnie_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Inspire2_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Inspire2_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: JRok_9 Start: 6586, Stop: 6969, Start Num: 7
Candidate Starts for JRok_9:
(Start: 7 @6586 has 130 MA's), (18, 6688), (26, 6727), (34, 6790), (35, 6793), (42, 6883), (50, 6949),

Gene: Jahseh_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Jahseh_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: JaimeB_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for JaimeB_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Jannah_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for Jannah_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Jerky_9 Start: 6673, Stop: 7056, Start Num: 7
Candidate Starts for Jerky_9:
(Start: 7 @6673 has 130 MA's), (18, 6775), (26, 6814), (34, 6877), (35, 6880), (42, 6970), (50, 7036),

Gene: Jessica_12 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Jessica_12:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: JoBros_9 Start: 6590, Stop: 6973, Start Num: 7
Candidate Starts for JoBros_9:
(Start: 7 @6590 has 130 MA's), (18, 6692), (26, 6731), (34, 6794), (35, 6797), (42, 6887), (50, 6953),

Gene: JooneeDee_9 Start: 6622, Stop: 7005, Start Num: 7
Candidate Starts for JooneeDee_9:
(Start: 7 @6622 has 130 MA's), (18, 6724), (26, 6763), (34, 6826), (35, 6829), (42, 6919), (50, 6985),

Gene: Josuke_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Josuke_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Kaijohn_9 Start: 6592, Stop: 6975, Start Num: 7

Candidate Starts for Kaijohn_9:

(Start: 7 @6592 has 130 MA's), (18, 6694), (26, 6733), (34, 6796), (35, 6799), (42, 6889), (50, 6955),

Gene: KayPaulus_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for KayPaulus_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: Kels_9 Start: 6000, Stop: 6377, Start Num: 8

Candidate Starts for Kels_9:

(Start: 8 @6000 has 41 MA's), (12, 6021), (38, 6225),

Gene: Kevanna_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for Kevanna_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: KillerTomato_9 Start: 6637, Stop: 7020, Start Num: 7

Candidate Starts for KillerTomato_9:

(Start: 7 @6637 has 130 MA's), (18, 6739), (26, 6778), (34, 6841), (35, 6844), (42, 6934), (50, 7000),

Gene: Kojax4_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Kojax4_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: KylieMac_12 Start: 6422, Stop: 6799, Start Num: 8

Candidate Starts for KylieMac_12:

(Start: 8 @6422 has 41 MA's), (12, 6443), (16, 6494), (24, 6539), (36, 6632), (39, 6662), (40, 6665), (41, 6707),

Gene: KyriosFaba_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for KyriosFaba_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Laila_12 Start: 6435, Stop: 6812, Start Num: 8

Candidate Starts for Laila_12:

(Start: 8 @6435 has 41 MA's), (12, 6456), (16, 6507), (24, 6552), (36, 6645), (39, 6675), (40, 6678), (41, 6720),

Gene: LaviMo_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for LaviMo_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Leafy_9 Start: 6607, Stop: 6990, Start Num: 7

Candidate Starts for Leafy_9:

(Start: 7 @6607 has 130 MA's), (18, 6709), (26, 6748), (34, 6811), (35, 6814), (42, 6904), (50, 6970),

Gene: LemonPepper_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for LemonPepper_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Lilbooboo_9 Start: 7270, Stop: 7713, Start Num: 7

Candidate Starts for Lilbooboo_9:

(Start: 7 @7270 has 130 MA's), (14, 7330), (43, 7621), (52, 7690),

Gene: Link_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Link_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (41, 6721),

Gene: LionelHutz_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for LionelHutz_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Livingwater_9 Start: 6583, Stop: 6966, Start Num: 7
Candidate Starts for Livingwater_9:
(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: Loca_9 Start: 6610, Stop: 6993, Start Num: 7
Candidate Starts for Loca_9:
(Start: 7 @6610 has 130 MA's), (18, 6712), (26, 6751), (34, 6814), (35, 6817), (42, 6907), (50, 6973),

Gene: Lola20_9 Start: 6586, Stop: 6969, Start Num: 7
Candidate Starts for Lola20_9:
(Start: 7 @6586 has 130 MA's), (18, 6688), (26, 6727), (34, 6790), (35, 6793), (42, 6883), (50, 6949),

Gene: Lore_11 Start: 6435, Stop: 6812, Start Num: 8
Candidate Starts for Lore_11:
(Start: 8 @6435 has 41 MA's), (12, 6456), (16, 6507), (24, 6552), (36, 6645), (39, 6675), (40, 6678),
(41, 6720),

Gene: LouisXIV_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for LouisXIV_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679),
(41, 6721),

Gene: Lunatic_9 Start: 6580, Stop: 6963, Start Num: 7
Candidate Starts for Lunatic_9:
(Start: 7 @6580 has 130 MA's), (18, 6682), (26, 6721), (34, 6784), (35, 6787), (42, 6877), (50, 6943),

Gene: Luxx_9 Start: 6613, Stop: 6996, Start Num: 7
Candidate Starts for Luxx_9:
(Start: 7 @6613 has 130 MA's), (18, 6715), (26, 6754), (34, 6817), (35, 6820), (42, 6910), (50, 6976),

Gene: Maggie_11 Start: 6436, Stop: 6813, Start Num: 8
Candidate Starts for Maggie_11:
(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679),
(41, 6721),

Gene: Majesty_9 Start: 6601, Stop: 6984, Start Num: 7
Candidate Starts for Majesty_9:
(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: ManAs_9 Start: 6589, Stop: 6972, Start Num: 7
Candidate Starts for ManAs_9:
(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Maneater_9 Start: 6577, Stop: 6960, Start Num: 7
Candidate Starts for Maneater_9:

(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: Mariposa_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Mariposa_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Massimo_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Massimo_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: MasterPitts_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for MasterPitts_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: McShie_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for McShie_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: MelBee03_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for MelBee03_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: Miaurora_9 Start: 6697, Stop: 7080, Start Num: 7

Candidate Starts for Miaurora_9:

(Start: 7 @6697 has 130 MA's), (18, 6799), (26, 6838), (34, 6901), (35, 6904), (42, 6994), (50, 7060),

Gene: Minima_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Minima_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: MirimarMandM_9 Start: 6664, Stop: 7047, Start Num: 7

Candidate Starts for MirimarMandM_9:

(Start: 7 @6664 has 130 MA's), (18, 6766), (26, 6805), (34, 6868), (35, 6871), (39, 6910), (42, 6961), (50, 7027),

Gene: Moloch_11 Start: 6510, Stop: 6887, Start Num: 8

Candidate Starts for Moloch_11:

(Start: 8 @6510 has 41 MA's), (12, 6531), (16, 6582), (24, 6627), (36, 6720), (39, 6750), (40, 6753), (41, 6795),

Gene: MooKitty_9 Start: 5991, Stop: 6389, Start Num: 10

Candidate Starts for MooKitty_9:

(Start: 10 @5991 has 8 MA's), (14, 6042), (17, 6072), (19, 6087), (35, 6195), (41, 6297), (46, 6339),

Gene: MrGreen_9 Start: 6604, Stop: 6987, Start Num: 7

Candidate Starts for MrGreen_9:

(Start: 7 @6604 has 130 MA's), (18, 6706), (26, 6745), (34, 6808), (35, 6811), (42, 6901), (50, 6967),

Gene: Muttie_11 Start: 6437, Stop: 6814, Start Num: 8

Candidate Starts for Muttie_11:

(Start: 8 @6437 has 41 MA's), (12, 6458), (16, 6509), (24, 6554), (36, 6647), (39, 6677), (40, 6680), (41, 6722),

Gene: Naby_9 Start: 6322, Stop: 6705, Start Num: 7

Candidate Starts for Naby_9:

(Start: 7 @6322 has 130 MA's), (18, 6424), (23, 6445), (26, 6463), (35, 6529), (42, 6619), (48, 6673),

Gene: Namsahir_9 Start: 6652, Stop: 7035, Start Num: 7

Candidate Starts for Namsahir_9:

(Start: 7 @6652 has 130 MA's), (18, 6754), (26, 6793), (34, 6856), (35, 6859), (42, 6949), (50, 7015),

Gene: NeumannU_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for NeumannU_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Niffler_9 Start: 6670, Stop: 7053, Start Num: 7

Candidate Starts for Niffler_9:

(Start: 7 @6670 has 130 MA's), (18, 6772), (26, 6811), (34, 6874), (35, 6877), (42, 6967), (50, 7033),

Gene: Nobel_9 Start: 6697, Stop: 7080, Start Num: 7

Candidate Starts for Nobel_9:

(Start: 7 @6697 has 130 MA's), (18, 6799), (26, 6838), (34, 6901), (35, 6904), (42, 6994), (50, 7060),

Gene: Noelani_9 Start: 6574, Stop: 6957, Start Num: 7

Candidate Starts for Noelani_9:

(Start: 7 @6574 has 130 MA's), (18, 6676), (26, 6715), (35, 6781), (42, 6871), (50, 6937),

Gene: Oaklynn_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Oaklynn_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Octopus_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Octopus_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Otwor_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Otwor_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Owens_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Owens_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: PaoPu_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for PaoPu_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Picnic_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Picnic_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: PoRanda_9 Start: 6664, Stop: 7047, Start Num: 7

Candidate Starts for PoRanda_9:

(Start: 7 @6664 has 130 MA's), (18, 6766), (26, 6805), (34, 6868), (35, 6871), (42, 6961), (50, 7027),

Gene: Pondwater_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Pondwater_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Prospero_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Prospero_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Publix_9 Start: 6652, Stop: 7035, Start Num: 7

Candidate Starts for Publix_9:

(Start: 7 @6652 has 130 MA's), (18, 6754), (26, 6793), (34, 6856), (35, 6859), (42, 6949), (50, 7015),

Gene: Puddles3_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Puddles3_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: PuffyCat_9 Start: 6622, Stop: 7005, Start Num: 7

Candidate Starts for PuffyCat_9:

(Start: 7 @6622 has 130 MA's), (18, 6724), (26, 6763), (34, 6826), (35, 6829), (42, 6919), (50, 6985),

Gene: Quaker_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for Quaker_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: RemusLoopin_9 Start: 7271, Stop: 7699, Start Num: 9

Candidate Starts for RemusLoopin_9:

(Start: 9 @7271 has 3 MA's), (14, 7328), (25, 7412), (33, 7496), (36, 7514), (43, 7619), (52, 7688),

Gene: Rhogar_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Rhogar_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Rhysand_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Rhysand_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Ronnie_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Ronnie_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Root_10 Start: 6868, Stop: 7266, Start Num: 7

Candidate Starts for Root_10:

(Start: 7 @6868 has 130 MA's), (41, 7174), (47, 7222),

Gene: RoscoWindex_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for RoscoWindex_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Sage7_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Sage7_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: SallySpecial_12 Start: 7499, Stop: 7891, Start Num: 10

Candidate Starts for SallySpecial_12:

(Start: 10 @7499 has 8 MA's), (11, 7514), (14, 7550), (17, 7580), (20, 7601), (22, 7610), (28, 7643), (32, 7670), (34, 7700), (35, 7703), (38, 7724), (41, 7787), (45, 7823),

Gene: Samora_9 Start: 7299, Stop: 7730, Start Num: 7

Candidate Starts for Samora_9:

(1, 7146), (Start: 7 @7299 has 130 MA's), (14, 7359), (43, 7650), (44, 7671),

Gene: Sandman_11 Start: 6510, Stop: 6887, Start Num: 8

Candidate Starts for Sandman_11:

(Start: 8 @6510 has 41 MA's), (12, 6531), (16, 6582), (24, 6627), (36, 6720), (39, 6750), (40, 6753), (41, 6795),

Gene: SantasSleigh_9 Start: 6625, Stop: 7008, Start Num: 7

Candidate Starts for SantasSleigh_9:

(Start: 7 @6625 has 130 MA's), (18, 6727), (26, 6766), (34, 6829), (35, 6832), (42, 6922), (50, 6988),

Gene: Saphira_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for Saphira_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Sara_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for Sara_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Scamander_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Scamander_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Schiebs_12 Start: 6945, Stop: 7319, Start Num: 10

Candidate Starts for Schiebs_12:

(Start: 10 @6945 has 8 MA's), (15, 7005), (16, 7011), (22, 7050), (23, 7053), (28, 7083), (32, 7110), (38, 7164), (45, 7263), (51, 7305),

Gene: Scrunchy_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Scrunchy_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: SeaWolves_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for SeaWolves_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Sebastisaurus_9 Start: 7297, Stop: 7725, Start Num: 9

Candidate Starts for Sebastisaurus_9:

(Start: 9 @7297 has 3 MA's), (14, 7354), (25, 7438), (36, 7540), (43, 7645), (52, 7714),

Gene: SerialPhiller_9 Start: 6075, Stop: 6452, Start Num: 8

Candidate Starts for SerialPhiller_9:

(Start: 8 @6075 has 41 MA's), (12, 6096), (38, 6300),

Gene: Seume_11 Start: 6232, Stop: 6609, Start Num: 8

Candidate Starts for Seume_11:

(Start: 8 @6232 has 41 MA's), (12, 6253), (16, 6304), (24, 6349), (36, 6442), (39, 6472), (40, 6475), (41, 6517),

Gene: Shawty_9 Start: 7298, Stop: 7729, Start Num: 7

Candidate Starts for Shawty_9:

(Start: 7 @7298 has 130 MA's), (14, 7358), (16, 7382), (43, 7649), (44, 7670), (52, 7718),

Gene: Sippinontea_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for Sippinontea_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: Slentz_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Slentz_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Slizam_9 Start: 6628, Stop: 7011, Start Num: 7

Candidate Starts for Slizam_9:

(Start: 7 @6628 has 130 MA's), (18, 6730), (26, 6769), (34, 6832), (35, 6835), (42, 6925), (50, 6991),

Gene: Snuffles_10 Start: 6799, Stop: 7182, Start Num: 7

Candidate Starts for Snuffles_10:

(2, 6688), (Start: 7 @6799 has 130 MA's), (18, 6901), (26, 6940), (34, 7003), (35, 7006), (42, 7096), (50, 7162),

Gene: Sourignavong_12 Start: 6537, Stop: 6914, Start Num: 8

Candidate Starts for Sourignavong_12:

(Start: 8 @6537 has 41 MA's), (12, 6558), (16, 6609), (24, 6654), (36, 6747), (39, 6777), (40, 6780), (41, 6822),

Gene: Sputnik_9 Start: 6088, Stop: 6486, Start Num: 10

Candidate Starts for Sputnik_9:

(Start: 10 @6088 has 8 MA's), (13, 6109), (14, 6139), (16, 6160), (17, 6169), (22, 6199), (41, 6394), (45, 6430),

Gene: Stem_9 Start: 6628, Stop: 7011, Start Num: 7

Candidate Starts for Stem_9:

(Start: 7 @6628 has 130 MA's), (18, 6730), (26, 6769), (34, 6832), (35, 6835), (42, 6925), (50, 6991),

Gene: StewieGriff_11 Start: 6435, Stop: 6812, Start Num: 8

Candidate Starts for StewieGriff_11:

(Start: 8 @6435 has 41 MA's), (12, 6456), (16, 6507), (24, 6552), (36, 6645), (39, 6675), (40, 6678), (41, 6720),

Gene: Stratus_11 Start: 6510, Stop: 6887, Start Num: 8

Candidate Starts for Stratus_11:

(Start: 8 @6510 has 41 MA's), (12, 6531), (16, 6582), (24, 6627), (36, 6720), (39, 6750), (40, 6753), (41, 6795),

Gene: Swenson_11 Start: 6559, Stop: 6936, Start Num: 8

Candidate Starts for Swenson_11:

(Start: 8 @6559 has 41 MA's), (12, 6580), (16, 6631), (24, 6676), (36, 6769), (39, 6799), (40, 6802), (41, 6844),

Gene: TG1_9 Start: 7279, Stop: 7710, Start Num: 6

Candidate Starts for TG1_9:

(Start: 6 @7279 has 1 MA's), (14, 7339), (34, 7516), (37, 7528), (43, 7630),

Gene: Taj14_11 Start: 6415, Stop: 6792, Start Num: 8

Candidate Starts for Taj14_11:

(Start: 8 @6415 has 41 MA's), (12, 6436), (16, 6487), (24, 6532), (36, 6625), (39, 6655), (40, 6658), (41, 6700),

Gene: TeddyBoy_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for TeddyBoy_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: TimoTea_9 Start: 6577, Stop: 6960, Start Num: 7

Candidate Starts for TimoTea_9:

(Start: 7 @6577 has 130 MA's), (18, 6679), (26, 6718), (34, 6781), (35, 6784), (42, 6874), (50, 6940),

Gene: TinoCrisci_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for TinoCrisci_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: TinyTruffula_9 Start: 6697, Stop: 7080, Start Num: 7

Candidate Starts for TinyTruffula_9:

(Start: 7 @6697 has 130 MA's), (18, 6799), (26, 6838), (34, 6901), (35, 6904), (42, 6994), (50, 7060),

Gene: TomBrady12_9 Start: 6628, Stop: 7011, Start Num: 7

Candidate Starts for TomBrady12_9:

(Start: 7 @6628 has 130 MA's), (18, 6730), (26, 6769), (34, 6832), (35, 6835), (42, 6925), (50, 6991),

Gene: Toulouse_10 Start: 6232, Stop: 6609, Start Num: 8

Candidate Starts for Toulouse_10:

(Start: 8 @6232 has 41 MA's), (12, 6253), (16, 6304), (24, 6349), (36, 6442), (39, 6472), (40, 6475), (41, 6517),

Gene: Trireme_9 Start: 6697, Stop: 7080, Start Num: 7

Candidate Starts for Trireme_9:

(Start: 7 @6697 has 130 MA's), (18, 6799), (26, 6838), (34, 6901), (35, 6904), (42, 6994), (50, 7060),

Gene: TymAbreu_11 Start: 6436, Stop: 6813, Start Num: 8

Candidate Starts for TymAbreu_11:

(Start: 8 @6436 has 41 MA's), (12, 6457), (16, 6508), (24, 6553), (36, 6646), (39, 6676), (40, 6679), (41, 6721),

Gene: Upsilon_9 Start: 6664, Stop: 7047, Start Num: 7

Candidate Starts for Upsilon_9:

(Start: 7 @6664 has 130 MA's), (18, 6766), (26, 6805), (34, 6868), (35, 6871), (42, 6961), (50, 7027),

Gene: Vanisius_9 Start: 6601, Stop: 6984, Start Num: 7

Candidate Starts for Vanisius_9:

(Start: 7 @6601 has 130 MA's), (18, 6703), (26, 6742), (34, 6805), (35, 6808), (42, 6898), (50, 6964),

Gene: Vash_9 Start: 7275, Stop: 7718, Start Num: 7

Candidate Starts for Vash_9:

(Start: 7 @7275 has 130 MA's), (14, 7335), (43, 7626), (52, 7695),

Gene: VitulaEligans_9 Start: 6673, Stop: 7056, Start Num: 7

Candidate Starts for VitulaEligans_9:

(Start: 7 @6673 has 130 MA's), (18, 6775), (26, 6814), (34, 6877), (35, 6880), (42, 6970), (50, 7036),

Gene: Witch_9 Start: 6590, Stop: 6973, Start Num: 7

Candidate Starts for Witch_9:

(Start: 7 @6590 has 130 MA's), (18, 6692), (26, 6731), (34, 6794), (35, 6797), (42, 6887), (50, 6953),

Gene: Wolfpack_9 Start: 6583, Stop: 6966, Start Num: 7

Candidate Starts for Wolfpack_9:

(Start: 7 @6583 has 130 MA's), (18, 6685), (26, 6724), (34, 6787), (35, 6790), (42, 6880), (50, 6946),

Gene: Yami_9 Start: 6580, Stop: 6963, Start Num: 7

Candidate Starts for Yami_9:

(Start: 7 @6580 has 130 MA's), (18, 6682), (26, 6721), (34, 6784), (35, 6787), (42, 6877), (50, 6943),

Gene: Yank_11 Start: 6437, Stop: 6814, Start Num: 8

Candidate Starts for Yank_11:

(Start: 8 @6437 has 41 MA's), (12, 6458), (16, 6509), (24, 6554), (36, 6647), (39, 6677), (40, 6680), (41, 6722),

Gene: Yasuo_9 Start: 6586, Stop: 6969, Start Num: 7

Candidate Starts for Yasuo_9:

(Start: 7 @6586 has 130 MA's), (18, 6688), (26, 6727), (34, 6790), (35, 6793), (42, 6883), (50, 6949),

Gene: YertPhresh_9 Start: 6589, Stop: 6972, Start Num: 7

Candidate Starts for YertPhresh_9:

(Start: 7 @6589 has 130 MA's), (18, 6691), (26, 6730), (34, 6793), (35, 6796), (42, 6886), (50, 6952),

Gene: Yubaba_9 Start: 6590, Stop: 6973, Start Num: 7

Candidate Starts for Yubaba_9:

(Start: 7 @6590 has 130 MA's), (18, 6692), (26, 6731), (34, 6794), (35, 6797), (42, 6887), (50, 6953),

Gene: phiBT1_40 Start: 7299, Stop: 7730, Start Num: 7

Candidate Starts for phiBT1_40:

(Start: 7 @7299 has 130 MA's), (14, 7359), (32, 7506), (38, 7575), (43, 7650), (44, 7671), (52, 7719),