

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 163376 Report

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

Pham number 163376 has 177 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Suppi_14, Canowicakte_14, Wayne_14
- Track 2 : Kittykat_10, DreamTeam_10, Gisselle_10
- Track 3 : Makoto_10, CristinaYang_10, PitaDog_10, Lasagna_10, LilStuart_10, DrRobert_10, Nancia_10, Bodacious_10, Christian_10, Lucy_10, Lennox_10, ChewChew_10, Pterodactyl_10, OurGirlNessie_10
- Track 4 : Bennie_10, Huckleberry_10, HeadNerd_10, Moki_10
- Track 5 : EstebanJulior_10, MamaPearl_10
- Track 6 : BigMack_10, Scuttle_14, Carpal_14, RAP15_14, Wawa_14, Potatoes_14, Cholula_14, Korra_14, Dino_14, Glenn_14, Jumboset_14, Vallejo_14, Rozby_14, TattModd_14, MrGloopy_14, Riverdale_14, Savage2526_14, BrotherBLo_14, Immaculata_14, Beethoven_14, Kalizoi_14, Zorro_14
- Track 7 : OMalley_10, Eunoia_10, Aledel_10, Riovina_10
- Track 8 : Sergei_10, KingBob_10, Daiboju_10, Herb_10, Temper16_10, Maria1952_10
- Track 9 : AustinPowers_10, HunterDalle_10, Vulture_10, Supakev_10
- Track 10 : Urla_10
- Track 11 : Lakshmi_14, Albanese_14, Oxyntfrius_14, Greenhouse_14, Joann_14, RcigaStruga_14, Huntingdon_14, Nubia_14, Misaeng_14
- Track 12 : Fluke_14
- Track 13 : CallieOMalley_14, Litotes_14, PartyCup_14, AppleCider_14
- Track 14 : GreenHearts_14
- Track 15 : Chridison_10
- Track 16 : Pumancara_10
- Track 17 : PinkFriday_10
- Track 18 : Preamble_10
- Track 19 : MeganNoll_14
- Track 20 : WonderBoy_10
- Track 21 : Brynnie_12
- Track 22 : Vulpecula_12, Jamun_12, Chickaboom_11
- Track 23 : Eesa_12
- Track 24 : Abidatro_12
- Track 25 : Basilisk_12
- Track 26 : TaylorSipht_12
- Track 27 : Ruchi_12
- Track 28 : Galaxy_12
- Track 29 : Orcanus_12
- Track 30 : LittleTokyo_12

- Track 31 : Melons_13, Amelia_13, Polka_12, Cote_13, Lunar_13, Daob_13, Coral_12, Kepler_12, HannahPhantana_13
- Track 32 : Kuleana_12
- Track 33 : Leona_11
- Track 34 : Renna12_12
- Track 35 : Andrew_12
- Track 36 : Juno112_11, PhluffyCoco_11, RedFox_11, KHumphrey_11
- Track 37 : Swervy_11, Slay_11, SarBear_11
- Track 38 : DirtyBubble_11
- Track 39 : Armstrong_10, Clayda5_10, Rollins_10, Coltrane_10, Vitas_10, Brahms_10, Bernstein_10, Skylord_10
- Track 40 : BAjuniper_11
- Track 41 : Cashington_11, Abigail_11, Burritobowl_11, DickRichards_11, Johnathan_11, SansAfet_11, LimaBean_11
- Track 42 : FlameThrower_11
- Track 43 : Arroyo_12
- Track 44 : Jovita_11
- Track 45 : Albedo_11
- Track 46 : BabyDaisy_12, IndyLu_11
- Track 47 : Stromboli_11
- Track 48 : Katzastrophic_11
- Track 49 : Gack_10
- Track 50 : Quenya_12
- Track 51 : Icarian_12
- Track 52 : BubbaBear_11, Kenzers_11, Lynlen_11
- Track 53 : Kieran_11, Rona_11, ChiliPepper_11, Sharkboy_11, Dismas_11
- Track 54 : Stoor_11, SanaSana_12
- Track 55 : Doobus_11, Albright_11, CroZenni_11
- Track 56 : Eden_10
- Track 57 : Franklin22_10
- Track 58 : Celaena_11
- Track 59 : Buldak_11
- Track 60 : Didgeridoo_12
- Track 61 : Bachaco_11
- Track 62 : Phisb_11
- Track 63 : QMacho_12
- Track 64 : Nicky22_12
- Track 65 : Finalfrontier_12
- Track 66 : BabyYoda_11
- Track 67 : Avocadoman_11
- Track 68 : BelmontSKP_12, AnnaLie_12
- Track 69 : Elva_12
- Track 70 : Eula_11
- Track 71 : TukTuk_11
- Track 72 : Loviatar_19
- Track 73 : Lahqtemish_11
- Track 74 : AvGardian_11

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

The start number called the most often in the published annotations is 11, it was called in 62 of the 161 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aledel_10, AppleCider_14, AustinPowers_10, Beethoven_14, Bennie_10, BigMack_10, Bodacious_10, BrotherBLo_14, CallieOMalley_14, Canowicakte_14, Carpal_14, ChewChew_10, Cholula_14, Christian_10, CristinaYang_10, Dino_14, DrRobert_10, DreamTeam_10, EstebanJulior_10, Eunoia_10, Fluke_14, Gisselle_10, Glenn_14, HeadNerd_10, Huckleberry_10, HunterDalle_10, Immaculata_14, Jumboset_14, Kalizoi_14, Kittykat_10, Korra_14, Lasagna_10, Lennox_10, LilStuart_10, Litotes_14, Lucy_10, Makoto_10, MamaPearl_10, MeganNoll_14, Moki_10, MrGloopy_14, Nancia_10, OMalley_10, OurGirlNessie_10, PartyCup_14, PinkFriday_10, PitaDog_10, Potatoes_14, Preamble_10, Pterodactyl_10, RAP15_14, Rivovina_10, Riverdale_14, Rozby_14, Savage2526_14, Scuttle_14, Supakev_10, Suppi_14, TattModd_14, Urla_10, Vallejo_14, Vulture_10, Wawa_14, Wayne_14, WonderBoy_10, Zorro_14,

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

- Chridison_10, Daiboju_10, Herb_10, KingBob_10, Maria1952_10, Pumancara_10, Sergej_10, Temper16_10,

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

- Abidatro_12, Abigail_11, Albanese_14, Albedo_11, Albright_11, Amelia_13, Andrew_12, AnnaLie_12, Armstrong_10, Arroyo_12, AvGardian_11, Avocadoman_11, BAjuniper_11, BabyDaisy_12, BabyYoda_11, Bachaco_11, Basilisk_12, BelmontSKP_12, Bernstein_10, Brahms_10, Brynnie_12, BubbaBear_11, Buldak_11, Burritobowl_11, Cashington_11, Celaena_11, Chickaboom_11, ChiliPepper_11, Clayda5_10, Coltrane_10, Coral_12, Cote_13, CroZenni_11, Daob_13, DickRichards_11, Didgeridoo_12, DirtyBubble_11, Dismas_11, Doobus_11, Eden_10, Eesa_12, Elva_12, Eula_11, Finalfrontier_12, FlameThrower_11, Franklin22_10, Gack_10, Galaxy_12, GreenHearts_14, Greenhouse_14, HannahPhantana_13, Huntingdon_14, Icarian_12, IndyLu_11, Jamun_12, Joann_14, Johnathan_11, Jovita_11, Juno112_11, KHumphrey_11, Katzastrophic_11, Kenzers_11, Kepler_12, Kieran_11, Kuleana_12, Lahqtemish_11, Lakshmi_14, Leona_11, LimaBean_11, LittleTokyo_12, Loviatar_19, Lunar_13, Lynlen_11, Melons_13, Misaeng_14, Nicky22_12, Nubia_14, Orcanus_12, Oxynfrius_14, Phisb_11, PhluffyCoco_11, Polka_12, QMacho_12, Quenya_12, RcigaStruga_14, RedFox_11, Renna12_12, Rollins_10, Rona_11, Ruchi_12, SanaSana_12, SansAfet_11, SarBear_11, Sharkboy_11, Skylord_10, Slay_11, Stoor_11, Stromboli_11, Swervy_11, TaylorSipt_12, TukTuk_11, Vitas_10, Vulpecula_12,

Summary by start number:

Start 8:

- Found in 17 of 177 (9.6%) of genes in pham
- Manual Annotations of this start: 8 of 161
- Called 47.1% of time when present
- Phage (with cluster) where this start called: Chridison_10 (AK), Daiboju_10 (AK), Herb_10 (AK), KingBob_10 (AK), Maria1952_10 (AK), Pumancara_10 (AK), Sergej_10 (AK), Temper16_10 (AK),

Start 9:

- Found in 29 of 177 (16.4%) of genes in pham
- Manual Annotations of this start: 24 of 161
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_12 (AS1), Amelia_13 (AS2), Andrew_12 (AS3), Basilisk_12 (AS1), Brynnie_12 (AS1), Chickaboom_11 (AS1), Coral_12 (AS2), Cote_13 (AS2), Daob_13 (AS2), Eesa_12 (AS1), Galaxy_12 (AS1), HannahPhantana_13 (AS2), Jamun_12 (AS1), Juno112_11 (AS3), KHumphrey_11 (AS3), Kepler_12 (AS2), Kuleana_12 (AS2), Leona_11 (AS3), LittleTokyo_12 (AS2), Lunar_13 (AS2), Melons_13 (AS2), Orcanus_12 (AS1), PhluffyCoco_11 (AS3), Polka_12 (AS2), RedFox_11 (AS3), Renna12_12 (AS3), Ruchi_12 (AS1), TaylorSipt_12 (AS1), Vulpecula_12 (AS1),

Start 11:

- Found in 74 of 177 (41.8%) of genes in pham
- Manual Annotations of this start: 62 of 161
- Called 89.2% of time when present
- Phage (with cluster) where this start called: Aledel_10 (AK), AppleCider_14 (AK), AustinPowers_10 (AK), Beethoven_14 (AK), Bennie_10 (AK), BigMack_10 (AK), Bodacious_10 (AK), BrotherBLo_14 (AK), CallieOMalley_14 (AK), Canowicakte_14 (AK), Carpal_14 (AK), ChewChew_10 (AK), Cholula_14 (AK), Christian_10 (AK), CristinaYang_10 (AK), Dino_14 (AK), DrRobert_10 (AK), DreamTeam_10 (AK), EstebanJulior_10 (AK), Eunoia_10 (AK), Fluke_14 (AK), Gisselle_10 (AK), Glenn_14 (AK), HeadNerd_10 (AK), Huckleberry_10 (AK), HunterDalle_10 (AK), Immaculata_14 (AK), Jumboset_14 (AK), Kalizoi_14 (AK), Kittykat_10 (AK), Korra_14 (AK), Lasagna_10 (AK), Lennox_10 (AK), LilStuart_10 (AK), Litotes_14 (AK), Lucy_10 (AK), Makoto_10 (AK), MamaPearl_10 (AK), MeganNoll_14 (AK), Moki_10 (AK), MrGloopy_14 (AK), Nancia_10 (AK), OMalley_10 (AK), OurGirlNessie_10 (AK), PartyCup_14 (AK), PinkFriday_10 (AK), PitaDog_10 (AK), Potatoes_14 (AK), Preamble_10 (AK), Pterodactyl_10 (AK), RAP15_14 (AK), Rivovina_10 (AK), Riverdale_14 (AK), Rozby_14 (AK), Savage2526_14 (AK), Scuttle_14 (AK), Supakev_10 (AK), Suppi_14 (AK), TattModd_14 (AK), Urla_10 (AK), Vallejo_14 (AK), Vulture_10 (AK), Wawa_14 (AK), Wayne_14 (AK), WonderBoy_10 (AK), Zorro_14 (AK),

Start 12:

- Found in 10 of 177 (5.6%) of genes in pham
- Manual Annotations of this start: 10 of 161
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Albanese_14 (AK), GreenHearts_14 (AK), Greenhouse_14 (AK), Huntingdon_14 (AK), Joann_14 (AK), Lakshmi_14 (AK), Misaeng_14 (AK), Nubia_14 (AK), Oxyfnrius_14 (AK), RcigaStruga_14 (AK),

Start 15:

- Found in 2 of 177 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 161
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eden_10 (EB), Franklin22_10 (EB),

Start 17:

- Found in 38 of 177 (21.5%) of genes in pham
- Manual Annotations of this start: 33 of 161
- Called 97.4% of time when present

- Phage (with cluster) where this start called: Abigail_11 (EB), Albedo_11 (EB), Albright_11 (EB), AnnaLie_12 (EB), Arroyo_12 (EB), Avocadoman_11 (EB), BabyDaisy_12 (EB), BabyYoda_11 (EB), BelmontSKP_12 (EB), BubbaBear_11 (EB), Burritobowl_11 (EB), Cashington_11 (EB), CroZenni_11 (EB), DickRichards_11 (EB), Doobus_11 (EB), Elva_12 (EB), Eula_11 (EB), Finalfrontier_12 (EB), Icarian_12 (EB), IndyLu_11 (EB), Johnathan_11 (EB), Jovita_11 (EB), Kenzers_11 (EB), LimaBean_11 (EB), Loviatar_19 (EB), Lynlen_11 (EB), Nicky22_12 (EB), Phisb_11 (EB), QMacho_12 (EB), SanaSana_12 (EB), SansAfet_11 (EB), SarBear_11 (EB), Slay_11 (EB), Stoor_11 (EB), Stromboli_11 (EB), Swervy_11 (EB), TukTuk_11 (EB),

Start 18:

- Found in 14 of 177 (7.9%) of genes in pham
- Manual Annotations of this start: 12 of 161
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AvGardian_11 (EB), Bachaco_11 (EB), Buldak_11 (EB), Celaena_11 (EB), ChiliPepper_11 (EB), Didgeridoo_12 (EB), Dismas_11 (EB), FlameThrower_11 (EB), Katzastrophic_11 (EB), Kieran_11 (EB), Lahqtemish_11 (EB), Quenya_12 (EB), Rona_11 (EB), Sharkboy_11 (EB),

Start 19:

- Found in 25 of 177 (14.1%) of genes in pham
- Manual Annotations of this start: 10 of 161
- Called 44.0% of time when present
- Phage (with cluster) where this start called: Armstrong_10 (EB), BAjuniper_11 (EB), Bernstein_10 (EB), Brahms_10 (EB), Clayda5_10 (EB), Coltrane_10 (EB), DirtyBubble_11 (EB), Gack_10 (EB), Rollins_10 (EB), Skylord_10 (EB), Vitas_10 (EB),

Summary by clusters:

There are 5 clusters represented in this pham: AS3, AS2, AK, AS1, EB,

Info for manual annotations of cluster AK:

- Start number 8 was manually annotated 8 times for cluster AK.
- Start number 11 was manually annotated 62 times for cluster AK.
- Start number 12 was manually annotated 10 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 9 was manually annotated 10 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 9 was manually annotated 10 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 9 was manually annotated 4 times for cluster AS3.

Info for manual annotations of cluster EB:

- Start number 15 was manually annotated 2 times for cluster EB.
- Start number 17 was manually annotated 33 times for cluster EB.
- Start number 18 was manually annotated 12 times for cluster EB.
- Start number 19 was manually annotated 10 times for cluster EB.

Gene Information:

Gene: Abidatro_12 Start: 8321, Stop: 8764, Start Num: 9

Candidate Starts for Abidatro_12:

(Start: 9 @8321 has 24 MA's), (Start: 19 @8363 has 10 MA's), (28, 8417), (37, 8471), (38, 8474), (45, 8507), (61, 8606), (65, 8633), (70, 8657), (71, 8663), (73, 8672),

Gene: Abigail_11 Start: 8030, Stop: 8425, Start Num: 17

Candidate Starts for Abigail_11:

(4, 7904), (Start: 17 @8030 has 33 MA's), (26, 8069), (33, 8096), (46, 8174), (62, 8273), (69, 8306), (80, 8399),

Gene: Albanese_14 Start: 10476, Stop: 10886, Start Num: 12

Candidate Starts for Albanese_14:

(Start: 12 @10476 has 10 MA's), (42, 10620), (43, 10629), (44, 10632), (50, 10662), (52, 10668), (54, 10701), (76, 10824), (78, 10848),

Gene: Albedo_11 Start: 7905, Stop: 8300, Start Num: 17

Candidate Starts for Albedo_11:

(4, 7779), (Start: 17 @7905 has 33 MA's), (26, 7944), (46, 8049), (62, 8148), (69, 8181), (80, 8274),

Gene: Albright_11 Start: 7911, Stop: 8306, Start Num: 17

Candidate Starts for Albright_11:

(4, 7785), (Start: 17 @7911 has 33 MA's), (33, 7977), (46, 8055), (62, 8154), (69, 8187), (80, 8280),

Gene: Aledel_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for Aledel_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (42, 7701), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Amelia_13 Start: 8497, Stop: 8940, Start Num: 9

Candidate Starts for Amelia_13:

(Start: 9 @8497 has 24 MA's), (27, 8587), (28, 8593), (37, 8647), (38, 8650), (47, 8689), (65, 8809), (70, 8833), (79, 8905), (80, 8911),

Gene: Andrew_12 Start: 8281, Stop: 8724, Start Num: 9

Candidate Starts for Andrew_12:

(Start: 9 @8281 has 24 MA's), (21, 8332), (27, 8371), (29, 8380), (37, 8431), (38, 8434), (39, 8437), (47, 8473), (48, 8479), (65, 8593), (69, 8608), (79, 8692), (80, 8698), (81, 8710),

Gene: AnnaLie_12 Start: 8320, Stop: 8715, Start Num: 17

Candidate Starts for AnnaLie_12:

(4, 8194), (Start: 17 @8320 has 33 MA's), (26, 8359), (33, 8386), (46, 8464), (62, 8563), (69, 8596), (80, 8689),

Gene: AppleCider_14 Start: 10411, Stop: 10824, Start Num: 11

Candidate Starts for AppleCider_14:

(Start: 11 @10411 has 62 MA's), (22, 10456), (42, 10558), (76, 10762),

Gene: Armstrong_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Armstrong_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: Arroyo_12 Start: 8381, Stop: 8776, Start Num: 17

Candidate Starts for Arroyo_12:

(4, 8255), (Start: 17 @8381 has 33 MA's), (33, 8447), (46, 8525), (62, 8624), (69, 8657), (80, 8750),

Gene: AustinPowers_10 Start: 7552, Stop: 7983, Start Num: 11

Candidate Starts for AustinPowers_10:

(Start: 8 @7546 has 8 MA's), (Start: 11 @7552 has 62 MA's), (14, 7573), (31, 7645), (44, 7714), (45, 7723), (51, 7747), (76, 7906),

Gene: AvGardian_11 Start: 7970, Stop: 8365, Start Num: 18

Candidate Starts for AvGardian_11:

(Start: 18 @7970 has 12 MA's), (32, 8033), (46, 8114), (58, 8189), (62, 8213), (69, 8246), (72, 8264), (80, 8339),

Gene: Avocadoman_11 Start: 7969, Stop: 8364, Start Num: 17

Candidate Starts for Avocadoman_11:

(Start: 17 @7969 has 33 MA's), (26, 8008), (33, 8035), (46, 8113), (62, 8212), (69, 8245), (80, 8338),

Gene: BAjuniper_11 Start: 7857, Stop: 8243, Start Num: 19

Candidate Starts for BAjuniper_11:

(2, 7680), (Start: 19 @7857 has 10 MA's), (46, 7995), (49, 8010), (71, 8139), (76, 8175),

Gene: BabyDaisy_12 Start: 8133, Stop: 8531, Start Num: 17

Candidate Starts for BabyDaisy_12:

(Start: 17 @8133 has 33 MA's), (62, 8379), (77, 8484),

Gene: BabyYoda_11 Start: 8162, Stop: 8557, Start Num: 17

Candidate Starts for BabyYoda_11:

(4, 8036), (Start: 17 @8162 has 33 MA's), (Start: 19 @8165 has 10 MA's), (32, 8225), (64, 8420), (72, 8456), (76, 8489), (77, 8510),

Gene: Bachaco_11 Start: 8051, Stop: 8449, Start Num: 18

Candidate Starts for Bachaco_11:

(1, 7853), (2, 7877), (3, 7913), (Start: 18 @8051 has 12 MA's), (24, 8072), (69, 8330), (72, 8348), (76, 8381),

Gene: Basilisk_12 Start: 8645, Stop: 9088, Start Num: 9

Candidate Starts for Basilisk_12:

(5, 8570), (Start: 9 @8645 has 24 MA's), (Start: 19 @8687 has 10 MA's), (23, 8705), (28, 8741), (37, 8795), (38, 8798), (47, 8837), (53, 8891), (61, 8930), (65, 8957), (70, 8981), (71, 8987),

Gene: Beethoven_14 Start: 10371, Stop: 10784, Start Num: 11

Candidate Starts for Beethoven_14:

(Start: 11 @10371 has 62 MA's), (37, 10506), (42, 10521), (51, 10566), (55, 10608), (76, 10725),

Gene: BelmontSKP_12 Start: 8320, Stop: 8715, Start Num: 17

Candidate Starts for BelmontSKP_12:

(4, 8194), (Start: 17 @8320 has 33 MA's), (26, 8359), (33, 8386), (46, 8464), (62, 8563), (69, 8596), (80, 8689),

Gene: Bennie_10 Start: 7516, Stop: 7926, Start Num: 11

Candidate Starts for Bennie_10:

(Start: 11 @7516 has 62 MA's), (37, 7648), (42, 7663), (51, 7708), (52, 7711), (55, 7750), (76, 7867),

Gene: Bernstein_10 Start: 7752, Stop: 8141, Start Num: 19

Candidate Starts for Bernstein_10:

(Start: 19 @7752 has 10 MA's), (46, 7893), (50, 7911), (74, 8064), (76, 8073), (78, 8097), (81, 8127),

Gene: BigMack_10 Start: 7516, Stop: 7926, Start Num: 11

Candidate Starts for BigMack_10:

(Start: 11 @7516 has 62 MA's), (37, 7648), (42, 7663), (51, 7708), (55, 7750), (76, 7867),

Gene: Bodacious_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Bodacious_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: Brahms_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Brahms_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: BrotherBLo_14 Start: 10378, Stop: 10791, Start Num: 11

Candidate Starts for BrotherBLo_14:

(Start: 11 @10378 has 62 MA's), (37, 10513), (42, 10528), (51, 10573), (55, 10615), (76, 10732),

Gene: Brynnie_12 Start: 8457, Stop: 8900, Start Num: 9

Candidate Starts for Brynnie_12:

(Start: 9 @8457 has 24 MA's), (Start: 19 @8499 has 10 MA's), (28, 8553), (37, 8607), (38, 8610), (47, 8649), (53, 8703), (61, 8742), (65, 8769), (70, 8793), (71, 8799),

Gene: BubbaBear_11 Start: 7905, Stop: 8300, Start Num: 17

Candidate Starts for BubbaBear_11:

(Start: 17 @7905 has 33 MA's), (26, 7944), (46, 8049), (62, 8148), (69, 8181), (80, 8274),

Gene: Buldak_11 Start: 8189, Stop: 8584, Start Num: 18

Candidate Starts for Buldak_11:

(Start: 18 @8189 has 12 MA's), (40, 8306), (45, 8333), (46, 8336), (59, 8414), (65, 8450), (67, 8459), (76, 8516), (78, 8540),

Gene: Burritobowl_11 Start: 7938, Stop: 8333, Start Num: 17

Candidate Starts for Burritobowl_11:

(4, 7812), (Start: 17 @7938 has 33 MA's), (26, 7977), (33, 8004), (46, 8082), (62, 8181), (69, 8214), (80, 8307),

Gene: CallieOMalley_14 Start: 10411, Stop: 10824, Start Num: 11

Candidate Starts for CallieOMalley_14:

(Start: 11 @10411 has 62 MA's), (22, 10456), (42, 10558), (76, 10762),

Gene: Canowicakte_14 Start: 10446, Stop: 10859, Start Num: 11

Candidate Starts for Canowicakte_14:

(Start: 11 @10446 has 62 MA's), (22, 10491), (42, 10593), (60, 10701), (76, 10797),

Gene: Carpal_14 Start: 10378, Stop: 10791, Start Num: 11

Candidate Starts for Carpal_14:

(Start: 11 @10378 has 62 MA's), (37, 10513), (42, 10528), (51, 10573), (55, 10615), (76, 10732),

Gene: Cashington_11 Start: 7928, Stop: 8323, Start Num: 17

Candidate Starts for Cashington_11:

(4, 7802), (Start: 17 @7928 has 33 MA's), (26, 7967), (33, 7994), (46, 8072), (62, 8171), (69, 8204), (80, 8297),

Gene: Celaena_11 Start: 7988, Stop: 8386, Start Num: 18

Candidate Starts for Celaena_11:

(3, 7850), (10, 7952), (13, 7970), (Start: 18 @7988 has 12 MA's), (24, 8009), (69, 8267), (72, 8285), (76, 8318),

Gene: ChewChew_10 Start: 7513, Stop: 7923, Start Num: 11

Candidate Starts for ChewChew_10:

(Start: 11 @7513 has 62 MA's), (33, 7606), (37, 7645), (42, 7660), (51, 7705), (55, 7747), (60, 7768), (76, 7864),

Gene: Chickaboom_11 Start: 8002, Stop: 8445, Start Num: 9

Candidate Starts for Chickaboom_11:

(Start: 9 @8002 has 24 MA's), (Start: 19 @8044 has 10 MA's), (23, 8062), (28, 8098), (37, 8152), (38, 8155), (47, 8194), (53, 8248), (61, 8287), (65, 8314), (70, 8338), (71, 8344),

Gene: ChiliPepper_11 Start: 8141, Stop: 8542, Start Num: 18

Candidate Starts for ChiliPepper_11:

(Start: 18 @8141 has 12 MA's), (46, 8291), (64, 8405), (76, 8474),

Gene: Cholula_14 Start: 10423, Stop: 10836, Start Num: 11

Candidate Starts for Cholula_14:

(Start: 11 @10423 has 62 MA's), (37, 10558), (42, 10573), (51, 10618), (55, 10660), (76, 10777),

Gene: Chridison_10 Start: 7546, Stop: 7983, Start Num: 8

Candidate Starts for Chridison_10:

(Start: 8 @7546 has 8 MA's), (Start: 11 @7552 has 62 MA's), (14, 7573), (31, 7645), (44, 7714), (45, 7723), (51, 7747), (76, 7906),

Gene: Christian_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Christian_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: Clayda5_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Clayda5_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: Coltrane_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Coltrane_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: Coral_12 Start: 8336, Stop: 8779, Start Num: 9

Candidate Starts for Coral_12:

(Start: 9 @8336 has 24 MA's), (27, 8426), (28, 8432), (37, 8486), (38, 8489), (47, 8528), (65, 8648), (70, 8672), (79, 8744), (80, 8750),

Gene: Cote_13 Start: 8497, Stop: 8940, Start Num: 9

Candidate Starts for Cote_13:

(Start: 9 @8497 has 24 MA's), (27, 8587), (28, 8593), (37, 8647), (38, 8650), (47, 8689), (65, 8809), (70, 8833), (79, 8905), (80, 8911),

Gene: CristinaYang_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for CristinaYang_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: CroZenni_11 Start: 7911, Stop: 8306, Start Num: 17

Candidate Starts for CroZenni_11:

(4, 7785), (Start: 17 @7911 has 33 MA's), (33, 7977), (46, 8055), (62, 8154), (69, 8187), (80, 8280),

Gene: Daiboju_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for Daiboju_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: Daob_13 Start: 8500, Stop: 8943, Start Num: 9

Candidate Starts for Daob_13:

(Start: 9 @8500 has 24 MA's), (27, 8590), (28, 8596), (37, 8650), (38, 8653), (47, 8692), (65, 8812), (70, 8836), (79, 8908), (80, 8914),

Gene: DickRichards_11 Start: 8405, Stop: 8800, Start Num: 17

Candidate Starts for DickRichards_11:

(4, 8279), (Start: 17 @8405 has 33 MA's), (26, 8444), (33, 8471), (46, 8549), (62, 8648), (69, 8681), (80, 8774),

Gene: Didgeridoo_12 Start: 8135, Stop: 8533, Start Num: 18

Candidate Starts for Didgeridoo_12:

(Start: 18 @8135 has 12 MA's), (62, 8381), (77, 8486),

Gene: Dino_14 Start: 10377, Stop: 10790, Start Num: 11

Candidate Starts for Dino_14:

(Start: 11 @10377 has 62 MA's), (37, 10512), (42, 10527), (51, 10572), (55, 10614), (76, 10731),

Gene: DirtyBubble_11 Start: 8173, Stop: 8565, Start Num: 19

Candidate Starts for DirtyBubble_11:

(4, 8044), (Start: 17 @8170 has 33 MA's), (Start: 19 @8173 has 10 MA's), (32, 8233), (64, 8428), (72, 8464), (76, 8497), (77, 8518),

Gene: Dismas_11 Start: 8141, Stop: 8542, Start Num: 18

Candidate Starts for Dismas_11:

(Start: 18 @8141 has 12 MA's), (46, 8291), (64, 8405), (76, 8474),

Gene: Doobus_11 Start: 8142, Stop: 8537, Start Num: 17

Candidate Starts for Doobus_11:

(4, 8016), (Start: 17 @8142 has 33 MA's), (33, 8208), (46, 8286), (62, 8385), (69, 8418), (80, 8511),

Gene: DrRobert_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for DrRobert_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: DreamTeam_10 Start: 7581, Stop: 7991, Start Num: 11

Candidate Starts for DreamTeam_10:

(Start: 11 @7581 has 62 MA's), (37, 7713), (42, 7728), (51, 7773), (52, 7776), (76, 7932),

Gene: Eden_10 Start: 7777, Stop: 8181, Start Num: 15

Candidate Starts for Eden_10:

(Start: 15 @7777 has 2 MA's), (Start: 19 @7783 has 10 MA's), (46, 7933), (50, 7951), (59, 8011), (65, 8047), (76, 8113),

Gene: Eesa_12 Start: 8495, Stop: 8935, Start Num: 9

Candidate Starts for Eesa_12:

(6, 8483), (Start: 9 @8495 has 24 MA's), (27, 8585), (28, 8591), (34, 8627), (37, 8645), (38, 8648), (47, 8687), (61, 8780), (65, 8807), (70, 8831), (75, 8867), (79, 8903),

Gene: Elva_12 Start: 8225, Stop: 8620, Start Num: 17

Candidate Starts for Elva_12:

(4, 8099), (Start: 17 @8225 has 33 MA's), (46, 8369), (64, 8483), (72, 8519), (76, 8552), (77, 8573),

Gene: EstebanJulior_10 Start: 7558, Stop: 7971, Start Num: 11

Candidate Starts for EstebanJulior_10:

(Start: 11 @7558 has 62 MA's), (25, 7621), (42, 7705), (51, 7750), (52, 7753), (55, 7792), (66, 7852), (76, 7909),

Gene: Eula_11 Start: 7912, Stop: 8307, Start Num: 17

Candidate Starts for Eula_11:

(Start: 17 @7912 has 33 MA's), (26, 7951), (33, 7978), (41, 8029), (46, 8056), (69, 8188), (80, 8281),

Gene: Eunoia_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for Eunoia_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (42, 7701), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Finalfrontier_12 Start: 8424, Stop: 8819, Start Num: 17

Candidate Starts for Finalfrontier_12:

(Start: 17 @8424 has 33 MA's), (26, 8463), (33, 8490), (46, 8568), (69, 8700), (80, 8793),

Gene: FlameThrower_11 Start: 7876, Stop: 8274, Start Num: 18

Candidate Starts for FlameThrower_11:

(1, 7678), (Start: 18 @7876 has 12 MA's), (24, 7897), (69, 8155), (72, 8173), (76, 8206),

Gene: Fluke_14 Start: 10419, Stop: 10832, Start Num: 11

Candidate Starts for Fluke_14:

(Start: 11 @10419 has 62 MA's), (37, 10554), (51, 10614), (55, 10656), (76, 10773),

Gene: Franklin22_10 Start: 7758, Stop: 8153, Start Num: 15

Candidate Starts for Franklin22_10:

(Start: 15 @7758 has 2 MA's), (Start: 19 @7764 has 10 MA's), (46, 7905), (50, 7923), (76, 8085),

Gene: Gack_10 Start: 7830, Stop: 8219, Start Num: 19

Candidate Starts for Gack_10:

(Start: 19 @7830 has 10 MA's), (35, 7917), (46, 7971), (49, 7986), (63, 8076), (72, 8118), (76, 8151),

Gene: Galaxy_12 Start: 8328, Stop: 8771, Start Num: 9

Candidate Starts for Galaxy_12:

(Start: 9 @8328 has 24 MA's), (28, 8424), (37, 8478), (38, 8481), (45, 8514), (61, 8613), (65, 8640), (70, 8664), (71, 8670), (73, 8679),

Gene: Gisselle_10 Start: 7581, Stop: 7991, Start Num: 11

Candidate Starts for Gisselle_10:

(Start: 11 @7581 has 62 MA's), (37, 7713), (42, 7728), (51, 7773), (52, 7776), (76, 7932),

Gene: Glenn_14 Start: 10429, Stop: 10842, Start Num: 11

Candidate Starts for Glenn_14:

(Start: 11 @10429 has 62 MA's), (37, 10564), (42, 10579), (51, 10624), (55, 10666), (76, 10783),

Gene: GreenHearts_14 Start: 10522, Stop: 10932, Start Num: 12

Candidate Starts for GreenHearts_14:

(Start: 12 @10522 has 10 MA's), (30, 10606), (42, 10666), (43, 10675), (44, 10678), (50, 10708), (52, 10714), (54, 10747), (76, 10870), (78, 10894),

Gene: Greenhouse_14 Start: 10447, Stop: 10857, Start Num: 12

Candidate Starts for Greenhouse_14:

(Start: 12 @10447 has 10 MA's), (42, 10591), (43, 10600), (44, 10603), (50, 10633), (52, 10639), (54, 10672), (76, 10795), (78, 10819),

Gene: HannahPhantana_13 Start: 8500, Stop: 8943, Start Num: 9

Candidate Starts for HannahPhantana_13:

(Start: 9 @8500 has 24 MA's), (27, 8590), (28, 8596), (37, 8650), (38, 8653), (47, 8692), (65, 8812), (70, 8836), (79, 8908), (80, 8914),

Gene: HeadNerd_10 Start: 7516, Stop: 7926, Start Num: 11

Candidate Starts for HeadNerd_10:

(Start: 11 @7516 has 62 MA's), (37, 7648), (42, 7663), (51, 7708), (52, 7711), (55, 7750), (76, 7867),

Gene: Herb_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for Herb_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: Huckleberry_10 Start: 7516, Stop: 7926, Start Num: 11

Candidate Starts for Huckleberry_10:

(Start: 11 @7516 has 62 MA's), (37, 7648), (42, 7663), (51, 7708), (52, 7711), (55, 7750), (76, 7867),

Gene: HunterDalle_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for HunterDalle_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Huntingdon_14 Start: 10433, Stop: 10843, Start Num: 12

Candidate Starts for Huntingdon_14:

(Start: 12 @10433 has 10 MA's), (42, 10577), (43, 10586), (44, 10589), (50, 10619), (52, 10625), (54, 10658), (76, 10781), (78, 10805),

Gene: Icarian_12 Start: 8152, Stop: 8547, Start Num: 17

Candidate Starts for Icarian_12:

(Start: 17 @8152 has 33 MA's), (32, 8215), (42, 8272), (76, 8479), (77, 8500),

Gene: Immaculata_14 Start: 10423, Stop: 10836, Start Num: 11

Candidate Starts for Immaculata_14:

(Start: 11 @10423 has 62 MA's), (37, 10558), (42, 10573), (51, 10618), (55, 10660), (76, 10777),

Gene: IndyLu_11 Start: 7957, Stop: 8355, Start Num: 17

Candidate Starts for IndyLu_11:

(Start: 17 @7957 has 33 MA's), (62, 8203), (77, 8308),

Gene: Jamun_12 Start: 8669, Stop: 9112, Start Num: 9

Candidate Starts for Jamun_12:

(Start: 9 @8669 has 24 MA's), (Start: 19 @8711 has 10 MA's), (23, 8729), (28, 8765), (37, 8819), (38, 8822), (47, 8861), (53, 8915), (61, 8954), (65, 8981), (70, 9005), (71, 9011),

Gene: Joann_14 Start: 10425, Stop: 10835, Start Num: 12

Candidate Starts for Joann_14:

(Start: 12 @10425 has 10 MA's), (42, 10569), (43, 10578), (44, 10581), (50, 10611), (52, 10617), (54, 10650), (76, 10773), (78, 10797),

Gene: Johnathan_11 Start: 7911, Stop: 8306, Start Num: 17

Candidate Starts for Johnathan_11:

(4, 7785), (Start: 17 @7911 has 33 MA's), (26, 7950), (33, 7977), (46, 8055), (62, 8154), (69, 8187), (80, 8280),

Gene: Jovita_11 Start: 8013, Stop: 8408, Start Num: 17

Candidate Starts for Jovita_11:

(Start: 17 @8013 has 33 MA's), (26, 8052), (33, 8079), (46, 8157), (69, 8289), (80, 8382),

Gene: Jumboset_14 Start: 10372, Stop: 10785, Start Num: 11

Candidate Starts for Jumboset_14:

(Start: 11 @10372 has 62 MA's), (37, 10507), (42, 10522), (51, 10567), (55, 10609), (76, 10726),

Gene: Juno112_11 Start: 7903, Stop: 8343, Start Num: 9

Candidate Starts for Juno112_11:

(Start: 9 @7903 has 24 MA's), (21, 7954), (38, 8056), (39, 8059), (47, 8095), (48, 8101), (52, 8116), (61, 8188), (65, 8215), (79, 8314), (80, 8320), (81, 8332),

Gene: KHumphrey_11 Start: 7902, Stop: 8342, Start Num: 9

Candidate Starts for KHumphrey_11:

(Start: 9 @7902 has 24 MA's), (21, 7953), (38, 8055), (39, 8058), (47, 8094), (48, 8100), (52, 8115), (61, 8187), (65, 8214), (79, 8313), (80, 8319), (81, 8331),

Gene: Kalizoi_14 Start: 10371, Stop: 10784, Start Num: 11

Candidate Starts for Kalizoi_14:

(Start: 11 @10371 has 62 MA's), (37, 10506), (42, 10521), (51, 10566), (55, 10608), (76, 10725),

Gene: Katzastrophic_11 Start: 8051, Stop: 8449, Start Num: 18

Candidate Starts for Katzastrophic_11:

(3, 7913), (Start: 18 @8051 has 12 MA's), (24, 8072), (69, 8330), (72, 8348), (76, 8381),

Gene: Kenzers_11 Start: 7928, Stop: 8323, Start Num: 17

Candidate Starts for Kenzers_11:

(Start: 17 @7928 has 33 MA's), (26, 7967), (46, 8072), (62, 8171), (69, 8204), (80, 8297),

Gene: Kepler_12 Start: 8335, Stop: 8778, Start Num: 9

Candidate Starts for Kepler_12:

(Start: 9 @8335 has 24 MA's), (27, 8425), (28, 8431), (37, 8485), (38, 8488), (47, 8527), (65, 8647), (70, 8671), (79, 8743), (80, 8749),

Gene: Kieran_11 Start: 8144, Stop: 8545, Start Num: 18

Candidate Starts for Kieran_11:

(Start: 18 @8144 has 12 MA's), (46, 8294), (64, 8408), (76, 8477),

Gene: KingBob_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for KingBob_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: Kittykat_10 Start: 7557, Stop: 7967, Start Num: 11

Candidate Starts for Kittykat_10:

(Start: 11 @7557 has 62 MA's), (37, 7689), (42, 7704), (51, 7749), (52, 7752), (76, 7908),

Gene: Korra_14 Start: 10377, Stop: 10790, Start Num: 11

Candidate Starts for Korra_14:

(Start: 11 @10377 has 62 MA's), (37, 10512), (42, 10527), (51, 10572), (55, 10614), (76, 10731),

Gene: Kuleana_12 Start: 8295, Stop: 8735, Start Num: 9

Candidate Starts for Kuleana_12:

(Start: 9 @8295 has 24 MA's), (27, 8385), (28, 8391), (32, 8403), (38, 8448), (47, 8487), (52, 8508), (60, 8577), (61, 8580), (65, 8607), (67, 8616), (70, 8631), (79, 8703), (80, 8709),

Gene: Lahqtemish_11 Start: 8003, Stop: 8401, Start Num: 18

Candidate Starts for Lahqtemish_11:

(Start: 18 @8003 has 12 MA's), (26, 8042), (62, 8249), (77, 8354),

Gene: Lakshmi_14 Start: 10452, Stop: 10862, Start Num: 12

Candidate Starts for Lakshmi_14:

(Start: 12 @10452 has 10 MA's), (42, 10596), (43, 10605), (44, 10608), (50, 10638), (52, 10644), (54, 10677), (76, 10800), (78, 10824),

Gene: Lasagna_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Lasagna_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: Lennox_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Lennox_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: Leona_11 Start: 7953, Stop: 8393, Start Num: 9

Candidate Starts for Leona_11:

(Start: 9 @7953 has 24 MA's), (38, 8106), (39, 8109), (47, 8145), (48, 8151), (52, 8166), (61, 8238), (65, 8265), (79, 8364), (80, 8370), (81, 8382),

Gene: LilStuart_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for LilStuart_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: LimaBean_11 Start: 7911, Stop: 8306, Start Num: 17

Candidate Starts for LimaBean_11:

(4, 7785), (Start: 17 @7911 has 33 MA's), (26, 7950), (33, 7977), (46, 8055), (62, 8154), (69, 8187), (80, 8280),

Gene: Litotes_14 Start: 10399, Stop: 10809, Start Num: 11

Candidate Starts for Litotes_14:

(Start: 11 @10399 has 62 MA's), (22, 10441), (42, 10543), (76, 10747),

Gene: LittleTokyo_12 Start: 8235, Stop: 8678, Start Num: 9

Candidate Starts for LittleTokyo_12:

(6, 8223), (7, 8226), (Start: 9 @8235 has 24 MA's), (52, 8448), (55, 8496), (57, 8505), (58, 8508), (61, 8520), (70, 8571), (72, 8580), (79, 8646), (81, 8664),

Gene: Loviatar_19 Start: 8231, Stop: 8626, Start Num: 17

Candidate Starts for Loviatar_19:

(4, 8105), (Start: 17 @8231 has 33 MA's), (Start: 19 @8234 has 10 MA's), (32, 8294), (64, 8489), (72, 8525), (76, 8558), (77, 8579),

Gene: Lucy_10 Start: 7505, Stop: 7915, Start Num: 11

Candidate Starts for Lucy_10:

(Start: 11 @7505 has 62 MA's), (33, 7598), (37, 7637), (42, 7652), (51, 7697), (55, 7739), (60, 7760), (76, 7856),

Gene: Lunar_13 Start: 8497, Stop: 8940, Start Num: 9

Candidate Starts for Lunar_13:

(Start: 9 @8497 has 24 MA's), (27, 8587), (28, 8593), (37, 8647), (38, 8650), (47, 8689), (65, 8809), (70, 8833), (79, 8905), (80, 8911),

Gene: Lynlen_11 Start: 7928, Stop: 8323, Start Num: 17

Candidate Starts for Lynlen_11:

(Start: 17 @7928 has 33 MA's), (26, 7967), (46, 8072), (62, 8171), (69, 8204), (80, 8297),

Gene: Makoto_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Makoto_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: MamaPearl_10 Start: 7558, Stop: 7971, Start Num: 11

Candidate Starts for MamaPearl_10:

(Start: 11 @7558 has 62 MA's), (25, 7621), (42, 7705), (51, 7750), (52, 7753), (55, 7792), (66, 7852), (76, 7909),

Gene: Maria1952_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for Maria1952_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: MeganNoll_14 Start: 10429, Stop: 10842, Start Num: 11

Candidate Starts for MeganNoll_14:

(Start: 11 @10429 has 62 MA's), (37, 10564), (42, 10579), (46, 10603), (51, 10624), (55, 10666), (76, 10783),

Gene: Melons_13 Start: 8497, Stop: 8940, Start Num: 9

Candidate Starts for Melons_13:

(Start: 9 @8497 has 24 MA's), (27, 8587), (28, 8593), (37, 8647), (38, 8650), (47, 8689), (65, 8809), (70, 8833), (79, 8905), (80, 8911),

Gene: Misaeng_14 Start: 10498, Stop: 10908, Start Num: 12

Candidate Starts for Misaeng_14:

(Start: 12 @10498 has 10 MA's), (42, 10642), (43, 10651), (44, 10654), (50, 10684), (52, 10690), (54, 10723), (76, 10846), (78, 10870),

Gene: Moki_10 Start: 7516, Stop: 7926, Start Num: 11

Candidate Starts for Moki_10:

(Start: 11 @7516 has 62 MA's), (37, 7648), (42, 7663), (51, 7708), (52, 7711), (55, 7750), (76, 7867),

Gene: MrGloopy_14 Start: 10362, Stop: 10775, Start Num: 11

Candidate Starts for MrGloopy_14:

(Start: 11 @10362 has 62 MA's), (37, 10497), (42, 10512), (51, 10557), (55, 10599), (76, 10716),

Gene: Nancia_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for Nancia_10:

(Start: 11 @7514 has 62 MA's), (33, 7607), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (60, 7769), (76, 7865),

Gene: Nicky22_12 Start: 8359, Stop: 8754, Start Num: 17

Candidate Starts for Nicky22_12:

(Start: 17 @8359 has 33 MA's), (26, 8398), (36, 8455), (46, 8503), (69, 8635), (80, 8728),

Gene: Nubia_14 Start: 10412, Stop: 10822, Start Num: 12

Candidate Starts for Nubia_14:

(Start: 12 @10412 has 10 MA's), (42, 10556), (43, 10565), (44, 10568), (50, 10598), (52, 10604), (54, 10637), (76, 10760), (78, 10784),

Gene: OMalley_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for OMalley_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (42, 7701), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Orcanus_12 Start: 8285, Stop: 8725, Start Num: 9

Candidate Starts for Orcanus_12:

(6, 8273), (Start: 9 @8285 has 24 MA's), (27, 8375), (34, 8417), (37, 8435), (38, 8438), (47, 8477), (61, 8570), (65, 8597), (70, 8621), (75, 8657), (79, 8693),

Gene: OurGirlNessie_10 Start: 7505, Stop: 7915, Start Num: 11

Candidate Starts for OurGirlNessie_10:

(Start: 11 @7505 has 62 MA's), (33, 7598), (37, 7637), (42, 7652), (51, 7697), (55, 7739), (60, 7760), (76, 7856),

Gene: Oxynfrius_14 Start: 10425, Stop: 10835, Start Num: 12

Candidate Starts for Oxynfrius_14:

(Start: 12 @10425 has 10 MA's), (42, 10569), (43, 10578), (44, 10581), (50, 10611), (52, 10617), (54, 10650), (76, 10773), (78, 10797),

Gene: PartyCup_14 Start: 10446, Stop: 10856, Start Num: 11

Candidate Starts for PartyCup_14:

(Start: 11 @10446 has 62 MA's), (22, 10488), (42, 10590), (76, 10794),

Gene: Phisb_11 Start: 7905, Stop: 8300, Start Num: 17

Candidate Starts for Phisb_11:

(Start: 17 @7905 has 33 MA's), (26, 7944), (33, 7971), (46, 8049), (62, 8148), (69, 8181), (80, 8274),

Gene: PhluffyCoco_11 Start: 7902, Stop: 8342, Start Num: 9

Candidate Starts for PhluffyCoco_11:

(Start: 9 @7902 has 24 MA's), (21, 7953), (38, 8055), (39, 8058), (47, 8094), (48, 8100), (52, 8115), (61, 8187), (65, 8214), (79, 8313), (80, 8319), (81, 8331),

Gene: PinkFriday_10 Start: 7554, Stop: 7982, Start Num: 11

Candidate Starts for PinkFriday_10:

(Start: 8 @7548 has 8 MA's), (Start: 11 @7554 has 62 MA's), (37, 7686), (42, 7701), (44, 7713), (45, 7722), (46, 7725), (51, 7746), (76, 7905),

Gene: PitaDog_10 Start: 7505, Stop: 7915, Start Num: 11

Candidate Starts for PitaDog_10:

(Start: 11 @7505 has 62 MA's), (33, 7598), (37, 7637), (42, 7652), (51, 7697), (55, 7739), (60, 7760), (76, 7856),

Gene: Polka_12 Start: 8336, Stop: 8779, Start Num: 9

Candidate Starts for Polka_12:

(Start: 9 @8336 has 24 MA's), (27, 8426), (28, 8432), (37, 8486), (38, 8489), (47, 8528), (65, 8648), (70, 8672), (79, 8744), (80, 8750),

Gene: Potatoes_14 Start: 10423, Stop: 10836, Start Num: 11

Candidate Starts for Potatoes_14:

(Start: 11 @10423 has 62 MA's), (37, 10558), (42, 10573), (51, 10618), (55, 10660), (76, 10777),

Gene: Preamble_10 Start: 7515, Stop: 7925, Start Num: 11

Candidate Starts for Preamble_10:

(Start: 11 @7515 has 62 MA's), (37, 7647), (42, 7662), (52, 7710), (76, 7866),

Gene: Pterodactyl_10 Start: 7506, Stop: 7916, Start Num: 11

Candidate Starts for Pterodactyl_10:

(Start: 11 @7506 has 62 MA's), (33, 7599), (37, 7638), (42, 7653), (51, 7698), (55, 7740), (60, 7761), (76, 7857),

Gene: Pumancara_10 Start: 7547, Stop: 7981, Start Num: 8

Candidate Starts for Pumancara_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (37, 7685), (42, 7700), (44, 7712), (45, 7721), (46, 7724), (51, 7745), (76, 7904),

Gene: QMacho_12 Start: 8395, Stop: 8790, Start Num: 17

Candidate Starts for QMacho_12:

(Start: 17 @8395 has 33 MA's), (26, 8434), (33, 8461), (41, 8512), (46, 8539), (62, 8638), (69, 8671), (80, 8764),

Gene: Quenya_12 Start: 8046, Stop: 8447, Start Num: 18

Candidate Starts for Quenya_12:

(Start: 18 @8046 has 12 MA's), (46, 8196), (68, 8325), (69, 8328), (72, 8346), (76, 8379),

Gene: RAP15_14 Start: 10429, Stop: 10842, Start Num: 11

Candidate Starts for RAP15_14:

(Start: 11 @10429 has 62 MA's), (37, 10564), (42, 10579), (51, 10624), (55, 10666), (76, 10783),

Gene: RcigaStruga_14 Start: 10433, Stop: 10843, Start Num: 12

Candidate Starts for RcigaStruga_14:

(Start: 12 @10433 has 10 MA's), (42, 10577), (43, 10586), (44, 10589), (50, 10619), (52, 10625), (54, 10658), (76, 10781), (78, 10805),

Gene: RedFox_11 Start: 7902, Stop: 8342, Start Num: 9

Candidate Starts for RedFox_11:

(Start: 9 @7902 has 24 MA's), (21, 7953), (38, 8055), (39, 8058), (47, 8094), (48, 8100), (52, 8115), (61, 8187), (65, 8214), (79, 8313), (80, 8319), (81, 8331),

Gene: Renna12_12 Start: 8102, Stop: 8545, Start Num: 9

Candidate Starts for Renna12_12:

(Start: 9 @8102 has 24 MA's), (38, 8255), (39, 8258), (47, 8294), (48, 8300), (61, 8387), (65, 8414), (70, 8438), (80, 8519), (81, 8531),

Gene: Riovina_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for Riovina_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (42, 7701), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Riverdale_14 Start: 10360, Stop: 10773, Start Num: 11

Candidate Starts for Riverdale_14:

(Start: 11 @10360 has 62 MA's), (37, 10495), (42, 10510), (51, 10555), (55, 10597), (76, 10714),

Gene: Rollins_10 Start: 7752, Stop: 8141, Start Num: 19

Candidate Starts for Rollins_10:

(Start: 19 @7752 has 10 MA's), (46, 7893), (50, 7911), (74, 8064), (76, 8073), (78, 8097), (81, 8127),

Gene: Rona_11 Start: 8141, Stop: 8542, Start Num: 18

Candidate Starts for Rona_11:

(Start: 18 @8141 has 12 MA's), (46, 8291), (64, 8405), (76, 8474),

Gene: Rozby_14 Start: 10360, Stop: 10773, Start Num: 11

Candidate Starts for Rozby_14:

(Start: 11 @10360 has 62 MA's), (37, 10495), (42, 10510), (51, 10555), (55, 10597), (76, 10714),

Gene: Ruchi_12 Start: 8591, Stop: 9034, Start Num: 9

Candidate Starts for Ruchi_12:

(Start: 9 @8591 has 24 MA's), (Start: 19 @8633 has 10 MA's), (23, 8651), (28, 8687), (37, 8741), (38, 8744), (47, 8783), (53, 8837), (61, 8876), (65, 8903), (70, 8927), (71, 8933),

Gene: SanaSana_12 Start: 8160, Stop: 8555, Start Num: 17

Candidate Starts for SanaSana_12:

(4, 8034), (Start: 17 @8160 has 33 MA's), (Start: 19 @8163 has 10 MA's), (32, 8223), (72, 8454), (76, 8487), (77, 8508),

Gene: SansAfet_11 Start: 7922, Stop: 8317, Start Num: 17

Candidate Starts for SansAfet_11:

(4, 7796), (Start: 17 @7922 has 33 MA's), (26, 7961), (33, 7988), (46, 8066), (62, 8165), (69, 8198), (80, 8291),

Gene: SarBear_11 Start: 7888, Stop: 8283, Start Num: 17

Candidate Starts for SarBear_11:

(4, 7762), (Start: 17 @7888 has 33 MA's), (26, 7927), (33, 7954), (46, 8032), (69, 8164), (80, 8257),

Gene: Savage2526_14 Start: 10423, Stop: 10836, Start Num: 11

Candidate Starts for Savage2526_14:

(Start: 11 @10423 has 62 MA's), (37, 10558), (42, 10573), (51, 10618), (55, 10660), (76, 10777),

Gene: Scuttle_14 Start: 10429, Stop: 10842, Start Num: 11

Candidate Starts for Scuttle_14:

(Start: 11 @10429 has 62 MA's), (37, 10564), (42, 10579), (51, 10624), (55, 10666), (76, 10783),

Gene: Sergei_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for Sergei_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: Sharkboy_11 Start: 8140, Stop: 8541, Start Num: 18

Candidate Starts for Sharkboy_11:

(Start: 18 @8140 has 12 MA's), (46, 8290), (64, 8404), (76, 8473),

Gene: Skylord_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Skylord_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: Slay_11 Start: 8364, Stop: 8759, Start Num: 17

Candidate Starts for Slay_11:

(4, 8238), (Start: 17 @8364 has 33 MA's), (26, 8403), (33, 8430), (46, 8508), (69, 8640), (80, 8733),

Gene: Stoor_11 Start: 8157, Stop: 8552, Start Num: 17

Candidate Starts for Stoor_11:

(4, 8031), (Start: 17 @8157 has 33 MA's), (Start: 19 @8160 has 10 MA's), (32, 8220), (72, 8451), (76, 8484), (77, 8505),

Gene: Stromboli_11 Start: 8161, Stop: 8556, Start Num: 17

Candidate Starts for Stromboli_11:

(Start: 17 @8161 has 33 MA's), (Start: 19 @8164 has 10 MA's), (32, 8224), (64, 8419), (72, 8455), (76, 8488), (77, 8509),

Gene: Supakev_10 Start: 7553, Stop: 7984, Start Num: 11

Candidate Starts for Supakev_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (14, 7574), (31, 7646), (44, 7715), (45, 7724), (51, 7748), (76, 7907),

Gene: Suppi_14 Start: 10446, Stop: 10859, Start Num: 11

Candidate Starts for Suppi_14:

(Start: 11 @10446 has 62 MA's), (22, 10491), (42, 10593), (60, 10701), (76, 10797),

Gene: Swervy_11 Start: 7888, Stop: 8283, Start Num: 17

Candidate Starts for Swervy_11:

(4, 7762), (Start: 17 @7888 has 33 MA's), (26, 7927), (33, 7954), (46, 8032), (69, 8164), (80, 8257),

Gene: TattModd_14 Start: 10423, Stop: 10836, Start Num: 11

Candidate Starts for TattModd_14:

(Start: 11 @10423 has 62 MA's), (37, 10558), (42, 10573), (51, 10618), (55, 10660), (76, 10777),

Gene: TaylorSipht_12 Start: 8370, Stop: 8810, Start Num: 9

Candidate Starts for TaylorSipht_12:

(Start: 9 @8370 has 24 MA's), (16, 8406), (29, 8469), (38, 8523), (39, 8526), (47, 8562), (56, 8634), (59, 8646), (65, 8682), (70, 8706), (75, 8742), (79, 8778),

Gene: Temper16_10 Start: 7547, Stop: 7984, Start Num: 8

Candidate Starts for Temper16_10:

(Start: 8 @7547 has 8 MA's), (Start: 11 @7553 has 62 MA's), (20, 7592), (21, 7595), (37, 7688), (42, 7703), (44, 7715), (45, 7724), (46, 7727), (51, 7748), (76, 7907),

Gene: TukTuk_11 Start: 7948, Stop: 8343, Start Num: 17

Candidate Starts for TukTuk_11:

(4, 7822), (Start: 17 @7948 has 33 MA's), (26, 7987), (33, 8014), (46, 8092), (69, 8224), (80, 8317),

Gene: Urla_10 Start: 7561, Stop: 7974, Start Num: 11

Candidate Starts for Urla_10:

(Start: 11 @7561 has 62 MA's), (37, 7693), (42, 7708), (51, 7753), (52, 7756), (55, 7795), (66, 7855), (76, 7912),

Gene: Vallejo_14 Start: 10361, Stop: 10774, Start Num: 11

Candidate Starts for Vallejo_14:

(Start: 11 @10361 has 62 MA's), (37, 10496), (42, 10511), (51, 10556), (55, 10598), (76, 10715),

Gene: Vitas_10 Start: 7692, Stop: 8081, Start Num: 19

Candidate Starts for Vitas_10:

(Start: 19 @7692 has 10 MA's), (46, 7833), (50, 7851), (74, 8004), (76, 8013), (78, 8037), (81, 8067),

Gene: Vulpecula_12 Start: 8667, Stop: 9110, Start Num: 9

Candidate Starts for Vulpecula_12:

(Start: 9 @8667 has 24 MA's), (Start: 19 @8709 has 10 MA's), (23, 8727), (28, 8763), (37, 8817), (38, 8820), (47, 8859), (53, 8913), (61, 8952), (65, 8979), (70, 9003), (71, 9009),

Gene: Vulture_10 Start: 7551, Stop: 7982, Start Num: 11

Candidate Starts for Vulture_10:

(Start: 8 @7545 has 8 MA's), (Start: 11 @7551 has 62 MA's), (14, 7572), (31, 7644), (44, 7713), (45, 7722), (51, 7746), (76, 7905),

Gene: Wawa_14 Start: 10398, Stop: 10811, Start Num: 11

Candidate Starts for Wawa_14:

(Start: 11 @10398 has 62 MA's), (37, 10533), (42, 10548), (51, 10593), (55, 10635), (76, 10752),

Gene: Wayne_14 Start: 10492, Stop: 10905, Start Num: 11

Candidate Starts for Wayne_14:

(Start: 11 @10492 has 62 MA's), (22, 10537), (42, 10639), (60, 10747), (76, 10843),

Gene: WonderBoy_10 Start: 7514, Stop: 7924, Start Num: 11

Candidate Starts for WonderBoy_10:

(Start: 11 @7514 has 62 MA's), (25, 7577), (37, 7646), (42, 7661), (51, 7706), (55, 7748), (76, 7865),

Gene: Zorro_14 Start: 10377, Stop: 10790, Start Num: 11

Candidate Starts for Zorro_14:

(Start: 11 @10377 has 62 MA's), (37, 10512), (42, 10527), (51, 10572), (55, 10614), (76, 10731),