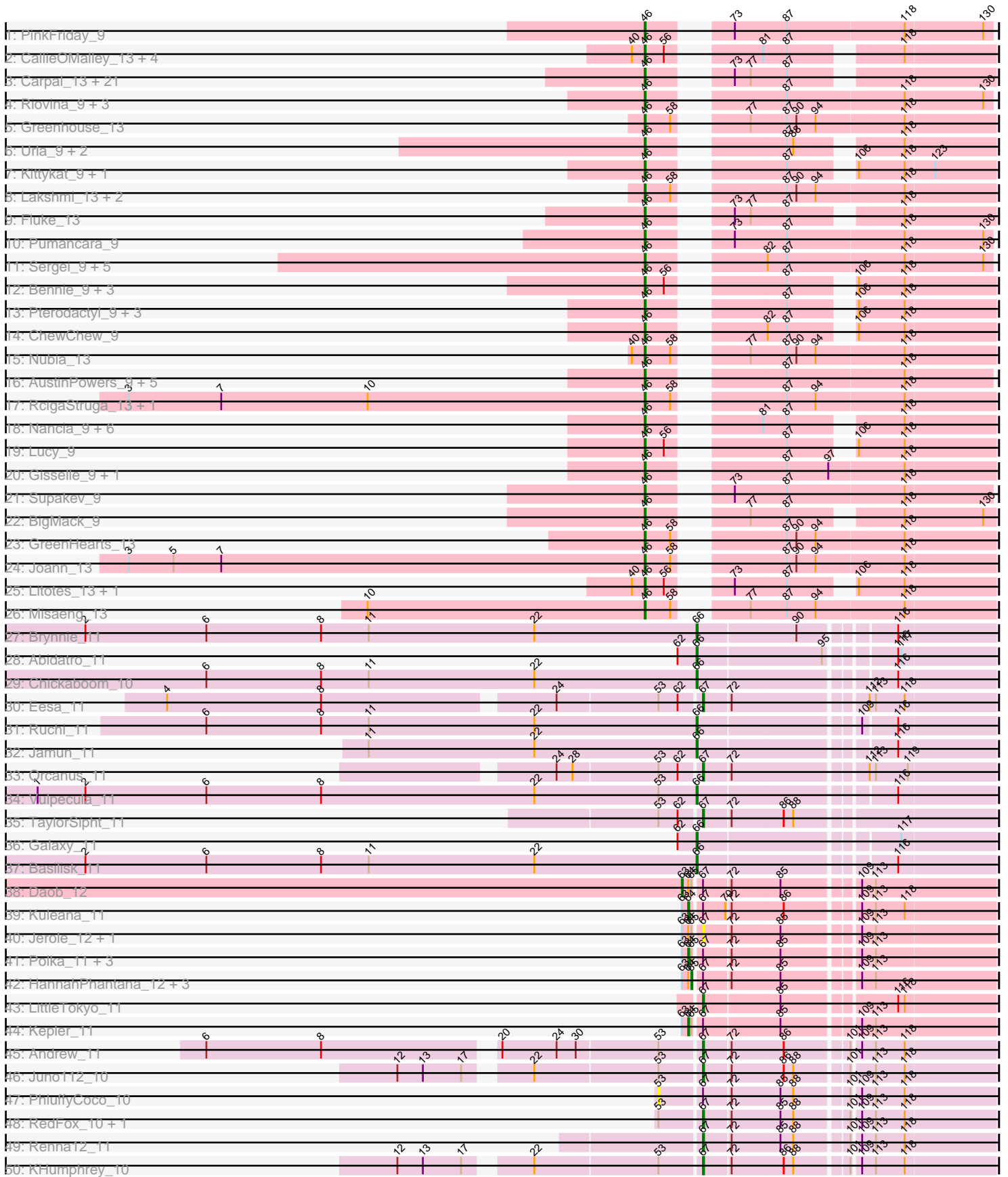


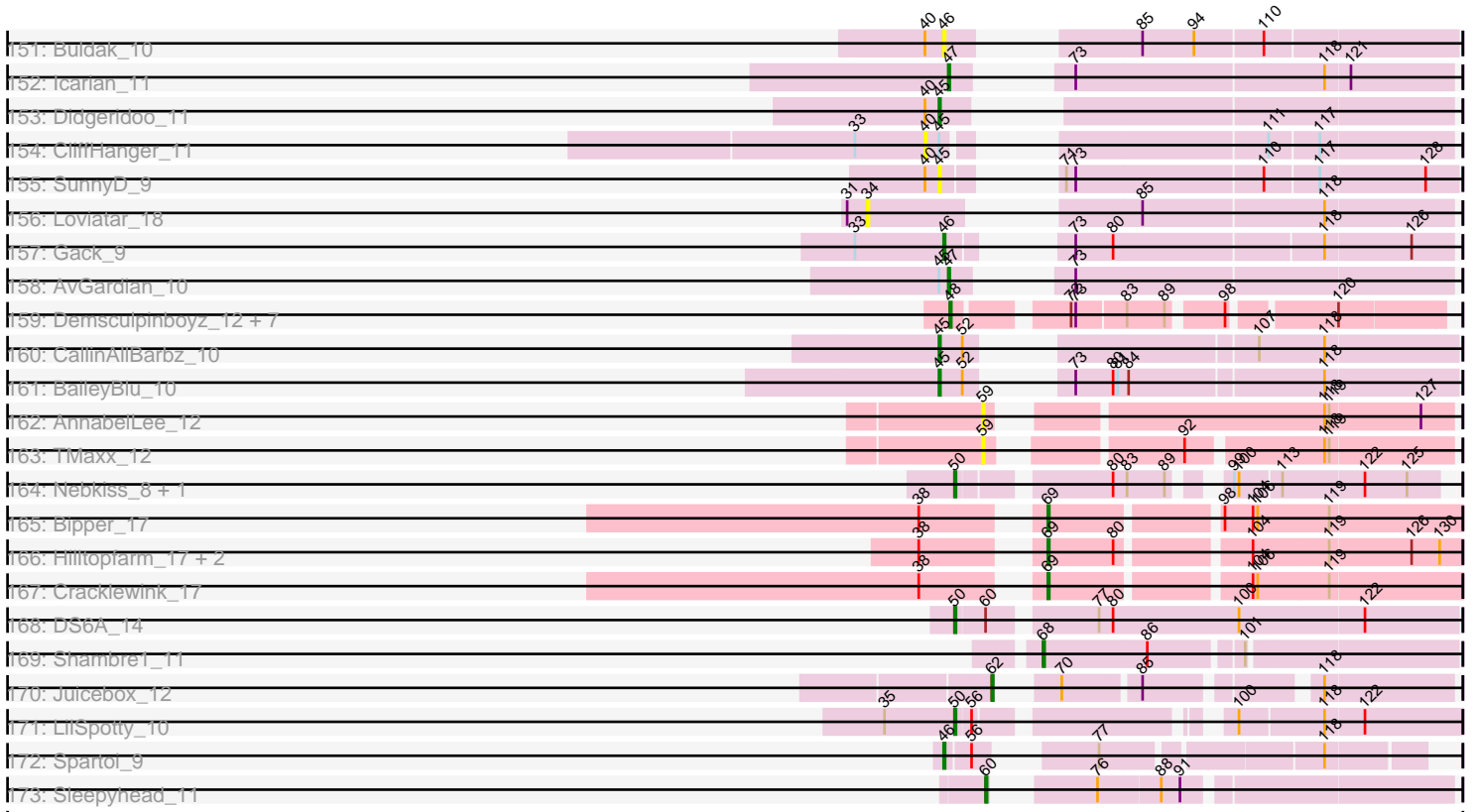
Pham 193652



Pham 193652



Pham 193652



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 193652 Report

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

Pham number 193652 has 388 members, 47 are drafts.

Phages represented in each track:

- Track 1 : PinkFriday_9
- Track 2 : CallieOMalley_13, AppleCider_13, Wayne_13, Suppi_13, Canowicakte_13
- Track 3 : Carpal_13, Dino_13, Cholula_13, Korra_13, Glenn_13, Kalizoi_13, Vallejo_13, Wawa_13, TattModd_13, BrotherBL0_13, Zorro_13, RAP15_13, Jumboset_13, Rozby_13, MrGloopy_13, Riverdale_13, MeganNoll_13, Scuttle_13, Potatoes_13, Savage2526_13, Immaculata_13, Beethoven_13
- Track 4 : Riovina_9, Eunoia_9, Aledel_9, OMalley_9
- Track 5 : Greenhouse_13
- Track 6 : Urla_9, EstebanJulior_9, MamaPearl_9
- Track 7 : Kittykat_9, Preamble_9
- Track 8 : Lakshmi_13, Oxynfrius_13, Albanese_13
- Track 9 : Fluke_13
- Track 10 : Pumancara_9
- Track 11 : Sergei_9, Maria1952_9, Temper16_9, Daiboju_9, KingBob_9, Herb_9
- Track 12 : Bennie_9, Moki_9, Huckleberry_9, HeadNerd_9
- Track 13 : Pterodactyl_9, Lennox_9, PitaDog_9, Makoto_9
- Track 14 : ChewChew_9
- Track 15 : Nubia_13
- Track 16 : AustinPowers_9, DrRobert_9, Vulture_9, WonderBoy_9, Chridison_9, HunterDalle_9
- Track 17 : RcigaStruga_13, Huntingdon_13
- Track 18 : Nancia_9, Bodacious_9, Lasagna_9, OurGirlNessie_9, Christian_9, CristinaYang_9, LilStuart_9
- Track 19 : Lucy_9
- Track 20 : Gisselle_9, DreamTeam_9
- Track 21 : Supakev_9
- Track 22 : BigMack_9
- Track 23 : GreenHearts_13
- Track 24 : Joann_13
- Track 25 : Litotes_13, PartyCup_13
- Track 26 : Misaeng_13
- Track 27 : Brynnie_11
- Track 28 : Abidatro_11
- Track 29 : Chickaboom_10
- Track 30 : Eesa_11
- Track 31 : Ruchi_11
- Track 32 : Jamun_11

- Track 33 : Orcanus_11
- Track 34 : Vulpecula_11
- Track 35 : TaylorSipht_11
- Track 36 : Galaxy_11
- Track 37 : Basilisk_11
- Track 38 : Daob_12
- Track 39 : Kuleana_11
- Track 40 : Jerole_12, Colusalem_11
- Track 41 : Polka_11, Coral_11, Melons_12, Cote_12
- Track 42 : HannahPhantana_12, Bedetta_12, Amelia_12, Lunar_12
- Track 43 : LittleTokyo_11
- Track 44 : Kepler_11
- Track 45 : Andrew_11
- Track 46 : Juno112_10
- Track 47 : PhluffyCoco_10
- Track 48 : RedFox_10, Camara_10
- Track 49 : Renna12_11
- Track 50 : KHumphrey_10
- Track 51 : Leona_10
- Track 52 : P101A_9, DrParker_9, P100.1_9, P105_9
- Track 53 : Enoki_9, PAS50_9, P100D_9, PHL067M10_09
- Track 54 : P106L_9, P106I_9, P106C_9, P106M_9, P106A_9
- Track 55 : LilBandit_9, P104B_9
- Track 56 : SKKY_9
- Track 57 : Attacne_9
- Track 58 : P107A_9
- Track 59 : Enochoraptor_9, PHL071N05_09, Pirate_9, P14.4_9, P108C_9, Aquarius_9
- Track 60 : PHL113M01_09
- Track 61 : Kubed_9, PHL112N00_09
- Track 62 : Ouroboros_9
- Track 63 : P107C_9, ATCC29399BC_9
- Track 64 : PHL060L00_09, Lauchelly_9
- Track 65 : Wizzo_9
- Track 66 : PHL010M04_09
- Track 67 : Rileysaurus_9
- Track 68 : MEAK_9, Procrass1_9, Solid_9, P104A_9
- Track 69 : P100A_9
- Track 70 : P1.1_9
- Track 71 : Stormborn_9
- Track 72 : Moyashi_9
- Track 73 : PA6_9
- Track 74 : BruceLethal_9
- Track 75 : Cota_9, Keiki_9
- Track 76 : P9.1_9, PHL111M01_09
- Track 77 : ATCC29399BT_9
- Track 78 : Leviosa_9
- Track 79 : MrAK_9
- Track 80 : Supernova_9
- Track 81 : PHL114L00_09
- Track 82 : QueenBey_9
- Track 83 : PAD20_9
- Track 84 : PHL037M02_09

- Track 85 : Eliott_11, Nina_12, RedBaron_12, Cozz_11, PsychoKiller_11, Typhonomachy_12, Carsonalex_12, Sopespian_11, Axym_11, MunkgeeRoachy_11
- Track 86 : Yakult_12, Amok_10, AndPeggy_10, AikoCarson_10, Yarn_10, Emalyn_10, BillDoor_13
- Track 87 : Feastonyeet_10, KayGee_11, BigChungus_10, Elinal_12, Vine_12
- Track 88 : Mayweather_12, SheckWes_10, MAnor_11, CherryonLim_12, Pons_11
- Track 89 : SweatNTears_13, MScarn_13, SketchMex_10, Troje_11, Horseradish_12, Yummy_12, Biskit_12, Buttrmlkdreams_11
- Track 90 : Orla_13, Nodigi_13, Hexbug_13
- Track 91 : Tolls_13, SteamedHams_13, GTE2_09
- Track 92 : Survivors_13, MaVan_13, Zareef_15, Azira_13, Nibbles_13
- Track 93 : Dre3_11, Cleo_11, Gibbous_11
- Track 94 : SummitAcademy_10, PotPie_11
- Track 95 : Button_12, Jamzy_14, GiKK_14
- Track 96 : Burnsey_11, Agatha_11, GoldHunter_12
- Track 97 : Quasar_11
- Track 98 : RanchParmCat_14, Margaret_14
- Track 99 : Lauer_10
- Track 100 : Fribs8_12
- Track 101 : HippoPololi_13
- Track 102 : LonelyBoi_12, Posh_12, BeeGee_12, Wrigley_12, Jablanski_12, Pytheas_12
- Track 103 : Cashline_12
- Track 104 : Pollux_12, BritBrat_12, EMSquaredA_12, Lilas_12, Bradissa_12, Floral_12, EnalisNailo_12, Confidence_12, Marteena_12
- Track 105 : Angelique_12
- Track 106 : Morkie_10, PhorbesPhlower_10, Lucky10_10
- Track 107 : Ecliptus_11, ODay_11
- Track 108 : Budski_11, Phabuloso_11, Kamaru_11, CheeseTouch_11, LitninMcQueen_11, Holliday_11
- Track 109 : Malisha_11
- Track 110 : BearBQ_11, MortyNRick_11, Birdsong_11
- Track 111 : Periwinkle_11, Horus_11, BENtherdunthat_11, Frickyeah_11, Leroy_11, Asapag_11
- Track 112 : Kenna_11, Lutum_11
- Track 113 : Getalong_11, Whitney_11
- Track 114 : Squiddly_12, Phistory_11
- Track 115 : Spooky_11
- Track 116 : Apricot_11, Crater_11
- Track 117 : Kuwabara_11
- Track 118 : Ziko_46, Guey18_48, Volt_45, Fryberger_43, Ronaldo_46
- Track 119 : Keelan_41
- Track 120 : Swervy_10, Slay_10, Finalfrontier_11, SarBear_10
- Track 121 : Jovita_10, Eula_10, QMacho_11
- Track 122 : Teagster_9, Shayna_9
- Track 123 : BAjuniper_10
- Track 124 : Kieran_10, Rona_10, Sharkboy_10, ChiliPepper_10, Dismas_10
- Track 125 : Lahqtemish_10
- Track 126 : Doobus_10
- Track 127 : Cashington_10
- Track 128 : Coltrane_9, Skylord_9, Clayda5_9, Rollins_9, Vitas_9, Brahms_9, Armstrong_9, Bernstein_9
- Track 129 : Phisb_10

- Track 130 : TukTuk_10
- Track 131 : BelmontSKP_11, AnnaLie_11
- Track 132 : Kenzers_10, Lynlen_10, Albedo_10
- Track 133 : Eden_9
- Track 134 : DirtyBubble_10, Stromboli_10, BabyYoda_10
- Track 135 : Olliecat_10, Squircle_10
- Track 136 : Quenya_11
- Track 137 : BubbaBear_10
- Track 138 : Johnathan_10, Avocadoman_10, Albright_10, Abigail_10, Burritobowl_10
- Track 139 : CroZenni_10, SansAfet_10, DickRichards_10
- Track 140 : Bachaco_10, FlameThrower_10, Celaena_10
- Track 141 : WalkingDead_10
- Track 142 : Katzastrophic_10
- Track 143 : Franklin22_9
- Track 144 : SanaSana_11, Stoor_10
- Track 145 : LimaBean_10
- Track 146 : Elva_11
- Track 147 : Arroyo_11
- Track 148 : Kate33_10, IndyLu_10
- Track 149 : BabyDaisy_11
- Track 150 : Nicky22_11
- Track 151 : Buldak_10
- Track 152 : Icarian_11
- Track 153 : Didgeridoo_11
- Track 154 : CliffHanger_11
- Track 155 : SunnyD_9
- Track 156 : Loviatar_18
- Track 157 : Gack_9
- Track 158 : AvGardian_10
- Track 159 : Demsculpinboyz_12, Avani_12, Soul22_12, Che9d_12, Zapner_13, Blarby_13, Jabbawokkie_13, Yoshi_12
- Track 160 : CallinAllBarbz_10
- Track 161 : BaileyBlu_10
- Track 162 : AnnabelLee_12
- Track 163 : TMaxx_12
- Track 164 : Nebkiss_8, Gaia_8
- Track 165 : Bipper_17
- Track 166 : Hilltopfarm_17, Typha_17, AuntGwenStacy_17
- Track 167 : Cracklewink_17
- Track 168 : DS6A_14
- Track 169 : Shambre1_11
- Track 170 : Juicebox_12
- Track 171 : LilSpotty_10
- Track 172 : Spartoi_9
- Track 173 : Sleepyhead_11

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

The start number called the most often in the published annotations is 46, it was called in 223 of the 341 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ATCC29399BC_9, ATCC29399BT_9, Abigail_10, Agatha_11, AikoCarson_10, Albanese_13, Albedo_10, Albright_10, Aledel_9, Amok_10, AndPeggy_10, AnnaLie_11, AppleCider_13, Aquarius_9, Armstrong_9, Arroyo_11, Attacne_9, AustinPowers_9, Avocadoman_10, Axym_11, Azira_13, Bachaco_10, Beethoven_13, BelmontSKP_11, Bennie_9, Bernstein_9, BigChungus_10, BigMack_9, BillDoor_13, Biskit_12, Bodacious_9, Brahms_9, BrotherBLo_13, BruceLethal_9, BubbaBear_10, Buldak_10, Burnsey_11, Burritobowl_10, Button_12, Buttrmlkdreams_11, CallieOMalley_13, Canowicakte_13, Carpal_13, Carsonalex_12, Cashington_10, Celaena_10, CherryonLim_12, ChewChew_9, ChiliPepper_10, Cholula_13, Chridison_9, Christian_9, Clayda5_9, Cleo_11, Coltrane_9, Cota_9, Cozz_11, CristinaYang_9, CroZenni_10, Daiboju_9, DickRichards_10, Dino_13, Dismas_10, Doobus_10, DrParker_9, DrRobert_9, Dre3_11, DreamTeam_9, Eden_9, Elinal_12, Elliott_11, Emalyn_10, Enochoraptor_9, Enoki_9, EstebanJulior_9, Eula_10, Eunoia_9, Feastonyeet_10, FlameThrower_10, Fluke_13, Franklin22_9, Fribs8_12, GTE2_09, Gack_9, GiKK_14, Gibbous_11, Gisselle_9, Glenn_13, GoldHunter_12, GreenHearts_13, Greenhouse_13, HeadNerd_9, Herb_9, Hexbug_13, HippoPololi_13, Horseradish_12, Huckleberry_9, HunterDalle_9, Huntingdon_13, Immaculata_13, Jamzy_14, Joann_13, Johnathan_10, Jovita_10, Jumboset_13, Kalzoi_13, Katzastrophic_10, KayGee_11, Keiki_9, Kenzers_10, Kieran_10, KingBob_9, Kittykat_9, Korra_13, Kubed_9, Lakshmi_13, Lasagna_9, Lauchelly_9, Lennox_9, Leviosa_9, LilBandit_9, LilStuart_9, LimaBean_10, Litotes_13, Lucy_9, Lynlen_10, MAnor_11, MEAK_9, MScarn_13, MaVan_13, Makoto_9, MamaPearl_9, Margaret_14, Maria1952_9, Mayweather_12, MeganNoll_13, Misaeng_13, Moki_9, Moyashi_9, MrAK_9, MrGloopy_13, MunkgeeRoachy_11, Nancia_9, Nibbles_13, Nicky22_11, Nina_12, Nodigi_13, Nubia_13, OMalley_9, Olliecat_10, Orla_13, OurGirlNessie_9, Ouroboros_9, Oxynfrius_13, P1.1_9, P100.1_9, P100A_9, P100D_9, P101A_9, P104A_9, P104B_9, P105_9, P106A_9, P106C_9, P106L_9, P106M_9, P107A_9, P107C_9, P108C_9, P14.4_9, P9.1_9, PA6_9, PAD20_9, PAS50_9, PHL010M04_09, PHL060L00_09, PHL067M10_09, PHL071N05_09, PHL111M01_09, PHL112N00_09, PHL113M01_09, PHL114L00_09, PartyCup_13, Phisb_10, PinkFriday_9, Pirate_9, PitaDog_9, Pons_11, PotPie_11, Potatoes_13, Preamble_9, Procrass1_9, PsychoKiller_11, Pterodactyl_9, Pumancara_9, QMacho_11, Quasar_11, QueenBey_9, Quenya_11, RAP15_13, RanchParmCat_14, RcigaStruga_13, RedBaron_12, Rileysaurus_9, Rivovina_9, Riverdale_13, Rollins_9, Rona_10, Rozby_13, SKKY_9, SansAfet_10, Savage2526_13, Scuttle_13, Sergei_9, Sharkboy_10, SheckWes_10, SketchMex_10, Skylord_9, Solid_9, Sopespian_11, Spartoi_9, Squirrel_10, SteamedHams_13, Stormborn_9, SummitAcademy_10, Supakev_9, Supernova_9, Suppi_13, Survivors_13, SweatNTears_13, TattModd_13, Temper16_9, Tolls_13, Troje_11, TukTuk_10, Typhonmarchy_12, Urla_9, Vallejo_13, Vine_12, Vitas_9, Vulture_9, Wawa_13, Wayne_13, Wizzo_9, WonderBoy_9, Yakult_12, Yarn_10, Yummy_12, Zareef_15, Zorro_13,

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

- Lauer_10, PHL037M02_09,

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

- Abidatro_11, Amelia_12, Andrew_11, Angelique_12, AnnabelLee_12, Apricot_11, Asapag_11, AuntGwenStacy_17, AvGardian_10, Avani_12, BAjuniper_10,

BENtherdunthat_11, BabyDaisy_11, BabyYoda_10, BaileyBlu_10, Basilisk_11, BearBQ_11, Bedetta_12, BeeGee_12, Bipper_17, Birdsong_11, Blarby_13, Bradissa_12, BritBrat_12, Brynnie_11, Budski_11, CallinAllBarbz_10, Camara_10, Cashline_12, Che9d_12, CheeseTouch_11, Chickaboom_10, CliffHanger_11, Colusalem_11, Confidence_12, Coral_11, Cote_12, Cracklewink_17, Crater_11, DS6A_14, Daob_12, Demsculpinboyz_12, Didgeridoo_11, DirtyBubble_10, EMSquaredA_12, Ecliptus_11, Eesa_11, Elva_11, EnalisNailo_12, Finalfrontier_11, Floral_12, Frickyeah_11, Fryberger_43, Gaia_8, Galaxy_11, Getalong_11, Guey18_48, HannahPhantana_12, Hilltopfarm_17, Holliday_11, Horus_11, Icarian_11, IndyLu_10, Jabbawokkie_13, Jablanski_12, Jamun_11, Jerole_12, Juicebox_12, Juno112_10, KHumphrey_10, Kamaru_11, Kate33_10, Keelan_41, Kenna_11, Kepler_11, Kuleana_11, Kuwabara_11, Lahqtemish_10, Leona_10, Leroy_11, LilSpotty_10, Lilas_12, LitninMcQueen_11, LittleTokyo_11, LonelyBoi_12, Loviatar_18, Lucky10_10, Lunar_12, Lutum_11, Malisha_11, Marteena_12, Melons_12, Morkie_10, MortyNRick_11, Nebkiss_8, ODay_11, Orcanus_11, Periwinkle_11, Phabuloso_11, Phistory_11, PhluffyCoco_10, PhorbesPhlower_10, Polka_11, Pollux_12, Posh_12, Pytheas_12, RedFox_10, Renna12_11, Ronaldo_46, Ruchi_11, SanaSana_11, SarBear_10, Shambre1_11, Shayna_9, Slay_10, Sleepyhead_11, Soul22_12, Spooky_11, Squiddly_12, Stoor_10, Stromboli_10, SunnyD_9, Swervy_10, TMaxx_12, TaylorSipt_11, Teagster_9, Typha_17, Volt_45, Vulpecula_11, WalkingDead_10, Whitney_11, Wrigley_12, Yoshi_12, Zapner_13, Ziko_46,

Summary by start number:

Start 34:

- Found in 1 of 388 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Loviatar_18 (EB),

Start 36:

- Found in 1 of 388 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lauer_10 (CT),

Start 40:

- Found in 53 of 388 (13.7%) of genes in pham
- No Manual Annotations of this start.
- Called 1.9% of time when present
- Phage (with cluster) where this start called: CliffHanger_11 (EB),

Start 41:

- Found in 2 of 388 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SanaSana_11 (EB), Stoor_10 (EB),

Start 43:

- Found in 6 of 388 (1.5%) of genes in pham
- Manual Annotations of this start: 6 of 341
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Fryberger_43 (DP), Guey18_48 (DP), Keelan_41 (DP), Ronaldo_46 (DP), Volt_45 (DP), Ziko_46 (DP),

Start 44:

- Found in 5 of 388 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: PHL037M02_09 (BU),

Start 45:

- Found in 33 of 388 (8.5%) of genes in pham
- Manual Annotations of this start: 14 of 341
- Called 54.5% of time when present
- Phage (with cluster) where this start called: BAjuniper_10 (EB), BabyDaisy_11 (EB), BabyYoda_10 (EB), BaileyBlu_10 (FP), CallinAllBarbz_10 (FP), Didgeridoo_11 (EB), DirtyBubble_10 (EB), Finalfrontier_11 (EB), IndyLu_10 (EB), Kate33_10 (EB), Lahqtemish_10 (EB), SarBear_10 (EB), Shayna_9 (EB), Slay_10 (EB), Stromboli_10 (EB), SunnyD_9 (EB), Swervy_10 (EB), Teagster_9 (EB),

Start 46:

- Found in 253 of 388 (65.2%) of genes in pham
- Manual Annotations of this start: 223 of 341
- Called 99.2% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_9 (BU), ATCC29399BT_9 (BU), Abigail_10 (EB), Agatha_11 (CT), AikoCarson_10 (CT), Albanese_13 (AK), Albedo_10 (EB), Albright_10 (EB), Aledel_9 (AK), Amok_10 (CT), AndPeggy_10 (CT), AnnaLie_11 (EB), AppleCider_13 (AK), Aquarius_9 (BU), Armstrong_9 (EB), Arroyo_11 (EB), Attacne_9 (BU), AustinPowers_9 (AK), Avocadoman_10 (EB), Axym_11 (CT), Azira_13 (CT), Bachaco_10 (EB), Beethoven_13 (AK), BelmontSKP_11 (EB), Bennie_9 (AK), Bernstein_9 (EB), BigChungus_10 (CT), BigMack_9 (AK), BillDoor_13 (CT), Biskit_12 (CT), Bodacious_9 (AK), Brahms_9 (EB), BrotherBLo_13 (AK), BruceLethal_9 (BU), BubbaBear_10 (EB), Buldak_10 (EB), Burnsey_11 (CT), Burritobowl_10 (EB), Button_12 (CT), Buttrmlkdreams_11 (CT), CallieOMalley_13 (AK), Canowicakte_13 (AK), Carpal_13 (AK), Carsonalex_12 (CT), Cashington_10 (EB), Celaena_10 (EB), CherryonLim_12 (CT), ChewChew_9 (AK), ChiliPepper_10 (EB), Cholula_13 (AK), Chrudson_9 (AK), Christian_9 (AK), Clayda5_9 (EB), Cleo_11 (CT), Coltrane_9 (EB), Cota_9 (BU), Cozz_11 (CT), CristinaYang_9 (AK), CroZenni_10 (EB), Daiboju_9 (AK), DickRichards_10 (EB), Dino_13 (AK), Dismas_10 (EB), Doobus_10 (EB), DrParker_9 (BU), DrRobert_9 (AK), Dre3_11 (CT), DreamTeam_9 (AK), Eden_9 (EB), Elinal_12 (CT), Elliott_11 (CT), Emalyn_10 (CT), Enochoraptor_9 (BU), Enoki_9 (BU), EstebanJulior_9 (AK), Eula_10 (EB), Eunoia_9 (AK), Feastonyeet_10 (CT), FlameThrower_10 (EB), Fluke_13 (AK), Franklin22_9 (EB), Fribs8_12 (CT), GTE2_09 (CT), Gack_9 (EB), GiKK_14 (CT), Gibbous_11 (CT), Gisselle_9 (AK), Glenn_13 (AK), GoldHunter_12 (CT), GreenHearts_13 (AK), Greenhouse_13 (AK), HeadNerd_9 (AK), Herb_9 (AK), Hexbug_13 (CT), HippoPololi_13 (CT), Horseradish_12 (CT), Huckleberry_9 (AK), HunterDalle_9 (AK), Huntingdon_13 (AK), Immaculata_13 (AK), Jamzy_14 (CT), Joann_13 (AK), Johnathan_10 (EB), Jovita_10 (EB), Jumboset_13 (AK), Kalizoi_13 (AK), Katzastrophic_10 (EB), KayGee_11 (CT), Keiki_9 (BU), Kenzers_10 (EB), Kieran_10 (EB), KingBob_9 (AK), Kittykat_9 (AK), Korra_13 (AK), Kubed_9 (BU), Lakshmi_13 (AK), Lasagna_9 (AK), Lauchelly_9 (BU), Lennox_9 (AK), Leviosa_9 (BU), LilBandit_9 (BU), LilStuart_9 (AK), LimaBean_10 (EB), Litotes_13 (AK), Lucy_9 (AK), Lynlen_10 (EB), MAnor_11 (CT), MEAK_9 (BU),

MScarn_13 (CT), MaVan_13 (CT), Makoto_9 (AK), MamaPearl_9 (AK), Margaret_14 (CT), Maria1952_9 (AK), Mayweather_12 (CT), MeganNoll_13 (AK), Misaeng_13 (AK), Moki_9 (AK), Moyashi_9 (BU), MrAK_9 (BU), MrGloopy_13 (AK), MunkgeeRoachy_11 (CT), Nancia_9 (AK), Nibbles_13 (CT), Nicky22_11 (EB), Nina_12 (CT), Nodigi_13 (CT), Nubia_13 (AK), OMalley_9 (AK), Olliecat_10 (EB), Orla_13 (CT), OurGirlNessie_9 (AK), Ouroboros_9 (BU), Oxynfrius_13 (AK), P1.1_9 (BU), P100.1_9 (BU), P100A_9 (BU), P100D_9 (BU), P101A_9 (BU), P104A_9 (BU), P104B_9 (BU), P105_9 (BU), P106A_9 (BU), P106C_9 (BU), P106L_9 (BU), P106M_9 (BU), P107A_9 (BU), P107C_9 (BU), P108C_9 (BU), P14.4_9 (BU), P9.1_9 (BU), PA6_9 (BU), PAD20_9 (BU), PAS50_9 (BU), PHL010M04_09 (BU), PHL060L00_09 (BU), PHL067M10_09 (BU), PHL071N05_09 (BU), PHL111M01_09 (BU), PHL112N00_09 (BU), PHL113M01_09 (BU), PHL114L00_09 (BU), PartyCup_13 (AK), Phisb_10 (EB), PinkFriday_9 (AK), Pirate_9 (BU), PitaDog_9 (AK), Pons_11 (CT), PotPie_11 (CT), Potatoes_13 (AK), Preamble_9 (AK), Procrass1_9 (BU), PsychoKiller_11 (CT), Pterodactyl_9 (AK), Pumancara_9 (AK), QMacho_11 (EB), Quasar_11 (CT), QueenBey_9 (BU), Quenya_11 (EB), RAP15_13 (AK), RanchParmCat_14 (CT), RcigaStruga_13 (AK), RedBaron_12 (CT), Rileysaurus_9 (BU), Rivovina_9 (AK), Riverdale_13 (AK), Rollins_9 (EB), Rona_10 (EB), Rozby_13 (AK), SKKY_9 (BU), SansAfet_10 (EB), Savage2526_13 (AK), Scuttle_13 (AK), Sergei_9 (AK), Sharkboy_10 (EB), SheckWes_10 (CT), SketchMex_10 (CT), Skylord_9 (EB), Solid_9 (BU), Sopespian_11 (CT), Spartoi_9 (singleton), Squirrel_10 (EB), SteamedHams_13 (CT), Stormborn_9 (BU), SummitAcademy_10 (CT), Supakev_9 (AK), Supernova_9 (BU), Suppi_13 (AK), Survivors_13 (CT), SweatNTears_13 (CT), TattModd_13 (AK), Temper16_9 (AK), Tolls_13 (CT), Troje_11 (CT), TukTuk_10 (EB), Typhonomachy_12 (CT), Urla_9 (AK), Vallejo_13 (AK), Vine_12 (CT), Vitas_9 (EB), Vulture_9 (AK), Wawa_13 (AK), Wayne_13 (AK), Wizzo_9 (BU), WonderBoy_9 (AK), Yakult_12 (CT), Yarn_10 (CT), Yummy_12 (CT), Zareef_15 (CT), Zorro_13 (AK),

Start 47:

- Found in 3 of 388 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AvGardian_10 (EB), Icarian_11 (EB), WalkingDead_10 (EB),

Start 48:

- Found in 25 of 388 (6.4%) of genes in pham
- Manual Annotations of this start: 24 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angelique_12 (CY1), Avani_12 (F2), BeeGee_12 (CY), Blarby_13 (F), Bradissa_12 (CY1), BritBrat_12 (CY2), Cashline_12 (CY), Che9d_12 (F2), Confidence_12 (CY1), Demsculpinboyz_12 (F2), EMSquaredA_12 (CY1), EnalisNailo_12 (CY1), Floral_12 (CY1), Jabbawokkie_13 (F2), Jablanski_12 (CY), Lilas_12 (CY1), LonelyBoi_12 (CY), Marteena_12 (CY1), Pollux_12 (CY1), Posh_12 (CY), Pytheas_12 (CY), Soul22_12 (F2), Wrigley_12 (CY), Yoshi_12 (F2), Zapner_13 (F2),

Start 49:

- Found in 1 of 388 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elva_11 (EB),

Start 50:

- Found in 5 of 388 (1.3%) of genes in pham
- Manual Annotations of this start: 4 of 341
- Called 80.0% of time when present
- Phage (with cluster) where this start called: DS6A_14 (singleton), Gaia_8 (X), LilSpotty_10 (singleton), Nebkiss_8 (X),

Start 53:

- Found in 11 of 388 (2.8%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: PhluffyCoco_10 (AS3),

Start 59:

- Found in 2 of 388 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_12 (FR), TMaxx_12 (FR),

Start 60:

- Found in 14 of 388 (3.6%) of genes in pham
- Manual Annotations of this start: 1 of 341
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Sleepyhead_11 (singleton),

Start 61:

- Found in 9 of 388 (2.3%) of genes in pham
- Manual Annotations of this start: 8 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot_11 (DN3), BearBQ_11 (DN), Birdsong_11 (DN), Crater_11 (DN3), Kuwabara_11 (DN4), Lucky10_10 (DH), Morkie_10 (DH), MortyNRick_11 (DN), PhorbesPhlower_10 (DH),

Start 62:

- Found in 8 of 388 (2.1%) of genes in pham
- Manual Annotations of this start: 3 of 341
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Ecliptus_11 (DN), Juicebox_12 (singleton), ODay_11 (DN),

Start 63:

- Found in 13 of 388 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 341
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Daob_12 (AS2),

Start 64:

- Found in 13 of 388 (3.4%) of genes in pham
- Manual Annotations of this start: 6 of 341
- Called 46.2% of time when present
- Phage (with cluster) where this start called: Coral_11 (AS2), Cote_12 (AS2), Kepler_11 (AS2), Kuleana_11 (AS2), Melons_12 (AS2), Polka_11 (AS2),

Start 65:

- Found in 12 of 388 (3.1%) of genes in pham
- Manual Annotations of this start: 3 of 341
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Amelia_12 (AS2), Bedetta_12 (AS2), HannahPhantana_12 (AS2), Lunar_12 (AS2),

Start 66:

- Found in 8 of 388 (2.1%) of genes in pham
- Manual Annotations of this start: 8 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_11 (AS1), Basilisk_11 (AS1), Brynnie_11 (AS1), Chickaboom_10 (AS1), Galaxy_11 (AS1), Jamun_11 (AS1), Ruchi_11 (AS1), Vulpecula_11 (AS1),

Start 67:

- Found in 25 of 388 (6.4%) of genes in pham
- Manual Annotations of this start: 10 of 341
- Called 52.0% of time when present
- Phage (with cluster) where this start called: Andrew_11 (AS3), Camara_10 (AS3), Colusalem_11 (AS2), Eesa_11 (AS1), Jerole_12 (AS2), Juno112_10 (AS3), KHumphrey_10 (AS3), Leona_10 (AS3), LittleTokyo_11 (AS2), Orcanus_11 (AS1), RedFox_10 (AS3), Renna12_11 (AS3), TaylorSipt_11 (AS1),

Start 68:

- Found in 58 of 388 (14.9%) of genes in pham
- Manual Annotations of this start: 1 of 341
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Shambre1_11 (singleton),

Start 69:

- Found in 5 of 388 (1.3%) of genes in pham
- Manual Annotations of this start: 4 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_17 (Y), Bipper_17 (Y), Cracklewink_17 (Y), Hilltopfarm_17 (Y), Typha_17 (Y),

Start 74:

- Found in 20 of 388 (5.2%) of genes in pham
- Manual Annotations of this start: 19 of 341
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Asapag_11 (DN1), BENtherdunthat_11 (DN1), Budski_11 (DN), CheeseTouch_11 (DN1), Frickyeah_11 (DN1), Getalong_11 (DN1), Holliday_11 (DN1), Horus_11 (DN1), Kamaru_11 (DN1), Kenna_11 (DN1), Leroy_11 (DN1), LitninMcQueen_11 (DN1), Lutum_11 (DN1), Malisha_11 (DN), Periwinkle_11 (DN1), Phabuloso_11 (DN1), Phistory_11 (DN1), Spooky_11 (DN2), Squiddly_12 (DN2), Whitney_11 (DN1),

Summary by clusters:

There are 24 clusters represented in this pham: DN, FP, FR, DH, AS2, CY1, BU, DP, DN4, DN1, DN3, DN2, AS3, CY2, AS1, F, AK, EB, CY, Y, X, singleton, CT, F2,

Info for manual annotations of cluster AK:

- Start number 46 was manually annotated 83 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 66 was manually annotated 8 times for cluster AS1.
- Start number 67 was manually annotated 3 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 63 was manually annotated 1 time for cluster AS2.
- Start number 64 was manually annotated 6 times for cluster AS2.
- Start number 65 was manually annotated 3 times for cluster AS2.
- Start number 67 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 67 was manually annotated 6 times for cluster AS3.

Info for manual annotations of cluster BU:

- Start number 46 was manually annotated 43 times for cluster BU.

Info for manual annotations of cluster CT:

- Start number 36 was manually annotated 1 time for cluster CT.
- Start number 46 was manually annotated 52 times for cluster CT.

Info for manual annotations of cluster CY:

- Start number 48 was manually annotated 7 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 48 was manually annotated 9 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 48 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DH:

- Start number 61 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:

- Start number 61 was manually annotated 2 times for cluster DN.
- Start number 62 was manually annotated 2 times for cluster DN.
- Start number 74 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 74 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 74 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 61 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 61 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DP:

- Start number 43 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster EB:

- Start number 41 was manually annotated 2 times for cluster EB.
- Start number 45 was manually annotated 12 times for cluster EB.
- Start number 46 was manually annotated 44 times for cluster EB.
- Start number 47 was manually annotated 2 times for cluster EB.
- Start number 49 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster F2:

- Start number 48 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster FP:

- Start number 45 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster X:

- Start number 50 was manually annotated 2 times for cluster X.

Info for manual annotations of cluster Y:

- Start number 69 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: ATCC29399BC_9 Start: 6452, Stop: 6742, Start Num: 46

Candidate Starts for ATCC29399BC_9:

(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (Start: 68 @6482 has 1 MA's), (72, 6500), (73, 6503), (77, 6518), (80, 6527), (81, 6530), (93, 6575), (105, 6617), (112, 6629), (125, 6713),

Gene: ATCC29399BT_9 Start: 6448, Stop: 6738, Start Num: 46

Candidate Starts for ATCC29399BT_9:

(44, 6442), (Start: 46 @6448 has 223 MA's), (56, 6466), (72, 6496), (77, 6514), (80, 6523), (81, 6526), (87, 6547), (105, 6613), (112, 6625), (115, 6649), (125, 6709),

Gene: Abidatro_11 Start: 8071, Stop: 8328, Start Num: 66

Candidate Starts for Abidatro_11:

(Start: 62 @8053 has 3 MA's), (Start: 66 @8071 has 8 MA's), (95, 8185), (116, 8239), (117, 8242),

Gene: Abigail_10 Start: 7773, Stop: 8030, Start Num: 46

Candidate Starts for Abigail_10:

(40, 7761), (Start: 46 @7773 has 223 MA's), (73, 7794), (118, 7950), (125, 8001),

Gene: Agatha_11 Start: 7257, Stop: 7538, Start Num: 46

Candidate Starts for Agatha_11:

(Start: 46 @7257 has 223 MA's),

Gene: AikoCarson_10 Start: 6987, Stop: 7256, Start Num: 46

Candidate Starts for AikoCarson_10:

(Start: 46 @6987 has 223 MA's),

Gene: Albanese_13 Start: 10184, Stop: 10474, Start Num: 46

Candidate Starts for Albanese_13:

(Start: 46 @10184 has 223 MA's), (58, 10208), (87, 10283), (90, 10292), (94, 10310), (118, 10391),

Gene: Albedo_10 Start: 7645, Stop: 7905, Start Num: 46

Candidate Starts for Albedo_10:

(40, 7633), (Start: 46 @7645 has 223 MA's), (73, 7669), (118, 7825), (121, 7840), (125, 7876),

Gene: Albright_10 Start: 7654, Stop: 7911, Start Num: 46

Candidate Starts for Albright_10:

(40, 7642), (Start: 46 @7654 has 223 MA's), (73, 7675), (118, 7831), (125, 7882),

Gene: Aledel_9 Start: 7261, Stop: 7548, Start Num: 46

Candidate Starts for Aledel_9:

(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468), (130, 7540),

Gene: Amelia_12 Start: 8244, Stop: 8504, Start Num: 65

Candidate Starts for Amelia_12:

(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: Amok_10 Start: 6987, Stop: 7256, Start Num: 46

Candidate Starts for Amok_10:

(Start: 46 @6987 has 223 MA's),

Gene: AndPeggy_10 Start: 7275, Stop: 7547, Start Num: 46

Candidate Starts for AndPeggy_10:

(Start: 46 @7275 has 223 MA's),

Gene: Andrew_11 Start: 8034, Stop: 8288, Start Num: 67

Candidate Starts for Andrew_11:

(6, 7596), (8, 7704), (20, 7854), (24, 7905), (30, 7923), (53, 7998), (Start: 67 @8034 has 10 MA's), (72, 8058), (86, 8106), (101, 8160), (109, 8166), (113, 8178), (118, 8205),

Gene: Angelique_12 Start: 8007, Stop: 8264, Start Num: 48

Candidate Starts for Angelique_12:

(Start: 48 @8007 has 24 MA's), (79, 8088), (128, 8256),

Gene: AnnaLie_11 Start: 8000, Stop: 8320, Start Num: 46

Candidate Starts for AnnaLie_11:

(40, 7988), (Start: 46 @8000 has 223 MA's), (73, 8084), (117, 8237),

Gene: AnnabelLee_12 Start: 7464, Stop: 7730, Start Num: 59

Candidate Starts for AnnabelLee_12:

(59, 7464), (118, 7650), (119, 7653), (127, 7710),

Gene: AppleCider_13 Start: 10140, Stop: 10409, Start Num: 46

Candidate Starts for AppleCider_13:

(40, 10128), (Start: 46 @10140 has 223 MA's), (56, 10158), (81, 10218), (87, 10239), (118, 10326),

Gene: Apricot_11 Start: 7129, Stop: 7386, Start Num: 61

Candidate Starts for Apricot_11:

(42, 7096), (Start: 61 @7129 has 8 MA's), (91, 7222), (97, 7243), (118, 7315), (119, 7318), (122, 7339), (126, 7369),

Gene: Aquarius_9 Start: 6442, Stop: 6732, Start Num: 46

Candidate Starts for Aquarius_9:

(Start: 46 @6442 has 223 MA's), (52, 6454), (56, 6460), (Start: 68 @6472 has 1 MA's), (72, 6490), (73, 6493), (77, 6508), (80, 6517), (81, 6520), (93, 6565), (105, 6607), (112, 6619),

Gene: Armstrong_9 Start: 7425, Stop: 7688, Start Num: 46

Candidate Starts for Armstrong_9:

(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: Arroyo_11 Start: 8124, Stop: 8381, Start Num: 46

Candidate Starts for Arroyo_11:

(40, 8112), (Start: 46 @8124 has 223 MA's), (73, 8145), (117, 8298), (118, 8301), (121, 8316), (125, 8352),

Gene: Asapag_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Asapag_11:

(15, 6587), (18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: Attacne_9 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for Attacne_9:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (112, 6630), (115, 6654),

Gene: AuntGwenStacy_17 Start: 11749, Stop: 11997, Start Num: 69

Candidate Starts for AuntGwenStacy_17:

(38, 11692), (Start: 69 @11749 has 4 MA's), (80, 11791), (104, 11866), (119, 11914), (126, 11965), (130, 11983),

Gene: AustinPowers_9 Start: 7262, Stop: 7549, Start Num: 46

Candidate Starts for AustinPowers_9:

(Start: 46 @7262 has 223 MA's), (87, 7361), (118, 7469),

Gene: AvGardian_10 Start: 7705, Stop: 7968, Start Num: 47

Candidate Starts for AvGardian_10:

(Start: 45 @7699 has 14 MA's), (Start: 47 @7705 has 2 MA's), (73, 7732),

Gene: Avani_12 Start: 6948, Stop: 7220, Start Num: 48

Candidate Starts for Avani_12:

(Start: 48 @6948 has 24 MA's), (72, 7008), (73, 7011), (83, 7041), (89, 7065), (98, 7095), (120, 7155),

Gene: Avocadoman_10 Start: 7712, Stop: 7969, Start Num: 46

Candidate Starts for Avocadoman_10:

(40, 7700), (Start: 46 @7712 has 223 MA's), (73, 7733), (118, 7889), (125, 7940),

Gene: Axym_11 Start: 7257, Stop: 7538, Start Num: 46

Candidate Starts for Axym_11:

(21, 7134), (Start: 46 @7257 has 223 MA's),

Gene: Azira_13 Start: 8163, Stop: 8462, Start Num: 46

Candidate Starts for Azira_13:

(Start: 45 @8160 has 14 MA's), (Start: 46 @8163 has 223 MA's), (83, 8265), (102, 8334), (118, 8376), (127, 8436), (128, 8439), (129, 8442),

Gene: BAjuniper_10 Start: 7595, Stop: 7852, Start Num: 45

Candidate Starts for BAjuniper_10:

(40, 7586), (Start: 45 @7595 has 14 MA's), (73, 7616), (117, 7769), (118, 7772), (124, 7817),

Gene: BENtherdunthat_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for BENtherdunthat_11:

(15, 6587), (18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: BabyDaisy_11 Start: 7870, Stop: 8133, Start Num: 45

Candidate Starts for BabyDaisy_11:

(40, 7861), (Start: 45 @7870 has 14 MA's),

Gene: BabyYoda_10 Start: 7899, Stop: 8162, Start Num: 45

Candidate Starts for BabyYoda_10:

(Start: 45 @7899 has 14 MA's), (51, 7911), (73, 7926), (110, 8043), (118, 8082), (121, 8097),

Gene: Bachaco_10 Start: 7786, Stop: 8049, Start Num: 46

Candidate Starts for Bachaco_10:

(40, 7774), (Start: 46 @7786 has 223 MA's), (73, 7813), (78, 7831), (110, 7930), (118, 7969),

Gene: BaileyBlu_10 Start: 6510, Stop: 6782, Start Num: 45

Candidate Starts for BaileyBlu_10:

(Start: 45 @6510 has 14 MA's), (52, 6525), (73, 6546), (80, 6570), (81, 6573), (84, 6579), (118, 6699),

Gene: Basilisk_11 Start: 8395, Stop: 8652, Start Num: 66

Candidate Starts for Basilisk_11:

(2, 7819), (6, 7933), (8, 8041), (11, 8086), (22, 8242), (Start: 66 @8395 has 8 MA's), (116, 8563),

Gene: BearBQ_11 Start: 7129, Stop: 7386, Start Num: 61

Candidate Starts for BearBQ_11:

(42, 7096), (Start: 61 @7129 has 8 MA's), (101, 7264), (116, 7309), (118, 7315), (119, 7318), (122, 7339),

Gene: Bedetta_12 Start: 8244, Stop: 8504, Start Num: 65

Candidate Starts for Bedetta_12:

(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: BeeGee_12 Start: 8009, Stop: 8266, Start Num: 48

Candidate Starts for BeeGee_12:

(Start: 48 @8009 has 24 MA's), (122, 8219), (128, 8258),

Gene: Beethoven_13 Start: 10100, Stop: 10369, Start Num: 46

Candidate Starts for Beethoven_13:

(Start: 46 @10100 has 223 MA's), (73, 10151), (77, 10166), (87, 10199),

Gene: BelmontSKP_11 Start: 8000, Stop: 8320, Start Num: 46

Candidate Starts for BelmontSKP_11:
(40, 7988), (Start: 46 @8000 has 223 MA's), (73, 8084), (117, 8237),

Gene: Bennie_9 Start: 7245, Stop: 7514, Start Num: 46
Candidate Starts for Bennie_9:
(Start: 46 @7245 has 223 MA's), (56, 7263), (87, 7344), (106, 7389), (118, 7431),

Gene: Bernstein_9 Start: 7485, Stop: 7748, Start Num: 46
Candidate Starts for Bernstein_9:
(33, 7428), (Start: 46 @7485 has 223 MA's), (54, 7500), (73, 7515), (110, 7632), (122, 7692), (126, 7722),

Gene: BigChungus_10 Start: 7054, Stop: 7326, Start Num: 46
Candidate Starts for BigChungus_10:
(Start: 45 @7051 has 14 MA's), (Start: 46 @7054 has 223 MA's), (116, 7237), (118, 7243), (122, 7267),

Gene: BigMack_9 Start: 7245, Stop: 7514, Start Num: 46
Candidate Starts for BigMack_9:
(Start: 46 @7245 has 223 MA's), (77, 7311), (87, 7344), (118, 7431), (130, 7503),

Gene: BillDoor_13 Start: 7240, Stop: 7512, Start Num: 46
Candidate Starts for BillDoor_13:
(Start: 46 @7240 has 223 MA's),

Gene: Bipper_17 Start: 11835, Stop: 12083, Start Num: 69
Candidate Starts for Bipper_17:
(38, 11778), (Start: 69 @11835 has 4 MA's), (98, 11934), (104, 11952), (106, 11955), (119, 12000),

Gene: Birdsong_11 Start: 7129, Stop: 7386, Start Num: 61
Candidate Starts for Birdsong_11:
(42, 7096), (Start: 61 @7129 has 8 MA's), (101, 7264), (116, 7309), (118, 7315), (119, 7318), (122, 7339),

Gene: Biskit_12 Start: 7241, Stop: 7519, Start Num: 46
Candidate Starts for Biskit_12:
(Start: 46 @7241 has 223 MA's), (73, 7310), (96, 7382),

Gene: Blarby_13 Start: 7472, Stop: 7744, Start Num: 48
Candidate Starts for Blarby_13:
(Start: 48 @7472 has 24 MA's), (72, 7532), (73, 7535), (83, 7565), (89, 7589), (98, 7619), (120, 7679),

Gene: Bodacious_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for Bodacious_9:
(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: Bradissa_12 Start: 8013, Stop: 8270, Start Num: 48
Candidate Starts for Bradissa_12:
(Start: 48 @8013 has 24 MA's), (122, 8223), (128, 8262),

Gene: Brahms_9 Start: 7425, Stop: 7688, Start Num: 46
Candidate Starts for Brahms_9:

(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: BritBrat_12 Start: 8015, Stop: 8272, Start Num: 48

Candidate Starts for BritBrat_12:

(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: BrotherBLo_13 Start: 10107, Stop: 10376, Start Num: 46

Candidate Starts for BrotherBLo_13:

(Start: 46 @10107 has 223 MA's), (73, 10158), (77, 10173), (87, 10206),

Gene: BruceLethal_9 Start: 6441, Stop: 6731, Start Num: 46

Candidate Starts for BruceLethal_9:

(44, 6435), (Start: 46 @6441 has 223 MA's), (52, 6453), (56, 6459), (72, 6489), (73, 6492), (77, 6507), (80, 6516), (81, 6519), (87, 6540), (93, 6564), (105, 6606), (112, 6618), (115, 6642),

Gene: Brynnie_11 Start: 8207, Stop: 8464, Start Num: 66

Candidate Starts for Brynnie_11:

(2, 7631), (6, 7745), (8, 7853), (11, 7898), (22, 8054), (Start: 66 @8207 has 8 MA's), (90, 8297), (116, 8375),

Gene: BubbaBear_10 Start: 7645, Stop: 7905, Start Num: 46

Candidate Starts for BubbaBear_10:

(40, 7633), (Start: 46 @7645 has 223 MA's), (73, 7669), (118, 7825), (121, 7840),

Gene: Budski_11 Start: 6829, Stop: 7053, Start Num: 74

Candidate Starts for Budski_11:

(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118, 6976), (128, 7039),

Gene: Buldak_10 Start: 7930, Stop: 8196, Start Num: 46

Candidate Starts for Buldak_10:

(40, 7918), (Start: 46 @7930 has 223 MA's), (85, 8002), (94, 8035), (110, 8077),

Gene: Burnsey_11 Start: 7258, Stop: 7539, Start Num: 46

Candidate Starts for Burnsey_11:

(Start: 46 @7258 has 223 MA's),

Gene: Burritobowl_10 Start: 7681, Stop: 7938, Start Num: 46

Candidate Starts for Burritobowl_10:

(40, 7669), (Start: 46 @7681 has 223 MA's), (73, 7702), (118, 7858), (125, 7909),

Gene: Button_12 Start: 7274, Stop: 7543, Start Num: 46

Candidate Starts for Button_12:

(Start: 46 @7274 has 223 MA's), (Start: 60 @7289 has 1 MA's), (72, 7331), (126, 7514),

Gene: Buttrmlkdreams_11 Start: 7235, Stop: 7504, Start Num: 46

Candidate Starts for Buttrmlkdreams_11:

(Start: 46 @7235 has 223 MA's), (73, 7295), (96, 7367),

Gene: CallieOMalley_13 Start: 10140, Stop: 10409, Start Num: 46

Candidate Starts for CallieOMalley_13:

(40, 10128), (Start: 46 @10140 has 223 MA's), (56, 10158), (81, 10218), (87, 10239), (118, 10326),

Gene: CallinAllBarbz_10 Start: 6520, Stop: 6792, Start Num: 45
Candidate Starts for CallinAllBarbz_10:
(Start: 45 @6520 has 14 MA's), (52, 6535), (107, 6667), (118, 6709),

Gene: Camara_10 Start: 7656, Stop: 7910, Start Num: 67
Candidate Starts for Camara_10:
(53, 7620), (Start: 67 @7656 has 10 MA's), (72, 7680), (85, 7725), (88, 7737), (101, 7782), (109, 7788), (113, 7800), (118, 7827),

Gene: Canowicakte_13 Start: 10175, Stop: 10444, Start Num: 46
Candidate Starts for Canowicakte_13:
(40, 10163), (Start: 46 @10175 has 223 MA's), (56, 10193), (81, 10253), (87, 10274), (118, 10361),

Gene: Carpal_13 Start: 10107, Stop: 10376, Start Num: 46
Candidate Starts for Carpal_13:
(Start: 46 @10107 has 223 MA's), (73, 10158), (77, 10173), (87, 10206),

Gene: Carsonalex_12 Start: 7314, Stop: 7595, Start Num: 46
Candidate Starts for Carsonalex_12:
(21, 7191), (Start: 46 @7314 has 223 MA's),

Gene: Cashington_10 Start: 7671, Stop: 7928, Start Num: 46
Candidate Starts for Cashington_10:
(40, 7659), (Start: 46 @7671 has 223 MA's), (73, 7692), (118, 7848), (125, 7899),

Gene: Cashline_12 Start: 7862, Stop: 8119, Start Num: 48
Candidate Starts for Cashline_12:
(29, 7793), (Start: 48 @7862 has 24 MA's), (122, 8072), (128, 8111),

Gene: Celaena_10 Start: 7723, Stop: 7986, Start Num: 46
Candidate Starts for Celaena_10:
(40, 7711), (Start: 46 @7723 has 223 MA's), (73, 7750), (78, 7768), (110, 7867), (118, 7906),

Gene: Che9d_12 Start: 6957, Stop: 7229, Start Num: 48
Candidate Starts for Che9d_12:
(Start: 48 @6957 has 24 MA's), (72, 7017), (73, 7020), (83, 7050), (89, 7074), (98, 7104), (120, 7164),

Gene: CheeseTouch_11 Start: 6829, Stop: 7053, Start Num: 74
Candidate Starts for CheeseTouch_11:
(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118, 6976), (128, 7039),

Gene: CherryonLim_12 Start: 7780, Stop: 8052, Start Num: 46
Candidate Starts for CherryonLim_12:
(Start: 46 @7780 has 223 MA's), (57, 7792), (Start: 60 @7798 has 1 MA's), (116, 7963), (118, 7969), (122, 7993),

Gene: ChewChew_9 Start: 7242, Stop: 7511, Start Num: 46
Candidate Starts for ChewChew_9:
(Start: 46 @7242 has 223 MA's), (82, 7323), (87, 7341), (106, 7386), (118, 7428),

Gene: Chickaboom_10 Start: 7752, Stop: 8009, Start Num: 66

Candidate Starts for Chickaboom_10:
(6, 7290), (8, 7398), (11, 7443), (22, 7599), (Start: 66 @7752 has 8 MA's), (116, 7920),

Gene: ChiliPepper_10 Start: 7882, Stop: 8139, Start Num: 46
Candidate Starts for ChiliPepper_10:
(Start: 46 @7882 has 223 MA's), (85, 7945), (118, 8059), (124, 8104),

Gene: Cholula_13 Start: 10152, Stop: 10421, Start Num: 46
Candidate Starts for Cholula_13:
(Start: 46 @10152 has 223 MA's), (73, 10203), (77, 10218), (87, 10251),

Gene: Chridison_9 Start: 7262, Stop: 7549, Start Num: 46
Candidate Starts for Chridison_9:
(Start: 46 @7262 has 223 MA's), (87, 7361), (118, 7469),

Gene: Christian_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for Christian_9:
(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: Clayda5_9 Start: 7425, Stop: 7688, Start Num: 46
Candidate Starts for Clayda5_9:
(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: Cleo_11 Start: 7463, Stop: 7762, Start Num: 46
Candidate Starts for Cleo_11:
(Start: 46 @7463 has 223 MA's), (129, 7742),

Gene: CliffHanger_11 Start: 7617, Stop: 7886, Start Num: 40
Candidate Starts for CliffHanger_11:
(33, 7572), (40, 7617), (Start: 45 @7626 has 14 MA's), (111, 7773), (117, 7803),

Gene: Coltrane_9 Start: 7425, Stop: 7688, Start Num: 46
Candidate Starts for Coltrane_9:
(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: Colusalem_11 Start: 8089, Stop: 8343, Start Num: 67
Candidate Starts for Colusalem_11:
(Start: 63 @8074 has 1 MA's), (Start: 64 @8080 has 6 MA's), (Start: 65 @8083 has 3 MA's), (Start: 67 @8089 has 10 MA's), (72, 8113), (85, 8158), (109, 8221), (113, 8233),

Gene: Confidence_12 Start: 8009, Stop: 8266, Start Num: 48
Candidate Starts for Confidence_12:
(Start: 48 @8009 has 24 MA's), (122, 8219), (128, 8258),

Gene: Coral_11 Start: 8080, Stop: 8343, Start Num: 64
Candidate Starts for Coral_11:
(Start: 63 @8074 has 1 MA's), (Start: 64 @8080 has 6 MA's), (Start: 65 @8083 has 3 MA's), (Start: 67 @8089 has 10 MA's), (72, 8113), (85, 8158), (109, 8221), (113, 8233),

Gene: Cota_9 Start: 6460, Stop: 6750, Start Num: 46
Candidate Starts for Cota_9:

(Start: 46 @6460 has 223 MA's), (52, 6472), (56, 6478), (Start: 68 @6490 has 1 MA's), (72, 6508), (73, 6511), (77, 6526), (80, 6535), (81, 6538), (87, 6559), (93, 6583), (105, 6625), (112, 6637), (114, 6652), (115, 6661),

Gene: Cote_12 Start: 8241, Stop: 8504, Start Num: 64

Candidate Starts for Cote_12:

(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: Cozz_11 Start: 7258, Stop: 7539, Start Num: 46

Candidate Starts for Cozz_11:

(21, 7135), (Start: 46 @7258 has 223 MA's),

Gene: Cracklewink_17 Start: 11835, Stop: 12083, Start Num: 69

Candidate Starts for Cracklewink_17:

(38, 11778), (Start: 69 @11835 has 4 MA's), (104, 11952), (106, 11955), (119, 12000),

Gene: Crater_11 Start: 7129, Stop: 7386, Start Num: 61

Candidate Starts for Crater_11:

(42, 7096), (Start: 61 @7129 has 8 MA's), (91, 7222), (97, 7243), (118, 7315), (119, 7318), (122, 7339), (126, 7369),

Gene: CristinaYang_9 Start: 7243, Stop: 7512, Start Num: 46

Candidate Starts for CristinaYang_9:

(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: CroZenni_10 Start: 7654, Stop: 7911, Start Num: 46

Candidate Starts for CroZenni_10:

(40, 7642), (Start: 46 @7654 has 223 MA's), (73, 7675), (117, 7828), (118, 7831), (121, 7846), (125, 7882),

Gene: DS6A_14 Start: 10056, Stop: 10361, Start Num: 50

Candidate Starts for DS6A_14:

(Start: 50 @10056 has 4 MA's), (Start: 60 @10074 has 1 MA's), (77, 10134), (80, 10143), (100, 10224), (122, 10302),

Gene: Daiboju_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Daiboju_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Daob_12 Start: 8238, Stop: 8507, Start Num: 63

Candidate Starts for Daob_12:

(Start: 63 @8238 has 1 MA's), (Start: 64 @8244 has 6 MA's), (Start: 65 @8247 has 3 MA's), (Start: 67 @8253 has 10 MA's), (72, 8277), (85, 8322), (109, 8385), (113, 8397),

Gene: Demsculpinboyz_12 Start: 6948, Stop: 7220, Start Num: 48

Candidate Starts for Demsculpinboyz_12:

(Start: 48 @6948 has 24 MA's), (72, 7008), (73, 7011), (83, 7041), (89, 7065), (98, 7095), (120, 7155),

Gene: DickRichards_10 Start: 8148, Stop: 8405, Start Num: 46

Candidate Starts for DickRichards_10:

(40, 8136), (Start: 46 @8148 has 223 MA's), (73, 8169), (117, 8322), (118, 8325), (121, 8340), (125, 8376),

Gene: Didgeridoo_11 Start: 7870, Stop: 8133, Start Num: 45

Candidate Starts for Didgeridoo_11:

(40, 7861), (Start: 45 @7870 has 14 MA's),

Gene: Dino_13 Start: 10106, Stop: 10375, Start Num: 46

Candidate Starts for Dino_13:

(Start: 46 @10106 has 223 MA's), (73, 10157), (77, 10172), (87, 10205),

Gene: DirtyBubble_10 Start: 7907, Stop: 8170, Start Num: 45

Candidate Starts for DirtyBubble_10:

(Start: 45 @7907 has 14 MA's), (51, 7919), (73, 7934), (110, 8051), (118, 8090), (121, 8105),

Gene: Dismas_10 Start: 7882, Stop: 8139, Start Num: 46

Candidate Starts for Dismas_10:

(Start: 46 @7882 has 223 MA's), (85, 7945), (118, 8059), (124, 8104),

Gene: Doobus_10 Start: 7885, Stop: 8142, Start Num: 46

Candidate Starts for Doobus_10:

(40, 7873), (Start: 46 @7885 has 223 MA's), (73, 7906), (118, 8062), (125, 8113),

Gene: DrParker_9 Start: 6467, Stop: 6757, Start Num: 46

Candidate Starts for DrParker_9:

(Start: 46 @6467 has 223 MA's), (52, 6479), (56, 6485), (Start: 68 @6497 has 1 MA's), (72, 6515), (73, 6518), (77, 6533), (80, 6542), (81, 6545), (87, 6566), (93, 6590), (105, 6632), (112, 6644), (115, 6668), (125, 6728),

Gene: DrRobert_9 Start: 7243, Stop: 7512, Start Num: 46

Candidate Starts for DrRobert_9:

(Start: 46 @7243 has 223 MA's), (87, 7342), (118, 7429),

Gene: Dre3_11 Start: 7410, Stop: 7709, Start Num: 46

Candidate Starts for Dre3_11:

(Start: 46 @7410 has 223 MA's), (129, 7689),

Gene: DreamTeam_9 Start: 7289, Stop: 7579, Start Num: 46

Candidate Starts for DreamTeam_9:

(Start: 46 @7289 has 223 MA's), (87, 7388), (97, 7427), (118, 7496),

Gene: EMSquaredA_12 Start: 8015, Stop: 8272, Start Num: 48

Candidate Starts for EMSquaredA_12:

(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: Ecliptus_11 Start: 6857, Stop: 7114, Start Num: 62

Candidate Starts for Ecliptus_11:

(37, 6812), (Start: 62 @6857 has 3 MA's), (91, 6950), (97, 6971), (118, 7043), (119, 7046), (122, 7067), (126, 7097),

Gene: Eden_9 Start: 7514, Stop: 7780, Start Num: 46

Candidate Starts for Eden_9:

(33, 7457), (Start: 46 @7514 has 223 MA's), (73, 7547), (88, 7601), (126, 7754),

Gene: Eesa_11 Start: 8248, Stop: 8502, Start Num: 67

Candidate Starts for Eesa_11:
(4, 7771), (8, 7915), (24, 8119), (53, 8212), (Start: 62 @8230 has 3 MA's), (Start: 67 @8248 has 10 MA's), (72, 8272), (112, 8386), (113, 8392), (118, 8419),

Gene: Elinal_12 Start: 7035, Stop: 7307, Start Num: 46
Candidate Starts for Elinal_12:
(Start: 45 @7032 has 14 MA's), (Start: 46 @7035 has 223 MA's), (116, 7218), (118, 7224), (122, 7248),

Gene: Eliott_11 Start: 7257, Stop: 7538, Start Num: 46
Candidate Starts for Eliott_11:
(21, 7134), (Start: 46 @7257 has 223 MA's),

Gene: Elva_11 Start: 7965, Stop: 8225, Start Num: 49
Candidate Starts for Elva_11:
(Start: 49 @7965 has 1 MA's), (73, 7989), (113, 8118),

Gene: Emalyn_10 Start: 6986, Stop: 7255, Start Num: 46
Candidate Starts for Emalyn_10:
(Start: 46 @6986 has 223 MA's),

Gene: EnalisNailo_12 Start: 8015, Stop: 8272, Start Num: 48
Candidate Starts for EnalisNailo_12:
(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: Enochoraptor_9 Start: 6463, Stop: 6753, Start Num: 46
Candidate Starts for Enochoraptor_9:
(Start: 46 @6463 has 223 MA's), (52, 6475), (56, 6481), (Start: 68 @6493 has 1 MA's), (72, 6511), (73, 6514), (77, 6529), (80, 6538), (81, 6541), (93, 6586), (105, 6628), (112, 6640),

Gene: Enoki_9 Start: 6448, Stop: 6738, Start Num: 46
Candidate Starts for Enoki_9:
(Start: 46 @6448 has 223 MA's), (52, 6460), (56, 6466), (Start: 68 @6478 has 1 MA's), (72, 6496), (73, 6499), (77, 6514), (80, 6523), (81, 6526), (93, 6571), (105, 6613), (112, 6625), (115, 6649),

Gene: EstebanJulior_9 Start: 7287, Stop: 7556, Start Num: 46
Candidate Starts for EstebanJulior_9:
(Start: 46 @7287 has 223 MA's), (87, 7386), (88, 7392), (118, 7473),

Gene: Eula_10 Start: 7652, Stop: 7912, Start Num: 46
Candidate Starts for Eula_10:
(40, 7640), (Start: 46 @7652 has 223 MA's), (73, 7676), (118, 7832), (121, 7847),

Gene: Eunoia_9 Start: 7261, Stop: 7548, Start Num: 46
Candidate Starts for Eunoia_9:
(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468), (130, 7540),

Gene: Feastonyeet_10 Start: 7054, Stop: 7326, Start Num: 46
Candidate Starts for Feastonyeet_10:
(Start: 45 @7051 has 14 MA's), (Start: 46 @7054 has 223 MA's), (116, 7237), (118, 7243), (122, 7267),

Gene: Finalfrontier_11 Start: 8160, Stop: 8423, Start Num: 45

Candidate Starts for Finalfrontier_11:

(40, 8151), (Start: 45 @8160 has 14 MA's), (73, 8187), (118, 8343), (121, 8358),

Gene: FlameThrower_10 Start: 7611, Stop: 7874, Start Num: 46

Candidate Starts for FlameThrower_10:

(40, 7599), (Start: 46 @7611 has 223 MA's), (73, 7638), (78, 7656), (110, 7755), (118, 7794),

Gene: Floral_12 Start: 8015, Stop: 8272, Start Num: 48

Candidate Starts for Floral_12:

(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: Fluke_13 Start: 10148, Stop: 10417, Start Num: 46

Candidate Starts for Fluke_13:

(Start: 46 @10148 has 223 MA's), (73, 10199), (77, 10214), (87, 10247), (118, 10334),

Gene: Franklin22_9 Start: 7495, Stop: 7761, Start Num: 46

Candidate Starts for Franklin22_9:

(Start: 46 @7495 has 223 MA's), (73, 7528), (118, 7681), (126, 7735),

Gene: Fribs8_12 Start: 7976, Stop: 8275, Start Num: 46

Candidate Starts for Fribs8_12:

(Start: 46 @7976 has 223 MA's), (83, 8078), (118, 8189), (127, 8249), (128, 8252), (129, 8255),

Gene: Frickyeah_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Frickyeah_11:

(15, 6587), (18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: Fryberger_43 Start: 16293, Stop: 16577, Start Num: 43

Candidate Starts for Fryberger_43:

(39, 16287), (Start: 43 @16293 has 6 MA's), (Start: 68 @16350 has 1 MA's), (75, 16377), (103, 16458), (108, 16464),

Gene: GTE2_09 Start: 6936, Stop: 7208, Start Num: 46

Candidate Starts for GTE2_09:

(Start: 46 @6936 has 223 MA's), (73, 6999),

Gene: Gack_9 Start: 7565, Stop: 7828, Start Num: 46

Candidate Starts for Gack_9:

(33, 7508), (Start: 46 @7565 has 223 MA's), (73, 7595), (80, 7619), (118, 7748), (126, 7802),

Gene: Gaia_8 Start: 7366, Stop: 7629, Start Num: 50

Candidate Starts for Gaia_8:

(Start: 50 @7366 has 4 MA's), (80, 7450), (83, 7459), (89, 7483), (99, 7504), (100, 7507), (113, 7531), (122, 7582), (125, 7609),

Gene: Galaxy_11 Start: 8078, Stop: 8335, Start Num: 66

Candidate Starts for Galaxy_11:

(Start: 62 @8060 has 3 MA's), (Start: 66 @8078 has 8 MA's), (117, 8249),

Gene: Getalong_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Getalong_11:

(15, 6587), (18, 6602), (25, 6686), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: GiKK_14 Start: 7577, Stop: 7846, Start Num: 46

Candidate Starts for GiKK_14:

(Start: 46 @7577 has 223 MA's), (Start: 60 @7592 has 1 MA's), (72, 7634), (126, 7817),

Gene: Gibbous_11 Start: 7410, Stop: 7709, Start Num: 46

Candidate Starts for Gibbous_11:

(Start: 46 @7410 has 223 MA's), (129, 7689),

Gene: Gisselle_9 Start: 7289, Stop: 7579, Start Num: 46

Candidate Starts for Gisselle_9:

(Start: 46 @7289 has 223 MA's), (87, 7388), (97, 7427), (118, 7496),

Gene: Glenn_13 Start: 10158, Stop: 10427, Start Num: 46

Candidate Starts for Glenn_13:

(Start: 46 @10158 has 223 MA's), (73, 10209), (77, 10224), (87, 10257),

Gene: GoldHunter_12 Start: 7258, Stop: 7539, Start Num: 46

Candidate Starts for GoldHunter_12:

(Start: 46 @7258 has 223 MA's),

Gene: GreenHearts_13 Start: 10230, Stop: 10520, Start Num: 46

Candidate Starts for GreenHearts_13:

(Start: 46 @10230 has 223 MA's), (58, 10254), (87, 10329), (90, 10338), (94, 10356), (118, 10437),

Gene: Greenhouse_13 Start: 10155, Stop: 10445, Start Num: 46

Candidate Starts for Greenhouse_13:

(Start: 46 @10155 has 223 MA's), (58, 10179), (77, 10221), (87, 10254), (90, 10263), (94, 10281), (118, 10362),

Gene: Guey18_48 Start: 17486, Stop: 17770, Start Num: 43

Candidate Starts for Guey18_48:

(39, 17480), (Start: 43 @17486 has 6 MA's), (Start: 68 @17543 has 1 MA's), (75, 17570), (103, 17651), (108, 17657),

Gene: HannahPhantana_12 Start: 8247, Stop: 8507, Start Num: 65

Candidate Starts for HannahPhantana_12:

(Start: 63 @8238 has 1 MA's), (Start: 64 @8244 has 6 MA's), (Start: 65 @8247 has 3 MA's), (Start: 67 @8253 has 10 MA's), (72, 8277), (85, 8322), (109, 8385), (113, 8397),

Gene: HeadNerd_9 Start: 7245, Stop: 7514, Start Num: 46

Candidate Starts for HeadNerd_9:

(Start: 46 @7245 has 223 MA's), (56, 7263), (87, 7344), (106, 7389), (118, 7431),

Gene: Herb_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Herb_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Hexbug_13 Start: 8263, Stop: 8532, Start Num: 46

Candidate Starts for Hexbug_13:

(Start: 46 @8263 has 223 MA's), (72, 8320),

Gene: Hilltopfarm_17 Start: 11779, Stop: 12027, Start Num: 69

Candidate Starts for Hilltopfarm_17:

(38, 11722), (Start: 69 @11779 has 4 MA's), (80, 11821), (104, 11896), (119, 11944), (126, 11995), (130, 12013),

Gene: HippoPololi_13 Start: 8062, Stop: 8361, Start Num: 46

Candidate Starts for HippoPololi_13:

(Start: 46 @8062 has 223 MA's), (57, 8083), (122, 8299), (129, 8341),

Gene: Holliday_11 Start: 6829, Stop: 7053, Start Num: 74

Candidate Starts for Holliday_11:

(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118, 6976), (128, 7039),

Gene: Horseradish_12 Start: 7139, Stop: 7417, Start Num: 46

Candidate Starts for Horseradish_12:

(Start: 46 @7139 has 223 MA's), (73, 7208), (96, 7280),

Gene: Horus_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Horus_11:

(15, 6587), (18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: Huckleberry_9 Start: 7245, Stop: 7514, Start Num: 46

Candidate Starts for Huckleberry_9:

(Start: 46 @7245 has 223 MA's), (56, 7263), (87, 7344), (106, 7389), (118, 7431),

Gene: HunterDalle_9 Start: 7261, Stop: 7548, Start Num: 46

Candidate Starts for HunterDalle_9:

(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468),

Gene: Huntingdon_13 Start: 10141, Stop: 10431, Start Num: 46

Candidate Starts for Huntingdon_13:

(3, 9655), (7, 9742), (10, 9880), (Start: 46 @10141 has 223 MA's), (58, 10165), (87, 10240), (94, 10267), (118, 10348),

Gene: Icarian_11 Start: 7889, Stop: 8152, Start Num: 47

Candidate Starts for Icarian_11:

(Start: 47 @7889 has 2 MA's), (73, 7916), (118, 8072), (121, 8087),

Gene: Immaculata_13 Start: 10152, Stop: 10421, Start Num: 46

Candidate Starts for Immaculata_13:

(Start: 46 @10152 has 223 MA's), (73, 10203), (77, 10218), (87, 10251),

Gene: IndyLu_10 Start: 7694, Stop: 7957, Start Num: 45

Candidate Starts for IndyLu_10:

(40, 7685), (Start: 45 @7694 has 14 MA's),

Gene: Jabbawokkie_13 Start: 7471, Stop: 7743, Start Num: 48

Candidate Starts for Jabbawokkie_13:

(Start: 48 @7471 has 24 MA's), (72, 7531), (73, 7534), (83, 7564), (89, 7588), (98, 7618), (120, 7678),

Gene: Jablanski_12 Start: 7862, Stop: 8119, Start Num: 48

Candidate Starts for Jablanski_12:

(Start: 48 @7862 has 24 MA's), (122, 8072), (128, 8111),

Gene: Jamun_11 Start: 8419, Stop: 8676, Start Num: 66

Candidate Starts for Jamun_11:

(11, 8110), (22, 8266), (Start: 66 @8419 has 8 MA's), (116, 8587),

Gene: Jamzy_14 Start: 7587, Stop: 7856, Start Num: 46

Candidate Starts for Jamzy_14:

(Start: 46 @7587 has 223 MA's), (Start: 60 @7602 has 1 MA's), (72, 7644), (126, 7827),

Gene: Jerole_12 Start: 8250, Stop: 8504, Start Num: 67

Candidate Starts for Jerole_12:

(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: Joann_13 Start: 10133, Stop: 10423, Start Num: 46

Candidate Starts for Joann_13:

(3, 9647), (5, 9689), (7, 9734), (Start: 46 @10133 has 223 MA's), (58, 10157), (87, 10232), (90, 10241), (94, 10259), (118, 10340),

Gene: Johnathan_10 Start: 7654, Stop: 7911, Start Num: 46

Candidate Starts for Johnathan_10:

(40, 7642), (Start: 46 @7654 has 223 MA's), (73, 7675), (118, 7831), (125, 7882),

Gene: Jovita_10 Start: 7753, Stop: 8013, Start Num: 46

Candidate Starts for Jovita_10:

(40, 7741), (Start: 46 @7753 has 223 MA's), (73, 7777), (118, 7933), (121, 7948),

Gene: Juicebox_12 Start: 8597, Stop: 8833, Start Num: 62

Candidate Starts for Juicebox_12:

(Start: 62 @8597 has 3 MA's), (70, 8615), (85, 8660), (118, 8753),

Gene: Jumboset_13 Start: 10101, Stop: 10370, Start Num: 46

Candidate Starts for Jumboset_13:

(Start: 46 @10101 has 223 MA's), (73, 10152), (77, 10167), (87, 10200),

Gene: Juno112_10 Start: 7656, Stop: 7910, Start Num: 67

Candidate Starts for Juno112_10:

(12, 7398), (13, 7422), (17, 7458), (22, 7506), (53, 7620), (Start: 67 @7656 has 10 MA's), (72, 7680), (86, 7728), (88, 7737), (101, 7782), (113, 7800), (118, 7827),

Gene: KHumphrey_10 Start: 7655, Stop: 7909, Start Num: 67

Candidate Starts for KHumphrey_10:

(12, 7397), (13, 7421), (17, 7457), (22, 7505), (53, 7619), (Start: 67 @7655 has 10 MA's), (72, 7679), (86, 7727), (88, 7736), (101, 7781), (109, 7787), (113, 7799), (118, 7826),

Gene: Kalizoi_13 Start: 10100, Stop: 10369, Start Num: 46

Candidate Starts for Kalizoi_13:

(Start: 46 @10100 has 223 MA's), (73, 10151), (77, 10166), (87, 10199),

Gene: Kamaru_11 Start: 6829, Stop: 7053, Start Num: 74

Candidate Starts for Kamaru_11:

(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118, 6976), (128, 7039),

Gene: Kate33_10 Start: 7693, Stop: 7956, Start Num: 45

Candidate Starts for Kate33_10:

(40, 7684), (Start: 45 @7693 has 14 MA's),

Gene: Katzastrophic_10 Start: 7786, Stop: 8049, Start Num: 46

Candidate Starts for Katzastrophic_10:

(40, 7774), (Start: 46 @7786 has 223 MA's), (73, 7813), (78, 7831), (110, 7930), (118, 7969),

Gene: KayGee_11 Start: 7035, Stop: 7307, Start Num: 46

Candidate Starts for KayGee_11:

(Start: 45 @7032 has 14 MA's), (Start: 46 @7035 has 223 MA's), (116, 7218), (118, 7224), (122, 7248),

Gene: Keelan_41 Start: 16268, Stop: 16552, Start Num: 43

Candidate Starts for Keelan_41:

(Start: 43 @16268 has 6 MA's), (Start: 68 @16325 has 1 MA's), (75, 16352), (103, 16433), (108, 16439),

Gene: Keiki_9 Start: 6460, Stop: 6750, Start Num: 46

Candidate Starts for Keiki_9:

(Start: 46 @6460 has 223 MA's), (52, 6472), (56, 6478), (Start: 68 @6490 has 1 MA's), (72, 6508), (73, 6511), (77, 6526), (80, 6535), (81, 6538), (87, 6559), (93, 6583), (105, 6625), (112, 6637), (114, 6652), (115, 6661),

Gene: Kenna_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Kenna_11:

(18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971),

Gene: Kenzers_10 Start: 7668, Stop: 7928, Start Num: 46

Candidate Starts for Kenzers_10:

(40, 7656), (Start: 46 @7668 has 223 MA's), (73, 7692), (118, 7848), (121, 7863), (125, 7899),

Gene: Kepler_11 Start: 8079, Stop: 8342, Start Num: 64

Candidate Starts for Kepler_11:

(Start: 63 @8073 has 1 MA's), (Start: 64 @8079 has 6 MA's), (Start: 65 @8082 has 3 MA's), (Start: 67 @8088 has 10 MA's), (85, 8157), (109, 8220), (113, 8232),

Gene: Kieran_10 Start: 7885, Stop: 8142, Start Num: 46

Candidate Starts for Kieran_10:

(Start: 46 @7885 has 223 MA's), (85, 7948), (118, 8062), (124, 8107),

Gene: KingBob_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for KingBob_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Kittykat_9 Start: 7286, Stop: 7555, Start Num: 46

Candidate Starts for Kittykat_9:

(Start: 46 @7286 has 223 MA's), (87, 7385), (106, 7430), (118, 7472), (123, 7499),

Gene: Korra_13 Start: 10106, Stop: 10375, Start Num: 46
Candidate Starts for Korra_13:
(Start: 46 @10106 has 223 MA's), (73, 10157), (77, 10172), (87, 10205),

Gene: Kubed_9 Start: 6450, Stop: 6740, Start Num: 46
Candidate Starts for Kubed_9:
(Start: 46 @6450 has 223 MA's), (52, 6462), (56, 6468), (Start: 68 @6480 has 1 MA's), (72, 6498),
(73, 6501), (77, 6516), (80, 6525), (81, 6528), (93, 6573), (105, 6615), (112, 6627), (114, 6642), (115,
6651),

Gene: Kuleana_11 Start: 8039, Stop: 8302, Start Num: 64
Candidate Starts for Kuleana_11:
(Start: 63 @8033 has 1 MA's), (Start: 64 @8039 has 6 MA's), (Start: 67 @8048 has 10 MA's), (70,
8069), (72, 8072), (86, 8120), (109, 8180), (113, 8192), (118, 8219),

Gene: Kuwabara_11 Start: 7129, Stop: 7386, Start Num: 61
Candidate Starts for Kuwabara_11:
(42, 7096), (Start: 61 @7129 has 8 MA's), (91, 7222), (97, 7243), (118, 7315), (119, 7318), (122,
7339), (126, 7369),

Gene: Lahqtemish_10 Start: 7738, Stop: 8001, Start Num: 45
Candidate Starts for Lahqtemish_10:
(40, 7729), (Start: 45 @7738 has 14 MA's), (85, 7807),

Gene: Lakshmi_13 Start: 10160, Stop: 10450, Start Num: 46
Candidate Starts for Lakshmi_13:
(Start: 46 @10160 has 223 MA's), (58, 10184), (87, 10259), (90, 10268), (94, 10286), (118, 10367),

Gene: Lasagna_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for Lasagna_9:
(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: Lauchelly_9 Start: 6445, Stop: 6735, Start Num: 46
Candidate Starts for Lauchelly_9:
(Start: 46 @6445 has 223 MA's), (52, 6457), (56, 6463), (Start: 68 @6475 has 1 MA's), (72, 6493),
(73, 6496), (77, 6511), (80, 6520), (81, 6523), (93, 6568), (105, 6610), (112, 6622), (115, 6646),

Gene: Lauer_10 Start: 7057, Stop: 7356, Start Num: 36
Candidate Starts for Lauer_10:
(9, 6820), (14, 6886), (16, 6907), (19, 6922), (21, 6961), (23, 7000), (27, 7015), (32, 7024), (Start: 36
@7057 has 1 MA's), (Start: 45 @7081 has 14 MA's), (Start: 46 @7084 has 223 MA's), (116, 7267),
(118, 7273), (122, 7297),

Gene: Lennox_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for Lennox_9:
(Start: 46 @7243 has 223 MA's), (87, 7342), (106, 7387), (118, 7429),

Gene: Leona_10 Start: 7706, Stop: 7960, Start Num: 67
Candidate Starts for Leona_10:
(12, 7448), (13, 7472), (17, 7508), (22, 7556), (Start: 50 @7664 has 4 MA's), (53, 7670), (Start: 67
@7706 has 10 MA's), (72, 7730), (86, 7778), (88, 7787), (101, 7832), (113, 7850), (118, 7877),

Gene: Leroy_11 Start: 6825, Stop: 7049, Start Num: 74
Candidate Starts for Leroy_11:
(15, 6588), (18, 6603), (25, 6687), (55, 6783), (Start: 74 @6825 has 19 MA's), (87, 6864), (91, 6882),
(112, 6939), (113, 6945), (118, 6972), (128, 7035),

Gene: Leviosa_9 Start: 6466, Stop: 6756, Start Num: 46
Candidate Starts for Leviosa_9:
(Start: 46 @6466 has 223 MA's), (56, 6484), (Start: 68 @6496 has 1 MA's), (72, 6514), (73, 6517),
(77, 6532), (80, 6541), (81, 6544), (87, 6565), (93, 6589), (105, 6631), (112, 6643), (115, 6667), (125,
6727),

Gene: LilBandit_9 Start: 6450, Stop: 6740, Start Num: 46
Candidate Starts for LilBandit_9:
(Start: 46 @6450 has 223 MA's), (52, 6462), (56, 6468), (Start: 68 @6480 has 1 MA's), (72, 6498),
(73, 6501), (77, 6516), (80, 6525), (81, 6528), (87, 6549), (93, 6573), (105, 6615), (112, 6627),

Gene: LilSpotty_10 Start: 6830, Stop: 7105, Start Num: 50
Candidate Starts for LilSpotty_10:
(35, 6785), (Start: 50 @6830 has 4 MA's), (56, 6839), (100, 6968), (118, 7019), (122, 7043),

Gene: LilStuart_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for LilStuart_9:
(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: Lilas_12 Start: 8015, Stop: 8272, Start Num: 48
Candidate Starts for Lilas_12:
(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: LimaBean_10 Start: 7654, Stop: 7911, Start Num: 46
Candidate Starts for LimaBean_10:
(40, 7642), (Start: 46 @7654 has 223 MA's), (73, 7675), (118, 7831), (125, 7882),

Gene: LitninMcQueen_11 Start: 6829, Stop: 7053, Start Num: 74
Candidate Starts for LitninMcQueen_11:
(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118,
6976), (128, 7039),

Gene: Litotes_13 Start: 10128, Stop: 10397, Start Num: 46
Candidate Starts for Litotes_13:
(40, 10116), (Start: 46 @10128 has 223 MA's), (56, 10146), (73, 10179), (87, 10227), (106, 10272),
(118, 10314),

Gene: LittleTokyo_11 Start: 7988, Stop: 8242, Start Num: 67
Candidate Starts for LittleTokyo_11:
(Start: 67 @7988 has 10 MA's), (85, 8057), (116, 8153), (118, 8159),

Gene: LonelyBoi_12 Start: 7862, Stop: 8119, Start Num: 48
Candidate Starts for LonelyBoi_12:
(Start: 48 @7862 has 24 MA's), (122, 8072), (128, 8111),

Gene: Loviatar_18 Start: 7923, Stop: 8231, Start Num: 34
Candidate Starts for Loviatar_18:
(31, 7911), (34, 7923), (85, 8037), (118, 8151),

Gene: Lucky10_10 Start: 6338, Stop: 6595, Start Num: 61
Candidate Starts for Lucky10_10:
(42, 6305), (Start: 61 @6338 has 8 MA's), (118, 6524), (122, 6548),

Gene: Lucy_9 Start: 7234, Stop: 7503, Start Num: 46
Candidate Starts for Lucy_9:
(Start: 46 @7234 has 223 MA's), (56, 7252), (87, 7333), (106, 7378), (118, 7420),

Gene: Lunar_12 Start: 8244, Stop: 8504, Start Num: 65
Candidate Starts for Lunar_12:
(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: Lutum_11 Start: 6824, Stop: 7048, Start Num: 74
Candidate Starts for Lutum_11:
(18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971),

Gene: Lynlen_10 Start: 7668, Stop: 7928, Start Num: 46
Candidate Starts for Lynlen_10:
(40, 7656), (Start: 46 @7668 has 223 MA's), (73, 7692), (118, 7848), (121, 7863), (125, 7899),

Gene: MAnor_11 Start: 7025, Stop: 7297, Start Num: 46
Candidate Starts for MAnor_11:
(Start: 46 @7025 has 223 MA's), (57, 7037), (Start: 60 @7043 has 1 MA's), (116, 7208), (118, 7214), (122, 7238),

Gene: MEAK_9 Start: 6452, Stop: 6742, Start Num: 46
Candidate Starts for MEAK_9:
(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (Start: 68 @6482 has 1 MA's), (72, 6500), (73, 6503), (77, 6518), (80, 6527), (81, 6530), (93, 6575), (105, 6617), (112, 6629), (115, 6653), (125, 6713),

Gene: MScarn_13 Start: 7235, Stop: 7504, Start Num: 46
Candidate Starts for MScarn_13:
(Start: 46 @7235 has 223 MA's), (73, 7295), (96, 7367),

Gene: MaVan_13 Start: 8163, Stop: 8462, Start Num: 46
Candidate Starts for MaVan_13:
(Start: 45 @8160 has 14 MA's), (Start: 46 @8163 has 223 MA's), (83, 8265), (102, 8334), (118, 8376), (127, 8436), (128, 8439), (129, 8442),

Gene: Makoto_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for Makoto_9:
(Start: 46 @7243 has 223 MA's), (87, 7342), (106, 7387), (118, 7429),

Gene: Malisha_11 Start: 7874, Stop: 8098, Start Num: 74
Candidate Starts for Malisha_11:
(Start: 74 @7874 has 19 MA's), (91, 7931), (112, 7988), (113, 7994), (118, 8021), (128, 8084),

Gene: MamaPearl_9 Start: 7287, Stop: 7556, Start Num: 46
Candidate Starts for MamaPearl_9:

(Start: 46 @7287 has 223 MA's), (87, 7386), (88, 7392), (118, 7473),

Gene: Margaret_14 Start: 7972, Stop: 8241, Start Num: 46

Candidate Starts for Margaret_14:

(Start: 46 @7972 has 223 MA's), (Start: 60 @7987 has 1 MA's), (72, 8029),

Gene: Maria1952_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Maria1952_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Marteena_12 Start: 8015, Stop: 8272, Start Num: 48

Candidate Starts for Marteena_12:

(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: Mayweather_12 Start: 7658, Stop: 7930, Start Num: 46

Candidate Starts for Mayweather_12:

(Start: 46 @7658 has 223 MA's), (57, 7670), (Start: 60 @7676 has 1 MA's), (116, 7841), (118, 7847), (122, 7871),

Gene: MeganNoll_13 Start: 10158, Stop: 10427, Start Num: 46

Candidate Starts for MeganNoll_13:

(Start: 46 @10158 has 223 MA's), (73, 10209), (77, 10224), (87, 10257),

Gene: Melons_12 Start: 8241, Stop: 8504, Start Num: 64

Candidate Starts for Melons_12:

(Start: 63 @8235 has 1 MA's), (Start: 64 @8241 has 6 MA's), (Start: 65 @8244 has 3 MA's), (Start: 67 @8250 has 10 MA's), (72, 8274), (85, 8319), (109, 8382), (113, 8394),

Gene: Misaeng_13 Start: 10206, Stop: 10496, Start Num: 46

Candidate Starts for Misaeng_13:

(10, 9945), (Start: 46 @10206 has 223 MA's), (58, 10230), (77, 10272), (87, 10305), (94, 10332), (118, 10413),

Gene: Moki_9 Start: 7245, Stop: 7514, Start Num: 46

Candidate Starts for Moki_9:

(Start: 46 @7245 has 223 MA's), (56, 7263), (87, 7344), (106, 7389), (118, 7431),

Gene: Morkie_10 Start: 6300, Stop: 6557, Start Num: 61

Candidate Starts for Morkie_10:

(42, 6267), (Start: 61 @6300 has 8 MA's), (118, 6486), (122, 6510),

Gene: MortyNRick_11 Start: 7129, Stop: 7386, Start Num: 61

Candidate Starts for MortyNRick_11:

(42, 7096), (Start: 61 @7129 has 8 MA's), (101, 7264), (116, 7309), (118, 7315), (119, 7318), (122, 7339),

Gene: Moyashi_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for Moyashi_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (112, 6647), (115, 6671),

Gene: MrAK_9 Start: 6479, Stop: 6769, Start Num: 46

Candidate Starts for MrAK_9:

(Start: 46 @6479 has 223 MA's), (52, 6491), (56, 6497), (Start: 68 @6509 has 1 MA's), (72, 6527), (73, 6530), (77, 6545), (80, 6554), (81, 6557), (93, 6602), (112, 6656), (115, 6680), (125, 6740),

Gene: MrGloopy_13 Start: 10091, Stop: 10360, Start Num: 46

Candidate Starts for MrGloopy_13:

(Start: 46 @10091 has 223 MA's), (73, 10142), (77, 10157), (87, 10190),

Gene: MunkgeeRoachy_11 Start: 7305, Stop: 7586, Start Num: 46

Candidate Starts for MunkgeeRoachy_11:

(21, 7182), (Start: 46 @7305 has 223 MA's),

Gene: Nancia_9 Start: 7243, Stop: 7512, Start Num: 46

Candidate Starts for Nancia_9:

(Start: 46 @7243 has 223 MA's), (81, 7321), (87, 7342), (118, 7429),

Gene: Nebkiss_8 Start: 7367, Stop: 7630, Start Num: 50

Candidate Starts for Nebkiss_8:

(Start: 50 @7367 has 4 MA's), (80, 7451), (83, 7460), (89, 7484), (99, 7505), (100, 7508), (113, 7532), (122, 7583), (125, 7610),

Gene: Nibbles_13 Start: 8163, Stop: 8462, Start Num: 46

Candidate Starts for Nibbles_13:

(Start: 45 @8160 has 14 MA's), (Start: 46 @8163 has 223 MA's), (83, 8265), (102, 8334), (118, 8376), (127, 8436), (128, 8439), (129, 8442),

Gene: Nicky22_11 Start: 8102, Stop: 8359, Start Num: 46

Candidate Starts for Nicky22_11:

(40, 8090), (Start: 46 @8102 has 223 MA's), (73, 8123), (118, 8279), (121, 8294), (125, 8330),

Gene: Nina_12 Start: 8291, Stop: 8572, Start Num: 46

Candidate Starts for Nina_12:

(21, 8168), (Start: 46 @8291 has 223 MA's),

Gene: Nodigi_13 Start: 8256, Stop: 8525, Start Num: 46

Candidate Starts for Nodigi_13:

(Start: 46 @8256 has 223 MA's), (72, 8313),

Gene: Nubia_13 Start: 10120, Stop: 10410, Start Num: 46

Candidate Starts for Nubia_13:

(40, 10108), (Start: 46 @10120 has 223 MA's), (58, 10144), (77, 10186), (87, 10219), (90, 10228), (94, 10246), (118, 10327),

Gene: ODay_11 Start: 6855, Stop: 7112, Start Num: 62

Candidate Starts for ODay_11:

(37, 6810), (Start: 62 @6855 has 3 MA's), (91, 6948), (97, 6969), (118, 7041), (119, 7044), (122, 7065), (126, 7095),

Gene: OMalley_9 Start: 7261, Stop: 7548, Start Num: 46

Candidate Starts for OMalley_9:

(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468), (130, 7540),

Gene: Olliecat_10 Start: 7885, Stop: 8151, Start Num: 46

Candidate Starts for Olliecat_10:

(40, 7873), (Start: 46 @7885 has 223 MA's), (71, 7909), (94, 7990), (110, 8032), (118, 8068), (121, 8083),

Gene: Orcanus_11 Start: 8038, Stop: 8292, Start Num: 67

Candidate Starts for Orcanus_11:

(24, 7909), (28, 7924), (53, 8002), (Start: 62 @8020 has 3 MA's), (Start: 67 @8038 has 10 MA's), (72, 8062), (112, 8176), (113, 8182), (119, 8212),

Gene: Orla_13 Start: 8260, Stop: 8529, Start Num: 46

Candidate Starts for Orla_13:

(Start: 46 @8260 has 223 MA's), (72, 8317),

Gene: OurGirlNessie_9 Start: 7234, Stop: 7503, Start Num: 46

Candidate Starts for OurGirlNessie_9:

(Start: 46 @7234 has 223 MA's), (81, 7312), (87, 7333), (118, 7420),

Gene: Ouroboros_9 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for Ouroboros_9:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (87, 6552), (93, 6576), (105, 6618), (112, 6630), (115, 6654), (125, 6714),

Gene: Oxynfrius_13 Start: 10133, Stop: 10423, Start Num: 46

Candidate Starts for Oxynfrius_13:

(Start: 46 @10133 has 223 MA's), (58, 10157), (87, 10232), (90, 10241), (94, 10259), (118, 10340),

Gene: P1.1_9 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for P1.1_9:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (112, 6630), (125, 6714),

Gene: P100.1_9 Start: 6443, Stop: 6733, Start Num: 46

Candidate Starts for P100.1_9:

(Start: 46 @6443 has 223 MA's), (52, 6455), (56, 6461), (Start: 68 @6473 has 1 MA's), (72, 6491), (73, 6494), (77, 6509), (80, 6518), (81, 6521), (87, 6542), (93, 6566), (105, 6608), (112, 6620), (115, 6644), (125, 6704),

Gene: P100A_9 Start: 6464, Stop: 6754, Start Num: 46

Candidate Starts for P100A_9:

(26, 6392), (44, 6458), (Start: 46 @6464 has 223 MA's), (52, 6476), (56, 6482), (Start: 68 @6494 has 1 MA's), (72, 6512), (73, 6515), (77, 6530), (80, 6539), (81, 6542), (87, 6563), (93, 6587), (105, 6629), (112, 6641), (115, 6665), (125, 6725),

Gene: P100D_9 Start: 6447, Stop: 6737, Start Num: 46

Candidate Starts for P100D_9:

(Start: 46 @6447 has 223 MA's), (52, 6459), (56, 6465), (Start: 68 @6477 has 1 MA's), (72, 6495), (73, 6498), (77, 6513), (80, 6522), (81, 6525), (93, 6570), (105, 6612), (112, 6624), (115, 6648),

Gene: P101A_9 Start: 6446, Stop: 6736, Start Num: 46

Candidate Starts for P101A_9:

(Start: 46 @6446 has 223 MA's), (52, 6458), (56, 6464), (Start: 68 @6476 has 1 MA's), (72, 6494), (73, 6497), (77, 6512), (80, 6521), (81, 6524), (87, 6545), (93, 6569), (105, 6611), (112, 6623), (115, 6647), (125, 6707),

Gene: P104A_9 Start: 6448, Stop: 6738, Start Num: 46

Candidate Starts for P104A_9:

(Start: 46 @6448 has 223 MA's), (52, 6460), (56, 6466), (Start: 68 @6478 has 1 MA's), (72, 6496), (73, 6499), (77, 6514), (80, 6523), (81, 6526), (93, 6571), (105, 6613), (112, 6625), (115, 6649), (125, 6709),

Gene: P104B_9 Start: 6452, Stop: 6742, Start Num: 46

Candidate Starts for P104B_9:

(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (Start: 68 @6482 has 1 MA's), (72, 6500), (73, 6503), (77, 6518), (80, 6527), (81, 6530), (87, 6551), (93, 6575), (105, 6617), (112, 6629),

Gene: P105_9 Start: 6442, Stop: 6732, Start Num: 46

Candidate Starts for P105_9:

(Start: 46 @6442 has 223 MA's), (52, 6454), (56, 6460), (Start: 68 @6472 has 1 MA's), (72, 6490), (73, 6493), (77, 6508), (80, 6517), (81, 6520), (87, 6541), (93, 6565), (105, 6607), (112, 6619), (115, 6643), (125, 6703),

Gene: P106A_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for P106A_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (Start: 68 @6500 has 1 MA's), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (125, 6731),

Gene: P106C_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for P106C_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (Start: 68 @6500 has 1 MA's), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (125, 6731),

Gene: P106I_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for P106I_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (Start: 68 @6500 has 1 MA's), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (125, 6731),

Gene: P106L_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for P106L_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (Start: 68 @6500 has 1 MA's), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (125, 6731),

Gene: P106M_9 Start: 6470, Stop: 6760, Start Num: 46

Candidate Starts for P106M_9:

(Start: 46 @6470 has 223 MA's), (52, 6482), (56, 6488), (Start: 68 @6500 has 1 MA's), (72, 6518), (73, 6521), (77, 6536), (80, 6545), (81, 6548), (93, 6593), (125, 6731),

Gene: P107A_9 Start: 6456, Stop: 6746, Start Num: 46

Candidate Starts for P107A_9:

(Start: 46 @6456 has 223 MA's), (52, 6468), (56, 6474), (Start: 68 @6486 has 1 MA's), (72, 6504), (73, 6507), (77, 6522), (80, 6531), (81, 6534), (87, 6555), (93, 6579), (105, 6621), (110, 6627), (112, 6633), (115, 6657), (125, 6717),

Gene: P107C_9 Start: 6452, Stop: 6742, Start Num: 46

Candidate Starts for P107C_9:

(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (Start: 68 @6482 has 1 MA's), (72, 6500), (73, 6503), (77, 6518), (80, 6527), (81, 6530), (93, 6575), (105, 6617), (112, 6629), (125, 6713),

Gene: P108C_9 Start: 6456, Stop: 6746, Start Num: 46

Candidate Starts for P108C_9:

(Start: 46 @6456 has 223 MA's), (52, 6468), (56, 6474), (Start: 68 @6486 has 1 MA's), (72, 6504), (73, 6507), (77, 6522), (80, 6531), (81, 6534), (93, 6579), (105, 6621), (112, 6633),

Gene: P14.4_9 Start: 6447, Stop: 6737, Start Num: 46

Candidate Starts for P14.4_9:

(Start: 46 @6447 has 223 MA's), (52, 6459), (56, 6465), (Start: 68 @6477 has 1 MA's), (72, 6495), (73, 6498), (77, 6513), (80, 6522), (81, 6525), (93, 6570), (105, 6612), (112, 6624),

Gene: P9.1_9 Start: 6445, Stop: 6735, Start Num: 46

Candidate Starts for P9.1_9:

(Start: 46 @6445 has 223 MA's), (52, 6457), (56, 6463), (Start: 68 @6475 has 1 MA's), (72, 6493), (73, 6496), (77, 6511), (80, 6520), (81, 6523), (93, 6568), (105, 6610), (112, 6622),

Gene: PA6_9 Start: 6455, Stop: 6745, Start Num: 46

Candidate Starts for PA6_9:

(Start: 46 @6455 has 223 MA's), (52, 6467), (56, 6473), (Start: 68 @6485 has 1 MA's), (72, 6503), (73, 6506), (77, 6521), (80, 6530), (81, 6533), (87, 6554), (105, 6620), (112, 6632), (114, 6647), (115, 6656), (125, 6716),

Gene: PAD20_9 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for PAD20_9:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (105, 6618), (112, 6630), (125, 6714),

Gene: PAS50_9 Start: 6450, Stop: 6740, Start Num: 46

Candidate Starts for PAS50_9:

(Start: 46 @6450 has 223 MA's), (52, 6462), (56, 6468), (Start: 68 @6480 has 1 MA's), (72, 6498), (73, 6501), (77, 6516), (80, 6525), (81, 6528), (93, 6573), (105, 6615), (112, 6627), (115, 6651),

Gene: PHL010M04_09 Start: 6444, Stop: 6734, Start Num: 46

Candidate Starts for PHL010M04_09:

(44, 6438), (Start: 46 @6444 has 223 MA's), (52, 6456), (56, 6462), (Start: 68 @6474 has 1 MA's), (72, 6492), (73, 6495), (77, 6510), (80, 6519), (81, 6522), (93, 6567), (105, 6609), (112, 6621), (115, 6645), (125, 6705),

Gene: PHL037M02_09 Start: 6444, Stop: 6740, Start Num: 44

Candidate Starts for PHL037M02_09:

(44, 6444), (Start: 46 @6450 has 223 MA's), (52, 6462), (56, 6468), (72, 6498), (73, 6501), (77, 6516), (80, 6525), (81, 6528), (105, 6615), (112, 6627), (125, 6711),

Gene: PHL060L00_09 Start: 6443, Stop: 6733, Start Num: 46

Candidate Starts for PHL060L00_09:

(Start: 46 @6443 has 223 MA's), (52, 6455), (56, 6461), (Start: 68 @6473 has 1 MA's), (72, 6491), (73, 6494), (77, 6509), (80, 6518), (81, 6521), (93, 6566), (105, 6608), (112, 6620), (115, 6644),

Gene: PHL067M10_09 Start: 6447, Stop: 6737, Start Num: 46

Candidate Starts for PHL067M10_09:

(Start: 46 @6447 has 223 MA's), (52, 6459), (56, 6465), (Start: 68 @6477 has 1 MA's), (72, 6495), (73, 6498), (77, 6513), (80, 6522), (81, 6525), (93, 6570), (105, 6612), (112, 6624), (115, 6648),

Gene: PHL071N05_09 Start: 6449, Stop: 6739, Start Num: 46

Candidate Starts for PHL071N05_09:

(Start: 46 @6449 has 223 MA's), (52, 6461), (56, 6467), (Start: 68 @6479 has 1 MA's), (72, 6497), (73, 6500), (77, 6515), (80, 6524), (81, 6527), (93, 6572), (105, 6614), (112, 6626),

Gene: PHL111M01_09 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for PHL111M01_09:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (105, 6618), (112, 6630),

Gene: PHL112N00_09 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for PHL112N00_09:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (105, 6618), (112, 6630), (114, 6645), (115, 6654),

Gene: PHL113M01_09 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for PHL113M01_09:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (58, 6477), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (105, 6618), (112, 6630), (115, 6654), (125, 6714),

Gene: PHL114L00_09 Start: 6452, Stop: 6742, Start Num: 46

Candidate Starts for PHL114L00_09:

(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (72, 6500), (77, 6518), (80, 6527), (81, 6530), (87, 6551), (93, 6575), (105, 6617), (112, 6629), (115, 6653), (125, 6713),

Gene: PartyCup_13 Start: 10175, Stop: 10444, Start Num: 46

Candidate Starts for PartyCup_13:

(40, 10163), (Start: 46 @10175 has 223 MA's), (56, 10193), (73, 10226), (87, 10274), (106, 10319), (118, 10361),

Gene: Periwinkle_11 Start: 6824, Stop: 7048, Start Num: 74

Candidate Starts for Periwinkle_11:

(15, 6587), (18, 6602), (25, 6686), (55, 6782), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: Phabuloso_11 Start: 6829, Stop: 7053, Start Num: 74

Candidate Starts for Phabuloso_11:

(55, 6787), (Start: 74 @6829 has 19 MA's), (87, 6868), (91, 6886), (112, 6943), (113, 6949), (118, 6976), (128, 7039),

Gene: Phisb_10 Start: 7645, Stop: 7905, Start Num: 46

Candidate Starts for Phisb_10:

(40, 7633), (Start: 46 @7645 has 223 MA's), (73, 7669), (118, 7825), (121, 7840), (125, 7876),

Gene: Phistory_11 Start: 6813, Stop: 7037, Start Num: 74

Candidate Starts for Phistory_11:

(18, 6591), (25, 6675), (55, 6771), (Start: 74 @6813 has 19 MA's), (87, 6852), (91, 6870), (112, 6927), (113, 6933), (118, 6960), (128, 7023),

Gene: PhluffyCoco_10 Start: 7619, Stop: 7909, Start Num: 53

Candidate Starts for PhluffyCoco_10:

(53, 7619), (Start: 67 @7655 has 10 MA's), (72, 7679), (85, 7724), (88, 7736), (101, 7781), (109, 7787), (113, 7799), (118, 7826),

Gene: PhorbesPhlower_10 Start: 6300, Stop: 6557, Start Num: 61
Candidate Starts for PhorbesPhlower_10:
(42, 6267), (Start: 61 @6300 has 8 MA's), (118, 6486), (122, 6510),

Gene: PinkFriday_9 Start: 7264, Stop: 7551, Start Num: 46
Candidate Starts for PinkFriday_9:
(Start: 46 @7264 has 223 MA's), (73, 7315), (87, 7363), (118, 7471), (130, 7543),

Gene: Pirate_9 Start: 6445, Stop: 6735, Start Num: 46
Candidate Starts for Pirate_9:
(Start: 46 @6445 has 223 MA's), (52, 6457), (56, 6463), (Start: 68 @6475 has 1 MA's), (72, 6493), (73, 6496), (77, 6511), (80, 6520), (81, 6523), (93, 6568), (105, 6610), (112, 6622),

Gene: PitaDog_9 Start: 7234, Stop: 7503, Start Num: 46
Candidate Starts for PitaDog_9:
(Start: 46 @7234 has 223 MA's), (87, 7333), (106, 7378), (118, 7420),

Gene: Polka_11 Start: 8080, Stop: 8343, Start Num: 64
Candidate Starts for Polka_11:
(Start: 63 @8074 has 1 MA's), (Start: 64 @8080 has 6 MA's), (Start: 65 @8083 has 3 MA's), (Start: 67 @8089 has 10 MA's), (72, 8113), (85, 8158), (109, 8221), (113, 8233),

Gene: Pollux_12 Start: 8015, Stop: 8272, Start Num: 48
Candidate Starts for Pollux_12:
(Start: 48 @8015 has 24 MA's), (122, 8225), (128, 8264),

Gene: Pons_11 Start: 7037, Stop: 7309, Start Num: 46
Candidate Starts for Pons_11:
(Start: 46 @7037 has 223 MA's), (57, 7049), (Start: 60 @7055 has 1 MA's), (116, 7220), (118, 7226), (122, 7250),

Gene: Posh_12 Start: 8009, Stop: 8266, Start Num: 48
Candidate Starts for Posh_12:
(Start: 48 @8009 has 24 MA's), (122, 8219), (128, 8258),

Gene: PotPie_11 Start: 7888, Stop: 8160, Start Num: 46
Candidate Starts for PotPie_11:
(Start: 45 @7885 has 14 MA's), (Start: 46 @7888 has 223 MA's), (57, 7900), (Start: 60 @7906 has 1 MA's), (116, 8071), (118, 8077), (122, 8101),

Gene: Potatoes_13 Start: 10152, Stop: 10421, Start Num: 46
Candidate Starts for Potatoes_13:
(Start: 46 @10152 has 223 MA's), (73, 10203), (77, 10218), (87, 10251),

Gene: Preamble_9 Start: 7244, Stop: 7513, Start Num: 46
Candidate Starts for Preamble_9:
(Start: 46 @7244 has 223 MA's), (87, 7343), (106, 7388), (118, 7430), (123, 7457),

Gene: Procrass1_9 Start: 6452, Stop: 6742, Start Num: 46
Candidate Starts for Procrass1_9:

(Start: 46 @6452 has 223 MA's), (52, 6464), (56, 6470), (Start: 68 @6482 has 1 MA's), (72, 6500), (73, 6503), (77, 6518), (80, 6527), (81, 6530), (93, 6575), (105, 6617), (112, 6629), (115, 6653), (125, 6713),

Gene: PsychoKiller_11 Start: 7257, Stop: 7538, Start Num: 46
Candidate Starts for PsychoKiller_11:
(21, 7134), (Start: 46 @7257 has 223 MA's),

Gene: Pterodactyl_9 Start: 7235, Stop: 7504, Start Num: 46
Candidate Starts for Pterodactyl_9:
(Start: 46 @7235 has 223 MA's), (87, 7334), (106, 7379), (118, 7421),

Gene: Pumancara_9 Start: 7263, Stop: 7550, Start Num: 46
Candidate Starts for Pumancara_9:
(Start: 46 @7263 has 223 MA's), (73, 7314), (87, 7362), (118, 7470), (130, 7542),

Gene: Pytheas_12 Start: 7862, Stop: 8119, Start Num: 48
Candidate Starts for Pytheas_12:
(Start: 48 @7862 has 24 MA's), (122, 8072), (128, 8111),

Gene: QMacho_11 Start: 8135, Stop: 8395, Start Num: 46
Candidate Starts for QMacho_11:
(40, 8123), (Start: 46 @8135 has 223 MA's), (73, 8159), (118, 8315), (121, 8330),

Gene: Quasar_11 Start: 7872, Stop: 8147, Start Num: 46
Candidate Starts for Quasar_11:
(21, 7749), (Start: 46 @7872 has 223 MA's),

Gene: QueenBey_9 Start: 6446, Stop: 6736, Start Num: 46
Candidate Starts for QueenBey_9:
(Start: 46 @6446 has 223 MA's), (56, 6464), (Start: 68 @6476 has 1 MA's), (72, 6494), (73, 6497), (77, 6512), (80, 6521), (81, 6524), (93, 6569), (105, 6611), (112, 6623), (115, 6647), (125, 6707),

Gene: Quenya_11 Start: 7781, Stop: 8044, Start Num: 46
Candidate Starts for Quenya_11:
(33, 7724), (Start: 46 @7781 has 223 MA's), (73, 7808), (77, 7823), (118, 7964),

Gene: RAP15_13 Start: 10158, Stop: 10427, Start Num: 46
Candidate Starts for RAP15_13:
(Start: 46 @10158 has 223 MA's), (73, 10209), (77, 10224), (87, 10257),

Gene: RanchParmCat_14 Start: 7972, Stop: 8241, Start Num: 46
Candidate Starts for RanchParmCat_14:
(Start: 46 @7972 has 223 MA's), (Start: 60 @7987 has 1 MA's), (72, 8029),

Gene: RcigaStruga_13 Start: 10141, Stop: 10431, Start Num: 46
Candidate Starts for RcigaStruga_13:
(3, 9655), (7, 9742), (10, 9880), (Start: 46 @10141 has 223 MA's), (58, 10165), (87, 10240), (94, 10267), (118, 10348),

Gene: RedBaron_12 Start: 7302, Stop: 7583, Start Num: 46
Candidate Starts for RedBaron_12:
(21, 7179), (Start: 46 @7302 has 223 MA's),

Gene: RedFox_10 Start: 7655, Stop: 7909, Start Num: 67

Candidate Starts for RedFox_10:

(53, 7619), (Start: 67 @7655 has 10 MA's), (72, 7679), (85, 7724), (88, 7736), (101, 7781), (109, 7787), (113, 7799), (118, 7826),

Gene: Renna12_11 Start: 7855, Stop: 8109, Start Num: 67

Candidate Starts for Renna12_11:

(Start: 67 @7855 has 10 MA's), (72, 7879), (85, 7924), (88, 7936), (101, 7981), (109, 7987), (113, 7999), (118, 8026),

Gene: Rileysaurus_9 Start: 6441, Stop: 6731, Start Num: 46

Candidate Starts for Rileysaurus_9:

(Start: 46 @6441 has 223 MA's), (52, 6453), (56, 6459), (Start: 68 @6471 has 1 MA's), (72, 6489), (77, 6507), (80, 6516), (81, 6519), (93, 6564), (105, 6606), (112, 6618), (115, 6642),

Gene: Riovina_9 Start: 7261, Stop: 7548, Start Num: 46

Candidate Starts for Riovina_9:

(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468), (130, 7540),

Gene: Riverdale_13 Start: 10089, Stop: 10358, Start Num: 46

Candidate Starts for Riverdale_13:

(Start: 46 @10089 has 223 MA's), (73, 10140), (77, 10155), (87, 10188),

Gene: Rollins_9 Start: 7485, Stop: 7748, Start Num: 46

Candidate Starts for Rollins_9:

(33, 7428), (Start: 46 @7485 has 223 MA's), (54, 7500), (73, 7515), (110, 7632), (122, 7692), (126, 7722),

Gene: Rona_10 Start: 7882, Stop: 8139, Start Num: 46

Candidate Starts for Rona_10:

(Start: 46 @7882 has 223 MA's), (85, 7945), (118, 8059), (124, 8104),

Gene: Ronaldo_46 Start: 17223, Stop: 17507, Start Num: 43

Candidate Starts for Ronaldo_46:

(39, 17217), (Start: 43 @17223 has 6 MA's), (Start: 68 @17280 has 1 MA's), (75, 17307), (103, 17388), (108, 17394),

Gene: Rozby_13 Start: 10089, Stop: 10358, Start Num: 46

Candidate Starts for Rozby_13:

(Start: 46 @10089 has 223 MA's), (73, 10140), (77, 10155), (87, 10188),

Gene: Ruchi_11 Start: 8341, Stop: 8598, Start Num: 66

Candidate Starts for Ruchi_11:

(6, 7879), (8, 7987), (11, 8032), (22, 8188), (Start: 66 @8341 has 8 MA's), (109, 8479), (116, 8509),

Gene: SKKY_9 Start: 6477, Stop: 6767, Start Num: 46

Candidate Starts for SKKY_9:

(Start: 46 @6477 has 223 MA's), (52, 6489), (56, 6495), (Start: 68 @6507 has 1 MA's), (72, 6525), (73, 6528), (77, 6543), (80, 6552), (81, 6555), (93, 6600),

Gene: SanaSana_11 Start: 7900, Stop: 8160, Start Num: 41

Candidate Starts for SanaSana_11:

(Start: 41 @7900 has 2 MA's), (85, 7966),

Gene: SansAfet_10 Start: 7665, Stop: 7922, Start Num: 46

Candidate Starts for SansAfet_10:

(40, 7653), (Start: 46 @7665 has 223 MA's), (73, 7686), (117, 7839), (118, 7842), (121, 7857), (125, 7893),

Gene: SarBear_10 Start: 7625, Stop: 7888, Start Num: 45

Candidate Starts for SarBear_10:

(40, 7616), (Start: 45 @7625 has 14 MA's), (73, 7652), (118, 7808), (121, 7823),

Gene: Savage2526_13 Start: 10152, Stop: 10421, Start Num: 46

Candidate Starts for Savage2526_13:

(Start: 46 @10152 has 223 MA's), (73, 10203), (77, 10218), (87, 10251),

Gene: Scuttle_13 Start: 10158, Stop: 10427, Start Num: 46

Candidate Starts for Scuttle_13:

(Start: 46 @10158 has 223 MA's), (73, 10209), (77, 10224), (87, 10257),

Gene: Sergei_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Sergei_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Shambre1_11 Start: 8534, Stop: 8782, Start Num: 68

Candidate Starts for Shambre1_11:

(Start: 68 @8534 has 1 MA's), (86, 8600), (101, 8654),

Gene: Sharkboy_10 Start: 7881, Stop: 8138, Start Num: 46

Candidate Starts for Sharkboy_10:

(Start: 46 @7881 has 223 MA's), (85, 7944), (118, 8058), (124, 8103),

Gene: Shayna_9 Start: 7487, Stop: 7753, Start Num: 45

Candidate Starts for Shayna_9:

(40, 7478), (Start: 45 @7487 has 14 MA's), (71, 7511), (73, 7517), (94, 7592), (110, 7634), (117, 7667), (128, 7733),

Gene: SheckWes_10 Start: 7025, Stop: 7297, Start Num: 46

Candidate Starts for SheckWes_10:

(Start: 46 @7025 has 223 MA's), (57, 7037), (Start: 60 @7043 has 1 MA's), (116, 7208), (118, 7214), (122, 7238),

Gene: SketchMex_10 Start: 7241, Stop: 7519, Start Num: 46

Candidate Starts for SketchMex_10:

(Start: 46 @7241 has 223 MA's), (73, 7310), (96, 7382),

Gene: Skylord_9 Start: 7425, Stop: 7688, Start Num: 46

Candidate Starts for Skylord_9:

(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: Slay_10 Start: 8101, Stop: 8364, Start Num: 45

Candidate Starts for Slay_10:

(40, 8092), (Start: 45 @8101 has 14 MA's), (73, 8128), (118, 8284), (121, 8299),

Gene: Sleepyhead_11 Start: 7625, Stop: 7879, Start Num: 60

Candidate Starts for Sleepyhead_11:

(Start: 60 @7625 has 1 MA's), (76, 7667), (88, 7706), (91, 7718),

Gene: Solid_9 Start: 6453, Stop: 6743, Start Num: 46

Candidate Starts for Solid_9:

(Start: 46 @6453 has 223 MA's), (52, 6465), (56, 6471), (Start: 68 @6483 has 1 MA's), (72, 6501), (73, 6504), (77, 6519), (80, 6528), (81, 6531), (93, 6576), (105, 6618), (112, 6630), (115, 6654), (125, 6714),

Gene: Sopespian_11 Start: 7257, Stop: 7538, Start Num: 46

Candidate Starts for Sopespian_11:

(21, 7134), (Start: 46 @7257 has 223 MA's),

Gene: Soul22_12 Start: 6947, Stop: 7219, Start Num: 48

Candidate Starts for Soul22_12:

(Start: 48 @6947 has 24 MA's), (72, 7007), (73, 7010), (83, 7040), (89, 7064), (98, 7094), (120, 7154),

Gene: Spartoi_9 Start: 6351, Stop: 6599, Start Num: 46

Candidate Starts for Spartoi_9:

(Start: 46 @6351 has 223 MA's), (56, 6366), (77, 6414), (118, 6540),

Gene: Spooky_11 Start: 6822, Stop: 7046, Start Num: 74

Candidate Starts for Spooky_11:

(Start: 74 @6822 has 19 MA's), (91, 6879), (112, 6936), (113, 6942), (128, 7032),

Gene: Squiddly_12 Start: 7509, Stop: 7733, Start Num: 74

Candidate Starts for Squiddly_12:

(18, 7287), (25, 7371), (55, 7467), (Start: 74 @7509 has 19 MA's), (87, 7548), (91, 7566), (112, 7623), (113, 7629), (118, 7656), (128, 7719),

Gene: Squircle_10 Start: 7884, Stop: 8150, Start Num: 46

Candidate Starts for Squircle_10:

(40, 7872), (Start: 46 @7884 has 223 MA's), (71, 7908), (94, 7989), (110, 8031), (118, 8067), (121, 8082),

Gene: SteamedHams_13 Start: 7276, Stop: 7548, Start Num: 46

Candidate Starts for SteamedHams_13:

(Start: 46 @7276 has 223 MA's), (73, 7339),

Gene: Stoor_10 Start: 7897, Stop: 8157, Start Num: 41

Candidate Starts for Stoor_10:

(Start: 41 @7897 has 2 MA's), (85, 7963),

Gene: Stormborn_9 Start: 6448, Stop: 6738, Start Num: 46

Candidate Starts for Stormborn_9:

(Start: 46 @6448 has 223 MA's), (52, 6460), (56, 6466), (Start: 68 @6478 has 1 MA's), (72, 6496), (73, 6499), (77, 6514), (80, 6523), (81, 6526), (93, 6571), (105, 6613), (112, 6625), (115, 6649), (125, 6709),

Gene: Stromboli_10 Start: 7898, Stop: 8161, Start Num: 45

Candidate Starts for Stromboli_10:

(Start: 45 @7898 has 14 MA's), (51, 7910), (73, 7925), (110, 8042), (118, 8081), (121, 8096),

Gene: SummitAcademy_10 Start: 7103, Stop: 7375, Start Num: 46

Candidate Starts for SummitAcademy_10:

(Start: 45 @7100 has 14 MA's), (Start: 46 @7103 has 223 MA's), (57, 7115), (Start: 60 @7121 has 1 MA's), (116, 7286), (118, 7292), (122, 7316),

Gene: SunnyD_9 Start: 7487, Stop: 7753, Start Num: 45

Candidate Starts for SunnyD_9:

(40, 7478), (Start: 45 @7487 has 14 MA's), (71, 7511), (73, 7517), (110, 7634), (117, 7667), (128, 7733),

Gene: Supakev_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Supakev_9:

(Start: 46 @7263 has 223 MA's), (73, 7314), (87, 7362), (118, 7470),

Gene: Supernova_9 Start: 6445, Stop: 6735, Start Num: 46

Candidate Starts for Supernova_9:

(Start: 46 @6445 has 223 MA's), (52, 6457), (56, 6463), (72, 6493), (73, 6496), (77, 6511), (80, 6520), (81, 6523), (87, 6544), (93, 6568), (105, 6610), (112, 6622), (115, 6646), (125, 6706),

Gene: Suppi_13 Start: 10175, Stop: 10444, Start Num: 46

Candidate Starts for Suppi_13:

(40, 10163), (Start: 46 @10175 has 223 MA's), (56, 10193), (81, 10253), (87, 10274), (118, 10361),

Gene: Survivors_13 Start: 8017, Stop: 8316, Start Num: 46

Candidate Starts for Survivors_13:

(Start: 45 @8014 has 14 MA's), (Start: 46 @8017 has 223 MA's), (83, 8119), (102, 8188), (118, 8230), (127, 8290), (128, 8293), (129, 8296),

Gene: SweatNTears_13 Start: 7761, Stop: 8030, Start Num: 46

Candidate Starts for SweatNTears_13:

(Start: 46 @7761 has 223 MA's), (73, 7821), (96, 7893),

Gene: Swervy_10 Start: 7625, Stop: 7888, Start Num: 45

Candidate Starts for Swervy_10:

(40, 7616), (Start: 45 @7625 has 14 MA's), (73, 7652), (118, 7808), (121, 7823),

Gene: TMaxx_12 Start: 7340, Stop: 7600, Start Num: 59

Candidate Starts for TMaxx_12:

(59, 7340), (92, 7439), (118, 7520), (119, 7523),

Gene: TattModd_13 Start: 10152, Stop: 10421, Start Num: 46

Candidate Starts for TattModd_13:

(Start: 46 @10152 has 223 MA's), (73, 10203), (77, 10218), (87, 10251),

Gene: TaylorSipht_11 Start: 8123, Stop: 8377, Start Num: 67

Candidate Starts for TaylorSipht_11:

(53, 8087), (Start: 62 @8105 has 3 MA's), (Start: 67 @8123 has 10 MA's), (72, 8147), (86, 8195), (88, 8204),

Gene: Teagster_9 Start: 7487, Stop: 7753, Start Num: 45

Candidate Starts for Teagster_9:

(40, 7478), (Start: 45 @7487 has 14 MA's), (71, 7511), (73, 7517), (94, 7592), (110, 7634), (117, 7667), (128, 7733),

Gene: Temper16_9 Start: 7263, Stop: 7550, Start Num: 46

Candidate Starts for Temper16_9:

(Start: 46 @7263 has 223 MA's), (82, 7344), (87, 7362), (118, 7470), (130, 7542),

Gene: Tolls_13 Start: 7279, Stop: 7551, Start Num: 46

Candidate Starts for Tolls_13:

(Start: 46 @7279 has 223 MA's), (73, 7342),

Gene: Troje_11 Start: 7235, Stop: 7504, Start Num: 46

Candidate Starts for Troje_11:

(Start: 46 @7235 has 223 MA's), (73, 7295), (96, 7367),

Gene: TukTuk_10 Start: 7628, Stop: 7948, Start Num: 46

Candidate Starts for TukTuk_10:

(40, 7616), (Start: 46 @7628 has 223 MA's), (73, 7712), (118, 7868), (121, 7883),

Gene: Typha_17 Start: 11749, Stop: 11997, Start Num: 69

Candidate Starts for Typha_17:

(38, 11692), (Start: 69 @11749 has 4 MA's), (80, 11791), (104, 11866), (119, 11914), (126, 11965), (130, 11983),

Gene: Typhonomachy_12 Start: 7257, Stop: 7538, Start Num: 46

Candidate Starts for Typhonomachy_12:

(21, 7134), (Start: 46 @7257 has 223 MA's),

Gene: Urla_9 Start: 7290, Stop: 7559, Start Num: 46

Candidate Starts for Urla_9:

(Start: 46 @7290 has 223 MA's), (87, 7389), (88, 7395), (118, 7476),

Gene: Vallejo_13 Start: 10090, Stop: 10359, Start Num: 46

Candidate Starts for Vallejo_13:

(Start: 46 @10090 has 223 MA's), (73, 10141), (77, 10156), (87, 10189),

Gene: Vine_12 Start: 8032, Stop: 8304, Start Num: 46

Candidate Starts for Vine_12:

(Start: 45 @8029 has 14 MA's), (Start: 46 @8032 has 223 MA's), (116, 8215), (118, 8221), (122, 8245),

Gene: Vitas_9 Start: 7425, Stop: 7688, Start Num: 46

Candidate Starts for Vitas_9:

(33, 7368), (Start: 46 @7425 has 223 MA's), (54, 7440), (73, 7455), (110, 7572), (122, 7632), (126, 7662),

Gene: Volt_45 Start: 17223, Stop: 17507, Start Num: 43

Candidate Starts for Volt_45:

(39, 17217), (Start: 43 @17223 has 6 MA's), (Start: 68 @17280 has 1 MA's), (75, 17307), (103, 17388), (108, 17394),

Gene: Vulpecula_11 Start: 8417, Stop: 8674, Start Num: 66

Candidate Starts for Vulpecula_11:

(1, 7796), (2, 7841), (6, 7955), (8, 8063), (22, 8264), (53, 8381), (Start: 66 @8417 has 8 MA's), (116, 8585),

Gene: Vulture_9 Start: 7261, Stop: 7548, Start Num: 46
Candidate Starts for Vulture_9:
(Start: 46 @7261 has 223 MA's), (87, 7360), (118, 7468),

Gene: WalkingDead_10 Start: 7885, Stop: 8148, Start Num: 47
Candidate Starts for WalkingDead_10:
(Start: 47 @7885 has 2 MA's), (73, 7912), (118, 8068), (121, 8083),

Gene: Wawa_13 Start: 10127, Stop: 10396, Start Num: 46
Candidate Starts for Wawa_13:
(Start: 46 @10127 has 223 MA's), (73, 10178), (77, 10193), (87, 10226),

Gene: Wayne_13 Start: 10221, Stop: 10490, Start Num: 46
Candidate Starts for Wayne_13:
(40, 10209), (Start: 46 @10221 has 223 MA's), (56, 10239), (81, 10299), (87, 10320), (118, 10407),

Gene: Whitney_11 Start: 6824, Stop: 7048, Start Num: 74
Candidate Starts for Whitney_11:
(15, 6587), (18, 6602), (25, 6686), (Start: 74 @6824 has 19 MA's), (87, 6863), (91, 6881), (112, 6938), (113, 6944), (118, 6971), (128, 7034),

Gene: Wizzo_9 Start: 6457, Stop: 6747, Start Num: 46
Candidate Starts for Wizzo_9:
(Start: 46 @6457 has 223 MA's), (52, 6469), (56, 6475), (Start: 68 @6487 has 1 MA's), (72, 6505), (73, 6508), (77, 6523), (80, 6532), (81, 6535), (105, 6622), (112, 6634),

Gene: WonderBoy_9 Start: 7243, Stop: 7512, Start Num: 46
Candidate Starts for WonderBoy_9:
(Start: 46 @7243 has 223 MA's), (87, 7342), (118, 7429),

Gene: Wrigley_12 Start: 7859, Stop: 8116, Start Num: 48
Candidate Starts for Wrigley_12:
(Start: 48 @7859 has 24 MA's), (122, 8069), (128, 8108),

Gene: Yakult_12 Start: 7168, Stop: 7437, Start Num: 46
Candidate Starts for Yakult_12:
(Start: 46 @7168 has 223 MA's),

Gene: Yarn_10 Start: 7269, Stop: 7541, Start Num: 46
Candidate Starts for Yarn_10:
(Start: 46 @7269 has 223 MA's),

Gene: Yoshi_12 Start: 6947, Stop: 7219, Start Num: 48
Candidate Starts for Yoshi_12:
(Start: 48 @6947 has 24 MA's), (72, 7007), (73, 7010), (83, 7040), (89, 7064), (98, 7094), (120, 7154),

Gene: Yummy_12 Start: 7139, Stop: 7417, Start Num: 46
Candidate Starts for Yummy_12:
(Start: 46 @7139 has 223 MA's), (73, 7208), (96, 7280),

Gene: Zapner_13 Start: 7472, Stop: 7744, Start Num: 48

Candidate Starts for Zapner_13:

(Start: 48 @7472 has 24 MA's), (72, 7532), (73, 7535), (83, 7565), (89, 7589), (98, 7619), (120, 7679),

Gene: Zareef_15 Start: 8164, Stop: 8463, Start Num: 46

Candidate Starts for Zareef_15:

(Start: 45 @8161 has 14 MA's), (Start: 46 @8164 has 223 MA's), (83, 8266), (102, 8335), (118, 8377), (127, 8437), (128, 8440), (129, 8443),

Gene: Ziko_46 Start: 17163, Stop: 17447, Start Num: 43

Candidate Starts for Ziko_46:

(39, 17157), (Start: 43 @17163 has 6 MA's), (Start: 68 @17220 has 1 MA's), (75, 17247), (103, 17328), (108, 17334),

Gene: Zorro_13 Start: 10106, Stop: 10375, Start Num: 46

Candidate Starts for Zorro_13:

(Start: 46 @10106 has 223 MA's), (73, 10157), (77, 10172), (87, 10205),