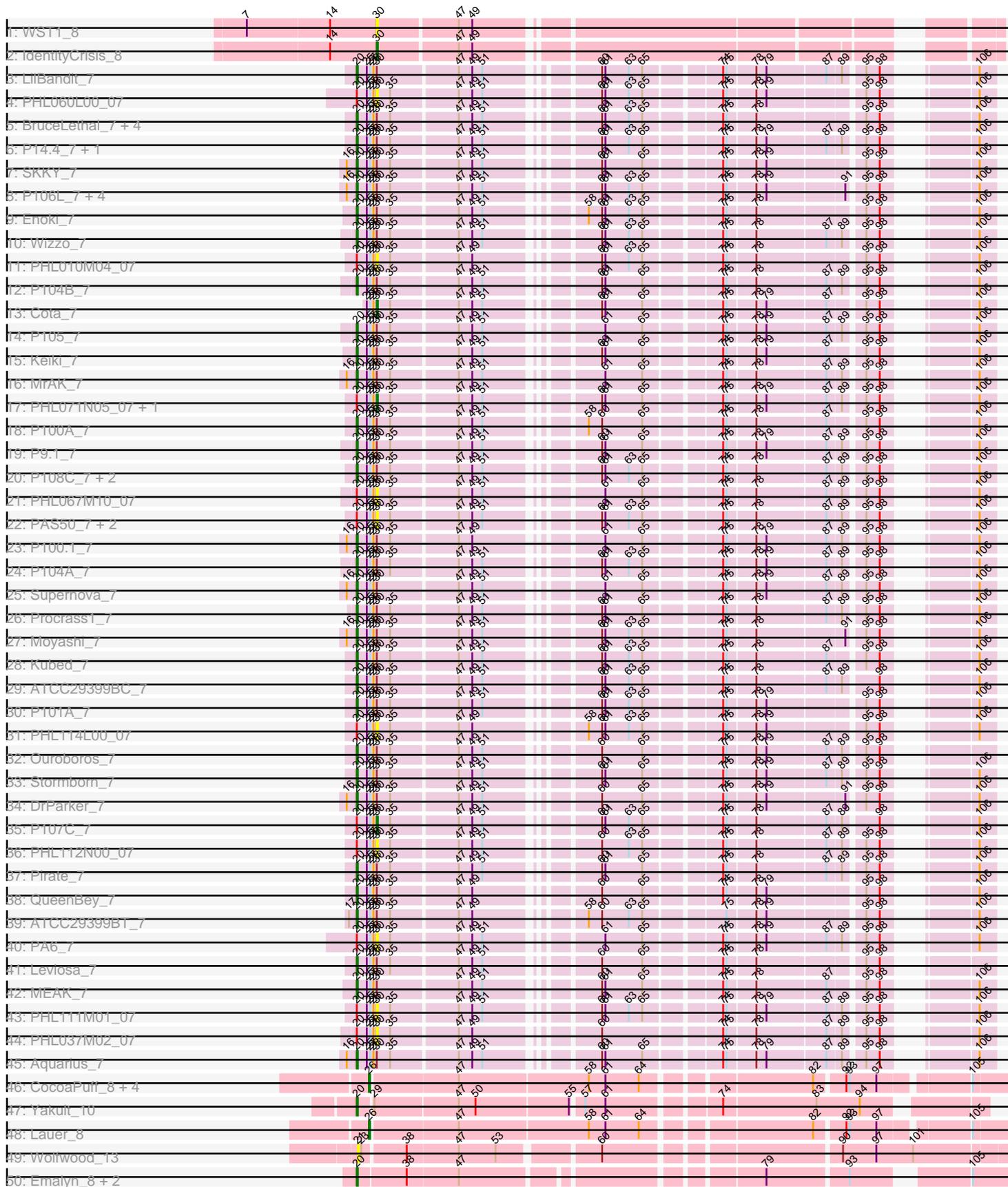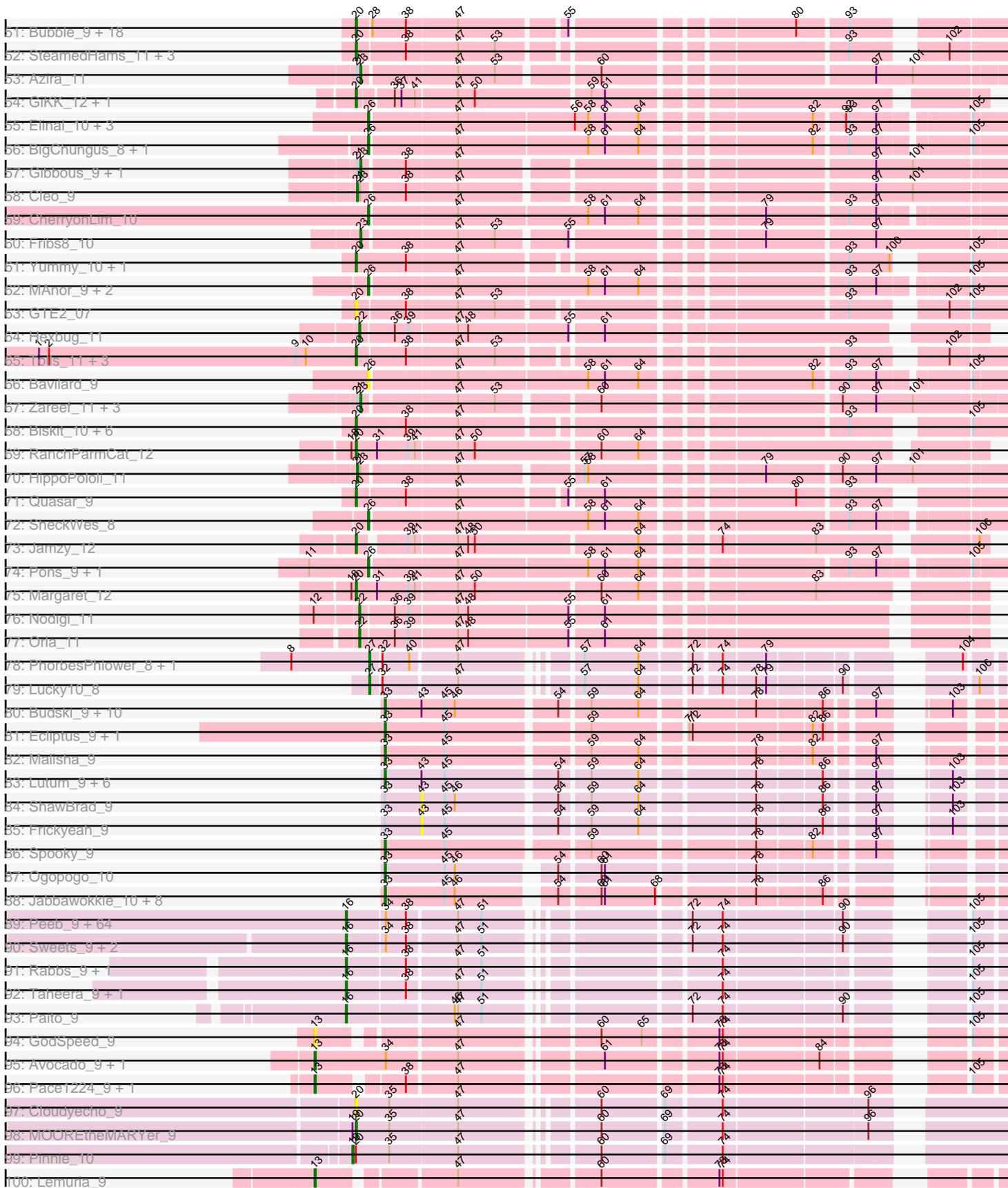# Pham 287560

Pham 287560

Pham 287560

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 287560 Report

This analysis was run 03/28/26 on database version 641.

Pham number 287560 has 269 members, 56 are drafts.

Phages represented in each track:
• Track 1 : WST1_8
• Track 2 : IdentityCrisis_8
• Track 3 : LilBandit_7
• Track 4 : PHL060L00_07
• Track 5 : BruceLethal_7, Rileysaurus_7, Enochoraptor_7, P1.1_7, Lauchelly_7
• Track 6 : P14.4_7, Attacne_7
• Track 7 : SKKY_7
• Track 8 : P106L_7, P106I_7, P106M_7, P106C_7, P106A_7
• Track 9 : Enoki_7
• Track 10 : Wizzo_7
• Track 11 : PHL010M04_07
• Track 12 : P104B_7
• Track 13 : Cota_7
• Track 14 : P105_7
• Track 15 : Keiki_7
• Track 16 : MrAK_7
• Track 17 : PHL071N05_07, P107A_7
• Track 18 : P100A_7
• Track 19 : P9.1_7
• Track 20 : P108C_7, Solid_7, P100D_7
• Track 21 : PHL067M10_07
• Track 22 : PAS50_7, PAD20_7, PHL113M01_07
• Track 23 : P100.1_7
• Track 24 : P104A_7
• Track 25 : Supernova_7
• Track 26 : Procrass1_7
• Track 27 : Moyashi_7
• Track 28 : Kubed_7
• Track 29 : ATCC29399BC_7
• Track 30 : P101A_7
• Track 31 : PHL114L00_07
• Track 32 : Ouroboros_7
• Track 33 : Stormborn_7
• Track 34 : DrParker_7
• Track 35 : P107C_7
• Track 36 : PHL112N00_07
• Track 37 : Pirate_7

- Track 38 : QueenBey_7
- Track 39 : ATCC29399BT_7
- Track 40 : PA6_7
- Track 41 : Leviosa_7
- Track 42 : MEAK_7
- Track 43 : PHL111M01_07
- Track 44 : PHL037M02_07
- Track 45 : Aquarius_7
- Track 46 : CocoaPuff_8, Tarnish_8, Balloona_8, SummitAcademy_8, PotPie_9
- Track 47 : Yakult_10
- Track 48 : Lauer_8
- Track 49 : Wolfwood_13
- Track 50 : Emalyn_8, Amok_8, AikoCarson_8
- Track 51 : Bubble_9, Eliott_9, Nina_10, Cozz_9, ChickenTender_11, Agatha_9, MunkgeeRoachy_9, GoldHunter_10, Carsonalex_10, RSchmailzl_10, RedBaron_10, RADical_10, Sopespian_9, Starburst_10, Socotra_10, Typhonomachy_9, PsychoKiller_9, Burnsey_9, Axym_9
- Track 52 : SteamedHams_11, AndPeggy_8, BillDoor_11, Yarn_8
- Track 53 : Azira_11
- Track 54 : GiKK_12, Button_10
- Track 55 : Elinal_10, Vine_10, KayGee_9, Yucky_9
- Track 56 : BigChungus_8, Feastonyeet_8
- Track 57 : Gibbous_9, Dre3_9
- Track 58 : Cleo_9
- Track 59 : CherryonLim_10
- Track 60 : Fribs8_10
- Track 61 : Yummy_10, Horseradish_10
- Track 62 : MAnor_9, McDazzle_8, ElJefes_8
- Track 63 : GTE2_07
- Track 64 : Hexbug_11
- Track 65 : Tolls_11, ChocoMunchkin_9, CanesSauce_9, CaramelLatte_9
- Track 66 : Bavilard_9
- Track 67 : Zareef_11, Survivors_11, Nibbles_11, MaVan_11
- Track 68 : Biskit_10, SweatNTears_11, Troje_9, SketchMex_8, Buttrmlkdreams_9, MScarn_11, Blondies_10
- Track 69 : RanchParmCat_12
- Track 70 : HippoPololi_11
- Track 71 : Quasar_9
- Track 72 : SheckWes_8
- Track 73 : Jamzy_12
- Track 74 : Pons_9, Mayweather_10
- Track 75 : Margaret_12
- Track 76 : Nodigi_11
- Track 77 : Orla_11
- Track 78 : PhorbesPhlower_8, Morkie_8
- Track 79 : Lucky10_8
- Track 80 : Budski_9, CheeseTouch_9, Phabuloso_9, Getalong_9, Kamaru_9, Holliday_9, Periwinkle_9, Phistory_9, Whitney_9, Squiddly_10, LitninMcQueen_9
- Track 81 : Ecliptus_9, ODay_9
- Track 82 : Malisha_9
- Track 83 : Lutum_9, Asapag_9, Horus_9, BotCity_9, Kenna_9, BENtherdunthat_9, Leroy_9
- Track 84 : ShawBrad_9

- Track 85 : Frickyeah_9
- Track 86 : Spooky_9
- Track 87 : Ogopogo_10
- Track 88 : Jabbawokkie_10, Che9d_9, SilverChicken_9, Soul22_9, Yoshi_9, Avani_9, Zapner_10, Blarby_10, Demsculpinboyz_9
- Track 89 : Peeb_9, Phreak_9, GoldenAsh_9, Maliketh_9, OctaviousRex_9, Jane_9, Phloodle_9, AzulaCat_9, ShaboiShabazz_9, Sizemore_9, Cherrybomb426_9, Crespo_9, Darionha_9, Aroostook_9, Marmie_9, Camri_9, Gideon_9, Mowgli_9, LouisV14_9, Coleslaw_9, ECartman_9, Hope_9, BruceB_9, Barkley26_9, Ruriko_9, Gomashi_9, Jolene_9, Jeilious_9, Schiebel_9, Hotshotbaby7_9, Avrafan_9, Phish_9, Frosty24_9, TomBrady_9, AizenPogi_9, Grizzly_9, Zombie_9, CLED96_9, DingDing_9, BPs_9, Angel_9, JorRay_9, Jonghyun_9, Liefie_9, ZoMa_9, Rattrick_9, Annihilator_9, PinkYoshi_9, Neoh_9, Renaissance_9, Kasen3_9, MZKinsey_9, Kareem_9, Remy19_9, Cedasite_9, Plagueis_9, Chance64_9, DNAIII_009, Wendigo_9, Periodt_9, CassieYates_9, Olga_9, DMoney_9, Richarlison_9, BQuat_9
- Track 90 : Sweets_9, Halo_9, TinaBug_9
- Track 91 : Rabbs_9, Sneeze_9
- Track 92 : Taheera_9, Terror_9
- Track 93 : Paito_9
- Track 94 : GodSpeed_9
- Track 95 : Avocado_9, Cambiare_10
- Track 96 : Pace1224_9, FlagStaff_9
- Track 97 : Cloudyecho_9
- Track 98 : MOOREtheMARYer_9
- Track 99 : Pinnie_10
- Track 100 : Lemuria_9
- Track 101 : Jolie2_9
- Track 102 : Mercurio_10
- Track 103 : YangYin_9, Stargaze_9
- Track 104 : Antsirabe_9
- Track 105 : Stellammi_6
- Track 106 : Gaia_6, Nebkiss_6
- Track 107 : Sleepyhead_8
- Track 108 : P3MA_9

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

The start number called the most often in the published annotations is 20, it was called in 75 of the 213 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- ATCC29399BC_7, ATCC29399BT_7, Agatha_9, AikoCarson_8, Amok_8, AndPeggy_8, Aquarius_7, Attacne_7, Axym_9, BillDoor_11, Biskit_10, Blondies_10, BruceLethal_7, Bubble_9, Burnsey_9, Button_10, Buttrmlkdreams_9, CanesSauce_9, CaramelLatte_9, Carsonalex_10, ChickenTender_11, ChocoMunchkin_9, Cloudyecho_9, Cozz_9, DrParker_7, Eliott_9, Emalyn_8, Enochoraptor_7, Enoki_7, GTE2_07, GiKK_12, GoldHunter_10, Horseradish_10, Jamzy_12, Keiki_7, Kubed_7, Lauchelly_7, Leviosa_7, LilBandit_7, MEAK_7, MOOREtheMARYer_9, MScarn_11, Margaret_12, Moyashi_7, MrAK_7, MunkgeeRoachy_9, Nina_10, Ouroboros_7, P1.1_7, P100.1_7, P100A_7, P100D_7, P101A_7, P104A_7, P104B_7, P105_7,

P106A_7, P106C_7, P106I_7, P106L_7, P106M_7, P108C_7, P14.4_7, P9.1_7, Pirate_7, Procrass1_7, PsychoKiller_9, Quasar_9, QueenBey_7, RADical_10, RSchmailzl_10, RanchParmCat_12, RedBaron_10, Rileysaurus_7, SKKY_7, SketchMex_8, Socotra_10, Solid_7, Sopespian_9, Starburst_10, SteamedHams_11, Stormborn_7, Supernova_7, SweatNTears_11, Tolls_11, Troje_9, Typhonomachy_9, Wizzo_7, Yakult_10, Yarn_8, Yummy_10,

Genes that have the "Most Annotated" start but do not call it:
• P107A_7, P107C_7, PA6_7, PAD20_7, PAS50_7, PHL010M04_07, PHL037M02_07, PHL060L00_07, PHL067M10_07, PHL071N05_07, PHL111M01_07, PHL112N00_07, PHL113M01_07, PHL114L00_07, Pinnie_10,

Genes that do not have the "Most Annotated" start:
• AizenPogi_9, Angel_9, Annihilator_9, Antsirabe_9, Aroostook_9, Asapag_9, Avani_9, Avocado_9, Avrafan_9, Azira_11, AzulaCat_9, BENtherdunthat_9, BPs_9, BQuat_9, Balloona_8, Barkley26_9, Bavilard_9, BigChungus_8, Blarby_10, BotCity_9, BruceB_9, Budski_9, CLED96_9, Cambiare_10, Camri_9, CassieYates_9, Cedasite_9, Chance64_9, Che9d_9, CheeseTouch_9, Cherrybomb426_9, CherryonLim_10, Cleo_9, CocoaPuff_8, Coleslaw_9, Cota_7, Crespo_9, DMoney_9, DNAIII_009, Darionha_9, Demsculpinboyz_9, DingDing_9, Dre3_9, ECartman_9, Ecliptus_9, ElJefes_8, Elinal_10, Feastonyeet_8, FlagStaff_9, Fribs8_10, Frickyeah_9, Frosty24_9, Gaia_6, Getalong_9, Gibbous_9, Gideon_9, GodSpeed_9, GoldenAsh_9, Gomashi_9, Grizzly_9, Halo_9, Hexbug_11, HippoPololi_11, Holliday_9, Hope_9, Horus_9, Hotshotbaby7_9, IdentityCrisis_8, Jabbawokkie_10, Jane_9, Jeilious_9, Jolene_9, Jolie2_9, Jonghyun_9, JorRay_9, Kamaru_9, Kareem_9, Kasen3_9, KayGee_9, Kenna_9, Lauer_8, Lemuria_9, Leroy_9, Liefie_9, LitninMcQueen_9, LouisV14_9, Lucky10_8, Lutum_9, MAnor_9, MZKinsey_9, MaVan_11, Maliketh_9, Malisha_9, Marmie_9, Mayweather_10, McDazzle_8, Mercurio_10, Morkie_8, Mowgli_9, Nebkiss_6, Neoh_9, Nibbles_11, Nodigi_11, ODay_9, OctaviousRex_9, Ogopogo_10, Olga_9, Orla_11, P3MA_9, Pace1224_9, Paito_9, Peeb_9, Periodt_9, Periwinkle_9, Phabuloso_9, Phish_9, Phistory_9, Phloodle_9, PhorbesPhlower_8, Phreak_9, PinkYoshi_9, Plagueis_9, Pons_9, PotPie_9, Rabbs_9, Rattrick_9, Remy19_9, Renaissance_9, Richarlison_9, Ruriko_9, Schiebel_9, ShaboiShabazz_9, ShawBrad_9, SheckWes_8, SilverChicken_9, Sizemore_9, Sleepyhead_8, Sneeze_9, Soul22_9, Spooky_9, Squiddly_10, Stargaze_9, Stellammi_6, SummitAcademy_8, Survivors_11, Sweets_9, Taheera_9, Tarnish_8, Terror_9, TinaBug_9, TomBrady_9, Vine_10, WST1_8, Wendigo_9, Whitney_9, Wolfwood_13, YangYin_9, Yoshi_9, Yucky_9, Zapner_10, Zareef_11, ZoMa_9, Zombie_9,

Summary by start number:

Start 13:
• Found in 11 of 269 (4.1%) of genes in pham
• Manual Annotations of this start: 7 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Antsirabe_9 (G5), Avocado_9 (G2), Cambiare_10 (G2), FlagStaff_9 (G2), GodSpeed_9 (G2), Jolie2_9 (G4), Lemuria_9 (G4), Mercurio_10 (G4), Pace1224_9 (G2), Stargaze_9 (G5), YangYin_9 (G5),

Start 15:
• Found in 1 of 269 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 213

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sleepyhead_8 (singleton),

Start 16:
• Found in 85 of 269 (31.6%) of genes in pham
• Manual Annotations of this start: 62 of 213
• Called 85.9% of time when present
• Phage (with cluster) where this start called: AizenPogi_9 (G1), Angel_9 (G1), Annihilator_9 (G1), Aroostook_9 (G1), Avrafan_9 (G1), AzulaCat_9 (G1), BPs_9 (G1), BQuat_9 (G1), Barkley26_9 (G1), BruceB_9 (G1), CLED96_9 (G1), Camri_9 (G1), CassieYates_9 (G1), Cedasite_9 (G1), Chance64_9 (G1), Cherrybomb426_9 (G1), Coleslaw_9 (G1), Crespo_9 (G1), DMoney_9 (G1), DNAIII_009 (G1), Darionha_9 (G1), DingDing_9 (G1), ECartman_9 (G1), Frosty24_9 (G1), Gideon_9 (G1), GoldenAsh_9 (G1), Gomashi_9 (G1), Grizzly_9 (G1), Halo_9 (G1), Hope_9 (G1), Hotshotbaby7_9 (G1), Jane_9 (G1), Jeilious_9 (G), Jolene_9 (G1), Jonghyun_9 (G1), JorRay_9 (G1), Kareem_9 (G1), Kasen3_9 (G1), Liefie_9 (G1), LouisV14_9 (G1), MZKinsey_9 (G1), Maliketh_9 (G1), Marmie_9 (G1), Mowgli_9 (G1), Neoh_9 (G), OctaviousRex_9 (G1), Olga_9 (G1), Paito_9 (G1), Peeb_9 (G1), Periodt_9 (G1), Phish_9 (G1), Phloodle_9 (G1), Phreak_9 (G1), PinkYoshi_9 (G1), Plagueis_9 (G1), Rabbs_9 (G1), Rattrick_9 (G1), Remy19_9 (G1), Renaissance_9 (G1), Richarlison_9 (G1), Ruriko_9 (G1), Schiebel_9 (G1), ShaboiShabazz_9 (G1), Sizemore_9 (G1), Sneeze_9 (G1), Sweets_9 (G1), Taheera_9 (G1), Terror_9 (G1), TinaBug_9 (G1), TomBrady_9 (G1), Wendigo_9 (G1), ZoMa_9 (G1), Zombie_9 (G1),

Start 19:
• Found in 2 of 269 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Pinnie_10 (G3),

Start 20:
• Found in 106 of 269 (39.4%) of genes in pham
• Manual Annotations of this start: 75 of 213
• Called 85.8% of time when present
• Phage (with cluster) where this start called: ATCC29399BC_7 (BU), ATCC29399BT_7 (BU), Agatha_9 (CT), AikoCarson_8 (CT), Amok_8 (CT), AndPeggy_8 (CT), Aquarius_7 (BU), Attacne_7 (BU), Axym_9 (CT), BillDoor_11 (CT), Biskit_10 (CT), Blondies_10 (CT), BruceLethal_7 (BU), Bubble_9 (CT), Burnsey_9 (CT), Button_10 (CT), Buttrmlkdreams_9 (CT), CanesSauce_9 (CT), CaramelLatte_9 (CT), Carsonalex_10 (CT), ChickenTender_11 (CT), ChocoMunchkin_9 (CT), Cloudyecho_9 (G3), Cozz_9 (CT), DrParker_7 (BU), Eliott_9 (CT), Emalyn_8 (CT), Enochoraptor_7 (BU), Enoki_7 (BU), GTE2_07 (CT), GiKK_12 (CT), GoldHunter_10 (CT), Horseradish_10 (CT), Jamzy_12 (CT), Keiki_7 (BU), Kubed_7 (BU), Lauchelly_7 (BU), Leviosa_7 (BU), LilBandit_7 (BU), MEAK_7 (BU), MOOREtheMARYer_9 (G3), MScarn_11 (CT), Margaret_12 (CT), Moyashi_7 (BU), MrAK_7 (BU), MunkgeeRoachy_9 (CT), Nina_10 (CT), Ouroboros_7 (BU), P1.1_7 (BU), P100.1_7 (BU), P100A_7 (BU), P100D_7 (BU), P101A_7 (BU), P104A_7 (BU), P104B_7 (BU), P105_7 (BU), P106A_7 (BU), P106C_7 (BU), P106I_7 (BU), P106L_7 (BU), P106M_7 (BU), P108C_7 (BU), P14.4_7 (BU), P9.1_7 (BU), Pirate_7 (BU), Procrass1_7 (BU), PsychoKiller_9 (CT), Quasar_9 (CT), QueenBey_7 (BU), RADical_10 (CT), RSchmailzl_10 (CT), RanchParmCat_12 (CT), RedBaron_10 (CT), Rileysaurus_7 (BU), SKKY_7 (BU), SketchMex_8 (CT), Socotra_10 (CT), Solid_7 (BU), Sopespian_9 (CT), Starburst_10 (CT), SteamedHams_11 (CT), Stormborn_7

(BU), Supernova_7 (BU), SweatNTears_11 (CT), Tolls_11 (CT), Troje_9 (CT), Typhonomachy_9 (CT), Wizzo_7 (BU), Yakult_10 (CT), Yarn_8 (CT), Yummy_10 (CT),

Start 21:
• Found in 10 of 269 (3.7%) of genes in pham
• Manual Annotations of this start: 2 of 213
• Called 30.0% of time when present
• Phage (with cluster) where this start called: Cleo_9 (CT), HippoPololi_11 (CT), Wolfwood_13 (CT),

Start 22:
• Found in 3 of 269 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hexbug_11 (CT), Nodigi_11 (CT), Orla_11 (CT),

Start 23:
• Found in 11 of 269 (4.1%) of genes in pham
• Manual Annotations of this start: 8 of 213
• Called 72.7% of time when present
• Phage (with cluster) where this start called: Azira_11 (CT), Dre3_9 (CT), Fribs8_10 (CT), Gibbous_9 (CT), MaVan_11 (CT), Nibbles_11 (CT), Survivors_11 (CT), Zareef_11 (CT),

Start 26:
• Found in 20 of 269 (7.4%) of genes in pham
• Manual Annotations of this start: 14 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Balloona_8 (CT), Bavilard_9 (CT), BigChungus_8 (CT), CherryonLim_10 (CT), CocoaPuff_8 (CT), ElJefes_8 (CT), Elinal_10 (CT), Feastonyeet_8 (CT), KayGee_9 (CT), Lauer_8 (CT), MAnor_9 (CT), Mayweather_10 (CT), McDazzle_8 (CT), Pons_9 (CT), PotPie_9 (CT), SheckWes_8 (CT), SummitAcademy_8 (CT), Tarnish_8 (CT), Vine_10 (CT), Yucky_9 (CT),

Start 27:
• Found in 62 of 269 (23.0%) of genes in pham
• Manual Annotations of this start: 4 of 213
• Called 6.5% of time when present
• Phage (with cluster) where this start called: Lucky10_8 (DH), Morkie_8 (DH), P3MA_9 (singleton), PhorbesPhlower_8 (DH),

Start 30:
• Found in 62 of 269 (23.0%) of genes in pham
• Manual Annotations of this start: 6 of 213
• Called 32.3% of time when present
• Phage (with cluster) where this start called: Cota_7 (BU), Gaia_6 (X), IdentityCrisis_8 (AJ), Nebkiss_6 (X), P107A_7 (BU), P107C_7 (BU), PA6_7 (BU), PAD20_7 (BU), PAS50_7 (BU), PHL010M04_07 (BU), PHL037M02_07 (BU), PHL060L00_07 (BU), PHL067M10_07 (BU), PHL071N05_07 (BU), PHL111M01_07 (BU), PHL112N00_07 (BU), PHL113M01_07 (BU), PHL114L00_07 (BU), Stellammi_6 (UNK), WST1_8 (AJ),

Start 33:
• Found in 34 of 269 (12.6%) of genes in pham
• Manual Annotations of this start: 30 of 213
• Called 94.1% of time when present
• Phage (with cluster) where this start called: Asapag_9 (DN1), Avani_9 (F2), BENtherdunthat_9 (DN1), Blarby_10 (F), BotCity_9 (DN), Budski_9 (DN), Che9d_9 (F2), CheeseTouch_9 (DN1), Demsculpinboyz_9 (F2), Ecliptus_9 (DN), Getalong_9 (DN1), Holliday_9 (DN1), Horus_9 (DN1), Jabbawokkie_10 (F2), Kamaru_9 (DN1), Kenna_9 (DN1), Leroy_9 (DN1), LitninMcQueen_9 (DN1), Lutum_9 (DN1), Malisha_9 (DN), ODay_9 (DN), Ogopogo_10 (F1), Periwinkle_9 (DN1), Phabuloso_9 (DN1), Phistory_9 (DN1), SilverChicken_9 (F2), Soul22_9 (F2), Spooky_9 (DN2), Squiddly_10 (DN2), Whitney_9 (DN1), Yoshi_9 (F2), Zapner_10 (F2),

Start 43:
• Found in 20 of 269 (7.4%) of genes in pham
• No Manual Annotations of this start.
• Called 10.0% of time when present
• Phage (with cluster) where this start called: Frickyeah_9 (DN1), ShawBrad_9 (DN1),

Summary by clusters:

There are 19 clusters represented in this pham: DN, F1, F2, G4, G3, G2, G1, F, AJ, G5, G, BU, DN1, DH, DN2, X, singleton, UNK, CT,

Info for manual annotations of cluster AJ:
•Start number 30 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster BU:
•Start number 20 was manually annotated 42 times for cluster BU.
•Start number 30 was manually annotated 3 times for cluster BU.

Info for manual annotations of cluster CT:
•Start number 20 was manually annotated 32 times for cluster CT.
•Start number 21 was manually annotated 2 times for cluster CT.
•Start number 22 was manually annotated 3 times for cluster CT.
•Start number 23 was manually annotated 8 times for cluster CT.
•Start number 26 was manually annotated 14 times for cluster CT.

Info for manual annotations of cluster DH:
•Start number 27 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:
•Start number 33 was manually annotated 5 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 33 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 33 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster F1:

•Start number 33 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 33 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster G1:
•Start number 16 was manually annotated 62 times for cluster G1.

Info for manual annotations of cluster G2:
•Start number 13 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:
•Start number 19 was manually annotated 1 time for cluster G3.
•Start number 20 was manually annotated 1 time for cluster G3.

Info for manual annotations of cluster G4:
•Start number 13 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:
•Start number 13 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster X:
•Start number 30 was manually annotated 2 times for cluster X.

Gene Information:

Gene: ATCC29399BC_7 Start: 5617, Stop: 6096, Start Num: 20
Candidate Starts for ATCC29399BC_7:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (35, 5647), (47, 5704), (49, 5716), (51, 5725), (60, 5806), (61, 5809), (63, 5830), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (87, 5989), (89, 6001), (98, 6028), (106, 6082),

Gene: ATCC29399BT_7 Start: 5613, Stop: 6092, Start Num: 20
Candidate Starts for ATCC29399BT_7:
(17, 5607), (Start: 20 @5613 has 75 MA's), (25, 5622), (Start: 27 @5625 has 4 MA's), (28, 5628), (Start: 30 @5631 has 6 MA's), (35, 5643), (47, 5700), (49, 5712), (58, 5790), (60, 5802), (63, 5826), (65, 5838), (75, 5901), (78, 5925), (79, 5934), (95, 6012), (98, 6024), (106, 6078),

Gene: Agatha_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Agatha_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: AikoCarson_8 Start: 6147, Stop: 6656, Start Num: 20
Candidate Starts for AikoCarson_8:
(Start: 20 @6147 has 75 MA's), (38, 6189), (47, 6234), (79, 6471), (93, 6540), (105, 6624),

Gene: AizenPogi_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for AizenPogi_9:

(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Amok_8 Start: 6147, Stop: 6656, Start Num: 20
Candidate Starts for Amok_8:
(Start: 20 @6147 has 75 MA's), (38, 6189), (47, 6234), (79, 6471), (93, 6540), (105, 6624),

Gene: AndPeggy_8 Start: 6435, Stop: 6944, Start Num: 20
Candidate Starts for AndPeggy_8:
(Start: 20 @6435 has 75 MA's), (38, 6477), (47, 6522), (53, 6555), (93, 6828), (102, 6894),

Gene: Angel_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Angel_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Annihilator_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Annihilator_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Antsirabe_9 Start: 8572, Stop: 9105, Start Num: 13
Candidate Starts for Antsirabe_9:
(Start: 13 @8572 has 7 MA's), (44, 8668), (47, 8692), (69, 8851), (74, 8896), (76, 8902), (77, 8914),

Gene: Aquarius_7 Start: 5607, Stop: 6086, Start Num: 20
Candidate Starts for Aquarius_7:
(Start: 16 @5598 has 62 MA's), (Start: 20 @5607 has 75 MA's), (25, 5616), (Start: 27 @5619 has 4 MA's), (28, 5622), (Start: 30 @5625 has 6 MA's), (35, 5637), (47, 5694), (49, 5706), (51, 5715), (60, 5796), (61, 5799), (65, 5832), (74, 5892), (75, 5895), (78, 5919), (79, 5928), (87, 5979), (89, 5991), (95, 6006), (98, 6018), (106, 6072),

Gene: Aroostook_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Aroostook_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Asapag_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Asapag_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Attacne_7 Start: 5618, Stop: 6097, Start Num: 20
Candidate Starts for Attacne_7:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (79, 5939), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: Avani_9 Start: 5986, Stop: 6441, Start Num: 33
Candidate Starts for Avani_9:
(Start: 33 @5986 has 30 MA's), (45, 6040), (46, 6049), (54, 6124), (60, 6157), (61, 6160), (68, 6205), (78, 6280), (86, 6334),

Gene: Avocado_9 Start: 8415, Stop: 8948, Start Num: 13
Candidate Starts for Avocado_9:
(Start: 13 @8415 has 7 MA's), (34, 8478), (47, 8538), (61, 8649), (73, 8739), (74, 8742), (84, 8823),

Gene: Avrafan_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Avrafan_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Axym_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Axym_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Azira_11 Start: 7290, Stop: 7823, Start Num: 23
Candidate Starts for Azira_11:
(Start: 21 @7287 has 2 MA's), (Start: 23 @7290 has 8 MA's), (47, 7371), (53, 7404), (60, 7485), (97, 7704), (101, 7737),

Gene: AzulaCat_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for AzulaCat_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: BENtherdunthat_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for BENtherdunthat_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: BPs_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for BPs_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: BQuat_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for BQuat_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Balloona_8 Start: 6168, Stop: 6695, Start Num: 26
Candidate Starts for Balloona_8:
(Start: 26 @6168 has 14 MA's), (47, 6243), (58, 6357), (61, 6372), (64, 6402), (82, 6537), (92, 6561), (93, 6564), (97, 6588), (105, 6660),

Gene: Barkley26_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Barkley26_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Bavilard_9 Start: 6948, Stop: 7475, Start Num: 26
Candidate Starts for Bavilard_9:
(Start: 26 @6948 has 14 MA's), (47, 7023), (58, 7137), (61, 7152), (64, 7182), (82, 7317), (93, 7344), (97, 7368), (105, 7440),

Gene: BigChungus_8 Start: 6193, Stop: 6720, Start Num: 26
Candidate Starts for BigChungus_8:
(Start: 26 @6193 has 14 MA's), (47, 6268), (58, 6382), (61, 6397), (64, 6427), (82, 6562), (93, 6589), (97, 6613), (105, 6685),

Gene: BillDoor_11 Start: 6400, Stop: 6909, Start Num: 20
Candidate Starts for BillDoor_11:
(Start: 20 @6400 has 75 MA's), (38, 6442), (47, 6487), (53, 6520), (93, 6793), (102, 6859),

Gene: Biskit_10 Start: 6398, Stop: 6910, Start Num: 20
Candidate Starts for Biskit_10:
(Start: 20 @6398 has 75 MA's), (38, 6443), (47, 6488), (93, 6794), (105, 6878),

Gene: Blarby_10 Start: 6510, Stop: 6965, Start Num: 33
Candidate Starts for Blarby_10:
(Start: 33 @6510 has 30 MA's), (45, 6564), (46, 6573), (54, 6648), (60, 6681), (61, 6684), (68, 6729), (78, 6804), (86, 6858),

Gene: Blondies_10 Start: 6393, Stop: 6905, Start Num: 20
Candidate Starts for Blondies_10:
(Start: 20 @6393 has 75 MA's), (38, 6438), (47, 6483), (93, 6789), (105, 6873),

Gene: BotCity_9 Start: 6024, Stop: 6488, Start Num: 33
Candidate Starts for BotCity_9:
(Start: 33 @6024 has 30 MA's), (43, 6057), (45, 6078), (54, 6171), (59, 6195), (64, 6237), (78, 6327), (86, 6381), (97, 6417), (103, 6453),

Gene: BruceB_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for BruceB_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: BruceLethal_7 Start: 5607, Stop: 6086, Start Num: 20
Candidate Starts for BruceLethal_7:
(Start: 20 @5607 has 75 MA's), (25, 5616), (Start: 27 @5619 has 4 MA's), (28, 5622), (Start: 30 @5625 has 6 MA's), (35, 5637), (47, 5694), (49, 5706), (51, 5715), (60, 5796), (61, 5799), (63, 5820), (65, 5832), (74, 5892), (75, 5895), (78, 5919), (95, 6006), (98, 6018), (106, 6072),

Gene: Bubble_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Bubble_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Budski_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for Budski_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: Burnsey_9 Start: 6418, Stop: 6927, Start Num: 20
Candidate Starts for Burnsey_9:
(Start: 20 @6418 has 75 MA's), (28, 6430), (38, 6460), (47, 6505), (55, 6592), (80, 6769), (93, 6811),

Gene: Button_10 Start: 6434, Stop: 6943, Start Num: 20

Candidate Starts for Button_10:
(Start: 20 @6434 has 75 MA's), (36, 6461), (37, 6467), (41, 6479), (47, 6515), (50, 6530), (59, 6629), (61, 6641),

Gene: Buttrmlkdreams_9 Start: 6392, Stop: 6904, Start Num: 20
Candidate Starts for Buttrmlkdreams_9:
(Start: 20 @6392 has 75 MA's), (38, 6437), (47, 6482), (93, 6788), (105, 6872),

Gene: CLED96_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for CLED96_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Cambiare_10 Start: 8877, Stop: 9410, Start Num: 13
Candidate Starts for Cambiare_10:
(Start: 13 @8877 has 7 MA's), (34, 8940), (47, 9000), (61, 9111), (73, 9201), (74, 9204), (84, 9285),

Gene: Camri_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Camri_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: CanesSauce_9 Start: 6436, Stop: 6945, Start Num: 20
Candidate Starts for CanesSauce_9:
(1, 6151), (2, 6160), (9, 6382), (10, 6391), (Start: 20 @6436 has 75 MA's), (38, 6478), (47, 6523), (53, 6556), (93, 6829), (102, 6895),

Gene: CaramelLatte_9 Start: 6436, Stop: 6945, Start Num: 20
Candidate Starts for CaramelLatte_9:
(1, 6151), (2, 6160), (9, 6382), (10, 6391), (Start: 20 @6436 has 75 MA's), (38, 6478), (47, 6523), (53, 6556), (93, 6829), (102, 6895),

Gene: Carsonalex_10 Start: 6474, Stop: 6983, Start Num: 20
Candidate Starts for Carsonalex_10:
(Start: 20 @6474 has 75 MA's), (28, 6486), (38, 6516), (47, 6561), (55, 6648), (80, 6825), (93, 6867),

Gene: CassieYates_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for CassieYates_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Cedasite_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Cedasite_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Chance64_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Chance64_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Che9d_9 Start: 5995, Stop: 6450, Start Num: 33
Candidate Starts for Che9d_9:

(Start: 33 @5995 has 30 MA's), (45, 6049), (46, 6058), (54, 6133), (60, 6166), (61, 6169), (68, 6214), (78, 6289), (86, 6343),

Gene: CheeseTouch_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for CheeseTouch_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: Cherrybomb426_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Cherrybomb426_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: CherryonLim_10 Start: 6919, Stop: 7446, Start Num: 26
Candidate Starts for CherryonLim_10:
(Start: 26 @6919 has 14 MA's), (47, 6994), (58, 7108), (61, 7123), (64, 7153), (79, 7246), (93, 7315), (97, 7339),

Gene: ChickenTender_11 Start: 6460, Stop: 6969, Start Num: 20
Candidate Starts for ChickenTender_11:
(Start: 20 @6460 has 75 MA's), (28, 6472), (38, 6502), (47, 6547), (55, 6634), (80, 6811), (93, 6853),

Gene: ChocoMunchkin_9 Start: 6436, Stop: 6945, Start Num: 20
Candidate Starts for ChocoMunchkin_9:
(1, 6151), (2, 6160), (9, 6382), (10, 6391), (Start: 20 @6436 has 75 MA's), (38, 6478), (47, 6523), (53, 6556), (93, 6829), (102, 6895),

Gene: Cleo_9 Start: 6596, Stop: 7126, Start Num: 21
Candidate Starts for Cleo_9:
(Start: 21 @6596 has 2 MA's), (Start: 23 @6599 has 8 MA's), (38, 6635), (47, 6680), (97, 7013), (101, 7046),

Gene: Cloudyecho_9 Start: 8482, Stop: 8997, Start Num: 20
Candidate Starts for Cloudyecho_9:
(Start: 20 @8482 has 75 MA's), (35, 8512), (47, 8572), (60, 8674), (69, 8725), (74, 8770), (96, 8893),

Gene: CocoaPuff_8 Start: 6168, Stop: 6695, Start Num: 26
Candidate Starts for CocoaPuff_8:
(Start: 26 @6168 has 14 MA's), (47, 6243), (58, 6357), (61, 6372), (64, 6402), (82, 6537), (92, 6561), (93, 6564), (97, 6588), (105, 6660),

Gene: Coleslaw_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Coleslaw_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Cota_7 Start: 5643, Stop: 6104, Start Num: 30
Candidate Starts for Cota_7:
(25, 5634), (Start: 27 @5637 has 4 MA's), (28, 5640), (Start: 30 @5643 has 6 MA's), (35, 5655), (47, 5712), (49, 5724), (51, 5733), (60, 5814), (61, 5817), (65, 5850), (74, 5910), (75, 5913), (78, 5937), (79, 5946), (87, 5997), (95, 6024), (98, 6036), (106, 6090),

Gene: Cozz_9 Start: 6418, Stop: 6927, Start Num: 20

Candidate Starts for Cozz_9:
(Start: 20 @6418 has 75 MA's), (28, 6430), (38, 6460), (47, 6505), (55, 6592), (80, 6769), (93, 6811),

Gene: Crespo_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for Crespo_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: DMoney_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for DMoney_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: DNAIII_009 Start: 8323, Stop: 8820, Start Num: 16
Candidate Starts for DNAIII_009:
(Start: 16 @8323 has 62 MA's), (34, 8356), (38, 8374), (47, 8416), (51, 8437), (72, 8587), (74, 8614), (90, 8713), (105, 8785),

Gene: Darionha_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Darionha_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Demsculpinboyz_9 Start: 5986, Stop: 6441, Start Num: 33
Candidate Starts for Demsculpinboyz_9:
(Start: 33 @5986 has 30 MA's), (45, 6040), (46, 6049), (54, 6124), (60, 6157), (61, 6160), (68, 6205), (78, 6280), (86, 6334),

Gene: DingDing_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for DingDing_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: DrParker_7 Start: 5632, Stop: 6111, Start Num: 20
Candidate Starts for DrParker_7:
(Start: 16 @5623 has 62 MA's), (Start: 20 @5632 has 75 MA's), (25, 5641), (Start: 27 @5644 has 4 MA's), (28, 5647), (Start: 30 @5650 has 6 MA's), (35, 5662), (47, 5719), (49, 5731), (51, 5740), (60, 5821), (65, 5857), (74, 5917), (75, 5920), (78, 5944), (79, 5953), (91, 6019), (95, 6031), (98, 6043), (106, 6097),

Gene: Dre3_9 Start: 6546, Stop: 7073, Start Num: 23
Candidate Starts for Dre3_9:
(Start: 21 @6543 has 2 MA's), (Start: 23 @6546 has 8 MA's), (38, 6582), (47, 6627), (97, 6960), (101, 6993),

Gene: ECartman_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for ECartman_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Ecliptus_9 Start: 6053, Stop: 6520, Start Num: 33
Candidate Starts for Ecliptus_9:
(Start: 33 @6053 has 30 MA's), (45, 6107), (59, 6224), (71, 6299), (72, 6302), (82, 6401), (86, 6410),

Gene: ElJefes_8 Start: 6645, Stop: 7172, Start Num: 26
Candidate Starts for ElJefes_8:
(Start: 26 @6645 has 14 MA's), (47, 6720), (58, 6834), (61, 6849), (64, 6879), (93, 7041), (97, 7065), (105, 7137),

Gene: Elinal_10 Start: 6174, Stop: 6701, Start Num: 26
Candidate Starts for Elinal_10:
(Start: 26 @6174 has 14 MA's), (47, 6249), (56, 6351), (58, 6363), (61, 6378), (64, 6408), (82, 6543), (92, 6567), (93, 6570), (97, 6594), (105, 6666),

Gene: Eliott_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Eliott_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Emalyn_8 Start: 6146, Stop: 6655, Start Num: 20
Candidate Starts for Emalyn_8:
(Start: 20 @6146 has 75 MA's), (38, 6188), (47, 6233), (79, 6470), (93, 6539), (105, 6623),

Gene: Enochoraptor_7 Start: 5628, Stop: 6107, Start Num: 20
Candidate Starts for Enochoraptor_7:
(Start: 20 @5628 has 75 MA's), (25, 5637), (Start: 27 @5640 has 4 MA's), (28, 5643), (Start: 30 @5646 has 6 MA's), (35, 5658), (47, 5715), (49, 5727), (51, 5736), (60, 5817), (61, 5820), (63, 5841), (65, 5853), (74, 5913), (75, 5916), (78, 5940), (95, 6027), (98, 6039), (106, 6093),

Gene: Enoki_7 Start: 5613, Stop: 6092, Start Num: 20
Candidate Starts for Enoki_7:
(Start: 20 @5613 has 75 MA's), (25, 5622), (Start: 27 @5625 has 4 MA's), (28, 5628), (Start: 30 @5631 has 6 MA's), (35, 5643), (47, 5700), (49, 5712), (51, 5721), (58, 5790), (60, 5802), (61, 5805), (63, 5826), (65, 5838), (74, 5898), (75, 5901), (78, 5925), (95, 6012), (98, 6024), (106, 6078),

Gene: Feastonyeet_8 Start: 6193, Stop: 6720, Start Num: 26
Candidate Starts for Feastonyeet_8:
(Start: 26 @6193 has 14 MA's), (47, 6268), (58, 6382), (61, 6397), (64, 6427), (82, 6562), (93, 6589), (97, 6613), (105, 6685),

Gene: FlagStaff_9 Start: 8362, Stop: 8880, Start Num: 13
Candidate Starts for FlagStaff_9:
(Start: 13 @8362 has 7 MA's), (38, 8428), (47, 8470), (73, 8671), (74, 8674), (105, 8845),

Gene: Fribs8_10 Start: 7103, Stop: 7636, Start Num: 23
Candidate Starts for Fribs8_10:
(Start: 23 @7103 has 8 MA's), (47, 7184), (53, 7217), (55, 7274), (79, 7424), (97, 7517),

Gene: Frickyeah_9 Start: 6059, Stop: 6490, Start Num: 43
Candidate Starts for Frickyeah_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Frosty24_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Frosty24_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: GTE2_07 Start: 6096, Stop: 6605, Start Num: 20
Candidate Starts for GTE2_07:
(Start: 20 @6096 has 75 MA's), (38, 6138), (47, 6183), (53, 6216), (93, 6489), (102, 6555), (105, 6573),

Gene: Gaia_6 Start: 6666, Stop: 7031, Start Num: 30
Candidate Starts for Gaia_6:
(24, 6654), (Start: 30 @6666 has 6 MA's), (40, 6693), (47, 6735), (62, 6849), (66, 6879), (70, 6900), (74, 6930), (78, 6957), (81, 6996),

Gene: Getalong_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Getalong_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (46, 6089), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: GiKK_12 Start: 6737, Stop: 7246, Start Num: 20
Candidate Starts for GiKK_12:
(Start: 20 @6737 has 75 MA's), (36, 6764), (37, 6770), (41, 6782), (47, 6818), (50, 6833), (59, 6932), (61, 6944),

Gene: Gibbous_9 Start: 6546, Stop: 7073, Start Num: 23
Candidate Starts for Gibbous_9:
(Start: 21 @6543 has 2 MA's), (Start: 23 @6546 has 8 MA's), (38, 6582), (47, 6627), (97, 6960), (101, 6993),

Gene: Gideon_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Gideon_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: GodSpeed_9 Start: 8371, Stop: 8886, Start Num: 13
Candidate Starts for GodSpeed_9:
(Start: 13 @8371 has 7 MA's), (47, 8476), (60, 8584), (65, 8620), (73, 8677), (74, 8680), (105, 8851),

Gene: GoldHunter_10 Start: 6418, Stop: 6927, Start Num: 20
Candidate Starts for GoldHunter_10:
(Start: 20 @6418 has 75 MA's), (28, 6430), (38, 6460), (47, 6505), (55, 6592), (80, 6769), (93, 6811),

Gene: GoldenAsh_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for GoldenAsh_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Gomashi_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for Gomashi_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: Grizzly_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Grizzly_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Halo_9 Start: 8309, Stop: 8806, Start Num: 16
Candidate Starts for Halo_9:
(Start: 16 @8309 has 62 MA's), (34, 8342), (38, 8360), (47, 8402), (51, 8423), (72, 8573), (74, 8600), (90, 8699), (105, 8771),

Gene: Hexbug_11 Start: 7426, Stop: 7932, Start Num: 22
Candidate Starts for Hexbug_11:
(Start: 22 @7426 has 3 MA's), (36, 7453), (39, 7465), (47, 7507), (48, 7516), (55, 7603), (61, 7630),

Gene: HippoPololi_11 Start: 7195, Stop: 7725, Start Num: 21
Candidate Starts for HippoPololi_11:
(Start: 21 @7195 has 2 MA's), (Start: 23 @7198 has 8 MA's), (47, 7279), (57, 7378), (58, 7381), (79, 7519), (90, 7582), (97, 7612), (101, 7645),

Gene: Holliday_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for Holliday_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: Hope_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Hope_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Horseradish_10 Start: 6296, Stop: 6808, Start Num: 20
Candidate Starts for Horseradish_10:
(Start: 20 @6296 has 75 MA's), (38, 6341), (47, 6386), (93, 6692), (100, 6728), (105, 6776),

Gene: Horus_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Horus_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Hotshotbaby7_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Hotshotbaby7_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: IdentityCrisis_8 Start: 6944, Stop: 7429, Start Num: 30
Candidate Starts for IdentityCrisis_8:
(14, 6902), (Start: 30 @6944 has 6 MA's), (47, 7013), (49, 7025),

Gene: Jabbawokkie_10 Start: 6509, Stop: 6964, Start Num: 33
Candidate Starts for Jabbawokkie_10:
(Start: 33 @6509 has 30 MA's), (45, 6563), (46, 6572), (54, 6647), (60, 6680), (61, 6683), (68, 6728), (78, 6803), (86, 6857),

Gene: Jamzy_12 Start: 6750, Stop: 7256, Start Num: 20
Candidate Starts for Jamzy_12:
(Start: 20 @6750 has 75 MA's), (39, 6786), (41, 6792), (47, 6828), (48, 6837), (50, 6843), (64, 6984), (74, 7041), (83, 7122), (106, 7248),

Gene: Jane_9 Start: 8314, Stop: 8811, Start Num: 16

Candidate Starts for Jane_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Jeilious_9 Start: 8313, Stop: 8810, Start Num: 16
Candidate Starts for Jeilious_9:
(Start: 16 @8313 has 62 MA's), (34, 8346), (38, 8364), (47, 8406), (51, 8427), (72, 8577), (74, 8604), (90, 8703), (105, 8775),

Gene: Jolene_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Jolene_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Jolie2_9 Start: 7539, Stop: 8054, Start Num: 13
Candidate Starts for Jolie2_9:
(Start: 13 @7539 has 7 MA's), (38, 7599), (47, 7641), (60, 7749), (64, 7782), (69, 7800), (73, 7842), (74, 7845), (78, 7872), (102, 8004),

Gene: Jonghyun_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Jonghyun_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: JorRay_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for JorRay_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Kamaru_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for Kamaru_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: Kareem_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Kareem_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Kasen3_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for Kasen3_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: KayGee_9 Start: 6174, Stop: 6701, Start Num: 26
Candidate Starts for KayGee_9:
(Start: 26 @6174 has 14 MA's), (47, 6249), (56, 6351), (58, 6363), (61, 6378), (64, 6408), (82, 6543), (92, 6567), (93, 6570), (97, 6594), (105, 6666),

Gene: Keiki_7 Start: 5625, Stop: 6104, Start Num: 20
Candidate Starts for Keiki_7:
(Start: 20 @5625 has 75 MA's), (25, 5634), (Start: 27 @5637 has 4 MA's), (28, 5640), (Start: 30 @5643 has 6 MA's), (35, 5655), (47, 5712), (49, 5724), (51, 5733), (60, 5814), (61, 5817), (65, 5850), (74,

5910), (75, 5913), (78, 5937), (79, 5946), (87, 5997), (95, 6024), (98, 6036), (106, 6090),

Gene: Kenna_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Kenna_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Kubed_7 Start: 5615, Stop: 6094, Start Num: 20
Candidate Starts for Kubed_7:
(Start: 20 @5615 has 75 MA's), (25, 5624), (Start: 27 @5627 has 4 MA's), (28, 5630), (Start: 30 @5633 has 6 MA's), (35, 5645), (47, 5702), (49, 5714), (51, 5723), (60, 5804), (61, 5807), (63, 5828), (65, 5840), (74, 5900), (75, 5903), (78, 5927), (87, 5987), (95, 6014), (98, 6026), (106, 6080),

Gene: Lauchelly_7 Start: 5610, Stop: 6089, Start Num: 20
Candidate Starts for Lauchelly_7:
(Start: 20 @5610 has 75 MA's), (25, 5619), (Start: 27 @5622 has 4 MA's), (28, 5625), (Start: 30 @5628 has 6 MA's), (35, 5640), (47, 5697), (49, 5709), (51, 5718), (60, 5799), (61, 5802), (63, 5823), (65, 5835), (74, 5895), (75, 5898), (78, 5922), (95, 6009), (98, 6021), (106, 6075),

Gene: Lauer_8 Start: 6223, Stop: 6750, Start Num: 26
Candidate Starts for Lauer_8:
(Start: 26 @6223 has 14 MA's), (47, 6298), (58, 6412), (61, 6427), (64, 6457), (82, 6592), (92, 6616), (93, 6619), (97, 6643), (105, 6715),

Gene: Lemuria_9 Start: 7586, Stop: 8107, Start Num: 13
Candidate Starts for Lemuria_9:
(Start: 13 @7586 has 7 MA's), (47, 7694), (60, 7802), (73, 7895), (74, 7898),

Gene: Leroy_9 Start: 6027, Stop: 6491, Start Num: 33
Candidate Starts for Leroy_9:
(Start: 33 @6027 has 30 MA's), (43, 6060), (45, 6081), (54, 6174), (59, 6198), (64, 6240), (78, 6330), (86, 6384), (97, 6420), (103, 6456),

Gene: Leviosa_7 Start: 5631, Stop: 6110, Start Num: 20
Candidate Starts for Leviosa_7:
(Start: 20 @5631 has 75 MA's), (25, 5640), (Start: 27 @5643 has 4 MA's), (28, 5646), (Start: 30 @5649 has 6 MA's), (35, 5661), (47, 5718), (49, 5730), (51, 5739), (60, 5820), (65, 5856), (74, 5916), (75, 5919), (78, 5943), (95, 6030), (98, 6042),

Gene: Liefie_9 Start: 8313, Stop: 8810, Start Num: 16
Candidate Starts for Liefie_9:
(Start: 16 @8313 has 62 MA's), (34, 8346), (38, 8364), (47, 8406), (51, 8427), (72, 8577), (74, 8604), (90, 8703), (105, 8775),

Gene: LilBandit_7 Start: 5615, Stop: 6094, Start Num: 20
Candidate Starts for LilBandit_7:
(Start: 20 @5615 has 75 MA's), (25, 5624), (Start: 27 @5627 has 4 MA's), (28, 5630), (Start: 30 @5633 has 6 MA's), (47, 5702), (49, 5714), (51, 5723), (60, 5804), (61, 5807), (63, 5828), (65, 5840), (74, 5900), (75, 5903), (78, 5927), (79, 5936), (87, 5987), (89, 5999), (95, 6014), (98, 6026), (106, 6080),

Gene: LitninMcQueen_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for LitninMcQueen_9:

(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: LouisV14_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for LouisV14_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Lucky10_8 Start: 5542, Stop: 6003, Start Num: 27
Candidate Starts for Lucky10_8:
(Start: 27 @5542 has 4 MA's), (32, 5551), (47, 5614), (57, 5701), (64, 5749), (72, 5788), (74, 5809), (78, 5836), (79, 5845), (90, 5905), (106, 5986),

Gene: Lutum_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Lutum_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: MAnor_9 Start: 6164, Stop: 6691, Start Num: 26
Candidate Starts for MAnor_9:
(Start: 26 @6164 has 14 MA's), (47, 6239), (58, 6353), (61, 6368), (64, 6398), (93, 6560), (97, 6584), (105, 6656),

Gene: MEAK_7 Start: 5617, Stop: 6096, Start Num: 20
Candidate Starts for MEAK_7:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (47, 5704), (49, 5716), (51, 5725), (60, 5806), (61, 5809), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (87, 5989), (95, 6016), (98, 6028), (106, 6082),

Gene: MOOREtheMARYer_9 Start: 8480, Stop: 8995, Start Num: 20
Candidate Starts for MOOREtheMARYer_9:
(Start: 19 @8477 has 1 MA's), (Start: 20 @8480 has 75 MA's), (35, 8510), (47, 8570), (60, 8672), (69, 8723), (74, 8768), (96, 8891),

Gene: MScarn_11 Start: 6392, Stop: 6904, Start Num: 20
Candidate Starts for MScarn_11:
(Start: 20 @6392 has 75 MA's), (38, 6437), (47, 6482), (93, 6788), (105, 6872),

Gene: MZKinsey_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for MZKinsey_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: MaVan_11 Start: 7290, Stop: 7823, Start Num: 23
Candidate Starts for MaVan_11:
(Start: 21 @7287 has 2 MA's), (Start: 23 @7290 has 8 MA's), (47, 7371), (53, 7404), (60, 7485), (90, 7674), (97, 7704), (101, 7737),

Gene: Maliketh_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Maliketh_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Malisha_9 Start: 7076, Stop: 7540, Start Num: 33
Candidate Starts for Malisha_9:
(Start: 33 @7076 has 30 MA's), (45, 7130), (59, 7247), (64, 7289), (78, 7379), (82, 7424), (97, 7469),

Gene: Margaret_12 Start: 7126, Stop: 7641, Start Num: 20
Candidate Starts for Margaret_12:
(18, 7123), (Start: 20 @7126 has 75 MA's), (31, 7144), (39, 7171), (41, 7177), (47, 7213), (50, 7228), (60, 7336), (64, 7369), (83, 7507),

Gene: Marmie_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Marmie_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Mayweather_10 Start: 6797, Stop: 7324, Start Num: 26
Candidate Starts for Mayweather_10:
(11, 6746), (Start: 26 @6797 has 14 MA's), (47, 6872), (58, 6986), (61, 7001), (64, 7031), (93, 7193), (97, 7217), (105, 7289),

Gene: McDazzle_8 Start: 6639, Stop: 7166, Start Num: 26
Candidate Starts for McDazzle_8:
(Start: 26 @6639 has 14 MA's), (47, 6714), (58, 6828), (61, 6843), (64, 6873), (93, 7035), (97, 7059), (105, 7131),

Gene: Mercurio_10 Start: 8220, Stop: 8741, Start Num: 13
Candidate Starts for Mercurio_10:
(3, 8013), (Start: 13 @8220 has 7 MA's), (47, 8328), (60, 8436), (73, 8529), (74, 8532),

Gene: Morkie_8 Start: 5504, Stop: 5965, Start Num: 27
Candidate Starts for Morkie_8:
(8, 5435), (Start: 27 @5504 has 4 MA's), (32, 5513), (40, 5537), (47, 5576), (57, 5663), (64, 5711), (72, 5750), (74, 5771), (79, 5807), (104, 5939),

Gene: Mowgli_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Mowgli_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Moyashi_7 Start: 5635, Stop: 6114, Start Num: 20
Candidate Starts for Moyashi_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: MrAK_7 Start: 5644, Stop: 6123, Start Num: 20
Candidate Starts for MrAK_7:
(Start: 16 @5635 has 62 MA's), (Start: 20 @5644 has 75 MA's), (25, 5653), (Start: 27 @5656 has 4 MA's), (28, 5659), (Start: 30 @5662 has 6 MA's), (35, 5674), (47, 5731), (49, 5743), (51, 5752), (61, 5836), (65, 5869), (74, 5929), (75, 5932), (78, 5956), (87, 6016), (89, 6028), (95, 6043), (98, 6055), (106, 6109),

Gene: MunkgeeRoachy_9 Start: 6465, Stop: 6974, Start Num: 20

Candidate Starts for MunkgeeRoachy_9:
(Start: 20 @6465 has 75 MA's), (28, 6477), (38, 6507), (47, 6552), (55, 6639), (80, 6816), (93, 6858),

Gene: Nebkiss_6 Start: 6667, Stop: 7032, Start Num: 30
Candidate Starts for Nebkiss_6:
(24, 6655), (Start: 30 @6667 has 6 MA's), (40, 6694), (47, 6736), (62, 6850), (66, 6880), (70, 6901), (74, 6931), (78, 6958), (81, 6997),

Gene: Neoh_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for Neoh_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: Nibbles_11 Start: 7290, Stop: 7823, Start Num: 23
Candidate Starts for Nibbles_11:
(Start: 21 @7287 has 2 MA's), (Start: 23 @7290 has 8 MA's), (47, 7371), (53, 7404), (60, 7485), (90, 7674), (97, 7704), (101, 7737),

Gene: Nina_10 Start: 7451, Stop: 7960, Start Num: 20
Candidate Starts for Nina_10:
(Start: 20 @7451 has 75 MA's), (28, 7463), (38, 7493), (47, 7538), (55, 7625), (80, 7802), (93, 7844),

Gene: Nodigi_11 Start: 7419, Stop: 7925, Start Num: 22
Candidate Starts for Nodigi_11:
(12, 7383), (Start: 22 @7419 has 3 MA's), (36, 7446), (39, 7458), (47, 7500), (48, 7509), (55, 7596), (61, 7623),

Gene: ODay_9 Start: 6051, Stop: 6518, Start Num: 33
Candidate Starts for ODay_9:
(Start: 33 @6051 has 30 MA's), (45, 6105), (59, 6222), (71, 6297), (72, 6300), (82, 6399), (86, 6408),

Gene: OctaviousRex_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for OctaviousRex_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Ogopogo_10 Start: 6246, Stop: 6701, Start Num: 33
Candidate Starts for Ogopogo_10:
(Start: 33 @6246 has 30 MA's), (45, 6300), (46, 6309), (54, 6384), (60, 6417), (61, 6420), (78, 6540),

Gene: Olga_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Olga_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Orla_11 Start: 7423, Stop: 7929, Start Num: 22
Candidate Starts for Orla_11:
(Start: 22 @7423 has 3 MA's), (36, 7450), (39, 7462), (47, 7504), (48, 7513), (55, 7600), (61, 7627),

Gene: Ouroboros_7 Start: 5618, Stop: 6097, Start Num: 20
Candidate Starts for Ouroboros_7:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (65, 5843), (74, 5903), (75,

5906), (78, 5930), (79, 5939), (87, 5990), (89, 6002), (95, 6017), (98, 6029),

Gene: P1.1_7 Start: 5618, Stop: 6097, Start Num: 20
Candidate Starts for P1.1_7:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (95, 6017), (98, 6029), (106, 6083),

Gene: P100.1_7 Start: 5608, Stop: 6087, Start Num: 20
Candidate Starts for P100.1_7:
(Start: 16 @5599 has 62 MA's), (Start: 20 @5608 has 75 MA's), (25, 5617), (Start: 27 @5620 has 4 MA's), (28, 5623), (Start: 30 @5626 has 6 MA's), (35, 5638), (47, 5695), (49, 5707), (61, 5800), (65, 5833), (74, 5893), (75, 5896), (78, 5920), (79, 5929), (87, 5980), (89, 5992), (95, 6007), (98, 6019), (106, 6073),

Gene: P100A_7 Start: 5630, Stop: 6109, Start Num: 20
Candidate Starts for P100A_7:
(Start: 20 @5630 has 75 MA's), (25, 5639), (Start: 27 @5642 has 4 MA's), (28, 5645), (Start: 30 @5648 has 6 MA's), (35, 5660), (47, 5717), (49, 5729), (51, 5738), (58, 5807), (60, 5819), (65, 5855), (74, 5915), (75, 5918), (78, 5942), (87, 6002), (95, 6029), (98, 6041), (106, 6095),

Gene: P100D_7 Start: 5612, Stop: 6091, Start Num: 20
Candidate Starts for P100D_7:
(Start: 20 @5612 has 75 MA's), (25, 5621), (Start: 27 @5624 has 4 MA's), (28, 5627), (Start: 30 @5630 has 6 MA's), (35, 5642), (47, 5699), (49, 5711), (51, 5720), (60, 5801), (61, 5804), (63, 5825), (65, 5837), (74, 5897), (75, 5900), (78, 5924), (87, 5984), (89, 5996), (95, 6011), (98, 6023), (106, 6077),

Gene: P101A_7 Start: 5611, Stop: 6090, Start Num: 20
Candidate Starts for P101A_7:
(Start: 20 @5611 has 75 MA's), (25, 5620), (Start: 27 @5623 has 4 MA's), (28, 5626), (Start: 30 @5629 has 6 MA's), (35, 5641), (47, 5698), (49, 5710), (51, 5719), (60, 5800), (61, 5803), (63, 5824), (65, 5836), (74, 5896), (75, 5899), (78, 5923), (79, 5932), (95, 6010), (98, 6022), (106, 6076),

Gene: P104A_7 Start: 5613, Stop: 6092, Start Num: 20
Candidate Starts for P104A_7:
(Start: 20 @5613 has 75 MA's), (25, 5622), (Start: 27 @5625 has 4 MA's), (28, 5628), (Start: 30 @5631 has 6 MA's), (35, 5643), (47, 5700), (49, 5712), (51, 5721), (60, 5802), (61, 5805), (63, 5826), (65, 5838), (74, 5898), (75, 5901), (78, 5925), (79, 5934), (87, 5985), (89, 5997), (95, 6012), (98, 6024), (106, 6078),

Gene: P104B_7 Start: 5617, Stop: 6096, Start Num: 20
Candidate Starts for P104B_7:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (35, 5647), (47, 5704), (49, 5716), (51, 5725), (60, 5806), (61, 5809), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (87, 5989), (89, 6001), (95, 6016), (98, 6028), (106, 6082),

Gene: P105_7 Start: 5607, Stop: 6086, Start Num: 20
Candidate Starts for P105_7:
(Start: 20 @5607 has 75 MA's), (25, 5616), (Start: 27 @5619 has 4 MA's), (28, 5622), (Start: 30 @5625 has 6 MA's), (35, 5637), (47, 5694), (49, 5706), (51, 5715), (61, 5799), (65, 5832), (74, 5892), (75, 5895), (78, 5919), (79, 5928), (87, 5979), (89, 5991), (95, 6006), (98, 6018), (106, 6072),

Gene: P106A_7 Start: 5635, Stop: 6114, Start Num: 20

Candidate Starts for P106A_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (79, 5956), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: P106C_7 Start: 5635, Stop: 6114, Start Num: 20
Candidate Starts for P106C_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (79, 5956), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: P106I_7 Start: 5635, Stop: 6114, Start Num: 20
Candidate Starts for P106I_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (79, 5956), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: P106L_7 Start: 5635, Stop: 6114, Start Num: 20
Candidate Starts for P106L_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (79, 5956), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: P106M_7 Start: 5635, Stop: 6114, Start Num: 20
Candidate Starts for P106M_7:
(Start: 16 @5626 has 62 MA's), (Start: 20 @5635 has 75 MA's), (25, 5644), (Start: 27 @5647 has 4 MA's), (28, 5650), (Start: 30 @5653 has 6 MA's), (35, 5665), (47, 5722), (49, 5734), (51, 5743), (60, 5824), (61, 5827), (63, 5848), (65, 5860), (74, 5920), (75, 5923), (78, 5947), (79, 5956), (91, 6022), (95, 6034), (98, 6046), (106, 6100),

Gene: P107A_7 Start: 5639, Stop: 6100, Start Num: 30
Candidate Starts for P107A_7:
(Start: 20 @5621 has 75 MA's), (25, 5630), (Start: 27 @5633 has 4 MA's), (28, 5636), (Start: 30 @5639 has 6 MA's), (35, 5651), (47, 5708), (49, 5720), (51, 5729), (60, 5810), (61, 5813), (65, 5846), (74, 5906), (75, 5909), (78, 5933), (79, 5942), (87, 5993), (89, 6005), (95, 6020), (98, 6032), (106, 6086),

Gene: P107C_7 Start: 5635, Stop: 6096, Start Num: 30
Candidate Starts for P107C_7:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (35, 5647), (47, 5704), (49, 5716), (51, 5725), (60, 5806), (61, 5809), (63, 5830), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (87, 5989), (89, 6001), (98, 6028), (106, 6082),

Gene: P108C_7 Start: 5621, Stop: 6100, Start Num: 20
Candidate Starts for P108C_7:
(Start: 20 @5621 has 75 MA's), (25, 5630), (Start: 27 @5633 has 4 MA's), (28, 5636), (Start: 30 @5639 has 6 MA's), (35, 5651), (47, 5708), (49, 5720), (51, 5729), (60, 5810), (61, 5813), (63, 5834), (65, 5846), (74, 5906), (75, 5909), (78, 5933), (87, 5993), (89, 6005), (95, 6020), (98, 6032), (106, 6086),

Gene: P14.4_7 Start: 5612, Stop: 6091, Start Num: 20

Candidate Starts for P14.4_7:
(Start: 20 @5612 has 75 MA's), (25, 5621), (Start: 27 @5624 has 4 MA's), (28, 5627), (Start: 30 @5630 has 6 MA's), (35, 5642), (47, 5699), (49, 5711), (51, 5720), (60, 5801), (61, 5804), (63, 5825), (65, 5837), (74, 5897), (75, 5900), (78, 5924), (79, 5933), (87, 5984), (89, 5996), (95, 6011), (98, 6023), (106, 6077),

Gene: P3MA_9 Start: 6610, Stop: 7107, Start Num: 27
Candidate Starts for P3MA_9:
(6, 6499), (Start: 27 @6610 has 4 MA's), (47, 6682), (50, 6697), (51, 6703), (52, 6709), (74, 6898), (85, 6982), (95, 7015), (99, 7030),

Gene: P9.1_7 Start: 5610, Stop: 6089, Start Num: 20
Candidate Starts for P9.1_7:
(Start: 20 @5610 has 75 MA's), (25, 5619), (Start: 27 @5622 has 4 MA's), (28, 5625), (Start: 30 @5628 has 6 MA's), (35, 5640), (47, 5697), (49, 5709), (51, 5718), (60, 5799), (61, 5802), (65, 5835), (74, 5895), (75, 5898), (78, 5922), (79, 5931), (87, 5982), (89, 5994), (95, 6009), (98, 6021), (106, 6075),

Gene: PA6_7 Start: 5638, Stop: 6099, Start Num: 30
Candidate Starts for PA6_7:
(Start: 20 @5620 has 75 MA's), (25, 5629), (Start: 27 @5632 has 4 MA's), (28, 5635), (Start: 30 @5638 has 6 MA's), (35, 5650), (47, 5707), (49, 5719), (51, 5728), (61, 5812), (65, 5845), (74, 5905), (75, 5908), (78, 5932), (79, 5941), (87, 5992), (89, 6004), (95, 6019), (98, 6031), (106, 6085),

Gene: PAD20_7 Start: 5636, Stop: 6097, Start Num: 30
Candidate Starts for PAD20_7:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: PAS50_7 Start: 5633, Stop: 6094, Start Num: 30
Candidate Starts for PAS50_7:
(Start: 20 @5615 has 75 MA's), (25, 5624), (Start: 27 @5627 has 4 MA's), (28, 5630), (Start: 30 @5633 has 6 MA's), (35, 5645), (47, 5702), (49, 5714), (51, 5723), (60, 5804), (61, 5807), (63, 5828), (65, 5840), (74, 5900), (75, 5903), (78, 5927), (87, 5987), (89, 5999), (95, 6014), (98, 6026), (106, 6080),

Gene: PHL010M04_07 Start: 5628, Stop: 6089, Start Num: 30
Candidate Starts for PHL010M04_07:
(Start: 20 @5610 has 75 MA's), (25, 5619), (Start: 27 @5622 has 4 MA's), (28, 5625), (Start: 30 @5628 has 6 MA's), (35, 5640), (47, 5697), (49, 5709), (60, 5799), (61, 5802), (63, 5823), (65, 5835), (74, 5895), (75, 5898), (78, 5922), (95, 6009), (98, 6021), (106, 6075),

Gene: PHL037M02_07 Start: 5634, Stop: 6095, Start Num: 30
Candidate Starts for PHL037M02_07:
(Start: 20 @5616 has 75 MA's), (25, 5625), (Start: 27 @5628 has 4 MA's), (28, 5631), (Start: 30 @5634 has 6 MA's), (35, 5646), (47, 5703), (49, 5715), (60, 5805), (74, 5901), (75, 5904), (78, 5928), (87, 5988), (89, 6000), (95, 6015), (98, 6027), (106, 6081),

Gene: PHL060L00_07 Start: 5626, Stop: 6087, Start Num: 30
Candidate Starts for PHL060L00_07:
(Start: 20 @5608 has 75 MA's), (25, 5617), (Start: 27 @5620 has 4 MA's), (28, 5623), (Start: 30 @5626 has 6 MA's), (35, 5638), (47, 5695), (49, 5707), (51, 5716), (60, 5797), (61, 5800), (63, 5821), (65, 5833), (74, 5893), (75, 5896), (78, 5920), (79, 5929), (95, 6007), (98, 6019), (106, 6073),

Gene: PHL067M10_07 Start: 5630, Stop: 6091, Start Num: 30
Candidate Starts for PHL067M10_07:
(Start: 20 @5612 has 75 MA's), (25, 5621), (Start: 27 @5624 has 4 MA's), (28, 5627), (Start: 30 @5630 has 6 MA's), (35, 5642), (47, 5699), (49, 5711), (51, 5720), (61, 5804), (65, 5837), (74, 5897), (75, 5900), (78, 5924), (87, 5984), (89, 5996), (95, 6011), (98, 6023), (106, 6077),

Gene: PHL071N05_07 Start: 5632, Stop: 6093, Start Num: 30
Candidate Starts for PHL071N05_07:
(Start: 20 @5614 has 75 MA's), (25, 5623), (Start: 27 @5626 has 4 MA's), (28, 5629), (Start: 30 @5632 has 6 MA's), (35, 5644), (47, 5701), (49, 5713), (51, 5722), (60, 5803), (61, 5806), (65, 5839), (74, 5899), (75, 5902), (78, 5926), (79, 5935), (87, 5986), (89, 5998), (95, 6013), (98, 6025), (106, 6079),

Gene: PHL111M01_07 Start: 5636, Stop: 6097, Start Num: 30
Candidate Starts for PHL111M01_07:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (79, 5939), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: PHL112N00_07 Start: 5636, Stop: 6097, Start Num: 30
Candidate Starts for PHL112N00_07:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: PHL113M01_07 Start: 5636, Stop: 6097, Start Num: 30
Candidate Starts for PHL113M01_07:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: PHL114L00_07 Start: 5635, Stop: 6096, Start Num: 30
Candidate Starts for PHL114L00_07:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (35, 5647), (47, 5704), (49, 5716), (58, 5794), (60, 5806), (61, 5809), (63, 5830), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (79, 5938), (95, 6016), (98, 6028), (106, 6082),

Gene: Pace1224_9 Start: 8362, Stop: 8880, Start Num: 13
Candidate Starts for Pace1224_9:
(Start: 13 @8362 has 7 MA's), (38, 8428), (47, 8470), (73, 8671), (74, 8674), (105, 8845),

Gene: Paito_9 Start: 8413, Stop: 8910, Start Num: 16
Candidate Starts for Paito_9:
(Start: 16 @8413 has 62 MA's), (46, 8503), (47, 8506), (51, 8527), (72, 8677), (74, 8704), (90, 8803), (105, 8875),

Gene: Peeb_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Peeb_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Periodt_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Periodt_9:

(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Periwinkle_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Periwinkle_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (46, 6089), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Phabuloso_9 Start: 6031, Stop: 6495, Start Num: 33
Candidate Starts for Phabuloso_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: Phish_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Phish_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Phistory_9 Start: 6015, Stop: 6479, Start Num: 33
Candidate Starts for Phistory_9:
(Start: 33 @6015 has 30 MA's), (43, 6048), (45, 6069), (46, 6078), (54, 6162), (59, 6186), (64, 6228), (78, 6318), (86, 6372), (97, 6408), (103, 6444),

Gene: Phloodle_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Phloodle_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: PhorbesPhlower_8 Start: 5504, Stop: 5965, Start Num: 27
Candidate Starts for PhorbesPhlower_8:
(8, 5435), (Start: 27 @5504 has 4 MA's), (32, 5513), (40, 5537), (47, 5576), (57, 5663), (64, 5711), (72, 5750), (74, 5771), (79, 5807), (104, 5939),

Gene: Phreak_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Phreak_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: PinkYoshi_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for PinkYoshi_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Pinnie_10 Start: 8943, Stop: 9461, Start Num: 19
Candidate Starts for Pinnie_10:
(Start: 19 @8943 has 1 MA's), (Start: 20 @8946 has 75 MA's), (35, 8976), (47, 9036), (60, 9138), (69, 9189), (74, 9234),

Gene: Pirate_7 Start: 5610, Stop: 6089, Start Num: 20
Candidate Starts for Pirate_7:
(Start: 20 @5610 has 75 MA's), (25, 5619), (Start: 27 @5622 has 4 MA's), (28, 5625), (Start: 30 @5628 has 6 MA's), (35, 5640), (47, 5697), (49, 5709), (51, 5718), (60, 5799), (61, 5802), (65, 5835), (74, 5895), (75, 5898), (78, 5922), (87, 5982), (89, 5994), (95, 6009), (98, 6021), (106, 6075),

Gene: Plagueis_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Plagueis_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Pons_9 Start: 6176, Stop: 6703, Start Num: 26
Candidate Starts for Pons_9:
(11, 6125), (Start: 26 @6176 has 14 MA's), (47, 6251), (58, 6365), (61, 6380), (64, 6410), (93, 6572), (97, 6596), (105, 6668),

Gene: PotPie_9 Start: 7027, Stop: 7554, Start Num: 26
Candidate Starts for PotPie_9:
(Start: 26 @7027 has 14 MA's), (47, 7102), (58, 7216), (61, 7231), (64, 7261), (82, 7396), (92, 7420), (93, 7423), (97, 7447), (105, 7519),

Gene: Procrass1_7 Start: 5617, Stop: 6096, Start Num: 20
Candidate Starts for Procrass1_7:
(Start: 20 @5617 has 75 MA's), (25, 5626), (Start: 27 @5629 has 4 MA's), (28, 5632), (Start: 30 @5635 has 6 MA's), (35, 5647), (47, 5704), (49, 5716), (51, 5725), (60, 5806), (61, 5809), (65, 5842), (74, 5902), (75, 5905), (78, 5929), (87, 5989), (89, 6001), (95, 6016), (98, 6028), (106, 6082),

Gene: PsychoKiller_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for PsychoKiller_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Quasar_9 Start: 7032, Stop: 7541, Start Num: 20
Candidate Starts for Quasar_9:
(Start: 20 @7032 has 75 MA's), (38, 7074), (47, 7119), (55, 7206), (61, 7233), (80, 7383), (93, 7425),

Gene: QueenBey_7 Start: 5611, Stop: 6090, Start Num: 20
Candidate Starts for QueenBey_7:
(Start: 20 @5611 has 75 MA's), (25, 5620), (Start: 27 @5623 has 4 MA's), (28, 5626), (Start: 30 @5629 has 6 MA's), (35, 5641), (47, 5698), (49, 5710), (60, 5800), (65, 5836), (74, 5896), (75, 5899), (78, 5923), (79, 5932), (95, 6010), (98, 6022), (106, 6076),

Gene: RADical_10 Start: 6418, Stop: 6927, Start Num: 20
Candidate Starts for RADical_10:
(Start: 20 @6418 has 75 MA's), (28, 6430), (38, 6460), (47, 6505), (55, 6592), (80, 6769), (93, 6811),

Gene: RSchmailzl_10 Start: 6558, Stop: 7067, Start Num: 20
Candidate Starts for RSchmailzl_10:
(Start: 20 @6558 has 75 MA's), (28, 6570), (38, 6600), (47, 6645), (55, 6732), (80, 6909), (93, 6951),

Gene: Rabbs_9 Start: 8297, Stop: 8794, Start Num: 16
Candidate Starts for Rabbs_9:
(Start: 16 @8297 has 62 MA's), (38, 8348), (47, 8390), (51, 8411), (74, 8588), (105, 8759),

Gene: RanchParmCat_12 Start: 7126, Stop: 7641, Start Num: 20
Candidate Starts for RanchParmCat_12:
(18, 7123), (Start: 20 @7126 has 75 MA's), (31, 7144), (39, 7171), (41, 7177), (47, 7213), (50, 7228), (60, 7336), (64, 7369),

Gene: Rattrick_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Rattrick_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: RedBaron_10 Start: 6462, Stop: 6971, Start Num: 20
Candidate Starts for RedBaron_10:
(Start: 20 @6462 has 75 MA's), (28, 6474), (38, 6504), (47, 6549), (55, 6636), (80, 6813), (93, 6855),

Gene: Remy19_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Remy19_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Renaissance_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Renaissance_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Richarlison_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Richarlison_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Rileysaurus_7 Start: 5606, Stop: 6085, Start Num: 20
Candidate Starts for Rileysaurus_7:
(Start: 20 @5606 has 75 MA's), (25, 5615), (Start: 27 @5618 has 4 MA's), (28, 5621), (Start: 30 @5624 has 6 MA's), (35, 5636), (47, 5693), (49, 5705), (51, 5714), (60, 5795), (61, 5798), (63, 5819), (65, 5831), (74, 5891), (75, 5894), (78, 5918), (95, 6005), (98, 6017), (106, 6071),

Gene: Ruriko_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Ruriko_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: SKKY_7 Start: 5642, Stop: 6121, Start Num: 20
Candidate Starts for SKKY_7:
(Start: 16 @5633 has 62 MA's), (Start: 20 @5642 has 75 MA's), (25, 5651), (Start: 27 @5654 has 4 MA's), (28, 5657), (Start: 30 @5660 has 6 MA's), (35, 5672), (47, 5729), (49, 5741), (51, 5750), (60, 5831), (61, 5834), (65, 5867), (74, 5927), (75, 5930), (78, 5954), (79, 5963), (95, 6041), (98, 6053), (106, 6107),

Gene: Schiebel_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Schiebel_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: ShaboiShabazz_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for ShaboiShabazz_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: ShawBrad_9 Start: 6064, Stop: 6495, Start Num: 43

Candidate Starts for ShawBrad_9:
(Start: 33 @6031 has 30 MA's), (43, 6064), (45, 6085), (46, 6094), (54, 6178), (59, 6202), (64, 6244), (78, 6334), (86, 6388), (97, 6424), (103, 6460),

Gene: SheckWes_8 Start: 6164, Stop: 6691, Start Num: 26
Candidate Starts for SheckWes_8:
(Start: 26 @6164 has 14 MA's), (47, 6239), (58, 6353), (61, 6368), (64, 6398), (93, 6560), (97, 6584),

Gene: SilverChicken_9 Start: 5986, Stop: 6441, Start Num: 33
Candidate Starts for SilverChicken_9:
(Start: 33 @5986 has 30 MA's), (45, 6040), (46, 6049), (54, 6124), (60, 6157), (61, 6160), (68, 6205), (78, 6280), (86, 6334),

Gene: Sizemore_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for Sizemore_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: SketchMex_8 Start: 6398, Stop: 6910, Start Num: 20
Candidate Starts for SketchMex_8:
(Start: 20 @6398 has 75 MA's), (38, 6443), (47, 6488), (93, 6794), (105, 6878),

Gene: Sleepyhead_8 Start: 6495, Stop: 6890, Start Num: 15
Candidate Starts for Sleepyhead_8:
(Start: 15 @6495 has 1 MA's), (47, 6585), (64, 6720), (74, 6783), (79, 6822),

Gene: Sneeze_9 Start: 8296, Stop: 8793, Start Num: 16
Candidate Starts for Sneeze_9:
(Start: 16 @8296 has 62 MA's), (38, 8347), (47, 8389), (51, 8410), (74, 8587), (105, 8758),

Gene: Socotra_10 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Socotra_10:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Solid_7 Start: 5618, Stop: 6097, Start Num: 20
Candidate Starts for Solid_7:
(Start: 20 @5618 has 75 MA's), (25, 5627), (Start: 27 @5630 has 4 MA's), (28, 5633), (Start: 30 @5636 has 6 MA's), (35, 5648), (47, 5705), (49, 5717), (51, 5726), (60, 5807), (61, 5810), (63, 5831), (65, 5843), (74, 5903), (75, 5906), (78, 5930), (87, 5990), (89, 6002), (95, 6017), (98, 6029), (106, 6083),

Gene: Sopespian_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Sopespian_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Soul22_9 Start: 5985, Stop: 6440, Start Num: 33
Candidate Starts for Soul22_9:
(Start: 33 @5985 has 30 MA's), (45, 6039), (46, 6048), (54, 6123), (60, 6156), (61, 6159), (68, 6204), (78, 6279), (86, 6333),

Gene: Spooky_9 Start: 6024, Stop: 6488, Start Num: 33
Candidate Starts for Spooky_9:
(Start: 33 @6024 has 30 MA's), (45, 6078), (59, 6195), (78, 6327), (82, 6372), (97, 6417),

Gene: Squiddly_10 Start: 6711, Stop: 7175, Start Num: 33
Candidate Starts for Squiddly_10:
(Start: 33 @6711 has 30 MA's), (43, 6744), (45, 6765), (46, 6774), (54, 6858), (59, 6882), (64, 6924), (78, 7014), (86, 7068), (97, 7104), (103, 7140),

Gene: Starburst_10 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Starburst_10:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Stargaze_9 Start: 8534, Stop: 9064, Start Num: 13
Candidate Starts for Stargaze_9:
(4, 8378), (5, 8426), (Start: 13 @8534 has 7 MA's), (34, 8594), (44, 8630), (47, 8654), (64, 8795), (69, 8813), (73, 8855), (74, 8858), (76, 8864),

Gene: SteamedHams_11 Start: 6436, Stop: 6945, Start Num: 20
Candidate Starts for SteamedHams_11:
(Start: 20 @6436 has 75 MA's), (38, 6478), (47, 6523), (53, 6556), (93, 6829), (102, 6895),

Gene: Stellammi_6 Start: 5560, Stop: 5928, Start Num: 30
Candidate Starts for Stellammi_6:
(Start: 27 @5554 has 4 MA's), (Start: 30 @5560 has 6 MA's), (42, 5599), (47, 5632), (51, 5653), (53, 5665), (67, 5779), (70, 5797), (78, 5854), (79, 5863), (81, 5893), (88, 5914),

Gene: Stormborn_7 Start: 5614, Stop: 6093, Start Num: 20
Candidate Starts for Stormborn_7:
(Start: 20 @5614 has 75 MA's), (25, 5623), (Start: 27 @5626 has 4 MA's), (28, 5629), (Start: 30 @5632 has 6 MA's), (35, 5644), (47, 5701), (49, 5713), (51, 5722), (60, 5803), (61, 5806), (65, 5839), (74, 5899), (75, 5902), (78, 5926), (79, 5935), (87, 5986), (89, 5998), (95, 6013), (98, 6025), (106, 6079),

Gene: SummitAcademy_8 Start: 6242, Stop: 6769, Start Num: 26
Candidate Starts for SummitAcademy_8:
(Start: 26 @6242 has 14 MA's), (47, 6317), (58, 6431), (61, 6446), (64, 6476), (82, 6611), (92, 6635), (93, 6638), (97, 6662), (105, 6734),

Gene: Supernova_7 Start: 5610, Stop: 6089, Start Num: 20
Candidate Starts for Supernova_7:
(Start: 16 @5601 has 62 MA's), (Start: 20 @5610 has 75 MA's), (25, 5619), (Start: 27 @5622 has 4 MA's), (28, 5625), (Start: 30 @5628 has 6 MA's), (47, 5697), (49, 5709), (51, 5718), (61, 5802), (65, 5835), (74, 5895), (75, 5898), (78, 5922), (79, 5931), (87, 5982), (89, 5994), (95, 6009), (98, 6021), (106, 6075),

Gene: Survivors_11 Start: 7144, Stop: 7677, Start Num: 23
Candidate Starts for Survivors_11:
(Start: 21 @7141 has 2 MA's), (Start: 23 @7144 has 8 MA's), (47, 7225), (53, 7258), (60, 7339), (90, 7528), (97, 7558), (101, 7591),

Gene: SweatNTears_11 Start: 6918, Stop: 7430, Start Num: 20
Candidate Starts for SweatNTears_11:
(Start: 20 @6918 has 75 MA's), (38, 6963), (47, 7008), (93, 7314), (105, 7398),

Gene: Sweets_9 Start: 8309, Stop: 8806, Start Num: 16
Candidate Starts for Sweets_9:

(Start: 16 @8309 has 62 MA's), (34, 8342), (38, 8360), (47, 8402), (51, 8423), (72, 8573), (74, 8600), (90, 8699), (105, 8771),

Gene: Taheera_9 Start: 8306, Stop: 8803, Start Num: 16
Candidate Starts for Taheera_9:
(Start: 16 @8306 has 62 MA's), (38, 8357), (47, 8399), (51, 8420), (74, 8597), (105, 8768),

Gene: Tarnish_8 Start: 6541, Stop: 7068, Start Num: 26
Candidate Starts for Tarnish_8:
(Start: 26 @6541 has 14 MA's), (47, 6616), (58, 6730), (61, 6745), (64, 6775), (82, 6910), (92, 6934), (93, 6937), (97, 6961), (105, 7033),

Gene: Terror_9 Start: 8306, Stop: 8803, Start Num: 16
Candidate Starts for Terror_9:
(Start: 16 @8306 has 62 MA's), (38, 8357), (47, 8399), (51, 8420), (74, 8597), (105, 8768),

Gene: TinaBug_9 Start: 8309, Stop: 8806, Start Num: 16
Candidate Starts for TinaBug_9:
(Start: 16 @8309 has 62 MA's), (34, 8342), (38, 8360), (47, 8402), (51, 8423), (72, 8573), (74, 8600), (90, 8699), (105, 8771),

Gene: Tolls_11 Start: 6439, Stop: 6948, Start Num: 20
Candidate Starts for Tolls_11:
(1, 6154), (2, 6163), (9, 6385), (10, 6394), (Start: 20 @6439 has 75 MA's), (38, 6481), (47, 6526), (53, 6559), (93, 6832), (102, 6898),

Gene: TomBrady_9 Start: 8315, Stop: 8812, Start Num: 16
Candidate Starts for TomBrady_9:
(Start: 16 @8315 has 62 MA's), (34, 8348), (38, 8366), (47, 8408), (51, 8429), (72, 8579), (74, 8606), (90, 8705), (105, 8777),

Gene: Troje_9 Start: 6392, Stop: 6904, Start Num: 20
Candidate Starts for Troje_9:
(Start: 20 @6392 has 75 MA's), (38, 6437), (47, 6482), (93, 6788), (105, 6872),

Gene: Typhonomachy_9 Start: 6417, Stop: 6926, Start Num: 20
Candidate Starts for Typhonomachy_9:
(Start: 20 @6417 has 75 MA's), (28, 6429), (38, 6459), (47, 6504), (55, 6591), (80, 6768), (93, 6810),

Gene: Vine_10 Start: 7171, Stop: 7698, Start Num: 26
Candidate Starts for Vine_10:
(Start: 26 @7171 has 14 MA's), (47, 7246), (56, 7348), (58, 7360), (61, 7375), (64, 7405), (82, 7540), (92, 7564), (93, 7567), (97, 7591), (105, 7663),

Gene: WST1_8 Start: 6944, Stop: 7432, Start Num: 30
Candidate Starts for WST1_8:
(7, 6830), (14, 6902), (Start: 30 @6944 has 6 MA's), (47, 7013), (49, 7025),

Gene: Wendigo_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Wendigo_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Whitney_9 Start: 6026, Stop: 6490, Start Num: 33
Candidate Starts for Whitney_9:
(Start: 33 @6026 has 30 MA's), (43, 6059), (45, 6080), (46, 6089), (54, 6173), (59, 6197), (64, 6239), (78, 6329), (86, 6383), (97, 6419), (103, 6455),

Gene: Wizzo_7 Start: 5622, Stop: 6101, Start Num: 20
Candidate Starts for Wizzo_7:
(Start: 20 @5622 has 75 MA's), (25, 5631), (Start: 27 @5634 has 4 MA's), (28, 5637), (Start: 30 @5640 has 6 MA's), (35, 5652), (47, 5709), (49, 5721), (51, 5730), (60, 5811), (61, 5814), (63, 5835), (65, 5847), (74, 5907), (75, 5910), (78, 5934), (87, 5994), (89, 6006), (95, 6021), (98, 6033), (106, 6087),

Gene: Wolfwood_13 Start: 7286, Stop: 7822, Start Num: 21
Candidate Starts for Wolfwood_13:
(Start: 21 @7286 has 2 MA's), (Start: 23 @7289 has 8 MA's), (38, 7325), (47, 7370), (53, 7403), (60, 7484), (90, 7673), (97, 7703), (101, 7736),

Gene: Yakult_10 Start: 6322, Stop: 6834, Start Num: 20
Candidate Starts for Yakult_10:
(Start: 20 @6322 has 75 MA's), (29, 6334), (47, 6406), (50, 6421), (55, 6502), (57, 6511), (61, 6529), (74, 6619), (83, 6700), (94, 6739),

Gene: YangYin_9 Start: 8534, Stop: 9064, Start Num: 13
Candidate Starts for YangYin_9:
(4, 8378), (5, 8426), (Start: 13 @8534 has 7 MA's), (34, 8594), (44, 8630), (47, 8654), (64, 8795), (69, 8813), (73, 8855), (74, 8858), (76, 8864),

Gene: Yarn_8 Start: 6429, Stop: 6938, Start Num: 20
Candidate Starts for Yarn_8:
(Start: 20 @6429 has 75 MA's), (38, 6471), (47, 6516), (53, 6549), (93, 6822), (102, 6888),

Gene: Yoshi_9 Start: 5985, Stop: 6440, Start Num: 33
Candidate Starts for Yoshi_9:
(Start: 33 @5985 has 30 MA's), (45, 6039), (46, 6048), (54, 6123), (60, 6156), (61, 6159), (68, 6204), (78, 6279), (86, 6333),

Gene: Yucky_9 Start: 7031, Stop: 7558, Start Num: 26
Candidate Starts for Yucky_9:
(Start: 26 @7031 has 14 MA's), (47, 7106), (56, 7208), (58, 7220), (61, 7235), (64, 7265), (82, 7400), (92, 7424), (93, 7427), (97, 7451), (105, 7523),

Gene: Yummy_10 Start: 6296, Stop: 6808, Start Num: 20
Candidate Starts for Yummy_10:
(Start: 20 @6296 has 75 MA's), (38, 6341), (47, 6386), (93, 6692), (100, 6728), (105, 6776),

Gene: Zapner_10 Start: 6510, Stop: 6965, Start Num: 33
Candidate Starts for Zapner_10:
(Start: 33 @6510 has 30 MA's), (45, 6564), (46, 6573), (54, 6648), (60, 6681), (61, 6684), (68, 6729), (78, 6804), (86, 6858),

Gene: Zareef_11 Start: 7291, Stop: 7824, Start Num: 23
Candidate Starts for Zareef_11:
(Start: 21 @7288 has 2 MA's), (Start: 23 @7291 has 8 MA's), (47, 7372), (53, 7405), (60, 7486), (90, 7675), (97, 7705), (101, 7738),

Gene: ZoMa_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for ZoMa_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),

Gene: Zombie_9 Start: 8314, Stop: 8811, Start Num: 16
Candidate Starts for Zombie_9:
(Start: 16 @8314 has 62 MA's), (34, 8347), (38, 8365), (47, 8407), (51, 8428), (72, 8578), (74, 8605), (90, 8704), (105, 8776),