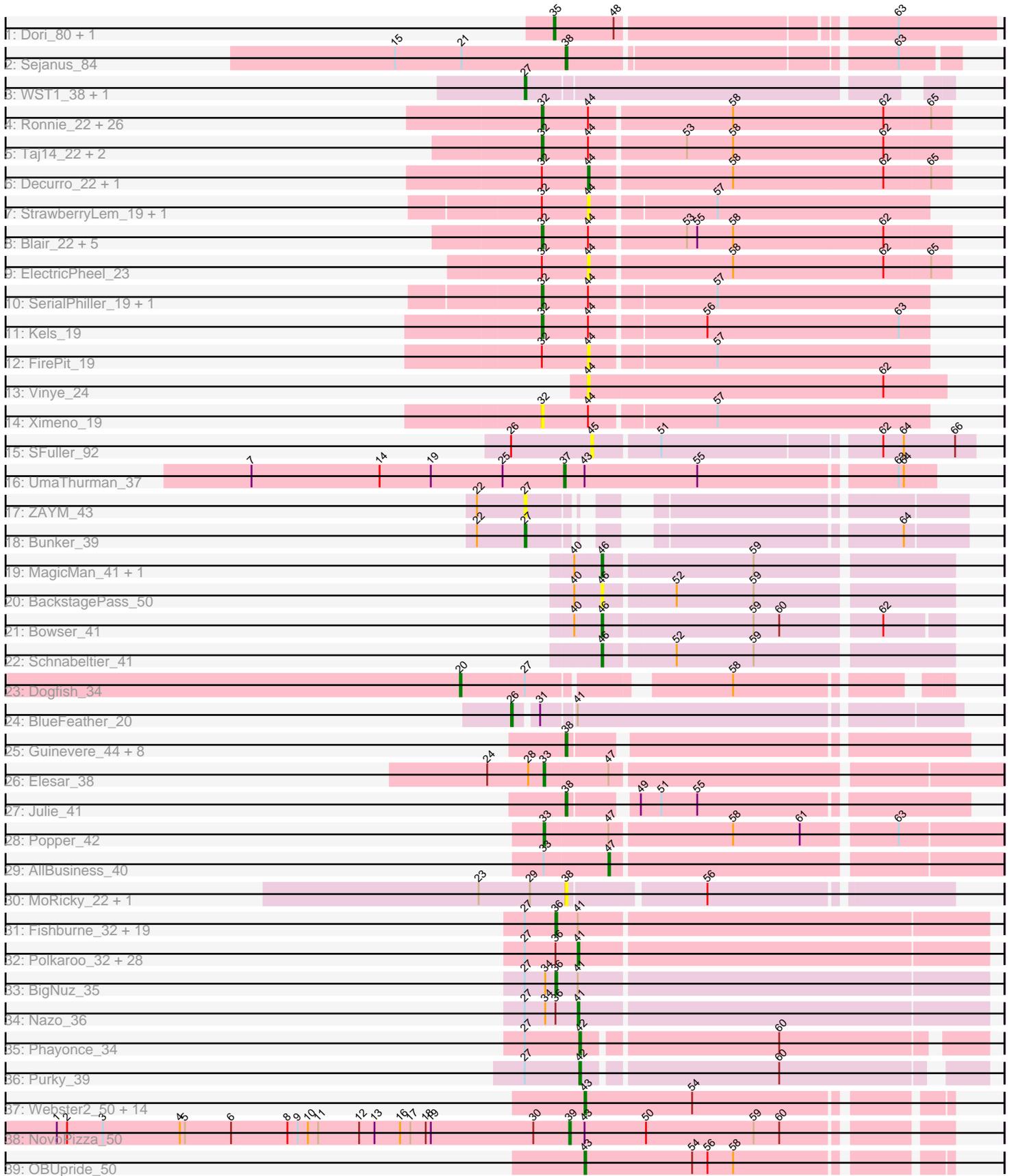# Pham 290918

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 290918 Report

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

Pham number 290918 has 148 members, 19 are drafts.

Phages represented in each track:
• Track 1 : Dori_80, Mao1_82
• Track 2 : Sejanus_84
• Track 3 : WST1_38, IdentityCrisis_37
• Track 4 : Ronnie_22, Inspire2_22, Guntur_22, Sandman_22, Azathoth_22, Courtney3_22, CGermain_22, Stratus_22, Maggie_22, Hunnie_22, Link_22, Seume_22, Toulouse_21, LouisXIV_22, Moloch_22, TymAbreu_22, Yank_22, Chestnut_22, Dewayne_22, Massimo_22, Copper_22, Arby_22, Prospero_22, Muttlie_22, TinoCrisci_22, Mariposa_22, Sourignavong_23
• Track 5 : Taj14_22, Saphira_23, Swenson_22
• Track 6 : Decurro_22, Jessica_23
• Track 7 : StrawberryLem_19, Eyoseyas_19
• Track 8 : Blair_22, KylieMac_23, Laila_24, Elkhorn_22, StewieGriff_22, Lore_22
• Track 9 : ElectricPheel_23
• Track 10 : SerialPhiller_19, Arielagos_19
• Track 11 : Kels_19
• Track 12 : FirePit_19
• Track 13 : Vinye_24
• Track 14 : Ximeno_19
• Track 15 : SFuller_92
• Track 16 : UmaThurman_37
• Track 17 : ZAYM_43
• Track 18 : Bunker_39
• Track 19 : MagicMan_41, Eyes_39
• Track 20 : BackstagePass_50
• Track 21 : Bowser_41
• Track 22 : Schnabeltier_41
• Track 23 : Dogfish_34
• Track 24 : BlueFeather_20
• Track 25 : Guinevere_44, Ichiang_41, Obliviate_39, Zaheer_44, QuinnAvery_44, Petra_40, Zarbodnamra_42, Halloweekend_39, Schism_46
• Track 26 : Elesar_38
• Track 27 : Julie_41
• Track 28 : Popper_42
• Track 29 : AllBusiness_40
• Track 30 : MoRicky_22, Smilerella_21
• Track 31 : Fishburne_32, Atcoo_32, Mangethe_32, Venti_32, Willsammy_31, Langerak_32, Majeke_32, Etoile_32, Necropolis_32, Donovan_32, StevieRay_32,

Kari_32, FirstPlacePfu_32, Arib1_32, Juniormint_32, GaloreK_32, Bunnies_32, Thespis_32, Zilizebeth_32, Phegasus_32
• Track 32 : Polkaroo_32, Brusacoram_32, Bartholomew_31, Bhagsy_32, KilKor_32, Dynamo_32, Phalm_32, PeanutPie_32, BronnyJr_32, HUHilltop_32, Shipwreck_34, GreaseLightnin_32, Pygmy_34, Camster_32, Vidya_32, Gavriela_32, Chubbello_32, Glaske_32, Jebeks_33, Bogie_34, Techage_32, Megiddo_32, Ksquared_32, Malithi_32, Sonah_32, CactusJack_32, StressBall_32, Phineas_32, Jung_31
• Track 33 : BigNuz_35
• Track 34 : Nazo_36
• Track 35 : Phayonce_34
• Track 36 : Purky_39
• Track 37 : Webster2_50, Luke_50, LilHazelnut_50, Evanesce_49, Hadrien_50, Amymech_50, Gancho_49, Kinbote_50, Ubuntu_50, BloominB_50, Forge_48, Ein37_50, Amochick_50, Daegal_52, DeepSoil15_50
• Track 38 : NovoPizza_50
• Track 39 : OBUpride_50

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

The start number called the most often in the published annotations is 32, it was called in 39 of the 129 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arby_22, Arielagos_19, Azathoth_22, Blair_22, CGermain_22, Chestnut_22, Copper_22, Courtney3_22, Dewayne_22, Elkhorn_22, Guntur_22, Hunnie_22, Inspire2_22, Kels_19, KylieMac_23, Laila_24, Link_22, Lore_22, LouisXIV_22, Maggie_22, Mariposa_22, Massimo_22, Moloch_22, Muttlie_22, Prospero_22, Ronnie_22, Sandman_22, Saphira_23, SerialPhiller_19, Seume_22, Sourignavong_23, StewieGriff_22, Stratus_22, Swenson_22, Taj14_22, TinoCrisci_22, Toulouse_21, TymAbreu_22, Ximeno_19, Yank_22,

Genes that have the "Most Annotated" start but do not call it:
• Decurro_22, ElectricPheel_23, Eyoseyas_19, FirePit_19, Jessica_23, StrawberryLem_19,

Genes that do not have the "Most Annotated" start:
• AllBusiness_40, Amochick_50, Amymech_50, Arib1_32, Atcoo_32, BackstagePass_50, Bartholomew_31, Bhagsy_32, BigNuz_35, BloominB_50, BlueFeather_20, Bogie_34, Bowser_41, BronnyJr_32, Brusacoram_32, Bunker_39, Bunnies_32, CactusJack_32, Camster_32, Chubbello_32, Daegal_52, DeepSoil15_50, Dogfish_34, Donovan_32, Dori_80, Dynamo_32, Ein37_50, Elesar_38, Etoile_32, Evanesce_49, Eyes_39, FirstPlacePfu_32, Fishburne_32, Forge_48, GaloreK_32, Gancho_49, Gavriela_32, Glaske_32, GreaseLightnin_32, Guinevere_44, HUHilltop_32, Hadrien_50, Halloweekend_39, Ichiang_41, IdentityCrisis_37, Jebeks_33, Julie_41, Jung_31, Juniormint_32, Kari_32, KilKor_32, Kinbote_50, Ksquared_32, Langerak_32, LilHazelnut_50, Luke_50, MagicMan_41, Majeke_32, Malithi_32, Mangethe_32, Mao1_82, Megiddo_32, MoRicky_22, Nazo_36, Necropolis_32, NovoPizza_50, OBUpride_50, Obliviate_39, PeanutPie_32, Petra_40, Phalm_32, Phayonce_34, Phegasus_32, Phineas_32, Polkaroo_32, Popper_42, Purky_39, Pygmy_34, QuinnAvery_44, SFuller_92, Schism_46,

Schnabeltier_41, Sejanus_84, Shipwreck_34, Smilerella_21, Sonah_32, StevieRay_32, StressBall_32, Techage_32, Thespis_32, Ubuntu_50, UmaThurman_37, Venti_32, Vidya_32, Vinye_24, WST1_38, Webster2_50, Willsammy_31, ZAYM_43, Zaheer_44, Zarbodnamra_42, Zilizebeth_32,

Summary by start number:

Start 20:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dogfish_34 (DT),

Start 26:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 129
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BlueFeather_20 (FE),

Start 27:
• Found in 58 of 148 (39.2%) of genes in pham
• Manual Annotations of this start: 2 of 129
• Called 6.9% of time when present
• Phage (with cluster) where this start called: Bunker_39 (DB), IdentityCrisis_37 (AJ), WST1_38 (AJ), ZAYM_43 (DB),

Start 32:
• Found in 46 of 148 (31.1%) of genes in pham
• Manual Annotations of this start: 39 of 129
• Called 87.0% of time when present
• Phage (with cluster) where this start called: Arby_22 (AN), Arielagos_19 (AN), Azathoth_22 (AN), Blair_22 (AN), CGermain_22 (AN), Chestnut_22 (AN), Copper_22 (AN), Courtney3_22 (AN), Dewayne_22 (AN), Elkhorn_22 (AN), Guntur_22 (AN), Hunnie_22 (AN), Inspire2_22 (AN), Kels_19 (AN), KylieMac_23 (AN), Laila_24 (AN), Link_22 (AN), Lore_22 (AN), LouisXIV_22 (AN), Maggie_22 (AN), Mariposa_22 (AN), Massimo_22 (AN), Moloch_22 (AN), Muttlie_22 (AN), Prospero_22 (AN), Ronnie_22 (AN), Sandman_22 (AN), Saphira_23 (AN), SerialPhiller_19 (AN), Seume_22 (AN), Sourignavong_23 (AN), StewieGriff_22 (AN), Stratus_22 (AN), Swenson_22 (AN), Taj14_22 (AN), TinoCrisci_22 (AN), Toulouse_21 (AN), TymAbreu_22 (AN), Ximeno_19 (AN), Yank_22 (AN),

Start 33:
• Found in 3 of 148 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 129
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Elesar_38 (FF), Popper_42 (FF),

Start 35:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dori_80 (AD), Mao1_82 (AD),

Start 36:
• Found in 51 of 148 (34.5%) of genes in pham
• Manual Annotations of this start: 20 of 129
• Called 41.2% of time when present
• Phage (with cluster) where this start called: Arib1_32 (P1), Atcoo_32 (P1), BigNuz_35 (P4), Bunnies_32 (P1), Donovan_32 (P1), Etoile_32 (P1), FirstPlacePfu_32 (P1), Fishburne_32 (P1), GaloreK_32 (P1), Juniormint_32 (P1), Kari_32 (P1), Langerak_32 (P1), Majeke_32 (P1), Mangethe_32 (P1), Necropolis_32 (P1), Phegasus_32 (P1), StevieRay_32 (P1), Thespis_32 (P1), Venti_32 (P1), Willsammy_31 (P1), Zilizebeth_32 (P1),

Start 37:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: UmaThurman_37 (CV),

Start 38:
• Found in 13 of 148 (8.8%) of genes in pham
• Manual Annotations of this start: 11 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Guinevere_44 (FF), Halloweekend_39 (FF), Ichiang_41 (FF), Julie_41 (FF), MoRicky_22 (GH), Obliviate_39 (CV), Petra_40 (CV), QuinnAvery_44 (FF), Schism_46 (FF), Sejanus_84 (AD), Smilerella_21 (GH), Zaheer_44 (FF), Zarbodnamra_42 (CV),

Start 39:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NovoPizza_50 (Q),

Start 41:
• Found in 52 of 148 (35.1%) of genes in pham
• Manual Annotations of this start: 25 of 129
• Called 57.7% of time when present
• Phage (with cluster) where this start called: Bartholomew_31 (P1), Bhagsy_32 (P1), Bogie_34 (P1), BronnyJr_32 (P1), Brusacoram_32 (P1), CactusJack_32 (P1), Camster_32 (P1), Chubbello_32 (P1), Dynamo_32 (P1), Gavriela_32 (P1), Glaske_32 (P1), GreaseLightnin_32 (P1), HUHilltop_32 (P1), Jebeks_33 (P1), Jung_31 (P1), KilKor_32 (P1), Ksquared_32 (P1), Malithi_32 (P1), Megiddo_32 (P1), Nazo_36 (P4), PeanutPie_32 (P1), Phalm_32 (P1), Phineas_32 (P1), Polkaroo_32 (P1), Pygmy_34 (P1), Shipwreck_34 (P1), Sonah_32 (P1), StressBall_32 (P1), Techage_32 (P1), Vidya_32 (P1),

Start 42:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phayonce_34 (P5), Purky_39 (P6),

Start 43:
• Found in 18 of 148 (12.2%) of genes in pham

• Manual Annotations of this start: 15 of 129
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Amochick_50 (Q), Amymech_50 (Q), BloominB_50 (Q), Daegal_52 (Q), DeepSoil15_50 (Q), Ein37_50 (Q), Evanesce_49 (Q), Forge_48 (Q), Gancho_49 (Q), Hadrien_50 (Q), Kinbote_50 (Q), LilHazelnut_50 (Q), Luke_50 (Q), OBUpride_50 (Q), Ubuntu_50 (Q), Webster2_50 (Q),

Start 44:
• Found in 47 of 148 (31.8%) of genes in pham
• Manual Annotations of this start: 2 of 129
• Called 14.9% of time when present
• Phage (with cluster) where this start called: Decurro_22 (AN), ElectricPheel_23 (AN), Eyoseyas_19 (AN), FirePit_19 (AN), Jessica_23 (AN), StrawberryLem_19 (AN), Vinye_24 (AN),

Start 45:
• Found in 1 of 148 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SFuller_92 (CF),

Start 46:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 4 of 129
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BackstagePass_50 (DB), Bowser_41 (DB), Eyes_39 (DB), MagicMan_41 (DB), Schnabeltier_41 (DB),

Start 47:
• Found in 3 of 148 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 129
• Called 33.3% of time when present
• Phage (with cluster) where this start called: AllBusiness_40 (FF),

Summary by clusters:

There are 15 clusters represented in this pham: P1, P6, AD, P4, P5, AJ, DB, CF, AN, Q, FE, FF, DT, CV, GH,

Info for manual annotations of cluster AD:
•Start number 35 was manually annotated 2 times for cluster AD.
•Start number 38 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AJ:
•Start number 27 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster AN:
•Start number 32 was manually annotated 39 times for cluster AN.
•Start number 44 was manually annotated 2 times for cluster AN.

Info for manual annotations of cluster CV:
•Start number 37 was manually annotated 1 time for cluster CV.

•Start number 38 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster DB:
•Start number 27 was manually annotated 1 time for cluster DB.
•Start number 46 was manually annotated 4 times for cluster DB.

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

Info for manual annotations of cluster FE:
•Start number 26 was manually annotated 1 time for cluster FE.

Info for manual annotations of cluster FF:
•Start number 33 was manually annotated 2 times for cluster FF.
•Start number 38 was manually annotated 7 times for cluster FF.
•Start number 47 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster P1:
•Start number 36 was manually annotated 19 times for cluster P1.
•Start number 41 was manually annotated 24 times for cluster P1.

Info for manual annotations of cluster P4:
•Start number 36 was manually annotated 1 time for cluster P4.
•Start number 41 was manually annotated 1 time for cluster P4.

Info for manual annotations of cluster P5:
•Start number 42 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:
•Start number 42 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:
•Start number 39 was manually annotated 1 time for cluster Q.
•Start number 43 was manually annotated 15 times for cluster Q.

Gene Information:
Gene: AllBusiness_40 Start: 31222, Stop: 31440, Start Num: 47
Candidate Starts for AllBusiness_40:
(Start: 33 @31186 has 2 MA's), (Start: 47 @31222 has 1 MA's),

Gene: Amochick_50 Start: 36955, Stop: 37152, Start Num: 43
Candidate Starts for Amochick_50:
(Start: 43 @36955 has 15 MA's), (54, 37018),

Gene: Amymech_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Amymech_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Arby_22 Start: 13886, Stop: 14119, Start Num: 32

Candidate Starts for Arby_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Arib1_32 Start: 27470, Stop: 27715, Start Num: 36
Candidate Starts for Arib1_32:
(Start: 27 @27452 has 2 MA's), (Start: 36 @27470 has 20 MA's), (Start: 41 @27482 has 25 MA's),

Gene: Arielagos_19 Start: 13063, Stop: 13281, Start Num: 32
Candidate Starts for Arielagos_19:
(Start: 32 @13063 has 39 MA's), (Start: 44 @13090 has 2 MA's), (57, 13159),

Gene: Atcoo_32 Start: 27951, Stop: 28196, Start Num: 36
Candidate Starts for Atcoo_32:
(Start: 27 @27933 has 2 MA's), (Start: 36 @27951 has 20 MA's), (Start: 41 @27963 has 25 MA's),

Gene: Azathoth_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Azathoth_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: BackstagePass_50 Start: 34306, Stop: 34112, Start Num: 46
Candidate Starts for BackstagePass_50:
(40, 34321), (Start: 46 @34306 has 4 MA's), (52, 34267), (59, 34222),

Gene: Bartholomew_31 Start: 27476, Stop: 27709, Start Num: 41
Candidate Starts for Bartholomew_31:
(Start: 27 @27446 has 2 MA's), (Start: 36 @27464 has 20 MA's), (Start: 41 @27476 has 25 MA's),

Gene: Bhagsy_32 Start: 27472, Stop: 27705, Start Num: 41
Candidate Starts for Bhagsy_32:
(Start: 27 @27442 has 2 MA's), (Start: 36 @27460 has 20 MA's), (Start: 41 @27472 has 25 MA's),

Gene: BigNuz_35 Start: 29592, Stop: 29837, Start Num: 36
Candidate Starts for BigNuz_35:
(Start: 27 @29574 has 2 MA's), (34, 29586), (Start: 36 @29592 has 20 MA's), (Start: 41 @29604 has 25 MA's),

Gene: Blair_22 Start: 13883, Stop: 14116, Start Num: 32
Candidate Starts for Blair_22:
(Start: 32 @13883 has 39 MA's), (Start: 44 @13910 has 2 MA's), (53, 13964), (55, 13970), (58, 13991), (62, 14078),

Gene: BloominB_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for BloominB_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: BlueFeather_20 Start: 14165, Stop: 14407, Start Num: 26
Candidate Starts for BlueFeather_20:
(Start: 26 @14165 has 1 MA's), (31, 14177), (Start: 41 @14195 has 25 MA's),

Gene: Bogie_34 Start: 29259, Stop: 29492, Start Num: 41
Candidate Starts for Bogie_34:
(Start: 27 @29229 has 2 MA's), (Start: 36 @29247 has 20 MA's), (Start: 41 @29259 has 25 MA's),

Gene: Bowser_41 Start: 32656, Stop: 32847, Start Num: 46
Candidate Starts for Bowser_41:
(40, 32641), (Start: 46 @32656 has 4 MA's), (59, 32740), (60, 32755), (62, 32809),

Gene: BronnyJr_32 Start: 27973, Stop: 28206, Start Num: 41
Candidate Starts for BronnyJr_32:
(Start: 27 @27943 has 2 MA's), (Start: 36 @27961 has 20 MA's), (Start: 41 @27973 has 25 MA's),

Gene: Brusacoram_32 Start: 27469, Stop: 27702, Start Num: 41
Candidate Starts for Brusacoram_32:
(Start: 27 @27439 has 2 MA's), (Start: 36 @27457 has 20 MA's), (Start: 41 @27469 has 25 MA's),

Gene: Bunker_39 Start: 31881, Stop: 32090, Start Num: 27
Candidate Starts for Bunker_39:
(22, 31854), (Start: 27 @31881 has 2 MA's), (64, 32055),

Gene: Bunnies_32 Start: 27478, Stop: 27723, Start Num: 36
Candidate Starts for Bunnies_32:
(Start: 27 @27460 has 2 MA's), (Start: 36 @27478 has 20 MA's), (Start: 41 @27490 has 25 MA's),

Gene: CGermain_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for CGermain_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: CactusJack_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for CactusJack_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: Camster_32 Start: 27506, Stop: 27739, Start Num: 41
Candidate Starts for Camster_32:
(Start: 27 @27476 has 2 MA's), (Start: 36 @27494 has 20 MA's), (Start: 41 @27506 has 25 MA's),

Gene: Chestnut_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Chestnut_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Chubbello_32 Start: 27475, Stop: 27708, Start Num: 41
Candidate Starts for Chubbello_32:
(Start: 27 @27445 has 2 MA's), (Start: 36 @27463 has 20 MA's), (Start: 41 @27475 has 25 MA's),

Gene: Copper_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Copper_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Courtney3_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Courtney3_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Daegal_52 Start: 37533, Stop: 37730, Start Num: 43
Candidate Starts for Daegal_52:
(Start: 43 @37533 has 15 MA's), (54, 37596),

Gene: Decurro_22 Start: 13881, Stop: 14087, Start Num: 44

Candidate Starts for Decurro_22:
(Start: 32 @13854 has 39 MA's), (Start: 44 @13881 has 2 MA's), (58, 13962), (62, 14049), (65, 14076),

Gene: DeepSoil15_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for DeepSoil15_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Dewayne_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Dewayne_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Dogfish_34 Start: 29638, Stop: 29883, Start Num: 20
Candidate Starts for Dogfish_34:
(Start: 20 @29638 has 1 MA's), (Start: 27 @29674 has 2 MA's), (58, 29776),

Gene: Donovan_32 Start: 27486, Stop: 27731, Start Num: 36
Candidate Starts for Donovan_32:
(Start: 27 @27468 has 2 MA's), (Start: 36 @27486 has 20 MA's), (Start: 41 @27498 has 25 MA's),

Gene: Dori_80 Start: 57490, Stop: 57729, Start Num: 35
Candidate Starts for Dori_80:
(Start: 35 @57490 has 2 MA's), (48, 57523), (63, 57673),

Gene: Dynamo_32 Start: 27887, Stop: 28120, Start Num: 41
Candidate Starts for Dynamo_32:
(Start: 27 @27857 has 2 MA's), (Start: 36 @27875 has 20 MA's), (Start: 41 @27887 has 25 MA's),

Gene: Ein37_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Ein37_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: ElectricPheel_23 Start: 13954, Stop: 14160, Start Num: 44
Candidate Starts for ElectricPheel_23:
(Start: 32 @13927 has 39 MA's), (Start: 44 @13954 has 2 MA's), (58, 14035), (62, 14122), (65, 14149),

Gene: Elesar_38 Start: 30965, Stop: 31219, Start Num: 33
Candidate Starts for Elesar_38:
(24, 30932), (28, 30956), (Start: 33 @30965 has 2 MA's), (Start: 47 @31001 has 1 MA's),

Gene: Elkhorn_22 Start: 13883, Stop: 14116, Start Num: 32
Candidate Starts for Elkhorn_22:
(Start: 32 @13883 has 39 MA's), (Start: 44 @13910 has 2 MA's), (53, 13964), (55, 13970), (58, 13991), (62, 14078),

Gene: Etoile_32 Start: 27464, Stop: 27709, Start Num: 36
Candidate Starts for Etoile_32:
(Start: 27 @27446 has 2 MA's), (Start: 36 @27464 has 20 MA's), (Start: 41 @27476 has 25 MA's),

Gene: Evanesce_49 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Evanesce_49:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Eyes_39 Start: 32432, Stop: 32626, Start Num: 46

Candidate Starts for Eyes_39:
(40, 32417), (Start: 46 @32432 has 4 MA's), (59, 32516),

Gene: Eyoseyas_19 Start: 13090, Stop: 13281, Start Num: 44
Candidate Starts for Eyoseyas_19:
(Start: 32 @13063 has 39 MA's), (Start: 44 @13090 has 2 MA's), (57, 13159),

Gene: FirePit_19 Start: 13103, Stop: 13294, Start Num: 44
Candidate Starts for FirePit_19:
(Start: 32 @13076 has 39 MA's), (Start: 44 @13103 has 2 MA's), (57, 13172),

Gene: FirstPlacePfu_32 Start: 27496, Stop: 27741, Start Num: 36
Candidate Starts for FirstPlacePfu_32:
(Start: 27 @27478 has 2 MA's), (Start: 36 @27496 has 20 MA's), (Start: 41 @27508 has 25 MA's),

Gene: Fishburne_32 Start: 27464, Stop: 27709, Start Num: 36
Candidate Starts for Fishburne_32:
(Start: 27 @27446 has 2 MA's), (Start: 36 @27464 has 20 MA's), (Start: 41 @27476 has 25 MA's),

Gene: Forge_48 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Forge_48:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: GaloreK_32 Start: 27460, Stop: 27705, Start Num: 36
Candidate Starts for GaloreK_32:
(Start: 27 @27442 has 2 MA's), (Start: 36 @27460 has 20 MA's), (Start: 41 @27472 has 25 MA's),

Gene: Gancho_49 Start: 36672, Stop: 36869, Start Num: 43
Candidate Starts for Gancho_49:
(Start: 43 @36672 has 15 MA's), (54, 36735),

Gene: Gavriela_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for Gavriela_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: Glaske_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for Glaske_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: GreaseLightnin_32 Start: 27725, Stop: 27958, Start Num: 41
Candidate Starts for GreaseLightnin_32:
(Start: 27 @27695 has 2 MA's), (Start: 36 @27713 has 20 MA's), (Start: 41 @27725 has 25 MA's),

Gene: Guinevere_44 Start: 30166, Stop: 30381, Start Num: 38
Candidate Starts for Guinevere_44:
(Start: 38 @30166 has 11 MA's),

Gene: Guntur_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Guntur_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: HUHilltop_32 Start: 27509, Stop: 27742, Start Num: 41
Candidate Starts for HUHilltop_32:

(Start: 27 @27479 has 2 MA's), (Start: 36 @27497 has 20 MA's), (Start: 41 @27509 has 25 MA's),

Gene: Hadrien_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Hadrien_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Halloweekend_39 Start: 29574, Stop: 29789, Start Num: 38
Candidate Starts for Halloweekend_39:
(Start: 38 @29574 has 11 MA's),

Gene: Hunnie_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Hunnie_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Ichiang_41 Start: 29593, Stop: 29808, Start Num: 38
Candidate Starts for Ichiang_41:
(Start: 38 @29593 has 11 MA's),

Gene: IdentityCrisis_37 Start: 27479, Stop: 27703, Start Num: 27
Candidate Starts for IdentityCrisis_37:
(Start: 27 @27479 has 2 MA's),

Gene: Inspire2_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Inspire2_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Jebeks_33 Start: 27461, Stop: 27694, Start Num: 41
Candidate Starts for Jebeks_33:
(Start: 27 @27431 has 2 MA's), (Start: 36 @27449 has 20 MA's), (Start: 41 @27461 has 25 MA's),

Gene: Jessica_23 Start: 13913, Stop: 14119, Start Num: 44
Candidate Starts for Jessica_23:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Julie_41 Start: 30591, Stop: 30806, Start Num: 38
Candidate Starts for Julie_41:
(Start: 38 @30591 has 11 MA's), (49, 30624), (51, 30636), (55, 30657),

Gene: Jung_31 Start: 27440, Stop: 27673, Start Num: 41
Candidate Starts for Jung_31:
(Start: 27 @27410 has 2 MA's), (Start: 36 @27428 has 20 MA's), (Start: 41 @27440 has 25 MA's),

Gene: Juniormint_32 Start: 27500, Stop: 27745, Start Num: 36
Candidate Starts for Juniormint_32:
(Start: 27 @27482 has 2 MA's), (Start: 36 @27500 has 20 MA's), (Start: 41 @27512 has 25 MA's),

Gene: Kari_32 Start: 27461, Stop: 27706, Start Num: 36
Candidate Starts for Kari_32:
(Start: 27 @27443 has 2 MA's), (Start: 36 @27461 has 20 MA's), (Start: 41 @27473 has 25 MA's),

Gene: Kels_19 Start: 13001, Stop: 13219, Start Num: 32
Candidate Starts for Kels_19:
(Start: 32 @13001 has 39 MA's), (Start: 44 @13028 has 2 MA's), (56, 13091), (63, 13202),

Gene: KilKor_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for KilKor_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: Kinbote_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Kinbote_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Ksquared_32 Start: 27490, Stop: 27723, Start Num: 41
Candidate Starts for Ksquared_32:
(Start: 27 @27460 has 2 MA's), (Start: 36 @27478 has 20 MA's), (Start: 41 @27490 has 25 MA's),

Gene: KylieMac_23 Start: 13870, Stop: 14103, Start Num: 32
Candidate Starts for KylieMac_23:
(Start: 32 @13870 has 39 MA's), (Start: 44 @13897 has 2 MA's), (53, 13951), (55, 13957), (58, 13978), (62, 14065),

Gene: Laila_24 Start: 13883, Stop: 14116, Start Num: 32
Candidate Starts for Laila_24:
(Start: 32 @13883 has 39 MA's), (Start: 44 @13910 has 2 MA's), (53, 13964), (55, 13970), (58, 13991), (62, 14078),

Gene: Langerak_32 Start: 27480, Stop: 27725, Start Num: 36
Candidate Starts for Langerak_32:
(Start: 27 @27462 has 2 MA's), (Start: 36 @27480 has 20 MA's), (Start: 41 @27492 has 25 MA's),

Gene: LilHazelnut_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for LilHazelnut_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Link_22 Start: 13851, Stop: 14084, Start Num: 32
Candidate Starts for Link_22:
(Start: 32 @13851 has 39 MA's), (Start: 44 @13878 has 2 MA's), (58, 13959), (62, 14046), (65, 14073),

Gene: Lore_22 Start: 13883, Stop: 14116, Start Num: 32
Candidate Starts for Lore_22:
(Start: 32 @13883 has 39 MA's), (Start: 44 @13910 has 2 MA's), (53, 13964), (55, 13970), (58, 13991), (62, 14078),

Gene: LouisXIV_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for LouisXIV_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Luke_50 Start: 36904, Stop: 37101, Start Num: 43
Candidate Starts for Luke_50:
(Start: 43 @36904 has 15 MA's), (54, 36967),

Gene: Maggie_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Maggie_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: MagicMan_41 Start: 32979, Stop: 33173, Start Num: 46

Candidate Starts for MagicMan_41:
(40, 32964), (Start: 46 @32979 has 4 MA's), (59, 33063),

Gene: Majeke_32 Start: 27502, Stop: 27747, Start Num: 36
Candidate Starts for Majeke_32:
(Start: 27 @27484 has 2 MA's), (Start: 36 @27502 has 20 MA's), (Start: 41 @27514 has 25 MA's),

Gene: Malithi_32 Start: 27399, Stop: 27632, Start Num: 41
Candidate Starts for Malithi_32:
(Start: 27 @27369 has 2 MA's), (Start: 36 @27387 has 20 MA's), (Start: 41 @27399 has 25 MA's),

Gene: Mangethe_32 Start: 27502, Stop: 27747, Start Num: 36
Candidate Starts for Mangethe_32:
(Start: 27 @27484 has 2 MA's), (Start: 36 @27502 has 20 MA's), (Start: 41 @27514 has 25 MA's),

Gene: Mao1_82 Start: 56379, Stop: 56618, Start Num: 35
Candidate Starts for Mao1_82:
(Start: 35 @56379 has 2 MA's), (48, 56412), (63, 56562),

Gene: Mariposa_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Mariposa_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Massimo_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Massimo_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Megiddo_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for Megiddo_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: MoRicky_22 Start: 14364, Stop: 14573, Start Num: 38
Candidate Starts for MoRicky_22:
(23, 14313), (29, 14343), (Start: 38 @14364 has 11 MA's), (56, 14439),

Gene: Moloch_22 Start: 13960, Stop: 14193, Start Num: 32
Candidate Starts for Moloch_22:
(Start: 32 @13960 has 39 MA's), (Start: 44 @13987 has 2 MA's), (58, 14068), (62, 14155), (65, 14182),

Gene: Muttlie_22 Start: 13854, Stop: 14087, Start Num: 32
Candidate Starts for Muttlie_22:
(Start: 32 @13854 has 39 MA's), (Start: 44 @13881 has 2 MA's), (58, 13962), (62, 14049), (65, 14076),

Gene: Nazo_36 Start: 29606, Stop: 29839, Start Num: 41
Candidate Starts for Nazo_36:
(Start: 27 @29576 has 2 MA's), (34, 29588), (Start: 36 @29594 has 20 MA's), (Start: 41 @29606 has 25 MA's),

Gene: Necropolis_32 Start: 27461, Stop: 27706, Start Num: 36
Candidate Starts for Necropolis_32:
(Start: 27 @27443 has 2 MA's), (Start: 36 @27461 has 20 MA's), (Start: 41 @27473 has 25 MA's),

Gene: NovoPizza_50 Start: 37432, Stop: 37641, Start Num: 39

Candidate Starts for NovoPizza_50:
(1, 37132), (2, 37138), (3, 37159), (4, 37204), (5, 37207), (6, 37234), (8, 37267), (9, 37273), (10, 37279), (11, 37285), (12, 37309), (13, 37318), (16, 37333), (17, 37339), (18, 37348), (19, 37351), (30, 37411), (Start: 39 @37432 has 1 MA's), (Start: 43 @37441 has 15 MA's), (50, 37477), (59, 37540), (60, 37555),

Gene: OBUpride_50 Start: 36945, Stop: 37142, Start Num: 43
Candidate Starts for OBUpride_50:
(Start: 43 @36945 has 15 MA's), (54, 37008), (56, 37017), (58, 37032),

Gene: Obliviate_39 Start: 31330, Stop: 31524, Start Num: 38
Candidate Starts for Obliviate_39:
(Start: 38 @31330 has 11 MA's),

Gene: PeanutPie_32 Start: 27472, Stop: 27705, Start Num: 41
Candidate Starts for PeanutPie_32:
(Start: 27 @27442 has 2 MA's), (Start: 36 @27460 has 20 MA's), (Start: 41 @27472 has 25 MA's),

Gene: Petra_40 Start: 31689, Stop: 31883, Start Num: 38
Candidate Starts for Petra_40:
(Start: 38 @31689 has 11 MA's),

Gene: Phalm_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for Phalm_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: Phayonce_34 Start: 29517, Stop: 29735, Start Num: 42
Candidate Starts for Phayonce_34:
(Start: 27 @29487 has 2 MA's), (Start: 42 @29517 has 2 MA's), (60, 29625),

Gene: Phegasus_32 Start: 27469, Stop: 27714, Start Num: 36
Candidate Starts for Phegasus_32:
(Start: 27 @27451 has 2 MA's), (Start: 36 @27469 has 20 MA's), (Start: 41 @27481 has 25 MA's),

Gene: Phineas_32 Start: 27847, Stop: 28080, Start Num: 41
Candidate Starts for Phineas_32:
(Start: 27 @27817 has 2 MA's), (Start: 36 @27835 has 20 MA's), (Start: 41 @27847 has 25 MA's),

Gene: Polkaroo_32 Start: 27490, Stop: 27723, Start Num: 41
Candidate Starts for Polkaroo_32:
(Start: 27 @27460 has 2 MA's), (Start: 36 @27478 has 20 MA's), (Start: 41 @27490 has 25 MA's),

Gene: Popper_42 Start: 30120, Stop: 30374, Start Num: 33
Candidate Starts for Popper_42:
(Start: 33 @30120 has 2 MA's), (Start: 47 @30156 has 1 MA's), (58, 30225), (61, 30264), (63, 30315),

Gene: Prospero_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Prospero_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Purky_39 Start: 30247, Stop: 30462, Start Num: 42
Candidate Starts for Purky_39:
(Start: 27 @30217 has 2 MA's), (Start: 42 @30247 has 2 MA's), (60, 30355),

Gene: Pygmy_34 Start: 29315, Stop: 29548, Start Num: 41
Candidate Starts for Pygmy_34:
(Start: 27 @29285 has 2 MA's), (Start: 36 @29303 has 20 MA's), (Start: 41 @29315 has 25 MA's),

Gene: QuinnAvery_44 Start: 31024, Stop: 31239, Start Num: 38
Candidate Starts for QuinnAvery_44:
(Start: 38 @31024 has 11 MA's),

Gene: Ronnie_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for Ronnie_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: SFuller_92 Start: 52330, Stop: 52539, Start Num: 45
Candidate Starts for SFuller_92:
(Start: 26 @52285 has 1 MA's), (45, 52330), (51, 52366), (62, 52486), (64, 52498), (66, 52528),

Gene: Sandman_22 Start: 13960, Stop: 14193, Start Num: 32
Candidate Starts for Sandman_22:
(Start: 32 @13960 has 39 MA's), (Start: 44 @13987 has 2 MA's), (58, 14068), (62, 14155), (65, 14182),

Gene: Saphira_23 Start: 13885, Stop: 14118, Start Num: 32
Candidate Starts for Saphira_23:
(Start: 32 @13885 has 39 MA's), (Start: 44 @13912 has 2 MA's), (53, 13966), (58, 13993), (62, 14080),

Gene: Schism_46 Start: 30955, Stop: 31170, Start Num: 38
Candidate Starts for Schism_46:
(Start: 38 @30955 has 11 MA's),

Gene: Schnabeltier_41 Start: 32611, Stop: 32805, Start Num: 46
Candidate Starts for Schnabeltier_41:
(Start: 46 @32611 has 4 MA's), (52, 32650), (59, 32695),

Gene: Sejanus_84 Start: 57638, Stop: 57847, Start Num: 38
Candidate Starts for Sejanus_84:
(15, 57539), (21, 57578), (Start: 38 @57638 has 11 MA's), (63, 57815),

Gene: SerialPhiller_19 Start: 13063, Stop: 13281, Start Num: 32
Candidate Starts for SerialPhiller_19:
(Start: 32 @13063 has 39 MA's), (Start: 44 @13090 has 2 MA's), (57, 13159),

Gene: Seume_22 Start: 13649, Stop: 13882, Start Num: 32
Candidate Starts for Seume_22:
(Start: 32 @13649 has 39 MA's), (Start: 44 @13676 has 2 MA's), (58, 13757), (62, 13844), (65, 13871),

Gene: Shipwreck_34 Start: 29290, Stop: 29523, Start Num: 41
Candidate Starts for Shipwreck_34:
(Start: 27 @29260 has 2 MA's), (Start: 36 @29278 has 20 MA's), (Start: 41 @29290 has 25 MA's),

Gene: Smilerella_21 Start: 14454, Stop: 14663, Start Num: 38
Candidate Starts for Smilerella_21:
(23, 14403), (29, 14433), (Start: 38 @14454 has 11 MA's), (56, 14529),

Gene: Sonah_32 Start: 27462, Stop: 27695, Start Num: 41
Candidate Starts for Sonah_32:
(Start: 27 @27432 has 2 MA's), (Start: 36 @27450 has 20 MA's), (Start: 41 @27462 has 25 MA's),

Gene: Sourignavong_23 Start: 13955, Stop: 14188, Start Num: 32
Candidate Starts for Sourignavong_23:
(Start: 32 @13955 has 39 MA's), (Start: 44 @13982 has 2 MA's), (58, 14063), (62, 14150), (65, 14177),

Gene: StevieRay_32 Start: 27429, Stop: 27674, Start Num: 36
Candidate Starts for StevieRay_32:
(Start: 27 @27411 has 2 MA's), (Start: 36 @27429 has 20 MA's), (Start: 41 @27441 has 25 MA's),

Gene: StewieGriff_22 Start: 13883, Stop: 14116, Start Num: 32
Candidate Starts for StewieGriff_22:
(Start: 32 @13883 has 39 MA's), (Start: 44 @13910 has 2 MA's), (53, 13964), (55, 13970), (58, 13991),
(62, 14078),

Gene: Stratus_22 Start: 13960, Stop: 14193, Start Num: 32
Candidate Starts for Stratus_22:
(Start: 32 @13960 has 39 MA's), (Start: 44 @13987 has 2 MA's), (58, 14068), (62, 14155), (65, 14182),

Gene: StrawberryLem_19 Start: 13015, Stop: 13206, Start Num: 44
Candidate Starts for StrawberryLem_19:
(Start: 32 @12988 has 39 MA's), (Start: 44 @13015 has 2 MA's), (57, 13084),

Gene: StressBall_32 Start: 27733, Stop: 27966, Start Num: 41
Candidate Starts for StressBall_32:
(Start: 27 @27703 has 2 MA's), (Start: 36 @27721 has 20 MA's), (Start: 41 @27733 has 25 MA's),

Gene: Swenson_22 Start: 14007, Stop: 14240, Start Num: 32
Candidate Starts for Swenson_22:
(Start: 32 @14007 has 39 MA's), (Start: 44 @14034 has 2 MA's), (53, 14088), (58, 14115), (62, 14202),

Gene: Taj14_22 Start: 13882, Stop: 14115, Start Num: 32
Candidate Starts for Taj14_22:
(Start: 32 @13882 has 39 MA's), (Start: 44 @13909 has 2 MA's), (53, 13963), (58, 13990), (62, 14077),

Gene: Techage_32 Start: 27499, Stop: 27732, Start Num: 41
Candidate Starts for Techage_32:
(Start: 27 @27469 has 2 MA's), (Start: 36 @27487 has 20 MA's), (Start: 41 @27499 has 25 MA's),

Gene: Thespis_32 Start: 27457, Stop: 27702, Start Num: 36
Candidate Starts for Thespis_32:
(Start: 27 @27439 has 2 MA's), (Start: 36 @27457 has 20 MA's), (Start: 41 @27469 has 25 MA's),

Gene: TinoCrisci_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for TinoCrisci_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Toulouse_21 Start: 13649, Stop: 13882, Start Num: 32
Candidate Starts for Toulouse_21:
(Start: 32 @13649 has 39 MA's), (Start: 44 @13676 has 2 MA's), (58, 13757), (62, 13844), (65, 13871),

Gene: TymAbreu_22 Start: 13886, Stop: 14119, Start Num: 32
Candidate Starts for TymAbreu_22:
(Start: 32 @13886 has 39 MA's), (Start: 44 @13913 has 2 MA's), (58, 13994), (62, 14081), (65, 14108),

Gene: Ubuntu_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Ubuntu_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: UmaThurman_37 Start: 31748, Stop: 31954, Start Num: 37
Candidate Starts for UmaThurman_37:
(7, 31565), (14, 31640), (19, 31670), (25, 31712), (Start: 37 @31748 has 1 MA's), (Start: 43 @31760 has 15 MA's), (55, 31826), (63, 31934), (64, 31937),

Gene: Venti_32 Start: 27464, Stop: 27709, Start Num: 36
Candidate Starts for Venti_32:
(Start: 27 @27446 has 2 MA's), (Start: 36 @27464 has 20 MA's), (Start: 41 @27476 has 25 MA's),

Gene: Vidya_32 Start: 27509, Stop: 27742, Start Num: 41
Candidate Starts for Vidya_32:
(Start: 27 @27479 has 2 MA's), (Start: 36 @27497 has 20 MA's), (Start: 41 @27509 has 25 MA's),

Gene: Vinye_24 Start: 14391, Stop: 14597, Start Num: 44
Candidate Starts for Vinye_24:
(Start: 44 @14391 has 2 MA's), (62, 14562),

Gene: WST1_38 Start: 27336, Stop: 27560, Start Num: 27
Candidate Starts for WST1_38:
(Start: 27 @27336 has 2 MA's),

Gene: Webster2_50 Start: 36949, Stop: 37146, Start Num: 43
Candidate Starts for Webster2_50:
(Start: 43 @36949 has 15 MA's), (54, 37012),

Gene: Willsammy_31 Start: 27204, Stop: 27449, Start Num: 36
Candidate Starts for Willsammy_31:
(Start: 27 @27186 has 2 MA's), (Start: 36 @27204 has 20 MA's), (Start: 41 @27216 has 25 MA's),

Gene: Ximeno_19 Start: 13076, Stop: 13294, Start Num: 32
Candidate Starts for Ximeno_19:
(Start: 32 @13076 has 39 MA's), (Start: 44 @13103 has 2 MA's), (57, 13172),

Gene: Yank_22 Start: 13854, Stop: 14087, Start Num: 32
Candidate Starts for Yank_22:
(Start: 32 @13854 has 39 MA's), (Start: 44 @13881 has 2 MA's), (58, 13962), (62, 14049), (65, 14076),

Gene: ZAYM_43 Start: 32247, Stop: 32456, Start Num: 27
Candidate Starts for ZAYM_43:
(22, 32220), (Start: 27 @32247 has 2 MA's),

Gene: Zaheer_44 Start: 31390, Stop: 31605, Start Num: 38
Candidate Starts for Zaheer_44:
(Start: 38 @31390 has 11 MA's),

Gene: Zarbodnamra_42 Start: 32451, Stop: 32645, Start Num: 38
Candidate Starts for Zarbodnamra_42:
(Start: 38 @32451 has 11 MA's),

Gene: Zilizebeth_32 Start: 27496, Stop: 27741, Start Num: 36
Candidate Starts for Zilizebeth_32:
(Start: 27 @27478 has 2 MA's), (Start: 36 @27496 has 20 MA's), (Start: 41 @27508 has 25 MA's),