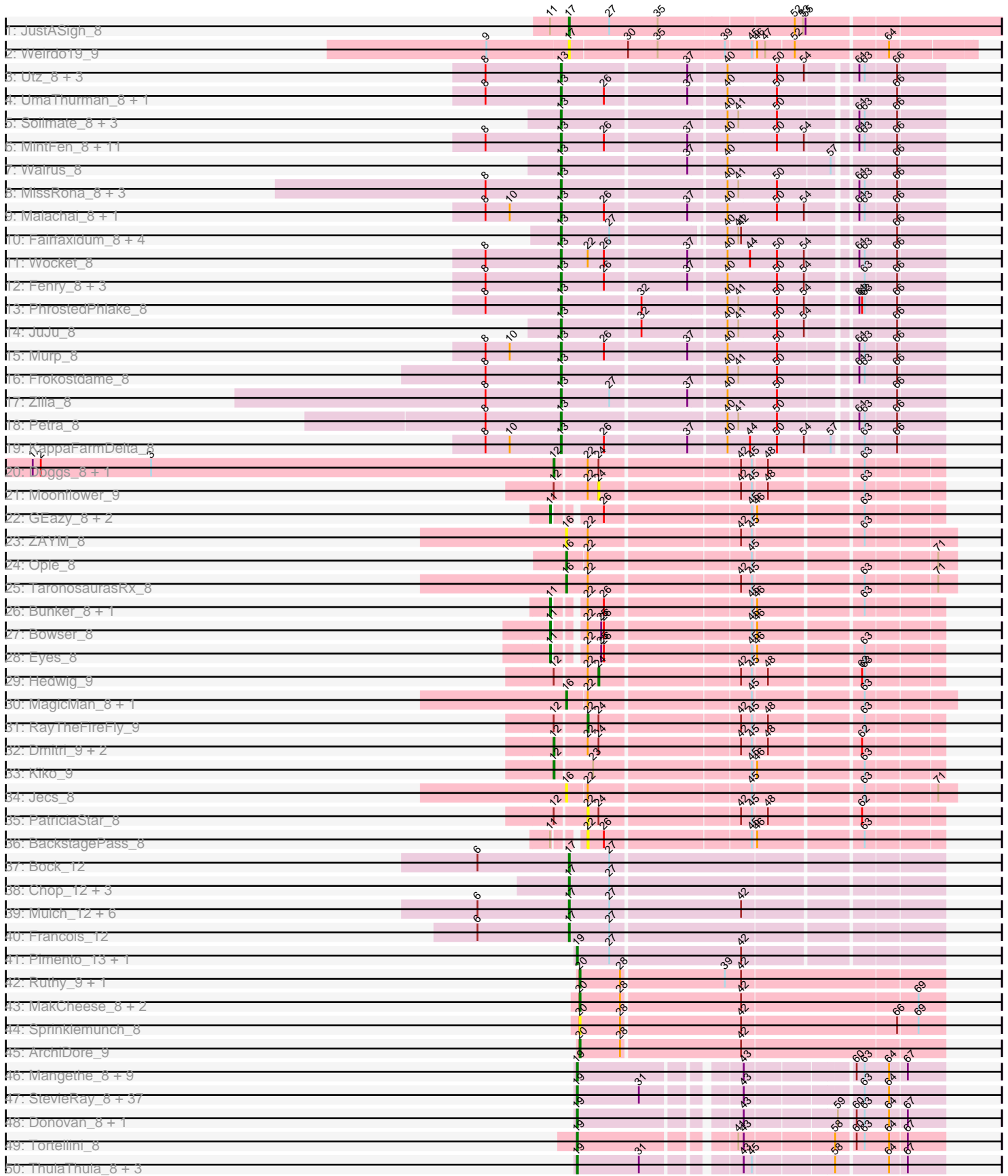
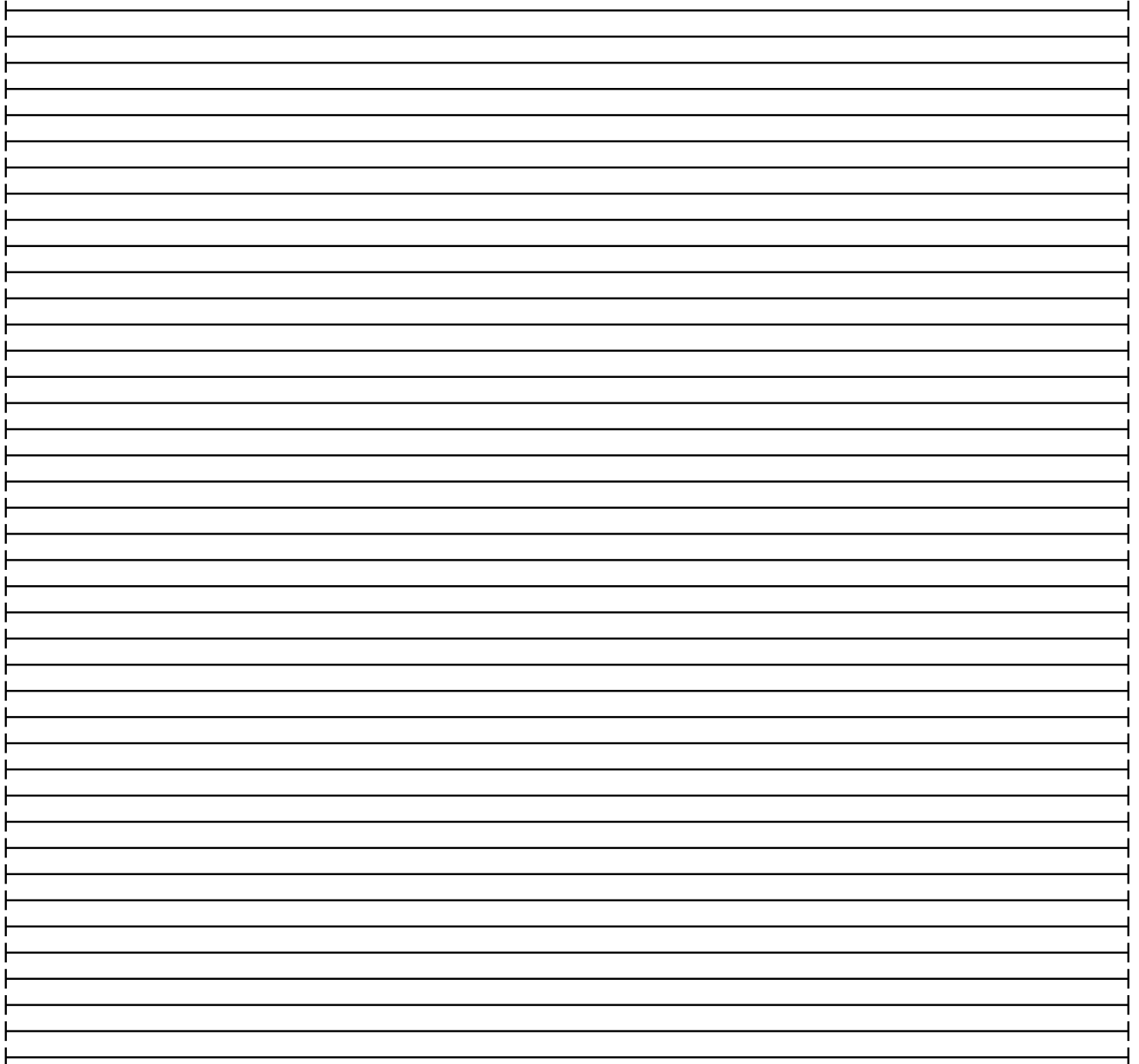
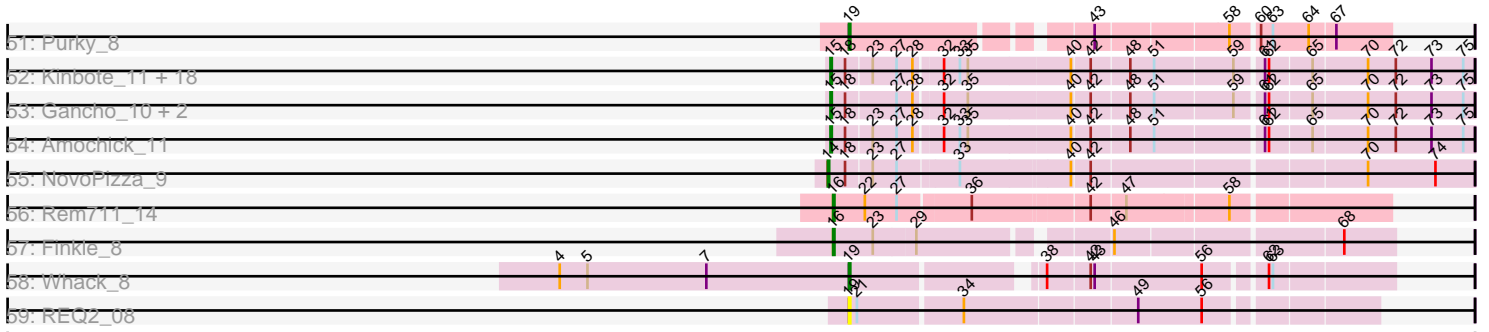


Pham 296281



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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 296281 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296281 has 178 members, 21 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_8
- Track 2 : Weirido19_9
- Track 3 : Utz_8, Lysidious_8, Wisp_8, BlingBling_8
- Track 4 : UmaThurman_8, Samba_8
- Track 5 : Soilmate_8, CarolAnn_8, CheeseSpider_8, Blino_8
- Track 6 : MintFen_8, Guacamole_8, Melba_8, Mellie_8, Barco_8, ZiggyZoo_8, JasperJr_8, Zarbodnamra_8, CaptainKirk2_8, Pipp_8, Delian_8, Obliviate_8
- Track 7 : Walrus_8
- Track 8 : MissRona_8, Azula_8, Blueberry_8, Gambino_8
- Track 9 : Malachai_8, Begonia_8
- Track 10 : Fairfaxidum_8, PCoral7_8, PrincePatrick_8, William_8, Toast_8
- Track 11 : Wocket_8
- Track 12 : Fenry_8, Jalammah_8, Archis_8, Hitter_8
- Track 13 : PhrostedPhlake_8
- Track 14 : JuJu_8
- Track 15 : Murp_8
- Track 16 : Frokostdame_8
- Track 17 : Zilla_8
- Track 18 : Petra_8
- Track 19 : KappaFarmDelta_8
- Track 20 : Doggs_8, Coriander_9
- Track 21 : Moonflower_9
- Track 22 : GEazy_8, NaLuna_8, HannahD_8
- Track 23 : ZAYM_8
- Track 24 : Opie_8
- Track 25 : TaronosaurusRx_8
- Track 26 : Bunker_8, BBQValindra_8
- Track 27 : Bowser_8
- Track 28 : Eyes_8
- Track 29 : Hedwig_9
- Track 30 : MagicMan_8, Schnabeltier_8
- Track 31 : RayTheFireFly_9
- Track 32 : Dmitri_9, Chipko_9, DirtyBoi_9
- Track 33 : Kiko_9
- Track 34 : Jecs_8
- Track 35 : PatriciaStar_8
- Track 36 : BackstagePass_8

- Track 37 : Bock_12
- Track 38 : Chop_12, Ayotoya_12, GrandSlam_12, Hamood_12
- Track 39 : Mulch_12, WheatThin_12, Nadeem_12, BetterKatz_12, Brylie_12, Parada_12, NancyRae_12
- Track 40 : Francois_12
- Track 41 : Pimento_13, DelRio_13
- Track 42 : Ruthy_9, DumpsterDude_9
- Track 43 : MakCheese_8, Zodiariah_8, Malibo_8
- Track 44 : Sprinklemunch_8
- Track 45 : ArchiDore_9
- Track 46 : Mangethe_8, Langerak_8, Majeke_8, GaloreK_8, Techage_8, Arib1_8, Phegasus_8, Juniormint_8, Jebeks_8, BronnyJr_8
- Track 47 : StevieRay_8, Phalm_8, Glaske_8, FirstPlacePfu_8, Brusacoram_8, Dynamo_8, Venti_8, Shipwreck_8, Atcoo_8, Bunnies_8, Camster_8, Polkaroo_8, Chubbello_8, Jung_8, Pygmy_8, Etoile_8, Necropolis_8, HUHilltop_8, Phineas_8, Xavia_8, Bhagsy_8, Fishburne_8, Willsammy_8, GreaseLightnin_8, Megiddo_8, StressBall_8, CactusJack_8, Bogie_8, PeanutPie_8, Zilizebeth_8, Bartholomew_8, Thespi_8, Gavriela_8, Malithi_8, Kari_8, KilKor_8, Ksqared_8, Vidya_8
- Track 48 : Donovan_8, Sonah_8
- Track 49 : Tortellini_8
- Track 50 : ThulaThula_8, BigNuz_8, Nazo_8, Phayonce_8
- Track 51 : Purky_8
- Track 52 : Kinbote_11, BloominB_11, Ein37_11, OBUpride_11, HH92_11, Luna22_11, Ubuntu_11, Evanesce_11, DeepSoil15_11, Amymech_11, Dewey_11, Webster2_11, Giles_11, Wishmaker_11, Luke_11, Hail_11, LilHazelNut_11, Hadrien_11, Forge_11
- Track 53 : Gancho_10, Daegal_12, Gravallia_11
- Track 54 : Amochick_11
- Track 55 : NovoPizza_9
- Track 56 : Rem711_14
- Track 57 : Finkle_8
- Track 58 : Whack_8
- Track 59 : REQ2_08

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

The start number called the most often in the published annotations is 19, it was called in 53 of the 157 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_8, Atcoo_8, Bartholomew_8, Bhagsy_8, BigNuz_8, Bogie_8, BronnyJr_8, Brusacoram_8, Bunnies_8, CactusJack_8, Camster_8, Chubbello_8, DelRio_13, Donovan_8, Dynamo_8, Etoile_8, FirstPlacePfu_8, Fishburne_8, GaloreK_8, Gavriela_8, Glaske_8, GreaseLightnin_8, HUHilltop_8, Jebeks_8, Jung_8, Juniormint_8, Kari_8, KilKor_8, Ksqared_8, Langerak_8, Majeke_8, Malithi_8, Mangethe_8, Megiddo_8, Nazo_8, Necropolis_8, PeanutPie_8, Phalm_8, Phayonce_8, Phegasus_8, Phineas_8, Pimento_13, Polkaroo_8, Purky_8, Pygmy_8, REQ2_08, Shipwreck_8, Sonah_8, StevieRay_8, StressBall_8, Techage_8, Thespi_8, ThulaThula_8, Tortellini_8, Venti_8, Vidya_8, Whack_8, Willsammy_8, Xavia_8, Zilizebeth_8,

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

-

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

- Amochick_11, Amymech_11, ArchiDore_9, Archis_8, Ayotoya_12, Azula_8, BBQValindra_8, BackstagePass_8, Barco_8, Begonia_8, BetterKatz_12, BlingBling_8, Blino_8, BloominB_11, Blueberry_8, Bock_12, Bowser_8, Brylie_12, Bunker_8, CaptainKirk2_8, CarolAnn_8, CheeseSpider_8, Chipko_9, Chop_12, Coriander_9, Daegal_12, DeepSoil15_11, Delian_8, Dewey_11, DirtyBoi_9, Dmitri_9, Doggs_8, DumpsterDude_9, Ein37_11, Evanesce_11, Eyes_8, Fairfaxidum_8, Fenry_8, Finkle_8, Forge_11, Francois_12, Frokostdame_8, GEazy_8, Gambino_8, Gancho_10, Giles_11, GrandSlam_12, Gravaillia_11, Guacamole_8, HH92_11, Hadrien_11, Hail_11, Hamood_12, HannahD_8, Hedwig_9, Hitter_8, Jalammah_8, JasperJr_8, Jecs_8, JuJu_8, JustASigh_8, KappaFarmDelta_8, Kiko_9, Kinbote_11, LilHazelNut_11, Luke_11, Luna22_11, Lysidious_8, MagicMan_8, MakCheese_8, Malachai_8, Malibo_8, Melba_8, Mellie_8, MintFen_8, MissRona_8, Moonflower_9, Mulch_12, Murp_8, NaLuna_8, Nadeem_12, NancyRae_12, NovoPizza_9, OBUpride_11, Obliviate_8, Opie_8, PCoral7_8, Parada_12, PatriciaStar_8, Petra_8, PhrostedPhlake_8, Pipp_8, PrincePatrick_8, RayTheFireFly_9, Rem711_14, Ruthy_9, Samba_8, Schnabeltier_8, Soilmate_8, Sprinklemunch_8, TaronosaurusRx_8, Toast_8, Ubuntu_11, UmaThurman_8, Utz_8, Walrus_8, Webster2_11, Weirdo19_9, WheatThin_12, William_8, Wishmaker_11, Wisp_8, Wocket_8, ZAYM_8, Zarbodnamra_8, ZiggyZoo_8, Zilla_8, Zodiariah_8,

Summary by start number:

Start 11:

- Found in 9 of 178 (5.1%) of genes in pham
- Manual Annotations of this start: 6 of 157
- Called 77.8% of time when present
- Phage (with cluster) where this start called: BBQValindra_8 (DB), Bowser_8 (DB), Bunker_8 (DB), Eyes_8 (DB), GEazy_8 (DB), HannahD_8 (DB), NaLuna_8 (DB),

Start 12:

- Found in 10 of 178 (5.6%) of genes in pham
- Manual Annotations of this start: 5 of 157
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Chipko_9 (DB), Coriander_9 (DB), DirtyBoi_9 (DB), Dmitri_9 (DB), Doggs_8 (DB), Kiko_9 (DB),

Start 13:

- Found in 46 of 178 (25.8%) of genes in pham
- Manual Annotations of this start: 43 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis_8 (CV), Azula_8 (CV), Barco_8 (CV), Begonia_8 (CV), BlingBling_8 (CV), Blino_8 (CV), Blueberry_8 (CV), CaptainKirk2_8 (CV), CarolAnn_8 (CV), CheeseSpider_8 (CV), Delian_8 (CV), Fairfaxidum_8 (CV), Fenry_8 (CV), Frokostdame_8 (CV), Gambino_8 (CV), Guacamole_8 (CV), Hitter_8 (CV), Jalammah_8 (CV), JasperJr_8 (CV), JuJu_8 (CV), KappaFarmDelta_8 (CV), Lysidious_8 (CV), Malachai_8 (CV), Melba_8 (CV), Mellie_8 (CV), MintFen_8 (CV), MissRona_8 (CV), Murp_8 (CV), Obliviate_8 (CV), PCoral7_8 (CV), Petra_8 (CV), PhrostedPhlake_8 (CV), Pipp_8 (CV), PrincePatrick_8

(CV), Samba_8 (CV), Soilmate_8 (CV), Toast_8 (CV), UmaThurman_8 (CV), Utz_8 (CV), Walrus_8 (CV), William_8 (CV), Wisp_8 (CV), Wocket_8 (CV), Zorbodnamra_8 (CV), ZiggyZoo_8 (CV), Zilla_8 (CV),

Start 14:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NovoPizza_9 (Q),

Start 15:

- Found in 23 of 178 (12.9%) of genes in pham
- Manual Annotations of this start: 22 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick_11 (Q), Amymech_11 (Q), BloominB_11 (Q), Daegal_12 (Q), DeepSoil15_11 (Q), Dewey_11 (Q), Ein37_11 (Q), Evanesce_11 (Q), Forge_11 (Q), Gancho_10 (Q), Giles_11 (Q), Gravaillia_11 (Q), HH92_11 (Q), Hadrien_11 (Q), Hail_11 (Q), Kinbote_11 (Q), LilHazelNut_11 (Q), Luke_11 (Q), Luna22_11 (Q), OBUpride_11 (Q), Ubuntu_11 (Q), Webster2_11 (Q), Wishmaker_11 (Q),

Start 16:

- Found in 8 of 178 (4.5%) of genes in pham
- Manual Annotations of this start: 6 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_8 (singleton), Jecs_8 (DB), MagicMan_8 (DB), Opie_8 (DB), Rem711_14 (Z), Schnabeltier_8 (DB), TaronosaurusRx_8 (DB), ZAYM_8 (DB),

Start 17:

- Found in 15 of 178 (8.4%) of genes in pham
- Manual Annotations of this start: 14 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya_12 (DI), BetterKatz_12 (DI), Bock_12 (DI), Brylie_12 (DI), Chop_12 (DI), Francois_12 (DI), GrandSlam_12 (DI), Hamood_12 (DI), JustASigh_8 (AH), Mulch_12 (DI), Nadeem_12 (DI), NancyRae_12 (DI), Parada_12 (DI), Weirido19_9 (AH), WheatThin_12 (DI),

Start 19:

- Found in 60 of 178 (33.7%) of genes in pham
- Manual Annotations of this start: 53 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1_8 (P1), Atcoo_8 (P1), Bartholomew_8 (P1), Bhagsy_8 (P1), BigNuz_8 (P4), Bogie_8 (P1), BronnyJr_8 (P1), Brusacoram_8 (P1), Bunnies_8 (P1), CactusJack_8 (P1), Camster_8 (P1), Chubbello_8 (P1), DelRio_13 (DI), Donovan_8 (P1), Dynamo_8 (P1), Etoile_8 (P1), FirstPlacePfu_8 (P1), Fishburne_8 (P1), GaloreK_8 (P1), Gavriela_8 (P1), Glaske_8 (P1), GreaseLightnin_8 (P1), HUHilltop_8 (P1), Jebeks_8 (P1), Jung_8 (P1), Juniormint_8 (P1), Kari_8 (P1), KilKor_8 (P1), Ksquard_8 (P1), Langerak_8 (P1), Majeke_8 (P1), Malithi_8 (P1), Mangethe_8 (P1), Megiddo_8 (P1), Nazo_8 (P4), Necropolis_8 (P1), PeanutPie_8 (P1), Phalm_8 (P1), Phayonce_8 (P5), Phegasus_8 (P1), Phineas_8 (P1), Pimento_13 (DI), Polkaroo_8 (P1), Purky_8 (P6), Pygmy_8 (P1), REQ2_08 (singleton), Shipwreck_8 (P1), Sonah_8 (P1), StevieRay_8 (P1),

StressBall_8 (P1), Techage_8 (P1), Thespis_8 (P1), ThulaThula_8 (P5), Tortellini_8 (P2), Venti_8 (P1), Vidya_8 (P1), Whack_8 (singleton), Willsammy_8 (P1), Xavia_8 (P3), Zilizebeth_8 (P1),

Start 20:

- Found in 7 of 178 (3.9%) of genes in pham
- Manual Annotations of this start: 5 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_9 (DW), DumpsterDude_9 (DW), MakCheese_8 (DW), Malibo_8 (DW), Ruthy_9 (DW), Sprinklemunch_8 (DW), Zodiariah_8 (DW),

Start 22:

- Found in 22 of 178 (12.4%) of genes in pham
- Manual Annotations of this start: 1 of 157
- Called 13.6% of time when present
- Phage (with cluster) where this start called: BackstagePass_8 (DB), PatriciaStar_8 (DB), RayTheFireFly_9 (DB),

Start 24:

- Found in 9 of 178 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 157
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Hedwig_9 (DB), Moonflower_9 (DB),

Summary by clusters:

There are 14 clusters represented in this pham: P2, P3, singleton, P1, P6, P4, DI, AH, P5, DB, Q, DW, Z, CV,

Info for manual annotations of cluster AH:

- Start number 17 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster CV:

- Start number 13 was manually annotated 43 times for cluster CV.

Info for manual annotations of cluster DB:

- Start number 11 was manually annotated 6 times for cluster DB.
- Start number 12 was manually annotated 5 times for cluster DB.
- Start number 16 was manually annotated 4 times for cluster DB.
- Start number 22 was manually annotated 1 time for cluster DB.
- Start number 24 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DI:

- Start number 17 was manually annotated 13 times for cluster DI.
- Start number 19 was manually annotated 2 times for cluster DI.

Info for manual annotations of cluster DW:

- Start number 20 was manually annotated 5 times for cluster DW.

Info for manual annotations of cluster P1:

- Start number 19 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 19 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 19 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 19 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 19 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 19 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

- Start number 14 was manually annotated 1 time for cluster Q.
- Start number 15 was manually annotated 22 times for cluster Q.

Info for manual annotations of cluster Z:

- Start number 16 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: Amochick_11 Start: 7977, Stop: 8429, Start Num: 15

Candidate Starts for Amochick_11:

(Start: 15 @7977 has 22 MA's), (18, 7986), (23, 8004), (27, 8022), (28, 8034), (32, 8052), (33, 8064), (35, 8070), (40, 8145), (42, 8157), (48, 8184), (51, 8202), (61, 8277), (62, 8280), (65, 8310), (70, 8349), (72, 8370), (73, 8397), (75, 8421),

Gene: Amymech_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Amymech_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: ArchiDore_9 Start: 6962, Stop: 7354, Start Num: 20

Candidate Starts for ArchiDore_9:

(Start: 20 @6962 has 5 MA's), (28, 7007), (42, 7136),

Gene: Archis_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Archis_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (63, 6876), (66, 6909),

Gene: Arib1_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Arib1_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: Atcoo_8 Start: 6580, Stop: 6942, Start Num: 19

Candidate Starts for Atcoo_8:

(Start: 19 @6580 has 53 MA's), (31, 6649), (43, 6739), (63, 6856), (64, 6883),

Gene: Ayotoya_12 Start: 8519, Stop: 8911, Start Num: 17

Candidate Starts for Ayotoya_12:

(Start: 17 @8519 has 14 MA's), (27, 8564),

Gene: Azula_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Azula_8:

(8, 6359), (Start: 13 @6443 has 43 MA's), (40, 6617), (41, 6629), (50, 6671), (61, 6746), (63, 6752), (66, 6785),

Gene: BBQValindra_8 Start: 6485, Stop: 6868, Start Num: 11

Candidate Starts for BBQValindra_8:

(Start: 11 @6485 has 6 MA's), (Start: 22 @6506 has 1 MA's), (26, 6524), (45, 6677), (46, 6680), (63, 6788),

Gene: BackstagePass_8 Start: 6483, Stop: 6845, Start Num: 22

Candidate Starts for BackstagePass_8:

(Start: 11 @6462 has 6 MA's), (Start: 22 @6483 has 1 MA's), (26, 6501), (45, 6654), (46, 6657), (63, 6765),

Gene: Barco_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Barco_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Bartholomew_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Bartholomew_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Begonia_8 Start: 6570, Stop: 6962, Start Num: 13

Candidate Starts for Begonia_8:

(8, 6486), (10, 6513), (Start: 13 @6570 has 43 MA's), (26, 6618), (37, 6705), (40, 6744), (50, 6798), (54, 6828), (61, 6873), (63, 6879), (66, 6912),

Gene: BetterKatz_12 Start: 8487, Stop: 8879, Start Num: 17

Candidate Starts for BetterKatz_12:

(6, 8385), (Start: 17 @8487 has 14 MA's), (27, 8532), (42, 8673),

Gene: Bhagsy_8 Start: 6583, Stop: 6945, Start Num: 19

Candidate Starts for Bhagsy_8:

(Start: 19 @6583 has 53 MA's), (31, 6652), (43, 6742), (63, 6859), (64, 6886),

Gene: BigNuz_8 Start: 6561, Stop: 6923, Start Num: 19

Candidate Starts for BigNuz_8:

(Start: 19 @6561 has 53 MA's), (31, 6630), (43, 6720), (45, 6729), (58, 6810), (64, 6864), (67, 6882),

Gene: BlingBling_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for BlingBling_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Blino_8 Start: 6467, Stop: 6859, Start Num: 13

Candidate Starts for Blino_8:

(Start: 13 @6467 has 43 MA's), (40, 6641), (41, 6653), (50, 6695), (61, 6770), (63, 6776), (66, 6809),

Gene: BloominB_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for BloominB_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Blueberry_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Blueberry_8:

(8, 6359), (Start: 13 @6443 has 43 MA's), (40, 6617), (41, 6629), (50, 6671), (61, 6746), (63, 6752), (66, 6785),

Gene: Bock_12 Start: 8237, Stop: 8629, Start Num: 17

Candidate Starts for Bock_12:

(6, 8135), (Start: 17 @8237 has 14 MA's), (27, 8282),

Gene: Bogie_8 Start: 6580, Stop: 6942, Start Num: 19

Candidate Starts for Bogie_8:

(Start: 19 @6580 has 53 MA's), (31, 6649), (43, 6739), (63, 6856), (64, 6883),

Gene: Bowser_8 Start: 6483, Stop: 6866, Start Num: 11

Candidate Starts for Bowser_8:

(Start: 11 @6483 has 6 MA's), (Start: 22 @6504 has 1 MA's), (25, 6519), (26, 6522), (45, 6675), (46, 6678),

Gene: BronnyJr_8 Start: 6597, Stop: 6959, Start Num: 19

Candidate Starts for BronnyJr_8:

(Start: 19 @6597 has 53 MA's), (43, 6756), (60, 6864), (63, 6873), (64, 6900), (67, 6918),

Gene: Brusacoram_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Brusacoram_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Brylie_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for Brylie_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: Bunker_8 Start: 6485, Stop: 6868, Start Num: 11

Candidate Starts for Bunker_8:

(Start: 11 @6485 has 6 MA's), (Start: 22 @6506 has 1 MA's), (26, 6524), (45, 6677), (46, 6680), (63, 6788),

Gene: Bunnies_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Bunnies_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: CactusJack_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for CactusJack_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Camster_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Camster_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: CaptainKirk2_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for CaptainKirk2_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: CarolAnn_8 Start: 6466, Stop: 6858, Start Num: 13

Candidate Starts for CarolAnn_8:

(Start: 13 @6466 has 43 MA's), (40, 6640), (41, 6652), (50, 6694), (61, 6769), (63, 6775), (66, 6808),

Gene: CheeseSpider_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for CheeseSpider_8:

(Start: 13 @6443 has 43 MA's), (40, 6617), (41, 6629), (50, 6671), (61, 6746), (63, 6752), (66, 6785),

Gene: Chipko_9 Start: 6871, Stop: 7266, Start Num: 12

Candidate Starts for Chipko_9:

(Start: 12 @6871 has 5 MA's), (Start: 22 @6904 has 1 MA's), (Start: 24 @6916 has 1 MA's), (42, 7063), (45, 7075), (48, 7090), (62, 7183),

Gene: Chop_12 Start: 8267, Stop: 8659, Start Num: 17

Candidate Starts for Chop_12:

(Start: 17 @8267 has 14 MA's), (27, 8312),

Gene: Chubbello_8 Start: 6591, Stop: 6953, Start Num: 19

Candidate Starts for Chubbello_8:

(Start: 19 @6591 has 53 MA's), (31, 6660), (43, 6750), (63, 6867), (64, 6894),

Gene: Coriander_9 Start: 6870, Stop: 7265, Start Num: 12

Candidate Starts for Coriander_9:

(1, 6291), (2, 6300), (3, 6423), (Start: 12 @6870 has 5 MA's), (Start: 22 @6903 has 1 MA's), (Start: 24 @6915 has 1 MA's), (42, 7062), (45, 7074), (48, 7089), (63, 7185),

Gene: Daegal_12 Start: 8274, Stop: 8726, Start Num: 15

Candidate Starts for Daegal_12:

(Start: 15 @8274 has 22 MA's), (18, 8283), (27, 8319), (28, 8331), (32, 8349), (35, 8367), (40, 8442), (42, 8454), (48, 8481), (51, 8499), (59, 8556), (61, 8574), (62, 8577), (65, 8607), (70, 8646), (72, 8667), (73, 8694), (75, 8718),

Gene: DeepSoil15_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for DeepSoil15_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: DelRio_13 Start: 8753, Stop: 9136, Start Num: 19

Candidate Starts for DelRio_13:

(Start: 19 @8753 has 53 MA's), (27, 8789), (42, 8930),

Gene: Delian_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Delian_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Dewey_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Dewey_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: DirtyBoi_9 Start: 6843, Stop: 7238, Start Num: 12

Candidate Starts for DirtyBoi_9:

(Start: 12 @6843 has 5 MA's), (Start: 22 @6876 has 1 MA's), (Start: 24 @6888 has 1 MA's), (42, 7035), (45, 7047), (48, 7062), (62, 7155),

Gene: Dmitri_9 Start: 6852, Stop: 7247, Start Num: 12

Candidate Starts for Dmitri_9:

(Start: 12 @6852 has 5 MA's), (Start: 22 @6885 has 1 MA's), (Start: 24 @6897 has 1 MA's), (42, 7044), (45, 7056), (48, 7071), (62, 7164),

Gene: Doggs_8 Start: 6567, Stop: 6962, Start Num: 12

Candidate Starts for Doggs_8:

(1, 5988), (2, 5997), (3, 6120), (Start: 12 @6567 has 5 MA's), (Start: 22 @6600 has 1 MA's), (Start: 24 @6612 has 1 MA's), (42, 6759), (45, 6771), (48, 6786), (63, 6882),

Gene: Donovan_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Donovan_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (59, 6846), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: DumpsterDude_9 Start: 6975, Stop: 7367, Start Num: 20

Candidate Starts for DumpsterDude_9:

(Start: 20 @6975 has 5 MA's), (28, 7020), (39, 7131), (42, 7149),

Gene: Dynamo_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Dynamo_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Ein37_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Ein37_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Etoile_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Etoile_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Evanesce_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Evanesce_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Eyes_8 Start: 6492, Stop: 6875, Start Num: 11

Candidate Starts for Eyes_8:

(Start: 11 @6492 has 6 MA's), (Start: 22 @6513 has 1 MA's), (25, 6528), (26, 6531), (45, 6684), (46, 6687), (63, 6795),

Gene: Fairfaxidum_8 Start: 6551, Stop: 6937, Start Num: 13

Candidate Starts for Fairfaxidum_8:

(Start: 13 @6551 has 43 MA's), (27, 6605), (40, 6719), (41, 6731), (42, 6734), (66, 6887),

Gene: Fenry_8 Start: 6576, Stop: 6968, Start Num: 13

Candidate Starts for Fenry_8:

(8, 6492), (Start: 13 @6576 has 43 MA's), (26, 6624), (37, 6711), (40, 6750), (50, 6804), (54, 6834), (63, 6885), (66, 6918),

Gene: Finkle_8 Start: 6251, Stop: 6634, Start Num: 16

Candidate Starts for Finkle_8:

(Start: 16 @6251 has 6 MA's), (23, 6281), (29, 6311), (46, 6437), (68, 6596),

Gene: FirstPlacePfu_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for FirstPlacePfu_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Fishburne_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Fishburne_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Forge_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Forge_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Francois_12 Start: 8248, Stop: 8640, Start Num: 17

Candidate Starts for Francois_12:

(6, 8146), (Start: 17 @8248 has 14 MA's), (27, 8293),

Gene: Frokostdame_8 Start: 6562, Stop: 6954, Start Num: 13

Candidate Starts for Frokostdame_8:

(8, 6478), (Start: 13 @6562 has 43 MA's), (40, 6736), (41, 6748), (50, 6790), (61, 6865), (63, 6871), (66, 6904),

Gene: GEazy_8 Start: 6494, Stop: 6877, Start Num: 11

Candidate Starts for GEazy_8:

(Start: 11 @6494 has 6 MA's), (26, 6533), (45, 6686), (46, 6689), (63, 6797),

Gene: GaloreK_8 Start: 6595, Stop: 6957, Start Num: 19

Candidate Starts for GaloreK_8:

(Start: 19 @6595 has 53 MA's), (43, 6754), (60, 6862), (63, 6871), (64, 6898), (67, 6916),

Gene: Gambino_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for Gambino_8:

(8, 6359), (Start: 13 @6443 has 43 MA's), (40, 6617), (41, 6629), (50, 6671), (61, 6746), (63, 6752), (66, 6785),

Gene: Gancho_10 Start: 7683, Stop: 8135, Start Num: 15

Candidate Starts for Gancho_10:

(Start: 15 @7683 has 22 MA's), (18, 7692), (27, 7728), (28, 7740), (32, 7758), (35, 7776), (40, 7851), (42, 7863), (48, 7890), (51, 7908), (59, 7965), (61, 7983), (62, 7986), (65, 8016), (70, 8055), (72, 8076), (73, 8103), (75, 8127),

Gene: Gavriela_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Gavriela_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Giles_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Giles_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Glaske_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Glaske_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: GrandSlam_12 Start: 8267, Stop: 8659, Start Num: 17

Candidate Starts for GrandSlam_12:

(Start: 17 @8267 has 14 MA's), (27, 8312),

Gene: Gravaillia_11 Start: 7716, Stop: 8168, Start Num: 15

Candidate Starts for Gravaillia_11:

(Start: 15 @7716 has 22 MA's), (18, 7725), (27, 7761), (28, 7773), (32, 7791), (35, 7809), (40, 7884), (42, 7896), (48, 7923), (51, 7941), (59, 7998), (61, 8016), (62, 8019), (65, 8049), (70, 8088), (72, 8109), (73, 8136), (75, 8160),

Gene: GreaseLightnin_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for GreaseLightnin_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Guacamole_8 Start: 6571, Stop: 6963, Start Num: 13

Candidate Starts for Guacamole_8:

(8, 6487), (Start: 13 @6571 has 43 MA's), (26, 6619), (37, 6706), (40, 6745), (50, 6799), (54, 6829), (61, 6874), (63, 6880), (66, 6913),

Gene: HH92_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for HH92_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: HUHilltop_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for HUHilltop_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Hadrien_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Hadrien_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316),

(70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Hail_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Hail_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Hamood_12 Start: 8267, Stop: 8659, Start Num: 17

Candidate Starts for Hamood_12:

(Start: 17 @8267 has 14 MA's), (27, 8312),

Gene: HannahD_8 Start: 6494, Stop: 6877, Start Num: 11

Candidate Starts for HannahD_8:

(Start: 11 @6494 has 6 MA's), (26, 6533), (45, 6686), (46, 6689), (63, 6797),

Gene: Hedwig_9 Start: 6888, Stop: 7238, Start Num: 24

Candidate Starts for Hedwig_9:

(Start: 12 @6843 has 5 MA's), (Start: 22 @6876 has 1 MA's), (Start: 24 @6888 has 1 MA's), (42, 7035), (45, 7047), (48, 7062), (62, 7155), (63, 7158),

Gene: Hitter_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Hitter_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (63, 6876), (66, 6909),

Gene: Jalammah_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Jalammah_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (63, 6876), (66, 6909),

Gene: JasperJr_8 Start: 6571, Stop: 6963, Start Num: 13

Candidate Starts for JasperJr_8:

(8, 6487), (Start: 13 @6571 has 43 MA's), (26, 6619), (37, 6706), (40, 6745), (50, 6799), (54, 6829), (61, 6874), (63, 6880), (66, 6913),

Gene: Jebeks_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Jebeks_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: Jecs_8 Start: 6817, Stop: 7212, Start Num: 16

Candidate Starts for Jecs_8:

(Start: 16 @6817 has 6 MA's), (Start: 22 @6838 has 1 MA's), (45, 7009), (63, 7120), (71, 7192),

Gene: JuJu_8 Start: 6492, Stop: 6884, Start Num: 13

Candidate Starts for JuJu_8:

(Start: 13 @6492 has 43 MA's), (32, 6576), (40, 6666), (41, 6678), (50, 6720), (54, 6750), (66, 6834),

Gene: Jung_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Jung_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Juniormint_8 Start: 6597, Stop: 6959, Start Num: 19

Candidate Starts for Juniormint_8:

(Start: 19 @6597 has 53 MA's), (43, 6756), (60, 6864), (63, 6873), (64, 6900), (67, 6918),

Gene: JustASigh_8 Start: 7097, Stop: 7558, Start Num: 17

Candidate Starts for JustASigh_8:

(Start: 11 @7076 has 6 MA's), (Start: 17 @7097 has 14 MA's), (27, 7142), (35, 7196), (52, 7340), (53, 7349), (55, 7352),

Gene: KappaFarmDelta_8 Start: 6605, Stop: 6997, Start Num: 13

Candidate Starts for KappaFarmDelta_8:

(8, 6521), (10, 6548), (Start: 13 @6605 has 43 MA's), (26, 6653), (37, 6740), (40, 6779), (44, 6803), (50, 6833), (54, 6863), (57, 6890), (63, 6914), (66, 6947),

Gene: Kari_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Kari_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Kiko_9 Start: 6686, Stop: 7078, Start Num: 12

Candidate Starts for Kiko_9:

(Start: 12 @6686 has 5 MA's), (23, 6722), (45, 6887), (46, 6890), (63, 6998),

Gene: KilKor_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for KilKor_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Kinbote_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Kinbote_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Ksquared_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Ksquared_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Langerak_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Langerak_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: LilHazelnut_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for LilHazelnut_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Luke_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Luke_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Luna22_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Luna22_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Lysidious_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Lysidious_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: MagicMan_8 Start: 6823, Stop: 7218, Start Num: 16

Candidate Starts for MagicMan_8:

(Start: 16 @6823 has 6 MA's), (Start: 22 @6844 has 1 MA's), (45, 7015), (63, 7126),

Gene: Majeke_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Majeke_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: MakCheese_8 Start: 6782, Stop: 7174, Start Num: 20

Candidate Starts for MakCheese_8:

(Start: 20 @6782 has 5 MA's), (28, 6827), (42, 6956), (69, 7145),

Gene: Malachai_8 Start: 6570, Stop: 6962, Start Num: 13

Candidate Starts for Malachai_8:

(8, 6486), (10, 6513), (Start: 13 @6570 has 43 MA's), (26, 6618), (37, 6705), (40, 6744), (50, 6798), (54, 6828), (61, 6873), (63, 6879), (66, 6912),

Gene: Malibo_8 Start: 6765, Stop: 7157, Start Num: 20

Candidate Starts for Malibo_8:

(Start: 20 @6765 has 5 MA's), (28, 6810), (42, 6939), (69, 7128),

Gene: Malithi_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Malithi_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Mangethe_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Mangethe_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: Megiddo_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Megiddo_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Melba_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Melba_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Mellie_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Mellie_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: MintFen_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for MintFen_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: MissRona_8 Start: 6443, Stop: 6835, Start Num: 13

Candidate Starts for MissRona_8:

(8, 6359), (Start: 13 @6443 has 43 MA's), (40, 6617), (41, 6629), (50, 6671), (61, 6746), (63, 6752), (66, 6785),

Gene: Moonflower_9 Start: 6920, Stop: 7270, Start Num: 24

Candidate Starts for Moonflower_9:

(Start: 12 @6875 has 5 MA's), (Start: 22 @6908 has 1 MA's), (Start: 24 @6920 has 1 MA's), (42, 7067), (45, 7079), (48, 7094), (63, 7190),

Gene: Mulch_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for Mulch_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: Murp_8 Start: 6608, Stop: 7000, Start Num: 13

Candidate Starts for Murp_8:

(8, 6524), (10, 6551), (Start: 13 @6608 has 43 MA's), (26, 6656), (37, 6743), (40, 6782), (50, 6836), (61, 6911), (63, 6917), (66, 6950),

Gene: NaLuna_8 Start: 6494, Stop: 6877, Start Num: 11

Candidate Starts for NaLuna_8:

(Start: 11 @6494 has 6 MA's), (26, 6533), (45, 6686), (46, 6689), (63, 6797),

Gene: Nadeem_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for Nadeem_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: NancyRae_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for NancyRae_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: Nazo_8 Start: 6561, Stop: 6923, Start Num: 19

Candidate Starts for Nazo_8:

(Start: 19 @6561 has 53 MA's), (31, 6630), (43, 6720), (45, 6729), (58, 6810), (64, 6864), (67, 6882),

Gene: Necropolis_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Necropolis_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: NovoPizza_9 Start: 8112, Stop: 8564, Start Num: 14

Candidate Starts for NovoPizza_9:

(Start: 14 @8112 has 1 MA's), (18, 8124), (23, 8142), (27, 8160), (33, 8202), (40, 8280), (42, 8292), (70, 8484), (74, 8535),

Gene: OBUpride_11 Start: 7977, Stop: 8429, Start Num: 15

Candidate Starts for OBUpride_11:

(Start: 15 @7977 has 22 MA's), (18, 7986), (23, 8004), (27, 8022), (28, 8034), (32, 8052), (33, 8064), (35, 8070), (40, 8145), (42, 8157), (48, 8184), (51, 8202), (59, 8259), (61, 8277), (62, 8280), (65, 8310), (70, 8349), (72, 8370), (73, 8397), (75, 8421),

Gene: Obliviate_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for Obliviate_8:

(8, 6507), (Start: 13 @6591 has 43 MA's), (26, 6639), (37, 6726), (40, 6765), (50, 6819), (54, 6849), (61, 6894), (63, 6900), (66, 6933),

Gene: Opie_8 Start: 6838, Stop: 7233, Start Num: 16

Candidate Starts for Opie_8:

(Start: 16 @6838 has 6 MA's), (Start: 22 @6859 has 1 MA's), (45, 7030), (71, 7213),

Gene: PCoral7_8 Start: 6551, Stop: 6937, Start Num: 13

Candidate Starts for PCoral7_8:

(Start: 13 @6551 has 43 MA's), (27, 6605), (40, 6719), (41, 6731), (42, 6734), (66, 6887),

Gene: Parada_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for Parada_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: PatriciaStar_8 Start: 6521, Stop: 6883, Start Num: 22

Candidate Starts for PatriciaStar_8:

(Start: 12 @6488 has 5 MA's), (Start: 22 @6521 has 1 MA's), (Start: 24 @6533 has 1 MA's), (42, 6680), (45, 6692), (48, 6707), (62, 6800),

Gene: PeanutPie_8 Start: 6583, Stop: 6945, Start Num: 19

Candidate Starts for PeanutPie_8:

(Start: 19 @6583 has 53 MA's), (31, 6652), (43, 6742), (63, 6859), (64, 6886),

Gene: Petra_8 Start: 6473, Stop: 6865, Start Num: 13

Candidate Starts for Petra_8:

(8, 6389), (Start: 13 @6473 has 43 MA's), (40, 6647), (41, 6659), (50, 6701), (61, 6776), (63, 6782), (66, 6815),

Gene: Phalm_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Phalm_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: Phayonce_8 Start: 6581, Stop: 6943, Start Num: 19

Candidate Starts for Phayonce_8:

(Start: 19 @6581 has 53 MA's), (31, 6650), (43, 6740), (45, 6749), (58, 6830), (64, 6884), (67, 6902),

Gene: Phegasus_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Phegasus_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: Phineas_8 Start: 6580, Stop: 6942, Start Num: 19

Candidate Starts for Phineas_8:

(Start: 19 @6580 has 53 MA's), (31, 6649), (43, 6739), (63, 6856), (64, 6883),

Gene: PhrostedPhlake_8 Start: 6648, Stop: 7040, Start Num: 13

Candidate Starts for PhrostedPhlake_8:

(8, 6564), (Start: 13 @6648 has 43 MA's), (32, 6732), (40, 6822), (41, 6834), (50, 6876), (54, 6906), (61, 6951), (62, 6954), (63, 6957), (66, 6990),

Gene: Pimento_13 Start: 8447, Stop: 8830, Start Num: 19

Candidate Starts for Pimento_13:

(Start: 19 @8447 has 53 MA's), (27, 8483), (42, 8624),

Gene: Pipp_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for Pipp_8:

(8, 6507), (Start: 13 @6591 has 43 MA's), (26, 6639), (37, 6726), (40, 6765), (50, 6819), (54, 6849), (61, 6894), (63, 6900), (66, 6933),

Gene: Polkaroo_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Polkaroo_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: PrincePatrick_8 Start: 6552, Stop: 6938, Start Num: 13

Candidate Starts for PrincePatrick_8:

(Start: 13 @6552 has 43 MA's), (27, 6606), (40, 6720), (41, 6732), (42, 6735), (66, 6888),

Gene: Purky_8 Start: 6597, Stop: 6959, Start Num: 19

Candidate Starts for Purky_8:

(Start: 19 @6597 has 53 MA's), (43, 6756), (58, 6846), (60, 6864), (63, 6873), (64, 6900), (67, 6918),

Gene: Pygmy_8 Start: 6580, Stop: 6942, Start Num: 19

Candidate Starts for Pygmy_8:

(Start: 19 @6580 has 53 MA's), (31, 6649), (43, 6739), (63, 6856), (64, 6883),

Gene: REQ2_08 Start: 6272, Stop: 6640, Start Num: 19

Candidate Starts for REQ2_08:

(Start: 19 @6272 has 53 MA's), (21, 6278), (34, 6353), (49, 6476), (56, 6524),

Gene: RayTheFireFly_9 Start: 6909, Stop: 7271, Start Num: 22

Candidate Starts for RayTheFireFly_9:

(Start: 12 @6876 has 5 MA's), (Start: 22 @6909 has 1 MA's), (Start: 24 @6921 has 1 MA's), (42, 7068), (45, 7080), (48, 7095), (63, 7191),

Gene: Rem711_14 Start: 9778, Stop: 10167, Start Num: 16

Candidate Starts for Rem711_14:

(Start: 16 @9778 has 6 MA's), (Start: 22 @9802 has 1 MA's), (27, 9826), (36, 9877), (42, 9958), (47, 9982), (58, 10054),

Gene: Ruthy_9 Start: 7046, Stop: 7438, Start Num: 20

Candidate Starts for Ruthy_9:

(Start: 20 @7046 has 5 MA's), (28, 7091), (39, 7202), (42, 7220),

Gene: Samba_8 Start: 6568, Stop: 6960, Start Num: 13

Candidate Starts for Samba_8:

(8, 6484), (Start: 13 @6568 has 43 MA's), (26, 6616), (37, 6703), (40, 6742), (50, 6796), (66, 6910),

Gene: Schnabeltier_8 Start: 6824, Stop: 7219, Start Num: 16

Candidate Starts for Schnabeltier_8:

(Start: 16 @6824 has 6 MA's), (Start: 22 @6845 has 1 MA's), (45, 7016), (63, 7127),

Gene: Shipwreck_8 Start: 6580, Stop: 6942, Start Num: 19

Candidate Starts for Shipwreck_8:

(Start: 19 @6580 has 53 MA's), (31, 6649), (43, 6739), (63, 6856), (64, 6883),

Gene: Soilmate_8 Start: 6466, Stop: 6858, Start Num: 13

Candidate Starts for Soilmate_8:

(Start: 13 @6466 has 43 MA's), (40, 6640), (41, 6652), (50, 6694), (61, 6769), (63, 6775), (66, 6808),

Gene: Sonah_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Sonah_8:

(Start: 19 @6594 has 53 MA's), (43, 6753), (59, 6846), (60, 6861), (63, 6870), (64, 6897), (67, 6915),

Gene: Sprinklemunch_8 Start: 6822, Stop: 7214, Start Num: 20

Candidate Starts for Sprinklemunch_8:

(Start: 20 @6822 has 5 MA's), (28, 6867), (42, 6996), (66, 7164), (69, 7185),

Gene: StevieRay_8 Start: 6583, Stop: 6945, Start Num: 19

Candidate Starts for StevieRay_8:

(Start: 19 @6583 has 53 MA's), (31, 6652), (43, 6742), (63, 6859), (64, 6886),

Gene: StressBall_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for StressBall_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: TaronosaurusRx_8 Start: 6834, Stop: 7232, Start Num: 16

Candidate Starts for TaronosaurusRx_8:

(Start: 16 @6834 has 6 MA's), (Start: 22 @6858 has 1 MA's), (42, 7017), (45, 7029), (63, 7140), (71, 7212),

Gene: Techage_8 Start: 6597, Stop: 6959, Start Num: 19

Candidate Starts for Techage_8:

(Start: 19 @6597 has 53 MA's), (43, 6756), (60, 6864), (63, 6873), (64, 6900), (67, 6918),

Gene: Thespis_8 Start: 6579, Stop: 6941, Start Num: 19

Candidate Starts for Thespis_8:

(Start: 19 @6579 has 53 MA's), (31, 6648), (43, 6738), (63, 6855), (64, 6882),

Gene: ThulaThula_8 Start: 6626, Stop: 6988, Start Num: 19

Candidate Starts for ThulaThula_8:

(Start: 19 @6626 has 53 MA's), (31, 6695), (43, 6785), (45, 6794), (58, 6875), (64, 6929), (67, 6947),

Gene: Toast_8 Start: 6551, Stop: 6937, Start Num: 13

Candidate Starts for Toast_8:

(Start: 13 @6551 has 43 MA's), (27, 6605), (40, 6719), (41, 6731), (42, 6734), (66, 6887),

Gene: Tortellini_8 Start: 6539, Stop: 6901, Start Num: 19

Candidate Starts for Tortellini_8:

(Start: 19 @6539 has 53 MA's), (41, 6692), (43, 6698), (58, 6788), (60, 6806), (63, 6815), (64, 6842), (67, 6860),

Gene: Ubuntu_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Ubuntu_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: UmaThurman_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for UmaThurman_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (26, 6615), (37, 6702), (40, 6741), (50, 6795), (66, 6909),

Gene: Utz_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Utz_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Venti_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Venti_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Vidya_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Vidya_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Walrus_8 Start: 6479, Stop: 6871, Start Num: 13

Candidate Starts for Walrus_8:

(Start: 13 @6479 has 43 MA's), (37, 6614), (40, 6653), (57, 6764), (66, 6821),

Gene: Webster2_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Webster2_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Weirido19_9 Start: 6915, Stop: 7337, Start Num: 17

Candidate Starts for Weirido19_9:

(9, 6825), (Start: 17 @6915 has 14 MA's), (30, 6978), (35, 7011), (39, 7083), (45, 7110), (46, 7113), (47, 7122), (52, 7152), (64, 7248),

Gene: Whack_8 Start: 6270, Stop: 6635, Start Num: 19

Candidate Starts for Whack_8:

(4, 6051), (5, 6072), (7, 6162), (Start: 19 @6270 has 53 MA's), (38, 6396), (42, 6426), (43, 6429), (56, 6507), (62, 6546), (63, 6549),

Gene: WheatThin_12 Start: 8234, Stop: 8626, Start Num: 17

Candidate Starts for WheatThin_12:

(6, 8132), (Start: 17 @8234 has 14 MA's), (27, 8279), (42, 8420),

Gene: William_8 Start: 6566, Stop: 6952, Start Num: 13

Candidate Starts for William_8:

(Start: 13 @6566 has 43 MA's), (27, 6620), (40, 6734), (41, 6746), (42, 6749), (66, 6902),

Gene: Willsammy_8 Start: 6582, Stop: 6944, Start Num: 19

Candidate Starts for Willsammy_8:

(Start: 19 @6582 has 53 MA's), (31, 6651), (43, 6741), (63, 6858), (64, 6885),

Gene: Wishmaker_11 Start: 7983, Stop: 8435, Start Num: 15

Candidate Starts for Wishmaker_11:

(Start: 15 @7983 has 22 MA's), (18, 7992), (23, 8010), (27, 8028), (28, 8040), (32, 8058), (33, 8070), (35, 8076), (40, 8151), (42, 8163), (48, 8190), (51, 8208), (59, 8265), (61, 8283), (62, 8286), (65, 8316), (70, 8355), (72, 8376), (73, 8403), (75, 8427),

Gene: Wisp_8 Start: 6567, Stop: 6959, Start Num: 13

Candidate Starts for Wisp_8:

(8, 6483), (Start: 13 @6567 has 43 MA's), (37, 6702), (40, 6741), (50, 6795), (54, 6825), (61, 6870), (63, 6876), (66, 6909),

Gene: Wocket_8 Start: 6632, Stop: 7024, Start Num: 13

Candidate Starts for Wocket_8:

(8, 6548), (Start: 13 @6632 has 43 MA's), (Start: 22 @6662 has 1 MA's), (26, 6680), (37, 6767), (40, 6806), (44, 6830), (50, 6860), (54, 6890), (61, 6935), (63, 6941), (66, 6974),

Gene: Xavia_8 Start: 6594, Stop: 6956, Start Num: 19

Candidate Starts for Xavia_8:

(Start: 19 @6594 has 53 MA's), (31, 6663), (43, 6753), (63, 6870), (64, 6897),

Gene: ZAYM_8 Start: 6827, Stop: 7225, Start Num: 16

Candidate Starts for ZAYM_8:

(Start: 16 @6827 has 6 MA's), (Start: 22 @6851 has 1 MA's), (42, 7010), (45, 7022), (63, 7133),

Gene: Zarbodnamra_8 Start: 6566, Stop: 6958, Start Num: 13

Candidate Starts for Zarbodnamra_8:

(8, 6482), (Start: 13 @6566 has 43 MA's), (26, 6614), (37, 6701), (40, 6740), (50, 6794), (54, 6824), (61, 6869), (63, 6875), (66, 6908),

Gene: ZiggyZoo_8 Start: 6591, Stop: 6983, Start Num: 13

Candidate Starts for ZiggyZoo_8:

(8, 6507), (Start: 13 @6591 has 43 MA's), (26, 6639), (37, 6726), (40, 6765), (50, 6819), (54, 6849), (61, 6894), (63, 6900), (66, 6933),

Gene: Zilizebeth_8 Start: 6592, Stop: 6954, Start Num: 19

Candidate Starts for Zilizebeth_8:

(Start: 19 @6592 has 53 MA's), (31, 6661), (43, 6751), (63, 6868), (64, 6895),

Gene: Zilla_8 Start: 6619, Stop: 7011, Start Num: 13

Candidate Starts for Zilla_8:

(8, 6535), (Start: 13 @6619 has 43 MA's), (27, 6673), (37, 6754), (40, 6793), (50, 6847), (66, 6961),

Gene: Zodiariah_8 Start: 6772, Stop: 7164, Start Num: 20

Candidate Starts for Zodiariah_8:

(Start: 20 @6772 has 5 MA's), (28, 6817), (42, 6946), (69, 7135),