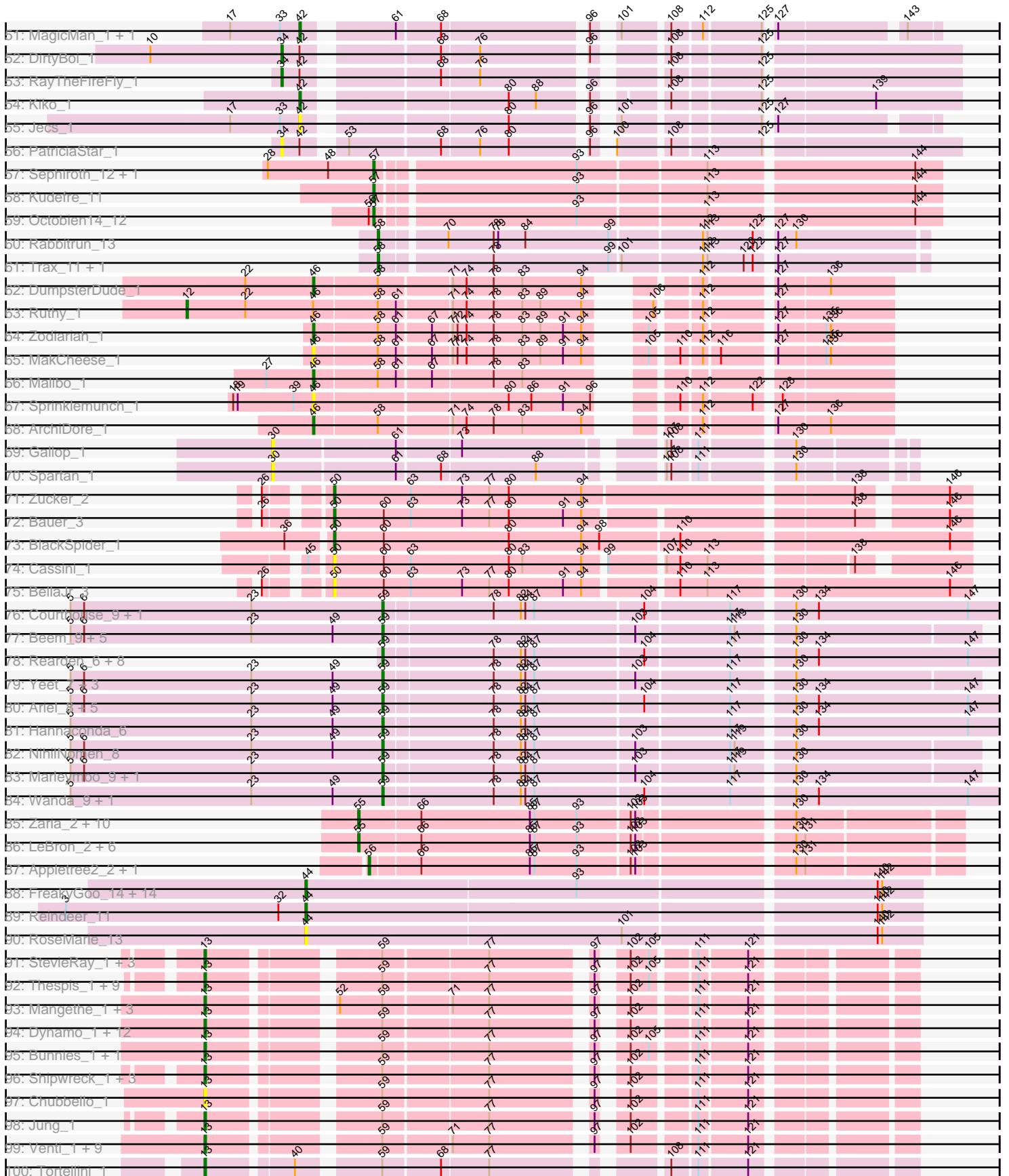
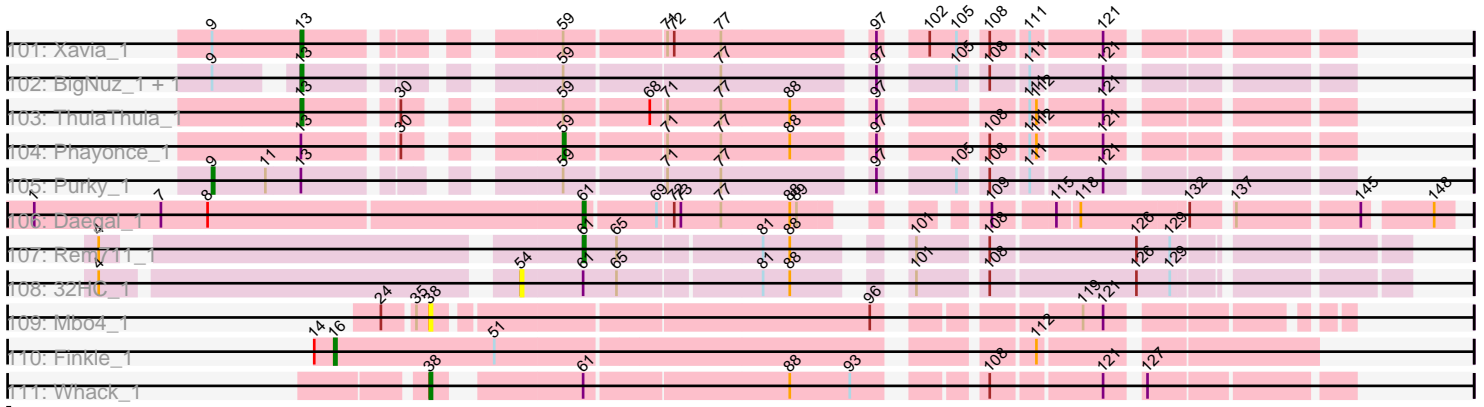


Pham 304668



Pham 304668



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 304668 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304668 has 281 members, 40 are drafts.

Phages represented in each track:

- Track 1 : Weirido19_1
- Track 2 : Utz_1
- Track 3 : William_1
- Track 4 : Obliviate_1, MintFen_1, CaptainKirk2_1, Barco_1, Lysidious_1, Archis_1, Jalammah_1, Samba_1, BlingBling_1, Hitter_1, Melba_1, Delian_1
- Track 5 : UmaThurman_1, Wocket_1, Zarbodnamra_1
- Track 6 : Soilmate_1, CarolAnn_1
- Track 7 : MissRona_1, Walrus_1, Azula_1, Blueberry_1, Petra_1, Gambino_1, Blino_1
- Track 8 : Guacamole_1, JasperJr_1
- Track 9 : Malachai_1, Begonia_1
- Track 10 : Fairfaxidum_1, PrincePatrick_1
- Track 11 : PCoral7_1, Toast_1
- Track 12 : Fenry_1
- Track 13 : PhrostedPhlake_1
- Track 14 : JuJu_1, CheeseSpider_1
- Track 15 : Mellie_1
- Track 16 : ZiggyZoo_1
- Track 17 : Wisp_1
- Track 18 : Murp_1
- Track 19 : Zilla_1
- Track 20 : Pipp_1
- Track 21 : KappaFarmDelta_1
- Track 22 : Frokostdame_1
- Track 23 : Yeet412_1, LordFarquaad_1, Cynthia_1, Clap_1, GemG_1, FroggyToad_1, Whiteclaw_1, Attis_1, Mocha12_1, Gizermo_1, SoilAssassin_1, Yinzer_1, Ebert_1, Savage_1, Matteo_1, Bjanes7_1, Sproutie_1, Haley23_1, TuertoX_1
- Track 24 : Lamberg_1, EdnaMode_1, Nettuno_1, Pickett_1
- Track 25 : Vasanti_1
- Track 26 : JCole_1
- Track 27 : Jalleen_1
- Track 28 : Sahara_1
- Track 29 : Yeezy_1, BaxterFox_1, PantheRoc_1, Ohgeesy_1
- Track 30 : Rizz_3
- Track 31 : Easley_2, Clark_2, MichaelScott_2
- Track 32 : Sekhmet_2, Invectra_2

- Track 33 : Shlim410_1, Adora_1, Howe_1, Hortense_1, Twinkle_1
- Track 34 : DobbysSock_1
- Track 35 : Suerte_1, Powerball_1, Dorito_1, PhriskyACE_1
- Track 36 : Tuti_2
- Track 37 : Dolores_2, Samman98_2, Annalisa_2, WinkNick_2
- Track 38 : Beenie_2
- Track 39 : Thimann_2
- Track 40 : Oregano_1
- Track 41 : Denise_1
- Track 42 : Sidious_1
- Track 43 : Doggs_1, Coriander_1
- Track 44 : ZAYM_1, TaronosaurusRx_1
- Track 45 : Opie_1
- Track 46 : Moonflower_1, Dmitri_1, Chipko_1
- Track 47 : GEazy_1, Bowser_1, Eyes_1, NaLuna_1, HannahD_1
- Track 48 : Bunker_1
- Track 49 : BBQValindra_1, BackstagePass_1
- Track 50 : Hedwig_1
- Track 51 : MagicMan_1, Schnabeltier_1
- Track 52 : DirtyBoi_1
- Track 53 : RayTheFireFly_1
- Track 54 : Kiko_1
- Track 55 : Jecs_1
- Track 56 : PatriciaStar_1
- Track 57 : Sephiroth_12, Syleon_12
- Track 58 : Kudrefre_11
- Track 59 : Octobien14_12
- Track 60 : Rabbitrun_13
- Track 61 : Trax_11, Neville_11
- Track 62 : DumpsterDude_1
- Track 63 : Ruthy_1
- Track 64 : Zodiariah_1
- Track 65 : MakCheese_1
- Track 66 : Malibo_1
- Track 67 : Sprinklemunch_1
- Track 68 : ArchiDore_1
- Track 69 : Gallop_1
- Track 70 : Spartan_1
- Track 71 : Zucker_2
- Track 72 : Bauer_3
- Track 73 : BlackSpider_1
- Track 74 : Cassini_1
- Track 75 : BellaJr_3
- Track 76 : Courthouse_9, Superphikiman_9
- Track 77 : Beem_9, Dallas_8, Redno2_8, Ejimix_10, JuicyJay_10, Halley_9
- Track 78 : Rearden_6, BronnyJames_5, Omega_10, Shaboozey_5, KashFlow_3, Nibley_5, Nekros_7, LittleE_8, Gonephishing_9
- Track 79 : Yeet_7, Pound_8, Schatzie_7, Hidrated_8
- Track 80 : Ariel_8, Porcelain_9, MiaZeal_9, Bobby_10, Lucky2013_9, Squint_9
- Track 81 : Hannaconda_6
- Track 82 : NihilNomen_8
- Track 83 : Marleymoo_9, Zelink_9
- Track 84 : Wanda_9, Klein_9

- Track 85 : Zaria_2, Calm_2, AvadaKedavra_2, Wamburgexpress_2, Wyatt2_2, Rose5_2, Acquire49_2, MAckerman_2, Tyson_2, Poochiewood_2, Halena_2
- Track 86 : LeBron_2, JoeDirt_2, UPIE_2, Enceladus_2, DirkDirk_2, CicholasNage_2, Silverleaf_2
- Track 87 : Appletree2_2, OhShagHennessy_2
- Track 88 : FreakyGoo_14, Auspice_13, Bricole_13, Dulcita_14, IPhone7_13, KleverKiS_13, Diminimus_14, Izel_14, Glaske16_14, Skinny_14, LilhomieP_12, PegLeg_13, TyDawg_13, Bongo_13, SlimJimmy_12
- Track 89 : Reindeer_11
- Track 90 : RoseMarie_13
- Track 91 : StevieRay_1, PeanutPie_1, Bhagsy_1, Atcoo_1
- Track 92 : Thespis_1, Brusacoram_1, Megiddo_1, Glaske_1, KilKor_1, StressBall_1, Willsammy_1, CactusJack_1, Phalm_1, Gavriela_1
- Track 93 : Mangethe_1, Majeke_1, Arib1_1, Phegasus_1
- Track 94 : Dynamo_1, Malithi_1, Fishburne_1, Camster_1, Polkaroo_1, FirstPlacePfu_1, Necropolis_1, Kari_1, GreaseLightnin_1, Etoile_1, Zilizebeth_1, Langerak_1, Vidya_1
- Track 95 : Bunnies_1, Ksquared_1
- Track 96 : Shipwreck_1, Pygmy_1, Phineas_1, Bogie_1
- Track 97 : Chubbello_1
- Track 98 : Jung_1
- Track 99 : Venti_1, Donovan_1, HUHilltop_1, GaloreK_1, Bartholomew_1, Sonah_1, Techage_1, Juniormint_1, Jebeks_1, BronnyJr_1
- Track 100 : Tortellini_1
- Track 101 : Xavia_1
- Track 102 : BigNuz_1, Nazo_1
- Track 103 : ThulaThula_1
- Track 104 : Phayonce_1
- Track 105 : Purky_1
- Track 106 : Daegal_1
- Track 107 : Rem711_1
- Track 108 : 32HC_1
- Track 109 : Mbo4_1
- Track 110 : Finkle_1
- Track 111 : Whack_1

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

The start number called the most often in the published annotations is 44, it was called in 57 of the 241 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis_1, Auspice_13, Azula_1, Barco_1, Begonia_1, BlingBling_1, Blino_1, Blueberry_1, Bongo_13, Bricole_13, CaptainKirk2_1, CarolAnn_1, CheeseSpider_1, Delian_1, Diminimus_14, Dulcita_14, Fairfaxidum_1, Fenry_1, FreakyGoo_14, Frokostdame_1, Gambino_1, Glaske16_14, Guacamole_1, Hitter_1, IPhone7_13, Izel_14, Jalammah_1, JasperJr_1, JuJu_1, KappaFarmDelta_1, KleverKiS_13, LilhomieP_12, Lysidious_1, Malachai_1, Melba_1, Mellie_1, MintFen_1, MissRona_1, Murp_1, Obliviate_1, PCoral7_1, PegLeg_13, Petra_1, PhrostedPhlake_1, Pipp_1, PrincePatrick_1, Reindeer_11, RoseMarie_13, Samba_1, Skinny_14, SlimJimmy_12,

Soilmate_1, Toast_1, TyDawg_13, UmaThurman_1, Walrus_1, William_1, Wocket_1, Zarbodnamra_1, ZiggyZoo_1, Zilla_1,

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

- Utz_1, Wisp_1,

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

- 32HC_1, Acquire49_2, Adora_1, Annalisa_2, Appletree2_2, ArchiDore_1, Arib1_1, Ariel_8, Atcoo_1, Attis_1, AvadaKedavra_2, BBQValindra_1, BackstagePass_1, Bartholomew_1, Bauer_3, BaxterFox_1, Beem_9, Beenie_2, BellaJr_3, Bhagsy_1, BigNuz_1, Bjaner7_1, BlackSpider_1, Bobby_10, Bogie_1, Bowser_1, BronnyJames_5, BronnyJr_1, Brusacoram_1, Bunker_1, Bunnies_1, CactusJack_1, Calm_2, Camster_1, Cassini_1, Chipko_1, Chubbello_1, CicholasNage_2, Clap_1, Clark_2, Coriander_1, Courthouse_9, Cynthia_1, Daegal_1, Dallas_8, Denise_1, DirkDirk_2, DirtyBoi_1, Dmitri_1, DobbysSock_1, Doggs_1, Dolores_2, Donovan_1, Dorito_1, DumpsterDude_1, Dynamo_1, Easley_2, Ebert_1, EdnaMode_1, Ejimix_10, Enceladus_2, Etoile_1, Eyes_1, Finkle_1, FirstPlacePfu_1, Fishburne_1, FroggyToad_1, GEazy_1, Gallop_1, GaloreK_1, Gavriela_1, GemG_1, Gizermo_1, Glaske_1, Gonephishing_9, GreaseLightnin_1, HUHilltop_1, Halena_2, Haley23_1, Halley_9, Hannaconda_6, HannahD_1, Hedwig_1, Hidrated_8, Hortense_1, Howe_1, Invectra_2, JCole_1, Jalleen_1, Jebeks_1, Jecs_1, JoeDirt_2, JuicyJay_10, Jung_1, Juniomint_1, Kari_1, KashFlow_3, Kiko_1, KilKor_1, Klein_9, Ksquard_1, Kudrefre_11, Lamberg_1, Langerak_1, LeBron_2, LittleE_8, LordFarquaad_1, Lucky2013_9, MAckerman_2, MagicMan_1, Majeke_1, MakCheese_1, Malibo_1, Malithi_1, Mangethe_1, Marleymoo_9, Matteo_1, Mbo4_1, Megiddo_1, MiaZeal_9, MichaelScott_2, Mocha12_1, Moonflower_1, NaLuna_1, Nazo_1, Necropolis_1, Nekros_7, Nettuno_1, Neville_11, Nibley_5, NihilNomen_8, Octobien14_12, OhShagHennessy_2, Ohgeesy_1, Omega_10, Opie_1, Oregano_1, PantheRoc_1, PatriciaStar_1, PeanutPie_1, Phalm_1, Phayonce_1, Phegasus_1, Phineas_1, PhriskyACE_1, Pickett_1, Polkaroo_1, Poochiewood_2, Porcelain_9, Pound_8, Powerball_1, Purky_1, Pygmy_1, Rabbitrun_13, RayTheFireFly_1, Rearden_6, Redno2_8, Rem711_1, Rizz_3, Rose5_2, Ruthy_1, Sahara_1, Samman98_2, Savage_1, Schatzie_7, Schnabeltier_1, Sekhmet_2, Sephiroth_12, Shaboozey_5, Shipwreck_1, Shlim410_1, Sidious_1, Silverleaf_2, SoilAssassin_1, Sonah_1, Spartan_1, Sprinklemunch_1, Sproutie_1, Squint_9, StevieRay_1, StressBall_1, Suerte_1, Superphikiman_9, Syleon_12, TaronosaurusRx_1, Techage_1, Thespis_1, Thimann_2, ThulaThula_1, Tortellini_1, Trax_11, TuertoX_1, Tuti_2, Twinkle_1, Tyson_2, UPIE_2, Vasanti_1, Venti_1, Vidya_1, Wamburggrxpress_2, Wanda_9, Weirdo19_1, Whack_1, Whiteclaw_1, Willsammy_1, WinkNick_2, Wyatt2_2, Xavia_1, Yeet412_1, Yeet_7, Yeezy_1, Yinzer_1, ZAYM_1, Zaria_2, Zelink_9, Zilizebeth_1, Zodiariah_1, Zucker_2,

Summary by start number:

Start 9:

- Found in 4 of 281 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 241
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Purky_1 (P6),

Start 12:

- Found in 1 of 281 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 241

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ruthy_1 (DW),

Start 13:

- Found in 56 of 281 (19.9%) of genes in pham
- Manual Annotations of this start: 48 of 241
- Called 96.4% of time when present
- Phage (with cluster) where this start called: Arib1_1 (P1), Atcoo_1 (P1), Bartholomew_1 (P1), Bhagsy_1 (P1), BigNuz_1 (P4), Bogie_1 (P1), BronnyJr_1 (P1), Brusacoram_1 (P1), Bunnies_1 (P1), CactusJack_1 (P1), Camster_1 (P1), Chubbello_1 (P1), Donovan_1 (P1), Dynamo_1 (P1), Etoile_1 (P1), FirstPlacePfu_1 (P1), Fishburne_1 (P1), GaloreK_1 (P1), Gavriela_1 (P1), Glaske_1 (P1), GreaseLightnin_1 (P1), HUHilltop_1 (P1), Jebeks_1 (P1), Jung_1 (P1), Juniormint_1 (P1), Kari_1 (P1), KilKor_1 (P1), Ksquared_1 (P1), Langerak_1 (P1), Majeke_1 (P1), Malithi_1 (P1), Mangethe_1 (P1), Megiddo_1 (P1), Nazo_1 (P4), Necropolis_1 (P1), PeanutPie_1 (P1), Phalm_1 (P1), Phegasus_1 (P1), Phineas_1 (P1), Polkaroo_1 (P1), Pygmy_1 (P1), Shipwreck_1 (P1), Sonah_1 (P1), StevieRay_1 (P1), StressBall_1 (P1), Techage_1 (P1), Thespis_1 (P1), ThulaThula_1 (P5), Tortellini_1 (P2), Venti_1 (P1), Vidya_1 (P1), Willsammy_1 (P1), Xavia_1 (P3), Zilizabeth_1 (P1),

Start 16:

- Found in 1 of 281 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_1 (singleton),

Start 25:

- Found in 13 of 281 (4.6%) of genes in pham
- Manual Annotations of this start: 1 of 241
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Beenie_2 (CZ4),

Start 30:

- Found in 4 of 281 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gallop_1 (ES), Spartan_1 (ES),

Start 34:

- Found in 9 of 281 (3.2%) of genes in pham
- Manual Annotations of this start: 6 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chipko_1 (DB), Coriander_1 (DB), DirtyBoi_1 (DB), Dmitri_1 (DB), Doggs_1 (DB), Hedwig_1 (DB), Moonflower_1 (DB), PatriciaStar_1 (DB), RayTheFireFly_1 (DB),

Start 37:

- Found in 8 of 281 (2.8%) of genes in pham
- Manual Annotations of this start: 6 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_1 (DB), BackstagePass_1 (DB), Bowser_1 (DB), Bunker_1 (DB), Eyes_1 (DB), GEazy_1 (DB), HannahD_1 (DB), NaLuna_1 (DB),

Start 38:

- Found in 2 of 281 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo4_1 (singleton), Whack_1 (singleton),

Start 41:

- Found in 13 of 281 (4.6%) of genes in pham
- Manual Annotations of this start: 11 of 241
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Annalisa_2 (CZ4), Clark_2 (CZ4), Dolores_2 (CZ4), Easley_2 (CZ4), Invectra_2 (CZ4), MichaelScott_2 (CZ4), Samman98_2 (CZ4), Sekhmet_2 (CZ4), Thimann_2 (CZ4), Tuti_2 (CZ4), WinkNick_2 (CZ4),

Start 42:

- Found in 16 of 281 (5.7%) of genes in pham
- Manual Annotations of this start: 5 of 241
- Called 43.8% of time when present
- Phage (with cluster) where this start called: Jecs_1 (DB), Kiko_1 (DB), MagicMan_1 (DB), Opie_1 (DB), Schnabeltier_1 (DB), TaronosaurusRx_1 (DB), ZAYM_1 (DB),

Start 43:

- Found in 43 of 281 (15.3%) of genes in pham
- Manual Annotations of this start: 40 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adora_1 (CZ4), Attis_1 (CZ2), BaxterFox_1 (CZ3), Bjanes7_1 (CZ2), Clap_1 (CZ2), Cynthia_1 (CZ2), Denise_1 (CZ5), DobbysSock_1 (CZ4), Dorito_1 (CZ4), Ebert_1 (CZ2), EdnaMode_1 (CZ2), FroggyToad_1 (CZ2), GemG_1 (CZ2), Gizermo_1 (CZ2), Haley23_1 (CZ2), Hortense_1 (CZ4), Howe_1 (CZ4), JCole_1 (CZ2), Jalleen_1 (CZ2), Lamberg_1 (CZ2), LordFarquaad_1 (CZ2), Matteo_1 (CZ2), Mocha12_1 (CZ2), Nettuno_1 (CZ2), Ohgeesy_1 (CZ), PantheRoc_1 (CZ3), PhriskyACE_1 (CZ4), Pickett_1 (CZ2), Powerball_1 (CZ4), Sahara_1 (CZ2), Savage_1 (CZ2), Shlim410_1 (CZ4), Sidious_1 (CZ7), SoilAssassin_1 (CZ2), Sproutie_1 (CZ2), Suerte_1 (CZ4), TuertoX_1 (CZ2), Twinkle_1 (CZ4), Vasanti_1 (CZ2), Whiteclaw_1 (CZ2), Yeet412_1 (CZ2), Yeezy_1 (CZ3), Yinzer_1 (CZ2),

Start 44:

- Found in 63 of 281 (22.4%) of genes in pham
- Manual Annotations of this start: 57 of 241
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Archis_1 (CV), Auspice_13 (M1), Azula_1 (CV), Barco_1 (CV), Begonia_1 (CV), BlingBling_1 (CV), Blino_1 (CV), Blueberry_1 (CV), Bongo_13 (M1), Bricole_13 (M1), CaptainKirk2_1 (CV), CarolAnn_1 (CV), CheeseSpider_1 (CV), Delian_1 (CV), Diminimus_14 (M1), Dulcita_14 (M1), Fairfaxidum_1 (CV), Fenry_1 (CV), FreakyGoo_14 (M1), Frokostdame_1 (CV), Gambino_1 (CV), Glaske16_14 (M1), Guacamole_1 (CV), Hitter_1 (CV), IPHane7_13 (M1), Izel_14 (M1), Jalammah_1 (CV), JasperJr_1 (CV), JuJu_1 (CV), KappaFarmDelta_1 (CV), KleverKiS_13 (M1), LilhomieP_12 (M1), Lysidious_1 (CV), Malachai_1 (CV), Melba_1 (CV), Mellie_1 (CV), MintFen_1 (CV),

MissRona_1 (CV), Murp_1 (CV), Obliviate_1 (CV), PCoral7_1 (CV), PegLeg_13 (M1), Petra_1 (CV), PhrostedPhlake_1 (CV), Pipp_1 (CV), PrincePatrick_1 (CV), Reindeer_11 (M1), RoseMarie_13 (M1), Samba_1 (CV), Skinny_14 (M1), SlimJimmy_12 (M1), Soilmate_1 (CV), Toast_1 (CV), TyDawg_13 (M1), UmaThurman_1 (CV), Walrus_1 (CV), William_1 (CV), Wocket_1 (CV), Zarbodnamra_1 (CV), ZiggyZoo_1 (CV), Zilla_1 (CV),

Start 46:

- Found in 7 of 281 (2.5%) of genes in pham
- Manual Annotations of this start: 4 of 241
- Called 85.7% of time when present
- Phage (with cluster) where this start called: ArchiDore_1 (DW), DumpsterDude_1 (DW), MakCheese_1 (DW), Malibo_1 (DW), Sprinklemunch_1 (DW), Zodiariah_1 (DW),

Start 50:

- Found in 5 of 281 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_3 (FN), BellaJr_3 (FN), BlackSpider_1 (FN), Cassini_1 (FN), Zucker_2 (FN),

Start 54:

- Found in 47 of 281 (16.7%) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: 32HC_1 (Z), Wisp_1 (CV),

Start 55:

- Found in 18 of 281 (6.4%) of genes in pham
- Manual Annotations of this start: 17 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_2 (L1), AvadaKedavra_2 (L1), Calm_2 (L1), CicholasNage_2 (L1), DirkDirk_2 (L1), Enceladus_2 (L1), Halena_2 (L1), JoeDirt_2 (L1), LeBron_2 (L1), MAckerman_2 (L1), Poochiewood_2 (L1), Rose5_2 (L1), Silverleaf_2 (L1), Tyson_2 (L1), UPIE_2 (L1), Wamburgrxpress_2 (L1), Wyatt2_2 (L1), Zaria_2 (L1),

Start 56:

- Found in 3 of 281 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 241
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Appletree2_2 (L1), OhShagHennessy_2 (L1),

Start 57:

- Found in 4 of 281 (1.4%) of genes in pham
- Manual Annotations of this start: 4 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_11 (DU1), Octobien14_12 (DU1), Sephiroth_12 (DU1), Syleon_12 (DU1),

Start 58:

- Found in 59 of 281 (21.0%) of genes in pham
- Manual Annotations of this start: 4 of 241
- Called 8.5% of time when present
- Phage (with cluster) where this start called: Neville_11 (DU2), Rabbitrun_13 (DU2), Trax_11 (DU2), Utz_1 (CV), Weirido19_1 (AH),

Start 59:

- Found in 122 of 281 (43.4%) of genes in pham
- Manual Annotations of this start: 26 of 241
- Called 27.9% of time when present
- Phage (with cluster) where this start called: Ariel_8 (J), Beem_9 (J), Bobby_10 (J), BronnyJames_5 (J), Courthouse_9 (J), Dallas_8 (J), Ejimix_10 (J), Gonephishing_9 (J), Halley_9 (J), Hannaconda_6 (J), Hidrated_8 (J), JuicyJay_10 (J), KashFlow_3 (J), Klein_9 (J), LittleE_8 (J), Lucky2013_9 (J), Marleymoo_9 (J), MiaZeal_9 (J), Nekros_7 (J), Nibley_5 (J), NihilNomen_8 (J), Omega_10 (J), Phayonce_1 (P5), Porcelain_9 (J), Pound_8 (J), Rearden_6 (J), Redno2_8 (J), Schatzie_7 (J), Shaboozey_5 (J), Squint_9 (J), Superphikiman_9 (J), Wanda_9 (J), Yeet_7 (J), Zelink_9 (J),

Start 61:

- Found in 19 of 281 (6.8%) of genes in pham
- Manual Annotations of this start: 2 of 241
- Called 10.5% of time when present
- Phage (with cluster) where this start called: Daegal_1 (Q), Rem711_1 (Z),

Start 64:

- Found in 19 of 281 (6.8%) of genes in pham
- Manual Annotations of this start: 1 of 241
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Oregano_1 (CZ4),

Start 73:

- Found in 50 of 281 (17.8%) of genes in pham
- No Manual Annotations of this start.
- Called 2.0% of time when present
- Phage (with cluster) where this start called: Rizz_3 (CZ4),

Summary by clusters:

There are 26 clusters represented in this pham: singleton, CZ2, CZ3, DB, CZ7, CZ4, CZ5, M1, DW, FN, DU1, DU2, P2, P3, P1, P6, P4, P5, AH, J, Q, CZ, L1, Z, CV, ES,

Info for manual annotations of cluster CV:

- Start number 44 was manually annotated 42 times for cluster CV.
- Start number 58 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ:

- Start number 43 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 43 was manually annotated 24 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 43 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 25 was manually annotated 1 time for cluster CZ4.
- Start number 41 was manually annotated 11 times for cluster CZ4.
- Start number 43 was manually annotated 10 times for cluster CZ4.
- Start number 64 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 43 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ7:

- Start number 43 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DB:

- Start number 34 was manually annotated 6 times for cluster DB.
- Start number 37 was manually annotated 6 times for cluster DB.
- Start number 42 was manually annotated 5 times for cluster DB.

Info for manual annotations of cluster DU1:

- Start number 57 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 58 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster DW:

- Start number 12 was manually annotated 1 time for cluster DW.
- Start number 46 was manually annotated 4 times for cluster DW.

Info for manual annotations of cluster FN:

- Start number 50 was manually annotated 3 times for cluster FN.

Info for manual annotations of cluster J:

- Start number 59 was manually annotated 25 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 55 was manually annotated 17 times for cluster L1.
- Start number 56 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster M1:

- Start number 44 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster P1:

- Start number 13 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 13 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 13 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 13 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 13 was manually annotated 1 time for cluster P5.
- Start number 59 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 9 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

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

Info for manual annotations of cluster Z:

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

Gene Information:

Gene: 32HC_1 Start: 209, Stop: 550, Start Num: 54

Candidate Starts for 32HC_1:

(4, 38), (54, 209), (Start: 61 @236 has 2 MA's), (65, 251), (81, 311), (88, 323), (101, 356), (108, 383), (126, 446), (129, 461),

Gene: Acquire49_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Acquire49_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Adora_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Adora_1:

(Start: 43 @14 has 40 MA's), (Start: 58 @50 has 4 MA's), (Start: 61 @62 has 2 MA's), (69, 92), (71, 95), (89, 152), (108, 215), (122, 263),

Gene: Annalisa_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Annalisa_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (72, 600), (73, 603), (122, 765),

Gene: Appletree2_2 Start: 456, Stop: 821, Start Num: 56

Candidate Starts for Appletree2_2:

(Start: 56 @456 has 2 MA's), (66, 486), (85, 558), (87, 561), (93, 588), (102, 621), (103, 624), (130, 717), (131, 723),

Gene: ArchiDore_1 Start: 127, Stop: 453, Start Num: 46

Candidate Starts for ArchiDore_1:

(Start: 46 @127 has 4 MA's), (Start: 58 @166 has 4 MA's), (71, 211), (74, 220), (78, 238), (83, 256), (94, 295), (112, 340), (127, 379), (136, 412),

Gene: Archis_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Archis_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Arib1_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Arib1_1:

(Start: 13 @55 has 48 MA's), (52, 124), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Ariel_8 Start: 2563, Stop: 2952, Start Num: 59

Candidate Starts for Ariel_8:

(5, 2356), (6, 2365), (23, 2476), (49, 2530), (Start: 59 @2563 has 26 MA's), (78, 2632), (82, 2650), (84, 2653), (87, 2659), (104, 2728), (117, 2782), (130, 2818), (134, 2833), (147, 2932),

Gene: Atcoo_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Atcoo_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (105, 286), (111, 310), (121, 340),

Gene: Attis_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Attis_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Auspice_13 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for Auspice_13:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: AvadaKedavra_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for AvadaKedavra_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Azula_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Azula_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: BBQValindra_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for BBQValindra_1:

(Start: 37 @176 has 6 MA's), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: BackstagePass_1 Start: 149, Stop: 523, Start Num: 37

Candidate Starts for BackstagePass_1:

(Start: 37 @149 has 6 MA's), (80, 275), (88, 293), (96, 320), (101, 329), (108, 356), (112, 374), (143, 488),

Gene: Barco_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Barco_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Bartholomew_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Bartholomew_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Bauer_3 Start: 1082, Stop: 1468, Start Num: 50

Candidate Starts for Bauer_3:

(26, 1049), (Start: 50 @1082 has 3 MA's), (60, 1115), (63, 1133), (73, 1166), (77, 1184), (80, 1196), (91, 1232), (94, 1244), (138, 1403), (146, 1454),

Gene: BaxterFox_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for BaxterFox_1:

(Start: 43 @14 has 40 MA's), (71, 95), (88, 149), (89, 152), (122, 263),

Gene: Beem_9 Start: 2758, Stop: 3132, Start Num: 59

Candidate Starts for Beem_9:

(5, 2551), (6, 2560), (23, 2671), (49, 2725), (Start: 59 @2758 has 26 MA's), (103, 2917), (117, 2977), (119, 2980), (130, 3013),

Gene: Beenie_2 Start: 486, Stop: 848, Start Num: 25

Candidate Starts for Beenie_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (97, 684), (122, 765),

Gene: Begonia_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Begonia_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: BellaJr_3 Start: 1081, Stop: 1479, Start Num: 50

Candidate Starts for BellaJr_3:

(26, 1048), (Start: 50 @1081 has 3 MA's), (60, 1114), (63, 1132), (73, 1165), (77, 1183), (80, 1195), (91, 1231), (94, 1243), (110, 1297), (113, 1315), (146, 1465),

Gene: Bhagsy_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Bhagsy_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (105, 286), (111, 310), (121, 340),

Gene: BigNuz_1 Start: 43, Stop: 423, Start Num: 13

Candidate Starts for BigNuz_1:

(Start: 9 @16 has 1 MA's), (Start: 13 @43 has 48 MA's), (Start: 59 @130 has 26 MA's), (77, 196), (97, 253), (105, 277), (108, 286), (111, 301), (121, 331),

Gene: Bjaner7_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Bjaner7_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: BlackSpider_1 Start: 71, Stop: 478, Start Num: 50

Candidate Starts for BlackSpider_1:

(36, 44), (Start: 50 @71 has 3 MA's), (60, 104), (80, 185), (94, 233), (98, 245), (110, 296), (146, 464),

Gene: BlingBling_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for BlingBling_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Blino_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Blino_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Blueberry_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Blueberry_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Bobby_10 Start: 3493, Stop: 3882, Start Num: 59

Candidate Starts for Bobby_10:

(5, 3286), (6, 3295), (23, 3406), (49, 3460), (Start: 59 @3493 has 26 MA's), (78, 3562), (82, 3580), (84, 3583), (87, 3589), (104, 3658), (117, 3712), (130, 3748), (134, 3763), (147, 3862),

Gene: Bogie_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Bogie_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (111, 310), (121, 340),

Gene: Bongo_13 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for Bongo_13:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: Bowser_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for Bowser_1:

(Start: 37 @176 has 6 MA's), (68, 260), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Bricole_13 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Bricole_13:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: BronnyJames_5 Start: 1913, Stop: 2302, Start Num: 59

Candidate Starts for BronnyJames_5:

(Start: 59 @1913 has 26 MA's), (78, 1982), (82, 2000), (84, 2003), (87, 2009), (104, 2078), (117, 2132), (130, 2168), (134, 2183), (147, 2282),

Gene: BronnyJr_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for BronnyJr_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Brusacoram_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Brusacoram_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Bunker_1 Start: 176, Stop: 550, Start Num: 37
Candidate Starts for Bunker_1:
(Start: 37 @176 has 6 MA's), (80, 302), (88, 320), (90, 335), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Bunnies_1 Start: 55, Stop: 444, Start Num: 13
Candidate Starts for Bunnies_1:
(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (105, 298), (111, 322), (121, 352),

Gene: CactusJack_1 Start: 42, Stop: 431, Start Num: 13
Candidate Starts for CactusJack_1:
(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Calm_2 Start: 474, Stop: 848, Start Num: 55
Candidate Starts for Calm_2:
(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Camster_1 Start: 55, Stop: 444, Start Num: 13
Candidate Starts for Camster_1:
(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: CaptainKirk2_1 Start: 56, Stop: 397, Start Num: 44
Candidate Starts for CaptainKirk2_1:
(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: CarolAnn_1 Start: 56, Stop: 391, Start Num: 44
Candidate Starts for CarolAnn_1:
(20, 14), (31, 35), (Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 58 @89 has 4 MA's), (67, 122), (68, 128), (72, 137), (75, 149), (78, 161), (90, 203), (100, 221), (101, 224), (108, 251), (112, 269), (123, 302), (127, 308),

Gene: Cassini_1 Start: 60, Stop: 443, Start Num: 50
Candidate Starts for Cassini_1:
(45, 48), (Start: 50 @60 has 3 MA's), (60, 93), (63, 111), (80, 174), (83, 183), (94, 222), (99, 234), (107, 267), (110, 276), (113, 294), (138, 378),

Gene: CheeseSpider_1 Start: 57, Stop: 392, Start Num: 44
Candidate Starts for CheeseSpider_1:
(31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Chipko_1 Start: 226, Stop: 612, Start Num: 34
Candidate Starts for Chipko_1:
(Start: 34 @226 has 6 MA's), (Start: 42 @238 has 5 MA's), (53, 256), (68, 313), (76, 337), (108, 436), (125, 490),

Gene: Chubbello_1 Start: 54, Stop: 443, Start Num: 13

Candidate Starts for Chubbello_1:

(Start: 13 @54 has 48 MA's), (Start: 59 @150 has 26 MA's), (77, 216), (97, 273), (102, 285), (111, 321), (121, 351),

Gene: CicholasNage_2 Start: 475, Stop: 849, Start Num: 55

Candidate Starts for CicholasNage_2:

(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: Clap_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Clap_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Clark_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Clark_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (97, 684), (122, 765),

Gene: Coriander_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for Coriander_1:

(Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (68, 315), (76, 339), (125, 492),

Gene: Courthouse_9 Start: 3362, Stop: 3751, Start Num: 59

Candidate Starts for Courthouse_9:

(5, 3155), (6, 3164), (23, 3275), (Start: 59 @3362 has 26 MA's), (78, 3431), (82, 3449), (84, 3452), (87, 3458), (104, 3527), (117, 3581), (130, 3617), (134, 3632), (147, 3731),

Gene: Cynthia_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Cynthia_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Daegal_1 Start: 257, Stop: 571, Start Num: 61

Candidate Starts for Daegal_1:

(1, 14), (7, 71), (8, 92), (Start: 61 @257 has 2 MA's), (69, 287), (72, 293), (73, 296), (77, 314), (88, 344), (89, 347), (109, 392), (115, 416), (118, 425), (132, 470), (137, 485), (145, 536), (148, 563),

Gene: Dallas_8 Start: 2297, Stop: 2671, Start Num: 59

Candidate Starts for Dallas_8:

(5, 2090), (6, 2099), (23, 2210), (49, 2264), (Start: 59 @2297 has 26 MA's), (103, 2456), (117, 2516), (119, 2519), (130, 2552),

Gene: Delian_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Delian_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Denise_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Denise_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (89, 152), (114, 236), (121, 260), (122, 263), (133, 293),

Gene: Diminimus_14 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Diminimus_14:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: DirkDirk_2 Start: 475, Stop: 849, Start Num: 55

Candidate Starts for DirkDirk_2:

(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: DirtyBoi_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for DirtyBoi_1:

(10, 141), (Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (68, 315), (76, 339), (96, 402), (108, 438), (125, 492),

Gene: Dmitri_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for Dmitri_1:

(Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (53, 258), (68, 315), (76, 339), (108, 438), (125, 492),

Gene: DobbysSock_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for DobbysSock_1:

(Start: 43 @14 has 40 MA's), (Start: 61 @62 has 2 MA's), (Start: 64 @71 has 1 MA's), (71, 95), (73, 101), (80, 131), (88, 149), (122, 263),

Gene: Doggs_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for Doggs_1:

(Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (68, 315), (76, 339), (125, 492),

Gene: Dolores_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Dolores_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (72, 600), (73, 603), (122, 765),

Gene: Donovan_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Donovan_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Dorito_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Dorito_1:

(Start: 43 @14 has 40 MA's), (Start: 64 @71 has 1 MA's), (71, 95), (73, 101), (122, 263),

Gene: Dulcita_14 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Dulcita_14:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: DumpsterDude_1 Start: 127, Stop: 453, Start Num: 46

Candidate Starts for DumpsterDude_1:

(22, 82), (Start: 46 @127 has 4 MA's), (Start: 58 @166 has 4 MA's), (71, 211), (74, 220), (78, 238), (83, 256), (94, 295), (112, 340), (127, 379), (136, 412),

Gene: Dynamo_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Dynamo_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Easley_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Easley_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (97, 684), (122, 765),

Gene: Ebert_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Ebert_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: EdnaMode_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for EdnaMode_1:

(Start: 43 @14 has 40 MA's), (69, 92), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Ejimix_10 Start: 3508, Stop: 3882, Start Num: 59

Candidate Starts for Ejimix_10:

(5, 3301), (6, 3310), (23, 3421), (49, 3475), (Start: 59 @3508 has 26 MA's), (103, 3667), (117, 3727), (119, 3730), (130, 3763),

Gene: Enceladus_2 Start: 475, Stop: 849, Start Num: 55

Candidate Starts for Enceladus_2:

(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: Etoile_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Etoile_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Eyes_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for Eyes_1:

(Start: 37 @176 has 6 MA's), (68, 260), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Fairfaxidum_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Fairfaxidum_1:

(Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (83, 179), (86, 185), (90, 203), (101, 224), (105, 242), (122, 299),

Gene: Fenry_1 Start: 57, Stop: 398, Start Num: 44

Candidate Starts for Fenry_1:

(Start: 44 @57 has 57 MA's), (54, 75), (Start: 58 @90 has 4 MA's), (Start: 59 @93 has 26 MA's), (68, 129), (71, 135), (72, 138), (78, 162), (90, 204), (101, 225), (108, 252), (112, 270),

Gene: Finkle_1 Start: 10, Stop: 411, Start Num: 16

Candidate Starts for Finkle_1:

(14, 1), (Start: 16 @10 has 1 MA's), (51, 82), (112, 298),

Gene: FirstPlacePfu_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for FirstPlacePfu_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Fishburne_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Fishburne_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: FreakyGoo_14 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for FreakyGoo_14:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: FroggyToad_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for FroggyToad_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Frokostdame_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Frokostdame_1:

(31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (112, 270), (123, 303), (127, 309),

Gene: GEazy_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for GEazy_1:

(Start: 37 @176 has 6 MA's), (68, 260), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Gallop_1 Start: 64, Stop: 435, Start Num: 30

Candidate Starts for Gallop_1:

(30, 64), (Start: 61 @142 has 2 MA's), (73, 181), (107, 295), (108, 298), (111, 313), (130, 367),

Gene: GaloreK_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for GaloreK_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Gambino_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Gambino_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Gavriela_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Gavriela_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: GemG_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for GemG_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Gizermo_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Gizermo_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Glaske_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Glaske_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Glaske16_14 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Glaske16_14:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: Gonephishing_9 Start: 3890, Stop: 4279, Start Num: 59

Candidate Starts for Gonephishing_9:

(Start: 59 @3890 has 26 MA's), (78, 3959), (82, 3977), (84, 3980), (87, 3986), (104, 4055), (117, 4109), (130, 4145), (134, 4160), (147, 4259),

Gene: GreaseLightnin_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for GreaseLightnin_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Guacamole_1 Start: 57, Stop: 398, Start Num: 44

Candidate Starts for Guacamole_1:

(19, 12), (Start: 44 @57 has 57 MA's), (54, 75), (Start: 58 @90 has 4 MA's), (Start: 59 @93 has 26 MA's), (71, 135), (72, 138), (78, 162), (80, 171), (101, 225), (108, 252),

Gene: HUHilltop_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for HUHilltop_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Halena_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Halena_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Haley23_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Haley23_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Halley_9 Start: 2758, Stop: 3132, Start Num: 59

Candidate Starts for Halley_9:

(5, 2551), (6, 2560), (23, 2671), (49, 2725), (Start: 59 @2758 has 26 MA's), (103, 2917), (117, 2977), (119, 2980), (130, 3013),

Gene: Hannaconda_6 Start: 2042, Stop: 2431, Start Num: 59

Candidate Starts for Hannaconda_6:

(5, 1835), (23, 1955), (49, 2009), (Start: 59 @2042 has 26 MA's), (78, 2111), (82, 2129), (84, 2132), (87, 2138), (117, 2261), (130, 2297), (134, 2312), (147, 2411),

Gene: HannahD_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for HannahD_1:

(Start: 37 @176 has 6 MA's), (68, 260), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Hedwig_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for Hedwig_1:

(Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (53, 258), (68, 315), (76, 339), (96, 402), (108, 438), (125, 492),

Gene: Hidrated_8 Start: 2813, Stop: 3187, Start Num: 59

Candidate Starts for Hidrated_8:

(5, 2606), (6, 2615), (23, 2726), (49, 2780), (Start: 59 @2813 has 26 MA's), (78, 2882), (82, 2900), (84, 2903), (87, 2909), (103, 2972), (117, 3032), (130, 3068),

Gene: Hitter_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Hitter_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Hortense_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Hortense_1:

(Start: 43 @14 has 40 MA's), (Start: 58 @50 has 4 MA's), (Start: 61 @62 has 2 MA's), (69, 92), (71, 95), (89, 152), (108, 215), (122, 263),

Gene: Howe_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Howe_1:

(Start: 43 @14 has 40 MA's), (Start: 58 @50 has 4 MA's), (Start: 61 @62 has 2 MA's), (69, 92), (71, 95), (89, 152), (108, 215), (122, 263),

Gene: IPHane7_13 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for IPHane7_13:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: Invectra_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Invectra_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (73, 603), (88, 651), (122, 765),

Gene: Izel_14 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Izel_14:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: JCole_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for JCole_1:

(Start: 43 @14 has 40 MA's), (62, 68), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Jallahmah_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Jallahmah_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Jalleen_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Jalleen_1:

(Start: 43 @14 has 40 MA's), (62, 68), (71, 95), (72, 98), (73, 101), (80, 131), (89, 152), (103, 197),

Gene: JasperJr_1 Start: 57, Stop: 398, Start Num: 44

Candidate Starts for JasperJr_1:

(19, 12), (Start: 44 @57 has 57 MA's), (54, 75), (Start: 58 @90 has 4 MA's), (Start: 59 @93 has 26 MA's), (71, 135), (72, 138), (78, 162), (80, 171), (101, 225), (108, 252),

Gene: Jebeks_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Jebeks_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Jecs_1 Start: 166, Stop: 516, Start Num: 42

Candidate Starts for Jecs_1:

(17, 121), (33, 154), (Start: 42 @166 has 5 MA's), (80, 283), (96, 328), (101, 337), (125, 418), (127, 421),

Gene: JoeDirt_2 Start: 475, Stop: 849, Start Num: 55

Candidate Starts for JoeDirt_2:

(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: JuJu_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for JuJu_1:

(31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: JuicyJay_10 Start: 3588, Stop: 3962, Start Num: 59

Candidate Starts for JuicyJay_10:

(5, 3381), (6, 3390), (23, 3501), (49, 3555), (Start: 59 @3588 has 26 MA's), (103, 3747), (117, 3807), (119, 3810), (130, 3843),

Gene: Jung_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Jung_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (111, 309), (121, 339),

Gene: Juniormint_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Juniormint_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: KappaFarmDelta_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for KappaFarmDelta_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (77, 158), (78, 161), (89, 191), (101, 224), (108, 251), (110, 257),

Gene: Kari_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Kari_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: KashFlow_3 Start: 1608, Stop: 1997, Start Num: 59

Candidate Starts for KashFlow_3:

(Start: 59 @1608 has 26 MA's), (78, 1677), (82, 1695), (84, 1698), (87, 1704), (104, 1773), (117, 1827), (130, 1863), (134, 1878), (147, 1977),

Gene: Kiko_1 Start: 64, Stop: 435, Start Num: 42

Candidate Starts for Kiko_1:

(Start: 42 @64 has 5 MA's), (80, 181), (88, 199), (96, 226), (108, 259), (125, 313), (139, 379),

Gene: KilKor_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for KilKor_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Klein_9 Start: 3342, Stop: 3731, Start Num: 59

Candidate Starts for Klein_9:

(5, 3135), (23, 3255), (49, 3309), (Start: 59 @3342 has 26 MA's), (78, 3411), (82, 3429), (84, 3432), (87, 3438), (104, 3507), (117, 3561), (130, 3597), (134, 3612), (147, 3711),

Gene: KleverKiS_13 Start: 4294, Stop: 4689, Start Num: 44

Candidate Starts for KleverKiS_13:

(Start: 44 @4294 has 57 MA's), (93, 4471), (140, 4660), (142, 4663),

Gene: Ksquared_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Ksquared_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (105, 298), (111, 322), (121, 352),

Gene: Kudfre_11 Start: 4593, Stop: 4943, Start Num: 57

Candidate Starts for Kudfre_11:

(Start: 57 @4593 has 4 MA's), (93, 4716), (113, 4797), (144, 4926),

Gene: Lamberg_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Lamberg_1:

(Start: 43 @14 has 40 MA's), (69, 92), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Langerak_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Langerak_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: LeBron_2 Start: 475, Stop: 849, Start Num: 55

Candidate Starts for LeBron_2:

(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: LilhomieP_12 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for LilhomieP_12:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: LittleE_8 Start: 2721, Stop: 3110, Start Num: 59

Candidate Starts for LittleE_8:

(Start: 59 @2721 has 26 MA's), (78, 2790), (82, 2808), (84, 2811), (87, 2817), (104, 2886), (117, 2940), (130, 2976), (134, 2991), (147, 3090),

Gene: LordFarquaad_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for LordFarquaad_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Lucky2013_9 Start: 3112, Stop: 3501, Start Num: 59

Candidate Starts for Lucky2013_9:

(5, 2905), (6, 2914), (23, 3025), (49, 3079), (Start: 59 @3112 has 26 MA's), (78, 3181), (82, 3199), (84, 3202), (87, 3208), (104, 3277), (117, 3331), (130, 3367), (134, 3382), (147, 3481),

Gene: Lysidious_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Lysidious_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: MAckerman_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for MAckerman_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: MagicMan_1 Start: 166, Stop: 516, Start Num: 42

Candidate Starts for MagicMan_1:

(17, 121), (33, 154), (Start: 42 @166 has 5 MA's), (Start: 61 @214 has 2 MA's), (68, 241), (96, 328), (101, 337), (108, 364), (112, 382), (125, 418), (127, 421), (143, 496),

Gene: Majeke_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Majeke_1:

(Start: 13 @55 has 48 MA's), (52, 124), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: MakCheese_1 Start: 127, Stop: 453, Start Num: 46

Candidate Starts for MakCheese_1:

(Start: 46 @127 has 4 MA's), (Start: 58 @166 has 4 MA's), (Start: 61 @178 has 2 MA's), (67, 199), (71, 211), (72, 214), (74, 220), (78, 238), (83, 256), (89, 268), (91, 283), (94, 295), (105, 313), (110, 328), (112, 340), (116, 349), (127, 379), (135, 409), (136, 412),

Gene: Malachai_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Malachai_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Malibo_1 Start: 127, Stop: 453, Start Num: 46

Candidate Starts for Malibo_1:

(27, 97), (Start: 46 @127 has 4 MA's), (Start: 58 @166 has 4 MA's), (Start: 61 @178 has 2 MA's), (67, 199), (78, 238), (83, 256),

Gene: Malithi_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Malithi_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Mangethe_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Mangethe_1:

(Start: 13 @55 has 48 MA's), (52, 124), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Marleymoo_9 Start: 3358, Stop: 3732, Start Num: 59

Candidate Starts for Marleymoo_9:

(5, 3151), (6, 3160), (23, 3271), (Start: 59 @3358 has 26 MA's), (78, 3427), (82, 3445), (84, 3448), (87, 3454), (103, 3517), (117, 3577), (119, 3580), (130, 3613),

Gene: Matteo_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Matteo_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Mbo4_1 Start: 117, Stop: 464, Start Num: 38

Candidate Starts for Mbo4_1:

(24, 99), (35, 111), (Start: 38 @117 has 1 MA's), (96, 300), (119, 369), (121, 378),

Gene: Megiddo_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Megiddo_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Melba_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Melba_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Mellie_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Mellie_1:

(29, 32), (Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: MiaZeal_9 Start: 3181, Stop: 3570, Start Num: 59

Candidate Starts for MiaZeal_9:

(5, 2974), (6, 2983), (23, 3094), (49, 3148), (Start: 59 @3181 has 26 MA's), (78, 3250), (82, 3268), (84, 3271), (87, 3277), (104, 3346), (117, 3400), (130, 3436), (134, 3451), (147, 3550),

Gene: MichaelScott_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for MichaelScott_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (97, 684), (122, 765),

Gene: MintFen_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for MintFen_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: MissRona_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for MissRona_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Mocha12_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Mocha12_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Moonflower_1 Start: 227, Stop: 613, Start Num: 34

Candidate Starts for Moonflower_1:

(Start: 34 @227 has 6 MA's), (Start: 42 @239 has 5 MA's), (53, 257), (68, 314), (76, 338), (108, 437), (125, 491),

Gene: Murp_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Murp_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (78, 161), (89, 191), (101, 224), (108, 251), (110, 257),

Gene: NaLuna_1 Start: 176, Stop: 550, Start Num: 37

Candidate Starts for NaLuna_1:

(Start: 37 @176 has 6 MA's), (68, 260), (80, 302), (88, 320), (96, 347), (101, 356), (108, 383), (112, 401), (143, 515),

Gene: Nazo_1 Start: 43, Stop: 423, Start Num: 13

Candidate Starts for Nazo_1:

(Start: 9 @16 has 1 MA's), (Start: 13 @43 has 48 MA's), (Start: 59 @130 has 26 MA's), (77, 196), (97, 253), (105, 277), (108, 286), (111, 301), (121, 331),

Gene: Necropolis_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Necropolis_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Nekros_7 Start: 3229, Stop: 3618, Start Num: 59

Candidate Starts for Nekros_7:

(Start: 59 @3229 has 26 MA's), (78, 3298), (82, 3316), (84, 3319), (87, 3325), (104, 3394), (117, 3448), (130, 3484), (134, 3499), (147, 3598),

Gene: Nettuno_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Nettuno_1:

(Start: 43 @14 has 40 MA's), (69, 92), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Neville_11 Start: 4473, Stop: 4811, Start Num: 58

Candidate Starts for Neville_11:

(Start: 58 @4473 has 4 MA's), (78, 4542), (99, 4617), (101, 4623), (112, 4674), (113, 4677), (120, 4701), (122, 4707), (127, 4716),

Gene: Nibley_5 Start: 1913, Stop: 2302, Start Num: 59

Candidate Starts for Nibley_5:

(Start: 59 @1913 has 26 MA's), (78, 1982), (82, 2000), (84, 2003), (87, 2009), (104, 2078), (117, 2132), (130, 2168), (134, 2183), (147, 2282),

Gene: NihilNomen_8 Start: 2817, Stop: 3191, Start Num: 59

Candidate Starts for NihilNomen_8:

(5, 2610), (6, 2619), (23, 2730), (49, 2784), (Start: 59 @2817 has 26 MA's), (78, 2886), (82, 2904), (84, 2907), (87, 2913), (103, 2976), (117, 3036), (119, 3039), (130, 3072),

Gene: Obliviate_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Obliviate_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Octobien14_12 Start: 5664, Stop: 6014, Start Num: 57

Candidate Starts for Octobien14_12:

(Start: 56 @5661 has 2 MA's), (Start: 57 @5664 has 4 MA's), (93, 5787), (113, 5868), (144, 5997),

Gene: OhShagHennessy_2 Start: 456, Stop: 821, Start Num: 56

Candidate Starts for OhShagHennessy_2:

(Start: 56 @456 has 2 MA's), (66, 486), (85, 558), (87, 561), (93, 588), (102, 621), (103, 624), (130, 717), (131, 723),

Gene: Ohgeesy_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Ohgeesy_1:

(Start: 43 @14 has 40 MA's), (71, 95), (88, 149), (89, 152), (122, 263),

Gene: Omega_10 Start: 4066, Stop: 4455, Start Num: 59

Candidate Starts for Omega_10:

(Start: 59 @4066 has 26 MA's), (78, 4135), (82, 4153), (84, 4156), (87, 4162), (104, 4231), (117, 4285), (130, 4321), (134, 4336), (147, 4435),

Gene: Opie_1 Start: 166, Stop: 516, Start Num: 42

Candidate Starts for Opie_1:

(Start: 42 @166 has 5 MA's), (Start: 61 @214 has 2 MA's), (68, 241), (96, 328), (101, 337), (108, 364), (125, 418), (127, 421), (143, 496),

Gene: Oregano_1 Start: 101, Stop: 376, Start Num: 64

Candidate Starts for Oregano_1:

(Start: 64 @101 has 1 MA's), (71, 125), (73, 131), (122, 293),

Gene: PCoral7_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for PCoral7_1:

(Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (86, 185), (90, 203), (101, 224), (105, 242), (122, 299),

Gene: PantheRoc_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for PantheRoc_1:

(Start: 43 @14 has 40 MA's), (71, 95), (88, 149), (89, 152), (122, 263),

Gene: PatriciaStar_1 Start: 226, Stop: 612, Start Num: 34

Candidate Starts for PatriciaStar_1:

(Start: 34 @226 has 6 MA's), (Start: 42 @238 has 5 MA's), (53, 256), (68, 313), (76, 337), (80, 355), (96, 400), (100, 406), (108, 436), (125, 490),

Gene: PeanutPie_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for PeanutPie_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (105, 286), (111, 310), (121, 340),

Gene: PegLeg_13 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for PegLeg_13:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: Petra_1 Start: 57, Stop: 392, Start Num: 44

Candidate Starts for Petra_1:

(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Phalm_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Phalm_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Phayonce_1 Start: 139, Stop: 432, Start Num: 59

Candidate Starts for Phayonce_1:

(Start: 13 @55 has 48 MA's), (30, 91), (Start: 59 @139 has 26 MA's), (71, 181), (77, 205), (88, 235), (97, 262), (108, 295), (111, 310), (112, 313), (121, 340),

Gene: Phegasus_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Phegasus_1:

(Start: 13 @55 has 48 MA's), (52, 124), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Phineas_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Phineas_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (111, 310), (121, 340),

Gene: PhriskyACE_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for PhriskyACE_1:

(Start: 43 @14 has 40 MA's), (Start: 64 @71 has 1 MA's), (71, 95), (73, 101), (122, 263),

Gene: PhrostedPhlake_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for PhrostedPhlake_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (78, 161), (90, 203), (101, 224), (108, 251),

Gene: Pickett_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Pickett_1:

(Start: 43 @14 has 40 MA's), (69, 92), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Pipp_1 Start: 55, Stop: 396, Start Num: 44

Candidate Starts for Pipp_1:

(15, 1), (Start: 44 @55 has 57 MA's), (54, 73), (Start: 58 @88 has 4 MA's), (Start: 59 @91 has 26 MA's), (68, 127), (71, 133), (72, 136), (78, 160), (90, 202), (101, 223), (108, 250),

Gene: Polkaroo_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Polkaroo_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Pochiewood_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Pochiewood_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Porcelain_9 Start: 3181, Stop: 3570, Start Num: 59

Candidate Starts for Porcelain_9:

(5, 2974), (6, 2983), (23, 3094), (49, 3148), (Start: 59 @3181 has 26 MA's), (78, 3250), (82, 3268), (84, 3271), (87, 3277), (104, 3346), (117, 3400), (130, 3436), (134, 3451), (147, 3550),

Gene: Pound_8 Start: 2813, Stop: 3187, Start Num: 59

Candidate Starts for Pound_8:

(5, 2606), (6, 2615), (23, 2726), (49, 2780), (Start: 59 @2813 has 26 MA's), (78, 2882), (82, 2900), (84, 2903), (87, 2909), (103, 2972), (117, 3032), (130, 3068),

Gene: Powerball_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Powerball_1:

(Start: 43 @14 has 40 MA's), (Start: 64 @71 has 1 MA's), (71, 95), (73, 101), (122, 263),

Gene: PrincePatrick_1 Start: 57, Stop: 398, Start Num: 44

Candidate Starts for PrincePatrick_1:

(Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (Start: 59 @93 has 26 MA's), (71, 135), (72, 138), (83, 180), (86, 186), (90, 204), (101, 225), (105, 243), (122, 300),

Gene: Purky_1 Start: 16, Stop: 432, Start Num: 9

Candidate Starts for Purky_1:

(Start: 9 @16 has 1 MA's), (11, 40), (Start: 13 @55 has 48 MA's), (Start: 59 @139 has 26 MA's), (71, 181), (77, 205), (97, 262), (105, 286), (108, 295), (111, 310), (121, 340),

Gene: Pygmy_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Pygmy_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (111, 310), (121, 340),

Gene: Rabbitrun_13 Start: 4987, Stop: 5325, Start Num: 58

Candidate Starts for Rabbitrun_13:

(Start: 58 @4987 has 4 MA's), (70, 5026), (78, 5056), (79, 5059), (84, 5077), (99, 5131), (112, 5188), (113, 5191), (122, 5221), (127, 5230), (130, 5242),

Gene: RayTheFireFly_1 Start: 228, Stop: 614, Start Num: 34

Candidate Starts for RayTheFireFly_1:

(Start: 34 @228 has 6 MA's), (Start: 42 @240 has 5 MA's), (68, 315), (76, 339), (108, 438), (125, 492),

Gene: Rearden_6 Start: 1991, Stop: 2380, Start Num: 59

Candidate Starts for Rearden_6:

(Start: 59 @1991 has 26 MA's), (78, 2060), (82, 2078), (84, 2081), (87, 2087), (104, 2156), (117, 2210), (130, 2246), (134, 2261), (147, 2360),

Gene: Redno2_8 Start: 2528, Stop: 2902, Start Num: 59

Candidate Starts for Redno2_8:

(5, 2321), (6, 2330), (23, 2441), (49, 2495), (Start: 59 @2528 has 26 MA's), (103, 2687), (117, 2747), (119, 2750), (130, 2783),

Gene: Reindeer_11 Start: 4169, Stop: 4564, Start Num: 44

Candidate Starts for Reindeer_11:

(3, 4010), (32, 4151), (Start: 44 @4169 has 57 MA's), (140, 4535), (142, 4538),

Gene: Rem711_1 Start: 226, Stop: 540, Start Num: 61

Candidate Starts for Rem711_1:

(4, 37), (Start: 61 @226 has 2 MA's), (65, 241), (81, 301), (88, 313), (101, 346), (108, 373), (126, 436), (129, 451),

Gene: Rizz_3 Start: 603, Stop: 848, Start Num: 73

Candidate Starts for Rizz_3:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (88, 651), (97, 684), (122, 765),

Gene: Rose5_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Rose5_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: RoseMarie_13 Start: 4545, Stop: 4940, Start Num: 44

Candidate Starts for RoseMarie_13:

(Start: 44 @4545 has 57 MA's), (101, 4752), (140, 4911), (142, 4914),

Gene: Ruthy_1 Start: 43, Stop: 453, Start Num: 12

Candidate Starts for Ruthy_1:

(Start: 12 @43 has 1 MA's), (22, 82), (Start: 46 @127 has 4 MA's), (Start: 58 @166 has 4 MA's), (Start: 61 @178 has 2 MA's), (71, 211), (74, 220), (78, 238), (83, 256), (89, 268), (94, 295), (106, 316), (112, 340), (127, 379),

Gene: Sahara_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Sahara_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152), (97, 182), (103, 197), (108, 215),

Gene: Samba_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Samba_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Samman98_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Samman98_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (72, 600), (73, 603), (122, 765),

Gene: Savage_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Savage_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Schatzie_7 Start: 2067, Stop: 2441, Start Num: 59

Candidate Starts for Schatzie_7:

(5, 1860), (6, 1869), (23, 1980), (49, 2034), (Start: 59 @2067 has 26 MA's), (78, 2136), (82, 2154), (84, 2157), (87, 2163), (103, 2226), (117, 2286), (130, 2322),

Gene: Schnabeltier_1 Start: 167, Stop: 517, Start Num: 42

Candidate Starts for Schnabeltier_1:

(17, 122), (33, 155), (Start: 42 @167 has 5 MA's), (Start: 61 @215 has 2 MA's), (68, 242), (96, 329), (101, 338), (108, 365), (112, 383), (125, 419), (127, 422), (143, 497),

Gene: Sekhmet_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Sekhmet_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (73, 603), (88, 651), (122, 765),

Gene: Sephiroth_12 Start: 4764, Stop: 5114, Start Num: 57

Candidate Starts for Sephiroth_12:

(28, 4695), (48, 4734), (Start: 57 @4764 has 4 MA's), (93, 4887), (113, 4968), (144, 5097),

Gene: Shaboozey_5 Start: 1913, Stop: 2302, Start Num: 59

Candidate Starts for Shaboozey_5:

(Start: 59 @1913 has 26 MA's), (78, 1982), (82, 2000), (84, 2003), (87, 2009), (104, 2078), (117, 2132), (130, 2168), (134, 2183), (147, 2282),

Gene: Shipwreck_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Shipwreck_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (111, 310), (121, 340),

Gene: Shlim410_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Shlim410_1:

(Start: 43 @14 has 40 MA's), (Start: 58 @50 has 4 MA's), (Start: 61 @62 has 2 MA's), (69, 92), (71, 95), (89, 152), (108, 215), (122, 263),

Gene: Sidious_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Sidious_1:

(Start: 43 @14 has 40 MA's), (71, 95), (89, 152), (95, 176), (103, 197), (122, 263),

Gene: Silverleaf_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Silverleaf_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744), (131, 750),

Gene: Skinny_14 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for Skinny_14:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: SlimJimmy_12 Start: 4297, Stop: 4692, Start Num: 44

Candidate Starts for SlimJimmy_12:

(Start: 44 @4297 has 57 MA's), (93, 4474), (140, 4663), (142, 4666),

Gene: SoilAssassin_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for SoilAssassin_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Soilmate_1 Start: 56, Stop: 391, Start Num: 44

Candidate Starts for Soilmate_1:

(20, 14), (31, 35), (Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 58 @89 has 4 MA's), (67, 122), (68, 128), (72, 137), (75, 149), (78, 161), (90, 203), (100, 221), (101, 224), (108, 251), (112, 269), (123, 302), (127, 308),

Gene: Sonah_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Sonah_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Spartan_1 Start: 64, Stop: 435, Start Num: 30

Candidate Starts for Spartan_1:

(30, 64), (Start: 61 @142 has 2 MA's), (68, 169), (88, 229), (107, 295), (108, 298), (111, 313), (130, 367),

Gene: Sprinklemunch_1 Start: 125, Stop: 451, Start Num: 46

Candidate Starts for Sprinklemunch_1:

(18, 74), (19, 77), (39, 113), (Start: 46 @125 has 4 MA's), (80, 245), (86, 260), (91, 281), (96, 299), (110, 326), (112, 338), (122, 368), (128, 380),

Gene: Sproutie_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Sproutie_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Squint_9 Start: 3112, Stop: 3501, Start Num: 59

Candidate Starts for Squint_9:

(5, 2905), (6, 2914), (23, 3025), (49, 3079), (Start: 59 @3112 has 26 MA's), (78, 3181), (82, 3199), (84, 3202), (87, 3208), (104, 3277), (117, 3331), (130, 3367), (134, 3382), (147, 3481),

Gene: StevieRay_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for StevieRay_1:

(Start: 13 @43 has 48 MA's), (Start: 59 @139 has 26 MA's), (77, 205), (97, 262), (102, 274), (105, 286), (111, 310), (121, 340),

Gene: StressBall_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for StressBall_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Suerte_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Suerte_1:

(Start: 43 @14 has 40 MA's), (Start: 64 @71 has 1 MA's), (71, 95), (73, 101), (122, 263),

Gene: Superphikiman_9 Start: 3362, Stop: 3751, Start Num: 59

Candidate Starts for Superphikiman_9:

(5, 3155), (6, 3164), (23, 3275), (Start: 59 @3362 has 26 MA's), (78, 3431), (82, 3449), (84, 3452), (87, 3458), (104, 3527), (117, 3581), (130, 3617), (134, 3632), (147, 3731),

Gene: Syleon_12 Start: 4686, Stop: 5036, Start Num: 57

Candidate Starts for Syleon_12:

(28, 4617), (48, 4656), (Start: 57 @4686 has 4 MA's), (93, 4809), (113, 4890), (144, 5019),

Gene: TaronosaurusRx_1 Start: 167, Stop: 517, Start Num: 42

Candidate Starts for TaronosaurusRx_1:

(17, 122), (33, 155), (Start: 42 @167 has 5 MA's), (68, 242), (96, 329), (101, 338), (108, 365), (112, 383), (125, 419), (127, 422), (143, 497),

Gene: Techage_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Techage_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Thespis_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Thespis_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: Thimann_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Thimann_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (73, 603), (80, 633), (122, 765),

Gene: ThulaThula_1 Start: 55, Stop: 432, Start Num: 13

Candidate Starts for ThulaThula_1:

(Start: 13 @55 has 48 MA's), (30, 91), (Start: 59 @139 has 26 MA's), (68, 175), (71, 181), (77, 205), (88, 235), (97, 262), (111, 310), (112, 313), (121, 340),

Gene: Toast_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Toast_1:

(Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (86, 185), (90, 203), (101, 224), (105, 242), (122, 299),

Gene: Tortellini_1 Start: 43, Stop: 432, Start Num: 13

Candidate Starts for Tortellini_1:

(Start: 13 @43 has 48 MA's), (40, 94), (Start: 59 @139 has 26 MA's), (68, 175), (77, 205), (108, 295), (111, 310), (121, 340),

Gene: Trax_11 Start: 4473, Stop: 4811, Start Num: 58

Candidate Starts for Trax_11:

(Start: 58 @4473 has 4 MA's), (78, 4542), (99, 4617), (101, 4623), (112, 4674), (113, 4677), (120, 4701), (122, 4707), (127, 4716),

Gene: TuertoX_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for TuertoX_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Tuti_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for Tuti_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (68, 591), (71, 597), (73, 603), (77, 621), (80, 633), (97, 684), (108, 717), (122, 765),

Gene: Twinkle_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Twinkle_1:

(Start: 43 @14 has 40 MA's), (Start: 58 @50 has 4 MA's), (Start: 61 @62 has 2 MA's), (69, 92), (71, 95), (89, 152), (108, 215), (122, 263),

Gene: TyDawg_13 Start: 4298, Stop: 4693, Start Num: 44

Candidate Starts for TyDawg_13:

(Start: 44 @4298 has 57 MA's), (93, 4475), (140, 4664), (142, 4667),

Gene: Tyson_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Tyson_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: UPIE_2 Start: 475, Stop: 849, Start Num: 55
Candidate Starts for UPIE_2:
(Start: 55 @475 has 17 MA's), (66, 514), (85, 586), (87, 589), (93, 616), (102, 649), (103, 652), (130, 745), (131, 751),

Gene: UmaThurman_1 Start: 56, Stop: 397, Start Num: 44
Candidate Starts for UmaThurman_1:
(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (90, 203), (101, 224), (108, 251),

Gene: Utz_1 Start: 89, Stop: 397, Start Num: 58
Candidate Starts for Utz_1:
(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (90, 203), (101, 224), (108, 251),

Gene: Vasanti_1 Start: 14, Stop: 346, Start Num: 43
Candidate Starts for Vasanti_1:
(Start: 43 @14 has 40 MA's), (69, 92), (71, 95), (72, 98), (89, 152), (108, 215), (122, 263),

Gene: Venti_1 Start: 55, Stop: 444, Start Num: 13
Candidate Starts for Venti_1:
(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (71, 193), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Vidya_1 Start: 55, Stop: 444, Start Num: 13
Candidate Starts for Vidya_1:
(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Walrus_1 Start: 57, Stop: 392, Start Num: 44
Candidate Starts for Walrus_1:
(21, 15), (31, 36), (Start: 44 @57 has 57 MA's), (47, 63), (54, 75), (Start: 58 @90 has 4 MA's), (67, 123), (68, 129), (72, 138), (75, 150), (78, 162), (90, 204), (100, 222), (101, 225), (108, 252), (112, 270), (123, 303), (127, 309),

Gene: Wamburgrexpress_2 Start: 474, Stop: 848, Start Num: 55
Candidate Starts for Wamburgrexpress_2:
(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Wanda_9 Start: 3342, Stop: 3731, Start Num: 59
Candidate Starts for Wanda_9:
(5, 3135), (23, 3255), (49, 3309), (Start: 59 @3342 has 26 MA's), (78, 3411), (82, 3429), (84, 3432), (87, 3438), (104, 3507), (117, 3561), (130, 3597), (134, 3612), (147, 3711),

Gene: Weirdo19_1 Start: 209, Stop: 565, Start Num: 58
Candidate Starts for Weirdo19_1:
(2, 14), (7, 47), (Start: 58 @209 has 4 MA's), (77, 278), (89, 311), (92, 332), (93, 335), (124, 431), (137, 473), (141, 500),

Gene: Whack_1 Start: 53, Stop: 403, Start Num: 38
Candidate Starts for Whack_1:

(Start: 38 @53 has 1 MA's), (Start: 61 @107 has 2 MA's), (88, 194), (93, 221), (108, 263), (121, 308), (127, 320),

Gene: Whiteclaw_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Whiteclaw_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: William_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for William_1:

(Start: 44 @56 has 57 MA's), (47, 62), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (83, 179), (86, 185), (88, 188), (90, 203), (105, 242), (122, 299),

Gene: Willsammy_1 Start: 42, Stop: 431, Start Num: 13

Candidate Starts for Willsammy_1:

(Start: 13 @42 has 48 MA's), (Start: 59 @138 has 26 MA's), (77, 204), (97, 261), (102, 273), (105, 285), (111, 309), (121, 339),

Gene: WinkNick_2 Start: 510, Stop: 848, Start Num: 41

Candidate Starts for WinkNick_2:

(Start: 25 @486 has 1 MA's), (29, 492), (35, 501), (Start: 41 @510 has 11 MA's), (Start: 64 @573 has 1 MA's), (71, 597), (72, 600), (73, 603), (122, 765),

Gene: Wisp_1 Start: 74, Stop: 397, Start Num: 54

Candidate Starts for Wisp_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Wocket_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Wocket_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (90, 203), (101, 224), (108, 251),

Gene: Wyatt2_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Wyatt2_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Xavia_1 Start: 55, Stop: 435, Start Num: 13

Candidate Starts for Xavia_1:

(Start: 9 @16 has 1 MA's), (Start: 13 @55 has 48 MA's), (Start: 59 @142 has 26 MA's), (71, 184), (72, 187), (77, 208), (97, 265), (102, 277), (105, 289), (108, 298), (111, 313), (121, 343),

Gene: Yeet_7 Start: 2067, Stop: 2441, Start Num: 59

Candidate Starts for Yeet_7:

(5, 1860), (6, 1869), (23, 1980), (49, 2034), (Start: 59 @2067 has 26 MA's), (78, 2136), (82, 2154), (84, 2157), (87, 2163), (103, 2226), (117, 2286), (130, 2322),

Gene: Yeet412_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Yeet412_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: Yeezy_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Yeezy_1:

(Start: 43 @14 has 40 MA's), (71, 95), (88, 149), (89, 152), (122, 263),

Gene: Yinzer_1 Start: 14, Stop: 346, Start Num: 43

Candidate Starts for Yinzer_1:

(Start: 43 @14 has 40 MA's), (71, 95), (72, 98), (73, 101), (89, 152),

Gene: ZAYM_1 Start: 166, Stop: 516, Start Num: 42

Candidate Starts for ZAYM_1:

(17, 121), (33, 154), (Start: 42 @166 has 5 MA's), (68, 241), (96, 328), (101, 337), (108, 364), (112, 382), (125, 418), (127, 421), (143, 496),

Gene: Zarbodnamra_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Zarbodnamra_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (68, 128), (71, 134), (72, 137), (78, 161), (90, 203), (101, 224), (108, 251),

Gene: Zaria_2 Start: 474, Stop: 848, Start Num: 55

Candidate Starts for Zaria_2:

(Start: 55 @474 has 17 MA's), (66, 513), (85, 585), (87, 588), (93, 615), (102, 648), (103, 651), (130, 744),

Gene: Zelink_9 Start: 2841, Stop: 3215, Start Num: 59

Candidate Starts for Zelink_9:

(5, 2634), (6, 2643), (23, 2754), (Start: 59 @2841 has 26 MA's), (78, 2910), (82, 2928), (84, 2931), (87, 2937), (103, 3000), (117, 3060), (119, 3063), (130, 3096),

Gene: ZiggyZoo_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for ZiggyZoo_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (71, 134), (72, 137), (78, 161), (101, 224), (108, 251),

Gene: Zilizebeth_1 Start: 55, Stop: 444, Start Num: 13

Candidate Starts for Zilizebeth_1:

(Start: 13 @55 has 48 MA's), (Start: 59 @151 has 26 MA's), (77, 217), (97, 274), (102, 286), (111, 322), (121, 352),

Gene: Zilla_1 Start: 56, Stop: 397, Start Num: 44

Candidate Starts for Zilla_1:

(Start: 44 @56 has 57 MA's), (54, 74), (Start: 58 @89 has 4 MA's), (Start: 59 @92 has 26 MA's), (71, 134), (72, 137), (96, 215), (100, 221), (101, 224), (105, 242), (108, 251), (110, 257),

Gene: Zodiariah_1 Start: 125, Stop: 451, Start Num: 46

Candidate Starts for Zodiariah_1:

(Start: 46 @125 has 4 MA's), (Start: 58 @164 has 4 MA's), (Start: 61 @176 has 2 MA's), (67, 197), (71, 209), (72, 212), (74, 218), (78, 236), (83, 254), (89, 266), (91, 281), (94, 293), (105, 311), (112, 338), (127, 377), (135, 407), (136, 410),

Gene: Zucker_2 Start: 385, Stop: 780, Start Num: 50

Candidate Starts for Zucker_2:

(26, 352), (Start: 50 @385 has 3 MA's), (63, 436), (73, 469), (77, 487), (80, 499), (94, 547), (138, 715), (146, 766),