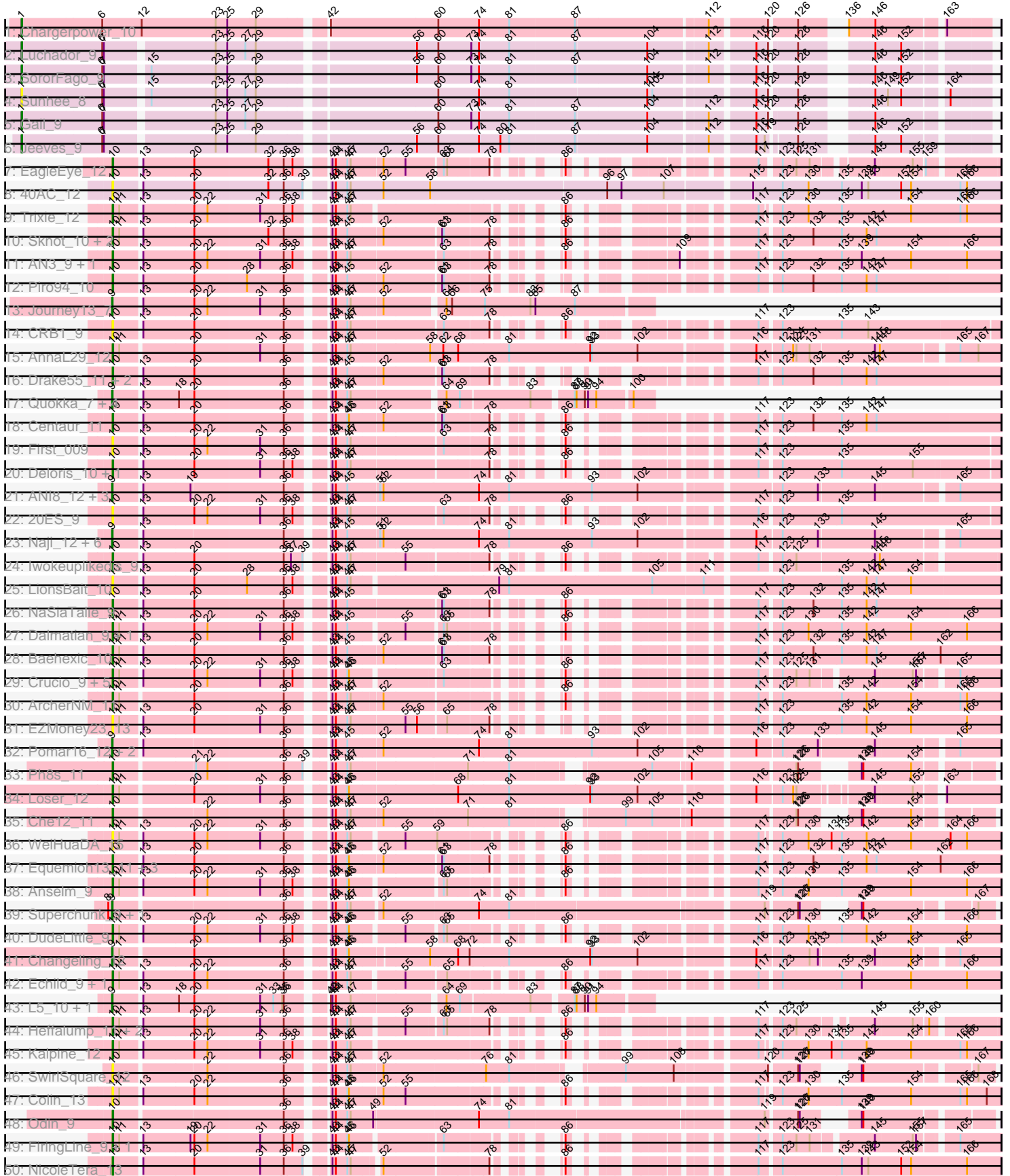
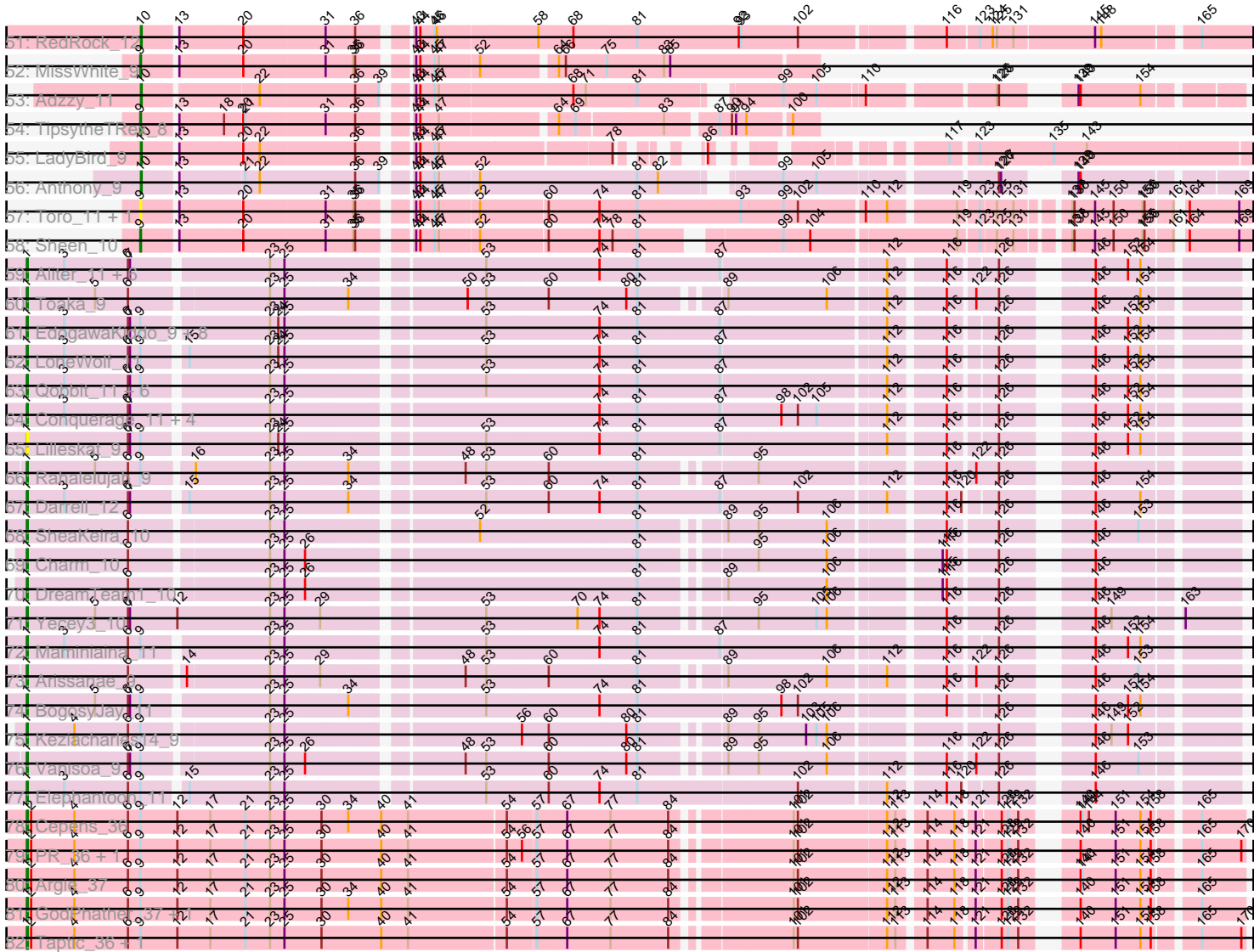


Pham 215923



Pham 215923



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 215923 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215923 has 146 members, 29 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower_10
- Track 2 : Luchador_9
- Track 3 : SororFago_9
- Track 4 : Sunhee_8
- Track 5 : Gail_9
- Track 6 : Jeeves_9
- Track 7 : EagleEye_12
- Track 8 : 40AC_12
- Track 9 : Trixie_12
- Track 10 : Sknot_10, Flare16_9, MiculUcigas_9
- Track 11 : AN3_9, VA6_9
- Track 12 : Piro94_10
- Track 13 : Journey13_7
- Track 14 : CRB1_9
- Track 15 : AnnaL29_12
- Track 16 : Drake55_11, HarryHoudini_11, Terrific_13
- Track 17 : Quokka_7, MajorMajor_8, Bradman_8, Serenity_8, Jsquared_8
- Track 18 : Centaur_11
- Track 19 : First_009
- Track 20 : Deloris_10, BengiVuitton_10
- Track 21 : ANI8_12, AN9_12, VC3_12, C3_07
- Track 22 : 20ES_9
- Track 23 : Naji_12, Duplo_12, D29_10, D32_12, StarStuff_12, Travvers_12, Tomathan_12
- Track 24 : Iwokeuplikedis_9
- Track 25 : LionsBait_10
- Track 26 : NaSiaTalie_9
- Track 27 : Dalmatian_9, Retro23_9
- Track 28 : Baehexic_10
- Track 29 : Crucio_9, SnapTap_9, SweetiePie_9, SemperFi_11, Power_9, Georgie2_9
- Track 30 : ArcherNM_11
- Track 31 : EZMoney23_13
- Track 32 : Pomar16_12, Kerberos_12, DBQu4n_12
- Track 33 : Ph8s_11
- Track 34 : Loser_12
- Track 35 : Che12_11

- Track 36 : WeiHuaDA_15
- Track 37 : Equemioh13_11, WideWale_11, Gratitude_10, Updawg_11
- Track 38 : Anselm_9
- Track 39 : Superchunk_9, Caraxes_9
- Track 40 : DudeLittle_9
- Track 41 : Changeling_12
- Track 42 : Echild_9, Benvolio_9
- Track 43 : L5_10, Koduck_9
- Track 44 : Heffalump_11, Fameo_9, QueenB2_9
- Track 45 : Kalpine_12
- Track 46 : SwirlSquare_12
- Track 47 : Colin_13
- Track 48 : Odin_9
- Track 49 : FiringLine_9, QueenBeesly_9
- Track 50 : NicoleTera_13
- Track 51 : RedRock_12
- Track 52 : MissWhite_9
- Track 53 : Adzzy_11
- Track 54 : TipsytheTRex_8
- Track 55 : LadyBird_9
- Track 56 : Anthony_9
- Track 57 : Toro_11, FlyCatcher_12
- Track 58 : Sheen_10
- Track 59 : Aliter_11, HortumSL17_11, Catalina_11, Phaeder_11, Tubs_11, Myxus_11, PackMan_11
- Track 60 : Toaka_9
- Track 61 : EdogawaKiddo_9, Scherzo_11, Hanray_10, Horex_10, Onglai_10, RyeScarlet_12, Jiawan_10, Ugenie5_8, Sachima_9
- Track 62 : LoneWolf_11
- Track 63 : Qobbit_11, Fayely_11, Phonnegut_11, EmyBug_11, Pioneer_11, Beemo_11, ExplosioNervosa_11
- Track 64 : Conquerage_11, Alma_11, Spouty_11, Priya_11, Eidsmoe_11
- Track 65 : Lilleskat_9
- Track 66 : Rahalelujah_9
- Track 67 : Darrell_12
- Track 68 : SheaKeira_10
- Track 69 : Charm_10
- Track 70 : DreamTeam1_10
- Track 71 : Yecey3_10
- Track 72 : Maminiaina_11
- Track 73 : Arissanae_9
- Track 74 : BogosyJay_11
- Track 75 : Keziacharles14_9
- Track 76 : Vanisoa_9
- Track 77 : Elephantoon_11
- Track 78 : Cepens_36
- Track 79 : PR_36, D12_35
- Track 80 : Argie_37
- Track 81 : GodPhather_37, Jeon_36
- Track 82 : Taptic_36, Megabear_36

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

The start number called the most often in the published annotations is 1, it was called in 48 of the 117 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter_11, Alma_11, Argie_37, Arissanae_9, Beemo_11, BogosyJay_11, Catalina_11, Cepens_36, Chargerpower_10, Charm_10, Conquerage_11, D12_35, Darrell_12, DreamTeam1_10, EdogawaKiddo_9, Eidsmoe_11, Elephantoon_11, EmyBug_11, ExplosioNervosa_11, Fayely_11, Gail_9, GodPhather_37, Hanray_10, Horex_10, HortumSL17_11, Jeeves_9, Jeon_36, Jiawan_10, Keziacharles14_9, Lilleskat_9, LoneWolf_11, Luchador_9, Maminiaina_11, Megabear_36, Myxus_11, Onglai_10, PR_36, PackMan_11, Phaeder_11, Phonnegut_11, Pioneer_11, Priya_11, Qobbit_11, Rahalelujah_9, RyeScarlet_12, Sachima_9, Scherzo_11, SheaKeira_10, SororFago_9, Spouty_11, Sunhee_8, Taptic_36, Toaka_9, Tubs_11, Ugenie5_8, Vanisoa_9, Yecey3_10,

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

-

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

- 20ES_9, 40AC_12, AN3_9, AN9_12, ANI8_12, Adzzy_11, AnnaL29_12, Anselm_9, Anthony_9, ArcherNM_11, Baehexic_10, BengiVuitton_10, Benvolio_9, Bradman_8, C3_07, CRB1_9, Caraxes_9, Centaur_11, Changeling_12, Che12_11, Colin_13, Crucio_9, D29_10, D32_12, DBQu4n_12, Dalmatian_9, Deloris_10, Drake55_11, DudeLittle_9, Duplo_12, EZMoney23_13, EagleEye_12, Echild_9, Equemioh13_11, Fameo_9, FiringLine_9, First_009, Flare16_9, FlyCatcher_12, Georgie2_9, Gratitude_10, HarryHoudini_11, Heffalump_11, Iwokeuplikedis_9, Journey13_7, Jsquared_8, Kalpine_12, Kerberos_12, Koduck_9, L5_10, LadyBird_9, LionsBait_10, Loser_12, MajorMajor_8, MiculUcigas_9, MissWhite_9, NaSiaTalie_9, Naji_12, NicoleTera_13, Odin_9, Ph8s_11, Piro94_10, Pomar16_12, Power_9, QueenB2_9, QueenBeesly_9, Quokka_7, RedRock_12, Retro23_9, SemperFi_11, Serenity_8, Sheen_10, Sknot_10, SnapTap_9, StarStuff_12, Superchunk_9, SweetiePie_9, SwirlSquare_12, Terrific_13, TipsytheTRex_8, Tomathan_12, Toro_11, Travvers_12, Trixie_12, Updawg_11, VA6_9, VC3_12, WeiHuaDA_15, WideWale_11,

Summary by start number:

Start 1:

- Found in 57 of 146 (39.0%) of genes in pham
- Manual Annotations of this start: 48 of 117
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_11 (A9), Alma_11 (A9), Argie_37 (W), Arissanae_9 (A9), Beemo_11 (A9), BogosyJay_11 (A9), Catalina_11 (A9), Cepens_36 (W), Chargerpower_10 (A), Charm_10 (A9), Conquerage_11 (A9), D12_35 (W), Darrell_12 (A9), DreamTeam1_10 (A9), EdogawaKiddo_9 (A9), Eidsmoe_11 (A9), Elephantoon_11 (A9), EmyBug_11 (A9), ExplosioNervosa_11 (A9), Fayely_11 (A9), Gail_9 (A14), GodPhather_37 (W), Hanray_10 (A9), Horex_10 (A9), HortumSL17_11 (A9), Jeeves_9 (A14), Jeon_36 (W), Jiawan_10 (A9), Keziacharles14_9 (A9), Lilleskat_9 (A9), LoneWolf_11 (A9), Luchador_9 (A14), Maminiaina_11 (A9), Megabear_36 (W), Myxus_11 (A9), Onglai_10 (A9), PR_36 (W), PackMan_11 (A9), Phaeder_11 (A9), Phonnegut_11 (A9), Pioneer_11 (A9), Priya_11

(A9), Qobbit_11 (A9), Rahalelujah_9 (A9), RyeScarlet_12 (A9), Sachima_9 (A9), Scherzo_11 (A9), SheaKeira_10 (A9), SororFago_9 (A14), Spouty_11 (A9), Sunhee_8 (A14), Taptic_36 (W), Toaka_9 (A9), Tubs_11 (A9), Ugenie5_8 (A9), Vanisoa_9 (A9), Yecey3_10 (A9),

Start 9:

- Found in 62 of 146 (42.5%) of genes in pham
- Manual Annotations of this start: 22 of 117
- Called 48.4% of time when present
- Phage (with cluster) where this start called: AN9_12 (A2), ANI8_12 (A2), Bradman_8 (A2), C3_07 (A2), Caraxes_9 (A2), Changeling_12 (A2), D29_10 (A2), D32_12 (A2), DBQu4n_12 (A2), Duplo_12 (A2), FlyCatcher_12 (A7), Journey13_7 (A2), Jsquared_8 (A2), Kerberos_12 (A2), Koduck_9 (A2), L5_10 (A2), MajorMajor_8 (A2), MissWhite_9 (A2), Naji_12 (A2), Pomar16_12 (A2), Quokka_7 (A2), Serenity_8 (A2), Sheen_10 (A7), StarStuff_12 (A2), Superchunk_9 (A2), TipsytheTRex_8 (A2), Tomathan_12 (A2), Toro_11 (A7), Travvers_12 (A2), VC3_12 (A2),

Start 10:

- Found in 59 of 146 (40.4%) of genes in pham
- Manual Annotations of this start: 47 of 117
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_9 (A2), 40AC_12 (A17), AN3_9 (A2), Adzzy_11 (A2), AnnaL29_12 (A2), Anselm_9 (A2), Anthony_9 (A20), ArcherNM_11 (A2), Baehexic_10 (A2), BengiVuitton_10 (A2), Benvolio_9 (A2), CRB1_9 (A2), Centaur_11 (A2), Che12_11 (A2), Colin_13 (A2), Crucio_9 (A2), Dalmatian_9 (A2), Deloris_10 (A2), Drake55_11 (A2), DudeLittle_9 (A2), EZMoney23_13 (A2), EagleEye_12 (A16), Echid_9 (A2), Equemioh13_11 (A2), Fameo_9 (A2), FiringLine_9 (A2), First_009 (A2), Flare16_9 (A2), Georgie2_9 (A2), Gratitude_10 (A2), HarryHoudini_11 (A2), Heffalump_11 (A2), Iwokeuplikedis_9 (A2), Kalpine_12 (A2), LadyBird_9 (A2), LionsBait_10 (A2), Loser_12 (A2), MiculUcigas_9 (A2), NaSiaTalie_9 (A2), NicoleTera_13 (A2), Odin_9 (A2), Ph8s_11 (A2), Piro94_10 (A2), Power_9 (A2), QueenB2_9 (A2), QueenBeesly_9 (A2), RedRock_12 (A2), Retro23_9 (A2), SemperFi_11 (A2), Sknot_10 (A2), SnapTap_9 (A2), SweetiePie_9 (A2), SwirlSquare_12 (A2), Terrific_13 (A2), Trixie_12 (A2), Updawg_11 (A2), VA6_9 (A2), WeiHuaDA_15 (A2), WideWale_11 (A2),

Summary by clusters:

There are 9 clusters represented in this pham: A20, A14, A17, A16, A7, A2, A, W, A9,

Info for manual annotations of cluster A:

- Start number 1 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A14:

- Start number 1 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 10 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A2:

- Start number 9 was manually annotated 21 times for cluster A2.
- Start number 10 was manually annotated 45 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 10 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A7:

- Start number 9 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 1 was manually annotated 35 times for cluster A9.

Info for manual annotations of cluster W:

- Start number 1 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 20ES_9 Start: 4690, Stop: 5988, Start Num: 10

Candidate Starts for 20ES_9:

(Start: 10 @4690 has 47 MA's), (13, 4735), (20, 4822), (22, 4846), (31, 4939), (36, 4981), (38, 4996), (43, 5041), (44, 5047), (45, 5068), (47, 5074), (63, 5230), (78, 5302), (86, 5350), (117, 5569), (123, 5602), (135, 5707),

Gene: 40AC_12 Start: 6575, Stop: 8080, Start Num: 10

Candidate Starts for 40AC_12:

(Start: 10 @6575 has 47 MA's), (13, 6620), (20, 6707), (32, 6839), (36, 6866), (39, 6899), (43, 6926), (44, 6932), (45, 6953), (47, 6959), (52, 7016), (58, 7100), (96, 7397), (97, 7421), (107, 7496), (115, 7637), (123, 7688), (130, 7733), (135, 7793), (139, 7829), (143, 7841), (152, 7901), (154, 7919), (165, 8009), (166, 8021),

Gene: AN3_9 Start: 4672, Stop: 5973, Start Num: 10

Candidate Starts for AN3_9:

(Start: 10 @4672 has 47 MA's), (13, 4717), (20, 4804), (22, 4828), (31, 4921), (36, 4963), (38, 4978), (43, 5023), (44, 5029), (45, 5050), (47, 5056), (63, 5212), (78, 5284), (86, 5332), (109, 5455), (117, 5551), (123, 5584), (135, 5689), (139, 5725), (154, 5815), (166, 5917),

Gene: AN9_12 Start: 4696, Stop: 6177, Start Num: 9

Candidate Starts for AN9_12:

(Start: 9 @4696 has 22 MA's), (13, 4741), (19, 4825), (36, 4987), (43, 5047), (44, 5053), (45, 5074), (51, 5128), (52, 5134), (74, 5302), (81, 5353), (93, 5503), (102, 5584), (123, 5815), (133, 5878), (145, 5977), (165, 6106),

Gene: ANI8_12 Start: 4696, Stop: 6177, Start Num: 9

Candidate Starts for ANI8_12:

(Start: 9 @4696 has 22 MA's), (13, 4741), (19, 4825), (36, 4987), (43, 5047), (44, 5053), (45, 5074), (51, 5128), (52, 5134), (74, 5302), (81, 5353), (93, 5503), (102, 5584), (123, 5815), (133, 5878), (145, 5977), (165, 6106),

Gene: Adzzy_11 Start: 4473, Stop: 5846, Start Num: 10

Candidate Starts for Adzzy_11:

(Start: 10 @4473 has 47 MA's), (22, 4629), (36, 4764), (39, 4797), (43, 4824), (44, 4830), (45, 4851), (47, 4857), (68, 5043), (71, 5061), (81, 5130), (99, 5292), (105, 5340), (110, 5403), (125, 5565), (126, 5568), (139, 5631), (140, 5634), (154, 5721),

Gene: Aliter_11 Start: 6074, Stop: 7654, Start Num: 1

Candidate Starts for Aliter_11:

(Start: 1 @6074 has 48 MA's), (3, 6125), (6, 6215), (7, 6218), (23, 6404), (25, 6425), (53, 6686), (74, 6848), (81, 6899), (87, 7016), (112, 7241), (116, 7313), (126, 7373), (146, 7469), (152, 7514), (154, 7532),

Gene: Alma_11 Start: 6153, Stop: 7733, Start Num: 1

Candidate Starts for Alma_11:

(Start: 1 @6153 has 48 MA's), (3, 6204), (6, 6294), (7, 6297), (23, 6483), (25, 6504), (74, 6927), (81, 6978), (87, 7095), (98, 7179), (102, 7203), (105, 7230), (112, 7320), (116, 7392), (126, 7452), (146, 7548), (152, 7593), (154, 7611),

Gene: AnnaL29_12 Start: 6416, Stop: 7891, Start Num: 10

Candidate Starts for AnnaL29_12:

(Start: 10 @6416 has 47 MA's), (11, 6428), (20, 6548), (31, 6665), (36, 6707), (43, 6767), (44, 6773), (45, 6794), (47, 6800), (58, 6932), (62, 6953), (68, 6980), (81, 7067), (92, 7214), (93, 7217), (102, 7298), (116, 7487), (123, 7529), (124, 7547), (125, 7553), (131, 7577), (145, 7691), (148, 7700), (165, 7820), (167, 7853),

Gene: Anselm_9 Start: 4805, Stop: 6097, Start Num: 10

Candidate Starts for Anselm_9:

(Start: 10 @4805 has 47 MA's), (11, 4817), (13, 4850), (20, 4937), (22, 4961), (31, 5054), (36, 5096), (38, 5111), (43, 5156), (44, 5162), (45, 5183), (46, 5186), (63, 5333), (65, 5339), (86, 5453), (117, 5672), (123, 5705), (130, 5750), (135, 5810), (154, 5936), (166, 6038),

Gene: Anthony_9 Start: 3885, Stop: 5264, Start Num: 10

Candidate Starts for Anthony_9:

(Start: 10 @3885 has 47 MA's), (13, 3930), (21, 4020), (22, 4041), (36, 4176), (39, 4209), (43, 4236), (44, 4242), (45, 4263), (47, 4269), (52, 4323), (81, 4542), (82, 4572), (99, 4704), (105, 4752), (126, 4983), (127, 4986), (139, 5046), (140, 5049),

Gene: ArcherNM_11 Start: 6513, Stop: 7808, Start Num: 10

Candidate Starts for ArcherNM_11:

(Start: 10 @6513 has 47 MA's), (11, 6525), (20, 6645), (36, 6804), (43, 6864), (44, 6870), (45, 6891), (47, 6897), (52, 6945), (86, 7167), (117, 7386), (123, 7419), (135, 7524), (142, 7569), (154, 7650), (165, 7740), (166, 7752),

Gene: Argie_37 Start: 36368, Stop: 37990, Start Num: 1

Candidate Starts for Argie_37:

(Start: 1 @36368 has 48 MA's), (2, 36374), (4, 36437), (6, 36515), (Start: 9 @36533 has 22 MA's), (12, 36587), (17, 36635), (21, 36686), (23, 36722), (25, 36743), (30, 36797), (40, 36884), (41, 36923), (54, 37061), (57, 37100), (67, 37142), (77, 37205), (84, 37289), (101, 37436), (102, 37442), (112, 37568), (113, 37580), (114, 37610), (118, 37649), (121, 37670), (128, 37703), (129, 37712), (132, 37727), (140, 37775), (141, 37778), (151, 37826), (154, 37862), (158, 37877), (165, 37928),

Gene: Arissanae_9 Start: 4305, Stop: 5855, Start Num: 1

Candidate Starts for Arissanae_9:

(Start: 1 @4305 has 48 MA's), (6, 4446), (14, 4518), (23, 4635), (25, 4656), (29, 4707), (48, 4887), (53, 4917), (60, 5007), (81, 5130), (89, 5226), (106, 5367), (112, 5442), (116, 5514), (122, 5544), (126, 5574), (146, 5670), (153, 5730),

Gene: Baehexic_10 Start: 5209, Stop: 6513, Start Num: 10

Candidate Starts for Baehexic_10:

(Start: 10 @5209 has 47 MA's), (11, 5221), (13, 5254), (20, 5341), (36, 5500), (43, 5560), (44, 5566), (45, 5587), (52, 5647), (61, 5746), (63, 5749), (78, 5821), (117, 6088), (123, 6121), (132, 6175), (135, 6226), (142, 6271), (147, 6289), (162, 6406),

Gene: Beemo_11 Start: 6180, Stop: 7760, Start Num: 1

Candidate Starts for Beemo_11:

(Start: 1 @6180 has 48 MA's), (3, 6231), (6, 6321), (7, 6324), (Start: 9 @6339 has 22 MA's), (23, 6510), (25, 6531), (53, 6792), (74, 6954), (81, 7005), (87, 7122), (112, 7347), (116, 7419), (126, 7479), (146, 7575), (152, 7620), (154, 7638),

Gene: BengiVuitton_10 Start: 5133, Stop: 6422, Start Num: 10

Candidate Starts for BengiVuitton_10:

(Start: 10 @5133 has 47 MA's), (13, 5178), (20, 5265), (31, 5382), (36, 5424), (38, 5439), (43, 5484), (44, 5490), (45, 5511), (47, 5517), (78, 5742), (86, 5790), (117, 6009), (123, 6042), (135, 6147), (155, 6276),

Gene: Benvolio_9 Start: 4797, Stop: 6086, Start Num: 10

Candidate Starts for Benvolio_9:

(Start: 10 @4797 has 47 MA's), (11, 4809), (13, 4842), (20, 4929), (22, 4953), (36, 5088), (43, 5148), (44, 5154), (45, 5175), (47, 5181), (55, 5265), (65, 5331), (86, 5445), (117, 5664), (123, 5697), (135, 5802), (139, 5838), (154, 5928), (166, 6030),

Gene: BogosyJay_11 Start: 5937, Stop: 7517, Start Num: 1

Candidate Starts for BogosyJay_11:

(Start: 1 @5937 has 48 MA's), (5, 6030), (6, 6078), (7, 6081), (Start: 9 @6096 has 22 MA's), (23, 6267), (25, 6288), (34, 6378), (53, 6549), (74, 6711), (81, 6762), (98, 6963), (102, 6987), (116, 7176), (126, 7236), (146, 7332), (152, 7377), (154, 7395),

Gene: Bradman_8 Start: 4332, Stop: 5210, Start Num: 9

Candidate Starts for Bradman_8:

(Start: 9 @4332 has 22 MA's), (13, 4377), (18, 4440), (20, 4464), (36, 4623), (43, 4683), (44, 4689), (45, 4710), (47, 4716), (64, 4869), (69, 4893), (83, 5010), (87, 5076), (88, 5079), (90, 5094), (91, 5100), (94, 5115), (100, 5172),

Gene: C3_07 Start: 4696, Stop: 6177, Start Num: 9

Candidate Starts for C3_07:

(Start: 9 @4696 has 22 MA's), (13, 4741), (19, 4825), (36, 4987), (43, 5047), (44, 5053), (45, 5074), (51, 5128), (52, 5134), (74, 5302), (81, 5353), (93, 5503), (102, 5584), (123, 5815), (133, 5878), (145, 5977), (165, 6106),

Gene: CRB1_9 Start: 4679, Stop: 5974, Start Num: 10

Candidate Starts for CRB1_9:

(Start: 10 @4679 has 47 MA's), (13, 4724), (20, 4811), (36, 4970), (43, 5030), (44, 5036), (45, 5057), (47, 5063), (63, 5219), (78, 5291), (86, 5339), (117, 5558), (123, 5591), (135, 5696), (143, 5744),

Gene: Caraxes_9 Start: 4337, Stop: 5746, Start Num: 9

Candidate Starts for Caraxes_9:

(8, 4331), (Start: 9 @4337 has 22 MA's), (36, 4628), (43, 4688), (44, 4694), (45, 4715), (47, 4721), (52, 4769), (74, 4937), (81, 4988), (119, 5417), (126, 5468), (127, 5471), (139, 5531), (140, 5534), (167, 5717),

Gene: Catalina_11 Start: 6147, Stop: 7727, Start Num: 1

Candidate Starts for Catalina_11:

(Start: 1 @6147 has 48 MA's), (3, 6198), (6, 6288), (7, 6291), (23, 6477), (25, 6498), (53, 6759), (74, 6921), (81, 6972), (87, 7089), (112, 7314), (116, 7386), (126, 7446), (146, 7542), (152, 7587), (154, 7605),

Gene: Centaur_11 Start: 5188, Stop: 6492, Start Num: 10

Candidate Starts for Centaur_11:

(Start: 10 @5188 has 47 MA's), (13, 5233), (20, 5320), (36, 5479), (43, 5539), (44, 5545), (45, 5566), (46, 5569), (52, 5626), (61, 5725), (63, 5728), (78, 5800), (86, 5848), (117, 6067), (123, 6100), (132, 6154), (135, 6205), (142, 6250), (147, 6268),

Gene: Cepens_36 Start: 36083, Stop: 37705, Start Num: 1

Candidate Starts for Cepens_36:

(Start: 1 @36083 has 48 MA's), (2, 36089), (4, 36152), (6, 36230), (Start: 9 @36248 has 22 MA's), (12, 36302), (17, 36350), (21, 36401), (23, 36437), (25, 36458), (30, 36512), (34, 36551), (40, 36599), (41, 36638), (54, 36776), (57, 36815), (67, 36857), (77, 36920), (84, 37004), (101, 37151), (102, 37157), (112, 37283), (113, 37295), (114, 37325), (118, 37364), (121, 37385), (128, 37418), (129, 37427), (132, 37442), (140, 37490), (141, 37493), (144, 37502), (151, 37541), (154, 37577), (158, 37592), (165, 37643),

Gene: Changeling_12 Start: 6426, Stop: 7901, Start Num: 9

Candidate Starts for Changeling_12:

(Start: 9 @6426 has 22 MA's), (11, 6438), (20, 6558), (36, 6717), (43, 6777), (44, 6783), (45, 6804), (46, 6807), (58, 6942), (68, 6990), (72, 7011), (81, 7077), (92, 7224), (93, 7227), (102, 7308), (116, 7497), (123, 7539), (131, 7587), (133, 7602), (145, 7701), (154, 7764), (165, 7830),

Gene: Chargerpower_10 Start: 4583, Stop: 6187, Start Num: 1

Candidate Starts for Chargerpower_10:

(Start: 1 @4583 has 48 MA's), (6, 4724), (12, 4796), (23, 4931), (25, 4952), (29, 5003), (42, 5108), (60, 5303), (74, 5375), (81, 5426), (87, 5543), (112, 5768), (120, 5861), (126, 5906), (136, 5957), (146, 6002), (163, 6110),

Gene: Charm_10 Start: 4360, Stop: 5916, Start Num: 1

Candidate Starts for Charm_10:

(Start: 1 @4360 has 48 MA's), (6, 4501), (23, 4690), (25, 4711), (26, 4741), (81, 5185), (95, 5323), (106, 5422), (115, 5563), (116, 5569), (126, 5635), (146, 5731),

Gene: Che12_11 Start: 4473, Stop: 5840, Start Num: 10

Candidate Starts for Che12_11:

(Start: 10 @4473 has 47 MA's), (22, 4629), (36, 4764), (43, 4824), (44, 4830), (45, 4851), (47, 4857), (52, 4905), (71, 5055), (81, 5124), (99, 5286), (105, 5334), (110, 5397), (125, 5559), (126, 5562), (139, 5625), (140, 5628), (154, 5715),

Gene: Colin_13 Start: 6391, Stop: 7695, Start Num: 10

Candidate Starts for Colin_13:

(Start: 10 @6391 has 47 MA's), (11, 6403), (13, 6436), (20, 6523), (22, 6547), (36, 6682), (43, 6742), (44, 6748), (45, 6769), (46, 6772), (52, 6829), (55, 6868), (86, 7057), (117, 7276), (123, 7303), (130, 7348), (135, 7408), (154, 7534), (165, 7624), (166, 7636), (168, 7672),

Gene: Conquerage_11 Start: 6176, Stop: 7756, Start Num: 1

Candidate Starts for Conquerage_11:

(Start: 1 @6176 has 48 MA's), (3, 6227), (6, 6317), (7, 6320), (23, 6506), (25, 6527), (74, 6950), (81, 7001), (87, 7118), (98, 7202), (102, 7226), (105, 7253), (112, 7343), (116, 7415), (126, 7475), (146,

7571), (152, 7616), (154, 7634),

Gene: Crucio_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for Crucio_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: D12_35 Start: 36653, Stop: 38275, Start Num: 1

Candidate Starts for D12_35:

(Start: 1 @36653 has 48 MA's), (2, 36659), (4, 36722), (6, 36800), (Start: 9 @36818 has 22 MA's), (12, 36872), (17, 36920), (21, 36971), (23, 37007), (25, 37028), (30, 37082), (40, 37169), (41, 37208), (54, 37346), (56, 37367), (57, 37385), (67, 37427), (77, 37490), (84, 37574), (101, 37721), (102, 37727), (112, 37853), (113, 37865), (114, 37895), (118, 37934), (121, 37955), (128, 37988), (129, 37997), (132, 38012), (140, 38060), (151, 38111), (154, 38147), (158, 38162), (165, 38213), (170, 38270),

Gene: D29_10 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for D29_10:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: D32_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for D32_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: DBQu4n_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for DBQu4n_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: Dalmatian_9 Start: 4796, Stop: 6088, Start Num: 10

Candidate Starts for Dalmatian_9:

(Start: 10 @4796 has 47 MA's), (11, 4808), (13, 4841), (20, 4928), (22, 4952), (31, 5045), (36, 5087), (38, 5102), (43, 5147), (44, 5153), (45, 5174), (55, 5264), (63, 5324), (65, 5330), (86, 5444), (117, 5663), (123, 5696), (130, 5741), (135, 5801), (142, 5846), (154, 5927), (166, 6029),

Gene: Darrell_12 Start: 6369, Stop: 7949, Start Num: 1

Candidate Starts for Darrell_12:

(Start: 1 @6369 has 48 MA's), (3, 6420), (6, 6510), (7, 6513), (15, 6582), (23, 6699), (25, 6720), (34, 6810), (53, 6981), (60, 7071), (74, 7143), (81, 7194), (87, 7311), (102, 7419), (112, 7536), (116, 7608), (120, 7629), (126, 7668), (146, 7764), (154, 7827),

Gene: Deloris_10 Start: 5133, Stop: 6422, Start Num: 10

Candidate Starts for Deloris_10:

(Start: 10 @5133 has 47 MA's), (13, 5178), (20, 5265), (31, 5382), (36, 5424), (38, 5439), (43, 5484), (44, 5490), (45, 5511), (47, 5517), (78, 5742), (86, 5790), (117, 6009), (123, 6042), (135, 6147), (155, 6276),

Gene: Drake55_11 Start: 5205, Stop: 6509, Start Num: 10

Candidate Starts for Drake55_11:

(Start: 10 @5205 has 47 MA's), (13, 5250), (20, 5337), (36, 5496), (43, 5556), (44, 5562), (45, 5583), (52, 5643), (61, 5742), (63, 5745), (78, 5817), (117, 6084), (123, 6117), (132, 6171), (135, 6222), (142, 6267), (147, 6285),

Gene: DreamTeam1_10 Start: 4360, Stop: 5916, Start Num: 1

Candidate Starts for DreamTeam1_10:

(Start: 1 @4360 has 48 MA's), (6, 4501), (23, 4690), (25, 4711), (26, 4741), (81, 5185), (89, 5281), (106, 5422), (115, 5563), (116, 5569), (126, 5635), (146, 5731),

Gene: DudeLittle_9 Start: 4798, Stop: 6090, Start Num: 10

Candidate Starts for DudeLittle_9:

(Start: 10 @4798 has 47 MA's), (11, 4810), (13, 4843), (20, 4930), (22, 4954), (31, 5047), (36, 5089), (38, 5104), (43, 5149), (44, 5155), (45, 5176), (46, 5179), (55, 5266), (63, 5326), (65, 5332), (86, 5446), (117, 5665), (123, 5698), (130, 5743), (135, 5803), (142, 5848), (154, 5929), (166, 6031),

Gene: Duplo_12 Start: 4738, Stop: 6219, Start Num: 9

Candidate Starts for Duplo_12:

(Start: 9 @4738 has 22 MA's), (13, 4783), (36, 5029), (43, 5089), (44, 5095), (45, 5116), (51, 5170), (52, 5176), (74, 5344), (81, 5395), (93, 5545), (102, 5626), (116, 5815), (123, 5857), (133, 5920), (145, 6019), (165, 6148),

Gene: EZMoney23_13 Start: 6684, Stop: 7985, Start Num: 10

Candidate Starts for EZMoney23_13:

(Start: 10 @6684 has 47 MA's), (11, 6696), (13, 6729), (20, 6816), (31, 6933), (36, 6975), (43, 7035), (44, 7041), (45, 7062), (47, 7068), (55, 7161), (56, 7182), (65, 7230), (78, 7296), (117, 7563), (123, 7596), (135, 7701), (142, 7746), (154, 7827), (166, 7929),

Gene: EagleEye_12 Start: 5895, Stop: 7142, Start Num: 10

Candidate Starts for EagleEye_12:

(Start: 10 @5895 has 47 MA's), (13, 5940), (20, 6027), (32, 6159), (36, 6186), (38, 6201), (43, 6246), (44, 6252), (45, 6273), (47, 6279), (52, 6333), (55, 6372), (63, 6435), (65, 6441), (78, 6507), (86, 6555), (117, 6774), (123, 6801), (125, 6825), (131, 6849), (145, 6942), (155, 7008), (159, 7026),

Gene: Echild_9 Start: 4797, Stop: 6086, Start Num: 10

Candidate Starts for Echild_9:

(Start: 10 @4797 has 47 MA's), (11, 4809), (13, 4842), (20, 4929), (22, 4953), (36, 5088), (43, 5148), (44, 5154), (45, 5175), (47, 5181), (55, 5265), (65, 5331), (86, 5445), (117, 5664), (123, 5697), (135, 5802), (139, 5838), (154, 5928), (166, 6030),

Gene: EdogawaKiddo_9 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for EdogawaKiddo_9:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (Start: 9 @6305 has 22 MA's), (23, 6476), (24, 6488), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Eidsmoe_11 Start: 6176, Stop: 7756, Start Num: 1

Candidate Starts for Eidsmoe_11:

(Start: 1 @6176 has 48 MA's), (3, 6227), (6, 6317), (7, 6320), (23, 6506), (25, 6527), (74, 6950), (81, 7001), (87, 7118), (98, 7202), (102, 7226), (105, 7253), (112, 7343), (116, 7415), (126, 7475), (146, 7571), (152, 7616), (154, 7634),

Gene: Elephantoon_11 Start: 5798, Stop: 7378, Start Num: 1

Candidate Starts for Elephantoon_11:

(Start: 1 @5798 has 48 MA's), (3, 5849), (6, 5939), (Start: 9 @5957 has 22 MA's), (15, 6011), (23, 6128), (25, 6149), (53, 6410), (60, 6500), (74, 6572), (81, 6623), (102, 6848), (112, 6965), (116, 7037), (120, 7058), (126, 7097), (146, 7193),

Gene: EmyBug_11 Start: 6176, Stop: 7756, Start Num: 1

Candidate Starts for EmyBug_11:

(Start: 1 @6176 has 48 MA's), (3, 6227), (6, 6317), (7, 6320), (Start: 9 @6335 has 22 MA's), (23, 6506), (25, 6527), (53, 6788), (74, 6950), (81, 7001), (87, 7118), (112, 7343), (116, 7415), (126, 7475), (146, 7571), (152, 7616), (154, 7634),

Gene: Equemioh13_11 Start: 5191, Stop: 6495, Start Num: 10

Candidate Starts for Equemioh13_11:

(Start: 10 @5191 has 47 MA's), (13, 5236), (20, 5323), (36, 5482), (43, 5542), (44, 5548), (45, 5569), (46, 5572), (52, 5629), (61, 5728), (63, 5731), (78, 5803), (86, 5851), (117, 6070), (123, 6103), (132, 6157), (135, 6208), (142, 6253), (147, 6271), (162, 6388),

Gene: ExplosioNervosa_11 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for ExplosioNervosa_11:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: Fameo_9 Start: 4800, Stop: 6035, Start Num: 10

Candidate Starts for Fameo_9:

(Start: 10 @4800 has 47 MA's), (11, 4812), (13, 4845), (20, 4932), (22, 4956), (31, 5049), (36, 5091), (43, 5151), (44, 5157), (45, 5178), (47, 5184), (55, 5268), (63, 5328), (65, 5334), (78, 5400), (86, 5448), (117, 5667), (123, 5697), (125, 5721), (145, 5835), (155, 5901), (160, 5925),

Gene: Fayely_11 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for Fayely_11:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: FiringLine_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for FiringLine_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (19, 4823), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: First_009 Start: 4690, Stop: 5988, Start Num: 10

Candidate Starts for First_009:

(Start: 10 @4690 has 47 MA's), (13, 4735), (20, 4822), (22, 4846), (31, 4939), (36, 4981), (43, 5041), (44, 5047), (45, 5068), (47, 5074), (63, 5230), (78, 5302), (86, 5350), (117, 5569), (123, 5602), (135, 5707),

Gene: Flare16_9 Start: 4749, Stop: 6053, Start Num: 10

Candidate Starts for Flare16_9:

(Start: 10 @4749 has 47 MA's), (11, 4761), (13, 4794), (20, 4881), (32, 5013), (36, 5040), (43, 5100), (44, 5106), (45, 5127), (52, 5187), (61, 5286), (63, 5289), (78, 5361), (86, 5409), (117, 5628), (123, 5661), (132, 5715), (135, 5766), (142, 5811), (147, 5829),

Gene: FlyCatcher_12 Start: 5649, Stop: 7097, Start Num: 9

Candidate Starts for FlyCatcher_12:

(Start: 9 @5649 has 22 MA's), (13, 5694), (20, 5781), (31, 5898), (35, 5937), (36, 5940), (43, 6000), (44, 6006), (45, 6027), (47, 6033), (52, 6081), (60, 6174), (74, 6246), (81, 6297), (93, 6447), (99, 6507), (102, 6528), (110, 6618), (112, 6645), (119, 6732), (123, 6759), (125, 6780), (131, 6804), (137, 6864), (138, 6867), (145, 6897), (150, 6921), (155, 6963), (156, 6966), (161, 7002), (164, 7008), (169, 7080),

Gene: Gail_9 Start: 4567, Stop: 6147, Start Num: 1

Candidate Starts for Gail_9:

(Start: 1 @4567 has 48 MA's), (6, 4708), (7, 4711), (23, 4897), (25, 4918), (27, 4951), (29, 4969), (60, 5269), (73, 5329), (74, 5341), (81, 5392), (87, 5509), (104, 5635), (112, 5734), (116, 5806), (120, 5827), (126, 5869), (146, 5965),

Gene: Georgie2_9 Start: 4695, Stop: 5942, Start Num: 10

Candidate Starts for Georgie2_9:

(Start: 10 @4695 has 47 MA's), (11, 4707), (13, 4740), (20, 4827), (22, 4851), (31, 4944), (36, 4986), (38, 5001), (43, 5046), (44, 5052), (45, 5073), (46, 5076), (63, 5223), (86, 5343), (117, 5562), (123, 5592), (125, 5616), (131, 5640), (145, 5739), (155, 5805), (157, 5811), (165, 5868),

Gene: GodPhather_37 Start: 36847, Stop: 38469, Start Num: 1

Candidate Starts for GodPhather_37:

(Start: 1 @36847 has 48 MA's), (2, 36853), (4, 36916), (6, 36994), (Start: 9 @37012 has 22 MA's), (12, 37066), (17, 37114), (21, 37165), (23, 37201), (25, 37222), (30, 37276), (34, 37315), (40, 37363), (41, 37402), (54, 37540), (57, 37579), (67, 37621), (77, 37684), (84, 37768), (101, 37915), (102, 37921), (112, 38047), (113, 38059), (114, 38089), (118, 38128), (121, 38149), (128, 38182), (129, 38191), (132, 38206), (140, 38254), (151, 38305), (154, 38341), (158, 38356), (165, 38407),

Gene: Gratitude_10 Start: 5191, Stop: 6495, Start Num: 10

Candidate Starts for Gratitude_10:

(Start: 10 @5191 has 47 MA's), (13, 5236), (20, 5323), (36, 5482), (43, 5542), (44, 5548), (45, 5569), (46, 5572), (52, 5629), (61, 5728), (63, 5731), (78, 5803), (86, 5851), (117, 6070), (123, 6103), (132, 6157), (135, 6208), (142, 6253), (147, 6271), (162, 6388),

Gene: Hanray_10 Start: 6182, Stop: 7762, Start Num: 1

Candidate Starts for Hanray_10:

(Start: 1 @6182 has 48 MA's), (3, 6233), (6, 6323), (7, 6326), (Start: 9 @6341 has 22 MA's), (23, 6512), (24, 6524), (25, 6533), (53, 6794), (74, 6956), (81, 7007), (87, 7124), (112, 7349), (116, 7421), (126, 7481), (146, 7577), (152, 7622), (154, 7640),

Gene: HarryHoudini_11 Start: 5205, Stop: 6509, Start Num: 10

Candidate Starts for HarryHoudini_11:

(Start: 10 @5205 has 47 MA's), (13, 5250), (20, 5337), (36, 5496), (43, 5556), (44, 5562), (45, 5583), (52, 5643), (61, 5742), (63, 5745), (78, 5817), (117, 6084), (123, 6117), (132, 6171), (135, 6222), (142, 6267), (147, 6285),

Gene: Heffalump_11 Start: 6599, Stop: 7834, Start Num: 10

Candidate Starts for Heffalump_11:

(Start: 10 @6599 has 47 MA's), (11, 6611), (13, 6644), (20, 6731), (22, 6755), (31, 6848), (36, 6890), (43, 6950), (44, 6956), (45, 6977), (47, 6983), (55, 7067), (63, 7127), (65, 7133), (78, 7199), (86, 7247), (117, 7466), (123, 7496), (125, 7520), (145, 7634), (155, 7700), (160, 7724),

Gene: Horex_10 Start: 6182, Stop: 7762, Start Num: 1

Candidate Starts for Horex_10:

(Start: 1 @6182 has 48 MA's), (3, 6233), (6, 6323), (7, 6326), (Start: 9 @6341 has 22 MA's), (23, 6512), (24, 6524), (25, 6533), (53, 6794), (74, 6956), (81, 7007), (87, 7124), (112, 7349), (116, 7421), (126, 7481), (146, 7577), (152, 7622), (154, 7640),

Gene: HortumSL17_11 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for HortumSL17_11:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (23, 6476), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Iwokeuplikedis_9 Start: 4489, Stop: 5760, Start Num: 10

Candidate Starts for Iwokeuplikedis_9:

(Start: 10 @4489 has 47 MA's), (13, 4534), (20, 4621), (36, 4780), (37, 4792), (39, 4813), (43, 4840), (44, 4846), (45, 4867), (47, 4873), (55, 4966), (78, 5098), (86, 5146), (117, 5365), (123, 5398), (125, 5422), (145, 5560), (148, 5569),

Gene: Jeeves_9 Start: 4583, Stop: 6160, Start Num: 1

Candidate Starts for Jeeves_9:

(Start: 1 @4583 has 48 MA's), (6, 4724), (7, 4727), (23, 4913), (25, 4934), (29, 4985), (56, 5246), (60, 5285), (74, 5357), (80, 5393), (81, 5408), (87, 5525), (104, 5651), (112, 5750), (116, 5822), (119, 5837), (126, 5882), (146, 5978), (152, 6023),

Gene: Jeon_36 Start: 36589, Stop: 38211, Start Num: 1

Candidate Starts for Jeon_36:

(Start: 1 @36589 has 48 MA's), (2, 36595), (4, 36658), (6, 36736), (Start: 9 @36754 has 22 MA's), (12, 36808), (17, 36856), (21, 36907), (23, 36943), (25, 36964), (30, 37018), (34, 37057), (40, 37105), (41, 37144), (54, 37282), (57, 37321), (67, 37363), (77, 37426), (84, 37510), (101, 37657), (102, 37663), (112, 37789), (113, 37801), (114, 37831), (118, 37870), (121, 37891), (128, 37924), (129, 37933), (132, 37948), (140, 37996), (151, 38047), (154, 38083), (158, 38098), (165, 38149),

Gene: Jiawan_10 Start: 6182, Stop: 7762, Start Num: 1

Candidate Starts for Jiawan_10:

(Start: 1 @6182 has 48 MA's), (3, 6233), (6, 6323), (7, 6326), (Start: 9 @6341 has 22 MA's), (23, 6512), (24, 6524), (25, 6533), (53, 6794), (74, 6956), (81, 7007), (87, 7124), (112, 7349), (116, 7421), (126, 7481), (146, 7577), (152, 7622), (154, 7640),

Gene: Journey13_7 Start: 4346, Stop: 5233, Start Num: 9

Candidate Starts for Journey13_7:

(Start: 9 @4346 has 22 MA's), (13, 4391), (20, 4478), (22, 4502), (31, 4595), (36, 4637), (43, 4697), (44, 4703), (45, 4724), (47, 4730), (52, 4778), (64, 4877), (66, 4886), (75, 4943), (83, 5024), (85, 5033), (87, 5099),

Gene: Jsquared_8 Start: 4286, Stop: 5164, Start Num: 9

Candidate Starts for Jsquared_8:

(Start: 9 @4286 has 22 MA's), (13, 4331), (18, 4394), (20, 4418), (36, 4577), (43, 4637), (44, 4643), (45, 4664), (47, 4670), (64, 4823), (69, 4847), (83, 4964), (87, 5030), (88, 5033), (90, 5048), (91, 5054), (94, 5069), (100, 5126),

Gene: Kalpine_12 Start: 6504, Stop: 7799, Start Num: 10

Candidate Starts for Kalpine_12:

(Start: 10 @6504 has 47 MA's), (11, 6516), (13, 6549), (20, 6636), (22, 6660), (31, 6753), (36, 6795), (38, 6810), (43, 6855), (44, 6861), (45, 6882), (47, 6888), (86, 7161), (117, 7380), (123, 7407), (130, 7452), (134, 7494), (135, 7512), (142, 7557), (154, 7638), (165, 7728), (166, 7740),

Gene: Kerberos_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for Kerberos_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: Keziacharles14_9 Start: 4347, Stop: 5900, Start Num: 1

Candidate Starts for Keziacharles14_9:

(Start: 1 @4347 has 48 MA's), (4, 4413), (6, 4488), (Start: 9 @4506 has 22 MA's), (23, 4677), (25, 4698), (56, 5010), (60, 5049), (80, 5157), (81, 5172), (89, 5268), (95, 5310), (103, 5379), (105, 5394), (106, 5409), (126, 5619), (146, 5715), (149, 5736), (152, 5760),

Gene: Koduck_9 Start: 4573, Stop: 5451, Start Num: 9

Candidate Starts for Koduck_9:

(Start: 9 @4573 has 22 MA's), (13, 4618), (18, 4681), (20, 4705), (31, 4822), (33, 4846), (35, 4861), (36, 4864), (42, 4921), (43, 4924), (44, 4930), (47, 4957), (64, 5110), (69, 5134), (83, 5251), (87, 5317), (88, 5320), (90, 5335), (91, 5341), (94, 5356),

Gene: L5_10 Start: 4581, Stop: 5459, Start Num: 9

Candidate Starts for L5_10:

(Start: 9 @4581 has 22 MA's), (13, 4626), (18, 4689), (20, 4713), (31, 4830), (33, 4854), (35, 4869), (36, 4872), (42, 4929), (43, 4932), (44, 4938), (47, 4965), (64, 5118), (69, 5142), (83, 5259), (87, 5325), (88, 5328), (90, 5343), (91, 5349), (94, 5364),

Gene: LadyBird_9 Start: 4681, Stop: 5976, Start Num: 10

Candidate Starts for LadyBird_9:

(Start: 10 @4681 has 47 MA's), (13, 4726), (20, 4813), (22, 4837), (36, 4972), (43, 5032), (44, 5038), (45, 5059), (47, 5065), (78, 5293), (86, 5341), (117, 5560), (123, 5593), (135, 5698), (143, 5746),

Gene: Lilleskat_9 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for Lilleskat_9:

(Start: 1 @6146 has 48 MA's), (6, 6287), (7, 6290), (Start: 9 @6305 has 22 MA's), (23, 6476), (24, 6488), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: LionsBait_10 Start: 6239, Stop: 7756, Start Num: 10

Candidate Starts for LionsBait_10:

(Start: 10 @6239 has 47 MA's), (13, 6284), (20, 6371), (28, 6464), (36, 6530), (38, 6545), (43, 6590), (44, 6596), (45, 6617), (47, 6623), (79, 6872), (81, 6887), (105, 7145), (111, 7235), (123, 7364), (135, 7469), (142, 7514), (147, 7532), (154, 7595),

Gene: LoneWolf_11 Start: 5993, Stop: 7573, Start Num: 1

Candidate Starts for LoneWolf_11:

(Start: 1 @5993 has 48 MA's), (3, 6044), (6, 6134), (7, 6137), (Start: 9 @6152 has 22 MA's), (15, 6206), (23, 6323), (24, 6335), (25, 6344), (53, 6605), (74, 6767), (81, 6818), (87, 6935), (112, 7160), (116, 7232), (126, 7292), (146, 7388), (152, 7433), (154, 7451),

Gene: Loser_12 Start: 6404, Stop: 7858, Start Num: 10

Candidate Starts for Loser_12:

(Start: 10 @6404 has 47 MA's), (11, 6416), (20, 6536), (31, 6653), (36, 6695), (43, 6755), (44, 6761), (45, 6782), (46, 6785), (68, 6968), (81, 7055), (92, 7202), (93, 7205), (102, 7286), (116, 7475), (123, 7517), (124, 7535), (125, 7541), (145, 7658), (155, 7724), (163, 7763),

Gene: Luchador_9 Start: 4568, Stop: 6148, Start Num: 1

Candidate Starts for Luchador_9:

(Start: 1 @4568 has 48 MA's), (6, 4709), (7, 4712), (23, 4898), (25, 4919), (27, 4952), (29, 4970), (56, 5231), (60, 5270), (73, 5330), (74, 5342), (81, 5393), (87, 5510), (104, 5636), (112, 5735), (116, 5807), (120, 5828), (126, 5870), (146, 5966), (152, 6011),

Gene: MajorMajor_8 Start: 4332, Stop: 5210, Start Num: 9

Candidate Starts for MajorMajor_8:

(Start: 9 @4332 has 22 MA's), (13, 4377), (18, 4440), (20, 4464), (36, 4623), (43, 4683), (44, 4689), (45, 4710), (47, 4716), (64, 4869), (69, 4893), (83, 5010), (87, 5076), (88, 5079), (90, 5094), (91, 5100), (94, 5115), (100, 5172),

Gene: Maminiaina_11 Start: 5916, Stop: 7496, Start Num: 1

Candidate Starts for Maminiaina_11:

(Start: 1 @5916 has 48 MA's), (3, 5967), (6, 6057), (Start: 9 @6075 has 22 MA's), (23, 6246), (25, 6267), (53, 6528), (74, 6690), (81, 6741), (87, 6858), (116, 7155), (126, 7215), (146, 7311), (152, 7356), (154, 7374),

Gene: Megabear_36 Start: 36026, Stop: 37648, Start Num: 1

Candidate Starts for Megabear_36:

(Start: 1 @36026 has 48 MA's), (2, 36032), (4, 36095), (6, 36173), (Start: 9 @36191 has 22 MA's), (12, 36245), (17, 36293), (21, 36344), (23, 36380), (25, 36401), (30, 36455), (40, 36542), (41, 36581), (54, 36719), (57, 36758), (67, 36800), (77, 36863), (84, 36947), (101, 37094), (102, 37100), (112, 37226), (113, 37238), (114, 37268), (118, 37307), (121, 37328), (128, 37361), (129, 37370), (132, 37385), (140, 37433), (151, 37484), (154, 37520), (158, 37535), (165, 37586), (170, 37643),

Gene: MiculUcigas_9 Start: 4749, Stop: 6053, Start Num: 10

Candidate Starts for MiculUcigas_9:

(Start: 10 @4749 has 47 MA's), (11, 4761), (13, 4794), (20, 4881), (32, 5013), (36, 5040), (43, 5100), (44, 5106), (45, 5127), (52, 5187), (61, 5286), (63, 5289), (78, 5361), (86, 5409), (117, 5628), (123, 5661), (132, 5715), (135, 5766), (142, 5811), (147, 5829),

Gene: MissWhite_9 Start: 4390, Stop: 5277, Start Num: 9

Candidate Starts for MissWhite_9:

(Start: 9 @4390 has 22 MA's), (13, 4435), (20, 4522), (31, 4639), (35, 4678), (36, 4681), (43, 4741), (44, 4747), (45, 4768), (47, 4774), (52, 4822), (64, 4921), (66, 4930), (75, 4987), (83, 5068), (85, 5077),

Gene: Myxus_11 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for Myxus_11:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (23, 6476), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: NaSiaTalie_9 Start: 4749, Stop: 6050, Start Num: 10

Candidate Starts for NaSiaTalie_9:

(Start: 10 @4749 has 47 MA's), (13, 4794), (20, 4881), (36, 5040), (43, 5100), (44, 5106), (45, 5127), (61, 5283), (63, 5286), (78, 5358), (86, 5406), (117, 5625), (123, 5658), (132, 5712), (135, 5763), (142, 5808), (147, 5826),

Gene: Naji_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for Naji_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: NicoleTera_13 Start: 6467, Stop: 7756, Start Num: 10

Candidate Starts for NicoleTera_13:

(Start: 10 @6467 has 47 MA's), (13, 6512), (20, 6599), (31, 6716), (36, 6758), (39, 6791), (43, 6818), (44, 6824), (45, 6845), (47, 6851), (52, 6893), (78, 7064), (86, 7112), (117, 7331), (123, 7364), (135, 7469), (139, 7505), (143, 7517), (152, 7577), (154, 7595), (166, 7697),

Gene: Odin_9 Start: 4473, Stop: 5888, Start Num: 10

Candidate Starts for Odin_9:

(Start: 10 @4473 has 47 MA's), (36, 4764), (43, 4824), (44, 4830), (45, 4851), (47, 4857), (49, 4896), (74, 5079), (81, 5130), (119, 5559), (126, 5610), (127, 5613), (139, 5673), (140, 5676),

Gene: Onglai_10 Start: 4512, Stop: 6092, Start Num: 1

Candidate Starts for Onglai_10:

(Start: 1 @4512 has 48 MA's), (3, 4563), (6, 4653), (7, 4656), (Start: 9 @4671 has 22 MA's), (23, 4842), (24, 4854), (25, 4863), (53, 5124), (74, 5286), (81, 5337), (87, 5454), (112, 5679), (116, 5751), (126, 5811), (146, 5907), (152, 5952), (154, 5970),

Gene: PR_36 Start: 36630, Stop: 38252, Start Num: 1

Candidate Starts for PR_36:

(Start: 1 @36630 has 48 MA's), (2, 36636), (4, 36699), (6, 36777), (Start: 9 @36795 has 22 MA's), (12, 36849), (17, 36897), (21, 36948), (23, 36984), (25, 37005), (30, 37059), (40, 37146), (41, 37185), (54, 37323), (56, 37344), (57, 37362), (67, 37404), (77, 37467), (84, 37551), (101, 37698), (102, 37704), (112, 37830), (113, 37842), (114, 37872), (118, 37911), (121, 37932), (128, 37965), (129, 37974), (132, 37989), (140, 38037), (151, 38088), (154, 38124), (158, 38139), (165, 38190), (170, 38247),

Gene: PackMan_11 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for PackMan_11:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (23, 6476), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Ph8s_11 Start: 4474, Stop: 5847, Start Num: 10

Candidate Starts for Ph8s_11:

(Start: 10 @4474 has 47 MA's), (21, 4609), (22, 4630), (36, 4765), (39, 4798), (43, 4825), (44, 4831), (45, 4852), (47, 4858), (71, 5062), (81, 5131), (105, 5341), (110, 5404), (125, 5566), (126, 5569), (139, 5632), (140, 5635), (154, 5722),

Gene: Phaeder_11 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for Phaeder_11:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (23, 6476), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Phonnegut_11 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for Phonnegut_11:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: Pioneer_11 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for Pioneer_11:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: Piro94_10 Start: 5206, Stop: 6510, Start Num: 10

Candidate Starts for Piro94_10:

(Start: 10 @5206 has 47 MA's), (13, 5251), (20, 5338), (28, 5431), (36, 5497), (43, 5557), (44, 5563), (45, 5584), (52, 5644), (61, 5743), (63, 5746), (78, 5818), (117, 6085), (123, 6118), (132, 6172), (135, 6223), (142, 6268), (147, 6286),

Gene: Pomar16_12 Start: 4738, Stop: 6219, Start Num: 9

Candidate Starts for Pomar16_12:

(Start: 9 @4738 has 22 MA's), (13, 4783), (36, 5029), (43, 5089), (44, 5095), (45, 5116), (52, 5176), (74, 5344), (81, 5395), (93, 5545), (102, 5626), (116, 5815), (123, 5857), (133, 5920), (145, 6019), (165, 6148),

Gene: Power_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for Power_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: Priya_11 Start: 6177, Stop: 7757, Start Num: 1

Candidate Starts for Priya_11:

(Start: 1 @6177 has 48 MA's), (3, 6228), (6, 6318), (7, 6321), (23, 6507), (25, 6528), (74, 6951), (81, 7002), (87, 7119), (98, 7203), (102, 7227), (105, 7254), (112, 7344), (116, 7416), (126, 7476), (146, 7572), (152, 7617), (154, 7635),

Gene: Qobbit_11 Start: 6176, Stop: 7756, Start Num: 1

Candidate Starts for Qobbit_11:

(Start: 1 @6176 has 48 MA's), (3, 6227), (6, 6317), (7, 6320), (Start: 9 @6335 has 22 MA's), (23, 6506), (25, 6527), (53, 6788), (74, 6950), (81, 7001), (87, 7118), (112, 7343), (116, 7415), (126, 7475), (146, 7571), (152, 7616), (154, 7634),

Gene: QueenB2_9 Start: 4800, Stop: 6035, Start Num: 10

Candidate Starts for QueenB2_9:

(Start: 10 @4800 has 47 MA's), (11, 4812), (13, 4845), (20, 4932), (22, 4956), (31, 5049), (36, 5091), (43, 5151), (44, 5157), (45, 5178), (47, 5184), (55, 5268), (63, 5328), (65, 5334), (78, 5400), (86, 5448), (117, 5667), (123, 5697), (125, 5721), (145, 5835), (155, 5901), (160, 5925),

Gene: QueenBeesly_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for QueenBeesly_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (19, 4823), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: Quokka_7 Start: 4332, Stop: 5210, Start Num: 9

Candidate Starts for Quokka_7:

(Start: 9 @4332 has 22 MA's), (13, 4377), (18, 4440), (20, 4464), (36, 4623), (43, 4683), (44, 4689), (45, 4710), (47, 4716), (64, 4869), (69, 4893), (83, 5010), (87, 5076), (88, 5079), (90, 5094), (91, 5100), (94, 5115), (100, 5172),

Gene: Rahalelujah_9 Start: 4273, Stop: 5823, Start Num: 1

Candidate Starts for Rahalelujah_9:

(Start: 1 @4273 has 48 MA's), (5, 4366), (6, 4414), (Start: 9 @4432 has 22 MA's), (16, 4495), (23, 4603), (25, 4624), (34, 4714), (48, 4855), (53, 4885), (60, 4975), (81, 5098), (95, 5236), (116, 5482), (122, 5512), (126, 5542), (146, 5638),

Gene: RedRock_12 Start: 6487, Stop: 7968, Start Num: 10

Candidate Starts for RedRock_12:

(Start: 10 @6487 has 47 MA's), (13, 6532), (20, 6619), (31, 6736), (36, 6778), (43, 6838), (44, 6844), (45, 6865), (46, 6868), (58, 7009), (68, 7057), (81, 7144), (92, 7291), (93, 7294), (102, 7375), (116, 7564), (123, 7606), (124, 7624), (125, 7630), (131, 7654), (145, 7768), (148, 7777), (165, 7897),

Gene: Retro23_9 Start: 4797, Stop: 6089, Start Num: 10

Candidate Starts for Retro23_9:

(Start: 10 @4797 has 47 MA's), (11, 4809), (13, 4842), (20, 4929), (22, 4953), (31, 5046), (36, 5088), (38, 5103), (43, 5148), (44, 5154), (45, 5175), (55, 5265), (63, 5325), (65, 5331), (86, 5445), (117, 5664), (123, 5697), (130, 5742), (135, 5802), (142, 5847), (154, 5928), (166, 6030),

Gene: RyeScarlet_12 Start: 6182, Stop: 7762, Start Num: 1

Candidate Starts for RyeScarlet_12:

(Start: 1 @6182 has 48 MA's), (3, 6233), (6, 6323), (7, 6326), (Start: 9 @6341 has 22 MA's), (23, 6512), (24, 6524), (25, 6533), (53, 6794), (74, 6956), (81, 7007), (87, 7124), (112, 7349), (116, 7421), (126, 7481), (146, 7577), (152, 7622), (154, 7640),

Gene: Sachima_9 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for Sachima_9:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (Start: 9 @6305 has 22 MA's), (23, 6476), (24, 6488), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Scherzo_11 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for Scherzo_11:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (24, 6521), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: SemperFi_11 Start: 5122, Stop: 6369, Start Num: 10

Candidate Starts for SemperFi_11:

(Start: 10 @5122 has 47 MA's), (11, 5134), (13, 5167), (20, 5254), (22, 5278), (31, 5371), (36, 5413), (38, 5428), (43, 5473), (44, 5479), (45, 5500), (46, 5503), (63, 5650), (86, 5770), (117, 5989), (123, 6019), (125, 6043), (131, 6067), (145, 6166), (155, 6232), (157, 6238), (165, 6295),

Gene: Serenity_8 Start: 4332, Stop: 5210, Start Num: 9

Candidate Starts for Serenity_8:

(Start: 9 @4332 has 22 MA's), (13, 4377), (18, 4440), (20, 4464), (36, 4623), (43, 4683), (44, 4689), (45, 4710), (47, 4716), (64, 4869), (69, 4893), (83, 5010), (87, 5076), (88, 5079), (90, 5094), (91, 5100), (94, 5115), (100, 5172),

Gene: SheaKeira_10 Start: 4377, Stop: 5927, Start Num: 1

Candidate Starts for SheaKeira_10:

(Start: 1 @4377 has 48 MA's), (6, 4518), (23, 4707), (25, 4728), (52, 4980), (81, 5202), (89, 5298), (95, 5340), (106, 5439), (116, 5586), (126, 5646), (146, 5742), (153, 5802),

Gene: Sheen_10 Start: 5731, Stop: 7155, Start Num: 9

Candidate Starts for Sheen_10:

(Start: 9 @5731 has 22 MA's), (13, 5776), (20, 5863), (31, 5980), (35, 6019), (36, 6022), (43, 6082), (44, 6088), (45, 6109), (47, 6115), (52, 6163), (60, 6256), (74, 6328), (78, 6346), (81, 6379), (99, 6550), (104, 6589), (119, 6790), (123, 6817), (125, 6838), (131, 6862), (137, 6922), (138, 6925), (145, 6955), (150, 6979), (155, 7021), (156, 7024), (161, 7060), (164, 7066), (169, 7138),

Gene: Sknot_10 Start: 4749, Stop: 6053, Start Num: 10

Candidate Starts for Sknot_10:

(Start: 10 @4749 has 47 MA's), (11, 4761), (13, 4794), (20, 4881), (32, 5013), (36, 5040), (43, 5100), (44, 5106), (45, 5127), (52, 5187), (61, 5286), (63, 5289), (78, 5361), (86, 5409), (117, 5628), (123, 5661), (132, 5715), (135, 5766), (142, 5811), (147, 5829),

Gene: SnapTap_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for SnapTap_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: SororFago_9 Start: 4555, Stop: 6138, Start Num: 1

Candidate Starts for SororFago_9:

(Start: 1 @4555 has 48 MA's), (6, 4696), (7, 4699), (15, 4768), (23, 4885), (25, 4906), (29, 4957), (56, 5218), (60, 5257), (73, 5317), (74, 5329), (81, 5380), (87, 5497), (104, 5623), (112, 5722), (116, 5794), (120, 5815), (126, 5860), (146, 5956), (152, 6001),

Gene: Spouty_11 Start: 6176, Stop: 7756, Start Num: 1

Candidate Starts for Spouty_11:

(Start: 1 @6176 has 48 MA's), (3, 6227), (6, 6317), (7, 6320), (23, 6506), (25, 6527), (74, 6950), (81, 7001), (87, 7118), (98, 7202), (102, 7226), (105, 7253), (112, 7343), (116, 7415), (126, 7475), (146, 7571), (152, 7616), (154, 7634),

Gene: StarStuff_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for StarStuff_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: Sunhee_8 Start: 4574, Stop: 6157, Start Num: 1

Candidate Starts for Sunhee_8:

(Start: 1 @4574 has 48 MA's), (6, 4715), (7, 4718), (15, 4787), (23, 4904), (25, 4925), (27, 4958), (29, 4976), (60, 5276), (74, 5348), (81, 5399), (104, 5642), (105, 5651), (116, 5813), (120, 5834), (126, 5876), (146, 5972), (149, 5993), (152, 6017), (164, 6086),

Gene: Superchunk_9 Start: 4337, Stop: 5746, Start Num: 9

Candidate Starts for Superchunk_9:

(8, 4331), (Start: 9 @4337 has 22 MA's), (36, 4628), (43, 4688), (44, 4694), (45, 4715), (47, 4721), (52, 4769), (74, 4937), (81, 4988), (119, 5417), (126, 5468), (127, 5471), (139, 5531), (140, 5534), (167, 5717),

Gene: SweetiePie_9 Start: 4694, Stop: 5941, Start Num: 10

Candidate Starts for SweetiePie_9:

(Start: 10 @4694 has 47 MA's), (11, 4706), (13, 4739), (20, 4826), (22, 4850), (31, 4943), (36, 4985), (38, 5000), (43, 5045), (44, 5051), (45, 5072), (46, 5075), (63, 5222), (86, 5342), (117, 5561), (123, 5591), (125, 5615), (131, 5639), (145, 5738), (155, 5804), (157, 5810), (165, 5867),

Gene: SwirlSquare_12 Start: 4508, Stop: 5878, Start Num: 10

Candidate Starts for SwirlSquare_12:

(Start: 10 @4508 has 47 MA's), (22, 4664), (36, 4799), (43, 4859), (44, 4865), (45, 4886), (47, 4892), (52, 4940), (76, 5120), (81, 5159), (99, 5321), (108, 5408), (120, 5555), (126, 5600), (127, 5603), (139, 5663), (140, 5666), (167, 5849),

Gene: Taptic_36 Start: 36026, Stop: 37648, Start Num: 1

Candidate Starts for Taptic_36:

(Start: 1 @36026 has 48 MA's), (2, 36032), (4, 36095), (6, 36173), (Start: 9 @36191 has 22 MA's), (12, 36245), (17, 36293), (21, 36344), (23, 36380), (25, 36401), (30, 36455), (40, 36542), (41, 36581), (54, 36719), (57, 36758), (67, 36800), (77, 36863), (84, 36947), (101, 37094), (102, 37100), (112, 37226), (113, 37238), (114, 37268), (118, 37307), (121, 37328), (128, 37361), (129, 37370), (132, 37385), (140, 37433), (151, 37484), (154, 37520), (158, 37535), (165, 37586), (170, 37643),

Gene: Terrific_13 Start: 5203, Stop: 6507, Start Num: 10

Candidate Starts for Terrific_13:

(Start: 10 @5203 has 47 MA's), (13, 5248), (20, 5335), (36, 5494), (43, 5554), (44, 5560), (45, 5581), (52, 5641), (61, 5740), (63, 5743), (78, 5815), (117, 6082), (123, 6115), (132, 6169), (135, 6220), (142, 6265), (147, 6283),

Gene: TipsytheTRex_8 Start: 4285, Stop: 5163, Start Num: 9

Candidate Starts for TipsytheTRex_8:

(Start: 9 @4285 has 22 MA's), (13, 4330), (18, 4393), (20, 4417), (21, 4420), (31, 4534), (36, 4576), (43, 4636), (44, 4642), (47, 4669), (64, 4822), (69, 4846), (83, 4963), (87, 5029), (90, 5047), (91, 5053), (94, 5068), (100, 5125),

Gene: Toaka_9 Start: 4553, Stop: 6103, Start Num: 1

Candidate Starts for Toaka_9:

(Start: 1 @4553 has 48 MA's), (5, 4646), (6, 4694), (23, 4883), (25, 4904), (34, 4994), (50, 5138), (53, 5165), (60, 5255), (80, 5363), (81, 5378), (89, 5474), (106, 5615), (112, 5690), (116, 5762), (122, 5792), (126, 5822), (146, 5918), (154, 5981),

Gene: Tomathan_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for Tomathan_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145, 5978), (165, 6107),

Gene: Toro_11 Start: 5649, Stop: 7097, Start Num: 9

Candidate Starts for Toro_11:

(Start: 9 @5649 has 22 MA's), (13, 5694), (20, 5781), (31, 5898), (35, 5937), (36, 5940), (43, 6000), (44, 6006), (45, 6027), (47, 6033), (52, 6081), (60, 6174), (74, 6246), (81, 6297), (93, 6447), (99, 6507), (102, 6528), (110, 6618), (112, 6645), (119, 6732), (123, 6759), (125, 6780), (131, 6804), (137, 6864), (138, 6867), (145, 6897), (150, 6921), (155, 6963), (156, 6966), (161, 7002), (164, 7008), (169, 7080),

Gene: Travvers_12 Start: 4697, Stop: 6178, Start Num: 9

Candidate Starts for Travvers_12:

(Start: 9 @4697 has 22 MA's), (13, 4742), (36, 4988), (43, 5048), (44, 5054), (45, 5075), (51, 5129), (52, 5135), (74, 5303), (81, 5354), (93, 5504), (102, 5585), (116, 5774), (123, 5816), (133, 5879), (145,

5978), (165, 6107),

Gene: Trixie_12 Start: 6376, Stop: 7671, Start Num: 10

Candidate Starts for Trixie_12:

(Start: 10 @6376 has 47 MA's), (11, 6388), (13, 6421), (20, 6508), (22, 6532), (31, 6625), (36, 6667), (38, 6682), (43, 6727), (44, 6733), (45, 6754), (47, 6760), (86, 7033), (117, 7252), (123, 7279), (130, 7324), (135, 7384), (154, 7510), (165, 7600), (166, 7612),

Gene: Tubs_11 Start: 6146, Stop: 7726, Start Num: 1

Candidate Starts for Tubs_11:

(Start: 1 @6146 has 48 MA's), (3, 6197), (6, 6287), (7, 6290), (23, 6476), (25, 6497), (53, 6758), (74, 6920), (81, 6971), (87, 7088), (112, 7313), (116, 7385), (126, 7445), (146, 7541), (152, 7586), (154, 7604),

Gene: Ugenie5_8 Start: 6179, Stop: 7759, Start Num: 1

Candidate Starts for Ugenie5_8:

(Start: 1 @6179 has 48 MA's), (3, 6230), (6, 6320), (7, 6323), (Start: 9 @6338 has 22 MA's), (23, 6509), (24, 6521), (25, 6530), (53, 6791), (74, 6953), (81, 7004), (87, 7121), (112, 7346), (116, 7418), (126, 7478), (146, 7574), (152, 7619), (154, 7637),

Gene: Updawg_11 Start: 5191, Stop: 6495, Start Num: 10

Candidate Starts for Updawg_11:

(Start: 10 @5191 has 47 MA's), (13, 5236), (20, 5323), (36, 5482), (43, 5542), (44, 5548), (45, 5569), (46, 5572), (52, 5629), (61, 5728), (63, 5731), (78, 5803), (86, 5851), (117, 6070), (123, 6103), (132, 6157), (135, 6208), (142, 6253), (147, 6271), (162, 6388),

Gene: VA6_9 Start: 4672, Stop: 5973, Start Num: 10

Candidate Starts for VA6_9:

(Start: 10 @4672 has 47 MA's), (13, 4717), (20, 4804), (22, 4828), (31, 4921), (36, 4963), (38, 4978), (43, 5023), (44, 5029), (45, 5050), (47, 5056), (63, 5212), (78, 5284), (86, 5332), (109, 5455), (117, 5551), (123, 5584), (135, 5689), (139, 5725), (154, 5815), (166, 5917),

Gene: VC3_12 Start: 4696, Stop: 6177, Start Num: 9

Candidate Starts for VC3_12:

(Start: 9 @4696 has 22 MA's), (13, 4741), (19, 4825), (36, 4987), (43, 5047), (44, 5053), (45, 5074), (51, 5128), (52, 5134), (74, 5302), (81, 5353), (93, 5503), (102, 5584), (123, 5815), (133, 5878), (145, 5977), (165, 6106),

Gene: Vanisoa_9 Start: 4264, Stop: 5814, Start Num: 1

Candidate Starts for Vanisoa_9:

(Start: 1 @4264 has 48 MA's), (6, 4405), (7, 4408), (Start: 9 @4423 has 22 MA's), (23, 4594), (25, 4615), (26, 4645), (48, 4846), (53, 4876), (60, 4966), (80, 5074), (81, 5089), (89, 5185), (95, 5227), (106, 5326), (116, 5473), (122, 5503), (126, 5533), (146, 5629), (153, 5689),

Gene: WeiHuaDA_15 Start: 6986, Stop: 8281, Start Num: 10

Candidate Starts for WeiHuaDA_15:

(Start: 10 @6986 has 47 MA's), (11, 6998), (13, 7031), (20, 7118), (22, 7142), (31, 7235), (36, 7277), (43, 7337), (44, 7343), (45, 7364), (47, 7370), (55, 7454), (59, 7511), (86, 7643), (117, 7862), (123, 7889), (130, 7934), (134, 7976), (135, 7994), (142, 8039), (154, 8120), (164, 8192), (166, 8222),

Gene: WideWale_11 Start: 5191, Stop: 6495, Start Num: 10

Candidate Starts for WideWale_11:

(Start: 10 @5191 has 47 MA's), (13, 5236), (20, 5323), (36, 5482), (43, 5542), (44, 5548), (45, 5569), (46, 5572), (52, 5629), (61, 5728), (63, 5731), (78, 5803), (86, 5851), (117, 6070), (123, 6103), (132, 6157), (135, 6208), (142, 6253), (147, 6271), (162, 6388),

Gene: Yecey3_10 Start: 4341, Stop: 5915, Start Num: 1

Candidate Starts for Yecey3_10:

(Start: 1 @4341 has 48 MA's), (5, 4434), (6, 4482), (7, 4485), (12, 4554), (23, 4689), (25, 4710), (29, 4761), (53, 4971), (70, 5103), (74, 5133), (81, 5184), (95, 5322), (105, 5406), (106, 5421), (116, 5568), (126, 5634), (146, 5730), (149, 5751), (163, 5838),