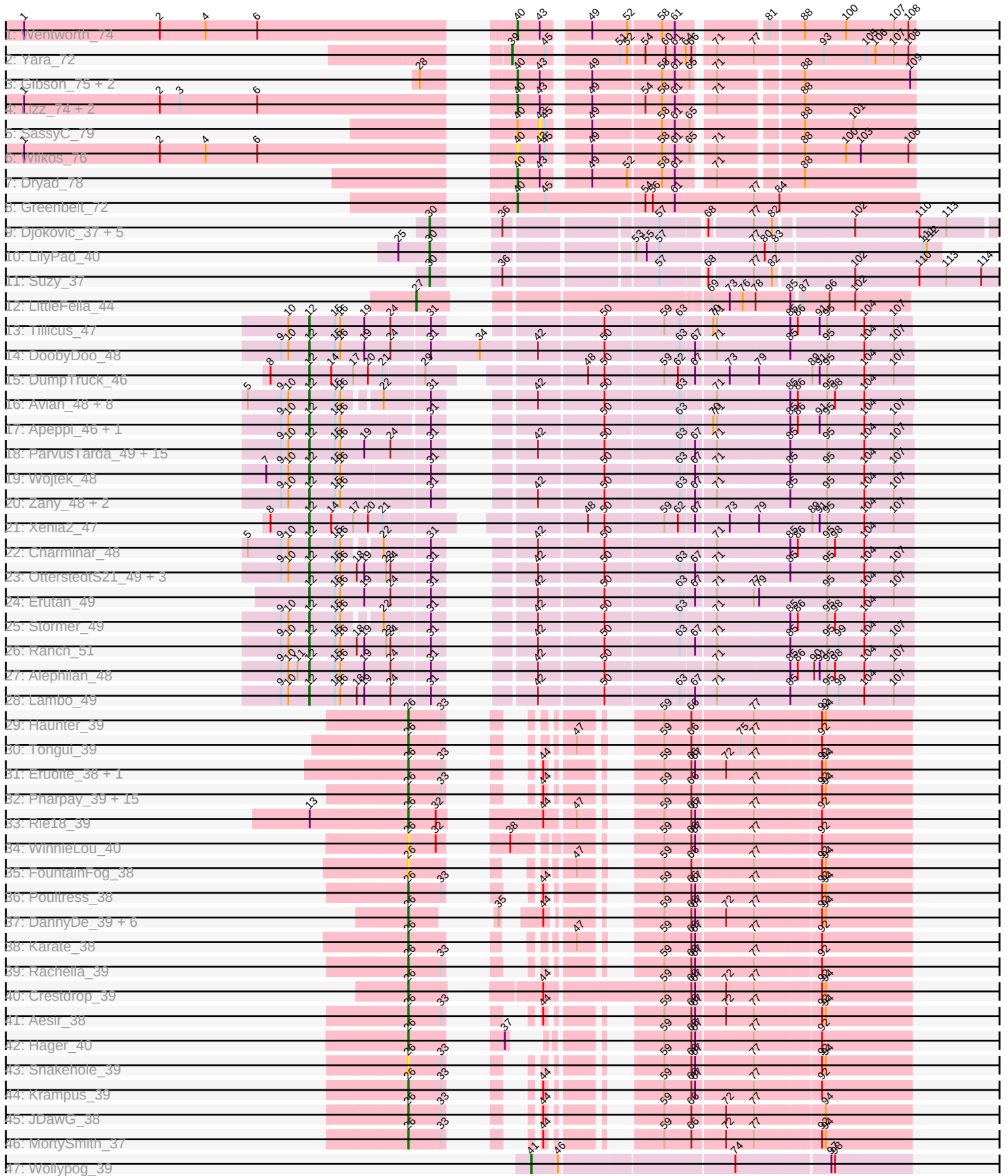


Pham 330672



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 330672 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330672 has 107 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Wentworth_74
- Track 2 : Yara_72
- Track 3 : Gibson_75, Rooney_75, Virizion_81
- Track 4 : Lizz_74, ShakeNBake_74, PHTown_74
- Track 5 : SassyC_79
- Track 6 : Wilkos_76
- Track 7 : Dryad_78
- Track 8 : Greenbelt_72
- Track 9 : Djokovic_37, Terapin_38, Sienna_37, Beyoncage_37, Madi_37, BiteSize_37
- Track 10 : LilyPad_40
- Track 11 : Suzy_37
- Track 12 : LittleFella_44
- Track 13 : Tillicus_47
- Track 14 : DoobyDoo_48
- Track 15 : DumpTruck_46
- Track 16 : Avian_48, NovaSharks_51, Jamemuya19_49, RazorC_49, Astralis_49, Rumi_50, Alyssamiracle_52, Riduram_48, Genamy16_52
- Track 17 : Apeppi_46, LuckyLeo_48
- Track 18 : ParvusTarda_49, Pywacket_48, Jalebi_49, LavAbarElk_49, GOATification_50, Yikes_51, Mima20_49, MoiGyank_53, NorManre_52, BirthdayBoy_52, Rukungu_52, Fulcrum_50, Gibbin_51, DaviePasture_50, Patos_52, Sampudon_50
- Track 19 : Wojtek_48
- Track 20 : Zany_48, Rota_48, Nettle_50
- Track 21 : Xenia2_47
- Track 22 : Charminar_48
- Track 23 : OtterstedtS21_49, Gretellyn_49, Lila22_50, Sadboi_50
- Track 24 : Erutan_49
- Track 25 : Stormer_49
- Track 26 : Ranch_51
- Track 27 : Alephilan_48
- Track 28 : Lambo_49
- Track 29 : Haunter_39
- Track 30 : Tongui_39
- Track 31 : Erudite_38, Dauntless_38

- Track 32 : Pharpay_39, Neptune_39, CoolCookie_39, Anakin_39, Gilda_39, OverHedge_39, OhDear_39, PhunaPhoke_39, AnnaSerena_39, Potty_39, Tedro_39, Artiphact_39, Cybele_39, NarutoRun_39, SafetyGuy_39, Tiggy93_39
- Track 33 : Rie18_39
- Track 34 : WinnieLou_40
- Track 35 : FountainFog_38
- Track 36 : Poultress_38
- Track 37 : DannyDe_39, Hiddenleaf_39, SilentWarrior_39, JingleBells_39, FreddieHg_39, Annapurna_39, Chivey_39
- Track 38 : Karate_38
- Track 39 : Rachella_39
- Track 40 : Crestdrop_39
- Track 41 : Aesir_38
- Track 42 : Hager_40
- Track 43 : Snakehole_39
- Track 44 : Krampus_39
- Track 45 : JDawG_38
- Track 46 : MortySmith_37
- Track 47 : Wollypog_39

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

The start number called the most often in the published annotations is 12, it was called in 40 of the 94 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alephilan_48, Alyssamiracle_52, Apeppi_46, Astralis_49, Avian_48, BirthdayBoy_52, Charminar_48, DaviePasture_50, DoobyDoo_48, DumpTruck_46, Erutan_49, Fulcrum_50, GOATification_50, Genamy16_52, Gibbin_51, GretellLyn_49, Jalebi_49, Jamemuya19_49, Lambo_49, LavAbarElk_49, Lila22_50, LuckyLeo_48, Mima20_49, MoiGyank_53, Nettle_50, NorManre_52, NovaSharks_51, OtterstedtS21_49, ParvusTarda_49, Patos_52, Pywacket_48, Ranch_51, RazorC_49, Riduram_48, Rota_48, Rukungu_52, Rumi_50, Sadboi_50, Sampudon_50, Stormer_49, Tillicus_47, Wojtek_48, Xenia2_47, Yikes_51, Zany_48,

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

•

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

- Aesir_38, Anakin_39, AnnaSerena_39, Annapurna_39, Artiphact_39, Beyoncage_37, BiteSize_37, Chivey_39, CoolCookie_39, Crestdrop_39, Cybele_39, DannyDe_39, Dauntless_38, Djokovic_37, Dryad_78, Erudite_38, FountainFog_38, FreddieHg_39, Gibson_75, Gilda_39, Greenbelt_72, Hager_40, Haunter_39, Hiddenleaf_39, JDawG_38, JingleBells_39, Karate_38, Krampus_39, LilyPad_40, LittleFella_44, Lizz_74, Madi_37, MortySmith_37, NarutoRun_39, Neptune_39, OhDear_39, OverHedge_39, PHTowN_74, Pharpay_39, PhunaPhoke_39, Potty_39, Poultress_38, Rachella_39, Rie18_39, Rooney_75, SafetyGuy_39, SassyC_79, ShakeNBake_74, Sienna_37, SilentWarrior_39, Snakehole_39, Suzy_37, Tedro_39, Terapin_38, Tiggy93_39, Tongui_39, Virizion_81, Wentworth_74, Wilkos_76, WinnieLou_40, Wollypog_39, Yara_72,

Summary by start number:

Start 12:

- Found in 45 of 107 (42.1%) of genes in pham
- Manual Annotations of this start: 40 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alephlan_48 (DV), Alyssamiracle_52 (DV), Apeppi_46 (DV), Astralis_49 (DV), Avian_48 (DV), BirthdayBoy_52 (DV), Charminar_48 (DV), DaviePasture_50 (DV), DoobyDoo_48 (DV), DumpTruck_46 (DV), Erutan_49 (DV), Fulcrum_50 (DV), GOATification_50 (DV), Genamy16_52 (DV), Gibbin_51 (DV), GretelLyn_49 (DV), Jalebi_49 (DV), Jamemuya19_49 (DV), Lambo_49 (DV), LavAbarElk_49 (DV), Lila22_50 (DV), LuckyLeo_48 (DV), Mima20_49 (DV), MoiGyank_53 (DV), Nettle_50 (DV), NorManre_52 (DV), NovaSharks_51 (DV), OtterstedtS21_49 (DV), ParvusTarda_49 (DV), Patos_52 (DV), Pywacket_48 (DV), Ranch_51 (DV), RazorC_49 (DV), Riduram_48 (DV), Rota_48 (DV), Rukungu_52 (DV), Rumi_50 (DV), Sadboi_50 (DV), Sampudon_50 (DV), Stormer_49 (DV), Tillicus_47 (DV), Wojtek_48 (DV), Xenia2_47 (DV), Yikes_51 (DV), Zany_48 (DV),

Start 26:

- Found in 40 of 107 (37.4%) of genes in pham
- Manual Annotations of this start: 35 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir_38 (EF), Anakin_39 (EF), AnnaSerena_39 (EF), Annapurna_39 (EF), Artiphact_39 (EF), Chivey_39 (EF), CoolCookie_39 (EF), Crestdrop_39 (EF), Cybele_39 (EF), DannyDe_39 (EF), Dauntless_38 (EF), Erudite_38 (EF), FountainFog_38 (EF), FreddieHg_39 (EF), Gilda_39 (EF), Hager_40 (EF), Haunter_39 (EF), Hiddenleaf_39 (EF), JDawG_38 (EF), JingleBells_39 (EF), Karate_38 (EF), Krampus_39 (EF), MortySmith_37 (EF), NarutoRun_39 (EF), Neptune_39 (EF), OhDear_39 (EF), OverHedge_39 (EF), Pharpay_39 (EF), PhunaPhoke_39 (EF), Potty_39 (EF), Poultress_38 (EF), Rachella_39 (EF), Rie18_39 (EF), SafetyGuy_39 (EF), SilentWarrior_39 (EF), Snakehole_39 (EF), Tedro_39 (EF), Tiggy93_39 (EF), Tongui_39 (EF), WinnieLou_40 (EF),

Start 27:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LittleFella_44 (DG2),

Start 30:

- Found in 8 of 107 (7.5%) of genes in pham
- Manual Annotations of this start: 8 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beyoncage_37 (DG1), BiteSize_37 (DG1), Djokovic_37 (DG1), LilyPad_40 (DG1), Madi_37 (DG1), Sienna_37 (DG1), Suzy_37 (DG1), Terapin_38 (DG1),

Start 39:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yara_72 (BN),

Start 40:

- Found in 11 of 107 (10.3%) of genes in pham
- Manual Annotations of this start: 8 of 94
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Dryad_78 (BN), Gibson_75 (BN), Greenbelt_72 (BN), Lizz_74 (BN), PHTowN_74 (BN), Rooney_75 (BN), ShakeNBake_74 (BN), Virizion_81 (BN), Wentworth_74 (BN), Wilkos_76 (BN),

Start 41:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog_39 (singleton),

Start 43:

- Found in 10 of 107 (9.3%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: SassyC_79 (BN),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, BN, EF, DG2, DG1, DV,

Info for manual annotations of cluster BN:

- Start number 39 was manually annotated 1 time for cluster BN.
- Start number 40 was manually annotated 8 times for cluster BN.

Info for manual annotations of cluster DG1:

- Start number 30 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 27 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:

- Start number 12 was manually annotated 40 times for cluster DV.

Info for manual annotations of cluster EF:

- Start number 26 was manually annotated 35 times for cluster EF.

Gene Information:

Gene: Aesir_38 Start: 25004, Stop: 25594, Start Num: 26

Candidate Starts for Aesir_38:

(Start: 26 @25004 has 35 MA's), (33, 25058), (44, 25094), (59, 25208), (66, 25250), (67, 25256), (72, 25301), (77, 25346), (92, 25448), (94, 25454),

Gene: Alephilan_48 Start: 36707, Stop: 37567, Start Num: 12

Candidate Starts for Alephilan_48:

(9, 36662), (10, 36674), (11, 36689), (Start: 12 @36707 has 40 MA's), (15, 36749), (16, 36758), (19, 36797), (24, 36839), (31, 36899), (42, 36983), (50, 37085), (71, 37250), (85, 37367), (86, 37379), (90, 37406), (91, 37415), (95, 37427), (98, 37439), (104, 37487), (107, 37535),

Gene: Alyssamiracle_52 Start: 36033, Stop: 36866, Start Num: 12

Candidate Starts for Alyssamiracle_52:

(5, 35934), (9, 35988), (10, 36000), (Start: 12 @36033 has 40 MA's), (15, 36075), (16, 36084), (22, 36129), (31, 36198), (42, 36282), (50, 36384), (63, 36498), (71, 36549), (85, 36666), (86, 36678), (95, 36726), (98, 36738), (104, 36786),

Gene: Anakin_39 Start: 25324, Stop: 25914, Start Num: 26

Candidate Starts for Anakin_39:

(Start: 26 @25324 has 35 MA's), (33, 25378), (44, 25414), (59, 25528), (66, 25570), (77, 25666), (92, 25768), (94, 25774),

Gene: AnnaSerena_39 Start: 25359, Stop: 25949, Start Num: 26

Candidate Starts for AnnaSerena_39:

(Start: 26 @25359 has 35 MA's), (33, 25413), (44, 25449), (59, 25563), (66, 25605), (77, 25701), (92, 25803), (94, 25809),

Gene: Annapurna_39 Start: 24633, Stop: 25223, Start Num: 26

Candidate Starts for Annapurna_39:

(Start: 26 @24633 has 35 MA's), (35, 24687), (44, 24723), (59, 24837), (66, 24879), (67, 24885), (72, 24930), (77, 24975), (92, 25077), (94, 25083),

Gene: Apeppi_46 Start: 36209, Stop: 37057, Start Num: 12

Candidate Starts for Apeppi_46:

(9, 36164), (10, 36176), (Start: 12 @36209 has 40 MA's), (15, 36251), (16, 36260), (31, 36392), (50, 36578), (63, 36692), (70, 36737), (71, 36743), (85, 36860), (86, 36872), (91, 36908), (95, 36920), (104, 36980), (107, 37028),

Gene: Artiphact_39 Start: 25348, Stop: 25938, Start Num: 26

Candidate Starts for Artiphact_39:

(Start: 26 @25348 has 35 MA's), (33, 25402), (44, 25438), (59, 25552), (66, 25594), (77, 25690), (92, 25792), (94, 25798),

Gene: Astralis_49 Start: 35611, Stop: 36444, Start Num: 12

Candidate Starts for Astralis_49:

(5, 35512), (9, 35566), (10, 35578), (Start: 12 @35611 has 40 MA's), (15, 35653), (16, 35662), (22, 35707), (31, 35776), (42, 35860), (50, 35962), (63, 36076), (71, 36127), (85, 36244), (86, 36256), (95, 36304), (98, 36316), (104, 36364),

Gene: Avian_48 Start: 35761, Stop: 36594, Start Num: 12

Candidate Starts for Avian_48:

(5, 35662), (9, 35716), (10, 35728), (Start: 12 @35761 has 40 MA's), (15, 35803), (16, 35812), (22, 35857), (31, 35926), (42, 36010), (50, 36112), (63, 36226), (71, 36277), (85, 36394), (86, 36406), (95, 36454), (98, 36466), (104, 36514),

Gene: Beyoncage_37 Start: 31421, Stop: 32200, Start Num: 30

Candidate Starts for Beyoncage_37:

(Start: 30 @31421 has 8 MA's), (36, 31460), (57, 31679), (68, 31742), (77, 31808), (82, 31835), (102, 31952), (110, 32057), (113, 32099),

Gene: BirthdayBoy_52 Start: 37410, Stop: 38270, Start Num: 12

Candidate Starts for BirthdayBoy_52:

(9, 37365), (10, 37377), (Start: 12 @37410 has 40 MA's), (15, 37452), (16, 37461), (19, 37500), (24, 37542), (31, 37602), (42, 37686), (50, 37788), (63, 37902), (67, 37923), (71, 37953), (85, 38070), (95, 38130), (104, 38190), (107, 38238),

Gene: BiteSize_37 Start: 31507, Stop: 32286, Start Num: 30

Candidate Starts for BiteSize_37:

(Start: 30 @31507 has 8 MA's), (36, 31546), (57, 31765), (68, 31828), (77, 31894), (82, 31921), (102, 32038), (110, 32143), (113, 32185),

Gene: Charminar_48 Start: 35379, Stop: 36212, Start Num: 12

Candidate Starts for Charminar_48:

(5, 35280), (9, 35334), (10, 35346), (Start: 12 @35379 has 40 MA's), (15, 35421), (16, 35430), (22, 35475), (31, 35544), (42, 35628), (50, 35730), (71, 35895), (85, 36012), (86, 36024), (95, 36072), (98, 36084), (104, 36132),

Gene: Chivey_39 Start: 24582, Stop: 25172, Start Num: 26

Candidate Starts for Chivey_39:

(Start: 26 @24582 has 35 MA's), (35, 24636), (44, 24672), (59, 24786), (66, 24828), (67, 24834), (72, 24879), (77, 24924), (92, 25026), (94, 25032),

Gene: CoolCookie_39 Start: 25354, Stop: 25944, Start Num: 26

Candidate Starts for CoolCookie_39:

(Start: 26 @25354 has 35 MA's), (33, 25408), (44, 25444), (59, 25558), (66, 25600), (77, 25696), (92, 25798), (94, 25804),

Gene: Crestdrop_39 Start: 24493, Stop: 25206, Start Num: 26

Candidate Starts for Crestdrop_39:

(Start: 26 @24493 has 35 MA's), (44, 24637), (59, 24820), (66, 24862), (67, 24868), (72, 24913), (77, 24958), (92, 25060), (94, 25066),

Gene: Cybele_39 Start: 25324, Stop: 25914, Start Num: 26

Candidate Starts for Cybele_39:

(Start: 26 @25324 has 35 MA's), (33, 25378), (44, 25414), (59, 25528), (66, 25570), (77, 25666), (92, 25768), (94, 25774),

Gene: DannyDe_39 Start: 24588, Stop: 25178, Start Num: 26

Candidate Starts for DannyDe_39:

(Start: 26 @24588 has 35 MA's), (35, 24642), (44, 24678), (59, 24792), (66, 24834), (67, 24840), (72, 24885), (77, 24930), (92, 25032), (94, 25038),

Gene: Dauntless_38 Start: 24910, Stop: 25500, Start Num: 26

Candidate Starts for Dauntless_38:

(Start: 26 @24910 has 35 MA's), (33, 24964), (44, 25000), (59, 25114), (66, 25156), (67, 25162), (72, 25207), (77, 25252), (92, 25354), (94, 25360),

Gene: DaviePasture_50 Start: 37051, Stop: 37911, Start Num: 12

Candidate Starts for DaviePasture_50:

(9, 37006), (10, 37018), (Start: 12 @37051 has 40 MA's), (15, 37093), (16, 37102), (19, 37141), (24, 37183), (31, 37243), (42, 37327), (50, 37429), (63, 37543), (67, 37564), (71, 37594), (85, 37711), (95, 37771), (104, 37831), (107, 37879),

Gene: Djokovic_37 Start: 31420, Stop: 32199, Start Num: 30

Candidate Starts for Djokovic_37:

(Start: 30 @31420 has 8 MA's), (36, 31459), (57, 31678), (68, 31741), (77, 31807), (82, 31834), (102, 31951), (110, 32056), (113, 32098),

Gene: DoobyDoo_48 Start: 35865, Stop: 36803, Start Num: 12

Candidate Starts for DoobyDoo_48:

(9, 35820), (10, 35832), (Start: 12 @35865 has 40 MA's), (15, 35907), (16, 35916), (19, 35955), (24, 35997), (31, 36057), (34, 36135), (42, 36219), (50, 36321), (63, 36435), (67, 36456), (71, 36486), (85, 36603), (95, 36663), (104, 36723), (107, 36771),

Gene: Dryad_78 Start: 52632, Stop: 52060, Start Num: 40

Candidate Starts for Dryad_78:

(Start: 40 @52632 has 8 MA's), (43, 52596), (49, 52539), (52, 52482), (58, 52431), (61, 52410), (71, 52359), (88, 52239),

Gene: DumpTruck_46 Start: 35046, Stop: 35921, Start Num: 12

Candidate Starts for DumpTruck_46:

(8, 34986), (Start: 12 @35046 has 40 MA's), (14, 35079), (17, 35112), (20, 35136), (21, 35157), (29, 35217), (48, 35412), (50, 35439), (59, 35529), (62, 35550), (67, 35574), (73, 35625), (79, 35670), (89, 35757), (91, 35769), (95, 35781), (104, 35841), (107, 35889),

Gene: Erudite_38 Start: 24910, Stop: 25500, Start Num: 26

Candidate Starts for Erudite_38:

(Start: 26 @24910 has 35 MA's), (33, 24964), (44, 25000), (59, 25114), (66, 25156), (67, 25162), (72, 25207), (77, 25252), (92, 25354), (94, 25360),

Gene: Erutan_49 Start: 36477, Stop: 37337, Start Num: 12

Candidate Starts for Erutan_49:

(Start: 12 @36477 has 40 MA's), (15, 36519), (16, 36528), (19, 36567), (24, 36609), (31, 36669), (42, 36753), (50, 36855), (63, 36969), (67, 36990), (71, 37020), (77, 37080), (79, 37086), (95, 37197), (104, 37257), (107, 37305),

Gene: FountainFog_38 Start: 24631, Stop: 25224, Start Num: 26

Candidate Starts for FountainFog_38:

(Start: 26 @24631 has 35 MA's), (47, 24757), (59, 24838), (66, 24880), (77, 24976), (92, 25078), (94, 25084),

Gene: FreddieHg_39 Start: 24598, Stop: 25188, Start Num: 26

Candidate Starts for FreddieHg_39:

(Start: 26 @24598 has 35 MA's), (35, 24652), (44, 24688), (59, 24802), (66, 24844), (67, 24850), (72, 24895), (77, 24940), (92, 25042), (94, 25048),

Gene: Fulcrum_50 Start: 36704, Stop: 37564, Start Num: 12

Candidate Starts for Fulcrum_50:

(9, 36659), (10, 36671), (Start: 12 @36704 has 40 MA's), (15, 36746), (16, 36755), (19, 36794), (24, 36836), (31, 36896), (42, 36980), (50, 37082), (63, 37196), (67, 37217), (71, 37247), (85, 37364), (95, 37424), (104, 37484), (107, 37532),

Gene: GOATification_50 Start: 36704, Stop: 37564, Start Num: 12

Candidate Starts for GOATification_50:

(9, 36659), (10, 36671), (Start: 12 @36704 has 40 MA's), (15, 36746), (16, 36755), (19, 36794), (24, 36836), (31, 36896), (42, 36980), (50, 37082), (63, 37196), (67, 37217), (71, 37247), (85, 37364), (95, 37424), (104, 37484), (107, 37532),

Gene: Genamy16_52 Start: 36019, Stop: 36852, Start Num: 12

Candidate Starts for Genamy16_52:

(5, 35920), (9, 35974), (10, 35986), (Start: 12 @36019 has 40 MA's), (15, 36061), (16, 36070), (22, 36115), (31, 36184), (42, 36268), (50, 36370), (63, 36484), (71, 36535), (85, 36652), (86, 36664), (95, 36712), (98, 36724), (104, 36772),

Gene: Gibbin_51 Start: 37360, Stop: 38220, Start Num: 12

Candidate Starts for Gibbin_51:

(9, 37315), (10, 37327), (Start: 12 @37360 has 40 MA's), (15, 37402), (16, 37411), (19, 37450), (24, 37492), (31, 37552), (42, 37636), (50, 37738), (63, 37852), (67, 37873), (71, 37903), (85, 38020), (95, 38080), (104, 38140), (107, 38188),

Gene: Gibson_75 Start: 51969, Stop: 51397, Start Num: 40

Candidate Starts for Gibson_75:

(28, 52047), (Start: 40 @51969 has 8 MA's), (43, 51933), (49, 51876), (58, 51768), (61, 51747), (65, 51723), (71, 51696), (88, 51576), (109, 51405),

Gene: Gilda_39 Start: 25348, Stop: 25938, Start Num: 26

Candidate Starts for Gilda_39:

(Start: 26 @25348 has 35 MA's), (33, 25402), (44, 25438), (59, 25552), (66, 25594), (77, 25690), (92, 25792), (94, 25798),

Gene: Greenbelt_72 Start: 48069, Stop: 47428, Start Num: 40

Candidate Starts for Greenbelt_72:

(Start: 40 @48069 has 8 MA's), (45, 48024), (54, 47868), (56, 47856), (61, 47820), (77, 47694), (84, 47655),

Gene: GretelLyn_49 Start: 37434, Stop: 38294, Start Num: 12

Candidate Starts for GretelLyn_49:

(9, 37389), (10, 37401), (Start: 12 @37434 has 40 MA's), (15, 37476), (16, 37485), (18, 37512), (19, 37524), (23, 37560), (24, 37566), (31, 37626), (42, 37710), (50, 37812), (63, 37926), (67, 37947), (71, 37977), (85, 38094), (95, 38154), (104, 38214), (107, 38262),

Gene: Hager_40 Start: 24835, Stop: 25425, Start Num: 26

Candidate Starts for Hager_40:

(Start: 26 @24835 has 35 MA's), (37, 24916), (59, 25039), (66, 25081), (67, 25087), (77, 25177), (92, 25279),

Gene: Haunter_39 Start: 24740, Stop: 25330, Start Num: 26

Candidate Starts for Haunter_39:

(Start: 26 @24740 has 35 MA's), (33, 24794), (59, 24944), (66, 24986), (77, 25082), (92, 25184), (94, 25190),

Gene: Hiddenleaf_39 Start: 24582, Stop: 25172, Start Num: 26

Candidate Starts for Hiddenleaf_39:

(Start: 26 @24582 has 35 MA's), (35, 24636), (44, 24672), (59, 24786), (66, 24828), (67, 24834), (72, 24879), (77, 24924), (92, 25026), (94, 25032),

Gene: JDawG_38 Start: 24999, Stop: 25589, Start Num: 26

Candidate Starts for JDawG_38:

(Start: 26 @24999 has 35 MA's), (33, 25053), (44, 25089), (59, 25203), (66, 25245), (72, 25296), (77, 25341), (94, 25449),

Gene: Jalebi_49 Start: 37779, Stop: 38639, Start Num: 12

Candidate Starts for Jalebi_49:

(9, 37734), (10, 37746), (Start: 12 @37779 has 40 MA's), (15, 37821), (16, 37830), (19, 37869), (24, 37911), (31, 37971), (42, 38055), (50, 38157), (63, 38271), (67, 38292), (71, 38322), (85, 38439), (95, 38499), (104, 38559), (107, 38607),

Gene: Jamemuya19_49 Start: 35624, Stop: 36457, Start Num: 12

Candidate Starts for Jamemuya19_49:

(5, 35525), (9, 35579), (10, 35591), (Start: 12 @35624 has 40 MA's), (15, 35666), (16, 35675), (22, 35720), (31, 35789), (42, 35873), (50, 35975), (63, 36089), (71, 36140), (85, 36257), (86, 36269), (95, 36317), (98, 36329), (104, 36377),

Gene: JingleBells_39 Start: 24703, Stop: 25293, Start Num: 26

Candidate Starts for JingleBells_39:

(Start: 26 @24703 has 35 MA's), (35, 24757), (44, 24793), (59, 24907), (66, 24949), (67, 24955), (72, 25000), (77, 25045), (92, 25147), (94, 25153),

Gene: Karate_38 Start: 25350, Stop: 25943, Start Num: 26

Candidate Starts for Karate_38:

(Start: 26 @25350 has 35 MA's), (47, 25476), (59, 25557), (66, 25599), (67, 25605), (77, 25695), (92, 25797),

Gene: Krampus_39 Start: 25356, Stop: 25946, Start Num: 26

Candidate Starts for Krampus_39:

(Start: 26 @25356 has 35 MA's), (33, 25410), (44, 25446), (59, 25560), (66, 25602), (67, 25608), (77, 25698), (92, 25800),

Gene: Lambo_49 Start: 36805, Stop: 37665, Start Num: 12

Candidate Starts for Lambo_49:

(9, 36760), (10, 36772), (Start: 12 @36805 has 40 MA's), (15, 36847), (16, 36856), (18, 36883), (19, 36895), (24, 36937), (31, 36997), (42, 37081), (50, 37183), (63, 37297), (67, 37318), (71, 37348), (85, 37465), (95, 37525), (99, 37543), (104, 37585), (107, 37633),

Gene: LavAbarElk_49 Start: 35920, Stop: 36780, Start Num: 12

Candidate Starts for LavAbarElk_49:

(9, 35875), (10, 35887), (Start: 12 @35920 has 40 MA's), (15, 35962), (16, 35971), (19, 36010), (24, 36052), (31, 36112), (42, 36196), (50, 36298), (63, 36412), (67, 36433), (71, 36463), (85, 36580), (95, 36640), (104, 36700), (107, 36748),

Gene: Lila22_50 Start: 37402, Stop: 38262, Start Num: 12

Candidate Starts for Lila22_50:

(9, 37357), (10, 37369), (Start: 12 @37402 has 40 MA's), (15, 37444), (16, 37453), (18, 37480), (19, 37492), (23, 37528), (24, 37534), (31, 37594), (42, 37678), (50, 37780), (63, 37894), (67, 37915), (71, 37945), (85, 38062), (95, 38122), (104, 38182), (107, 38230),

Gene: LilyPad_40 Start: 32787, Stop: 33488, Start Num: 30

Candidate Starts for LilyPad_40:

(25, 32736), (Start: 30 @32787 has 8 MA's), (53, 33009), (55, 33024), (57, 33045), (77, 33192), (80, 33207), (83, 33225), (111, 33459), (112, 33465),

Gene: LittleFella_44 Start: 34392, Stop: 35063, Start Num: 27

Candidate Starts for LittleFella_44:

(Start: 27 @34392 has 1 MA's), (69, 34752), (73, 34782), (76, 34803), (78, 34824), (85, 34881), (87, 34893), (96, 34935), (102, 34974),

Gene: Lizz_74 Start: 51798, Stop: 51226, Start Num: 40

Candidate Starts for Lizz_74:

(1, 52524), (2, 52302), (3, 52269), (6, 52143), (Start: 40 @51798 has 8 MA's), (43, 51762), (49, 51705), (54, 51624), (58, 51597), (61, 51576), (71, 51525), (88, 51405),

Gene: LuckyLeo_48 Start: 36209, Stop: 37057, Start Num: 12

Candidate Starts for LuckyLeo_48:

(9, 36164), (10, 36176), (Start: 12 @36209 has 40 MA's), (15, 36251), (16, 36260), (31, 36392), (50, 36578), (63, 36692), (70, 36737), (71, 36743), (85, 36860), (86, 36872), (91, 36908), (95, 36920), (104, 36980), (107, 37028),

Gene: Madi_37 Start: 31498, Stop: 32277, Start Num: 30

Candidate Starts for Madi_37:

(Start: 30 @31498 has 8 MA's), (36, 31537), (57, 31756), (68, 31819), (77, 31885), (82, 31912), (102, 32029), (110, 32134), (113, 32176),

Gene: Mima20_49 Start: 36951, Stop: 37811, Start Num: 12

Candidate Starts for Mima20_49:

(9, 36906), (10, 36918), (Start: 12 @36951 has 40 MA's), (15, 36993), (16, 37002), (19, 37041), (24, 37083), (31, 37143), (42, 37227), (50, 37329), (63, 37443), (67, 37464), (71, 37494), (85, 37611), (95, 37671), (104, 37731), (107, 37779),

Gene: MoiGyank_53 Start: 37848, Stop: 38708, Start Num: 12

Candidate Starts for MoiGyank_53:

(9, 37803), (10, 37815), (Start: 12 @37848 has 40 MA's), (15, 37890), (16, 37899), (19, 37938), (24, 37980), (31, 38040), (42, 38124), (50, 38226), (63, 38340), (67, 38361), (71, 38391), (85, 38508), (95, 38568), (104, 38628), (107, 38676),

Gene: MortySmith_37 Start: 24387, Stop: 24977, Start Num: 26

Candidate Starts for MortySmith_37:

(Start: 26 @24387 has 35 MA's), (33, 24441), (44, 24477), (59, 24591), (66, 24633), (72, 24684), (77, 24729), (92, 24831), (94, 24837),

Gene: NarutoRun_39 Start: 25324, Stop: 25914, Start Num: 26

Candidate Starts for NarutoRun_39:

(Start: 26 @25324 has 35 MA's), (33, 25378), (44, 25414), (59, 25528), (66, 25570), (77, 25666), (92, 25768), (94, 25774),

Gene: Neptune_39 Start: 25324, Stop: 25914, Start Num: 26

Candidate Starts for Neptune_39:

(Start: 26 @25324 has 35 MA's), (33, 25378), (44, 25414), (59, 25528), (66, 25570), (77, 25666), (92, 25768), (94, 25774),

Gene: Nettle_50 Start: 37342, Stop: 38193, Start Num: 12

Candidate Starts for Nettle_50:

(9, 37297), (10, 37309), (Start: 12 @37342 has 40 MA's), (15, 37384), (16, 37393), (31, 37525), (42, 37609), (50, 37711), (63, 37825), (67, 37846), (71, 37876), (85, 37993), (95, 38053), (104, 38113),

(107, 38161),

Gene: NorManre_52 Start: 37060, Stop: 37920, Start Num: 12

Candidate Starts for NorManre_52:

(9, 37015), (10, 37027), (Start: 12 @37060 has 40 MA's), (15, 37102), (16, 37111), (19, 37150), (24, 37192), (31, 37252), (42, 37336), (50, 37438), (63, 37552), (67, 37573), (71, 37603), (85, 37720), (95, 37780), (104, 37840), (107, 37888),

Gene: NovaSharks_51 Start: 35610, Stop: 36443, Start Num: 12

Candidate Starts for NovaSharks_51:

(5, 35511), (9, 35565), (10, 35577), (Start: 12 @35610 has 40 MA's), (15, 35652), (16, 35661), (22, 35706), (31, 35775), (42, 35859), (50, 35961), (63, 36075), (71, 36126), (85, 36243), (86, 36255), (95, 36303), (98, 36315), (104, 36363),

Gene: OhDear_39 Start: 25322, Stop: 25912, Start Num: 26

Candidate Starts for OhDear_39:

(Start: 26 @25322 has 35 MA's), (33, 25376), (44, 25412), (59, 25526), (66, 25568), (77, 25664), (92, 25766), (94, 25772),

Gene: OtterstedtS21_49 Start: 36720, Stop: 37580, Start Num: 12

Candidate Starts for OtterstedtS21_49:

(9, 36675), (10, 36687), (Start: 12 @36720 has 40 MA's), (15, 36762), (16, 36771), (18, 36798), (19, 36810), (23, 36846), (24, 36852), (31, 36912), (42, 36996), (50, 37098), (63, 37212), (67, 37233), (71, 37263), (85, 37380), (95, 37440), (104, 37500), (107, 37548),

Gene: OverHedge_39 Start: 25314, Stop: 25904, Start Num: 26

Candidate Starts for OverHedge_39:

(Start: 26 @25314 has 35 MA's), (33, 25368), (44, 25404), (59, 25518), (66, 25560), (77, 25656), (92, 25758), (94, 25764),

Gene: PHTowN_74 Start: 51796, Stop: 51224, Start Num: 40

Candidate Starts for PHTowN_74:

(1, 52522), (2, 52300), (3, 52267), (6, 52141), (Start: 40 @51796 has 8 MA's), (43, 51760), (49, 51703), (54, 51622), (58, 51595), (61, 51574), (71, 51523), (88, 51403),

Gene: ParvusTarda_49 Start: 36222, Stop: 37082, Start Num: 12

Candidate Starts for ParvusTarda_49:

(9, 36177), (10, 36189), (Start: 12 @36222 has 40 MA's), (15, 36264), (16, 36273), (19, 36312), (24, 36354), (31, 36414), (42, 36498), (50, 36600), (63, 36714), (67, 36735), (71, 36765), (85, 36882), (95, 36942), (104, 37002), (107, 37050),

Gene: Patos_52 Start: 37059, Stop: 37919, Start Num: 12

Candidate Starts for Patos_52:

(9, 37014), (10, 37026), (Start: 12 @37059 has 40 MA's), (15, 37101), (16, 37110), (19, 37149), (24, 37191), (31, 37251), (42, 37335), (50, 37437), (63, 37551), (67, 37572), (71, 37602), (85, 37719), (95, 37779), (104, 37839), (107, 37887),

Gene: Pharpay_39 Start: 25369, Stop: 25959, Start Num: 26

Candidate Starts for Pharpay_39:

(Start: 26 @25369 has 35 MA's), (33, 25423), (44, 25459), (59, 25573), (66, 25615), (77, 25711), (92, 25813), (94, 25819),

Gene: PhunaPhoke_39 Start: 25342, Stop: 25932, Start Num: 26

Candidate Starts for PhunaPhoke_39:

(Start: 26 @25342 has 35 MA's), (33, 25396), (44, 25432), (59, 25546), (66, 25588), (77, 25684), (92, 25786), (94, 25792),

Gene: Potty_39 Start: 25347, Stop: 25937, Start Num: 26

Candidate Starts for Potty_39:

(Start: 26 @25347 has 35 MA's), (33, 25401), (44, 25437), (59, 25551), (66, 25593), (77, 25689), (92, 25791), (94, 25797),

Gene: Poultress_38 Start: 25693, Stop: 26283, Start Num: 26

Candidate Starts for Poultress_38:

(Start: 26 @25693 has 35 MA's), (33, 25747), (44, 25783), (59, 25897), (66, 25939), (67, 25945), (77, 26035), (92, 26137), (94, 26143),

Gene: Pywacket_48 Start: 37551, Stop: 38411, Start Num: 12

Candidate Starts for Pywacket_48:

(9, 37506), (10, 37518), (Start: 12 @37551 has 40 MA's), (15, 37593), (16, 37602), (19, 37641), (24, 37683), (31, 37743), (42, 37827), (50, 37929), (63, 38043), (67, 38064), (71, 38094), (85, 38211), (95, 38271), (104, 38331), (107, 38379),

Gene: Rachella_39 Start: 25350, Stop: 25940, Start Num: 26

Candidate Starts for Rachella_39:

(Start: 26 @25350 has 35 MA's), (33, 25404), (59, 25554), (66, 25596), (67, 25602), (77, 25692), (92, 25794),

Gene: Ranch_51 Start: 35892, Stop: 36752, Start Num: 12

Candidate Starts for Ranch_51:

(9, 35847), (10, 35859), (Start: 12 @35892 has 40 MA's), (15, 35934), (16, 35943), (18, 35970), (19, 35982), (23, 36018), (24, 36024), (31, 36084), (42, 36168), (50, 36270), (63, 36384), (67, 36405), (71, 36435), (85, 36552), (95, 36612), (99, 36630), (104, 36672), (107, 36720),

Gene: RazorC_49 Start: 35763, Stop: 36596, Start Num: 12

Candidate Starts for RazorC_49:

(5, 35664), (9, 35718), (10, 35730), (Start: 12 @35763 has 40 MA's), (15, 35805), (16, 35814), (22, 35859), (31, 35928), (42, 36012), (50, 36114), (63, 36228), (71, 36279), (85, 36396), (86, 36408), (95, 36456), (98, 36468), (104, 36516),

Gene: Riduram_48 Start: 35339, Stop: 36172, Start Num: 12

Candidate Starts for Riduram_48:

(5, 35240), (9, 35294), (10, 35306), (Start: 12 @35339 has 40 MA's), (15, 35381), (16, 35390), (22, 35435), (31, 35504), (42, 35588), (50, 35690), (63, 35804), (71, 35855), (85, 35972), (86, 35984), (95, 36032), (98, 36044), (104, 36092),

Gene: Rie18_39 Start: 24840, Stop: 25496, Start Num: 26

Candidate Starts for Rie18_39:

(13, 24684), (Start: 26 @24840 has 35 MA's), (32, 24885), (44, 24984), (47, 25029), (59, 25110), (66, 25152), (67, 25158), (77, 25248), (92, 25350),

Gene: Rooney_75 Start: 51945, Stop: 51373, Start Num: 40

Candidate Starts for Rooney_75:

(28, 52023), (Start: 40 @51945 has 8 MA's), (43, 51909), (49, 51852), (58, 51744), (61, 51723), (65, 51699), (71, 51672), (88, 51552), (109, 51381),

Gene: Rota_48 Start: 36369, Stop: 37220, Start Num: 12

Candidate Starts for Rota_48:

(9, 36324), (10, 36336), (Start: 12 @36369 has 40 MA's), (15, 36411), (16, 36420), (31, 36552), (42, 36636), (50, 36738), (63, 36852), (67, 36873), (71, 36903), (85, 37020), (95, 37080), (104, 37140), (107, 37188),

Gene: Rukungu_52 Start: 37632, Stop: 38492, Start Num: 12

Candidate Starts for Rukungu_52:

(9, 37587), (10, 37599), (Start: 12 @37632 has 40 MA's), (15, 37674), (16, 37683), (19, 37722), (24, 37764), (31, 37824), (42, 37908), (50, 38010), (63, 38124), (67, 38145), (71, 38175), (85, 38292), (95, 38352), (104, 38412), (107, 38460),

Gene: Rumi_50 Start: 35307, Stop: 36140, Start Num: 12

Candidate Starts for Rumi_50:

(5, 35208), (9, 35262), (10, 35274), (Start: 12 @35307 has 40 MA's), (15, 35349), (16, 35358), (22, 35403), (31, 35472), (42, 35556), (50, 35658), (63, 35772), (71, 35823), (85, 35940), (86, 35952), (95, 36000), (98, 36012), (104, 36060),

Gene: Sadboi_50 Start: 37435, Stop: 38295, Start Num: 12

Candidate Starts for Sadboi_50:

(9, 37390), (10, 37402), (Start: 12 @37435 has 40 MA's), (15, 37477), (16, 37486), (18, 37513), (19, 37525), (23, 37561), (24, 37567), (31, 37627), (42, 37711), (50, 37813), (63, 37927), (67, 37948), (71, 37978), (85, 38095), (95, 38155), (104, 38215), (107, 38263),

Gene: SafetyGuy_39 Start: 25330, Stop: 25920, Start Num: 26

Candidate Starts for SafetyGuy_39:

(Start: 26 @25330 has 35 MA's), (33, 25384), (44, 25420), (59, 25534), (66, 25576), (77, 25672), (92, 25774), (94, 25780),

Gene: Sampudon_50 Start: 37779, Stop: 38639, Start Num: 12

Candidate Starts for Sampudon_50:

(9, 37734), (10, 37746), (Start: 12 @37779 has 40 MA's), (15, 37821), (16, 37830), (19, 37869), (24, 37911), (31, 37971), (42, 38055), (50, 38157), (63, 38271), (67, 38292), (71, 38322), (85, 38439), (95, 38499), (104, 38559), (107, 38607),

Gene: SassyC_79 Start: 52762, Stop: 52226, Start Num: 43

Candidate Starts for SassyC_79:

(Start: 40 @52798 has 8 MA's), (43, 52762), (45, 52753), (49, 52705), (58, 52597), (61, 52576), (65, 52552), (88, 52405), (101, 52327),

Gene: ShakeNBake_74 Start: 51823, Stop: 51251, Start Num: 40

Candidate Starts for ShakeNBake_74:

(1, 52549), (2, 52327), (3, 52294), (6, 52168), (Start: 40 @51823 has 8 MA's), (43, 51787), (49, 51730), (54, 51649), (58, 51622), (61, 51601), (71, 51550), (88, 51430),

Gene: Sienna_37 Start: 31498, Stop: 32277, Start Num: 30

Candidate Starts for Sienna_37:

(Start: 30 @31498 has 8 MA's), (36, 31537), (57, 31756), (68, 31819), (77, 31885), (82, 31912), (102, 32029), (110, 32134), (113, 32176),

Gene: SilentWarrior_39 Start: 24595, Stop: 25185, Start Num: 26

Candidate Starts for SilentWarrior_39:

(Start: 26 @24595 has 35 MA's), (35, 24649), (44, 24685), (59, 24799), (66, 24841), (67, 24847), (72, 24892), (77, 24937), (92, 25039), (94, 25045),

Gene: Snakehole_39 Start: 24527, Stop: 25117, Start Num: 26

Candidate Starts for Snakehole_39:

(Start: 26 @24527 has 35 MA's), (33, 24581), (59, 24731), (66, 24773), (67, 24779), (77, 24869), (92, 24971), (94, 24977),

Gene: Stormer_49 Start: 35311, Stop: 36144, Start Num: 12

Candidate Starts for Stormer_49:

(9, 35266), (10, 35278), (Start: 12 @35311 has 40 MA's), (15, 35353), (16, 35362), (22, 35407), (31, 35476), (42, 35560), (50, 35662), (63, 35776), (71, 35827), (85, 35944), (86, 35956), (95, 36004), (98, 36016), (104, 36064),

Gene: Suzy_37 Start: 32010, Stop: 32801, Start Num: 30

Candidate Starts for Suzy_37:

(Start: 30 @32010 has 8 MA's), (36, 32049), (57, 32268), (68, 32331), (77, 32397), (82, 32424), (102, 32541), (110, 32646), (113, 32688), (114, 32745),

Gene: Tedro_39 Start: 24820, Stop: 25410, Start Num: 26

Candidate Starts for Tedro_39:

(Start: 26 @24820 has 35 MA's), (33, 24874), (44, 24910), (59, 25024), (66, 25066), (77, 25162), (92, 25264), (94, 25270),

Gene: Terapin_38 Start: 31422, Stop: 32201, Start Num: 30

Candidate Starts for Terapin_38:

(Start: 30 @31422 has 8 MA's), (36, 31461), (57, 31680), (68, 31743), (77, 31809), (82, 31836), (102, 31953), (110, 32058), (113, 32100),

Gene: Tiggy93_39 Start: 25353, Stop: 25943, Start Num: 26

Candidate Starts for Tiggy93_39:

(Start: 26 @25353 has 35 MA's), (33, 25407), (44, 25443), (59, 25557), (66, 25599), (77, 25695), (92, 25797), (94, 25803),

Gene: Tillicus_47 Start: 36141, Stop: 36998, Start Num: 12

Candidate Starts for Tillicus_47:

(10, 36108), (Start: 12 @36141 has 40 MA's), (15, 36183), (16, 36192), (19, 36231), (24, 36273), (31, 36333), (50, 36519), (59, 36609), (63, 36633), (70, 36678), (71, 36684), (85, 36801), (86, 36813), (91, 36849), (95, 36861), (104, 36921), (107, 36969),

Gene: Tongui_39 Start: 24947, Stop: 25540, Start Num: 26

Candidate Starts for Tongui_39:

(Start: 26 @24947 has 35 MA's), (47, 25073), (59, 25154), (66, 25196), (75, 25271), (77, 25292), (92, 25394),

Gene: Virizion_81 Start: 52165, Stop: 51593, Start Num: 40

Candidate Starts for Virizion_81:

(28, 52243), (Start: 40 @52165 has 8 MA's), (43, 52129), (49, 52072), (58, 51964), (61, 51943), (65, 51919), (71, 51892), (88, 51772), (109, 51601),

Gene: Wentworth_74 Start: 51841, Stop: 51269, Start Num: 40

Candidate Starts for Wentworth_74:

(1, 52567), (2, 52345), (4, 52270), (6, 52186), (Start: 40 @51841 has 8 MA's), (43, 51805), (49, 51748), (52, 51691), (58, 51640), (61, 51619), (81, 51499), (88, 51448), (100, 51382), (107, 51304), (108, 51280),

Gene: Wilkos_76 Start: 52007, Stop: 51435, Start Num: 40

Candidate Starts for Wilkos_76:

(1, 52733), (2, 52511), (4, 52436), (6, 52352), (Start: 40 @52007 has 8 MA's), (43, 51971), (45, 51962), (49, 51914), (58, 51806), (61, 51785), (65, 51761), (71, 51734), (88, 51614), (100, 51548), (103, 51524), (108, 51446),

Gene: WinnieLou_40 Start: 24904, Stop: 25548, Start Num: 26

Candidate Starts for WinnieLou_40:

(Start: 26 @24904 has 35 MA's), (32, 24949), (38, 24997), (59, 25162), (66, 25204), (67, 25210), (77, 25300), (92, 25402),

Gene: Wojtek_48 Start: 36233, Stop: 37084, Start Num: 12

Candidate Starts for Wojtek_48:

(7, 36164), (9, 36188), (10, 36200), (Start: 12 @36233 has 40 MA's), (15, 36275), (16, 36284), (31, 36416), (50, 36602), (63, 36716), (67, 36737), (71, 36767), (85, 36884), (95, 36944), (104, 37004), (107, 37052),

Gene: Wollypog_39 Start: 29480, Stop: 30064, Start Num: 41

Candidate Starts for Wollypog_39:

(Start: 41 @29480 has 1 MA's), (46, 29522), (74, 29789), (97, 29933), (98, 29939),

Gene: Xenia2_47 Start: 35094, Stop: 35969, Start Num: 12

Candidate Starts for Xenia2_47:

(8, 35034), (Start: 12 @35094 has 40 MA's), (14, 35127), (17, 35160), (20, 35184), (21, 35205), (48, 35460), (50, 35487), (59, 35577), (62, 35598), (67, 35622), (73, 35673), (79, 35718), (89, 35805), (91, 35817), (95, 35829), (104, 35889), (107, 35937),

Gene: Yara_72 Start: 51136, Stop: 50543, Start Num: 39

Candidate Starts for Yara_72:

(Start: 39 @51136 has 1 MA's), (45, 51085), (51, 50986), (52, 50974), (54, 50950), (60, 50917), (61, 50902), (64, 50884), (66, 50875), (71, 50851), (77, 50794), (93, 50692), (105, 50623), (106, 50608), (107, 50578), (108, 50554),

Gene: Yikes_51 Start: 37846, Stop: 38706, Start Num: 12

Candidate Starts for Yikes_51:

(9, 37801), (10, 37813), (Start: 12 @37846 has 40 MA's), (15, 37888), (16, 37897), (19, 37936), (24, 37978), (31, 38038), (42, 38122), (50, 38224), (63, 38338), (67, 38359), (71, 38389), (85, 38506), (95, 38566), (104, 38626), (107, 38674),

Gene: Zany_48 Start: 36845, Stop: 37696, Start Num: 12

Candidate Starts for Zany_48:

(9, 36800), (10, 36812), (Start: 12 @36845 has 40 MA's), (15, 36887), (16, 36896), (31, 37028), (42, 37112), (50, 37214), (63, 37328), (67, 37349), (71, 37379), (85, 37496), (95, 37556), (104, 37616), (107, 37664),