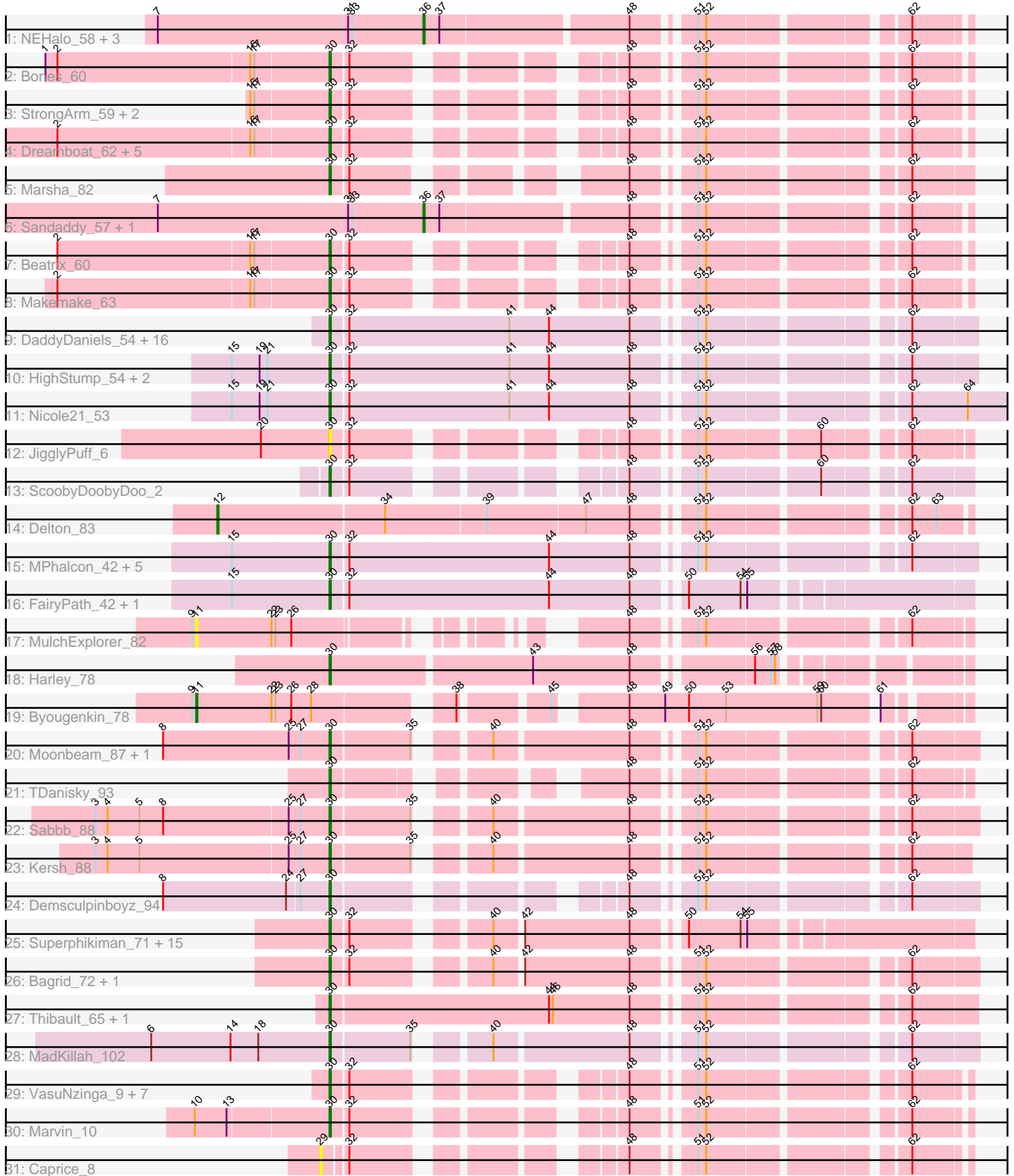


Pham 196448



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 196448 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196448 has 91 members, 12 are drafts.

Phages represented in each track:

- Track 1 : NEHalo_58, GageAP_62, SpikeBT_59, AFIS_57
- Track 2 : Bones_60
- Track 3 : StrongArm_59, Bexan_58, Scowl_62
- Track 4 : Dreamboat_62, Cueyliss_61, Ohno789_61, Graduation_65, PherrisBueller_60, Jasper_61
- Track 5 : Marsha_82
- Track 6 : Sandaddy_57, Sorpresa_58
- Track 7 : Beatrix_60
- Track 8 : Makemake_63
- Track 9 : DaddyDaniels_54, Kronus_50, Childish_52, Phayeta_52, MmasiCarm_51, Obutu_51, Soile_53, Mortcellus_50, Brilliant_54, Kahve_52, Casbah_50, Ben11_50, Gervas_51, HenryJackson_52, Rita1961_51, Craff_55, SlippinJimmy_52
- Track 10 : HighStump_54, Longacauda_53, Legolas_54
- Track 11 : Nicole21_53
- Track 12 : JigglyPuff_6
- Track 13 : ScoobyDoobyDoo_2
- Track 14 : Delton_83
- Track 15 : MPhalcon_42, Nala_43, MISSy_42, Rimmer_43, Buck_43, Youngblood_44
- Track 16 : FairyPath_42, Quallification_43
- Track 17 : MulchExplorer_82
- Track 18 : Harley_78
- Track 19 : Byougenkin_78
- Track 20 : Moonbeam_87, Rialto_90
- Track 21 : TDanisky_93
- Track 22 : Sabbb_88
- Track 23 : Kersh_88
- Track 24 : Demsculpinboyz_94
- Track 25 : Superphikiman_71, Kalah2_68, Redno2_70, Squint_74, Beem_73, JuicyJay_72, NihilNomen_74, Phoebus_76, DmpstrDiver_73, Dallas_72, Odette_72, HokkenD_66, Porcelain_73, MiaZeal_74, Halley_75, Ariel_73
- Track 26 : Bagrid_72, EricMillard_72
- Track 27 : Thibault_65, Constella_64
- Track 28 : MadKillah_102
- Track 29 : VasuNzinga_9, Latretium_78, MrPhizzler_53, RedRaider77_10, Rimu_56, Fringe_56, Lumine_53, Gwilliam_54
- Track 30 : Marvin_10

- Track 31 : Caprice_8

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

The start number called the most often in the published annotations is 30, it was called in 72 of the 79 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel_73, Bagrid_72, Beatrix_60, Beem_73, Ben11_50, Bexan_58, Bones_60, Brilliant_54, Buck_43, Casbah_50, Childish_52, Constella_64, Craff_55, Cueylyss_61, DaddyDaniels_54, Dallas_72, Demsculpinboyz_94, DmpstrDiver_73, Dreamboat_62, EricMillard_72, FairyPath_42, Fringe_56, Gervas_51, Graduation_65, Gwilliam_54, Halley_75, Harley_78, HenryJackson_52, HighStump_54, HokkenD_66, Jasper_61, JigglyPuff_6, JuicyJay_72, Kahve_52, Kalah2_68, Kersh_88, Kronus_50, Latretium_78, Legolas_54, Longacauda_53, Lumine_53, MISSy_42, MPhalcon_42, MadKillah_102, Makemake_63, Marsha_82, Marvin_10, MiaZeal_74, MmasiCarm_51, Moonbeam_87, Mortcellus_50, MrPhizzler_53, Nala_43, Nicole21_53, NihilNomen_74, Obutu_51, Odette_72, Ohno789_61, Phayeta_52, PherrisBueller_60, Phoebus_76, Porcelain_73, Quallification_43, RedRaider77_10, Redno2_70, Rialto_90, Rimmer_43, Rimu_56, Rita1961_51, Sabbb_88, ScoobyDoobyDoo_2, Scowl_62, SlippinJimmy_52, Soile_53, Squint_74, StrongArm_59, Superphikiman_71, TDanisky_93, Thibault_65, VasuNzinga_9, Youngblood_44,

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

-

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

- AFIS_57, Byougenkin_78, Caprice_8, Delton_83, GageAP_62, MulchExplorer_82, NEHalo_58, Sandaddy_57, Sorpresa_58, SpikeBT_59,

Summary by start number:

Start 11:

- Found in 2 of 91 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Byougenkin_78 (F1), MulchExplorer_82 (F1),

Start 12:

- Found in 1 of 91 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Delton_83 (D1),

Start 29:

- Found in 1 of 91 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Caprice_8 (S),

Start 30:

- Found in 81 of 91 (89.0%) of genes in pham
- Manual Annotations of this start: 72 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel_73 (J), Bagrid_72 (J), Beatrix_60 (A1), Beem_73 (J), Ben11_50 (B3), Bexan_58 (A1), Bones_60 (A1), Brilliant_54 (B1), Buck_43 (E), Casbah_50 (B3), Childish_52 (B1), Constella_64 (J), Craff_55 (B1), Cueyllyss_61 (A1), DaddyDaniels_54 (B1), Dallas_72 (J), Demsculpinboyz_94 (F2), DmpstrDiver_73 (J), Dreamboat_62 (A1), EricMillard_72 (J), FairyPath_42 (E), Fringe_56 (B1), Gervas_51 (B3), Graduation_65 (A1), Gwilliam_54 (B1), Halley_75 (J), Harley_78 (F1), HenryJackson_52 (B1), HighStump_54 (B1), HokkenD_66 (J), Jasper_61 (A1), JigglyPuff_6 (C1), JuicyJay_72 (J), Kahve_52 (B1), Kalah2_68 (J), Kersh_88 (F1), Kronus_50 (B3), Latretium_78 (F1), Legolas_54 (B1), Longacauda_53 (B1), Lumine_53 (B1), MISSy_42 (E), MPhalcon_42 (E), MadKillah_102 (O), Makemake_63 (A1), Marsha_82 (A1), Marvin_10 (S), MiaZeal_74 (J), MmasiCarm_51 (B3), Moonbeam_87 (F1), Mortcellus_50 (B3), MrPhizzler_53 (B1), Nala_43 (E), Nicole21_53 (B1), NihilNomen_74 (J), Obutu_51 (B3), Odette_72 (J), Ohno789_61 (A1), Phayeta_52 (B3), PherrisBueller_60 (A1), Phoebus_76 (J), Porcelain_73 (J), Quallification_43 (E), RedRaider77_10 (S), Redno2_70 (J), Rialto_90 (F1), Rimmer_43 (E), Rimu_56 (B1), Rita1961_51 (B3), Sabbb_88 (F1), ScoobyDoobyDoo_2 (C2), Scowl_62 (A1), SlippinJimmy_52 (B3), Soile_53 (B1), Squint_74 (J), StrongArm_59 (A1), Superphikiman_71 (J), TDanisky_93 (F1), Thibault_65 (J), VasuNzinga_9 (S), Youngblood_44 (E),

Start 36:

- Found in 6 of 91 (6.6%) of genes in pham
- Manual Annotations of this start: 5 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AFIS_57 (A1), GageAP_62 (A1), NEHalo_58 (A1), Sandaddy_57 (A1), Sorpresa_58 (A1), SpikeBT_59 (A1),

Summary by clusters:

There are 12 clusters represented in this pham: F1, F2, E, J, O, A1, S, B1, B3, C2, C1, D1,

Info for manual annotations of cluster A1:

- Start number 30 was manually annotated 13 times for cluster A1.
- Start number 36 was manually annotated 5 times for cluster A1.

Info for manual annotations of cluster B1:

- Start number 30 was manually annotated 13 times for cluster B1.

Info for manual annotations of cluster B3:

- Start number 30 was manually annotated 8 times for cluster B3.

Info for manual annotations of cluster C2:

- Start number 30 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster D1:

- Start number 12 was manually annotated 1 time for cluster D1.

Info for manual annotations of cluster E:

- Start number 30 was manually annotated 7 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 11 was manually annotated 1 time for cluster F1.
- Start number 30 was manually annotated 7 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 30 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:

- Start number 30 was manually annotated 18 times for cluster J.

Info for manual annotations of cluster O:

- Start number 30 was manually annotated 1 time for cluster O.

Info for manual annotations of cluster S:

- Start number 30 was manually annotated 3 times for cluster S.

Gene Information:

Gene: AFIS_57 Start: 39716, Stop: 39357, Start Num: 36

Candidate Starts for AFIS_57:

(7, 39917), (31, 39773), (33, 39770), (Start: 36 @39716 has 5 MA's), (37, 39704), (48, 39569), (51, 39533), (52, 39527), (62, 39395),

Gene: Ariel_73 Start: 46707, Stop: 46291, Start Num: 30

Candidate Starts for Ariel_73:

(Start: 30 @46707 has 72 MA's), (32, 46695), (40, 46611), (42, 46593), (48, 46515), (50, 46485), (54, 46446), (55, 46443),

Gene: Bagrid_72 Start: 50124, Stop: 49711, Start Num: 30

Candidate Starts for Bagrid_72:

(Start: 30 @50124 has 72 MA's), (32, 50112), (40, 50028), (42, 50010), (48, 49932), (51, 49896), (52, 49890), (62, 49758),

Gene: Beatrix_60 Start: 41870, Stop: 41490, Start Num: 30

Candidate Starts for Beatrix_60:

(2, 42071), (16, 41927), (17, 41924), (Start: 30 @41870 has 72 MA's), (32, 41858), (48, 41702), (51, 41666), (52, 41660), (62, 41528),

Gene: Beem_73 Start: 50984, Stop: 50568, Start Num: 30

Candidate Starts for Beem_73:

(Start: 30 @50984 has 72 MA's), (32, 50972), (40, 50888), (42, 50870), (48, 50792), (50, 50762), (54, 50723), (55, 50720),

Gene: Ben11_50 Start: 45429, Stop: 44986, Start Num: 30

Candidate Starts for Ben11_50:

(Start: 30 @45429 has 72 MA's), (32, 45417), (41, 45297), (44, 45267), (48, 45207), (51, 45171), (52, 45165), (62, 45033),

Gene: Bexan_58 Start: 41649, Stop: 41269, Start Num: 30

Candidate Starts for Bexan_58:

(16, 41706), (17, 41703), (Start: 30 @41649 has 72 MA's), (32, 41637), (48, 41481), (51, 41445), (52, 41439), (62, 41307),

Gene: Bones_60 Start: 41965, Stop: 41585, Start Num: 30

Candidate Starts for Bones_60:

(1, 42175), (2, 42166), (16, 42022), (17, 42019), (Start: 30 @41965 has 72 MA's), (32, 41953), (48, 41797), (51, 41761), (52, 41755), (62, 41623),

Gene: Brilliant_54 Start: 47338, Stop: 46895, Start Num: 30

Candidate Starts for Brilliant_54:

(Start: 30 @47338 has 72 MA's), (32, 47326), (41, 47206), (44, 47176), (48, 47116), (51, 47080), (52, 47074), (62, 46942),

Gene: Buck_43 Start: 35755, Stop: 35318, Start Num: 30

Candidate Starts for Buck_43:

(15, 35827), (Start: 30 @35755 has 72 MA's), (32, 35743), (44, 35593), (48, 35533), (51, 35497), (52, 35491), (62, 35359),

Gene: Byougenkin_78 Start: 46058, Stop: 46567, Start Num: 11

Candidate Starts for Byougenkin_78:

(9, 46055), (Start: 11 @46058 has 1 MA's), (22, 46115), (23, 46118), (26, 46130), (28, 46145), (38, 46235), (45, 46292), (48, 46334), (49, 46361), (50, 46379), (53, 46406), (59, 46475), (60, 46478), (61, 46514),

Gene: Caprice_8 Start: 2539, Stop: 2922, Start Num: 29

Candidate Starts for Caprice_8:

(29, 2539), (32, 2554), (48, 2710), (51, 2746), (52, 2752), (62, 2884),

Gene: Casbah_50 Start: 45459, Stop: 45016, Start Num: 30

Candidate Starts for Casbah_50:

(Start: 30 @45459 has 72 MA's), (32, 45447), (41, 45327), (44, 45297), (48, 45237), (51, 45201), (52, 45195), (62, 45063),

Gene: Childish_52 Start: 47365, Stop: 46922, Start Num: 30

Candidate Starts for Childish_52:

(Start: 30 @47365 has 72 MA's), (32, 47353), (41, 47233), (44, 47203), (48, 47143), (51, 47107), (52, 47101), (62, 46969),

Gene: Constella_64 Start: 46367, Stop: 45930, Start Num: 30

Candidate Starts for Constella_64:

(Start: 30 @46367 has 72 MA's), (44, 46205), (46, 46202), (48, 46145), (51, 46109), (52, 46103), (62, 45971),

Gene: Craff_55 Start: 47790, Stop: 47347, Start Num: 30

Candidate Starts for Craff_55:

(Start: 30 @47790 has 72 MA's), (32, 47778), (41, 47658), (44, 47628), (48, 47568), (51, 47532), (52, 47526), (62, 47394),

Gene: Cueylyss_61 Start: 42165, Stop: 41785, Start Num: 30

Candidate Starts for Cueylyss_61:

(2, 42366), (16, 42222), (17, 42219), (Start: 30 @42165 has 72 MA's), (32, 42153), (48, 41997), (51, 41961), (52, 41955), (62, 41823),

Gene: DaddyDaniels_54 Start: 47322, Stop: 46879, Start Num: 30

Candidate Starts for DaddyDaniels_54:

(Start: 30 @47322 has 72 MA's), (32, 47310), (41, 47190), (44, 47160), (48, 47100), (51, 47064), (52, 47058), (62, 46926),

Gene: Dallas_72 Start: 49905, Stop: 49489, Start Num: 30

Candidate Starts for Dallas_72:

(Start: 30 @49905 has 72 MA's), (32, 49893), (40, 49809), (42, 49791), (48, 49713), (50, 49683), (54, 49644), (55, 49641),

Gene: Delton_83 Start: 59993, Stop: 60511, Start Num: 12

Candidate Starts for Delton_83:

(Start: 12 @59993 has 1 MA's), (34, 60116), (39, 60191), (47, 60263), (48, 60296), (51, 60332), (52, 60338), (62, 60470), (63, 60488),

Gene: Demsculpinboyz_94 Start: 48157, Stop: 48546, Start Num: 30

Candidate Starts for Demsculpinboyz_94:

(8, 48034), (24, 48127), (27, 48136), (Start: 30 @48157 has 72 MA's), (48, 48325), (51, 48361), (52, 48367), (62, 48499),

Gene: DmpstrDiver_73 Start: 50332, Stop: 49916, Start Num: 30

Candidate Starts for DmpstrDiver_73:

(Start: 30 @50332 has 72 MA's), (32, 50320), (40, 50236), (42, 50218), (48, 50140), (50, 50110), (54, 50071), (55, 50068),

Gene: Dreamboat_62 Start: 40065, Stop: 39685, Start Num: 30

Candidate Starts for Dreamboat_62:

(2, 40266), (16, 40122), (17, 40119), (Start: 30 @40065 has 72 MA's), (32, 40053), (48, 39897), (51, 39861), (52, 39855), (62, 39723),

Gene: EricMillard_72 Start: 50977, Stop: 50564, Start Num: 30

Candidate Starts for EricMillard_72:

(Start: 30 @50977 has 72 MA's), (32, 50965), (40, 50881), (42, 50863), (48, 50785), (51, 50749), (52, 50743), (62, 50611),

Gene: FairyPath_42 Start: 35650, Stop: 35204, Start Num: 30

Candidate Starts for FairyPath_42:

(15, 35722), (Start: 30 @35650 has 72 MA's), (32, 35638), (44, 35488), (48, 35428), (50, 35398), (54, 35359), (55, 35356),

Gene: Fringe_56 Start: 48267, Stop: 47878, Start Num: 30

Candidate Starts for Fringe_56:

(Start: 30 @48267 has 72 MA's), (32, 48255), (48, 48099), (51, 48063), (52, 48057), (62, 47925),

Gene: GageAP_62 Start: 41383, Stop: 41024, Start Num: 36

Candidate Starts for GageAP_62:

(7, 41584), (31, 41440), (33, 41437), (Start: 36 @41383 has 5 MA's), (37, 41371), (48, 41236), (51, 41200), (52, 41194), (62, 41062),

Gene: Gervas_51 Start: 45588, Stop: 45145, Start Num: 30

Candidate Starts for Gervas_51:

(Start: 30 @45588 has 72 MA's), (32, 45576), (41, 45456), (44, 45426), (48, 45366), (51, 45330), (52, 45324), (62, 45192),

Gene: Graduation_65 Start: 42237, Stop: 41857, Start Num: 30

Candidate Starts for Graduation_65:

(2, 42438), (16, 42294), (17, 42291), (Start: 30 @42237 has 72 MA's), (32, 42225), (48, 42069), (51, 42033), (52, 42027), (62, 41895),

Gene: Gwilliam_54 Start: 47683, Stop: 47303, Start Num: 30

Candidate Starts for Gwilliam_54:

(Start: 30 @47683 has 72 MA's), (32, 47671), (48, 47515), (51, 47479), (52, 47473), (62, 47341),

Gene: Halley_75 Start: 50984, Stop: 50568, Start Num: 30

Candidate Starts for Halley_75:

(Start: 30 @50984 has 72 MA's), (32, 50972), (40, 50888), (42, 50870), (48, 50792), (50, 50762), (54, 50723), (55, 50720),

Gene: Harley_78 Start: 47547, Stop: 47975, Start Num: 30

Candidate Starts for Harley_78:

(Start: 30 @47547 has 72 MA's), (43, 47694), (48, 47766), (56, 47844), (57, 47856), (58, 47859),

Gene: HenryJackson_52 Start: 47354, Stop: 46911, Start Num: 30

Candidate Starts for HenryJackson_52:

(Start: 30 @47354 has 72 MA's), (32, 47342), (41, 47222), (44, 47192), (48, 47132), (51, 47096), (52, 47090), (62, 46958),

Gene: HighStump_54 Start: 47890, Stop: 47447, Start Num: 30

Candidate Starts for HighStump_54:

(15, 47962), (19, 47941), (21, 47935), (Start: 30 @47890 has 72 MA's), (32, 47878), (41, 47758), (44, 47728), (48, 47668), (51, 47632), (52, 47626), (62, 47494),

Gene: HokkenD_66 Start: 49253, Stop: 48837, Start Num: 30

Candidate Starts for HokkenD_66:

(Start: 30 @49253 has 72 MA's), (32, 49241), (40, 49157), (42, 49139), (48, 49061), (50, 49031), (54, 48992), (55, 48989),

Gene: Jasper_61 Start: 39951, Stop: 39571, Start Num: 30

Candidate Starts for Jasper_61:

(2, 40152), (16, 40008), (17, 40005), (Start: 30 @39951 has 72 MA's), (32, 39939), (48, 39783), (51, 39747), (52, 39741), (62, 39609),

Gene: JigglyPuff_6 Start: 1982, Stop: 2365, Start Num: 30

Candidate Starts for JigglyPuff_6:

(20, 1931), (Start: 30 @1982 has 72 MA's), (32, 1994), (48, 2150), (51, 2186), (52, 2192), (60, 2270), (62, 2324),

Gene: JuicyJay_72 Start: 52118, Stop: 51702, Start Num: 30

Candidate Starts for JuicyJay_72:

(Start: 30 @52118 has 72 MA's), (32, 52106), (40, 52022), (42, 52004), (48, 51926), (50, 51896), (54, 51857), (55, 51854),

Gene: Kahve_52 Start: 47351, Stop: 46908, Start Num: 30
Candidate Starts for Kahve_52:
(Start: 30 @47351 has 72 MA's), (32, 47339), (41, 47219), (44, 47189), (48, 47129), (51, 47093), (52, 47087), (62, 46955),

Gene: Kalah2_68 Start: 50277, Stop: 49861, Start Num: 30
Candidate Starts for Kalah2_68:
(Start: 30 @50277 has 72 MA's), (32, 50265), (40, 50181), (42, 50163), (48, 50085), (50, 50055), (54, 50016), (55, 50013),

Gene: Kersh_88 Start: 52115, Stop: 52522, Start Num: 30
Candidate Starts for Kersh_88:
(3, 51941), (4, 51950), (5, 51974), (25, 52085), (27, 52094), (Start: 30 @52115 has 72 MA's), (35, 52172), (40, 52211), (48, 52307), (51, 52343), (52, 52349), (62, 52481),

Gene: Kronus_50 Start: 46191, Stop: 45748, Start Num: 30
Candidate Starts for Kronus_50:
(Start: 30 @46191 has 72 MA's), (32, 46179), (41, 46059), (44, 46029), (48, 45969), (51, 45933), (52, 45927), (62, 45795),

Gene: Latretium_78 Start: 47174, Stop: 47560, Start Num: 30
Candidate Starts for Latretium_78:
(Start: 30 @47174 has 72 MA's), (32, 47186), (48, 47342), (51, 47378), (52, 47384), (62, 47516),

Gene: Legolas_54 Start: 47787, Stop: 47344, Start Num: 30
Candidate Starts for Legolas_54:
(15, 47859), (19, 47838), (21, 47832), (Start: 30 @47787 has 72 MA's), (32, 47775), (41, 47655), (44, 47625), (48, 47565), (51, 47529), (52, 47523), (62, 47391),

Gene: Longacauda_53 Start: 47750, Stop: 47307, Start Num: 30
Candidate Starts for Longacauda_53:
(15, 47822), (19, 47801), (21, 47795), (Start: 30 @47750 has 72 MA's), (32, 47738), (41, 47618), (44, 47588), (48, 47528), (51, 47492), (52, 47486), (62, 47354),

Gene: Lumine_53 Start: 47538, Stop: 47155, Start Num: 30
Candidate Starts for Lumine_53:
(Start: 30 @47538 has 72 MA's), (32, 47526), (48, 47370), (51, 47334), (52, 47328), (62, 47196),

Gene: MISSy_42 Start: 35034, Stop: 34591, Start Num: 30
Candidate Starts for MISSy_42:
(15, 35106), (Start: 30 @35034 has 72 MA's), (32, 35022), (44, 34872), (48, 34812), (51, 34776), (52, 34770), (62, 34638),

Gene: MPhalcon_42 Start: 35027, Stop: 34584, Start Num: 30
Candidate Starts for MPhalcon_42:
(15, 35099), (Start: 30 @35027 has 72 MA's), (32, 35015), (44, 34865), (48, 34805), (51, 34769), (52, 34763), (62, 34631),

Gene: MadKillah_102 Start: 61818, Stop: 61405, Start Num: 30
Candidate Starts for MadKillah_102:
(6, 61950), (14, 61890), (18, 61869), (Start: 30 @61818 has 72 MA's), (35, 61761), (40, 61722), (48, 61626), (51, 61590), (52, 61584), (62, 61452),

Gene: Makemake_63 Start: 42339, Stop: 41959, Start Num: 30

Candidate Starts for Makemake_63:

(2, 42540), (16, 42396), (17, 42393), (Start: 30 @42339 has 72 MA's), (32, 42327), (48, 42171), (51, 42135), (52, 42129), (62, 41997),

Gene: Marsha_82 Start: 50494, Stop: 50108, Start Num: 30

Candidate Starts for Marsha_82:

(Start: 30 @50494 has 72 MA's), (32, 50482), (48, 50326), (51, 50290), (52, 50284), (62, 50152),

Gene: Marvin_10 Start: 3597, Stop: 3977, Start Num: 30

Candidate Starts for Marvin_10:

(10, 3501), (13, 3525), (Start: 30 @3597 has 72 MA's), (32, 3609), (48, 3765), (51, 3801), (52, 3807), (62, 3939),

Gene: MiaZeal_74 Start: 47379, Stop: 46963, Start Num: 30

Candidate Starts for MiaZeal_74:

(Start: 30 @47379 has 72 MA's), (32, 47367), (40, 47283), (42, 47265), (48, 47187), (50, 47157), (54, 47118), (55, 47115),

Gene: MmasiCarm_51 Start: 45638, Stop: 45195, Start Num: 30

Candidate Starts for MmasiCarm_51:

(Start: 30 @45638 has 72 MA's), (32, 45626), (41, 45506), (44, 45476), (48, 45416), (51, 45380), (52, 45374), (62, 45242),

Gene: Moonbeam_87 Start: 50558, Stop: 50971, Start Num: 30

Candidate Starts for Moonbeam_87:

(8, 50435), (25, 50528), (27, 50537), (Start: 30 @50558 has 72 MA's), (35, 50615), (40, 50654), (48, 50750), (51, 50786), (52, 50792), (62, 50924),

Gene: Mortcellus_50 Start: 46245, Stop: 45802, Start Num: 30

Candidate Starts for Mortcellus_50:

(Start: 30 @46245 has 72 MA's), (32, 46233), (41, 46113), (44, 46083), (48, 46023), (51, 45987), (52, 45981), (62, 45849),

Gene: MrPhizzler_53 Start: 47284, Stop: 46895, Start Num: 30

Candidate Starts for MrPhizzler_53:

(Start: 30 @47284 has 72 MA's), (32, 47272), (48, 47116), (51, 47080), (52, 47074), (62, 46942),

Gene: MulchExplorer_82 Start: 47402, Stop: 47863, Start Num: 11

Candidate Starts for MulchExplorer_82:

(9, 47399), (Start: 11 @47402 has 1 MA's), (22, 47459), (23, 47462), (26, 47474), (48, 47648), (51, 47684), (52, 47690), (62, 47822),

Gene: NEHalo_58 Start: 40784, Stop: 40425, Start Num: 36

Candidate Starts for NEHalo_58:

(7, 40985), (31, 40841), (33, 40838), (Start: 36 @40784 has 5 MA's), (37, 40772), (48, 40637), (51, 40601), (52, 40595), (62, 40463),

Gene: Nala_43 Start: 35539, Stop: 35096, Start Num: 30

Candidate Starts for Nala_43:

(15, 35611), (Start: 30 @35539 has 72 MA's), (32, 35527), (44, 35377), (48, 35317), (51, 35281), (52, 35275), (62, 35143),

Gene: Nicole21_53 Start: 47623, Stop: 47051, Start Num: 30

Candidate Starts for Nicole21_53:

(15, 47695), (19, 47674), (21, 47668), (Start: 30 @47623 has 72 MA's), (32, 47611), (41, 47491), (44, 47461), (48, 47401), (51, 47365), (52, 47359), (62, 47227), (64, 47185),

Gene: NihilNomen_74 Start: 51071, Stop: 50655, Start Num: 30

Candidate Starts for NihilNomen_74:

(Start: 30 @51071 has 72 MA's), (32, 51059), (40, 50975), (42, 50957), (48, 50879), (50, 50849), (54, 50810), (55, 50807),

Gene: Obutu_51 Start: 45593, Stop: 45150, Start Num: 30

Candidate Starts for Obutu_51:

(Start: 30 @45593 has 72 MA's), (32, 45581), (41, 45461), (44, 45431), (48, 45371), (51, 45335), (52, 45329), (62, 45197),

Gene: Odette_72 Start: 50114, Stop: 49698, Start Num: 30

Candidate Starts for Odette_72:

(Start: 30 @50114 has 72 MA's), (32, 50102), (40, 50018), (42, 50000), (48, 49922), (50, 49892), (54, 49853), (55, 49850),

Gene: Ohno789_61 Start: 41528, Stop: 41148, Start Num: 30

Candidate Starts for Ohno789_61:

(2, 41729), (16, 41585), (17, 41582), (Start: 30 @41528 has 72 MA's), (32, 41516), (48, 41360), (51, 41324), (52, 41318), (62, 41186),

Gene: Phayeta_52 Start: 45475, Stop: 45032, Start Num: 30

Candidate Starts for Phayeta_52:

(Start: 30 @45475 has 72 MA's), (32, 45463), (41, 45343), (44, 45313), (48, 45253), (51, 45217), (52, 45211), (62, 45079),

Gene: PherrisBueller_60 Start: 39602, Stop: 39222, Start Num: 30

Candidate Starts for PherrisBueller_60:

(2, 39803), (16, 39659), (17, 39656), (Start: 30 @39602 has 72 MA's), (32, 39590), (48, 39434), (51, 39398), (52, 39392), (62, 39260),

Gene: Phoebus_76 Start: 52253, Stop: 51837, Start Num: 30

Candidate Starts for Phoebus_76:

(Start: 30 @52253 has 72 MA's), (32, 52241), (40, 52157), (42, 52139), (48, 52061), (50, 52031), (54, 51992), (55, 51989),

Gene: Porcelain_73 Start: 47379, Stop: 46963, Start Num: 30

Candidate Starts for Porcelain_73:

(Start: 30 @47379 has 72 MA's), (32, 47367), (40, 47283), (42, 47265), (48, 47187), (50, 47157), (54, 47118), (55, 47115),

Gene: Quallification_43 Start: 35661, Stop: 35215, Start Num: 30

Candidate Starts for Quallification_43:

(15, 35733), (Start: 30 @35661 has 72 MA's), (32, 35649), (44, 35499), (48, 35439), (50, 35409), (54, 35370), (55, 35367),

Gene: RedRaider77_10 Start: 3149, Stop: 3538, Start Num: 30

Candidate Starts for RedRaider77_10:

(Start: 30 @3149 has 72 MA's), (32, 3161), (48, 3317), (51, 3353), (52, 3359), (62, 3491),

Gene: Redno2_70 Start: 47867, Stop: 47451, Start Num: 30

Candidate Starts for Redno2_70:

(Start: 30 @47867 has 72 MA's), (32, 47855), (40, 47771), (42, 47753), (48, 47675), (50, 47645), (54, 47606), (55, 47603),

Gene: Rialto_90 Start: 50654, Stop: 51067, Start Num: 30

Candidate Starts for Rialto_90:

(8, 50531), (25, 50624), (27, 50633), (Start: 30 @50654 has 72 MA's), (35, 50711), (40, 50750), (48, 50846), (51, 50882), (52, 50888), (62, 51020),

Gene: Rimmer_43 Start: 35365, Stop: 34928, Start Num: 30

Candidate Starts for Rimmer_43:

(15, 35437), (Start: 30 @35365 has 72 MA's), (32, 35353), (44, 35203), (48, 35143), (51, 35107), (52, 35101), (62, 34969),

Gene: Rimu_56 Start: 47304, Stop: 46915, Start Num: 30

Candidate Starts for Rimu_56:

(Start: 30 @47304 has 72 MA's), (32, 47292), (48, 47136), (51, 47100), (52, 47094), (62, 46962),

Gene: Rita1961_51 Start: 45594, Stop: 45151, Start Num: 30

Candidate Starts for Rita1961_51:

(Start: 30 @45594 has 72 MA's), (32, 45582), (41, 45462), (44, 45432), (48, 45372), (51, 45336), (52, 45330), (62, 45198),

Gene: Sabbb_88 Start: 48209, Stop: 48622, Start Num: 30

Candidate Starts for Sabbb_88:

(3, 48035), (4, 48044), (5, 48068), (8, 48086), (25, 48179), (27, 48188), (Start: 30 @48209 has 72 MA's), (35, 48266), (40, 48305), (48, 48401), (51, 48437), (52, 48443), (62, 48575),

Gene: Sandaddy_57 Start: 40445, Stop: 40086, Start Num: 36

Candidate Starts for Sandaddy_57:

(7, 40646), (31, 40502), (33, 40499), (Start: 36 @40445 has 5 MA's), (37, 40433), (48, 40298), (51, 40262), (52, 40256), (62, 40124),

Gene: ScoobyDoobyDoo_2 Start: 227, Stop: 613, Start Num: 30

Candidate Starts for ScoobyDoobyDoo_2:

(Start: 30 @227 has 72 MA's), (32, 239), (48, 395), (51, 431), (52, 437), (60, 515), (62, 569),

Gene: Scowl_62 Start: 40833, Stop: 40453, Start Num: 30

Candidate Starts for Scowl_62:

(16, 40890), (17, 40887), (Start: 30 @40833 has 72 MA's), (32, 40821), (48, 40665), (51, 40629), (52, 40623), (62, 40491),

Gene: SlippinJimmy_52 Start: 46376, Stop: 45933, Start Num: 30

Candidate Starts for SlippinJimmy_52:

(Start: 30 @46376 has 72 MA's), (32, 46364), (41, 46244), (44, 46214), (48, 46154), (51, 46118), (52, 46112), (62, 45980),

Gene: Soile_53 Start: 47351, Stop: 46908, Start Num: 30

Candidate Starts for Soile_53:

(Start: 30 @47351 has 72 MA's), (32, 47339), (41, 47219), (44, 47189), (48, 47129), (51, 47093), (52, 47087), (62, 46955),

Gene: Sorpresa_58 Start: 40447, Stop: 40088, Start Num: 36

Candidate Starts for Sorpresa_58:

(7, 40648), (31, 40504), (33, 40501), (Start: 36 @40447 has 5 MA's), (37, 40435), (48, 40300), (51, 40264), (52, 40258), (62, 40126),

Gene: SpikeBT_59 Start: 40641, Stop: 40282, Start Num: 36

Candidate Starts for SpikeBT_59:

(7, 40842), (31, 40698), (33, 40695), (Start: 36 @40641 has 5 MA's), (37, 40629), (48, 40494), (51, 40458), (52, 40452), (62, 40320),

Gene: Squint_74 Start: 47498, Stop: 47082, Start Num: 30

Candidate Starts for Squint_74:

(Start: 30 @47498 has 72 MA's), (32, 47486), (40, 47402), (42, 47384), (48, 47306), (50, 47276), (54, 47237), (55, 47234),

Gene: StrongArm_59 Start: 41777, Stop: 41397, Start Num: 30

Candidate Starts for StrongArm_59:

(16, 41834), (17, 41831), (Start: 30 @41777 has 72 MA's), (32, 41765), (48, 41609), (51, 41573), (52, 41567), (62, 41435),

Gene: Superphikiman_71 Start: 46589, Stop: 46173, Start Num: 30

Candidate Starts for Superphikiman_71:

(Start: 30 @46589 has 72 MA's), (32, 46577), (40, 46493), (42, 46475), (48, 46397), (50, 46367), (54, 46328), (55, 46325),

Gene: TDanisky_93 Start: 48927, Stop: 49307, Start Num: 30

Candidate Starts for TDanisky_93:

(Start: 30 @48927 has 72 MA's), (48, 49092), (51, 49128), (52, 49134), (62, 49266),

Gene: Thibault_65 Start: 47312, Stop: 46869, Start Num: 30

Candidate Starts for Thibault_65:

(Start: 30 @47312 has 72 MA's), (44, 47150), (46, 47147), (48, 47090), (51, 47054), (52, 47048), (62, 46916),

Gene: VasuNzinga_9 Start: 2804, Stop: 3184, Start Num: 30

Candidate Starts for VasuNzinga_9:

(Start: 30 @2804 has 72 MA's), (32, 2816), (48, 2972), (51, 3008), (52, 3014), (62, 3146),

Gene: Youngblood_44 Start: 35976, Stop: 35539, Start Num: 30

Candidate Starts for Youngblood_44:

(15, 36048), (Start: 30 @35976 has 72 MA's), (32, 35964), (44, 35814), (48, 35754), (51, 35718), (52, 35712), (62, 35580),