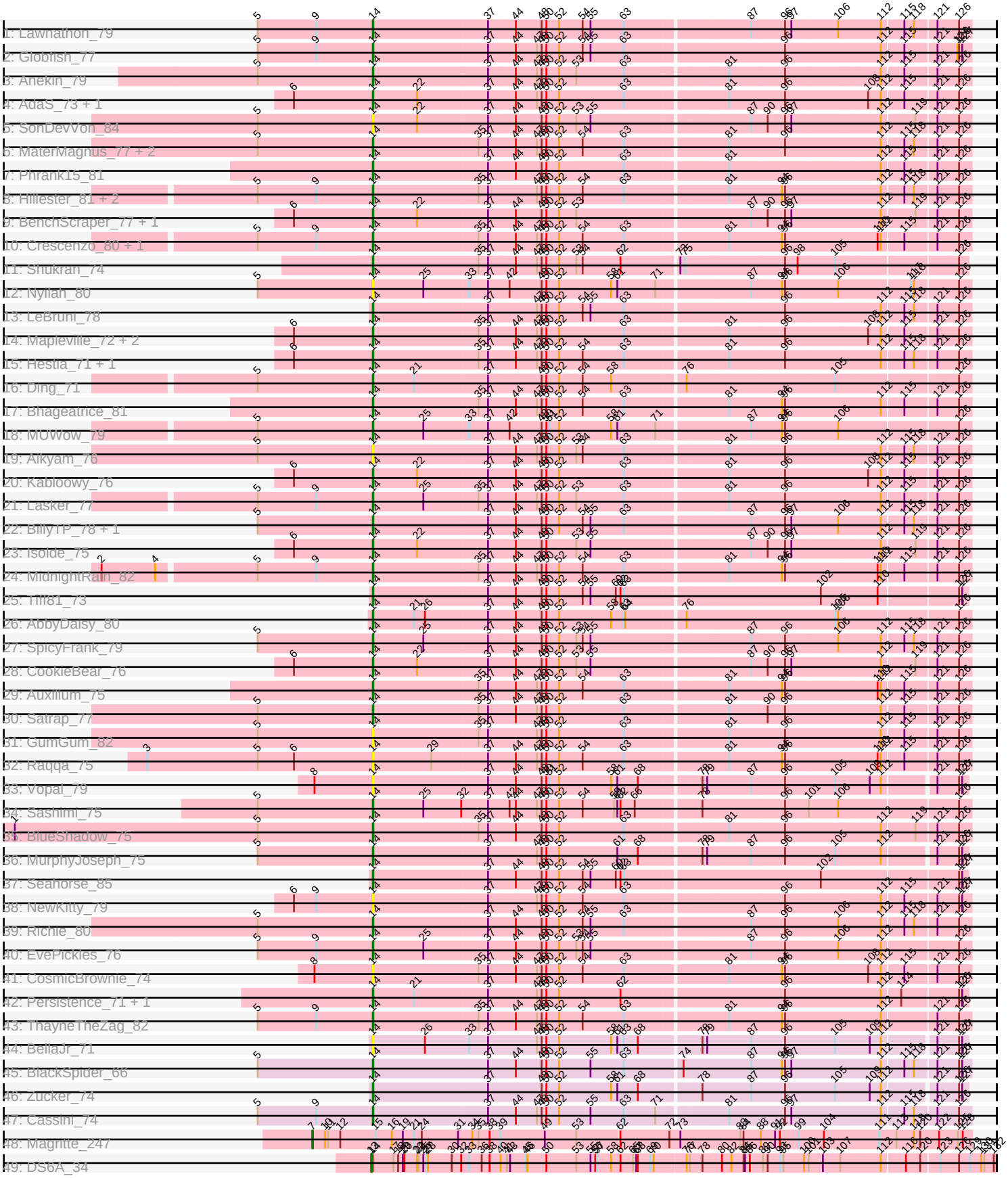
Pham 347638


1: Lawnathon_79
2: Globfish_77
3: Anekin_79
4: AdaS_73 + 1
5: SonDevVon_84
6: MaterMagnus_77 + 2
7: Phrank15_81
8: Hillester_81 + 2
9: BenchScraper_77 + 1
10: Crescenzo_80 + 1
11: Shukran_74
12: Nyliah_80
13: LeBruni_78
14: Mapleville_72 + 2
15: Hestia_71 + 1
16: Ding_71
17: Bhageatrice_81
18: MOWow_79
19: Alkyam_76
20: Kabloowy_76
21: Lasker_77
22: BillyTP_78 + 1
23: Isolde_75
24: MidnightRain_82
25: Tiff81_73
26: AbbyDaisy_80
27: SpicyFrank_79
28: CookieBear_76
29: Auxilium_75
30: Satrap_77
31: GumGum_82
32: Raqqa_75
33: Vopal_79
34: Sashimi_75
35: BlueShadow_75
36: MurphyJoseph_75
37: Seahorse_85
38: NewKitty_79
39: Richie_80
40: EvePickles_76
41: CosmicBrownie_74
42: Persistence_71 + 1
43: ThayneTheZag_82
44: BellaJr_71
45: BlackSpider_66
46: Zucker_74
47: Cassini_74
48: Magritte_247
49: DS6A_34

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 347638 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347638 has 61 members, 11 are drafts.

Phages represented in each track:
- Track 1 : Lawnathon_79
- Track 2 : Globfish_77
- Track 3 : Anekin_79
- Track 4 : AdaS_73, JellyBread_74
- Track 5 : SonDevVon_84
- Track 6 : MaterMagnus_77, Sakai_74, Gorpy_75
- Track 7 : Phrank15_81
- Track 8 : Hillester_81, RadFad_82, BasketStar_77
- Track 9 : BenchScraper_77, YoungHarleezy_77
- Track 10 : Crescenzo_80, DarwinJr_81
- Track 11 : Shukran_74
- Track 12 : Nyilah_80
- Track 13 : LeBruni_78
- Track 14 : Mapleville_72, Raphaella_78, Sporco_80
- Track 15 : Hestia_71, Faja_80
- Track 16 : Ding_71
- Track 17 : Bhageatrice_81
- Track 18 : MUWow_79
- Track 19 : Aikyam_76
- Track 20 : Kabloowy_76
- Track 21 : Lasker_77
- Track 22 : BillyTP_78, Windest_81
- Track 23 : Isolde_75
- Track 24 : MidnightRain_82
- Track 25 : Tiff81_73
- Track 26 : AbbyDaisy_80
- Track 27 : SpicyFrank_79
- Track 28 : CookieBear_76
- Track 29 : Auxilium_75
- Track 30 : Satrap_77
- Track 31 : GumGum_82
- Track 32 : Raqqa_75
- Track 33 : Vopal_79
- Track 34 : Sashimi_75
- Track 35 : BlueShadow_75
- Track 36 : MurphyJoseph_75
- Track 37 : Seahorse_85

• Track 38 : NewKitty_79
• Track 39 : Richie_80
• Track 40 : EvePickles_76
• Track 41 : CosmicBrownie_74
• Track 42 : Persistence_71, JakeTheSnake_80
• Track 43 : ThayneTheZag_82
• Track 44 : BellaJr_71
• Track 45 : BlackSpider_66
• Track 46 : Zucker_74
• Track 47 : Cassini_74
• Track 48 : Magritte_247
• Track 49 : DS6A_34

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

The start number called the most often in the published annotations is 14, it was called in 48 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AbbyDaisy_80, AdaS_73, Aikyam_76, Anekin_79, Auxilium_75, BasketStar_77, BellaJr_71, BenchScraper_77, Bhageatrice_81, BillyTP_78, BlackSpider_66, BlueShadow_75, Cassini_74, CookieBear_76, CosmicBrownie_74, Crescenzo_80, DarwinJr_81, Ding_71, EvePickles_76, Faja_80, Globfish_77, Gorpy_75, GumGum_82, Hestia_71, Hillester_81, Isolde_75, JakeTheSnake_80, JellyBread_74, Kabloowy_76, Lasker_77, Lawnathon_79, LeBruni_78, MUWow_79, Mapleville_72, MaterMagnus_77, MidnightRain_82, MurphyJoseph_75, NewKitty_79, Nyilah_80, Persistence_71, Phrank15_81, RadFad_82, Raphaella_78, Raqqa_75, Richie_80, Sakai_74, Sashimi_75, Satrap_77, Seahorse_85, Shukran_74, SonDevVon_84, SpicyFrank_79, Sporco_80, ThayneTheZag_82, Tiff81_73, Vopal_79, Windest_81, YoungHarleezy_77, Zucker_74,

Genes that have the "Most Annotated" start but do not call it:
• DS6A_34,

Genes that do not have the "Most Annotated" start:
• Magritte_247,

Summary by start number:

Start 7:
• Found in 1 of 61 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Magritte_247 (singleton),

Start 13:
• Found in 1 of 61 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DS6A_34 (singleton),

Start 14:
• Found in 60 of 61 (98.4%) of genes in pham
• Manual Annotations of this start: 48 of 50
• Called 98.3% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_80 (AY), AdaS_73 (AY), Aikyam_76 (AY), Anekin_79 (AY), Auxilium_75 (AY), BasketStar_77 (AY), BellaJr_71 (FN), BenchScraper_77 (AY), Bhageatrice_81 (AY), BillyTP_78 (AY), BlackSpider_66 (FN), BlueShadow_75 (AY), Cassini_74 (FN), CookieBear_76 (AY), CosmicBrownie_74 (AY), Crescenzo_80 (AY), DarwinJr_81 (AY), Ding_71 (AY), EvePickles_76 (AY), Faja_80 (AY), Globfish_77 (AY), Gorpy_75 (AY), GumGum_82 (AY), Hestia_71 (AY), Hillester_81 (AY), Isolde_75 (AY), JakeTheSnake_80 (AY), JellyBread_74 (AY), Kabloowy_76 (AY), Lasker_77 (AY), Lawnathon_79 (AY), LeBruni_78 (AY), MUWow_79 (AY), Mapleville_72 (AY), MaterMagnus_77 (AY), MidnightRain_82 (AY), MurphyJoseph_75 (AY), NewKitty_79 (AY), Nyilah_80 (AY), Persistence_71 (AY), Phrank15_81 (AY), RadFad_82 (AY), Raphaella_78 (AY), Raqqa_75 (AY), Richie_80 (AY), Sakai_74 (AY), Sashimi_75 (AY), Satrap_77 (AY), Seahorse_85 (AY), Shukran_74 (AY), SonDevVon_84 (AY), SpicyFrank_79 (AY), Sporco_80 (AY), ThayneTheZag_82 (AY), Tiff81_73 (AY), Vopal_79 (AY), Windest_81 (AY), YoungHarleezy_77 (AY), Zucker_74 (FN),

Summary by clusters:

There are 3 clusters represented in this pham: AY, singleton, FN,

Info for manual annotations of cluster AY:
•Start number 14 was manually annotated 45 times for cluster AY.

Info for manual annotations of cluster FN:
•Start number 14 was manually annotated 3 times for cluster FN.

Gene Information:

Gene: AbbyDaisy_80 Start: 44496, Stop: 45578, Start Num: 14
Candidate Starts for AbbyDaisy_80:
(Start: 14 @44496 has 48 MA's), (21, 44574), (26, 44595), (37, 44712), (44, 44763), (48, 44811), (50, 44820), (52, 44844), (58, 44940), (63, 44964), (64, 44967), (76, 45069), (105, 45342), (106, 45348), (126, 45555),

Gene: AdaS_73 Start: 40202, Stop: 41284, Start Num: 14
Candidate Starts for AdaS_73:
(6, 40052), (Start: 14 @40202 has 48 MA's), (22, 40286), (37, 40418), (44, 40469), (47, 40508), (48, 40517), (50, 40526), (52, 40550), (63, 40670), (81, 40850), (96, 40955), (108, 41105), (112, 41129), (115, 41168), (121, 41222), (126, 41261),

Gene: Aikyam_76 Start: 40908, Stop: 41990, Start Num: 14
Candidate Starts for Aikyam_76:
(5, 40689), (Start: 14 @40908 has 48 MA's), (37, 41124), (44, 41175), (47, 41214), (48, 41223), (50, 41232), (52, 41256), (53, 41286), (54, 41298), (63, 41376), (81, 41556), (96, 41661), (112, 41835), (115, 41874), (118, 41892), (121, 41928), (126, 41967),

Gene: Anekin_79 Start: 43480, Stop: 44562, Start Num: 14
Candidate Starts for Anekin_79:
(5, 43261), (Start: 14 @43480 has 48 MA's), (37, 43696), (44, 43747), (47, 43786), (48, 43795), (50, 43804), (52, 43828), (53, 43858), (63, 43948), (81, 44128), (96, 44233), (112, 44407), (115, 44446), (121, 44500), (126, 44539),

Gene: Auxilium_75 Start: 40439, Stop: 41521, Start Num: 14
Candidate Starts for Auxilium_75:
(Start: 14 @40439 has 48 MA's), (35, 40637), (37, 40655), (44, 40706), (47, 40745), (48, 40754), (50, 40763), (52, 40787), (54, 40829), (63, 40907), (81, 41087), (94, 41186), (96, 41192), (110, 41360), (112, 41366), (115, 41405), (121, 41459), (126, 41498),

Gene: BasketStar_77 Start: 43234, Stop: 44316, Start Num: 14
Candidate Starts for BasketStar_77:
(5, 43015), (9, 43126), (Start: 14 @43234 has 48 MA's), (35, 43432), (37, 43450), (47, 43540), (48, 43549), (50, 43558), (52, 43582), (54, 43624), (63, 43702), (81, 43882), (94, 43981), (96, 43987), (112, 44161), (115, 44200), (118, 44218), (121, 44254), (126, 44293),

Gene: BellaJr_71 Start: 41562, Stop: 42632, Start Num: 14
Candidate Starts for BellaJr_71:
(Start: 14 @41562 has 48 MA's), (26, 41661), (33, 41742), (37, 41778), (47, 41868), (48, 41877), (50, 41886), (52, 41910), (58, 42006), (61, 42018), (63, 42030), (68, 42057), (78, 42162), (79, 42171), (87, 42252), (96, 42315), (105, 42408), (109, 42468), (112, 42489), (121, 42576), (126, 42615), (127, 42621),

Gene: BenchScraper_77 Start: 41613, Stop: 42695, Start Num: 14
Candidate Starts for BenchScraper_77:
(6, 41463), (Start: 14 @41613 has 48 MA's), (22, 41697), (37, 41829), (44, 41880), (48, 41928), (50, 41937), (52, 41961), (53, 41991), (87, 42303), (90, 42333), (96, 42366), (97, 42378), (112, 42540), (119, 42600), (121, 42633), (126, 42672),

Gene: Bhageatrice_81 Start: 45280, Stop: 46362, Start Num: 14
Candidate Starts for Bhageatrice_81:
(Start: 14 @45280 has 48 MA's), (35, 45478), (37, 45496), (44, 45547), (47, 45586), (48, 45595), (50, 45604), (52, 45628), (54, 45670), (63, 45748), (81, 45928), (94, 46027), (96, 46033), (112, 46207), (115, 46246), (121, 46300), (126, 46339),

Gene: BillyTP_78 Start: 43432, Stop: 44514, Start Num: 14
Candidate Starts for BillyTP_78:
(5, 43213), (Start: 14 @43432 has 48 MA's), (37, 43648), (44, 43699), (48, 43747), (50, 43756), (52, 43780), (54, 43822), (55, 43837), (63, 43900), (87, 44122), (96, 44185), (97, 44197), (106, 44284), (112, 44359), (115, 44398), (118, 44416), (121, 44452), (126, 44491),

Gene: BlackSpider_66 Start: 39998, Stop: 41080, Start Num: 14
Candidate Starts for BlackSpider_66:
(5, 39779), (Start: 14 @39998 has 48 MA's), (37, 40214), (44, 40265), (48, 40313), (50, 40322), (52, 40346), (55, 40403), (63, 40466), (74, 40565), (87, 40688), (94, 40745), (96, 40751), (97, 40763), (112, 40925), (115, 40964), (118, 40982), (121, 41018), (126, 41057), (127, 41063),

Gene: BlueShadow_75 Start: 42756, Stop: 43838, Start Num: 14
Candidate Starts for BlueShadow_75:
(1, 42078), (5, 42537), (Start: 14 @42756 has 48 MA's), (35, 42954), (37, 42972), (44, 43023), (48, 43071), (50, 43080), (52, 43104), (63, 43224), (81, 43404), (96, 43509), (112, 43683), (119, 43743),

(121, 43776), (126, 43815),

Gene: Cassini_74 Start: 42425, Stop: 43507, Start Num: 14
Candidate Starts for Cassini_74:
(5, 42206), (9, 42317), (Start: 14 @42425 has 48 MA's), (37, 42641), (44, 42692), (47, 42731), (48, 42740), (50, 42749), (52, 42773), (55, 42830), (63, 42893), (71, 42953), (81, 43073), (96, 43178), (97, 43190), (112, 43352), (115, 43391), (118, 43409), (121, 43445), (126, 43484),

Gene: CookieBear_76 Start: 42087, Stop: 43169, Start Num: 14
Candidate Starts for CookieBear_76:
(6, 41937), (Start: 14 @42087 has 48 MA's), (22, 42171), (37, 42303), (44, 42354), (48, 42402), (50, 42411), (52, 42435), (53, 42465), (55, 42492), (87, 42777), (90, 42807), (96, 42840), (97, 42852), (112, 43014), (119, 43074), (121, 43107), (126, 43146),

Gene: CosmicBrownie_74 Start: 41470, Stop: 42552, Start Num: 14
Candidate Starts for CosmicBrownie_74:
(8, 41359), (Start: 14 @41470 has 48 MA's), (35, 41668), (37, 41686), (44, 41737), (47, 41776), (48, 41785), (50, 41794), (52, 41818), (54, 41860), (63, 41938), (81, 42118), (94, 42217), (96, 42223), (108, 42373), (112, 42397), (115, 42436), (121, 42490), (126, 42529),

Gene: Crescenzo_80 Start: 44870, Stop: 45952, Start Num: 14
Candidate Starts for Crescenzo_80:
(5, 44651), (9, 44762), (Start: 14 @44870 has 48 MA's), (35, 45068), (37, 45086), (44, 45137), (47, 45176), (48, 45185), (50, 45194), (52, 45218), (54, 45260), (63, 45338), (81, 45518), (94, 45617), (96, 45623), (110, 45791), (112, 45797), (115, 45836), (121, 45890), (126, 45929),

Gene: DS6A_34 Start: 28680, Stop: 29831, Start Num: 13
Candidate Starts for DS6A_34:
(Start: 13 @28680 has 1 MA's), (Start: 14 @28683 has 48 MA's), (17, 28722), (18, 28731), (19, 28740), (20, 28743), (22, 28767), (23, 28770), (25, 28779), (27, 28785), (28, 28788), (30, 28833), (32, 28851), (33, 28866), (36, 28890), (38, 28905), (40, 28926), (41, 28938), (43, 28944), (45, 28974), (46, 28977), (50, 29013), (53, 29067), (55, 29094), (56, 29103), (57, 29106), (58, 29133), (62, 29151), (65, 29175), (67, 29181), (68, 29184), (69, 29208), (70, 29214), (76, 29271), (77, 29277), (78, 29301), (80, 29337), (82, 29355), (84, 29376), (85, 29379), (86, 29388), (89, 29412), (90, 29421), (93, 29445), (95, 29451), (100, 29490), (101, 29499), (103, 29526), (107, 29559), (112, 29631), (116, 29673), (120, 29700), (123, 29727), (126, 29760), (129, 29781), (130, 29802), (131, 29808), (132, 29826),

Gene: DarwinJr_81 Start: 44825, Stop: 45907, Start Num: 14
Candidate Starts for DarwinJr_81:
(5, 44606), (9, 44717), (Start: 14 @44825 has 48 MA's), (35, 45023), (37, 45041), (44, 45092), (47, 45131), (48, 45140), (50, 45149), (52, 45173), (54, 45215), (63, 45293), (81, 45473), (94, 45572), (96, 45578), (110, 45746), (112, 45752), (115, 45791), (121, 45845), (126, 45884),

Gene: Ding_71 Start: 42621, Stop: 43703, Start Num: 14
Candidate Starts for Ding_71:
(5, 42402), (Start: 14 @42621 has 48 MA's), (21, 42699), (37, 42837), (48, 42936), (50, 42945), (52, 42969), (54, 43011), (58, 43065), (76, 43194), (105, 43467), (126, 43680),

Gene: EvePickles_76 Start: 43345, Stop: 44427, Start Num: 14
Candidate Starts for EvePickles_76:
(5, 43126), (9, 43237), (Start: 14 @43345 has 48 MA's), (25, 43441), (37, 43561), (44, 43612), (48, 43660), (50, 43669), (52, 43693), (53, 43723), (54, 43735), (55, 43750), (87, 44035), (96, 44098), (106, 44197), (112, 44272), (126, 44404),

Gene: Faja_80 Start: 44129, Stop: 45211, Start Num: 14
Candidate Starts for Faja_80:
(6, 43979), (Start: 14 @44129 has 48 MA's), (35, 44327), (37, 44345), (44, 44396), (47, 44435), (48, 44444), (50, 44453), (52, 44477), (54, 44519), (63, 44597), (81, 44777), (96, 44882), (112, 45056), (115, 45095), (118, 45113), (121, 45149), (126, 45188),

Gene: Globfish_77 Start: 41812, Stop: 42894, Start Num: 14
Candidate Starts for Globfish_77:
(5, 41593), (9, 41704), (Start: 14 @41812 has 48 MA's), (37, 42028), (44, 42079), (47, 42118), (48, 42127), (50, 42136), (52, 42160), (54, 42202), (55, 42217), (63, 42280), (96, 42565), (112, 42739), (115, 42778), (121, 42832), (124, 42868), (126, 42871), (127, 42877),

Gene: Gorpy_75 Start: 43328, Stop: 44410, Start Num: 14
Candidate Starts for Gorpy_75:
(5, 43109), (Start: 14 @43328 has 48 MA's), (35, 43526), (37, 43544), (44, 43595), (47, 43634), (48, 43643), (50, 43652), (52, 43676), (54, 43718), (63, 43796), (81, 43976), (96, 44081), (112, 44255), (115, 44294), (118, 44312), (121, 44348), (126, 44387),

Gene: GumGum_82 Start: 43271, Stop: 44353, Start Num: 14
Candidate Starts for GumGum_82:
(5, 43052), (Start: 14 @43271 has 48 MA's), (35, 43469), (37, 43487), (47, 43577), (48, 43586), (50, 43595), (52, 43619), (63, 43739), (81, 43919), (96, 44024), (112, 44198), (115, 44237), (121, 44291), (126, 44330),

Gene: Hestia_71 Start: 40352, Stop: 41434, Start Num: 14
Candidate Starts for Hestia_71:
(6, 40202), (Start: 14 @40352 has 48 MA's), (35, 40550), (37, 40568), (44, 40619), (47, 40658), (48, 40667), (50, 40676), (52, 40700), (54, 40742), (63, 40820), (81, 41000), (96, 41105), (112, 41279), (115, 41318), (118, 41336), (121, 41372), (126, 41411),

Gene: Hillester_81 Start: 43361, Stop: 44443, Start Num: 14
Candidate Starts for Hillester_81:
(5, 43142), (9, 43253), (Start: 14 @43361 has 48 MA's), (35, 43559), (37, 43577), (47, 43667), (48, 43676), (50, 43685), (52, 43709), (54, 43751), (63, 43829), (81, 44009), (94, 44108), (96, 44114), (112, 44288), (115, 44327), (118, 44345), (121, 44381), (126, 44420),

Gene: Isolde_75 Start: 42198, Stop: 43280, Start Num: 14
Candidate Starts for Isolde_75:
(6, 42048), (Start: 14 @42198 has 48 MA's), (22, 42282), (37, 42414), (44, 42465), (48, 42513), (50, 42522), (53, 42576), (55, 42603), (87, 42888), (90, 42918), (96, 42951), (97, 42963), (112, 43125), (119, 43185), (121, 43218), (126, 43257),

Gene: JakeTheSnake_80 Start: 45170, Stop: 46246, Start Num: 14
Candidate Starts for JakeTheSnake_80:
(Start: 14 @45170 has 48 MA's), (21, 45248), (37, 45386), (47, 45476), (48, 45485), (50, 45494), (52, 45518), (62, 45632), (96, 45923), (112, 46097), (114, 46130), (126, 46229), (127, 46235),

Gene: JellyBread_74 Start: 42343, Stop: 43425, Start Num: 14
Candidate Starts for JellyBread_74:
(6, 42193), (Start: 14 @42343 has 48 MA's), (22, 42427), (37, 42559), (44, 42610), (47, 42649), (48, 42658), (50, 42667), (52, 42691), (63, 42811), (81, 42991), (96, 43096), (108, 43246), (112, 43270), (115, 43309), (121, 43363), (126, 43402),

Gene: Kabloowy_76 Start: 43227, Stop: 44309, Start Num: 14
Candidate Starts for Kabloowy_76:
(6, 43077), (Start: 14 @43227 has 48 MA's), (22, 43311), (37, 43443), (44, 43494), (48, 43542), (50, 43551), (52, 43575), (63, 43695), (81, 43875), (96, 43980), (108, 44130), (112, 44154), (115, 44193), (121, 44247), (126, 44286),

Gene: Lasker_77 Start: 43710, Stop: 44792, Start Num: 14
Candidate Starts for Lasker_77:
(5, 43491), (9, 43602), (Start: 14 @43710 has 48 MA's), (25, 43806), (35, 43908), (37, 43926), (44, 43977), (47, 44016), (48, 44025), (50, 44034), (52, 44058), (53, 44088), (63, 44178), (81, 44358), (96, 44463), (112, 44637), (115, 44676), (121, 44730), (126, 44769),

Gene: Lawnathon_79 Start: 42436, Stop: 43518, Start Num: 14
Candidate Starts for Lawnathon_79:
(5, 42217), (9, 42328), (Start: 14 @42436 has 48 MA's), (37, 42652), (44, 42703), (48, 42751), (50, 42760), (52, 42784), (54, 42826), (55, 42841), (63, 42904), (87, 43126), (96, 43189), (97, 43201), (106, 43288), (112, 43363), (115, 43402), (118, 43420), (121, 43456), (126, 43495),

Gene: LeBruni_78 Start: 42270, Stop: 43352, Start Num: 14
Candidate Starts for LeBruni_78:
(Start: 14 @42270 has 48 MA's), (37, 42486), (47, 42576), (48, 42585), (50, 42594), (52, 42618), (54, 42660), (55, 42675), (63, 42738), (96, 43023), (112, 43197), (115, 43236), (118, 43254), (121, 43290), (126, 43329),

Gene: MUWow_79 Start: 44041, Stop: 45123, Start Num: 14
Candidate Starts for MUWow_79:
(5, 43822), (Start: 14 @44041 has 48 MA's), (25, 44137), (33, 44221), (37, 44257), (42, 44296), (48, 44356), (50, 44365), (51, 44371), (52, 44389), (58, 44485), (61, 44497), (71, 44569), (87, 44731), (94, 44788), (96, 44794), (106, 44893), (126, 45100),

Gene: Magritte_247 Start: 128005, Stop: 129243, Start Num: 7
Candidate Starts for Magritte_247:
(Start: 7 @128005 has 1 MA's), (10, 128026), (11, 128032), (12, 128053), (15, 128119), (16, 128149), (19, 128170), (21, 128191), (24, 128206), (31, 128275), (34, 128302), (35, 128314), (38, 128335), (39, 128353), (49, 128437), (53, 128497), (62, 128575), (72, 128668), (73, 128689), (83, 128803), (84, 128809), (88, 128842), (91, 128869), (92, 128878), (99, 128914), (104, 128962), (111, 129067), (113, 129100), (118, 129133), (120, 129145), (122, 129181), (125, 129217), (128, 129226),

Gene: Mapleville_72 Start: 41767, Stop: 42849, Start Num: 14
Candidate Starts for Mapleville_72:
(6, 41617), (Start: 14 @41767 has 48 MA's), (35, 41965), (37, 41983), (44, 42034), (47, 42073), (48, 42082), (50, 42091), (52, 42115), (63, 42235), (81, 42415), (96, 42520), (108, 42670), (112, 42694), (115, 42733), (121, 42787), (126, 42826),

Gene: MaterMagnus_77 Start: 43080, Stop: 44162, Start Num: 14
Candidate Starts for MaterMagnus_77:
(5, 42861), (Start: 14 @43080 has 48 MA's), (35, 43278), (37, 43296), (44, 43347), (47, 43386), (48, 43395), (50, 43404), (52, 43428), (54, 43470), (63, 43548), (81, 43728), (96, 43833), (112, 44007), (115, 44046), (118, 44064), (121, 44100), (126, 44139),

Gene: MidnightRain_82 Start: 43656, Stop: 44738, Start Num: 14
Candidate Starts for MidnightRain_82:

(2, 43155), (4, 43257), (5, 43437), (9, 43548), (Start: 14 @43656 has 48 MA's), (35, 43854), (37, 43872), (44, 43923), (47, 43962), (48, 43971), (50, 43980), (52, 44004), (54, 44046), (63, 44124), (81, 44304), (94, 44403), (96, 44409), (110, 44577), (112, 44583), (115, 44622), (121, 44676), (126, 44715),

Gene: MurphyJoseph_75 Start: 41096, Stop: 42166, Start Num: 14
Candidate Starts for MurphyJoseph_75:
(5, 40877), (Start: 14 @41096 has 48 MA's), (37, 41312), (47, 41402), (48, 41411), (50, 41420), (52, 41444), (61, 41552), (68, 41591), (78, 41696), (79, 41705), (87, 41786), (96, 41849), (105, 41942), (112, 42023), (121, 42110), (126, 42149), (127, 42155),

Gene: NewKitty_79 Start: 44038, Stop: 45120, Start Num: 14
Candidate Starts for NewKitty_79:
(6, 43888), (9, 43930), (Start: 14 @44038 has 48 MA's), (37, 44254), (47, 44344), (48, 44353), (50, 44362), (52, 44386), (54, 44428), (63, 44506), (96, 44791), (112, 44965), (115, 45004), (121, 45058), (126, 45097), (127, 45103),

Gene: Nyilah_80 Start: 42338, Stop: 43420, Start Num: 14
Candidate Starts for Nyilah_80:
(5, 42119), (Start: 14 @42338 has 48 MA's), (25, 42434), (33, 42518), (37, 42554), (42, 42593), (48, 42653), (50, 42662), (52, 42686), (58, 42782), (61, 42794), (71, 42866), (87, 43028), (94, 43085), (96, 43091), (106, 43190), (117, 43316), (118, 43322), (126, 43397),

Gene: Persistence_71 Start: 40729, Stop: 41805, Start Num: 14
Candidate Starts for Persistence_71:
(Start: 14 @40729 has 48 MA's), (21, 40807), (37, 40945), (47, 41035), (48, 41044), (50, 41053), (52, 41077), (62, 41191), (96, 41482), (112, 41656), (114, 41689), (126, 41788), (127, 41794),

Gene: Phrank15_81 Start: 43167, Stop: 44249, Start Num: 14
Candidate Starts for Phrank15_81:
(Start: 14 @43167 has 48 MA's), (37, 43383), (44, 43434), (48, 43482), (50, 43491), (52, 43515), (63, 43635), (81, 43815), (112, 44094), (115, 44133), (121, 44187), (126, 44226),

Gene: RadFad_82 Start: 43361, Stop: 44443, Start Num: 14
Candidate Starts for RadFad_82:
(5, 43142), (9, 43253), (Start: 14 @43361 has 48 MA's), (35, 43559), (37, 43577), (47, 43667), (48, 43676), (50, 43685), (52, 43709), (54, 43751), (63, 43829), (81, 44009), (94, 44108), (96, 44114), (112, 44288), (115, 44327), (118, 44345), (121, 44381), (126, 44420),

Gene: Raphaella_78 Start: 42144, Stop: 43226, Start Num: 14
Candidate Starts for Raphaella_78:
(6, 41994), (Start: 14 @42144 has 48 MA's), (35, 42342), (37, 42360), (44, 42411), (47, 42450), (48, 42459), (50, 42468), (52, 42492), (63, 42612), (81, 42792), (96, 42897), (108, 43047), (112, 43071), (115, 43110), (121, 43164), (126, 43203),

Gene: Raqqa_75 Start: 42837, Stop: 43919, Start Num: 14
Candidate Starts for Raqqa_75:
(3, 42408), (5, 42618), (6, 42687), (Start: 14 @42837 has 48 MA's), (29, 42948), (37, 43053), (44, 43104), (47, 43143), (48, 43152), (50, 43161), (52, 43185), (54, 43227), (63, 43305), (81, 43485), (94, 43584), (96, 43590), (110, 43758), (112, 43764), (115, 43803), (121, 43857), (126, 43896),

Gene: Richie_80 Start: 44012, Stop: 45094, Start Num: 14
Candidate Starts for Richie_80:

(5, 43793), (Start: 14 @44012 has 48 MA's), (37, 44228), (44, 44279), (48, 44327), (50, 44336), (52, 44360), (54, 44402), (55, 44417), (63, 44480), (87, 44702), (96, 44765), (106, 44864), (112, 44939), (115, 44978), (118, 44996), (121, 45032), (126, 45071),

Gene: Sakai_74 Start: 42039, Stop: 43121, Start Num: 14
Candidate Starts for Sakai_74:
(5, 41820), (Start: 14 @42039 has 48 MA's), (35, 42237), (37, 42255), (44, 42306), (47, 42345), (48, 42354), (50, 42363), (52, 42387), (54, 42429), (63, 42507), (81, 42687), (96, 42792), (112, 42966), (115, 43005), (118, 43023), (121, 43059), (126, 43098),

Gene: Sashimi_75 Start: 42712, Stop: 43794, Start Num: 14
Candidate Starts for Sashimi_75:
(5, 42493), (Start: 14 @42712 has 48 MA's), (25, 42808), (32, 42880), (37, 42928), (42, 42967), (44, 42979), (47, 43018), (48, 43027), (50, 43036), (52, 43060), (54, 43102), (59, 43162), (61, 43168), (62, 43174), (66, 43201), (78, 43312), (96, 43465), (101, 43510), (106, 43564), (126, 43771),

Gene: Satrap_77 Start: 42786, Stop: 43868, Start Num: 14
Candidate Starts for Satrap_77:
(5, 42567), (Start: 14 @42786 has 48 MA's), (35, 42984), (37, 43002), (44, 43053), (47, 43092), (48, 43101), (50, 43110), (52, 43134), (63, 43254), (81, 43434), (90, 43506), (96, 43539), (112, 43713), (115, 43752), (121, 43806), (126, 43845),

Gene: Seahorse_85 Start: 47706, Stop: 48782, Start Num: 14
Candidate Starts for Seahorse_85:
(Start: 14 @47706 has 48 MA's), (37, 47922), (44, 47973), (48, 48021), (50, 48030), (52, 48054), (54, 48096), (55, 48111), (60, 48159), (62, 48168), (63, 48174), (102, 48525), (126, 48765), (127, 48771),

Gene: Shukran_74 Start: 41608, Stop: 42684, Start Num: 14
Candidate Starts for Shukran_74:
(Start: 14 @41608 has 48 MA's), (35, 41806), (37, 41824), (44, 41875), (47, 41914), (48, 41923), (50, 41932), (52, 41956), (53, 41986), (54, 41998), (62, 42070), (73, 42169), (75, 42178), (96, 42361), (98, 42385), (105, 42454), (126, 42667),

Gene: SonDevVon_84 Start: 43088, Stop: 44170, Start Num: 14
Candidate Starts for SonDevVon_84:
(5, 42869), (Start: 14 @43088 has 48 MA's), (22, 43172), (37, 43304), (44, 43355), (48, 43403), (50, 43412), (52, 43436), (53, 43466), (55, 43493), (87, 43778), (90, 43808), (96, 43841), (97, 43853), (112, 44015), (119, 44075), (121, 44108), (126, 44147),

Gene: SpicyFrank_79 Start: 42429, Stop: 43511, Start Num: 14
Candidate Starts for SpicyFrank_79:
(5, 42210), (Start: 14 @42429 has 48 MA's), (25, 42525), (37, 42645), (44, 42696), (48, 42744), (50, 42753), (52, 42777), (53, 42807), (54, 42819), (55, 42834), (87, 43119), (96, 43182), (106, 43281), (112, 43356), (115, 43395), (118, 43413), (121, 43449), (126, 43488),

Gene: Sporco_80 Start: 43824, Stop: 44906, Start Num: 14
Candidate Starts for Sporco_80:
(6, 43674), (Start: 14 @43824 has 48 MA's), (35, 44022), (37, 44040), (44, 44091), (47, 44130), (48, 44139), (50, 44148), (52, 44172), (63, 44292), (81, 44472), (96, 44577), (108, 44727), (112, 44751), (115, 44790), (121, 44844), (126, 44883),

Gene: ThayneTheZag_82 Start: 43056, Stop: 44138, Start Num: 14
Candidate Starts for ThayneTheZag_82:

(5, 42837), (9, 42948), (Start: 14 @43056 has 48 MA's), (35, 43254), (37, 43272), (44, 43323), (47, 43362), (48, 43371), (50, 43380), (52, 43404), (54, 43446), (63, 43524), (81, 43704), (94, 43803), (96, 43809), (112, 43983), (121, 44076), (126, 44115),

Gene: Tiff81_73 Start: 41323, Stop: 42399, Start Num: 14
Candidate Starts for Tiff81_73:
(Start: 14 @41323 has 48 MA's), (37, 41539), (44, 41590), (48, 41638), (50, 41647), (52, 41671), (54, 41713), (55, 41728), (60, 41776), (62, 41785), (63, 41791), (102, 42142), (110, 42244), (126, 42382), (127, 42388),

Gene: Vopal_79 Start: 44498, Stop: 45568, Start Num: 14
Candidate Starts for Vopal_79:
(8, 44387), (Start: 14 @44498 has 48 MA's), (37, 44714), (44, 44765), (48, 44813), (50, 44822), (51, 44828), (52, 44846), (58, 44942), (61, 44954), (68, 44993), (78, 45098), (79, 45107), (87, 45188), (96, 45251), (105, 45344), (109, 45404), (112, 45425), (121, 45512), (126, 45551), (127, 45557),

Gene: Windest_81 Start: 41494, Stop: 42576, Start Num: 14
Candidate Starts for Windest_81:
(5, 41275), (Start: 14 @41494 has 48 MA's), (37, 41710), (44, 41761), (48, 41809), (50, 41818), (52, 41842), (54, 41884), (55, 41899), (63, 41962), (87, 42184), (96, 42247), (97, 42259), (106, 42346), (112, 42421), (115, 42460), (118, 42478), (121, 42514), (126, 42553),

Gene: YoungHarleezy_77 Start: 42414, Stop: 43496, Start Num: 14
Candidate Starts for YoungHarleezy_77:
(6, 42264), (Start: 14 @42414 has 48 MA's), (22, 42498), (37, 42630), (44, 42681), (48, 42729), (50, 42738), (52, 42762), (53, 42792), (87, 43104), (90, 43134), (96, 43167), (97, 43179), (112, 43341), (119, 43401), (121, 43434), (126, 43473),

Gene: Zucker_74 Start: 43490, Stop: 44560, Start Num: 14
Candidate Starts for Zucker_74:
(Start: 14 @43490 has 48 MA's), (37, 43706), (48, 43805), (50, 43814), (52, 43838), (58, 43934), (61, 43946), (68, 43985), (78, 44090), (87, 44180), (96, 44243), (105, 44336), (109, 44396), (112, 44417), (121, 44504), (126, 44543), (127, 44549),