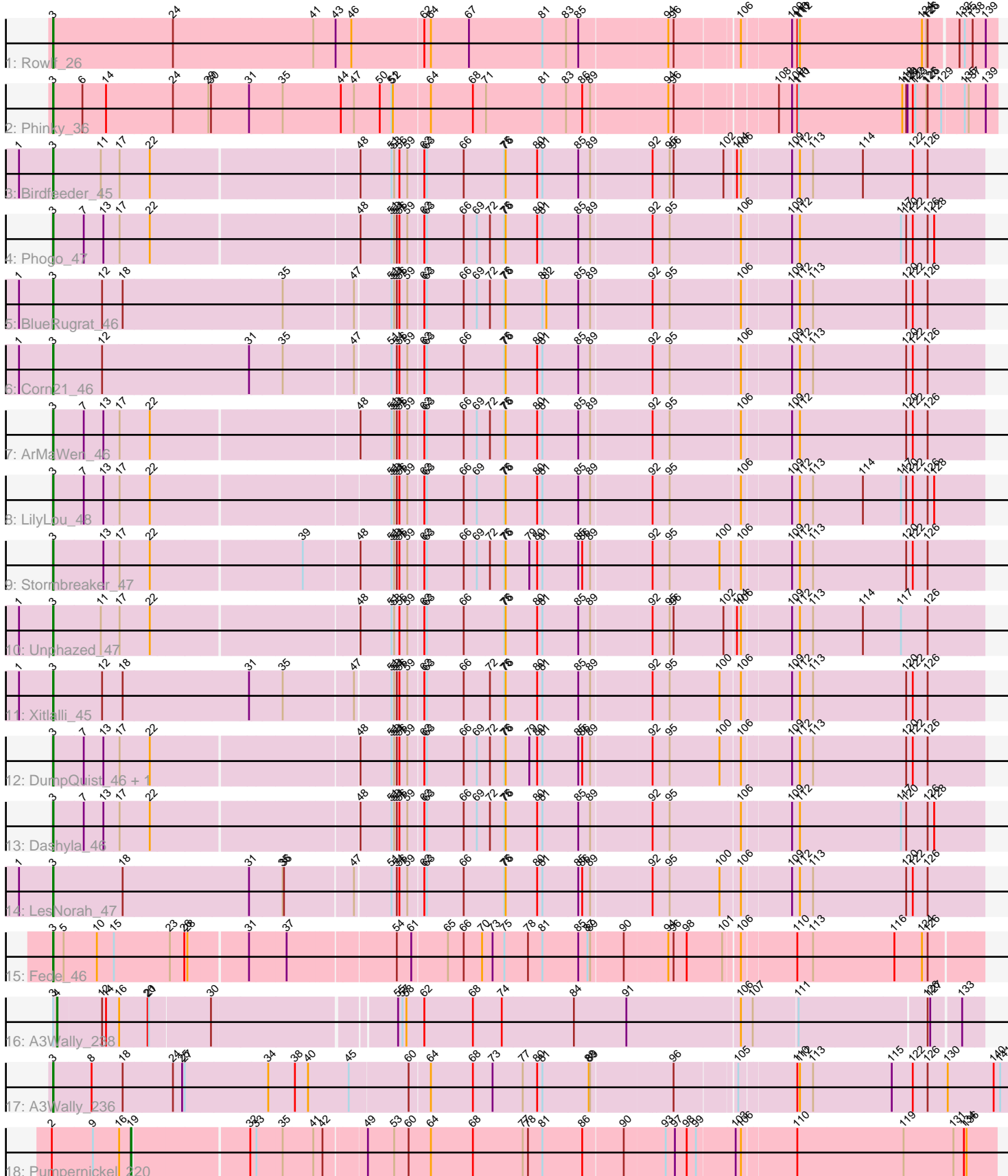


Pham 165316



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 165316 Report

This analysis was run 07/09/24 on database version 566.

Pham number 165316 has 19 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Rowlf\_26
- Track 2 : Phinky\_36
- Track 3 : Birdfeeder\_45
- Track 4 : Phogo\_47
- Track 5 : BlueRugrat\_46
- Track 6 : Corn21\_46
- Track 7 : ArMaWen\_46
- Track 8 : LilyLou\_48
- Track 9 : Stormbreaker\_47
- Track 10 : Unphazed\_47
- Track 11 : Xitlalli\_45
- Track 12 : DumpQuist\_46, Alex44\_47
- Track 13 : Dashyla\_46
- Track 14 : LesNorah\_47
- Track 15 : Fede\_46
- Track 16 : A3Wally\_238
- Track 17 : A3Wally\_236
- Track 18 : Pumpnickel\_220

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

The start number called the most often in the published annotations is 3, it was called in 17 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A3Wally\_236, Alex44\_47, ArMaWen\_46, Birdfeeder\_45, BlueRugrat\_46, Corn21\_46, Dashyla\_46, DumpQuist\_46, Fede\_46, LesNorah\_47, LilyLou\_48, Phinky\_36, Phogo\_47, Rowlf\_26, Stormbreaker\_47, Unphazed\_47, Xitlalli\_45,

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

- A3Wally\_238,

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

- Pumpnickel\_220,

### Summary by start number:

#### Start 3:

- Found in 18 of 19 ( 94.7% ) of genes in pham
- Manual Annotations of this start: 17 of 19
- Called 94.4% of time when present
- Phage (with cluster) where this start called: A3Wally\_236 (GD1), Alex44\_47 (EK1), ArMaWen\_46 (EK1), Birdfeeder\_45 (EK1), BlueRugrat\_46 (EK1), Corn21\_46 (EK1), Dashyla\_46 (EK1), DumpQuist\_46 (EK1), Fede\_46 (EK2), LesNorah\_47 (EK1), LilyLou\_48 (EK1), Phinky\_36 (EG), Phogo\_47 (EK1), Rowlf\_26 (EG), Stormbreaker\_47 (EK1), Unphazed\_47 (EK1), Xitlalli\_45 (EK1),

#### Start 4:

- Found in 1 of 19 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_238 (GD1),

#### Start 19:

- Found in 1 of 19 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pumpernickel\_220 (GD4),

### Summary by clusters:

There are 5 clusters represented in this pham: GD1, EG, GD4, EK2, EK1,

#### Info for manual annotations of cluster EG:

- Start number 3 was manually annotated 2 times for cluster EG.

#### Info for manual annotations of cluster EK1:

- Start number 3 was manually annotated 13 times for cluster EK1.

#### Info for manual annotations of cluster EK2:

- Start number 3 was manually annotated 1 time for cluster EK2.

#### Info for manual annotations of cluster GD1:

- Start number 3 was manually annotated 1 time for cluster GD1.
- Start number 4 was manually annotated 1 time for cluster GD1.

#### Info for manual annotations of cluster GD4:

- Start number 19 was manually annotated 1 time for cluster GD4.

### Gene Information:

Gene: A3Wally\_238 Start: 128961, Stop: 130955, Start Num: 4

Candidate Starts for A3Wally\_238:

(Start: 3 @128952 has 17 MA's), (Start: 4 @128961 has 1 MA's), (12, 129060), (14, 129069), (16, 129099), (20, 129156), (21, 129159), (30, 129291), (55, 129684), (57, 129690), (58, 129699), (62,

129738), (68, 129849), (74, 129912), (84, 130074), (91, 130194), (106, 130446), (107, 130473), (111, 130569), (126, 130842), (127, 130848), (133, 130908),

Gene: A3Wally\_236 Start: 126651, Stop: 128846, Start Num: 3

Candidate Starts for A3Wally\_236:

(Start: 3 @126651 has 17 MA's), (8, 126735), (18, 126801), (24, 126912), (25, 126933), (27, 126939), (34, 127122), (38, 127179), (40, 127209), (45, 127302), (60, 127434), (64, 127479), (68, 127572), (73, 127614), (77, 127683), (80, 127716), (81, 127728), (88, 127833), (89, 127836), (96, 128010), (105, 128139), (110, 128262), (112, 128268), (113, 128298), (115, 128475), (122, 128523), (126, 128556), (130, 128601), (140, 128700), (141, 128715),

Gene: Alex44\_47 Start: 46450, Stop: 48459, Start Num: 3

Candidate Starts for Alex44\_47:

(Start: 3 @46450 has 17 MA's), (7, 46519), (13, 46564), (17, 46600), (22, 46669), (48, 47095), (51, 47164), (53, 47170), (54, 47176), (56, 47182), (59, 47200), (62, 47233), (63, 47239), (66, 47320), (69, 47350), (72, 47377), (75, 47410), (76, 47413), (79, 47467), (80, 47485), (81, 47497), (85, 47578), (86, 47587), (89, 47605), (92, 47734), (95, 47770), (100, 47881), (106, 47923), (109, 48028), (112, 48046), (113, 48076), (120, 48286), (122, 48301), (126, 48334),

Gene: ArMaWen\_46 Start: 45993, Stop: 48002, Start Num: 3

Candidate Starts for ArMaWen\_46:

(Start: 3 @45993 has 17 MA's), (7, 46062), (13, 46107), (17, 46143), (22, 46212), (48, 46638), (51, 46707), (53, 46713), (54, 46719), (56, 46725), (59, 46743), (62, 46776), (63, 46782), (66, 46863), (69, 46893), (72, 46920), (75, 46953), (76, 46956), (80, 47028), (81, 47040), (85, 47121), (89, 47148), (92, 47277), (95, 47313), (106, 47466), (109, 47571), (112, 47589), (120, 47829), (122, 47844), (126, 47877),

Gene: Birdfeeder\_45 Start: 46199, Stop: 48208, Start Num: 3

Candidate Starts for Birdfeeder\_45:

(1, 46121), (Start: 3 @46199 has 17 MA's), (11, 46307), (17, 46349), (22, 46418), (48, 46844), (51, 46913), (53, 46919), (56, 46931), (59, 46949), (62, 46982), (63, 46988), (66, 47069), (75, 47159), (76, 47162), (80, 47234), (81, 47246), (85, 47327), (89, 47354), (92, 47483), (95, 47519), (96, 47528), (102, 47639), (104, 47663), (106, 47672), (109, 47777), (112, 47795), (113, 47825), (114, 47939), (122, 48050), (126, 48083),

Gene: BlueRugrat\_46 Start: 46423, Stop: 48441, Start Num: 3

Candidate Starts for BlueRugrat\_46:

(1, 46345), (Start: 3 @46423 has 17 MA's), (12, 46528), (18, 46570), (35, 46924), (47, 47071), (51, 47146), (53, 47152), (54, 47158), (56, 47164), (59, 47182), (62, 47215), (63, 47221), (66, 47302), (69, 47332), (72, 47359), (75, 47392), (76, 47395), (81, 47479), (82, 47488), (85, 47560), (89, 47587), (92, 47716), (95, 47752), (106, 47905), (109, 48010), (112, 48028), (113, 48058), (120, 48268), (122, 48283), (126, 48316),

Gene: Corn21\_46 Start: 46501, Stop: 48519, Start Num: 3

Candidate Starts for Corn21\_46:

(1, 46423), (Start: 3 @46501 has 17 MA's), (12, 46606), (31, 46927), (35, 47002), (47, 47149), (51, 47224), (54, 47236), (56, 47242), (59, 47260), (62, 47293), (63, 47299), (66, 47380), (75, 47470), (76, 47473), (80, 47545), (81, 47557), (85, 47638), (89, 47665), (92, 47794), (95, 47830), (106, 47983), (109, 48088), (112, 48106), (113, 48136), (120, 48346), (122, 48361), (126, 48394),

Gene: Dashyla\_46 Start: 46124, Stop: 48133, Start Num: 3

Candidate Starts for Dashyla\_46:

(Start: 3 @46124 has 17 MA's), (7, 46193), (13, 46238), (17, 46274), (22, 46343), (48, 46769), (51, 46838), (53, 46844), (54, 46850), (56, 46856), (59, 46874), (62, 46907), (63, 46913), (66, 46994), (69, 47024), (72, 47051), (75, 47084), (76, 47087), (80, 47159), (81, 47171), (85, 47252), (89, 47279), (92, 47408), (95, 47444), (106, 47597), (109, 47702), (112, 47720), (117, 47948), (120, 47960), (126, 48008), (128, 48023),

Gene: DumpQuist\_46 Start: 45978, Stop: 47987, Start Num: 3

Candidate Starts for DumpQuist\_46:

(Start: 3 @45978 has 17 MA's), (7, 46047), (13, 46092), (17, 46128), (22, 46197), (48, 46623), (51, 46692), (53, 46698), (54, 46704), (56, 46710), (59, 46728), (62, 46761), (63, 46767), (66, 46848), (69, 46878), (72, 46905), (75, 46938), (76, 46941), (79, 46995), (80, 47013), (81, 47025), (85, 47106), (86, 47115), (89, 47133), (92, 47262), (95, 47298), (100, 47409), (106, 47451), (109, 47556), (112, 47574), (113, 47604), (120, 47814), (122, 47829), (126, 47862),

Gene: Fede\_46 Start: 46938, Stop: 48926, Start Num: 3

Candidate Starts for Fede\_46:

(Start: 3 @46938 has 17 MA's), (5, 46959), (10, 47034), (15, 47073), (23, 47196), (26, 47229), (28, 47235), (31, 47358), (37, 47439), (54, 47655), (61, 47688), (65, 47763), (66, 47799), (70, 47841), (73, 47862), (75, 47889), (78, 47943), (81, 47976), (85, 48057), (87, 48078), (89, 48084), (90, 48153), (94, 48246), (96, 48258), (98, 48288), (101, 48369), (106, 48399), (110, 48516), (113, 48552), (116, 48735), (124, 48798), (126, 48810),

Gene: LesNorah\_47 Start: 46820, Stop: 48838, Start Num: 3

Candidate Starts for LesNorah\_47:

(1, 46742), (Start: 3 @46820 has 17 MA's), (18, 46967), (31, 47246), (35, 47321), (36, 47324), (47, 47468), (51, 47543), (54, 47555), (56, 47561), (59, 47579), (62, 47612), (63, 47618), (66, 47699), (75, 47789), (76, 47792), (80, 47864), (81, 47876), (85, 47957), (86, 47966), (89, 47984), (92, 48113), (95, 48149), (100, 48260), (106, 48302), (109, 48407), (112, 48425), (113, 48455), (120, 48665), (122, 48680), (126, 48713),

Gene: LilyLou\_48 Start: 46442, Stop: 48451, Start Num: 3

Candidate Starts for LilyLou\_48:

(Start: 3 @46442 has 17 MA's), (7, 46511), (13, 46556), (17, 46592), (22, 46661), (51, 47156), (53, 47162), (54, 47168), (56, 47174), (59, 47192), (62, 47225), (63, 47231), (66, 47312), (69, 47342), (75, 47402), (76, 47405), (80, 47477), (81, 47489), (85, 47570), (89, 47597), (92, 47726), (95, 47762), (106, 47915), (109, 48020), (112, 48038), (113, 48068), (114, 48182), (117, 48266), (120, 48278), (122, 48293), (126, 48326), (128, 48341),

Gene: Phinky\_36 Start: 19775, Stop: 21835, Start Num: 3

Candidate Starts for Phinky\_36:

(Start: 3 @19775 has 17 MA's), (6, 19838), (14, 19889), (24, 20036), (29, 20114), (30, 20120), (31, 20204), (35, 20279), (44, 20408), (47, 20438), (50, 20495), (51, 20522), (52, 20525), (64, 20606), (68, 20699), (71, 20726), (81, 20855), (83, 20909), (86, 20945), (89, 20963), (94, 21125), (96, 21137), (108, 21347), (109, 21377), (110, 21389), (111, 21392), (118, 21626), (120, 21635), (121, 21638), (122, 21650), (123, 21656), (125, 21680), (126, 21683), (129, 21713), (135, 21761), (137, 21770), (139, 21809),

Gene: Phogo\_47 Start: 46270, Stop: 48279, Start Num: 3

Candidate Starts for Phogo\_47:

(Start: 3 @46270 has 17 MA's), (7, 46339), (13, 46384), (17, 46420), (22, 46489), (48, 46915), (51, 46984), (53, 46990), (54, 46996), (56, 47002), (59, 47020), (62, 47053), (63, 47059), (66, 47140), (69, 47170), (72, 47197), (75, 47230), (76, 47233), (80, 47305), (81, 47317), (85, 47398), (89, 47425), (92, 47554), (95, 47590), (106, 47743), (109, 47848), (112, 47866), (117, 48094), (120, 48106), (122,

48121), (126, 48154), (128, 48169),

Gene: Pumpernickel\_220 Start: 126461, Stop: 128344, Start Num: 19

Candidate Starts for Pumpernickel\_220:

(2, 126284), (9, 126377), (16, 126437), (Start: 19 @126461 has 1 MA's), (32, 126707), (33, 126719), (35, 126776), (41, 126842), (42, 126860), (49, 126947), (53, 127007), (60, 127040), (64, 127091), (68, 127184), (77, 127298), (78, 127310), (81, 127343), (86, 127433), (90, 127520), (93, 127610), (97, 127631), (98, 127658), (99, 127679), (103, 127763), (106, 127775), (110, 127892), (119, 128132), (131, 128246), (134, 128270), (136, 128276),

Gene: Rowlf\_26 Start: 18355, Stop: 20409, Start Num: 3

Candidate Starts for Rowlf\_26:

(Start: 3 @18355 has 17 MA's), (24, 18616), (41, 18925), (43, 18976), (46, 19012), (62, 19171), (64, 19186), (67, 19270), (81, 19435), (83, 19489), (85, 19516), (94, 19705), (96, 19717), (106, 19852), (109, 19957), (110, 19969), (111, 19972), (112, 19975), (124, 20251), (125, 20260), (126, 20263), (132, 20323), (135, 20335), (138, 20353), (139, 20383),

Gene: Stormbreaker\_47 Start: 46358, Stop: 48367, Start Num: 3

Candidate Starts for Stormbreaker\_47:

(Start: 3 @46358 has 17 MA's), (13, 46472), (17, 46508), (22, 46577), (39, 46895), (48, 47003), (51, 47072), (53, 47078), (54, 47084), (56, 47090), (59, 47108), (62, 47141), (63, 47147), (66, 47228), (69, 47258), (72, 47285), (75, 47318), (76, 47321), (79, 47375), (80, 47393), (81, 47405), (85, 47486), (86, 47495), (89, 47513), (92, 47642), (95, 47678), (100, 47789), (106, 47831), (109, 47936), (112, 47954), (113, 47984), (120, 48194), (122, 48209), (126, 48242),

Gene: Unphazed\_47 Start: 46227, Stop: 48236, Start Num: 3

Candidate Starts for Unphazed\_47:

(1, 46149), (Start: 3 @46227 has 17 MA's), (11, 46335), (17, 46377), (22, 46446), (48, 46872), (51, 46941), (53, 46947), (56, 46959), (59, 46977), (62, 47010), (63, 47016), (66, 47097), (75, 47187), (76, 47190), (80, 47262), (81, 47274), (85, 47355), (89, 47382), (92, 47511), (95, 47547), (96, 47556), (102, 47667), (104, 47691), (106, 47700), (109, 47805), (112, 47823), (113, 47853), (114, 47967), (117, 48051), (126, 48111),

Gene: Xitlalli\_45 Start: 46228, Stop: 48246, Start Num: 3

Candidate Starts for Xitlalli\_45:

(1, 46150), (Start: 3 @46228 has 17 MA's), (12, 46333), (18, 46375), (31, 46654), (35, 46729), (47, 46876), (51, 46951), (53, 46957), (54, 46963), (56, 46969), (59, 46987), (62, 47020), (63, 47026), (66, 47107), (72, 47164), (75, 47197), (76, 47200), (80, 47272), (81, 47284), (85, 47365), (89, 47392), (92, 47521), (95, 47557), (100, 47668), (106, 47710), (109, 47815), (112, 47833), (113, 47863), (120, 48073), (122, 48088), (126, 48121),