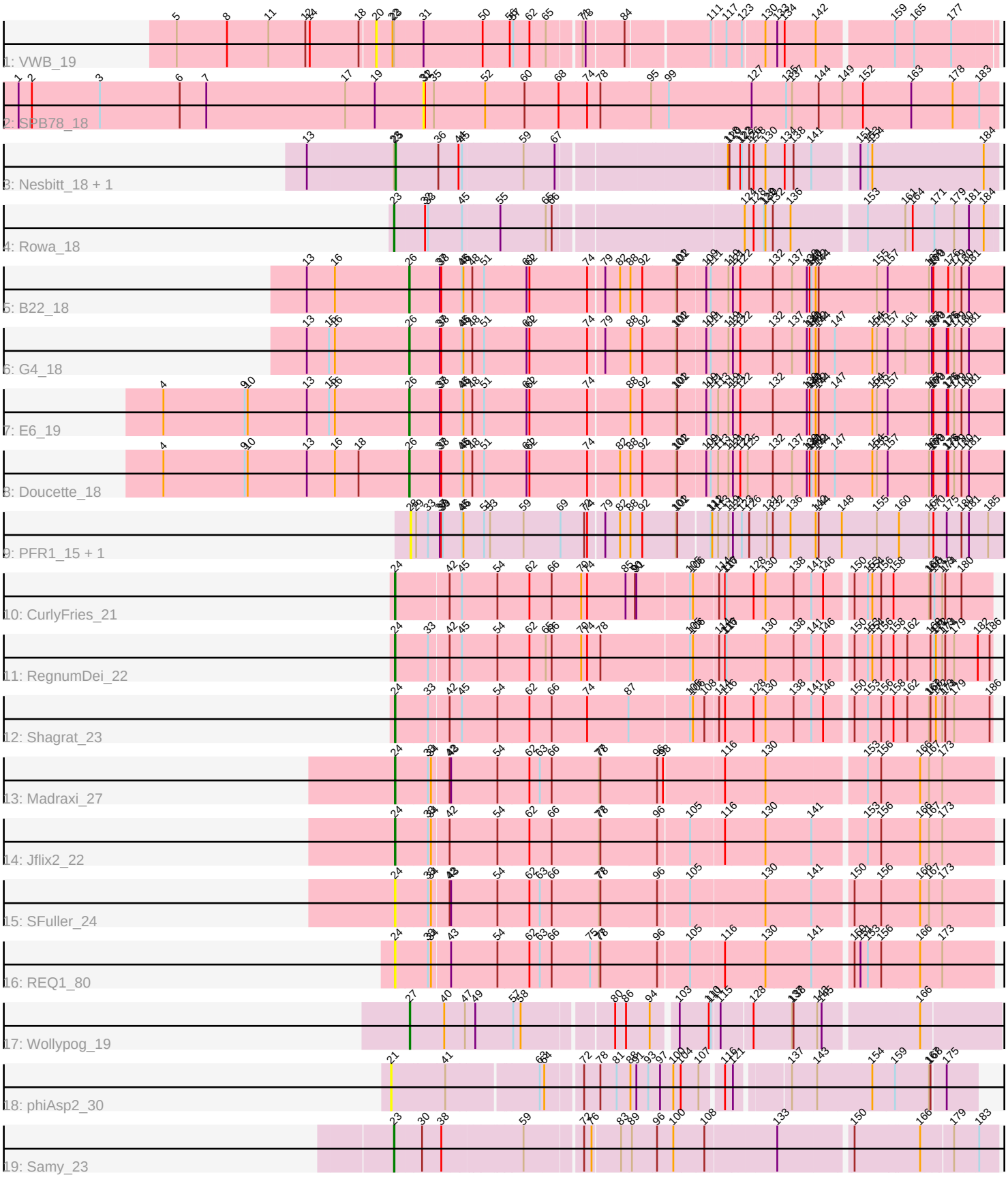
Pham 295100


1: VWB_19
2: SPB78_18
3: Nesbitt_18 + 1
4: Rowa_18
5: B22_18
6: G4_18
7: E6_19
8: Doucette_18
9: PFR1_15 + 1
10: CurlyFries_21
11: RegnumDei_22
12: Shagrat_23
13: Madraxi_27
14: Jflix2_22
15: SFuller_24
16: REQ1_80
17: Wollypog_19
18: phiAsp2_30
19: Samy_23

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 295100 Report

This analysis was run 04/18/26 on database version 643.

Pham number 295100 has 21 members, 7 are drafts.

Phages represented in each track:
• Track 1 : VWB_19
• Track 2 : SPB78_18
• Track 3 : Nesbitt_18, AbbeyMikolon_18
• Track 4 : Rowa_18
• Track 5 : B22_18
• Track 6 : G4_18
• Track 7 : E6_19
• Track 8 : Doucette_18
• Track 9 : PFR1_15, PFR2_17
• Track 10 : CurlyFries_21
• Track 11 : RegnumDei_22
• Track 12 : Shagrat_23
• Track 13 : Madraxi_27
• Track 14 : Jflix2_22
• Track 15 : SFuller_24
• Track 16 : REQ1_80
• Track 17 : Wollypog_19
• Track 18 : phiAsp2_30
• Track 19 : Samy_23

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

The start number called the most often in the published annotations is 24, it was called in 5 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• CurlyFries_21, Jflix2_22, Madraxi_27, REQ1_80, RegnumDei_22, SFuller_24, Shagrat_23,

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

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

• AbbeyMikolon_18, B22_18, Doucette_18, E6_19, G4_18, Nesbitt_18, PFR1_15, PFR2_17, Rowa_18, SPB78_18, Samy_23, VWB_19, Wollypog_19, phiAsp2_30,

Summary by start number:

Start 20:
• Found in 1 of 21 (4.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: VWB_19 (BA),

Start 21:
• Found in 1 of 21 (4.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: phiAsp2_30 (singleton),

Start 23:
• Found in 5 of 21 (23.8%) of genes in pham
• Manual Annotations of this start: 2 of 14
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Rowa_18 (BL), Samy_23 (singleton),

Start 24:
• Found in 7 of 21 (33.3%) of genes in pham
• Manual Annotations of this start: 5 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CurlyFries_21 (CF), Jflix2_22 (CF), Madraxi_27 (CF), REQ1_80 (CF), RegnumDei_22 (CF), SFuller_24 (CF), Shagrat_23 (CF),

Start 25:
• Found in 2 of 21 (9.5%) of genes in pham
• Manual Annotations of this start: 2 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AbbeyMikolon_18 (BL), Nesbitt_18 (BL),

Start 26:
• Found in 4 of 21 (19.0%) of genes in pham
• Manual Annotations of this start: 4 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: B22_18 (BW), Doucette_18 (BW), E6_19 (BW), G4_18 (BW),

Start 27:
• Found in 1 of 21 (4.8%) of genes in pham
• Manual Annotations of this start: 1 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Wollypog_19 (singleton),

Start 28:
• Found in 2 of 21 (9.5%) of genes in pham
• No Manual Annotations of this start.

• Called 100.0% of time when present
• Phage (with cluster) where this start called: PFR1_15 (BX), PFR2_17 (BX),

Start 31:
• Found in 2 of 21 (9.5%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: SPB78_18 (BA),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, BA, BL, CF, BW, BX,

Info for manual annotations of cluster BL:
•Start number 23 was manually annotated 1 time for cluster BL.
•Start number 25 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster BW:
•Start number 26 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster CF:
•Start number 24 was manually annotated 5 times for cluster CF.

Gene Information:

Gene: AbbeyMikolon_18 Start: 15163, Stop: 16281, Start Num: 25
Candidate Starts for AbbeyMikolon_18:
(13, 14986), (Start: 23 @15160 has 2 MA's), (Start: 25 @15163 has 2 MA's), (36, 15247), (44, 15286), (45, 15292), (59, 15403), (67, 15463), (118, 15775), (120, 15778), (122, 15799), (123, 15802), (126, 15814), (128, 15823), (130, 15847), (134, 15883), (138, 15901), (141, 15937), (151, 16015), (153, 16030), (154, 16039), (184, 16252),

Gene: B22_18 Start: 14570, Stop: 15742, Start Num: 26
Candidate Starts for B22_18:
(13, 14363), (16, 14420), (Start: 26 @14570 has 4 MA's), (37, 14627), (38, 14630), (45, 14672), (46, 14675), (48, 14693), (51, 14717), (61, 14798), (62, 14804), (74, 14918), (79, 14948), (82, 14978), (88, 14999), (92, 15023), (101, 15089), (102, 15092), (109, 15146), (111, 15155), (119, 15191), (121, 15200), (122, 15215), (132, 15278), (137, 15317), (139, 15347), (140, 15353), (141, 15356), (142, 15365), (144, 15371), (155, 15485), (157, 15506), (167, 15584), (169, 15590), (170, 15593), (176, 15623), (179, 15635), (180, 15650), (181, 15662),

Gene: CurlyFries_21 Start: 20993, Stop: 22120, Start Num: 24
Candidate Starts for CurlyFries_21:
(Start: 24 @20993 has 5 MA's), (42, 21095), (45, 21119), (54, 21185), (62, 21248), (66, 21290), (70, 21347), (74, 21359), (85, 21437), (90, 21455), (91, 21458), (105, 21557), (106, 21563), (114, 21608), (116, 21620), (117, 21623), (128, 21677), (130, 21698), (138, 21752), (141, 21788), (146, 21809), (150, 21854), (153, 21881), (154, 21890), (156, 21908), (158, 21932), (167, 21998), (168, 22001), (171, 22007), (173, 22022), (174, 22028), (180, 22061),

Gene: Doucette_18 Start: 14743, Stop: 15915, Start Num: 26
Candidate Starts for Doucette_18:
(4, 14245), (9, 14410), (10, 14416), (13, 14536), (16, 14593), (18, 14641), (Start: 26 @14743 has 4 MA's), (37, 14800), (38, 14803), (45, 14845), (46, 14848), (48, 14866), (51, 14890), (61, 14971), (62, 14977), (74, 15091), (82, 15151), (88, 15172), (92, 15196), (101, 15262), (102, 15265), (109, 15319), (111, 15328), (113, 15343), (119, 15364), (121, 15373), (122, 15388), (125, 15403), (132, 15451), (137, 15490), (139, 15520), (140, 15526), (141, 15529), (142, 15538), (144, 15544), (147, 15577), (154, 15649), (155, 15658), (157, 15679), (167, 15757), (169, 15763), (170, 15766), (175, 15793), (176, 15796), (179, 15808), (180, 15823), (181, 15835),

Gene: E6_19 Start: 14791, Stop: 15963, Start Num: 26
Candidate Starts for E6_19:
(4, 14293), (9, 14458), (10, 14464), (13, 14584), (15, 14629), (16, 14641), (Start: 26 @14791 has 4 MA's), (37, 14848), (38, 14851), (45, 14893), (46, 14896), (48, 14914), (51, 14938), (61, 15019), (62, 15025), (74, 15139), (88, 15220), (92, 15244), (101, 15310), (102, 15313), (109, 15367), (111, 15376), (113, 15391), (119, 15412), (121, 15421), (122, 15436), (132, 15499), (139, 15568), (140, 15574), (141, 15577), (142, 15586), (144, 15592), (147, 15625), (154, 15697), (155, 15706), (157, 15727), (167, 15805), (169, 15811), (170, 15814), (175, 15841), (176, 15844), (179, 15856), (180, 15871), (181, 15883),

Gene: G4_18 Start: 14733, Stop: 15905, Start Num: 26
Candidate Starts for G4_18:
(13, 14526), (15, 14571), (16, 14583), (Start: 26 @14733 has 4 MA's), (37, 14790), (38, 14793), (45, 14835), (46, 14838), (48, 14856), (51, 14880), (61, 14961), (62, 14967), (74, 15081), (79, 15111), (88, 15162), (92, 15186), (101, 15252), (102, 15255), (109, 15309), (111, 15318), (119, 15354), (121, 15363), (122, 15378), (132, 15441), (137, 15480), (139, 15510), (140, 15516), (141, 15519), (142, 15528), (144, 15534), (147, 15567), (154, 15639), (155, 15648), (157, 15669), (161, 15702), (167, 15747), (169, 15753), (170, 15756), (175, 15783), (176, 15786), (179, 15798), (180, 15813), (181, 15825),

Gene: Jflix2_22 Start: 23249, Stop: 24382, Start Num: 24
Candidate Starts for Jflix2_22:
(Start: 24 @23249 has 5 MA's), (33, 23312), (34, 23318), (42, 23351), (54, 23441), (62, 23504), (66, 23546), (77, 23642), (78, 23645), (96, 23756), (105, 23816), (116, 23879), (130, 23957), (141, 24047), (153, 24140), (156, 24167), (166, 24242), (167, 24257), (173, 24281),

Gene: Madraxi_27 Start: 25619, Stop: 26752, Start Num: 24
Candidate Starts for Madraxi_27:
(Start: 24 @25619 has 5 MA's), (33, 25682), (34, 25688), (42, 25721), (43, 25724), (54, 25811), (62, 25874), (63, 25895), (66, 25916), (77, 26012), (78, 26015), (96, 26126), (98, 26138), (116, 26249), (130, 26327), (153, 26510), (156, 26537), (166, 26612), (167, 26627), (173, 26651),

Gene: Nesbitt_18 Start: 15235, Stop: 16353, Start Num: 25
Candidate Starts for Nesbitt_18:
(13, 15058), (Start: 23 @15232 has 2 MA's), (Start: 25 @15235 has 2 MA's), (36, 15319), (44, 15358), (45, 15364), (59, 15475), (67, 15535), (118, 15847), (120, 15850), (122, 15871), (123, 15874), (126, 15886), (128, 15895), (130, 15919), (134, 15955), (138, 15973), (141, 16009), (151, 16087), (153, 16102), (154, 16111), (184, 16324),

Gene: PFR1_15 Start: 13778, Stop: 14950, Start Num: 28
Candidate Starts for PFR1_15:
(28, 13778), (29, 13787), (33, 13811), (37, 13835), (38, 13838), (39, 13841), (45, 13880), (46, 13883), (51, 13925), (53, 13937), (59, 14000), (69, 14072), (72, 14120), (74, 14126), (79, 14156), (82, 14186),

(88, 14207), (92, 14231), (101, 14297), (102, 14300), (111, 14360), (112, 14363), (113, 14375), (119, 14396), (121, 14405), (123, 14423), (126, 14438), (131, 14471), (132, 14483), (136, 14519), (142, 14570), (144, 14576), (148, 14621), (155, 14690), (160, 14732), (167, 14789), (170, 14798), (175, 14825), (180, 14855), (181, 14867), (185, 14906),

Gene: PFR2_17 Start: 15347, Stop: 16519, Start Num: 28
Candidate Starts for PFR2_17:
(28, 15347), (29, 15356), (33, 15380), (37, 15404), (38, 15407), (39, 15410), (45, 15449), (46, 15452), (51, 15494), (53, 15506), (59, 15569), (69, 15641), (72, 15689), (74, 15695), (79, 15725), (82, 15755), (88, 15776), (92, 15800), (101, 15866), (102, 15869), (111, 15929), (112, 15932), (113, 15944), (119, 15965), (121, 15974), (123, 15992), (126, 16007), (131, 16040), (132, 16052), (136, 16088), (142, 16139), (144, 16145), (148, 16190), (155, 16259), (160, 16301), (167, 16358), (170, 16367), (175, 16394), (180, 16424), (181, 16436), (185, 16475),

Gene: REQ1_80 Start: 46988, Stop: 48121, Start Num: 24
Candidate Starts for REQ1_80:
(Start: 24 @46988 has 5 MA's), (33, 47051), (34, 47057), (43, 47093), (54, 47180), (62, 47243), (63, 47264), (66, 47285), (75, 47363), (77, 47381), (78, 47384), (96, 47495), (105, 47555), (116, 47618), (130, 47696), (141, 47786), (150, 47852), (151, 47864), (153, 47879), (156, 47906), (166, 47981), (173, 48020),

Gene: RegnumDei_22 Start: 21738, Stop: 22865, Start Num: 24
Candidate Starts for RegnumDei_22:
(Start: 24 @21738 has 5 MA's), (33, 21801), (42, 21840), (45, 21864), (54, 21930), (62, 21993), (65, 22023), (66, 22035), (70, 22092), (74, 22104), (78, 22131), (105, 22302), (106, 22308), (114, 22353), (116, 22365), (117, 22368), (130, 22443), (138, 22497), (141, 22533), (146, 22554), (150, 22599), (153, 22626), (154, 22635), (156, 22653), (158, 22677), (162, 22704), (168, 22746), (171, 22752), (172, 22755), (173, 22767), (174, 22773), (179, 22791), (182, 22836), (186, 22860),

Gene: Rowa_18 Start: 15046, Stop: 16164, Start Num: 23
Candidate Starts for Rowa_18:
(Start: 23 @15046 has 2 MA's), (32, 15103), (33, 15109), (45, 15175), (55, 15241), (65, 15328), (66, 15340), (124, 15691), (128, 15709), (129, 15730), (130, 15733), (132, 15748), (136, 15781), (153, 15916), (161, 15988), (164, 16003), (171, 16042), (179, 16081), (181, 16108), (184, 16138),

Gene: SFuller_24 Start: 23845, Stop: 24978, Start Num: 24
Candidate Starts for SFuller_24:
(Start: 24 @23845 has 5 MA's), (33, 23908), (34, 23914), (42, 23947), (43, 23950), (54, 24037), (62, 24100), (63, 24121), (66, 24142), (77, 24238), (78, 24241), (96, 24352), (105, 24412), (130, 24553), (141, 24643), (150, 24709), (156, 24763), (166, 24838), (167, 24853), (173, 24877),

Gene: SPB78_18 Start: 14539, Stop: 15684, Start Num: 31
Candidate Starts for SPB78_18:
(1, 13717), (2, 13744), (3, 13882), (6, 14044), (7, 14098), (17, 14380), (19, 14440), (31, 14539), (32, 14542), (35, 14560), (52, 14662), (60, 14740), (68, 14809), (74, 14866), (78, 14890), (95, 14992), (99, 15028), (127, 15193), (135, 15259), (137, 15271), (144, 15322), (149, 15370), (152, 15412), (163, 15508), (178, 15592), (183, 15646),

Gene: Samy_23 Start: 18462, Stop: 19574, Start Num: 23
Candidate Starts for Samy_23:
(Start: 23 @18462 has 2 MA's), (30, 18513), (38, 18552), (59, 18702), (72, 18807), (76, 18822), (83, 18876), (89, 18897), (96, 18945), (100, 18978), (108, 19038), (133, 19170), (150, 19305), (166, 19434), (179, 19491), (183, 19536),

Gene: Shagrat_23 Start: 22765, Stop: 23892, Start Num: 24
Candidate Starts for Shagrat_23:
(Start: 24 @22765 has 5 MA's), (33, 22828), (42, 22867), (45, 22891), (54, 22957), (62, 23020), (66, 23062), (74, 23131), (87, 23215), (105, 23329), (106, 23335), (108, 23356), (114, 23380), (116, 23392), (128, 23449), (130, 23470), (138, 23524), (141, 23560), (146, 23581), (150, 23626), (153, 23653), (156, 23680), (158, 23704), (162, 23731), (167, 23770), (168, 23773), (172, 23782), (173, 23794), (174, 23800), (179, 23818), (186, 23887),

Gene: VWB_19 Start: 16658, Stop: 17779, Start Num: 20
Candidate Starts for VWB_19:
(5, 16259), (8, 16361), (11, 16445), (12, 16520), (14, 16529), (18, 16628), (20, 16658), (22, 16688), (Start: 23 @16691 has 2 MA's), (31, 16745), (50, 16853), (56, 16901), (57, 16907), (62, 16940), (65, 16967), (71, 17027), (73, 17033), (84, 17105), (111, 17258), (117, 17285), (123, 17315), (130, 17354), (133, 17378), (134, 17393), (142, 17453), (159, 17594), (165, 17630), (177, 17696),

Gene: Wollypog_19 Start: 17989, Stop: 19074, Start Num: 27
Candidate Starts for Wollypog_19:
(Start: 27 @17989 has 1 MA's), (40, 18055), (47, 18097), (49, 18118), (57, 18193), (58, 18208), (80, 18373), (86, 18391), (94, 18439), (103, 18481), (110, 18538), (111, 18541), (115, 18556), (128, 18616), (137, 18691), (138, 18694), (143, 18736), (145, 18745), (166, 18922),

Gene: phiAsp2_30 Start: 25990, Stop: 27063, Start Num: 21
Candidate Starts for phiAsp2_30:
(21, 25990), (41, 26092), (63, 26269), (64, 26275), (72, 26341), (78, 26374), (81, 26407), (88, 26434), (91, 26446), (93, 26467), (97, 26488), (100, 26515), (104, 26530), (107, 26563), (116, 26602), (121, 26617), (137, 26713), (143, 26758), (154, 26866), (159, 26911), (167, 26974), (168, 26977), (175, 27004),