Lehigh University would like to submit mycobacteriophage Parmesanjohn for annotation QC. All gaps and overlaps are valid based on homology with other Cluster N phages.

We deleted the following genes and features: gp38-tRNA (28771-28848) Reverse gene in the same region, Deleted gp70(R 42422-42592) reverse gene in a long string of forward genes, little data to support and not called in other Cluster N phages.

We added gp69 (F 42375-42599) to close large gap and is present in other Cluster N phages.

We would like the following regions investigated more closely. Gp14-15 (F 9036-9942) are a +1 translational frameshift. Many ORFs in newer Cluster N phages have membrane as the function. We did not call this function. Gp54 (F35881-36180 ) we called the longer ORF to close gap even though it does not match the most annotated start site.