**Genome Annotation Submission Cover Sheet**

Phage Name: Shrooms

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Describe any issues or specific genes that you were unable to satisfactorily resolve, and warrant further inspection in the Quality Control review.

Debatable Calls:

* Gene 28 - The gene was extended to 20600bp to cover all the coding potential. The extension agreed with Starterator, NCBI BLAST, and PhagesDB BLAST. Extending the gene also improves the Z value from 2.771 to 2.052. This call does, however, disagree with both Glimmer and GeneMark and sacrifices a better SD score. Glimmer and GeneMark called the start at 20624bp, and the SD score changed from -3.682 to -5.306.
* Gene 33 - The gene was extended to 22385bp to improve the SD score from -5.632 to -4.759 and the Z value from 1.157 to 2.13. Extending the gene did, however, conflict with GeneMark, Glimmer, and Starterator which called the start at 22397bp. While both PhagesDB BLAST and NCBI BLAST had results, neither extending the gene nor leaving the gene aligned the start codon with the compared genomes. NCBI: Q9, S3; PhagesDB: Q10, S4.
* Gene 46: This small gene was added in a large gap. It matches Salgado 50, but other than that it does not have any supporting evidence.
* Gene 48 - The gene was extended to 27837bp to cover all the coding potential. This call does, however, conflict with both Glimmer and GeneMark which called the gene at 28040bp. There were no hits for this gene on NCBI BLAST or PhagesDB.
* Gene 51 matched a recently published HHPred hit, not called in earlier phages.
* Gene 81- not sure how to call Endolysin?
* Gene 82: Not sure how to call Host nuclease inhibitor? Not on list
* Gene 97 matches Laroye amidoligase. Not on the function list