

APPENDIX F

Contains detailed recipe for biogenic substrate solution.

Biogenic Substrate Solution¹

<u>Protein Stock</u>	<u>g/L</u>	<u>COD</u>	<u>Preparation</u>
Beef extract	25.6		
Phytone	13.6	94.4 g/L	Autoclave
Bacto-casitone	13.6		
Yeast Extract	41.6		
 <u>Carbohydrate Stock</u>			
Fructose	15.6		
Galactose	15.6	50.08 g/L	Filter-sterilize
Glucose	15.6		
 <u>Organic Acid Stock</u>			
Glacial Acetic Acid	98 mL	131.45 g/L	Filter-sterilize
Glycerol	14 mL		

Each stock is made and stored in separate bottles. It is suggested that stock solutions are opened only under laminar flow hood and volumes extracted using sterile equipment. Equal amounts of each stock should be added to create biogenic solution. If undiluted, when added together the final solution contains 92,000 mg/L COD, on an equal volume basis.

¹Love, N.S., R.J. Smith, K.R. Gilmore, and C. L. Randall. 1999. Oxime inhibition of nitrification during treatment of ammonia-containing industrial wastewater. *Water Environment Research* 71: 418-426.

VITA

I was born on April 12, 1979 in Phoenix, AZ and my family eventually settled in Bel Air, MD. I attended the University of Virginia in Charlottesville where I studied Environmental Science and Biology. I graduated in 2001 with a B.A. degree and four years of varsity rowing experience. In the fall of 2001, I began my masters program in Environmental Science and Engineering in the Charles E. Via Department of Civil and Environmental Engineering at Virginia Tech. I conducted my thesis research under Dr. Nancy G. Love.