

Table 21. Laboratory incubation denitrification rates for the experiment of May 29, 2009

[NEC, Northeast Creek watershed; BHM, Bass Harbor Marsh watershed; GW#, NO₃; nitrate, measurement site;

mM, millimolar; nmoles, nanomoles; hr, hour; T₀, date and time chamber sealed and initial gas sampling;

T₁, T₂, T₃, subsequent gas sampling times; g, gram; C₂H₂, acetylene; N₂O, nitrous oxide]

Location	Fresh weight (g)	T ₀	T ₁	T ₂	T ₃	Treatment	Number of replicate measurements	N ₂ O Production rate T ₂ to T ₃ nmoles/g oven dry soil/hr
NEC GW1	20.06	9:32	9:32	12:08	18:34	+ C ₂ H ₂	1	0.446
NEC GW1	20.1	9:33	9:33	12:09	18:34	+ glucose + C ₂ H ₂	1	0.005
NEC GW1	20.08	9:34	9:34	12:10	18:35	Ambient	1	-0.046
NEC GW1	20	9:34	9:34	12:10	18:35	+ glucose	1	-0.155
NEC GW1	20.01	9:35	9:35	12:11	18:36	75 mM NO ₃ + C ₂ H ₂	1	23.3
NEC GW1	20.07	9:36	9:36	12:13	18:37	75 mM NO ₃ + Glucose + C ₂ H ₂	1	29.7
NEC GW1	20.09	9:36	9:36	12:13	18:37	75 mM NO ₃	1	19.1
NEC GW1	20.04	9:37	9:37	12:13	18:37	75 mM NO ₃ + Glucose	1	33.9
NEC GW1	20.03	9:37	9:37	12:14	18:37	500 mM NO ₃ + C ₂ H ₂	1	6.7
NEC GW1	20.1	9:38	9:38	12:15	18:38	500 mM NO ₃ + Glucose + C ₂ H ₂	1	8.67
NEC GW1	20.04	9:39	9:39	12:16	18:39	500 mM NO ₃	1	8.42
NEC GW1	20.09	9:40	9:40	12:17	18:40	500 mM NO ₃ + Glucose	1	11
BHM GW5	20.09	9:40	9:40	12:17	18:41	+ C ₂ H ₂	1	1.78
BHM GW5	20.03	9:41	9:41	12:18	18:41	+ glucose + C ₂ H ₂	1	6.01
BHM GW5	20.03	9:42	9:42	12:20	18:42	Ambient	1	-1.12
BHM GW5	20.08	9:42	9:42	12:20	18:42	+ glucose	1	-2.48
BHM GW5	20.08	9:43	9:43	12:21	18:42	75 mM NO ₃ + C ₂ H ₂	1	55.4

BHM GW5	20.06	9:45	9:45	12:22	18:44	75 mM NO ₃ + Glucose + C ₂ H ₂	1	74.3
BHM GW5	20.06	9:45	9:45	12:22	18:44	75 mM NO ₃	1	44.8
BHM GW5	20.04	9:45	9:45	12:23	18:44	75 mM NO ₃ + Glucose	1	51
BHM GW5	20	9:45	9:45	12:23	18:45	500 mM NO ₃ + C ₂ H ₂	1	28.2
BHM GW5	20.01	9:46	9:46	12:24	18:46	500 mM NO ₃ + Glucose + C ₂ H ₂	1	58.1
BHM GW5	20	9:46	9:46	12:24	18:47	500 mM NO ₃	1	27.3
BHM GW5	20.01	9:47	9:47	12:25	18:48	500 mM NO ₃ + Glucose	1	45.4
