

Table 18. Laboratory incubation denitrification rates for the experiment of May 20, 2009
 [NEC, Northeast Creek watershed; GW#, measurement site; NO₃, nitrate;
 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	T ₄	Treatment	Number of replicate measurements	N ₂ O Production rate			
									T ₀ to T ₁	T ₁ to T ₂	T ₂ to T ₃	T ₃ to T ₄
									nmoles/g oven dry soil/hr	nmoles/g oven dry soil/hr	nmoles/g oven dry soil/hr	nmoles/g oven dry soil/hr
NEC GW4	20.4	12:17	14:01	16:02	18:05	8:05	+ C ₂ H ₂	2	1.23	8.96	15.3	53.8
NEC GW4	20.5	12:18	14:02	16:02	18:06	8:05	+ C ₂ H ₂ + Glucose	1	3.03	21.2	36.6	78.7
NEC GW4	20.4	12:19	14:02	16:03	18:06	8:05	5 mM NO ₃ + C ₂ H ₂	2	1.23	5.35	14.4	57.1
NEC GW4	20.5	12:20	14:03	16:04	18:07	8:06	5 mM NO ₃ + C ₂ H ₂ + Glucose	1	3.16	18	26.6	301
NEC GW4	20.4	12:20	14:03	16:05	18:07	8:06	10 mM NO ₃ + C ₂ H ₂	2	2.21	2.38	8.34	52.9
NEC GW4	20.1	12:21	14:04	16:05	18:08	8:06	10 mM NO ₃ + C ₂ H ₂ + Glucose	1	2.25	12.9	31.1	222
NEC GW4	20.4	12:21	14:05	16:06	18:08	8:07	50 mM NO ₃ + C ₂ H ₂	2	1.68	2.41	8.31	56.1
NEC GW4	20.3	12:21	14:06	16:06	18:09	8:08	50 mM NO ₃ + C ₂ H ₂ + Glucose	1	4.19	20.8	25.2	231
NEC GW4	20.4	12:22	14:06	16:07	18:09	8:08	75 mM NO ₃ + C ₂ H ₂	2	6.29	2.88	6.73	54.1
NEC GW4	20.1	12:23	14:08	16:08	18:10	8:09	75 mM NO ₃ + C ₂ H ₂ + Glucose	1	2.73	8.52	21.9	128
NEC GW4	20.4	12:23	14:08	16:09	18:10	8:09	100 mM NO ₃ + C ₂ H ₂	2	2.06	2.59	6.92	47.8
NEC GW4	20.3	12:24	14:09	16:10	18:11	8:10	100 mM NO ₃ + C ₂ H ₂ + Glucose	1	1.16	4.01	9.91	63.1
NEC GW4	20.2	12:25	14:09	16:10	18:12	8:10	250 mM NO ₃ + C ₂ H ₂	2	0.47	1.17	4.25	35.6
NEC GW4	20.1	12:26	14:10	16:11	18:12	8:11	250 mM NO ₃ + C ₂ H ₂ + Glucose	1	0.828	2.62	8.31	47.3
NEC GW4	20.2	12:26	14:11	16:12	18:12	8:11	500 mM NO ₃ + C ₂ H ₂	2	0.498	0.39	2.33	24
NEC GW4	20.3	12:27	14:12	16:13	18:12	8:12	500 mM NO ₃ + C ₂ H ₂ + Glucose	1	0.5	1.44	4.43	29.5
NEC GW4	20.1	12:28	14:13	16:13	18:13	8:13	750 mM NO ₃ + C ₂ H ₂	2	0.709	0.012	1.38	14.3
NEC GW4	20	12:28	14:13	16:14	18:13	8:13	750 mM NO ₃ + C ₂ H ₂ + Glucose	1	0.162	0.336	2.84	14.7
NEC GW4	20.2	12:29	14:14	16:14	18:14	8:14	1000 mM NO ₃ + C ₂ H ₂	2	0.028	0.138	0.729	8.16
NEC GW4	20.5	12:30	14:15	16:15	18:15	8:15	1000 mM NO ₃ + C ₂ H ₂ + Glucose	1	0.172	0.764	3	6.44