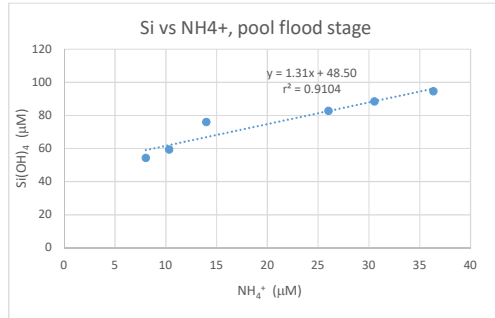


Supplement 4

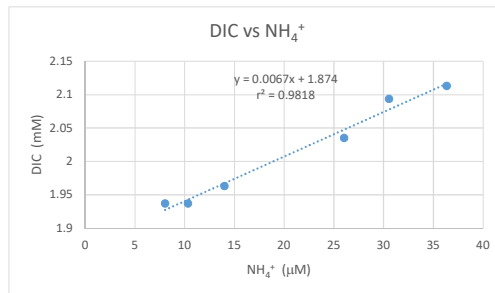
10-Dec-15	Notes	Time (relative min)	Cl ⁻ (mM)	Salinity	NO ₃ ⁻ (μM)	N ₂ (μM)	Alk (mM)	DIC (mM)	NH ₄ ⁺ (μM)	Si(OH) ₄ (μM)
BW III 1	Pool, 0645, draining		500	32.1	16.4	410	2.11	2.00	10.8	45.8
BW III 2	Pool, flood 1335	70	507	32.4	7.1	409	2.32	2.11	36.3	94.6
BW III 3	Pool, flood 1340	75	508	32.5	9.5	476	2.36	2.09	30.5	88.4
BW III 4	Pool, flood 1347	81.5	510	32.7	11.1	415	2.24	2.03	26.0	82.7
BW III 5	Pool, 1351	86	503	32.2	16.3	411	2.23	1.96	14.0	76.0
BW III 6	Pool flood 1357	93.5	505	32.4	19.6	446	2.08	1.94	10.3	59.3
BW III 7	Pool, topped	96.5	501	32.1	20.9	447	2.14	1.94	8.0	54.3

10-Dec-15 Burrow time series; Flood stage

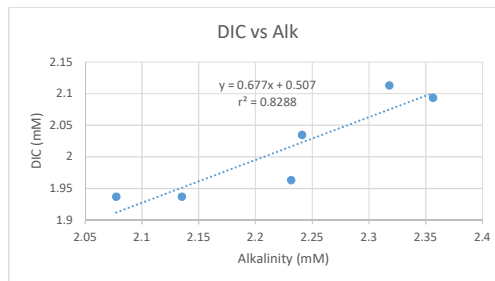
NH ₄ ⁺ (μM)	Si(OH) ₄ (μM)
36.3	94.6
30.5	88.4
26.0	82.7
14.0	76.0
10.3	59.3
8.0	54.3
GM slope (Si/NH ₄ ⁺)	
1.37 mol/mol	



NH ₄ ⁺ (μM)	DIC (mM)
36.3	2.11
30.5	2.09
26.0	2.03
14.0	1.96
10.3	1.94
8.0	1.94
GM slope (DIC/NH ₄ ⁺)	
6.8 mol/mol	



Alk (mM)	DIC (mM)
2.32	2.11
2.36	2.09
2.24	2.03
2.23	1.96
2.08	1.94
2.14	1.94
GM slope (DIC/Alk)	
0.74 mol/mol	



Initial rates of concentration change

Time	NH ₄ ⁺ (μM)	NO ₃ ⁻ (μM)	N ₂ (μM)	Si(OH) ₄ (μM)
0.00	10.8	3.31	403	34.8
1.08	32.3	2.36	417	37.7
2.33	113.3	0.63	424	145.3
3.58	189.2	0.00	455	189.6
Assumed outlier				
3.17	33.4	2.53	409	42.2

