

2008-01 Dissolved Inorganic Carbon

Duplicate analysis for samples drawn from a single Niskin bottle:

Event Number	Sample Number	Station	Pressure dbar	DIC 1 $\mu\text{mol/kg}$	DIC 2 $\mu\text{mol/kg}$	DIC 3 $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard deviation	Comments
12	63	P4	1000.6	2369.55	2367.12		2.43	2.43		
24	131	P12	1500.6	2380.91	2380.52		0.39	0.39		
35	217	P16	3497.2	2344.40	2344.94		-0.54	0.54		
46	338	P26	601.4	2348.97	2350.59		-1.61	1.61		
55	389	Calib	1501.8	2381.62	2383.58	2381.18			1.28	Sampled in reverse order: C, B, then A
55	390	Calib	1499.3	2386.07	2386.97	2386.04			0.53	Sampled in reverse order: C, B, then A
55	391	Calib	1501.7	2383.85	2383.68	2384.62			0.50	Sampled in reverse order: C, B, then A
55	392	Calib	1500.3	2384.53	2384.08	2385.72			0.85	Sampled in reverse order: C, B, then A
55	393	Calib	1500.5	2384.98	2385.17	2386.92			1.07	Sampled in reverse order: C, B, then A
average variability:							0.17	1.02		
standard deviation of variability:							1.72	0.67		

Duplicate Niskins at the same pressure

Event Number	Sample Number	Station	Nominal Pressure dbar	DIC A $\mu\text{mol/kg}$	DIC B $\mu\text{mol/kg}$	DIC C $\mu\text{mol/kg}$	DIC D $\mu\text{mol/kg}$	DIC E $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard deviation	Comments
12	63 / 64	P4	1000	2368.34	2368.73				0.39	0.39		
24	131 / 132	P12	3000	2380.72	2381.34				0.62	0.62		
35	217 / 219	P16	3500	2344.67	2344.97				0.30	0.30		
40	269 / 270	P20	3000	2370.09	2369.72				-0.37	0.37		
55	389 - 393	Calib	1500	2382.13	2386.36	2384.05	2384.78	2385.69			1.64	
average variability:									0.24		0.67	
standard deviation of variability:									0.43		0.56	

Precision estimate: 1.00 $\mu\text{mol/kg}$