

2007-13 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
8	39	P4	1250.7	2368.96	2369.78		-0.82	0.82		
25	132	P12	2501.0	2372.71	2373.64		-0.93	0.93		
33	179	P16	2003.1	2380.72	2381.54		-0.82	0.82		
43	231	P20	3500.8	2342.79	2343.26		-0.48	0.48		
70	370	P26	3000.7	2356.84	2357.46		-0.62	0.62		
84	502	S3	3001.6	2350.11	2349.77		0.34	0.34		
84	503	S3	3001.7	2351.97	2352.42		-0.45	0.45		
84	504	S3	3002.1	2351.66	2350.56		1.10	1.10		
84	505	S3	3002.1	2351.09	2350.56		0.54	0.54		
84	506	S3	3002.7	2350.53	2350.61		-0.08	0.08		
average variability:							-0.22	0.62		
standard deviation of variability:							0.68	0.30		

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
25	131 / 132	P12	2500	2372.85	2373.18				0.33	0.33		
33	179 / 180	P16	2000	2381.13	2381.73				0.61	0.61		
43	230 / 231	P20	3500	2345.04	2343.02				-2.02	2.02		
84	502 - 506	S3	3000	2349.94	2352.20	2351.11	2350.83	2350.57			0.83	
average variability:									-0.36			0.94
standard deviation of variability:									1.44			0.74

Precision estimate: 0.94 $\mu\text{mol/kg}$