

Cruise: WS0523, UGa Coastal
Ship: R/V Walton Smith
Dates: October 7-17, 2005
Expocode: 33WA20052007
Chief Scientist: Dr. Wei-Jun Cai, University of Georgia
Equipment: 24 bottle CTD with dual C, T, and O₂ sensors and LADCP
Number of Stations: 55

Sample Collection

O₂:

Shipboard, all stations, all depths
PI: Dr. Molly Baringer, AOML
Analyzed by: Robert Roddy, AOML

Nutrients:

The samples were analyzed in the lab after they were thawed.
PI: Dr. Jia-Zhong Zhang, AOML
Analyzed by: Charles Fischer, AOML
Nutrient units umol/kg

DIC:

36 stations, 150 samples each 250 or 500-ml, 13 set of duplicate samples
PI: Dr. Rik Wanninkhof, AOML
Analyzed by: Esa Peltola, AOML

TALK:

9 stations, 27 samples each 250 or 500-ml, 4 duplicates (two sets)
PI: Dr. Frank Millero, RSMAS
Analyzed by: Fen Huang, RSMAS
TALK units are umol/kg

Sample Analysis

DIC:

Analysis Date: November 1-9, 2005
Coulometers used: AOML1 and AOML2
Blank range: 12.0-30.0 counts/min
CRM # used and assigned value (include both DIC and salinity): Batch 59, c: 2007.1 umol/kg, S:33.316 and Batch 69, c:1907.63 umol/kg, S:31.569.
CRM value measured: AOML 1: offset 5.9 umol/kg (2001.2 umol/kg, Batch 59)
offset 6.8 umol/kg (1900.8 umol/kg, Batch 69)
AOML-2: offset 6.9 umol/kg (2000.2 umol/kg, Batch 59)
offset 7.9 umol/kg (1899.7 umol/kg, Batch 69)

The average run time was 13 minutes, the minimum run time was 8 minutes and the maximum run time was 20 minutes.

Reproducibility: (# samples and average difference): 13 sets of duplicate samples, average difference = 0.9 umol/kg.

CRM, salinity and HgCl₂ correction applied: yes

Comments

The Sample_ID is the rosette niskin bottle number from which the discrete samples were drawn. DIC samples 1-100 were collected in 500 ml bottles, samples 101-150 in 250 ml.

UPDATE:

Between March and June of 2021, all of the data for the discrete samples was put into a uniform format. The supporting information was checked for accuracy, especially the expocode, date, time, and positions.