Discrete measurements (TCO2, TALK, pCO2, and pH) metadata form

( * = mandatory field)

Investigator:
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Dataset Info:
- Dataset ID:* R/V Laurence M. Gould Lines
- Submission Dates:
  Initial Submission: 20121127 (yyyy/mm/dd)
  Revised Submission:

Cruise Info:
- Experiment:
  Experiment Name:* LMG200909
- Cruise:
  Cruise ID: (Expocode)
  Section: (Leg)
  Geographical Coverage:
  Geographical Region: Southern Ocean, Drake Passage
  Bounds:
  Westernmost Longitude:
  Enter decimal fractions of degrees: -65.338 (+ = E, - = W)
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  or Degrees, Minutes, Seconds: ____________ East ____________ West
  Northernmost Latitude:
  Enter decimal fractions of degrees: -55.000 (+ = N, - = S)
  or Degrees, Minutes, Seconds: ____________ North ____________ South
  or Degrees, Minutes, Seconds: ____________ North ____________ South
  or Degrees, Minutes, Seconds: ____________ North ____________ South
  or Degrees, Minutes, Seconds: ____________ North ____________ South
  or Degrees, Minutes, Seconds: ____________ North ____________ South

  Temporal Coverage:
  Start Date: 2009/09/18 (yyyymm/dd)
  End Date: 2009/10/02 (yyyymm/dd)

  Ports of Call: (One per line)

Vessel:
- Vessel Name: RVIB Laurence M. Gould
- Vessel ID: 33LG
Variables Info:
- Variable:
  - Variable Name:* TEMP
  - Description of Variable: DEG C
  - Total Variables in the Data Set: 10

Method Description:
- Total CO2 Data:
  - TCO2 Analysis Method:
    The TCO2 concentration in seawater samples was determined by the use of a coulometric system, which was modified from that described by Johnson et al. (1985).

Standardization Technique:
- Technique Description

Sample Volume: (mL) 250

CRM Info:
- Correction Magnitude: 10 UMOL/KG
- Batch Number: (One Used Batch Number per Line) 36
- CRM Analysis Info: (e.g., Refer to plots for CRMs)

Field Replicate Info:

Poisoning Info:
- Poisoning Correction Description: (e.g., Refer to plots for CRMs)
  Bottled samples were poisoned with mercuric chloride solutions (100 μL for each 250 ml water sample) and analyzed for total CO2 during the expedition.
- Poison Volume: (mL) 0.1
- Accuracy Info: (Estimate overall precision and accuracy, and why)
  ± 1 μmol/kg. Additional details on the TCO2 measurements are discussed in Chipman et al. (1992).

Method References: (Publication(s) describing method)
**Alkalinity:**
- Curve Fitting Method:
- Type of Titration:
- Description of Other Titration: (If other, please describe)
- Cell Type:
- CRM Scale:
- Sample Volume: (mL)
- Magnitude of Blank
- Correction:
- Accuracy Info: (Estimate overall precision and accuracy, and why)
- Method References: (Publication(s) describing method)

**pCO2 Data:**
- Analysis:
  - pCO2 Analysis Method:
    The discrete fCO2 system utilizes micro-porous membranes to measure the partial pressure of CO2 in discrete 0.5L seawater samples.
  - Sample Volume: (mL)
  - Headspace Volume:
  - Measurement Temperature:
  - Temperature Normalization:
    - Temperature Correction Method:
    - Variable Reported:
    - Gas:
    - Standard Gas Concentrations:
    - Frequency of Standardization:
  - Field Replicate Info:
  - Storage Method:
  - Accuracy Info: (Estimate overall precision and accuracy, and why)
Method References: (Publication(s) describing method)


pH Data:

- pH Scale:
- pH Analysis Method: (e.g., if electronic, what brand of electrode?)

Calibration Info:

- Calibration Description:

  - In Situ Temperature:
  - Temperature of Analysis: (Degrees C)
  - Temperature Normalization:
  - In Situ Pressure

Accuracy Info: (Estimate overall precision and accuracy, and why)

Method References: (Publication(s) describing method)

Additional information:

Data Set References: (Publication(s) describing data set)

Citation: (How to cite this data set)

Data Set Link:

- URL:
- Label:
- Link Note: (Optional instructions or remarks)