

MIRAI MR02-K06 Leg1 Bottle Sampling Water Chemical Analysis

Last Modified: 2015-05-29

[ReadMe](#) [Observation Data](#) [Data Format](#) [Quality Information](#)

Cruise ID: [MR02-K06 Leg1](#)

Bottle Sampling Water Chemical Analysis: Processed (DMO/PI)

Data Policy: [JAMSTEC](#)

Observation Items: Temperature, Salinity, Dissolved oxygen, Total inorganic carbon, Density

Science Keywords:

| | |
|----------------------------|---------------------|
| OCEANS > OCEAN CHEMISTRY | > INORGANIC CARBON |
| OCEANS > OCEAN CHEMISTRY | > OXYGEN |
| OCEANS > OCEAN CHEMISTRY | > SALINITY |
| OCEANS > OCEAN TEMPERATURE | > WATER TEMPERATURE |
| OCEANS > SALINITY/DENSITY | > SALINITY |
| OCEANS > OCEAN CHEMISTRY | > CARBON |

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR02-K06_leg1_all.pdf

For Using Data

Principal Investigator

CTDTMP : Kunio Yoneyama (JAMSTEC)
CTDSAL : Kunio Yoneyama (JAMSTEC)
CTDOXY : Kunio Yoneyama (JAMSTEC)
OXYGEN : -
TCARBON : Eiji Yamashita (Okayama University of Science)

Use Constraints

See [Terms and Conditions](#) about constrain of use.

Data Citation

See [Terms and Conditions](#) about data citation.

Instrument

Instrument:

Total dissolved inorganic carbon
measurement system (- MR11-E02)



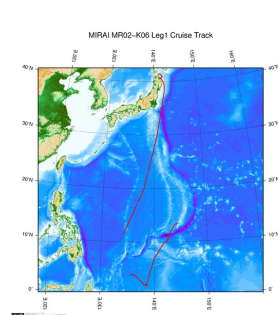
Information on CTD data

- (1) Temperature sensor
Model : SBE3, Sea-Bird Electronics, Inc.
Measurement range : -5.0 to +35degC
Accuracy : 0.001degC
Resolution : 0.0002degC
- (2) Salinity sensor
Model : SBE4, Sea-Bird Electronics, Inc.
Measurement range : 0.0 to 7S/m
Accuracy : 0.0003S/m
Resolution : 0.00004S/m
- (3) Pressure sensor
Model : SBE9plus, Sea-Bird Electronics, Inc.
Measurement range : up to 10500m
Accuracy : 0.015%F.S.
Resolution : 0.001%F.S.
- (4) DO sensor
Model : SBE43, Sea-Bird Electronics, Inc.
Measurement range : 0-15ml/l(120% of surface saturation)
Accuracy : 0.1ml/l(2% of saturation)
Resolution : 0.01ml/l

Information on Chemical and Biological data

1. Dissolved Oxygen
 - (1) Instruments : Titration Model 716 DMS Titration (Metrohm)
Detector: Pt electrode
 - (2) Methods : Winkler method/potentiometric method
 - (3) Precision : 0.10umol/kg
 - (4) Reference Material/Calibration: 0.0100N KIO₃ solution/Comparison of each standard to CSK standard solution (Wako pure chemical industries, Ltd.)
2. Total inorganic carbon
 - (1) Instruments : the automated TCO₂ analyzer (Nippon ANS, Inc.) equipped with carbon coulometer 5012 (UIC Inc.)
 - (2) Methods : coulometry
 - (3) Precision : 1.89 umol kg⁻¹
 - (4) Reference Material/Calibration: Na₂CO₃ solution and the CRM provided by Dr. Dickson in Scripps Institute of Oceanography

Related Information



[Enlarge Image](#)

MR02-K06 Leg1

Ship Name: MIRAI
Period: 2002-11-13 - 2002-12-16
Chief Scientist: Kunio Yoneyama (JAMSTEC)
Project Name: [MJO Research]

Update History

| | |
|------------|------------------------------------|
| 2015-05-29 | An observation data was registerd. |
| 2013-08-23 | An observation data was registerd. |
| 2012-12-25 | An observation data was registerd. |

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[Amount of Public Info.](#)

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[Data Tree](#)
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Go to a Cruise Information

Cruise ID:

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Dive ID:

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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

国立研究開発法人
海洋研究開発機構

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Exchange Format

Provided in the Exchange Format of CCHDO (CLIVAR and Carbon Hydrographic Data Office).

Please see the following link for details of Exchange Format.

[CCHDO | CLIVAR & Carbon Hydrographic Data Office](#)

Format Information

| Column No. | Column Heading Mnemonic | Units Mnemonic | Reporting Precision FORTRAN Format | Comments |
|------------|-------------------------|----------------|------------------------------------|--|
| 1 | EXPCODE | | A14 | Expedition code |
| 2 | SECT | | A6 | For WOCE data the WHP section identifier |
| 3 | STNNBR | | A18 | Station number |
| 4 | CASTNO | | I3 | Cast number |
| 5 | SAMPNO | | A7 | Sample number |
| 6 | BTLNBR | | A7 | Bottle identification number |
| 7 | BTLNBR_FLAG_W | | I1 | Bottle quality flag |
| 8 | DATE | | I8 | Cast date(UTC) |
| 9 | TIME | UTC | I4 | Cast time (UTC) |
| 10 | LATITUDE | DEG | F8.4 | LATITUDE |
| 11 | LONGITUDE | DEG | F9.4 | LONGITUDE |
| 12 | DEPTH | M | I5 | Reported depth to bottom. |
| 13 | CTDPRS | DBAR | F9.1 | Pressure |
| 14 | CTDPRS_FLAG_W | | I1 | Quality flag for CTD data |
| 15 | CTDTMP | ITS-90 | F9.4 | Temperature |
| 16 | CTDTMP_FLAG_W | | I1 | Quality flag for CTD data |
| 17 | CTDSAL | PSS-78 | F9.4 | CTD Salinity sensor |
| 18 | CTDSAL_FLAG_W | | I1 | Quality flag for CTD data |
| 19 | CTDOXY | UMOL/KG | F9.2 | CTD Oxygen sensor |
| 20 | CTDOXY_FLAG_W | | I1 | Quality flag for CTD data |
| 21 | OXYGEN | UMOL/KG | F9.2 | Oxygen |
| 22 | OXYGEN_FLAG_W | | I1 | Quality flags for water samples |
| 23 | TCARBN | UMOL/KG | F9.1 | Total carbon |
| 24 | TCARBN_FLAG_W | | I1 | Quality flags for water samples |
| 25 | SIG0 | KG/CUM | F9.4 | Density |

ODV Format

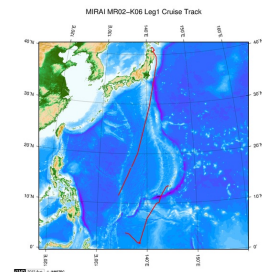
Please see the following link for details of ODV Format and ODV Software.

[Ocean Data View \(ODV\)](#)

Format Information

| Column No. | Column Heading | Comments |
|------------|--------------------------|---------------------------------|
| 1 | Cruise | Cruise Label |
| 2 | Station | Station number_Cast number |
| 3 | Type | Station type |
| 4 | mon/day/yr | Cast date(UTC) |
| 5 | hh:mm | Cast time (UTC) |
| 6 | Latitude [degrees_north] | LATITUDE |
| 7 | Longitude [degrees_east] | LONGITUDE |
| 8 | Bot. Depth [m] | Reported depth to bottom. |
| 9 | CTDDPT[M] | Depth |
| 10 | QF | Quality flag for CTD data |
| 11 | CTDPRS[DBAR] | Pressure |
| 12 | QF | Quality flag for CTD data |
| 13 | CTDTMP[ITS-90] | Temperature |
| 14 | QF | Quality flag for CTD data |
| 15 | CTDSAL[PSS-78] | CTD Salinity sensor |
| 16 | QF | Quality flag for CTD data |
| 17 | CTDOXY[UMOL/KG] | CTD Oxygen sensor |
| 18 | QF | Quality flag for CTD data |
| 19 | OXYGEN[UMOL/KG] | Oxygen |
| 20 | QF | Quality flags for water samples |
| 21 | TCARBN[UMOL/KG] | Total carbon |
| 22 | QF | Quality flags for water samples |
| 23 | SIG0[KG/CUM] | Density |
| 24 | QF | Quality flag for CTD data |
| 25 | SAMPNO | Sample number |
| 26 | QF | Bottle quality flag |

Related Information



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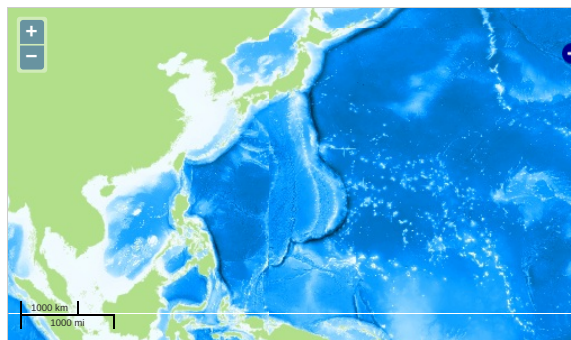
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OCEANS > SALINITY/DENSITY > SALINITY
OCEANS > OCEAN CHEMISTRY > CARBON

Observation Map



... Observation Line ... Navigation ... Observation, Dive Point, Hole

Imagery reproduced from ...

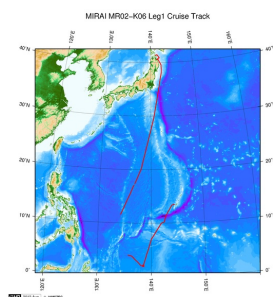
Data List

☐ File names

☐ MR02K0601_ex_bot.csv

☐ MR02K0601_odv_bot.txt

Related Information



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[Publication List](#)
[Amount of Public Info.](#)

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