

MIRAI MR09-03 Leg2 Partial Pressure of CO2 (pCO2)

Last Modified: 2017-07-27

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

Cruise ID: [MR09-03 Leg2](#)

Partial Pressure of CO2 (pCO2): Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

Observation Items: CO2, Air temperature, Atmospheric pressure, Wind direction, Wind speed, Sea surface temperature, Sea surface salinity

Science Keywords:

OCEANS > OCEAN CHEMISTRY > CARBON DIOXIDE

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR09-03_leg1-3_all.pdf

[For Using Data](#)

Principal Investigator

Shigeto Nishino (JAMSTEC)

Use Constraints

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

Data Citation

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

Instrument

Instrument:

pCO2 measurement system (- MR10-06)



Information on pCO2 measurement

Instrument : pCO₂ measuring system ; Nippon ANS Ltd.

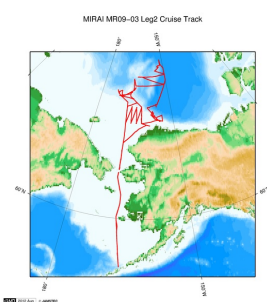
Method : Non-dispersive infrared gas analyzer (NDIR) / Equilibrator : showerhead-type

Precision : -

Reference Material/Calibration : The CO₂ standard gas was calibrated at Prof. Keeling's laboratory in the Scripps Institution of Oceanography

[About data processing method](#)

Related Information



[Enlarge Image](#)

MR09-03 Leg2

Ship Name: MIRAI

Period: 2009-09-07 - 2009-10-15

Chief Scientist: Takashi Kikuchi (JAMSTEC)

Project Name: [Arctic Ocean Climate System Research]

Proposal ▶ Multi-disciplinary observation cruise for the Arctic Ocean

Title:

Update History

2017-07-27	An observation data was registerd.
2012-09-28	An observation data was registerd.

JAMSTEC
Site Policy
Privacy Policy
Application for Data and Samples
Data Policy
What's New
Update History
Feeds

Lists
Publication List
Amount of Public Info.
Data
Map Search
Data Tree
Detailed Search

Information of the Ships
NATSUSHIMA
KAIYO
YOKOSUKA
MIRAI
KAIREI
CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

Information of the Submersibles
KAICO
SHINKAI 2000
SHINKAI 6500
DEEP TOW
HYPER-DOLPHIN
URASHIMA
YOKOSUKA DEEP TOW
6K Camera DEEP TOW
6K Sonar DEEP TOW
KM-ROV
POWER GRAB SAMPLER (SHELL)
POWER GRAB SAMPLER

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID:



MIRAI MR09-03 Leg2 Partial Pressure of CO2 (pCO2)

Last Modified: 2017-07-27

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

Cruise ID: [MR09-03 Leg2](#)

Partial Pressure of CO2 (pCO2): Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

pCO2 FORMAT_M

Data Format

The file is in variable length, comma separated text file (csv) format.

The line starts with "#" is a comment line which contains version information and so on.

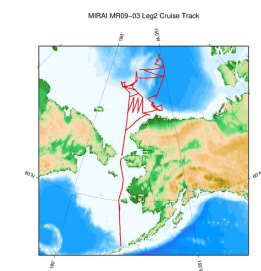
Column NO.	Column Heading	Comments
1	Ship	Ship name
2	Cruise	Cruise ID
3	Serial No.	Serial No.
4	Date	year (YYYY) in UTC
5		month (MM) in UTC
6		day (DD) in UTC
7	Time	hour (hh) in UTC
8		minute (mm) in UTC
9	Latitude	Latitude (degree) ; Positive in north
10	Longitude	Longitude (degree) ; degree in eastward (0 - 360)
11	xCO2_Air	CO ₂ mixing ratio (ppm) in the air
12	F	Quality flag for xCO2_Air
13	xCO2_Sea	CO ₂ mixing ratio (ppm) in the sea surface water (*)
14	F	Quality flag for xCO2_Sea
15	Wind_Dir	Wind direction (degree) ; Positive in clockwise from the north
16	Wind_Spd	Wind speed (m/s)
17	Atm_Prs	Barometric pressure (hPa)
18	Atm_Tmp.	Air temperature (degree-C)
19	SST	Sea surface temperature (degree-C)
20	F	Quality flag for SST
21	SSS	Sea surface salinity (PSU)
22	F	Quality flag for SSS
23	pH2O	Vapor pressure of in-situ sea water (hPa)

Definition of Quality Control Flags

- 2 - Good
- 3 - Questionable
- 4 - Bad
- 5 - Not reported
- 9 - No data

*: Please refer to "Information on pCO2 data" shown in ReadMe tab for xCO2_Sea data calculation.

Related Information



[Enlarge Image](#)

MR09-03 Leg2

Ship Name: MIRAI
Period: 2009-09-07 - 2009-10-15
Chief Scientist: Takashi Kikuchi (JAMSTEC)
Project Name: [Arctic Ocean Climate System Research]
Proposal ▶ Multi-disciplinary observation cruise for the Arctic Ocean
Title:

Update History

2017-07-27	An observation data was registered.
2012-09-28	An observation data was registered.

JAMSTEC
[Site Policy](#)
[Privacy Policy](#)
[Application for Data and Samples](#)
[Data Policy](#)
What's New
[Update History](#)
[Feeds](#)

Lists
[Publication List](#)
[Amount of Public Info.](#)
Data
[Map Search](#)
[Data Tree](#)
[Detailed Search](#)

Information of the Ships
NATSUSHIMA
KAIO
YOKOSUKA
MIRAI
KAIREI
CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

Information of the Submersibles
KAIKO
SHINKAI 2000
SHINKAI 6500
DEEP TOW
HYPER-DOLPHIN
URASHIMA
YOKOSUKA DEEP TOW
6K Camera DEEP TOW
6K Sonar DEEP TOW
KM-ROV
POWER GRAB
SAMPLER (SHELL)
POWER GRAB
SAMPLER (CLOW)
BMS

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID:

MIRAI MR09-03 Leg2 Partial Pressure of CO2 (pCO2)

Last Modified: 2017-07-27

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

Cruise ID: [MR09-03 Leg2](#)

Partial Pressure of CO2 (pCO2): Processed (DMO)-QCed

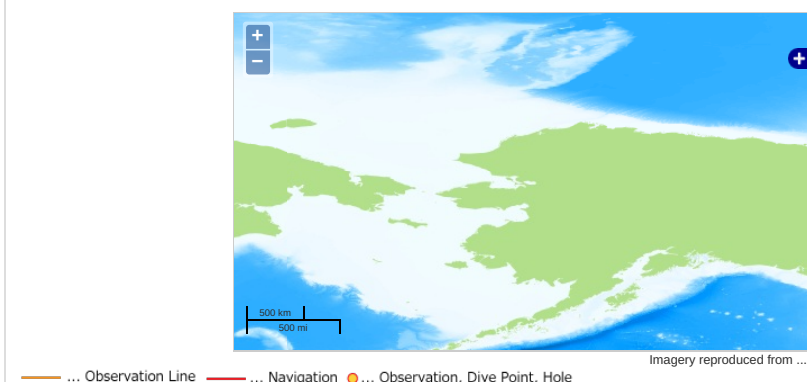
Data Policy: [JAMSTEC](#)

Observation Items: CO2, Air temperature, Atmospheric pressure, Wind direction, Wind speed, Sea surface temperature, Sea surface salinity

Science Keywords:

OCEANS > OCEAN CHEMISTRY > CARBON DIOXIDE

Observation Map

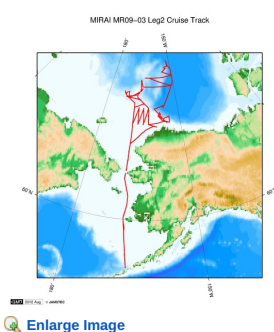


Data List

File names

☐ MR09-03_leg2_pco2.zip

Related Information



MR09-03 Leg2

Ship Name: MIRAI
Period: 2009-09-07 - 2009-10-15
Chief Scientist: Takashi Kikuchi (JAMSTEC)
Project Name: [Arctic Ocean Climate System Reaserch]
Proposal ▶ Multi-disciplinary observation cruise for the Arctic Ocean
Title:

Update History

2017-07-27	An observation data was registerd.
2012-09-28	An observation data was registerd.

JAMSTEC
[Site Policy](#)
[Privacy Policy](#)
[Application for Data and Samples](#)
[Data Policy](#)

[What's New](#)
[Update History](#)
[Feeds](#)

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

[Data](#)
[Map Search](#)
[Data Tree](#)
[Detailed Search](#)

[Information of the Ships](#)
NATSUSHIMA
KAIYO
YOKOSUKA
MIRAI
KAIREI
CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

[Information of the Submersibles](#)
KAIKO
SHINKAI 2000
SHINKAI 6500
DEEP TOW
HYPER-DOLPHIN
URASHIMA
YOKOSUKA DEEP TOW
6K Camera DEEP TOW
6K Sonar DEEP TOW
KM-ROV
POWER GRAB SAMPLER (SHELL)
POWER GRAB SAMPLER (CLOW)
BMS

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID: