

## MIRAI MR17-04 Leg2 Partial Pressure of CO2 (pCO2)

Last Modified: 2019-09-20

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

Cruise ID: [MR17-04 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/MR17-04\\_leg1-2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR17-04_leg1-2_all.pdf)

### [For Using Data](#)

Principal Investigator

Data Management Office

Use Constraints

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

Data Citation

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

### Instrument

Instrument:

pCO2 measurement system (MR10-07

- )



### Information on pCO2 measurement

Depth of sea water intake : 4.5m

Instrument : pCO2 measuring system

Method : Non-dispersive infrared gas analyzer (NDIR) LI-7000 (LI-COR) ; Nihon ANS Ltd. S/N: IRG4-0900

Equilibrator : showerhead-type

Precision : -

Reference Material/Calibration : Taiyo Nippon Sanso Corporation

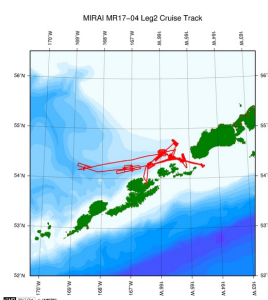
Sea surface temperature/salinity : refer to details of "Underway Thermosalinograph"

Equilibrator temperature : Pt100 ; THERMOTECHE Co. Ltd, Japan

[About data processing method](#)

### Related Information

[Cruise Data](#) [Dive Data](#)



[Enlarge Image](#)

### MR17-04 Leg2

Ship Name: MIRAI

Period: 2017-08-05 - 2017-08-21

Chief Scientist: Yoshihiro Fujiwara (JAMSTEC)

Proposal ▶ Collaborative experiment on Biogeochemical and Ecosystem Studies for sub-Arctic sea

Title:

### Update History

2019-09-20 An observation data was registered.

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[YOKOSUKA](#)

[MIRAI](#)

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[Submersibles](#)

[KAICO](#)

[SHINKAI 2000](#)

[SHINKAI 6500](#)

[DEEP TOW](#)

[HYPER-DOLPHIN](#)

[URASHIMA](#)

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[6K Sonar DEEP TOW](#)

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### Go to a Cruise Information

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ReadMe Observation Data **Data Format**

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### 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 <sub>2</sub> mixing ratio (ppm) in the air
12	F	Quality flag for xCO2_Air
13	xCO2_Sea	CO <sub>2</sub> 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)

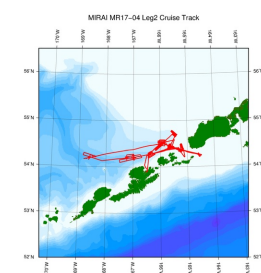
#### Definition of Quality Control Flags

- 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

[Cruise Data](#) [Dive Data](#)



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POWER GRAB  
SAMPLER (SHELL)  
POWER GRAB  
SAMPLER (CLOW)  
BMS

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#### Go to a Dive Information

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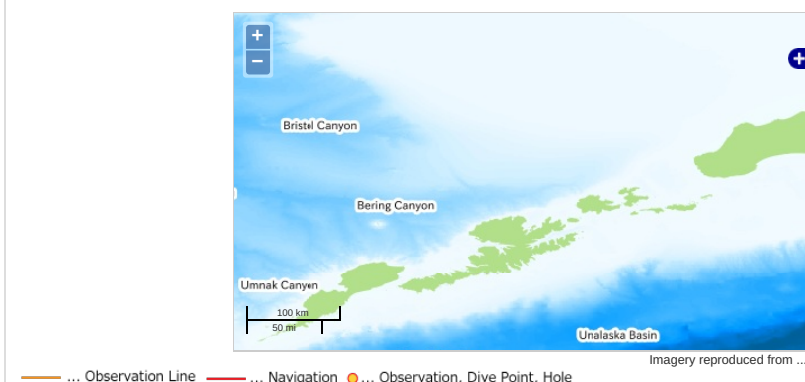
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### Observation Map



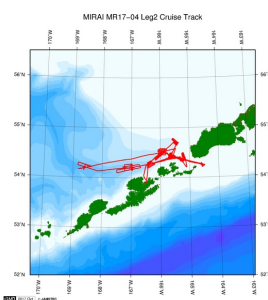
### Data List

File names

☐ MR17-04\_leg2\_xCO2.csv

### Related Information

☒ Cruise Data ☐ Dive Data



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