BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value
ABCO2XEQ	Dimensionless	Light absorption (infra-red wavelengths) by the equilibrated marine sample carbon dioxide by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABCO2XS0	Dimensionless	Light absorption (infra-red wavelengths) by the nominal zero ppm CO2 gas standard carbon dioxide by constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABCO2XS2	Dimensionless	Light absorption (infra-red wavelengths) by the nominal 250 ppm CO2 gas standard carbon dioxide by constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABCO2XS4	Dimensionless	Light absorption (infra-red wavelengths) by the nominal 450 ppm CO2 gas standard carbon dioxide by constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABH2OXEQ	Dimensionless	Light absorption (infra-red wavelengths) by the equilibrated marine sample water vapour by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABH2OXMA	Dimensionless	Light absorption (infra-red wavelengths) by the atmosphere sample water vapour by drying and constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABH2OXS0	Dimensionless	Light absorption (infra-red wavelengths) by the nominal zero ppm CO2 gas standard water vapour by constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABH2OXS2	Dimensionless	Light absorption (infra-red wavelengths) by the nominal 250 ppm CO2 gas standard water vapour by constant temperature non-dispersive infra-red gas analysis	0	1	-9
ABH2OXS4	Dimensionless	Light absorption (infra-red wavelengths) by the nominal 450 ppm CO2 gas standard water vapour by constant temperature non-dispersive infra-red gas analysis	0	1	-9
APDAZZ01	Degrees True	Direction of motion (over ground) of measurement platform {course made good}	0	360	-1
APSAZZ01	Metres per second	Speed (over ground) of measurement platform	0	500	-1
CAPHSL01	Millibars	Pressure (measured variable) exerted by the atmosphere by barometer and correction to sea level	0	1100	-1
CAPHSL02	Millibars	Pressure (measured variable) exerted by the atmosphere by barometer and correction to sea level	0	1100	-1
CAPHZZ01	Millibars	Pressure (measured variable) exerted by the atmosphere	0	1100	-1
CDEWZZ01	Degrees Celsius	Dew point temperature of the atmosphere	-20	30	-99
CNDCSG01	Siemens per metre	Electrical conductivity of the water column by thermosalinograph	0	6.5	-1
CRELZZ01	Percent	Relative humidity of the atmosphere	0	110	-1
CTMPZZ01	Degrees Celsius	Temperature of the atmosphere	-100	60	-999
DOXYAAOP	Micromoles per litre	Concentration of oxygen {O2} per unit volume of the water column [dissolved phase] by optode	0	600	-1

| BODC parameter code | Units | Definition | Minimum permissable value | Maximum permissable value | Absent data value |

ERWDSS01	Degrees	Wind from direction (relative to moving platform) in the atmosphere by in-situ anemometer	0	360	-1
ERWSZZ01	Metres per second	Wind speed (relative to moving platform) in the atmosphere	0	100	-1
EWDASS01	Degrees True	Wind from direction in the atmosphere by in-situ anemometer	0	360	-1
EWSBSS01	Metres per second	Wind speed in the atmosphere by in-situ anemometer	0	75	-1
FCNTRW01	Dimensionless	Instrument output (counts) by in-situ chlorophyll fluorometer	-9000	41767	-9999
HDPX00EQ	Degrees Celsius	Dew point temperature of the equilibrated marine sample	-20	30	-99
HDPX00MA	Degrees Celsius	Dew point temperature of the atmosphere sample	-20	30	-99
HDPX00S0	Degrees Celsius	Dew point temperature of the nominal zero ppm CO2 gas standard	-273.2	30	-999
HDPX00S2	Degrees Celsius	Dew point temperature of the nominal 250 ppm CO2 gas standard	-273.2	30	-999
HDPX00S4	Degrees Celsius	Dew point temperature of the nominal 450 ppm CO2 gas standard	-273.2	30	-999
HEADCMMG	Degrees	Orientation (horizontal relative to magnetic north) of measurement platform {heading} by compass	0	360	-1
IRHUM0EQ	Percent	Relative humidity (detector inlet) for the equilibrated marine sample	0	110	-1
IRHUM0MA	Percent	Relative humidity (detector inlet) for the atmosphere sample	0	110	-1
IRHUM0S0	Percent	Relative humidity (detector inlet) for the nominal zero ppm CO2 gas standard	0	110	-1
IRHUM0S2	Percent	Relative humidity (detector inlet) for the nominal 250 ppm CO2 gas standard	0	110	-1
IRHUM0S4	Percent	Relative humidity (detector inlet) for the nominal 450 ppm CO2 gas standard	0	110	-1
IRRDSS01	MicroEinsteins per square metre per second	Downwelling 2-pi scalar irradiance as photons (PAR wavelengths) in the atmosphere by 2-pi scalar radiometer	0	2500	-1
IRRDSS02	MicroEinsteins per square metre per second	Downwelling 2-pi scalar irradiance as photons (PAR wavelengths) in the atmosphere by 2-pi scalar radiometer	0	2500	-1
ITEMP0EQ	Degrees Celsius	Temperature (detector inlet) for the equilibrated marine sample	0	99	-9
ITEMP0MA	Degrees Celsius	Temperature (detector inlet) for the atmosphere sample	0	99	-9
ITEMP0S0	Degrees Celsius	Temperature (detector inlet) for the nominal zero ppm CO2 gas standard	0	99	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value

ITEMP0S2	Degrees Celsius	Temperature (detector inlet) for the nominal 250 ppm CO2 gas standard	0	99	-9
ITEMP0S4	Degrees Celsius	Temperature (detector inlet) for the nominal 450 ppm CO2 gas standard	0	99	-9
LPRES0EQ	Millibars	Pressure (LICOR) for the equilibrated marine sample	0	1100	-1
LPRES0MA	Millibars	Pressure (LICOR) for the atmosphere sample	0	1100	-1
LPRES0S0	Millibars	Pressure (LICOR) for the nominal zero ppm CO2 gas standard	0	1100	-1
LPRES0S2	Millibars	Pressure (LICOR) for the nominal 250 ppm CO2 gas standard	0	1100	-1
LPRES0S4	Millibars	Pressure (LICOR) for the nominal 450 ppm CO2 gas standard	0	1100	-1
LTEMP0EQ	Degrees Celsius	Temperature (LICOR) for the equilibrated marine sample	0	99	-9
LTEMP0MA	Degrees Celsius	Temperature (LICOR) for the atmosphere sample	0	99	-9
LTEMP0S0	Degrees Celsius	Temperature (LICOR) for the nominal zero ppm CO2 gas standard	0	99	-9
LTEMP0S2	Degrees Celsius	Temperature (LICOR) for the nominal 250 ppm CO2 gas standard	0	99	-9
LTEMP0S4	Degrees Celsius	Temperature (LICOR) for the nominal 450 ppm CO2 gas standard	0	99	-9
LTEMPEQ0	Degrees Celsius	Temperature (water at equilibrator base) by platinum resistance thermometer	-2	50	-9
MAXFL0EQ	Millilitres per minute	Maximum flow rate (measurement loop) for the equilibrated marine sample	0	1000	-9
MAXFL0MA	Millilitres per minute	Maximum flow rate (measurement loop) for the atmosphere sample	0	1000	-9
MAXFL0S0	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal zero ppm CO2 gas standard	0	1000	-9
MAXFL0S2	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal 250 ppm CO2 gas standard	0	1000	-9
MAXFL0S4	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal 450 ppm CO2 gas standard	0	1000	-9
ORHUM0EQ	Percent	Relative humidity (detector outlet) for the equilibrated marine sample	0	110	-1
ORHUM0MA	Percent	Relative humidity (detector outlet) for the atmosphere sample	0	110	-1
ORHUM0S0	Percent	Relative humidity (detector outlet) for the nominal zero ppm CO2 gas standard	0	110	-1

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value

ORHUM0S2	Percent	Relative humidity (detector outlet) for the nominal 250 ppm CO2 gas standard	0	110	-1
ORHUM0S4	Percent	Relative humidity (detector outlet) for the nominal 450 ppm CO2 gas standard	0	110	-1
OTEMP0EQ	Degrees Celsius	Temperature (detector outlet) for the equilibrated marine sample	0	99	-9
OTEMP0MA	Degrees Celsius	Temperature (detector outlet) for the atmosphere sample	0	99	-9
OTEMP0S0	Degrees Celsius	Temperature (detector outlet) for the nominal zero ppm CO2 gas standard	0	99	-9
OTEMP0S2	Degrees Celsius	Temperature (detector outlet) for the nominal 250 ppm CO2 gas standard	0	99	-9
OTEMP0S4	Degrees Celsius	Temperature (detector outlet) for the nominal 450 ppm CO2 gas standard	0	99	-9
OXYTAAOP	Degrees Celsius	Temperature of oxygen determination by optode	-2	50	-9
PRES00EQ	Millibars	Pressure (measurement loop) for the equilibrated marine sample	0	1100	-1
PRES00MA	Millibars	Pressure (measurement loop) for the atmosphere sample	0	1100	-1
PRES00S0	Millibars	Pressure (measurement loop) for the nominal zero ppm CO2 gas standard	0	1100	-1
PRES00S2	Millibars	Pressure (measurement loop) for the nominal 250 ppm CO2 gas standard	0	1100	-1
PRES00S4	Millibars	Pressure (measurement loop) for the nominal 450 ppm CO2 gas standard	0	1100	-1
PSALSG01	Dimensionless	Practical salinity of the water column by thermosalinograph and computation using UNESCO 1983 algorithm and calibration against independent measurements	0	40	-1
PTCHEI01	Degrees	Orientation (pitch) of measurement platform by inclinometer	-180	180	-999
RCO2X0EQ	Parts per million	Partial pressure (raw) of carbon dioxide in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	3000	-9
RCO2X0MA	Parts per million	Partial pressure (raw) of carbon dioxide in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	3000	-9
RCO2X0S0	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-20	20	-999
RCO2X0S2	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	200	300	-999
RCO2X0S4	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	360	540	-999
RH2OX0EQ	Parts per thousand	Partial pressure (raw) of water vapour in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-0.1	100	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value

RH2OX0MA	Parts per thousand	Partial pressure (raw) of water vapour in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-0.1	100	-9
RH2OX0S0	Parts per thousand	Partial pressure (raw) of water vapour in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-1	100	-9
RH2OX0S2	Parts per thousand	Partial pressure (raw) of water vapour in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-1	100	-9
RH2OX0S4	Parts per thousand	Partial pressure (raw) of water vapour in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-1	100	-9
ROLLEI01	Degrees	Orientation (roll angle) of measurement platform by inclinometer	-180	180	-999
SDRCO2EQ	Parts per million	Partial pressure standard deviation (raw) of carbon dioxide in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	999	-9
SDRCO2MA	Parts per million	Partial pressure standard deviation (raw) of carbon dioxide in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	999	-9
SDRCO2S0	Parts per million	Partial pressure standard deviation (raw) of carbon dioxide in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	999	-9
SDRCO2S2	Parts per million	Partial pressure standard deviation (raw) of carbon dioxide in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	999	-9
SDRCO2S4	Parts per million	Partial pressure standard deviation (raw) of carbon dioxide in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	999	-9
SDRH2OEQ	Parts per thousand	Partial pressure standard deviation (raw) of water vapour in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	1	-9
SDRH2OMA	Parts per thousand	Partial pressure standard deviation (raw) of water vapour in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	1	-9
SDRH2OS0	Parts per thousand	Partial pressure standard deviation (raw) of water vapour in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	1	-9
SDRH2OS2	Parts per thousand	Partial pressure standard deviation (raw) of water vapour in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	1	-9
SDRH2OS4	Parts per thousand	Partial pressure standard deviation (raw) of water vapour in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	1	-9
TEMPHU01	Degrees Celsius	Temperature of the water column by thermosalinograph hull sensor and NO verification against independent measurements	-3	35	-9
TMESSG01	Degrees Celsius	Temperature of conductivity measurement by thermosalinograph	-3	35	-999
TVLTZZ01	Volts	Instrument output (voltage) by transmissometer	-1	5	-9
UTEMPEQ0	Degrees Celsius	Temperature (water at equilibrator top) by platinum resistance thermometer	-2	50	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value
ACFLPCO2	Dimensionless	Data quality flag (pCO2 IOCCP)	0	99	-1
ACO2IG02	Microatmospheres	Partial pressure of carbon dioxide {pCO2} in the atmosphere by drying and constant temperature non-dispersive infra-red gas analysis and standards calibration and correction to 1 bar at 100% humidity	0	999	-1
CAPHSL01	Millibars	Pressure (measured variable) exerted by the atmosphere by barometer and correction to sea level	0	1100	-1
CAPHSL02	Millibars	Pressure (measured variable) exerted by the atmosphere by barometer and correction to sea level	0	1100	-1
CAPHZZ01	Millibars	Pressure (measured variable) exerted by the atmosphere	0	1100	-1
CRELZZ01	Percent	Relative humidity of the atmosphere	0	110	-1
CTMPZZ01	Degrees Celsius	Temperature of the atmosphere	-100	60	-999
DOXYAAOP	Micromoles per litre	Concentration of oxygen {O2} per unit volume of the water column [dissolved phase] by optode	0	600	-1
ERWDSS01	Degrees	Wind from direction (relative to moving platform) in the atmosphere by in-situ anemometer	0	360	-1
ERWSZZ01	Metres per second	Wind speed (relative to moving platform) in the atmosphere	0	100	-1
EWSBSS01	Metres per second	Wind speed in the atmosphere by in-situ anemometer	0	75	-1
FCNTRW01	Dimensionless	Instrument output (counts) by in-situ chlorophyll fluorometer	-9000	41767	-9999
FCO2IG02	Microatmospheres	Fugacity of carbon dioxide {fCO2} in the atmosphere by drying and constant temperature non-dispersive infra-red gas analysis and computation from pCO2 corrected to 1 bar at 100% humidity	0	999	-1
FCO2TK02	Microatmospheres	Fugacity of carbon dioxide {fCO2} in the water column by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and computation from pCO2 corrected to 1 bar at 100% humidity at in-situ temperature (Takahashi correction)	0	999	-1
IRHUM0EQ	Percent	Relative humidity (detector inlet) for the equilibrated marine sample	0	110	-1
IRHUM0MA	Percent	Relative humidity (detector inlet) for the atmosphere sample	0	110	-1
IRHUM0S0	Percent	Relative humidity (detector inlet) for the nominal zero ppm CO2 gas standard	0	110	-1
IRHUM0S2	Percent	Relative humidity (detector inlet) for the nominal 250 ppm CO2 gas standard	0	110	-1
IRHUM0S4	Percent	Relative humidity (detector inlet) for the nominal 450 ppm CO2 gas standard	0	110	-1
ITEMP0EQ	Degrees Celsius	Temperature (detector inlet) for the equilibrated marine sample	0	99	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value
ITEMP0MA	Degrees Celsius	Temperature (detector inlet) for the atmosphere sample	0	99	-9
ITEMP0S0	Degrees Celsius	Temperature (detector inlet) for the nominal zero ppm CO2 gas standard	0	99	-9
ITEMP0S2	Degrees Celsius	Temperature (detector inlet) for the nominal 250 ppm CO2 gas standard	0	99	-9
ITEMP0S4	Degrees Celsius	Temperature (detector inlet) for the nominal 450 ppm CO2 gas standard	0	99	-9
LPRES0EQ	Millibars	Pressure (LICOR) for the equilibrated marine sample	0	1100	-1
LPRES0MA	Millibars	Pressure (LICOR) for the atmosphere sample	0	1100	-1
LPRES0S0	Millibars	Pressure (LICOR) for the nominal zero ppm CO2 gas standard	0	1100	-1
LPRES0S2	Millibars	Pressure (LICOR) for the nominal 250 ppm CO2 gas standard	0	1100	-1
LPRES0S4	Millibars	Pressure (LICOR) for the nominal 450 ppm CO2 gas standard	0	1100	-1
LTEMP0EQ	Degrees Celsius	Temperature (LICOR) for the equilibrated marine sample	0	99	-9
LTEMP0MA	Degrees Celsius	Temperature (LICOR) for the atmosphere sample	0	99	-9
LTEMP0S0	Degrees Celsius	Temperature (LICOR) for the nominal zero ppm CO2 gas standard	0	99	-9
LTEMP0S2	Degrees Celsius	Temperature (LICOR) for the nominal 250 ppm CO2 gas standard	0	99	-9
LTEMP0S4	Degrees Celsius	Temperature (LICOR) for the nominal 450 ppm CO2 gas standard	0	99	-9
LTEMPEQ0	Degrees Celsius	Temperature (water at equilibrator base) by platinum resistance thermometer	-2	50	-9
MAXFL0EQ	Millilitres per minute	Maximum flow rate (measurement loop) for the equilibrated marine sample	0	1000	-9
MAXFL0MA	Millilitres per minute	Maximum flow rate (measurement loop) for the atmosphere sample	0	1000	-9
MAXFL0S0	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal zero ppm CO2 gas standard	0	1000	-9
MAXFL0S2	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal 250 ppm CO2 gas standard	0	1000	-9
MAXFL0S4	Millilitres per minute	Maximum flow rate (measurement loop) for the nominal 450 ppm CO2 gas standard	0	1000	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value
ORHUM0EQ	Percent	Relative humidity (detector outlet) for the equilibrated marine sample	0	110	-1
ORHUM0MA	Percent	Relative humidity (detector outlet) for the atmosphere sample	0	110	-1
ORHUM0S0	Percent	Relative humidity (detector outlet) for the nominal zero ppm CO2 gas standard	0	110	-1
ORHUM0S2	Percent	Relative humidity (detector outlet) for the nominal 250 ppm CO2 gas standard	0	110	-1
ORHUM0S4	Percent	Relative humidity (detector outlet) for the nominal 450 ppm CO2 gas standard	0	110	-1
OTEMP0EQ	Degrees Celsius	Temperature (detector outlet) for the equilibrated marine sample	0	99	-9
OTEMP0MA	Degrees Celsius	Temperature (detector outlet) for the atmosphere sample	0	99	-9
OTEMP0S0	Degrees Celsius	Temperature (detector outlet) for the nominal zero ppm CO2 gas standard	0	99	-9
OTEMP0S2	Degrees Celsius	Temperature (detector outlet) for the nominal 250 ppm CO2 gas standard	0	99	-9
OTEMP0S4	Degrees Celsius	Temperature (detector outlet) for the nominal 450 ppm CO2 gas standard	0	99	-9
PCO2TK02	Microatmospheres	Partial pressure of carbon dioxide {pCO2} in the water column by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and standards calibration, correction to 1 bar at 100% humidity and Takahashi correction to in-situ temperature	0	999	-1
RCO2X0EQ	Parts per million	Partial pressure (raw) of carbon dioxide in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	3000	-9
RCO2X0MA	Parts per million	Partial pressure (raw) of carbon dioxide in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	0	3000	-9
RCO2X0S0	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	-20	20	-999
RCO2X0S2	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	200	300	-999
RCO2X0S4	Parts per million	Partial pressure (raw) of carbon dioxide in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and ratiometric temperature and pressure correction	360	540	-999
SSALSG01	Parts per thousand	Salinity of the water column by thermosalinograph	0	40	-1
TEMPHU01	Degrees Celsius	Temperature of the water column by thermosalinograph hull sensor and NO verification against independent measurements	-3	35	-9
TMESSG01	Degrees Celsius	Temperature of conductivity measurement by thermosalinograph	-3	35	-999
TVLTZZ01	Volts	Instrument output (voltage) by transmissometer	-1	5	-9

BODC parameter code	Units	Definition	Minimum permissable value	Maximum permissable value	Absent data value
UTEMPEQ0	Degrees Celsius	Temperature (water at equilibrator top) by platinum resistance thermometer	-2	50	-9
XCO2DCEQ	Micromoles per mole	Mole fraction of carbon dioxide (in dry air) {xCO2} in the equilibrated marine sample by equilibration with air, drying and constant temperature non-dispersive infra-red gas analysis and computed from pCO2 following correction to dry air and calibration against standards	0	999	-9
XCO2DCMA	Micromoles per mole	Mole fraction of carbon dioxide (in dry air) {xCO2} in the atmosphere sample by drying and constant temperature non-dispersive infra-red gas analysis and computed from pCO2 following correction to dry air and calibration against standards	0	999	-9
XCO2DCS0	Micromoles per mole	Mole fraction of carbon dioxide (in dry air) in the nominal zero ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and computed from pCO2 following correction to dry air and calibration against standards	0	99	-9
XCO2DCS2	Micromoles per mole	Mole fraction of carbon dioxide (in dry air) in the nominal 250 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and computed from pCO2 following correction to dry air and calibration against standards	0	999	-9
XCO2DCS4	Micromoles per mole	Mole fraction of carbon dioxide (in dry air) in the nominal 450 ppm CO2 gas standard by constant temperature non-dispersive infra-red gas analysis and computed from pCO2 following correction to dry air and calibration against standards	0	999	-9