

\* =mandatory field)

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- **Dataset Info:\***
  - Dataset\_ID\*: GraysRf\_81W\_31N\_Jul2006\_Jun2007
  - **Submission Dates:\***
    - Initial\_Submission: 20120522 (YYYYMMDD)
    - Revised\_Submission: (YYYYMMDD)
- **Cruise Info:\***
  - **Experiment:**
    - Experiment\_Name\*:
    - **Cruise: ( - )**
      - Cruise\_ID: (EXPOCODE)
      - Section: (Leg)
      - **Geographical Coverage:\***
        - Geographical\_Region:
        - **Bounds:**
          - Westernmost\_Longitude:  
Enter decimal fractions of degrees:  
or Degrees, Minutes, Seconds:
          - Easternmost\_Longitude:  
Enter decimal fractions of degrees: - 80.87(+ = E, - = W)  
or Degrees, Minutes, Seconds:
          - Northernmost\_Latitude:  
Enter decimal fractions of degrees: +31.40 (+ = E, - = W)
          - Southernmost\_Latitude:  
Enter decimal fractions of degrees:
    - **Temporal Coverage:**
      - Start\_Date: 20060718 (YYYYMMDD)
      - End\_Date: 20070626 (YYYYMMDD)
- **Vessel:\*** Mooring platform
  - Vessel\_Name:
  - Vessel\_ID:
  - Country:
  - Vessel\_Owner:
- **Variables Info:\***
  - **Variable:**
    - Variable\_Name and Description\*:
- xCO<sub>2</sub> SW (wet) (umol/mol) - Mole fraction of CO<sub>2</sub> in air in equilibrium with the seawater at sea surface temperature and measured humidity.
- CO<sub>2</sub> SW QF – Quality Flag for xCO<sub>2</sub> SW (wet).
- H<sub>2</sub>O SW (mmol/mol) - Mole fraction of H<sub>2</sub>O in air from equilibrator.
- xCO<sub>2</sub> Air (wet) (umol/mol) - Mole fraction of CO<sub>2</sub> in air from airblock, 4 feet above the sea surface at measured humidity.
- CO<sub>2</sub> Air QF – Quality Flag for xCO<sub>2</sub> Air (wet)
- H<sub>2</sub>O Air (mmol/mol) - Mole fraction of H<sub>2</sub>O in air from airblock, 4 feet above the sea surface.

- Licor Atm Pressure (hPa) – Atmospheric pressure at the airblock, 4 feet above the sea surface
- Licor Temp (C) – Temperature of the Infrared Licor 820 in degrees Celsius
- % O<sub>2</sub> - The percent oxygen of the surface seawater divided by the percent oxygen of the atmosphere at 4 feet above the sea surface. Disclaimer: The oxygen measurement is made in the equilibrated air. We have found that the oxygen does not come to complete equilibrium so any rapid changes in oxygen do not get properly captured using this system. Therefore, we tend to use the oxygen data only as a qualitative sense of the biology. It is not a quantitative measure.
- SST (C) - Sea Surface Temperature measured by CTD (MicroCAT C-T Recorder). Temperature data is internally recorded and collected during the equilibration period. Data not post-calibrated. Annual drift for this deployment was minimal and does not impact the fCO<sub>2</sub> calculation (within the degree of accuracy of the CO<sub>2</sub> measurement). Contact us if you would like the CTD post-calibration information.
- Salinity - Sea Surface Salinity measured by CTD (MicroCAT C-T Recorder). Conductivity data is internally recorded and collected during the equilibration period. Data not post-calibrated. Annual drift for this deployment was minimal and does not impact the fCO<sub>2</sub> calculation (within the degree of accuracy of the CO<sub>2</sub> measurement). Contact us if you would like the CTD post-calibration information.
- xCO<sub>2</sub> SW (dry) (umol/mol) – Mole fraction of CO<sub>2</sub> in air in equilibrium with the seawater at sea surface temperature (dry air).
- xCO<sub>2</sub> Air (dry) (umol/mol) – Mole fraction of CO<sub>2</sub> in air at the airblock, 4 feet above the sea surface (dry air).
- fCO<sub>2</sub> SW (sat) uatm – Fugacity of CO<sub>2</sub> in air in equilibrium with the seawater at sea surface temperature (100% humidity). Since the measurements are taken at the sea surface, warming calculations are not necessary.
- fCO<sub>2</sub> Air (sat) uatm – Fugacity of CO<sub>2</sub> in air at the airblock, 4 feet above the sea surface (100% humidity).
- dfCO<sub>2</sub> – Difference of the fugacity of the CO<sub>2</sub> in seawater and the fugacity of the CO<sub>2</sub> in air (fCO<sub>2</sub> SW - fCO<sub>2</sub> Air).

- **Method\_Description:\***

- **Equilibrator\_Design:**

- Equilibrator\_Type: (show pick list) Bubble Equilibrator
    - Equilibrator\_Volume: (L) N/A
    - Water\_Flow\_Rate: (L/min) N/A
    - Headspace\_Gas\_Flow\_Rate: (L/min) ~600 cc/min
    - Vented: (show pick list) Yes

- Measurement\_Method: Absolute, non-dispersive infrared (NDIR) gas analyzer

- Manufacturer\_of\_Calibration\_Gas: NOAA Earth System Research Laboratory (ESRL)

- **CO<sub>2</sub>\_Sensors:**

- **CO<sub>2</sub>\_Sensor:**

- Manufacturer: Licor
      - Model: Environmental\_Control: LI-820
      - Resolution: 0.01 ppm
      - Uncertainty: < 2.5% of reading with 14 cm bench (stated)  
<1.5 ppm determined in lab
    - CO<sub>2</sub>\_Sensor\_Calibration: (For each calibration gas, document traceability to an internationally recognized scale, including date and place of last calibration. Include uncertainty of assigned value.)

At the beginning of each sample, the instrument self-calibrates using a zero and high standard. The zero standard is generated by cycling a small amount of air through a soda lime chamber. The high standard is from a cylinder of calibrated standard reference gas, 504.3 umol/mol from ESRL. ESRL

standards are traceable to WMO x93 scale with a stated reproducibility of 0.06 micromole/mole.

- **Other\_Sensors:**
  - Manufacturer: Oxygen Sensor  
Maxtec
  - Model: Max-250
  - Resolution: 0.01 %
  - Uncertainty:  $\pm 2.0\%$  Full Scale over operating temperature range  
 $\pm 1.0\%$  Full Scale @ constant temperature and pressure
  - Calibration: (For each sensor of pressure, temperature, and salinity, document traceability to an internationally recognized scale, including date and place of last calibration.)  
Factory calibrated before purchase. Recalibrated to sea level atmospheric air every 7 days.
- **Other\_Sensors:**
  - Manufacturer: Humidity Sensor  
Sensirion
  - Model: SHT71
  - Resolution: 0.01 %
  - Uncertainty: Measurement range: 0-100% RH  
Absolute RH accuracy:  $\pm 3\%$  RH (20-80% RH)  
Repeatability RH:  $\pm 0.1\%$  RH
  - Calibration: (For each sensor of pressure, temperature, and salinity, document traceability to an internationally recognized scale, including date and place of last calibration.)  
Factory calibrated before purchase.
- Method\_References: (Publication(s) describing method)

Sabine, C. (2005): High-resolution ocean and atmosphere pCO<sub>2</sub> time-series measurements. The State of the Ocean and the Ocean Observing System for Climate, Annual Report, Fiscal Year 2004, NOAA/OGP/Office of Climate Observation, Section 3.32a, 246–253.

- Additional Information

- All measurements are at sea surface temperature and atmospheric pressure.
- During the equilibration cycle, a closed loop of air equilibrates with seawater for 10 minutes. Once the equilibration period is complete, the pump stops and the system opens to the atmosphere allowing the pressure to equilibrate with atmospheric pressure. Measurements are recorded for 30 seconds at 2 hertz and then averaged.
- During the air cycle, fresh air is pumped through the detector for 1 minute. Once the pump stops, the system opens to the atmosphere allowing the pressure to equilibrate with atmospheric pressure. Measurements are recorded for 30 seconds at 2 hertz and then averaged.
- The gas streams for both the air cycle and equilibrator cycle are partially dried before entering the detector. The values listed as wet xCO<sub>2</sub> generally have relative humidity levels ranging from 40 to 80 percent. The humidity levels increase over the course of a deployment.
- Sampling occurs every 3 hours. The infrared detector is calibrated at the beginning of every sampling period. Averaged data and standard deviations for each measurement are transmitted back daily.
- To calculate the dry measurements, the water mole fraction in the Licor detector must be known. A relative humidity sensor is located immediately downstream of the detector.

- As part of the QC process, each data set is compared with the Marine Boundary Layer (MBL) data from GlobalView-CO<sub>2</sub>. The data from this deployment were  $5.0 \pm 7.4$  umol/mol on average of the MBL data and therefore no correction was applied.

GLOBALVIEW-CO<sub>2</sub>: Cooperative Atmospheric Data Integration Project - Carbon Dioxide. CD-ROM, NOAA ESRL, Boulder, Colorado [Also available on Internet via anonymous FTP to ftp.cmdl.noaa.gov, Path: ccg/co2/GLOBALVIEW], 2010

-During the QC process, an adjustment to the Licor pressure is typically made based on each sensor's bias to barometric pressure as measured in the lab. For this system, the Licor pressure was adjusted by +0.1 kPa.

- No data = -9.999 or -999

- Data\_set\_References: (Publication(s) describing data set) None
- Citation: (How to cite this data set) Sabine, C., A. Sutton, W.-J. Cai, S. Noakes, S. Musielewicz, S. Maenner, and R. Bott. 2012. High-resolution ocean and atmosphere pCO<sub>2</sub> time-series measurements from Gray's Reef mooring.
- **Data\_Set\_Link:**
- URL\*: <http://www.pmel.noaa.gov/co2/story/Grays+Reef>
- Label\*: **PMEL CO2 Group – Gray's Reef mooring** 
  - Link\_Note: (Optional instructions or remarks)(m s t)

Quality Flags definitions:

- 2 = Acceptable measurement;
- 3 = Questionable measurement;
- 4 = Bad measurement
- 5 = Not reported;
- 9 = Sample not drawn for this measurement from this bottle.

#### Quality Flag Log for this dataset.

Date	Measurement	Value (Dry)	Flag	Comments
7/22/2006 21:16	xCO <sub>2</sub> _SW	448.2489467	4	bad CO2 sw measurement due to equilibrator pressure problem
7/24/2006 21:16	xCO <sub>2</sub> _SW	416.8735425	3	likely bad CO2 sw measurement due to equilibrator pressure problem
7/25/2006 0:16	xCO <sub>2</sub> _SW	419.2847201	3	likely bad CO2 sw measurement due to equilibrator pressure problem
9/11/2006 21:16	xCO <sub>2</sub> _SW	521.1773489	4	bad CO2 sw measurement due to equilibrator pressure problem
10/12/2006 3:16	xCO <sub>2</sub> _SW	388.7030038	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature
10/12/2006 3:16	xCO <sub>2</sub> _Air	381.6810787	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature
10/16/2006 3:16	xCO <sub>2</sub> _SW	362.4628281	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature
10/16/2006 3:16	xCO <sub>2</sub> _Air	380.8335389	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature
10/20/2006 3:16	xCO <sub>2</sub> _SW	359.9411939	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature

10/20/2006 3:16	xCO2_Air	388.4421732	3	CO2 data submitted was adjusted by + 5 ppm b/c span calibration was off as predicted by change in Licor temperature
10/24/2006 0:16	xCO2_SW	377.174748	4	bad CO2 sw measurement due to equilibrator pressure problem
10/24/2006 6:16	xCO2_SW	382.3578643	4	bad CO2 sw measurement due to equilibrator pressure problem
10/28/2006 0:16	xCO2_SW	370.1124037	4	bad CO2 sw measurement due to equilibrator pressure problem
10/28/2006 3:16	xCO2_SW	348.4470272	4	bad CO2 sw measurement due to equilibrator pressure problem
11/4/2006 6:16	xCO2_SW	356.8114397	4	bad CO2 sw measurement due to equilibrator pressure problem
11/5/2006 9:16	xCO2_SW	350.7093625	4	bad CO2 sw measurement due to equilibrator pressure problem
11/21/2006 3:16	xCO2_SW	375.3196033	4	bad CO2 sw measurement due to equilibrator pressure problem
11/21/2006 6:16	xCO2_SW	316.5620995	4	bad CO2 sw measurement due to equilibrator pressure problem
11/21/2006 9:16	xCO2_SW	353.6620792	4	bad CO2 sw measurement due to equilibrator pressure problem
11/21/2006 12:16	xCO2_SW	327.0287183	4	bad CO2 sw measurement due to equilibrator pressure problem
11/21/2006 15:16	xCO2_SW	368.4553637	4	bad CO2 sw measurement due to equilibrator pressure problem
11/24/2006 12:16	xCO2_SW	281.3096009	3	CO2 data submitted was adjusted by - 8 ppm b/c span calibration was off as predicted by change in Licor temperature
11/24/2006 12:16	xCO2_Air	391.9680018	3	CO2 data submitted was adjusted by - 8 ppm b/c span calibration was off as predicted by change in Licor temperature
12/9/2006 12:16	xCO2_SW	288.0282543	3	CO2 data submitted was adjusted by - 6 ppm b/c span calibration was off as predicted by change in Licor temperature
12/9/2006 12:16	xCO2_Air	388.3216203	3	CO2 data submitted was adjusted by - 6 ppm b/c span calibration was off as predicted by change in Licor temperature
1/12/2007 18:16	xCO2_SW	319.7833692	3	CO2 data submitted was adjusted by - 3 ppm b/c span calibration was off as predicted by change in Licor temperature
1/12/2007 18:16	xCO2_Air	386.2272332	3	CO2 data submitted was adjusted by - 3 ppm b/c span calibration was off as predicted by change in Licor temperature
1/15/2007 6:16	xCO2_SW	325.4616471	3	CO2 data submitted was adjusted by - 3 ppm b/c span calibration was off as predicted by change in Licor temperature
1/15/2007 6:16	xCO2_Air	382.4531475	3	CO2 data submitted was adjusted by - 3 ppm b/c span calibration was off as predicted by change in Licor temperature
3/10/2007 0:16	xCO2_SW	367.798562	4	bad CO2 sw measurement due to equilibrator pressure problem
4/7/2007 6:16	xCO2_SW	396.2512534	4	bad CO2 sw measurement due to equilibrator pressure problem
4/7/2007 9:16	xCO2_SW	385.2379789	4	bad CO2 sw measurement due to equilibrator pressure problem
4/12/2007 18:16	xCO2_SW	429.4057905	4	bad CO2 sw measurement due to equilibrator pressure problem
4/15/2007 9:16	xCO2_SW	448.8632851	4	bad CO2 sw measurement due to equilibrator pressure problem
4/15/2007 12:16	xCO2_SW	432.656506	4	bad CO2 sw measurement due to equilibrator pressure problem
4/15/2007 18:16	xCO2_SW	430.5457173	4	bad CO2 sw measurement due to equilibrator pressure problem
4/16/2007 0:16	xCO2_SW	420.3280706	4	bad CO2 sw measurement due to equilibrator pressure problem
4/16/2007 3:16	xCO2_SW	419.0461691	4	bad CO2 sw measurement due to equilibrator pressure problem

4/16/2007 6:16	xCO2_SW	421.4689447	4	bad CO2 sw measurement due to equilibrator pressure problem
4/16/2007 15:16	xCO2_SW	425.9173496	4	bad CO2 sw measurement due to equilibrator pressure problem
4/16/2007 18:16	xCO2_SW	418.2711348	4	bad CO2 sw measurement due to equilibrator pressure problem
4/20/07 9:16	xCO2_SW	388.7463187	4	bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 3:16	xCO2_SW	329.2574528	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 6:16	xCO2_SW	331.7701318	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 9:16	xCO2_SW	330.4739046	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 12:16	xCO2_SW	335.7034294	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 15:16	xCO2_SW	328.4262171	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 18:16	xCO2_SW	335.3789153	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/27/2007 21:16	xCO2_SW	325.7105161	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 0:16	xCO2_SW	303.73157	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 3:16	xCO2_SW	312.4634234	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 6:16	xCO2_SW	323.3318496	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 9:16	xCO2_SW	325.7176538	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 12:16	xCO2_SW	322.9122227	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 15:16	xCO2_SW	322.8271295	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 18:16	xCO2_SW	326.2270814	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/28/2007 21:16	xCO2_SW	322.0109587	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 0:16	xCO2_SW	313.653683	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 3:16	xCO2_SW	312.6797374	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 6:16	xCO2_SW	313.5354546	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 9:16	xCO2_SW	310.6599059	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 12:16	xCO2_SW	309.5298492	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 15:16	xCO2_SW	311.924645	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 18:16	xCO2_SW	333.6813722	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/29/2007 21:16	xCO2_SW	328.3069319	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 0:16	xCO2_SW	309.4638606	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 3:16	xCO2_SW	302.2482763	3	likely bad CO2 sw measurement due to equilibrator pressure problem

4/30/2007 6:16	xCO2_SW	302.6227249	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 9:16	xCO2_SW	310.0333965	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 12:16	xCO2_SW	312.3708383	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 15:16	xCO2_SW	319.2994066	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 18:16	xCO2_SW	337.1161727	3	likely bad CO2 sw measurement due to equilibrator pressure problem
4/30/2007 21:16	xCO2_SW	326.6252681	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 0:16	xCO2_SW	307.2773788	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 3:16	xCO2_SW	308.9031375	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 6:16	xCO2_SW	318.0210238	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 9:16	xCO2_SW	321.6340086	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 12:16	xCO2_SW	327.1243002	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 15:16	xCO2_SW	320.9294357	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 18:16	xCO2_SW	313.2959039	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/1/2007 21:16	xCO2_SW	313.2299547	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 0:16	xCO2_SW	323.334979	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 3:16	xCO2_SW	317.5313422	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 6:16	xCO2_SW	285.4233149	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 9:16	xCO2_SW	276.334767	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 12:16	xCO2_SW	279.0349059	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 15:16	xCO2_SW	260.9194018	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 18:16	xCO2_SW	283.2093864	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/2/2007 21:16	xCO2_SW	269.6344124	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 0:16	xCO2_SW	249.9803778	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 3:16	xCO2_SW	252.8542108	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 6:16	xCO2_SW	249.2565478	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 9:16	xCO2_SW	251.2151331	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 12:16	xCO2_SW	254.5850157	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 15:16	xCO2_SW	256.232467	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/3/2007 18:16	xCO2_SW	261.5965404	3	likely bad CO2 sw measurement due to equilibrator pressure problem



5/3/2007 21:16	xCO2_SW pressure problem	254.1601773	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 0:16	xCO2_SW pressure problem	242.5426865	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 3:16	xCO2_SW pressure problem	256.3595154	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 6:16	xCO2_SW pressure problem	264.0542215	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 9:16	xCO2_SW pressure problem	282.4128318	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 12:16	xCO2_SW pressure problem	280.7393876	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 15:16	xCO2_SW pressure problem	256.5228629	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 18:16	xCO2_SW pressure problem	258.6099611	3	likely bad CO2 sw measurement due to equilibrator
5/4/2007 21:16	xCO2_SW pressure problem	239.1866362	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 0:16	xCO2_SW pressure problem	245.3757244	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 3:16	xCO2_SW pressure problem	269.3501406	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 6:16	xCO2_SW pressure problem	277.8638191	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 9:16	xCO2_SW pressure problem	272.7290278	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 12:16	xCO2_SW pressure problem	278.1166698	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 15:16	xCO2_SW pressure problem	298.8719121	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 18:16	xCO2_SW pressure problem	294.4633247	3	likely bad CO2 sw measurement due to equilibrator
5/5/2007 21:16	xCO2_SW pressure problem	291.1476876	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 0:16	xCO2_SW pressure problem	311.0629998	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 3:16	xCO2_SW pressure problem	329.828586	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 6:16	xCO2_SW pressure problem	325.3901064	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 9:16	xCO2_SW pressure problem	295.3933951	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 12:16	xCO2_SW pressure problem	296.4379507	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 15:16	xCO2_SW pressure problem	280.888348	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 18:16	xCO2_SW pressure problem	312.8323663	3	likely bad CO2 sw measurement due to equilibrator
5/6/2007 21:16	xCO2_SW problem	382.9161054	4	bad CO2 sw measurement due to equilibrator pressure
5/7/2007 0:16	xCO2_SW problem	339.6188593	4	bad CO2 sw measurement due to equilibrator pressure
5/7/2007 3:16	xCO2_SW problem	389.1224938	4	bad CO2 sw measurement due to equilibrator pressure
5/7/2007 6:16	xCO2_SW problem	359.0387035	4	bad CO2 sw measurement due to equilibrator pressure
5/7/2007 9:16	xCO2_SW problem	376.3837514	4	bad CO2 sw measurement due to equilibrator pressure



5/7/2007 12:16	xCO2_SW	346.239838	4	bad CO2 sw measurement due to equilibrator pressure problem
5/7/2007 15:16	xCO2_SW	382.9630868	4	bad CO2 sw measurement due to equilibrator pressure problem
5/7/2007 18:16	xCO2_SW	360.8511626	4	bad CO2 sw measurement due to equilibrator pressure problem
5/7/2007 21:16	xCO2_SW	341.7837989	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 0:16	xCO2_SW	341.0833878	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 3:16	xCO2_SW	347.8050025	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 6:16	xCO2_SW	372.1871069	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 9:16	xCO2_SW	381.3152048	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 12:16	xCO2_SW	342.804027	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 15:16	xCO2_SW	351.5873956	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 18:16	xCO2_SW	362.4434137	4	bad CO2 sw measurement due to equilibrator pressure problem
5/8/2007 21:16	xCO2_SW	353.6880335	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 0:16	xCO2_SW	397.9628412	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 3:16	xCO2_SW	366.1959834	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 6:16	xCO2_SW	372.2175596	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 9:16	xCO2_SW	371.6327425	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 12:16	xCO2_SW	416.366858	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 15:16	xCO2_SW	413.2922308	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 18:16	xCO2_SW	406.1520442	4	bad CO2 sw measurement due to equilibrator pressure problem
5/9/2007 21:16	xCO2_SW	385.9904084	4	bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 0:16	xCO2_SW	395.4900347	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 3:16	xCO2_SW	396.5653483	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 6:16	xCO2_SW	393.5773239	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 9:16	xCO2_SW	400.108878	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 12:16	xCO2_SW	402.2732479	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 15:16	xCO2_SW	406.4618911	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 18:16	xCO2_SW	396.9716156	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/10/2007 21:16	xCO2_SW	398.0297007	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 0:16	xCO2_SW	401.1047154	3	likely bad CO2 sw measurement due to equilibrator pressure problem

5/11/2007 3:16	xCO2_SW	405.2046027	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 6:16	xCO2_SW	408.8157869	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 9:16	xCO2_SW	407.2386945	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 12:16	xCO2_SW	408.2273447	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 15:16	xCO2_SW	406.7597341	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 18:16	xCO2_SW	411.6602817	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/11/2007 21:16	xCO2_SW	407.4437859	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 0:16	xCO2_SW	399.5536496	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 3:16	xCO2_SW	403.902418	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 6:16	xCO2_SW	404.3006442	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 9:16	xCO2_SW	410.1945922	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 12:16	xCO2_SW	407.1067688	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 15:16	xCO2_SW	414.6052833	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 18:16	xCO2_SW	414.0122293	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/12/2007 21:16	xCO2_SW	421.7316562	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 0:16	xCO2_SW	409.5273221	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 3:16	xCO2_SW	402.8200722	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 6:16	xCO2_SW	403.5234067	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 9:16	xCO2_SW	407.8175025	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 12:16	xCO2_SW	403.4715272	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 15:16	xCO2_SW	409.4410773	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 18:16	xCO2_SW	414.4694341	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/13/2007 21:16	xCO2_SW	412.1975935	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 0:16	xCO2_SW	403.4981001	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 3:16	xCO2_SW	399.8084498	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 6:16	xCO2_SW	399.5117203	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 9:16	xCO2_SW	400.0992692	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 12:16	xCO2_SW	395.7809168	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 15:16	xCO2_SW	402.0815442	3	likely bad CO2 sw measurement due to equilibrator pressure problem

5/14/2007 18:16	xCO2_SW	385.7759564	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/14/2007 21:16	xCO2_SW	385.2233291	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 0:16	xCO2_SW	386.5438906	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 3:16	xCO2_SW	386.7913082	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 6:16	xCO2_SW	379.2970919	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 9:16	xCO2_SW	390.4609704	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 12:16	xCO2_SW	396.5187807	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 15:16	xCO2_SW	391.7394863	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 18:16	xCO2_SW	400.5430729	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/15/2007 21:16	xCO2_SW	392.4575912	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 0:16	xCO2_SW	391.3921316	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 3:16	xCO2_SW	385.1880187	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 6:16	xCO2_SW	382.7948867	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 9:16	xCO2_SW	385.271647	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 12:16	xCO2_SW	401.2055451	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 15:16	xCO2_SW	402.6030032	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 18:16	xCO2_SW	409.6138038	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/16/2007 21:16	xCO2_SW	397.3534579	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 0:16	xCO2_SW	393.2865456	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 3:16	xCO2_SW	396.565842	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 6:16	xCO2_SW	388.9243286	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 9:16	xCO2_SW	393.7409235	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 12:16	xCO2_SW	404.432379	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 15:16	xCO2_SW	399.1330884	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 18:16	xCO2_SW	380.4299162	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/17/2007 21:16	xCO2_SW	360.656931	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 0:16	xCO2_SW	395.8994654	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 3:16	xCO2_SW	395.4194081	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 6:16	xCO2_SW	391.3336768	3	likely bad CO2 sw measurement due to equilibrator pressure problem

5/18/2007 9:16	xCO2_SW	385.191155	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 12:16	xCO2_SW	391.1131999	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 15:16	xCO2_SW	389.1927215	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 18:16	xCO2_SW	383.35447	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/18/2007 21:16	xCO2_SW	377.2882517	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 0:16	xCO2_SW	391.099674	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 3:16	xCO2_SW	394.8185957	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 6:16	xCO2_SW	380.4786175	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 9:16	xCO2_SW	374.9434485	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 12:16	xCO2_SW	385.8668713	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 15:16	xCO2_SW	387.2762458	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 18:16	xCO2_SW	379.7533511	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/19/2007 21:16	xCO2_SW	357.8395124	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 0:16	xCO2_SW	374.4614623	3	CO2 data submitted was adjusted by + 18 ppm b/c span calibration was off as predicted by change in Licor temperature
5/20/2007 0:16	xCO2_Air	381.3801627	3	CO2 data submitted was adjusted by + 18 ppm b/c span calibration was off as predicted by change in Licor temperature
5/20/2007 3:16	xCO2_SW	389.6954218	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 6:16	xCO2_SW	380.7573718	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 9:16	xCO2_SW	366.655396	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 12:16	xCO2_SW	375.4534386	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 15:16	xCO2_SW	399.1421595	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 18:16	xCO2_SW	417.8069893	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/20/2007 21:16	xCO2_SW	411.1867006	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 0:16	xCO2_SW	356.908367	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 3:16	xCO2_SW	378.6308101	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 6:16	xCO2_SW	379.2065847	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 9:16	xCO2_SW	366.3447989	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 12:16	xCO2_SW	368.7074087	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 15:16	xCO2_SW	388.7676218	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/21/2007 18:16	xCO2_SW	397.7547823	3	likely bad CO2 sw measurement due to equilibrator pressure problem

5/21/2007 21:16	xCO2_SW	380.5770912	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 0:16	xCO2_SW	369.6114382	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 3:16	xCO2_SW	380.0033173	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 6:16	xCO2_SW	397.0080844	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 9:16	xCO2_SW	371.6401988	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 12:16	xCO2_SW	358.0412625	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 15:16	xCO2_SW	388.7476258	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 18:16	xCO2_SW	401.2052243	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/22/2007 21:16	xCO2_SW	388.4506626	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 0:16	xCO2_SW	364.0182611	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 3:16	xCO2_SW	378.9173436	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 6:16	xCO2_SW	391.5747041	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 9:16	xCO2_SW	381.8846597	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 12:16	xCO2_SW	360.0551243	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 15:16	xCO2_SW	367.4993589	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 18:16	xCO2_SW	378.9739834	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/23/2007 21:16	xCO2_SW	374.7349068	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 0:16	xCO2_SW	367.3425214	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 3:16	xCO2_SW	370.870809	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 6:16	xCO2_SW	382.3536522	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 9:16	xCO2_SW	376.6847973	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 12:16	xCO2_SW	364.278688	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 15:16	xCO2_SW	346.9050655	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 18:16	xCO2_SW	363.5048381	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/24/2007 21:16	xCO2_SW	360.5657495	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 0:16	xCO2_SW	347.0542544	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 3:16	xCO2_SW	361.3250916	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 6:16	xCO2_SW	370.2642688	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 9:16	xCO2_SW	370.339113	3	likely bad CO2 sw measurement due to equilibrator pressure problem

5/25/2007 12:16	xCO2_SW	345.583794	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 15:16	xCO2_SW	339.7126815	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 18:16	xCO2_SW	364.051988	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/25/2007 21:16	xCO2_SW	371.2603638	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 0:16	xCO2_SW	357.3700842	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 3:16	xCO2_SW	348.5316591	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 6:16	xCO2_SW	364.880115	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 9:16	xCO2_SW	369.1731526	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 12:16	xCO2_SW	359.6085298	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 15:16	xCO2_SW	340.1891347	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 18:16	xCO2_SW	352.2405914	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/26/2007 21:16	xCO2_SW	377.8766317	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 0:16	xCO2_SW	358.2613946	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 3:16	xCO2_SW	327.3571174	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 6:16	xCO2_SW	341.7900981	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 9:16	xCO2_SW	363.4599787	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 12:16	xCO2_SW	352.9242872	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 15:16	xCO2_SW	327.0535958	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 18:16	xCO2_SW	338.3166231	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/27/2007 21:16	xCO2_SW	375.0604151	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 0:16	xCO2_SW	380.9795682	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 3:16	xCO2_SW	359.5784748	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 6:16	xCO2_SW	370.4118058	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 9:16	xCO2_SW	388.6253274	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 12:16	xCO2_SW	385.644861	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 15:16	xCO2_SW	348.8985631	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 18:16	xCO2_SW	357.8222227	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/28/2007 21:16	xCO2_SW	396.9947444	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 0:16	xCO2_SW	409.1135883	3	likely bad CO2 sw measurement due to equilibrator pressure problem



5/29/2007 3:16	xCO2_SW	363.0616408	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 6:16	xCO2_SW	341.3855314	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 9:16	xCO2_SW	375.319669	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 12:16	xCO2_SW	383.4008623	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 15:16	xCO2_SW	345.804479	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 18:16	xCO2_SW	335.4479442	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/29/2007 21:16	xCO2_SW	373.8936041	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 0:16	xCO2_SW	391.1478296	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 3:16	xCO2_SW	354.8588307	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 6:16	xCO2_SW	336.4748402	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 9:16	xCO2_SW	352.7035648	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 12:16	xCO2_SW	371.8641605	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 15:16	xCO2_SW	360.3166488	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 18:16	xCO2_SW	333.4131163	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/30/2007 21:16	xCO2_SW	357.4202043	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 0:16	xCO2_SW	390.9368376	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 3:16	xCO2_SW	362.4011885	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 6:16	xCO2_SW	332.0629241	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 9:16	xCO2_SW	355.4026747	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 12:16	xCO2_SW	379.2022877	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 15:16	xCO2_SW	374.5460874	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 18:16	xCO2_SW	374.8340823	3	likely bad CO2 sw measurement due to equilibrator pressure problem
5/31/2007 21:16	xCO2_SW	407.0114429	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 0:16	xCO2_SW	418.8784887	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 3:16	xCO2_SW	389.6337225	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 6:16	xCO2_SW	371.6989188	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 9:16	xCO2_SW	362.4447668	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 12:16	xCO2_SW	398.3328537	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/1/2007 15:16	xCO2_SW	390.5342637	3	likely bad CO2 sw measurement due to equilibrator pressure problem



6/1/2007 18:16 xCO2_SW pressure problem	363.3005711	3	likely bad CO2 sw measurement due to equilibrator
6/1/2007 21:16 xCO2_SW pressure problem	358.6548621	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 0:16 xCO2_SW pressure problem	397.683957	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 3:16 xCO2_SW pressure problem	392.7814323	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 6:16 xCO2_SW pressure problem	356.6080813	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 9:16 xCO2_SW pressure problem	352.4578483	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 12:16 xCO2_SW pressure problem	387.0743545	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 15:16 xCO2_SW pressure problem	394.7580075	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 18:16 xCO2_SW pressure problem	384.4261908	3	likely bad CO2 sw measurement due to equilibrator
6/2/2007 21:16 xCO2_SW problem	410.2168802	4	bad CO2 sw measurement due to equilibrator pressure
6/3/2007 0:16 xCO2_SW pressure problem	374.9627787	3	likely bad CO2 sw measurement due to equilibrator
6/3/2007 3:16 xCO2_SW pressure problem	376.8669641	3	likely bad CO2 sw measurement due to equilibrator
6/3/2007 6:16 xCO2_SW pressure problem	398.4704569	3	likely bad CO2 sw measurement due to equilibrator
6/3/2007 9:16 xCO2_SW problem	417.325713	4	bad CO2 sw measurement due to equilibrator pressure
6/3/2007 12:16 xCO2_SW problem	420.3931642	4	bad CO2 sw measurement due to equilibrator pressure
6/3/2007 15:16 xCO2_SW problem	419.4362099	4	bad CO2 sw measurement due to equilibrator pressure
6/3/2007 18:16 xCO2_SW pressure problem	353.1949918	3	likely bad CO2 sw measurement due to equilibrator
6/3/2007 21:16 xCO2_SW pressure problem	324.5950513	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 0:16 xCO2_SW pressure problem	354.3358735	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 3:16 xCO2_SW pressure problem	357.186607	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 6:16 xCO2_SW pressure problem	334.6633377	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 9:16 xCO2_SW pressure problem	317.460538	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 12:16 xCO2_SW pressure problem	330.9920283	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 15:16 xCO2_SW pressure problem	359.5256918	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 18:16 xCO2_SW pressure problem	319.9564628	3	likely bad CO2 sw measurement due to equilibrator
6/4/2007 21:16 xCO2_SW pressure problem	313.1870409	3	likely bad CO2 sw measurement due to equilibrator
6/5/2007 0:16 xCO2_SW pressure problem	350.9921287	3	likely bad CO2 sw measurement due to equilibrator
6/5/2007 3:16 xCO2_SW pressure problem	411.8294579	3	likely bad CO2 sw measurement due to equilibrator
6/5/2007 6:16 xCO2_SW pressure problem	395.0182026	3	likely bad CO2 sw measurement due to equilibrator

6/5/2007 9:16	xCO2_SW	361.6025806	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/5/2007 12:16	xCO2_SW	394.3620165	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/5/2007 15:16	xCO2_SW	409.8744571	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/5/2007 18:16	xCO2_SW	394.3530648	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/5/2007 21:16	xCO2_SW	350.7085013	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 0:16	xCO2_SW	373.6758789	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 3:16	xCO2_SW	402.872119	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 6:16	xCO2_SW	401.9935446	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 9:16	xCO2_SW	389.9281894	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 12:16	xCO2_SW	390.0267754	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 15:16	xCO2_SW	407.5312541	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 18:16	xCO2_SW	413.314836	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/6/2007 21:16	xCO2_SW	375.005867	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 0:16	xCO2_SW	335.3795404	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 3:16	xCO2_SW	378.3730996	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 6:16	xCO2_SW	403.5809613	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 9:16	xCO2_SW	369.4653201	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 12:16	xCO2_SW	370.0970409	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 15:16	xCO2_SW	384.6874255	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 18:16	xCO2_SW	402.8240942	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/7/2007 21:16	xCO2_SW	373.5225574	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 0:16	xCO2_SW	364.059009	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 3:16	xCO2_SW	376.9749267	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 6:16	xCO2_SW	403.5204847	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 9:16	xCO2_SW	378.0250671	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 12:16	xCO2_SW	336.4258291	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 15:16	xCO2_SW	348.1013757	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 18:16	xCO2_SW	393.2047047	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/8/2007 21:16	xCO2_SW	369.2517222	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				

6/9/2007 0:16	xCO2_SW	320.1761323	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 3:16	xCO2_SW	339.6475002	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 6:16	xCO2_SW	355.8942087	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 9:16	xCO2_SW	307.748694	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 12:16	xCO2_SW	285.4422652	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 15:16	xCO2_SW	253.5086126	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 18:16	xCO2_SW	294.4376043	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/9/2007 21:16	xCO2_SW	295.0266566	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/10/2007 0:16	xCO2_SW	275.2394311	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/10/2007 3:16	xCO2_SW	298.6907978	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/10/2007 6:16	xCO2_SW	318.1070995	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/10/2007 9:16	xCO2_SW	342.7541915	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/10/2007 12:16	xCO2_SW	338.0918607	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/10/2007 15:16	xCO2_SW	328.6603992	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/10/2007 18:16	xCO2_SW	339.7894938	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/10/2007 21:16	xCO2_SW	320.206259	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/11/2007 0:16	xCO2_SW	340.1269547	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/11/2007 3:16	xCO2_SW	343.47502	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/11/2007 6:16	xCO2_SW	345.9357104	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/11/2007 9:16	xCO2_SW	351.3198058	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/11/2007 12:16	xCO2_SW	359.3143398	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/11/2007 15:16	xCO2_SW	331.1062792	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/11/2007 18:16	xCO2_SW	326.3720483	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/11/2007 21:16	xCO2_SW	346.9352252	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				
6/12/2007 0:16	xCO2_SW	360.2196543	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/12/2007 3:16	xCO2_SW	351.9734718	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/12/2007 6:16	xCO2_SW	338.6296477	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/12/2007 9:16	xCO2_SW	342.6606139	3	likely bad CO2 sw measurement due to equilibrator
pressure problem				
6/12/2007 12:16	xCO2_SW	355.3130961	3	likely bad CO2 sw measurement due to
equilibrator pressure problem				

6/12/2007 15:16	xCO2_SW	334.0939939	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/12/2007 18:16	xCO2_SW	341.3604483	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/12/2007 21:16	xCO2_SW	371.0934697	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 0:16	xCO2_SW	359.415717	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 3:16	xCO2_SW	339.5735317	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 6:16	xCO2_SW	340.8015748	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 9:16	xCO2_SW	362.8266711	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 12:16	xCO2_SW	395.8873557	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 15:16	xCO2_SW	403.9612313	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 18:16	xCO2_SW	409.4356718	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/13/2007 21:16	xCO2_SW	432.9798616	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 0:16	xCO2_SW	437.927817	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 3:16	xCO2_SW	408.5906116	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 6:16	xCO2_SW	418.4881896	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 9:16	xCO2_SW	431.648659	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 12:16	xCO2_SW	449.029732	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 15:16	xCO2_SW	444.5998551	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 18:16	xCO2_SW	417.2998628	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/14/2007 21:16	xCO2_SW	437.2126159	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 0:16	xCO2_SW	459.5050446	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 3:16	xCO2_SW	449.9055872	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 6:16	xCO2_SW	415.9678056	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 9:16	xCO2_SW	419.4986193	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 12:16	xCO2_SW	437.0055094	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 15:16	xCO2_SW	423.0556599	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 18:16	xCO2_SW	395.9013207	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/15/2007 21:16	xCO2_SW	414.1563331	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 0:16	xCO2_SW	450.2389176	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 3:16	xCO2_SW	442.2451456	3	likely bad CO2 sw measurement due to equilibrator pressure problem

6/16/2007 6:16	xCO2_SW	409.859411	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 9:16	xCO2_SW	421.9889665	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 12:16	xCO2_SW	447.2130067	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 15:16	xCO2_SW	449.8972603	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 18:16	xCO2_SW	432.8949313	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/16/2007 21:16	xCO2_SW	434.1798342	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 0:16	xCO2_SW	447.6428965	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 3:16	xCO2_SW	450.7144258	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 6:16	xCO2_SW	431.8252105	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 9:16	xCO2_SW	405.2319931	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 12:16	xCO2_SW	440.2075623	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 15:16	xCO2_SW	461.299048	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 18:16	xCO2_SW	438.8443469	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/17/2007 21:16	xCO2_SW	408.091082	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 0:16	xCO2_SW	427.077023	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 3:16	xCO2_SW	458.8516014	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 6:16	xCO2_SW	448.5499066	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 9:16	xCO2_SW	436.2610522	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 12:16	xCO2_SW	459.9274321	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 15:16	xCO2_SW	472.9853978	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 18:16	xCO2_SW	463.305778	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/18/2007 21:16	xCO2_SW	437.7752936	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 0:16	xCO2_SW	442.6278156	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 3:16	xCO2_SW	443.7439691	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 6:16	xCO2_SW	446.6855359	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 9:16	xCO2_SW	432.5417518	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 12:16	xCO2_SW	444.0498715	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 15:16	xCO2_SW	461.0873974	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/19/2007 18:16	xCO2_SW	449.4591239	3	likely bad CO2 sw measurement due to equilibrator pressure problem

6/19/2007 21:16	xCO2_SW	433.484323	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 0:16	xCO2_SW	437.6766768	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 3:16	xCO2_SW	438.3408028	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 6:16	xCO2_SW	444.7511198	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 9:16	xCO2_SW	449.8523735	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 12:16	xCO2_SW	417.848658	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 15:16	xCO2_SW	419.5001022	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 18:16	xCO2_SW	416.4683357	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/20/2007 21:16	xCO2_SW	363.0283277	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 0:16	xCO2_SW	336.2994124	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 3:16	xCO2_SW	365.492629	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 6:16	xCO2_SW	415.1219053	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 9:16	xCO2_SW	416.6680936	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 12:16	xCO2_SW	423.0195169	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 15:16	xCO2_SW	445.2097247	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 18:16	xCO2_SW	457.5203249	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/21/2007 21:16	xCO2_SW	459.6960695	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 0:16	xCO2_SW	453.9770803	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 3:16	xCO2_SW	454.3292376	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 6:16	xCO2_SW	452.5505196	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 9:16	xCO2_SW	460.9865361	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 12:16	xCO2_SW	454.853893	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 15:16	xCO2_SW	451.7817026	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 18:16	xCO2_SW	455.0718756	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/22/2007 21:16	xCO2_SW	456.3363337	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 0:16	xCO2_SW	445.9558313	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 3:16	xCO2_SW	442.2760555	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 6:16	xCO2_SW	450.1905175	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 9:16	xCO2_SW	457.6199742	3	likely bad CO2 sw measurement due to equilibrator pressure problem



6/23/2007 12:16	xCO2_SW	459.0044987	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 15:16	xCO2_SW	458.1853087	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 18:16	xCO2_SW	486.6139778	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/23/2007 21:16	xCO2_SW	465.7754109	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 0:16	xCO2_SW	448.7871442	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 3:16	xCO2_SW	451.7290574	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 6:16	xCO2_SW	458.6568969	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 9:16	xCO2_SW	462.4031543	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 12:16	xCO2_SW	461.783909	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 15:16	xCO2_SW	450.4250253	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 18:16	xCO2_SW	463.4971776	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/24/2007 21:16	xCO2_SW	457.9512134	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 0:16	xCO2_SW	437.4434953	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 3:16	xCO2_SW	431.7628154	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 6:16	xCO2_SW	441.0428141	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 9:16	xCO2_SW	425.9252477	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 12:16	xCO2_SW	411.8406282	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 15:16	xCO2_SW	415.4058205	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 18:16	xCO2_SW	410.9094131	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/25/2007 21:16	xCO2_SW	413.4345027	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/26/2007 0:16	xCO2_SW	397.2302003	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/26/2007 3:16	xCO2_SW	406.4602134	3	likely bad CO2 sw measurement due to equilibrator pressure problem
6/26/2007 6:16	xCO2_SW	411.0971788	3	likely bad CO2 sw measurement due to equilibrator pressure problem