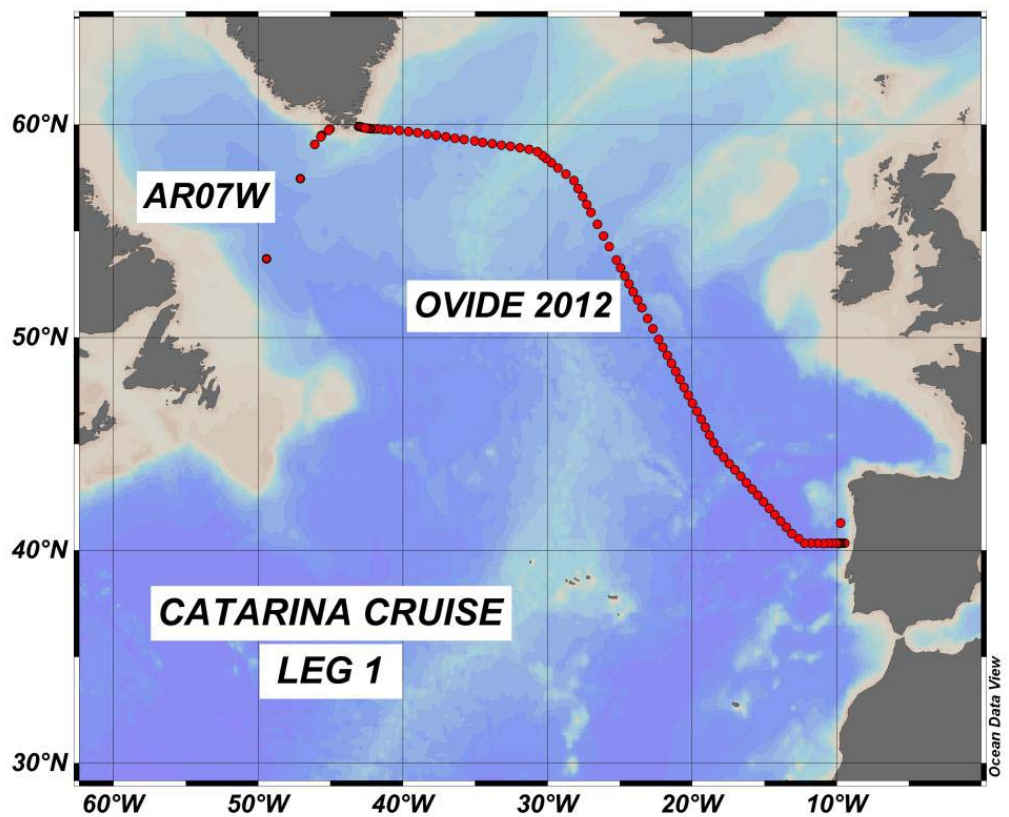


# CATARINA 2012-Leg 1

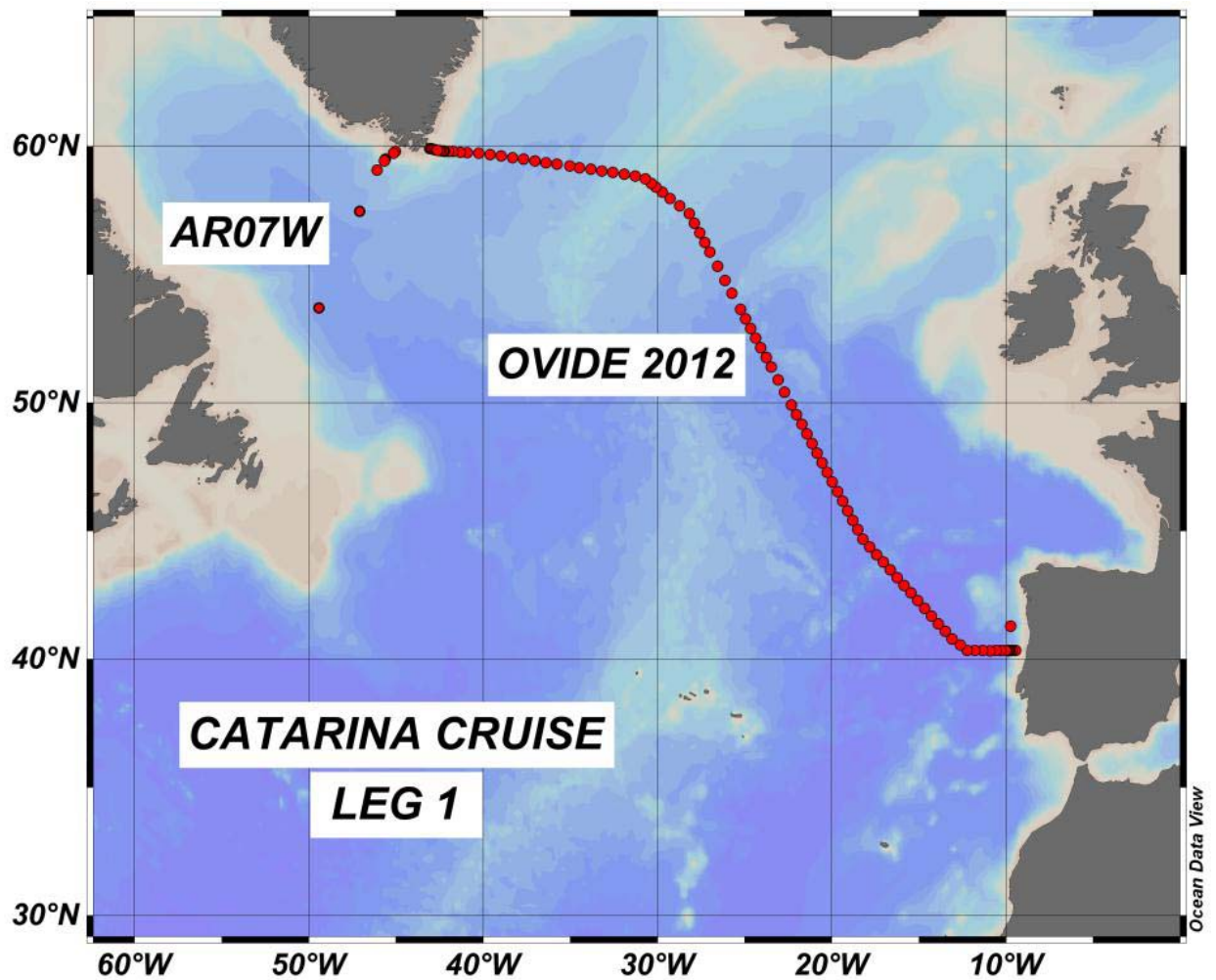
## CTD-O2 Data report





# CATARINA 2012-Leg 1 Cruise

B/O Sarmiento de Gamboa from 22/06/2012 to 24/07/2012





## ABSTRACT

The CATARINA Leg1 cruise was carried out from June 22 to July 24 2012 on board the BIO Sarmiento de Gamboa, under the scientific supervision of Aida Rios (CSIC-IIM). It included the occurrence of the OVIDE hydrological section that was performed in June 2002, 2004, 2006, 2008 and 2010, as part of the CLIVAR program (name A25), and under the supervision of Herlé Mercier (CNRS-LPO). This section begins near Lisbon (Portugal), runs through the West European Basin and the Iceland Basin, crosses the Reykjanes Ridge (300 miles north of Charlie-Gibbs Fracture Zone, and ends at Cape Hoppe (southeast tip of Greenland). The objective of this repeated hydrological section is to monitor the variability of water mass properties and main current transports in the basin, complementing the international observation array relevant for climate studies. In addition, the Labrador Sea was partly sampled (stations 101-108) between Greenland and Newfoundland, but heavy weather conditions prevented the achievement of the section south of 53°40'N. The quality of CTD data is essential to reach the first objective of the CATARINA project, i.e. to quantify the Meridional Overturning Circulation and water mass ventilation changes and their effect on the changes in the anthropogenic carbon ocean uptake and storage capacity. The CATARINA project was mainly funded by the Spanish Ministry of Sciences and Innovation and co-funded by the Fondo Europeo de Desarrollo Regional.

The hydrological OVIDE section includes 95 surface-bottom stations from coast to coast, collecting profiles of temperature, salinity, oxygen and currents, spaced by 2 to 25 Nm depending on the steepness of the topography. The position of the stations closely follows that of OVIDE 2002. In addition, 8 stations were carried out in the Labrador Sea. From the 24 bottles closed at various depth at each stations, samples of sea water are used for salinity and oxygen calibration, and for measurements of biogeochemical components that are not reported here. The data were acquired with a Seabird CTD (SBE911+) and an SBE43 for the dissolved oxygen, belonging to the Spanish UTM group. The software SBE data processing was used after decoding and cleaning the raw data. Then, the LPO matlab toolbox was used to calibrate and bin the data as it was done for the previous OVIDE cruises, using on the one hand pre and post-cruise calibration results for the pressure and temperature sensors (done at Ifremer) and on the other hand the water samples of the 24 bottles of the rosette at each station for the salinity and dissolved oxygen data. A final accuracy of 0.002°C, 0.002 psu and 0.04 ml/l (2.3 µmol/kg) was obtained on final profiles of temperature, salinity and dissolved oxygen, compatible with international requirements issued from the WOCE program.

## RESUME

La campagne CATARINA-Leg1 s'est déroulée du 22 juin au 24 juillet 2012, départ Lisbonne (Portugal) et arrivée Saint-John's (Canada), à bord du B/O Sarmiento de Gamboa et sous la direction scientifique de Aida Rios (CSIC-IIM). La section hydrologique OVIDE a été échantillonnée une sixième fois à cette occasion, en respectant la saison (juin) et le rythme biennal depuis 2002. Cette section part de la côte du Portugal près de Lisbonne, traverse les bassins Ouest-Européen et Islandais, la Ride de Reykjanes, la Mer d'Irminger et finit à Cape Hoppe au sud du Groenland. L'objectif de ce travail est de surveiller la variabilité des principaux courants et des propriétés des masses d'eau dans l'Atlantique Nord, région critique pour le climat. Le travail s'est poursuivi en Mer du Labrador, entre le Groenland et Terre-Neuve, mais a été interrompu à 53°40'N en raison des mauvaises conditions météorologique et du manque de temps. Une grande qualité des données hydrographiques est indispensable pour atteindre le premier objectif du projet CATARINA, à savoir quantifier la circulation verticale méridionale à cet endroit ainsi que les changements dans les propriétés des masses d'eau, et comprendre l'impact de ces deux facteurs sur la capacité de l'Atlantique Nord à capter et emmagasiner le carbone anthropique émis dans l'atmosphère. Le projet CATARINA a été principalement financé par l'Espagne (le Ministère Espagnol des Sciences et Innovation et le Fond Européen de Développement Régional).

Des mesures d'hydrologie, biogéochimie et courant ont été réalisées en 104 stations, dont 95 stations le long de la section OVIDE, 8 stations en Mer du Labrador et 1 station test. Ce rapport détaille le traitement des données de la sonde CTDO<sub>2</sub> immergée jusqu'au fond à chaque station afin d'obtenir des profils continus de température, salinité et oxygène dissous. Les stations ont été positionnées géographiquement sur la base de l'échantillonnage d'OVIDE 2002, où la distance entre stations (entre 2 et 25 mN) avait été ajustée en fonction de la topographie et pour résoudre la méso-échelle. A chaque station, les échantillons prélevés sur 24 bouteilles (fermées à différentes profondeurs) ont été analysés pour étalonner les profils de salinité et oxygène dissous obtenus par la CTD. Celle-ci était une SBE911+, couplée à un capteur SBE43 pour l'O<sub>2</sub>, appartenant au groupe technique espagnol (UTM). La chaîne de traitement "SBE data processing" a été utilisée après un premier nettoyage des données brutes. Les données ont ensuite été réduites et calibrées à l'aide de la nouvelle chaîne de calibration du LPO(écrit en matlab). Cette chaîne, écrite en matlab, est conforme à la procédure habituelle du LPO qui utilise d'une part les calibrations pré et post-campagne des capteurs de température et de pression (faites à l'Ifremer) pour corriger les mesures de température et pression de la sonde et d'autre part les prélèvements d'eau des 24 bouteilles de la rosette pour corriger les données salinité et oxygène dissous de la sonde. La précision finale respective des données de température, salinité et oxygène dissous (0.002 °C, 0.002 psu et 0.04 ml/l) est compatible avec les normes internationales WOCE.

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# 1. The OVIDE program

## 1.1. Scientific theme and specific objectives of this cruise

Taking into account that the subpolar gyre of the North Atlantic is a critical zone where the changes of circulation, Meridional Overturning Circulation (MOC), and ventilation of water masses can be examined, the motivation of the Leg 1 of CATARINA cruise, framed in the Module 1 of the project, is to better understand the interannual to decadal variability of anthropogenic carbon (CANT) storage and transport by acquiring a long-term time series of physical and biochemical properties in the MOC between Iberian Peninsula and Greenland. Thus, we had proposed to re-occupy the OVIDE hydrography/geochemistry section for the 7th time in 2012, leading to a 15-year long time-series. Indeed, this line has been performed since 2002 every two years, after a first occupation by the NOCS in 1997.

The Leg 1 of CATARINA cruise began by sampling the main section OVIDE for the estimation of the currents and properties that determine the flow of heat, water and anthropogenic carbon in the North Atlantic. Then, the small section in the Labrador Sea partially repeated some stations sampled in 2008 on board R/V Thalassa. Both OVIDE and Labrador sections have been identified by the GOSHIP project (International Ocean Carbon Coordination Project (IOCCP), CLIVAR) as high-frequency.

The Leg 1 CATARINA cruise aims to assess the transport of water, salt, anthropogenic carbon, and other biogeochemical tracers along the section OVIDE that have been repeated biennially since 2002 (<http://www.ifremer.fr/lpo/ovide/>) and that is part of international programs GOSHIP and CLIVAR / IOCCP. These programs coordinate the different actions in the Atlantic Ocean.

The work on board was developed in three types of operations: i) Deployments of buoys and profilers to measure the intensity of turbulence (VMP) and to obtain meteorological and hydrographical data (SVP, PORVOR); ii) ADCP (Acoustic Doppler Current Profiler) to determine the velocity field iii) the CTD hydrographic stations and the work linked to them. The present report focuses on the latter.

The distance between stations was comprised between 2 and 25 nautical miles in order to resolve the medium scale eddies. A fine resolution is necessary on the continental shelves, where a high spatio-temporal variability is observed. A resolution of 25 Nm was chosen in the center of the basins, where the topography is relatively smooth. The sampling of 2002 was generally respected.

In each station, continuous profiles of temperature, salinity and dissolved oxygen were measured from the surface to the bottom (CTDO<sub>2</sub>). The quality of the CTDO<sub>2</sub> data was monitored constantly on board using chemical analysis of the salinity and dissolved oxygen content in seawater sampled from the bottles of the rosette. It is as good as or better than that required by the international standards issued during the WOCE experiment. The nutrients concentrations (nitrates, phosphates and silicates), pH and alkalinity (allowing calculation of the anthropogenic carbon) and the Freon (CFCs) levels were also determined from geochemical analyses carried out on the water samples. These measurements were complemented by current profiles, carried out using acoustic current meters from the surface to the bottom (Lowered-ADCP), and from 0 to 600 meter-depth along the ship's route (Vessel-Mounted-ADCP). The temperature, salinity, chlorophyll level and CO<sub>2</sub> fugacity in the surface waters were continuously measured using the onboard thermosalinometer and fluorometer, as well as the GASP system from our collaborators in Vigo. Sampling was also carried out to determine the isotope ratio of <sup>18</sup>O and of <sup>13</sup>C.

A wide variety of water masses was sampled along the hydrographic section, originating in the Nordic seas, in the Labrador Sea, in the Mediterranean Sea and even around the Antarctic Peninsula, and the variations of their properties were accurately measured.

A web site, maintained from the vessel and on shore, allowed colleagues, friends or parents to follow the progress of the cruise: <http://catarina.iim.csic.es/en>. Numerous documents related to the OVIDE project are also available on <http://www.ifremer.fr/lpo/ovide>.

## 1.2. Results obtained with the data from previous cruises

We illustrate below some results of the analyses of the data collected during the previous OVIDE cruises. These analyses are not complete yet and will go on until 2015.

### 1.2.1. Variability of the meridional circulation cell intersected by the OVIDE section

One of the objectives of the OVIDE project is to estimate the interannual transport variability of the meridional overturning cell intersected by the Greenland-Portugal hydrographic section. The quantification and understanding of the mechanisms of intra-decadal variability in the amplitude of the meridional overturning cell is a necessary prerequisite for the verification of the potential long-term decreasing trend suggested by the IPCC models. We have shown that, at the latitudes of the OVIDE section, the meridional overturning cell should be calculated in density coordinates in order to effectively separate the upper warm branch from the lower cold branch. Note that by calculating the meridional overturning cell in density coordinates, its variability is correlated with that of the heat transport across the section (which is not the case if we calculate this cell in  $z$  coordinates). Of the 6 results analyzed (1997 to 2010), the amplitude of the meridional overturning cell showed a maximum of 19 Sv in August 1997 and a minimum of 11 Sv in June 2006 (uncertainty estimate  $\sim 2$  Sv). An argument showing the relationship between the horizontal circulation variability and the meridional overturning cell variability (the current transport in the North Atlantic is a good proxy for the transport of the upper branch of the meridional overturning cell) led to the construction of a time series of the meridional overturning cell amplitude based on systematic observations (altimetry and Argo).

*Publications on this subject:* Lherminier et al. (2007); Lherminier et al. (2010); Gourcuff et al. (2011); Mercier et al. (2013), Desbruyères et al. (2013)

### 1.2.2. Variability of the properties of the North Atlantic subpolar mode waters

The analysis of all temperature and salinity profiles (ARGO/Gyroscope floats and oceanographic cruises including the OVIDE 2002 cruise) measured in the Iceland Basin between 2002 and 2004 shows the presence of several varieties of subpolar mode water. We were particularly interested in the variety of mode water located on the Reykjanes Ridge that has warmed by 1.5°C since the mid-1990s. Understanding the mechanisms of this variability (much higher than the anthropogenic warming of the ocean surface layers) was the subject of E. de Boisséson's thesis. The ORCA025-G70 model served as a basis for this work. It was shown that, at low frequency, the main cause of the variability in the subpolar mode water properties is the convection intensity in the Iceland Basin, linked to the North Atlantic oscillation. During periods of deep convection (beginning of the 1990s, positive North Atlantic oscillation index), the mixed layer, where the mode water forms, incorporates a substantial portion of intermediate water, which causes a decrease of its temperature. When the mixed layers are shallower (since 1996, a period of neutral North Atlantic Oscillation index), the mixed layer temperature is higher and the mode water temperature increases. Superimposed on this mechanism, the proportions of water of subtropical and subpolar origins transported by the North Atlantic current also play a role. Thus, since the beginning of the 1990s, the proportion of subtropical water has increased from 50% to 65%, further reinforcing the mode water warming.

The thesis of E. de Boissésou also reviewed the method of calculation of the mixed layer heat budget from the Argo data. In particular, it was shown that the classical method (balance between the heat flux at the air-sea interface and evolution of the heat content in the mixed layer), applied to the Iceland Basin, could lead to biases of the order of  $20 \text{ W m}^{-2}$  in summer, due to the contribution of the vertical mixing at the base of the mixed layer, non-negligible at this time of year when the mixed layers are shallow. An *ad hoc* method, where the calculation is performed on a water column of greater thickness, was successfully proposed.

*Publications on this subject:* Thierry et al. (2008); de Boissésou et al. (2010); de Boissésou et al. (2012)

### 1.2.3. Variability of the anthropogenic CO<sub>2</sub> sink in the North Atlantic

The ocean helps to moderate climate change by absorbing a little more than a quarter of the carbon dioxide emitted by human activity. The OVIDE data analyzed conjointly with historical data (collaboration IIM Vigo/LPO) exhibited the interannual variation of the inventory of anthropogenic carbon in the Irminger Sea. The period of intense deep convection, linked to a positive North Atlantic oscillation situation in the early 1990s, is associated with a capture rate of anthropogenic carbon dioxide in the ocean two to three times higher than in neutral or negative North Atlantic oscillation situations (other periods). An analysis of the transport of anthropogenic carbon across the OVIDE section between 1997 and 2006 showed that the MOC plays a crucial role in the storage of anthropogenic carbon in the subpolar gyre, at least at intra-decadal timescales. At longer timescale, the increase in the concentration of anthropogenic carbon in the water column seems to control the variability of the transport of anthropogenic carbon across the section, and presumably its storage.

*Publications on this subject:* Pérez et al. (2008); Pérez et al. (2010); Pérez et al. (2013), Zunino et al. (2013).

### 1.2.4. Variability of the western boundary current transport in the Irminger Sea

A decade ago, the analysis of observations showed a rapid decrease in the salinity of the deep western boundary current in the Irminger Sea (Dickson et al., Nature 2002) and suggested that the transport of this current was decreasing (Bacon, Nature 1999). These observations had fuelled the discussion about a possible slowdown of the thermohaline circulation. In parallel, the surface circulation of the Atlantic subpolar gyre slowed down (Hakkinen and Swarovs, Science, 2004). The OVIDE project (certain analyses have been conducted in collaboration with A. Sarafanov and A. Falina of SIO, Moscow and K. Vage of WHOI) provided additional observations, which showed that:

The salinity of the deep western boundary current at the southern tip of Greenland (60°N) has stopped decreasing since 2006 and the trend is currently increasing. We have linked the increase in the salinity of the surface layers in the Iceland Basin to the salinity increase of the deep western boundary current. Indeed, immediately after crossing the sills separating the Nordic seas from the North Atlantic, the waters of the surface layers are drawn into the deep western boundary current and contribute to the evolution of its properties.

The baroclinic transport of the deep western boundary current at 60°N increased between the 1990s and the 2000s. By combining these hydrological observations with altimetry observations, we have also shown that the trends were the same for the total transport (considering that only the baroclinic component of the transport is historic and linked to the absence of velocity measurements at the level of the reference used for the geostrophic calculations).

The five currentmeter moorings deployed in the East Greenland current between 2004 and 2006 were used to quantify, for the first time, the transport of this current and to characterize its variability, which showed a peak for the periods ~10 days. We showed a good correlation between the observed variability and the wind stress curl at the center of the Irminger Sea. It also seemed interesting to reconstruct a temporal series of the East Greenland current transport over a longer period (1992-2009), by combining the vertical structure obtained from the moorings with the variability from satellite altimetry. This approach was validated using independent data and showed that no significant trend was detectable for the variation in the East Greenland current transport (the western boundary of the subpolar gyre) between 1992-2009, even though the decrease in the intensity of the subpolar gyre highlighted by Hakkinen and Rhines (2004) is clearly visible in the second part of the 1990s.

*Publications on this subject:* Danialt et al. (2011a), Danialt et al. (2011b), Sarafanov et al. (2009), Sarafanov et al. (2010a), Sarafanov et al. (2010b), Vage et al. (2011).

### 1.2.5. Diagnostic modeling

The variational assimilation of the ARGO temperature and salinity profiles was conducted in a North Atlantic configuration with resolution 1° (Thesis of G. Forget). The period studied extends from spring 2002 to spring 2003 and includes the OVIDE 2002 period. The resulting circulation is validated with reference to independent data that demonstrate the realism of the model and validate this system as a diagnostic tool for the analysis of low frequency and large-scale oceanic variability. We confirm the water mass variability already highlighted: warming and salinity increase of surface water masses, cooling and salinity decrease of intermediate waters. It has also been shown that the assimilation of the Argo data (alone) allowed a very significant improvement of the restitution of the meridional overturning cell in the North Atlantic, although these observations are limited to the first 2000 meters.

C. Gourcuff's thesis was an opportunity to show that the recent progress in the estimation of the mean surface circulation (M.H. Rio team at CLS) could now be used to constrain, with altimetry, the inverse model used to estimate the circulation from the OVIDE section and to render a similar circulation variability to that diagnosed from in situ observations alone.

*Publications on this subject:* Ferron (2011), Forget et al. (2008a); Forget et al. (2008b), Gourcuff et al. (2011).

## 2. The CATARINA 2012-Leg 1 cruise

The CATARINA cruise took place on board the B/O Sarmiento de Gamboa from 22th June to 24th July 2012, starting from Vigo (Spain) and finishing in Saint John's (Canada). The following operations were carried out during this mission (for more details, see the cruise report):

- 105 ctd casts, which are the object of this data report:
  - . 2 test casts (cast 0a, 0b) not calibrated.
  - . 95 casts corresponding to the OVIDE section (casts 1-95).
  - . 8 casts corresponding to the West Greenland section (casts 101-108).
- Deployment of 11 PROVOR and 1 ARVOR (lagrangian profilers) equipped with oxygen sensors.
- Deployment of 11 SVP-B drifters and 5 SVP-BS drifters (P Atm-salinity).
- Implementation of a microstructure profiler (VMP 6000) at 18 casts.
- Underway measurements: S-ADCP (75 and 150 Hz), thermosalinometer, fluorometer.



*Crew and scientific team for the Catarina 2012-leg1 cruise*

Aida Rios was the chief scientist, Miguel Gil Coto was in charge of the CTD measurements and Fiz F. Perez was in charge of the chemical measurements.

### List of participants

	H/F	Name	Institut	Function
1	F	Fernández Rios, Aida	CSIC-IIM	Chief scientist
2	M	Fernández Pérez, Fiz	CSIC-IIM	Chemical coordinator
3	M	Gil Coto, Miguel	CSIC-IIM	Physical coordinator
4	F	De la Paz Arándiga, Mercedes	CSIC-IIM	Nutrients and N <sub>2</sub> O/CH <sub>4</sub>
5	F	Fajar González, Noelia M.	CSIC-IIM	Alkalinity, pH, CO <sub>3</sub> , C <sub>T</sub>
6	F	García Ibañez, M <sup>a</sup> Isabel	CSIC-IIM	pH, alkalinity
7	F	Carracedo Segade, Lidia	CSIC-IIM	CTD watch, salinity
8	M	González Iglesias, Javier	CSIC-IIM	CTD watch, secretary
9	M	Alonso Pérez, Fernando	CSIC-IIM	Nutrients
10	F	Castaño Carrera, Mónica	CSIC-IIM	C <sub>T</sub> and nutrients
11	M	Velo Lanchas, Anton	CSIC-IIM	Oxygen
12	F	Cobo Viveros, Alba	CSIC-IIM	Sampler and plankton
13	M	Rosón Porto, Gabriel	Univ. Vigo	Underway coordinator
14	M	Grande Miranda, Alberto	Univ. Vigo	Sampler and oxygen
15	M	Galindo Lorente, Maxim	Univ. Barcelona	Sampler and nutrients
16	F	Lherminier, Pascale	Ifremer/LPO	SADCP and LADCP
17	M	Ferron, Bruno	Ifremer/LPO	VMP, PROVOR, SVP
18	M	Branellec, Pierre	Ifremer/LPO	CTD watch, PROVOR, SVP
19	M	Leizour, Stéphane	Ifremer/LPO	VMP, PROVOR, SVP
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#### **Institutes :**

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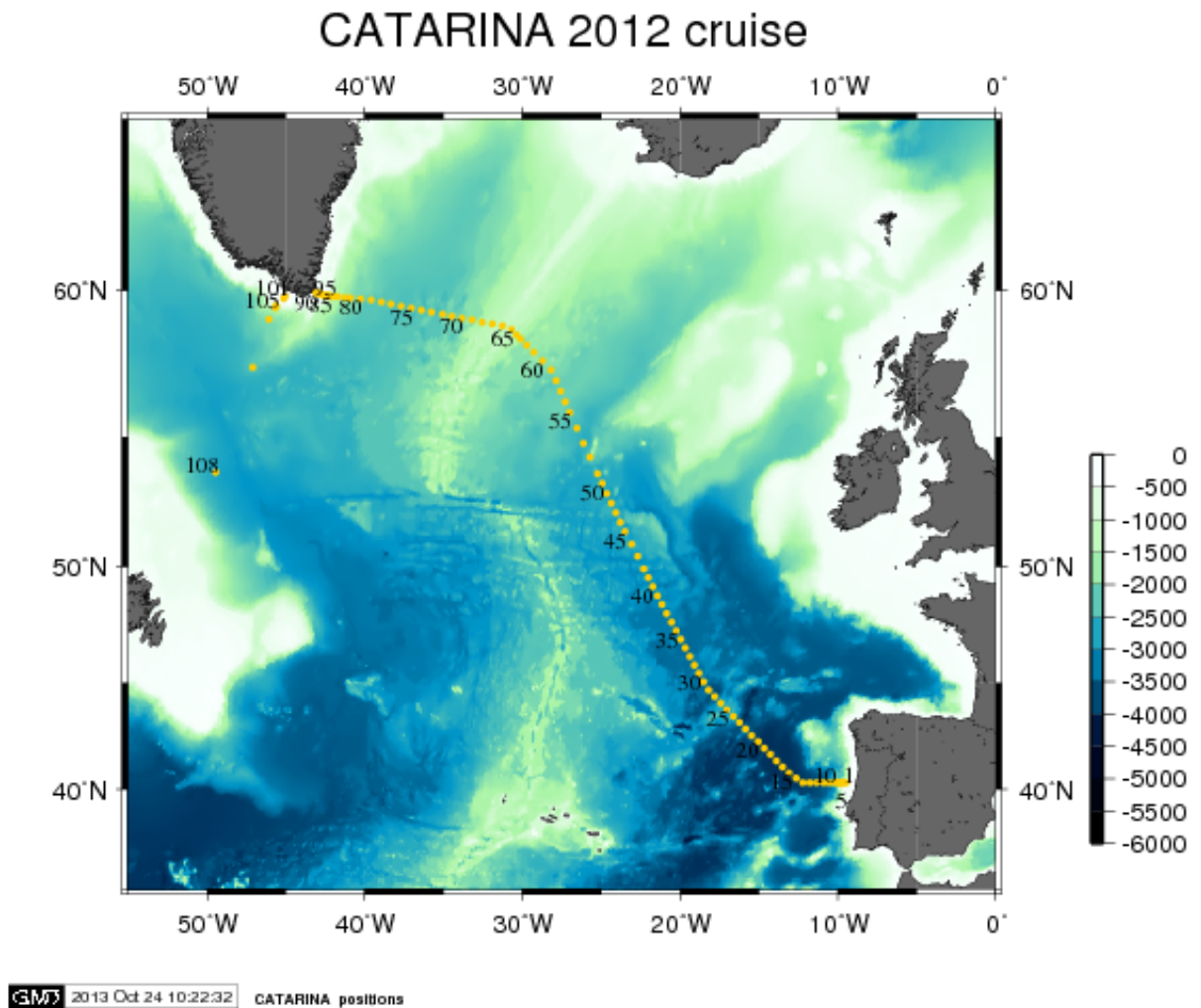
LPO : Laboratoire de Physique des Océans, UMR 6523 (CNRS, Ifremer, IRD, UBO) Brest

Univ. Vigo : University of Vigo (Spain)

Univ. Bremen : University of Bremen (Germany)

Univ. Barcelona : University of Barcelona (Spain)

Figure 1 shows the geographical position of the CTD casts carried out during the CATARINA 2012 cruise. The CATARINA section corresponds to casts 1 to 95, the Labrador section corresponds to casts 101-108.



**Figure 1** : Geographic position of the 104 CTD-O<sub>2</sub> casts of the CATARINA 2012-Leg 1 cruise.

The table below shows the date and the position of each CTD cast :

Cast	Date	Time	Latitude	Longitude	Depth (m)	Max. pres. (dbar)
1	23-Jun-2012	15:56:15	40 19.96	-9 27.56	154	145
2	23-Jun-2012	17:59:16	40 19.99	-9 38.21	399	373
3	23-Jun-2012	20:09:13	40 20.06	-9 46.07	819	811
4	23-Jun-2012	22:36:09	40 20.02	-9 48.12	1412	1331
5	24-Jun-2012	06:57:23	40 19.84	-9 52.61	2509	2471
6	24-Jun-2012	10:20:14	40 20.03	-9 56.76	3418	3459
7	24-Jun-2012	15:53:33	40 20.06	-10 2.16	3533	3577
8	24-Jun-2012	20:58:03	40 20.10	-10 18.07	3896	3949
9	25-Jun-2012	02:24:24	40 20.20	-10 34.64	4372	4440
10	25-Jun-2012	07:50:05	40 19.88	-10 54.39	4854	4935
11	25-Jun-2012	15:19:20	40 19.94	-11 20.46	5098	5188
12	25-Jun-2012	21:45:43	40 20.00	-11 46.77	5215	5306
13	26-Jun-2012	03:56:43	40 19.93	-12 13.16	5260	5354
14	26-Jun-2012	10:50:29	40 33.09	-12 38.08	5305	5400
15	26-Jun-2012	17:56:08	40 47.24	-13 6.02	5337	5434
16	27-Jun-2012	00:37:25	41 5.07	-13 29.54	5346	5445
17	27-Jun-2012	07:41:57	41 23.02	-13 53.34	5346	5441
18	27-Jun-2012	15:16:50	41 40.92	-14 16.62	5336	5433
19	27-Jun-2012	21:59:41	41 59.00	-14 40.38	5330	5428
20	28-Jun-2012	05:20:46	42 16.90	-15 3.90	5305	5402
21	28-Jun-2012	12:49:57	42 34.84	-15 27.56	5045	5074
22	29-Jun-2012	05:54:25	42 52.79	-15 50.99	4207	4270
23	29-Jun-2012	14:53:55	43 10.85	-16 14.61	5125	5220
24	29-Jun-2012	23:07:16	43 28.70	-16 38.15	4173	4238
25	30-Jun-2012	06:12:29	43 46.75	-17 1.81	4005	4065
26	30-Jun-2012	13:02:39	44 4.63	-17 25.44	3768	3821
27	30-Jun-2012	19:40:02	44 22.65	-17 48.88	4920	5006
28	01-Jul-2012	02:56:34	44 40.43	-18 12.60	4827	4910
29	01-Jul-2012	10:13:53	45 3.08	-18 30.22	4603	4680
30	01-Jul-2012	18:36:19	45 25.23	-18 47.74	4570	4644
31	02-Jul-2012	01:49:11	45 47.61	-19 5.39	4519	4595
32	02-Jul-2012	09:19:28	46 10.21	-19 22.83	4608	4686
33	02-Jul-2012	16:43:38	46 32.68	-19 40.27	4511	4585
34	03-Jul-2012	00:02:48	46 55.02	-19 58.17	4500	4573
35	03-Jul-2012	06:56:36	47 17.39	-20 15.69	4513	4587
36	03-Jul-2012	14:08:17	47 39.92	-20 33.19	4352	4421
37	03-Jul-2012	21:25:13	48 2.30	-20 50.77	4456	4528
38	04-Jul-2012	23:22:52	48 24.78	-21 8.49	4351	4407
39	05-Jul-2012	07:25:45	48 47.20	-21 25.83	4086	4133
40	05-Jul-2012	14:32:42	49 9.53	-21 43.58	4355	4411
41	05-Jul-2012	22:43:42	49 31.84	-22 0.99	4205	4270
42	06-Jul-2012	06:49:26	49 54.25	-22 18.70	4000	4055
43	06-Jul-2012	15:21:44	50 24.23	-22 42.18	3460	3506
44	06-Jul-2012	05:40:38	50 54.12	-23 5.50	3915	3972
45	07-Jul-2012	13:01:38	51 24.07	-23 28.84	3282	3312
46	07-Jul-2012	19:04:32	51 46.16	-23 46.47	3872	3914
47	08-Jul-2012	01:20:07	52 8.85	-24 4.34	3917	3960
48	08-Jul-2012	07:46:10	52 31.20	-24 21.50	3607	3645
49	08-Jul-2012	13:33:25	52 53.45	-24 39.42	3628	3665
50	08-Jul-2012	19:55:31	53 15.93	-24 57.06	3535	3571
51	09-Jul-2012	01:39:29	53 38.35	-25 14.16	3640	3689
52	09-Jul-2012	09:25:13	54 16.00	-25 43.63	2451	2472
53	09-Jul-2012	14:51:43	54 45.67	-26 7.36	3620	3654
54	09-Jul-2012	21:40:54	55 19.72	-26 33.56	3361	3392
55	10-Jul-2012	04:32:45	55 52.95	-26 59.91	2882	2914
56	10-Jul-2012	09:35:18	56 15.12	-27 17.55	2743	2771
57	10-Jul-2012	14:34:58	56 37.67	-27 34.76	2716	2745
58	10-Jul-2012	19:43:12	57 0.24	-27 52.73	2750	2779
59	11-Jul-2012	00:19:04	57 22.67	-28 10.35	2610	2638
60	12-Jul-2012	06:55:35	57 40.49	-28 43.84	2474	2488



Cast	Date	Time	Latitude	Longitude	Depth (m)	Max. pres. (dbar)
61	12-Jul-2012	12:10:39	57 58.32	-29 16.75	2143	2153
62	12-Jul-2012	16:54:09	58 12.48	-29 43.54	2232	2243
63	12-Jul-2012	21:05:15	58 24.48	-30 6.17	2187	2197
64	13-Jul-2012	00:41:10	58 33.00	-30 21.74	1589	1591
65	13-Jul-2012	04:01:59	58 43.45	-30 41.87	1447	1449
66	13-Jul-2012	07:40:16	58 50.57	-31 15.92	1348	1341
67	13-Jul-2012	11:14:04	58 54.64	-31 54.47	1676	1678
68	13-Jul-2012	15:17:46	58 58.41	-32 33.33	1889	1896
69	13-Jul-2012	19:22:58	59 2.43	-33 11.78	2286	2297
70	13-Jul-2012	23:46:40	59 6.15	-33 49.57	2276	2298
71	14-Jul-2012	04:24:44	59 9.86	-34 28.48	2488	2514
72	14-Jul-2012	08:55:10	59 13.71	-35 2.44	2928	2963
73	14-Jul-2012	14:23:40	59 17.98	-35 45.72	3099	3138
74	14-Jul-2012	19:18:40	59 21.76	-36 23.80	3094	3132
75	15-Jul-2012	00:38:08	59 25.67	-37 2.36	3115	3156
76	15-Jul-2012	05:41:30	59 29.48	-37 40.84	3111	3154
77	15-Jul-2012	10:52:42	59 33.39	-38 19.00	3039	3078
78	15-Jul-2012	16:10:41	59 37.42	-38 57.49	2926	2961
79	15-Jul-2012	21:29:05	59 41.14	-39 35.94	2792	2824
80	16-Jul-2012	02:04:46	59 43.37	-40 15.15	2659	2688
81	16-Jul-2012	06:44:16	59 45.46	-40 54.28	2271	2290
82	16-Jul-2012	10:31:07	59 46.39	-41 18.05	2034	2050
83	16-Jul-2012	14:53:43	59 47.68	-41 43.86	1844	1858
84	16-Jul-2012	18:45:29	59 47.95	-42 0.17	1724	1731
85	16-Jul-2012	23:11:36	59 48.51	-42 14.12	1210	1209
86	17-Jul-2012	02:15:48	59 48.93	-42 16.51	899	898
87	17-Jul-2012	04:26:53	59 49.06	-42 18.75	581	577
88	17-Jul-2012	06:14:22	59 49.37	-42 23.92	306	295
89	17-Jul-2012	07:42:09	59 49.84	-42 31.18	228	217
90	17-Jul-2012	10:11:42	59 54.85	-43 4.62	167	154
91	17-Jul-2012	12:12:49	59 54.26	-43 0.05	168	157
92	17-Jul-2012	13:23:12	59 53.41	-42 54.40	186	177
93	17-Jul-2012	14:32:18	59 52.59	-42 47.73	185	174
94	17-Jul-2012	15:42:07	59 51.61	-42 42.12	187	176
95	17-Jul-2012	17:03:23	59 50.77	-42 36.93	201	189
101	18-Jul-2012	03:06:19	59 47.84	-45 1.78	137	121
102	18-Jul-2012	04:23:10	59 44.40	-45 8.87	135	122
103	18-Jul-2012	07:44:34	59 30.11	-45 37.15	494	485
104	18-Jul-2012	09:32:50	59 27.81	-45 38.94	1039	1037
105	18-Jul-2012	12:08:40	59 26.09	-45 39.94	1632	1643
106	18-Jul-2012	16:41:40	59 4.05	-46 4.99	2475	2500
107	19-Jul-2012	06:11:50	57 27.32	-47 5.29	3016	3053
108	19-Jul-2012	12:21:22	53 41.50	-49 26.03	3712	3753



### 3. CTD-O<sub>2</sub> Measurement Calibration

#### 3.1. CTD-O<sub>2</sub> data acquisition

##### 3.1.1. Description of the cruise

One hundred and four casts down to the bottom were performed during the CATARINA cruise with a Seabird SBE911+ probe on board the B/O Sarmiento de Gamboa (CSIC/UTM). Eighteen profiles of VMP were also realized from the surface to 70 m over the bottom.



*B/O Sarmiento de Gamboa*

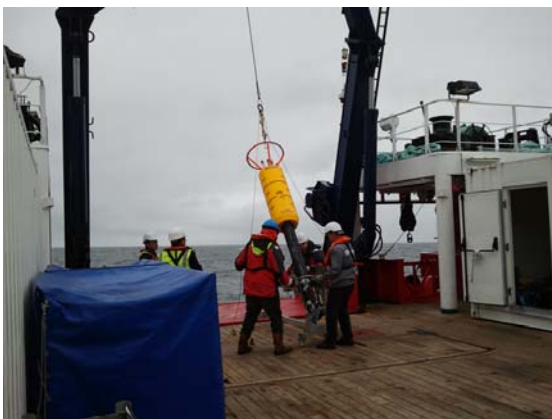
The cruise started in Vigo (Spain) on 21th June 2012, with the loading of all the equipment necessary for the mission (containers and miscellaneous equipment), and ended in Saint John's (Canada) on 24th July 2012.

The ship departed on June 22<sup>th</sup> at 7 P.M. towards the position of the CTD test cast for the samplers (Seabird CTD test, cast 0a, 124 m). The 23<sup>th</sup>, in the morning, next CTD test cast (cast 0, 1397 m) and then transit to the start of the section. At 4 P.M. arrival on the plateau off Portugal, CTD cast n° 1, 155m.

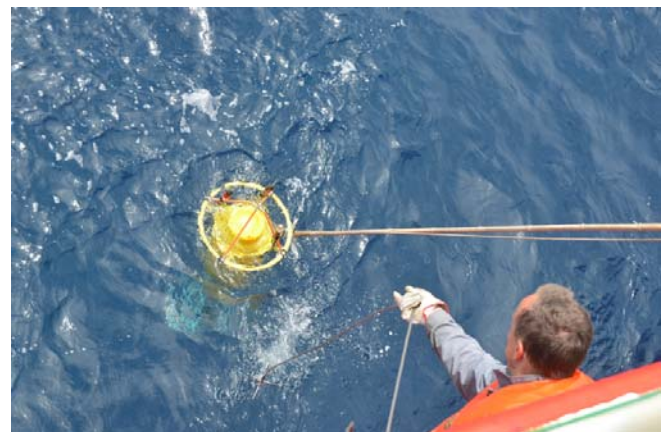


*Loading on the UTM CTD frame*

In the evening, during CTD cast n°3 (822 m), the first VMP profile was realized without problems. CTD cast n°4 (1340 m) was performed next to the VMP profile, but stopped 94 meters from the bottom. From the 24<sup>th</sup> to 27<sup>th</sup>, CTD cast 5 to 17 were realized down to about 10 meters from the bottom, except casts 5 and 21 that stopped 70m and 67m from the bottom respectively. After cast 17, the first PROVOR was launched. In the morning of the 28<sup>th</sup>, bad weather arrived, CTD cast n° 21 was done with a very rough sea, and the chief scientist decided to stop the CTD work.

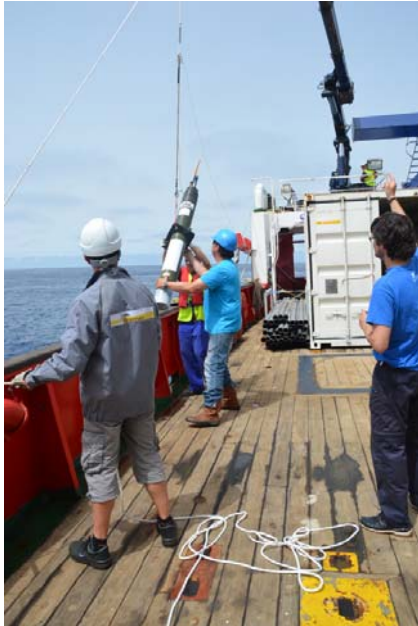


*Launching of  
VMP 6000*



*Recovering  
the VMP*

The 29<sup>th</sup> at 5 A.M., we resumed work (cast n°22). The first SVP drifter was launched this day (9 AM, after cast 22). It was followed by cast n° 23 to 37. July 04<sup>th</sup>, bad weather again, we waited until the evening to put the CTD at sea again, for the cast 38.



*Launching of PROVOR*



*Launching of ARVOR*

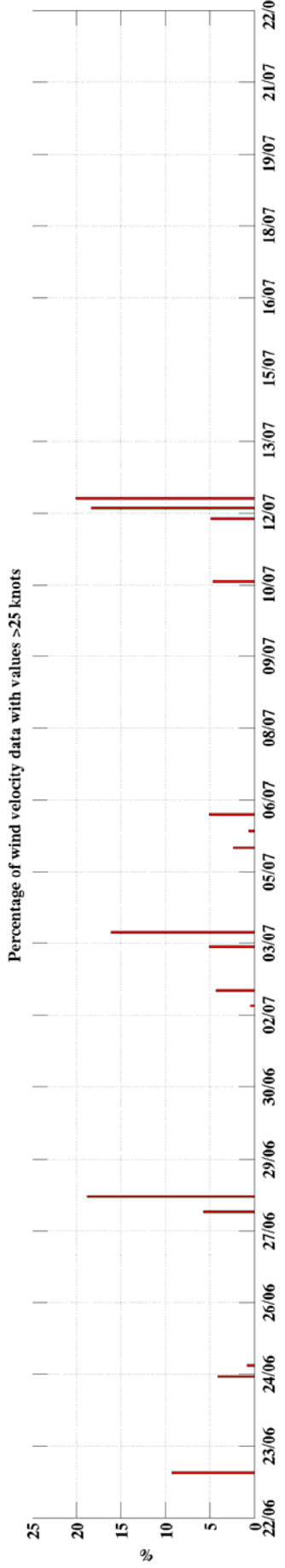
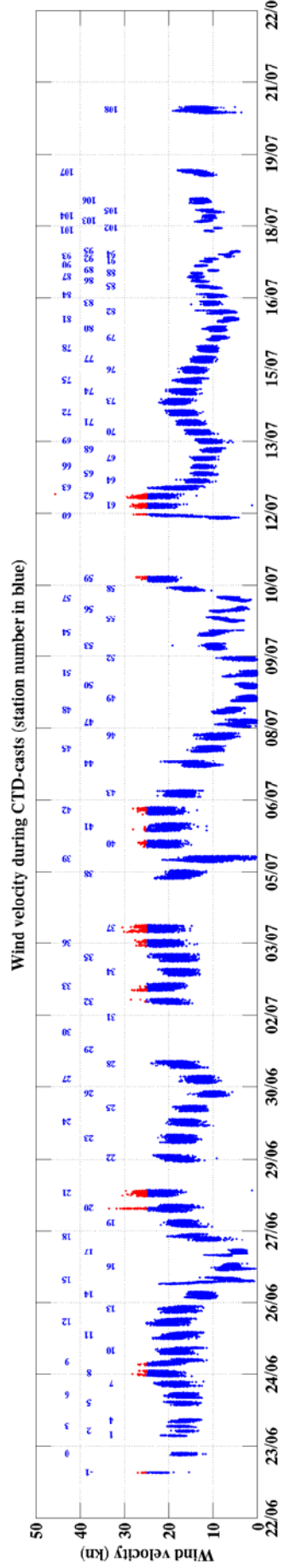
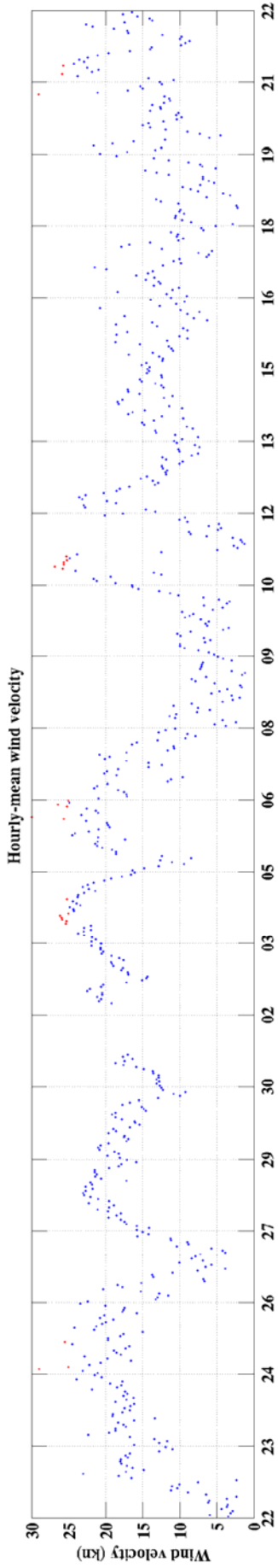
From July 04<sup>th</sup> to 11<sup>th</sup>, continuation of the section. The 11<sup>th</sup>, bad weather, the 12<sup>th</sup>, cast 60. The OVIDE section was completed the 17<sup>th</sup> afternoon, cast 95.

Transit to the beginning of the Labrador section. The 18<sup>th</sup>, 03 A.M. cast 101, cast 108 at 9h30 A.M. 20<sup>th</sup> july, the bad weather coming again so we headed to Saint John's.



*Prepare to launch a SVP drifter, 16 SVP were launched during the cruise.*

Next page, the plot shows the wind velocity and the station occurrences as a function of time during the cruise.



Overview of the wind speed during the cruise (top) and during stations (middle) as a function of time. Occurrences of strong winds during certain stations are quantified (bottom) and interruptions of work due to bad weather conditions are visible.

### 3.1.2. Technical summary

The UTM CTD frame is equipped with 24 bottles of 12 liters. The same Seabird 911+ CTD probe (s/n. 774) was used throughout the cruise. It was equipped with two sets of T, C sensors, and one O<sub>2</sub> sensor.

The CTD sensors used are as follows:

	Primary sensors	Secondary sensors
Temperature (SBE3+)	s/n 4364	s/n 4659
Conductivity (SBE4c)	s/n 3010	s/n 3286
Oxygen (SBE43)	s/n 707	

Electronics mounted on the UTM frame:

SBE Rosette	Benthos Altimeter
Seapoint fluorometer (s/n SCF 2678)	Seapoint turbidity meter (s/n STM 10398)
Downward-looking ADCP:	RDI 300 kHz WorkHorse
Upward-looking ADCP:	RDI 300 kHz WorkHorse

The CTD casts start with a round trip at a depth of 30m to remove the air bubbles in the 2 circuits of the sensors. The CTD profile then begins from the surface to a distance of 15 meters from the bottom. At each cast, the electro-mechanical cable is unwound, then wound at a speed of about 0.8 meter per second (0.5 m/s for the surface 100 meters or shallow casts and slowly accelerating downwards: see LADCP data for more information).

The bottom approach is performed using the Benthos altimeter, as soon as it has 'latched' the bottom at a distance of 60-80 m.

During the upcast, the frame is stopped at predefined levels of closure of the 24 sampling bottles.

In addition to these instruments, two 300 kHz WorkHorse LADCP (Lowered Acoustic Doppler Current Profiler) are mounted on the frame to obtain vertical profiles of current velocity. One is downward-looking and the other upward-looking. Their pings are synchronized.



*Upward-looking WH300*

### 3.1.3. Data processing

The CTD-O<sub>2</sub> sensor signals are transmitted to the UTM's Hydrology acquisition system. This system is designed to run on a PC running Windows XP for acquisition, visualization and preprocessing with the manufacturer's software (Seabird).

This system allows the real time visualization of the different parameters measured and calculated on the profiles, while controlling the quality of the signal transmitted by the probe. All of the data transmitted by the probe, at the rate of 24 cycles per second, is saved to disk.

On board, the probe data were pre-calibrated with Seabird postprocessing software and the LPO calibration suite developed in Matlab, using the bottle samples.

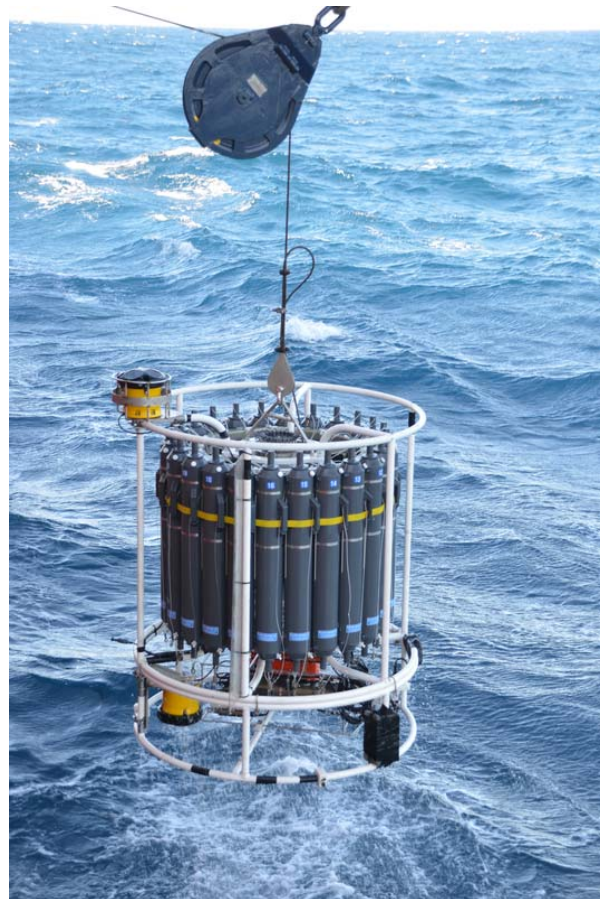


### 3.2. Sampling at sea

The CTD frame was composed of SBE 32 carousel with 24 bottles of 12 liters and probe SBE 9+ for CTD measurement.

The bottles are closed during the upcast of the probe after stopping at the sampling levels. These levels are distributed over the full height of the profile in order to sample all the water masses: 24 bottles were systematically closed at each cast. The goal of the onboard chemists was to sample the upper layer of the ocean more densely. It was therefore necessary to establish an acceptable compromise in order to have, at each cast, sampling levels distributed over the entire water column to calibrate the salinity and dissolved oxygen profiles.

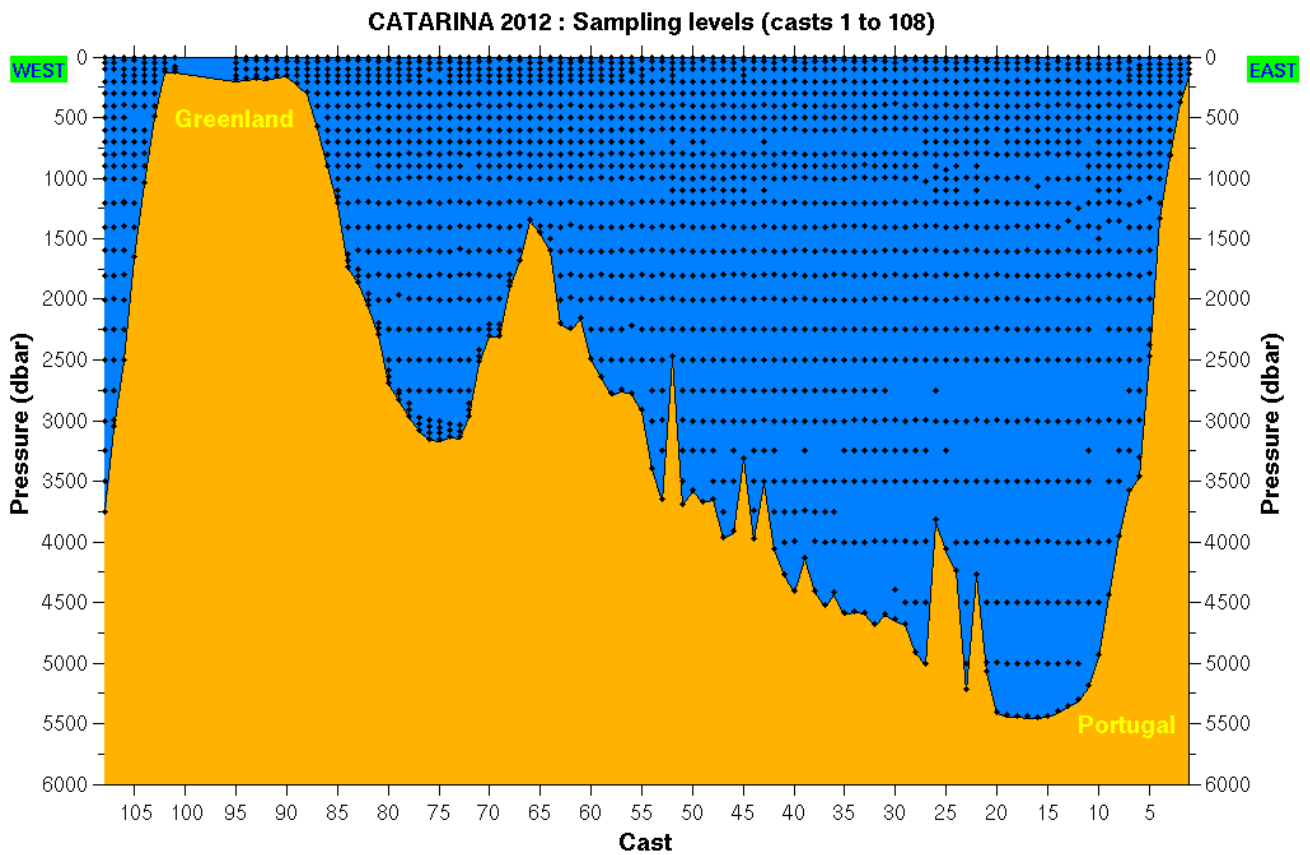
As soon as they reach the surface, the samples were taken from each bottle for the numerous analyses performed on board, in the order recommended by the WOCE instructions. The bottles were sampled according to their chronology from 1 to 24.



*UTM's CTD frame*

To estimate the error of the analytical methods, replicates were conducted at some casts by triggering the closure of two bottles at the same sampling level. We thus have 24 salinity and oxygen replicates.

Figure 2 shows all the sampling levels where salinity and dissolved oxygen were measured.



**Figure 2 :** Synoptic chart indicating the sampling levels at each cast of the CATARINA 2012 cruise.

During the cruise, 104 CTD cast samplings were carried out, 2447 bottles were closed, 2010 salinity measurements and 2000 dissolved oxygen measurements were analyzed on board.

### 3.3. Analysis of salinity and dissolved oxygen samples

All the salinity and dissolved oxygen samples are analyzed on board, during the cruise, in different laboratories (chemistry lab and main lab).



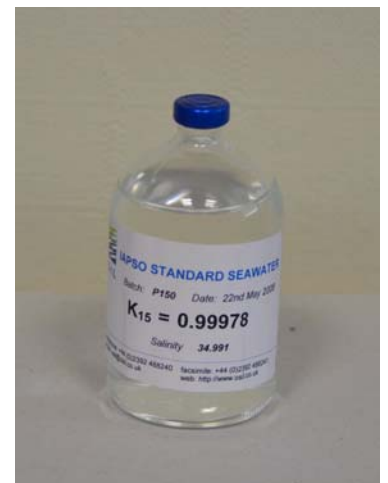
*B/O Sarmiento de Gamboa Main laboratory*

Salinity analyses were performed by Gabriel Roson Porto with the help of Lidia Carracedo Segade, oxygen analyses by Anton Velo Lanchas.

#### 3.3.1. Standardization of salinometers

All salinity measurements taken during the CATARINA cruise were performed on the same Portasal salinometer (serial n°: 62302).

This salinometer was standardized using a set of natural water bottles (IAPSO Standard Seawater): batch P150 manufactured on 22/05/2008,  $K_{15} = 0.99978$ ,  $S = 34.991$ . The standardization was verified every morning and after analysis of two casts (48 samples). The standardization results were recorded on salinity analysis sheets. The salinometer was very stable throughout the cruise and the standardization was adjusted only rarely.



*Standard seawater bottle*

### 3.3.2. Salinity

The samples are collected after three successive rinses in 125 ml bottles, whose waterproofness is guaranteed by a rubber seal. As soon as the collection is finished, the samples are placed in the analysis laboratory with a controlled temperature set to 22 °C. The samples are analyzed 20 to 30 hours after collection to allow them to achieve a thermal equilibrium.

The salinity of the samples is determined according to the equation PSS 78 (UNESCO 1981). Throughout the cruise, the temperature of the thermostat bath is fixed at 23 °C.

For each sample, three successive rinses of the cell are performed before making three readings separated each time by a rinse.



*Salinity analysis post*

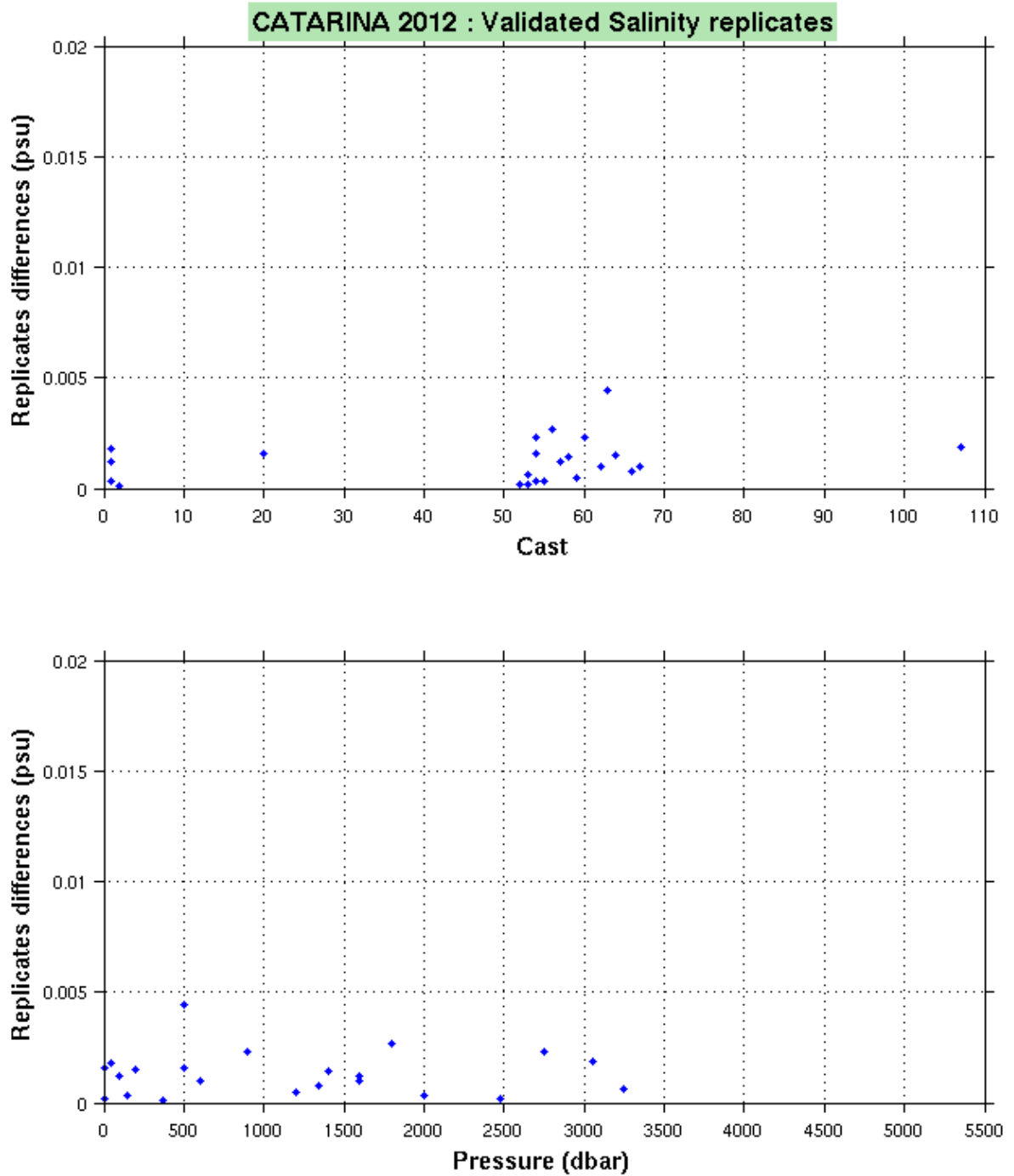
The salinity samples were analyzed on a single salinometer n° 62302. The stability of the salinometer was very satisfactory for the duration of the cruise.

Figure 3 shows the differences in salinity obtained on the replicates validated by the calibration. They were performed at sampling levels between the surface and the bottom and were collected at casts distributed over the duration of the cruise.

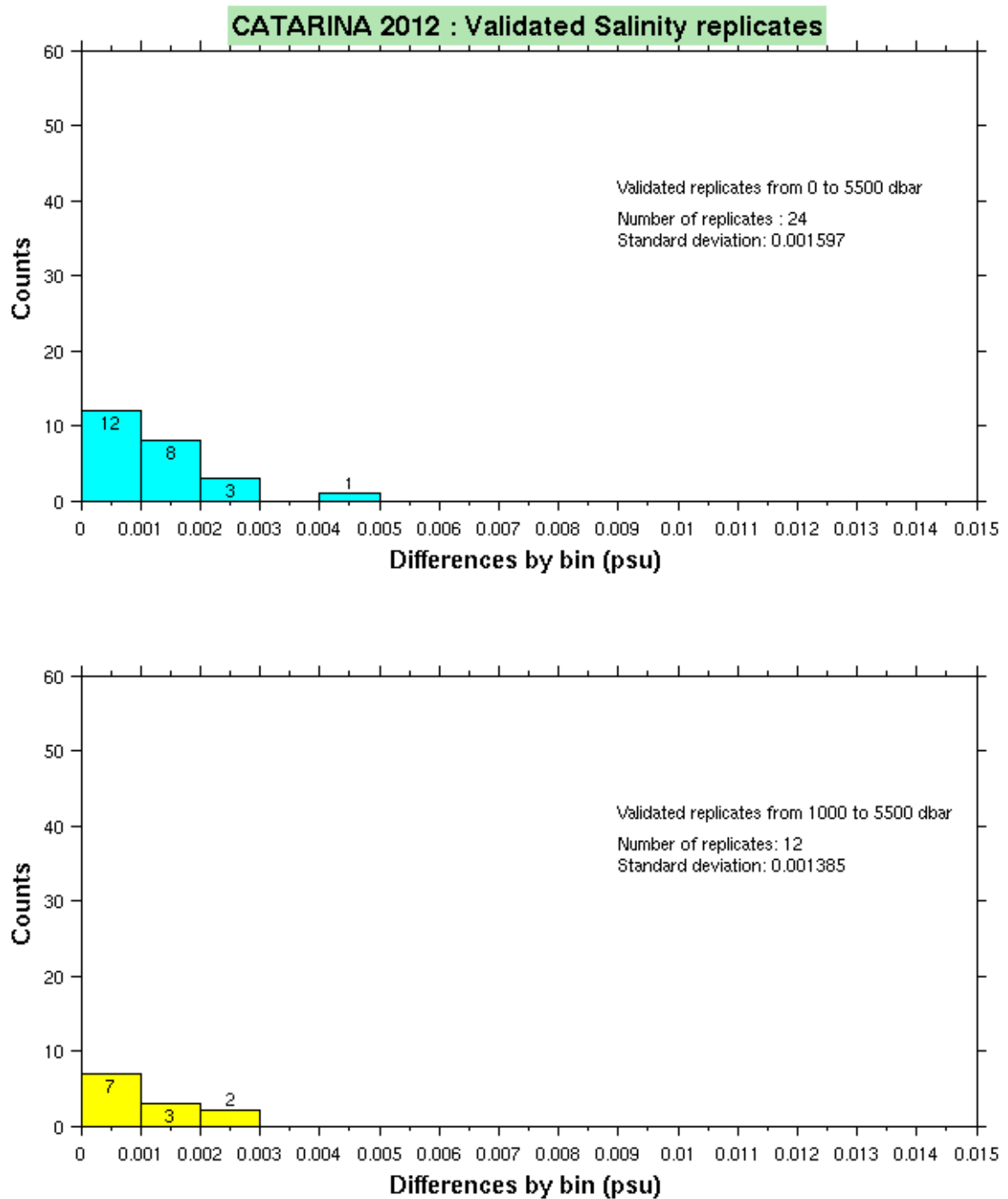
The differences between two salinity measurements were studied for 24 validated replicates: figure 4 shows the histogram.

We observe that, in 50.0 % of the cases, the difference in salinity measured on the two bottles is less than 0.001 and in 95.8 % of the cases it is less than 0.003.

The standard deviation is 0.0016 for all validated replicates, and considering only the replicates performed at a pressure greater than 980 dbar, the standard deviation is 0.0014.



**Figure 3 :** Differences in salinity between two bottles closed at the same level :  
a) as a function of the cast number where the replicate was performed,  
b) as a function of the pressure at which the replicate was performed.



**Figure 4 :** Histogram of the salinity differences on the replicates :  
 a) for the 24 validated replicates of the cruise,  
 b) for the 12 validated replicates performed at a pressure greater than 980 dbar.

### 3.3.3. Dissolved oxygen

To analyze the dissolved oxygen, the samples are collected in 120 ml bottles with a plunger cap. After filling the bottle, the temperature of the sample is recorded during overflowing a volume of water three times equivalent of the bottle.

Two reagents ( $\text{MnCl}_2$  and  $\text{NaOH-NaI}$ ) are then added successively and the bottle is capped. Finally, the bottle is shaken for 30 seconds to capture the oxygen in the seawater in the precipitate. Once all the samples are completed, the bottles are inverted one by one to resuspend the precipitate.

The samples are stored in the laboratory at a temperature of  $20^\circ\text{C}$  and analyzed within a period of 4 to 24 hours.

The operating conditions and the analysis method conform to the recommendations of WOCE (WOCE Operations Manual, 1991). After acidification in the sampling bottle, the liberated iodine is dosed with a solution of sodium thiosulfate whose normality is of the order of 0.02 N. This is prepared in a sufficient quantity for the analysis of one hundred casts. Its normality is determined daily, before the start of the analysis series, by comparison to a potassium iodate solution.

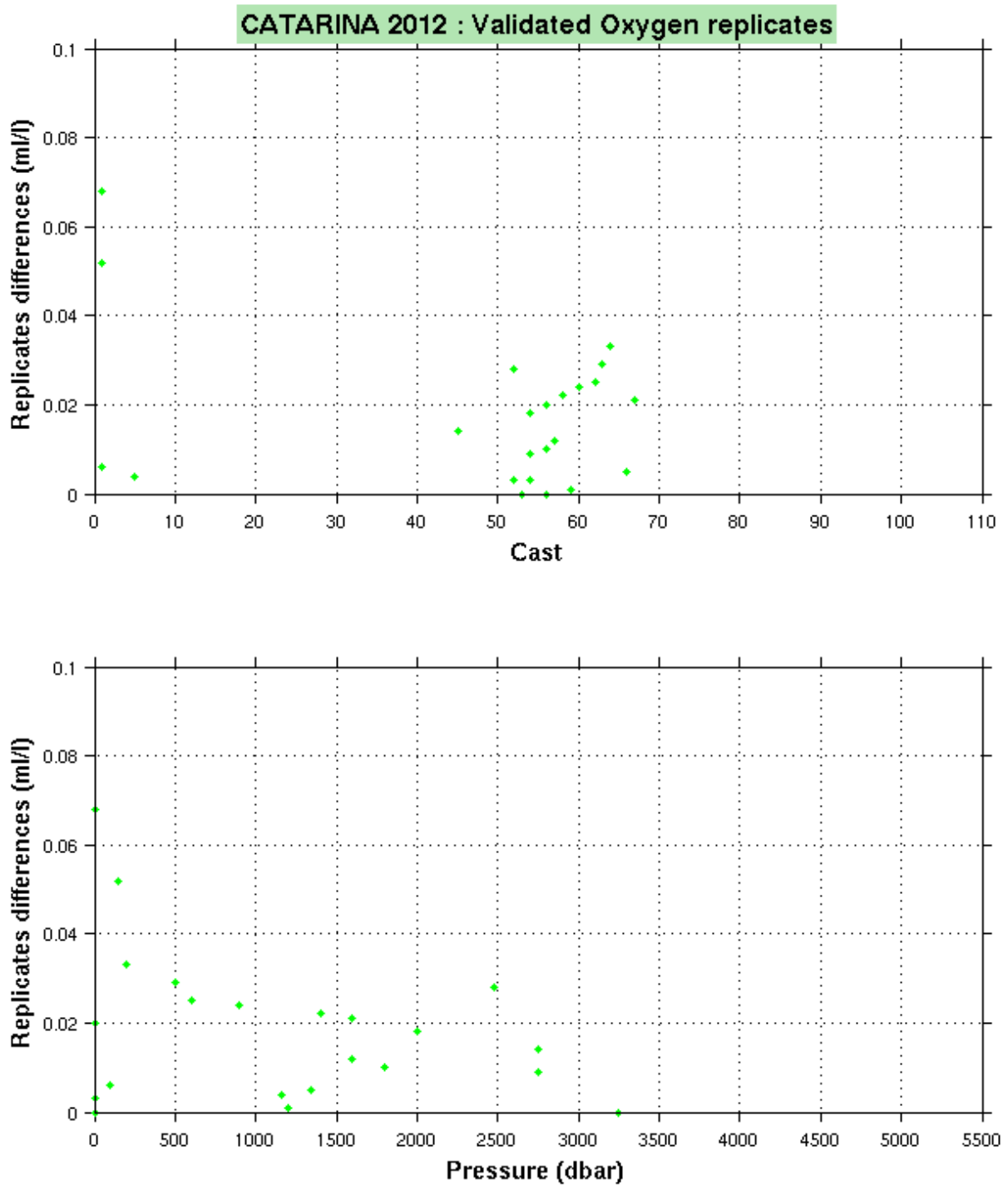
The dosage is controlled by a Metrohm titrando, a platinum titrode measures the reaction potential and a 20ml burette delivers the sodium thiosulfate. The volume of thiosulfate necessary for the reduction of the iodine is subtracted from the automatic determination of the inflection point on the potential curve at equivalence.



*Dissolved oxygen analysis post*

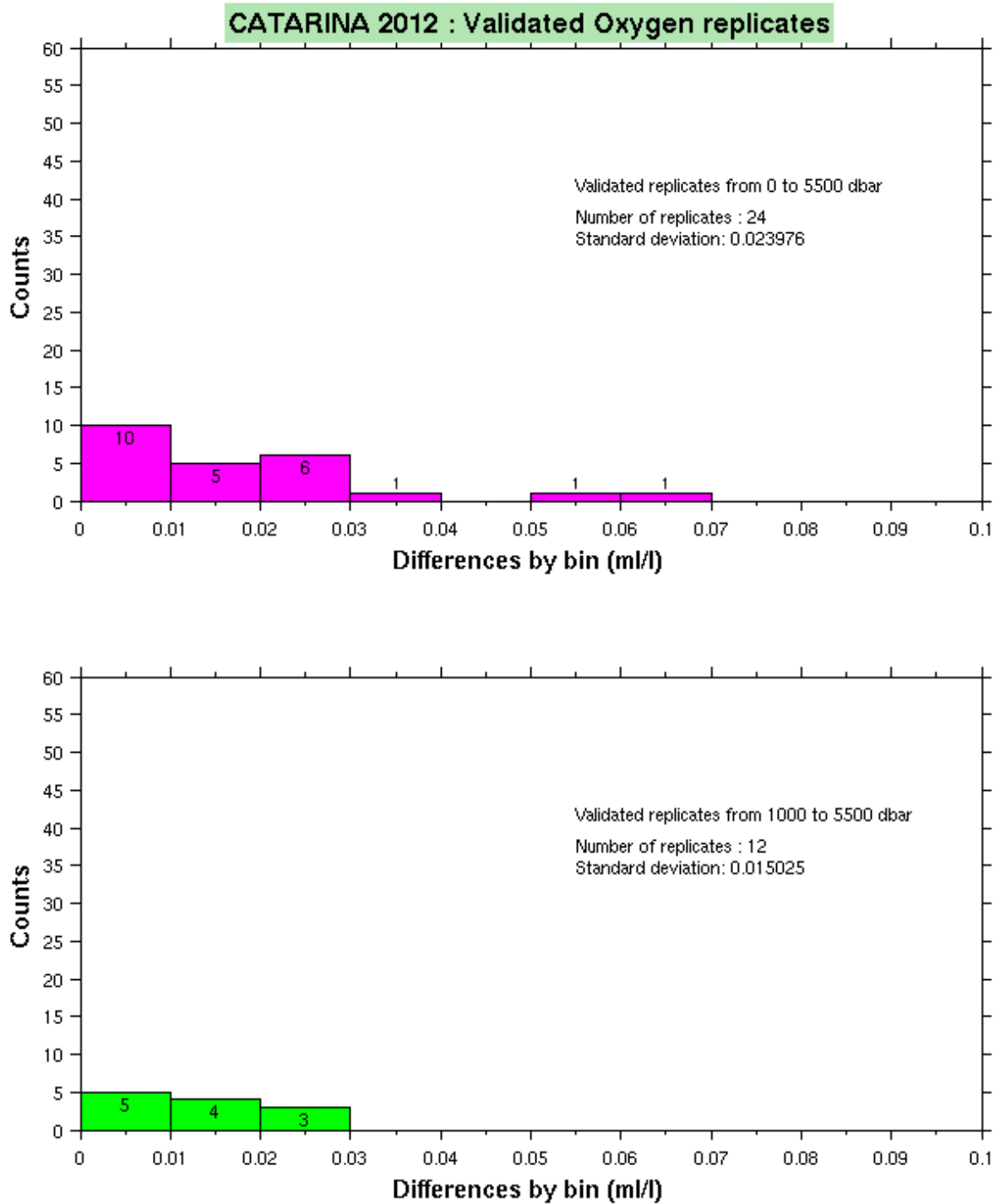
Figure 5 shows the differences obtained between the measurements performed on the 24 validated replicates and figure 6 shows the histograms.

For all the replicates collected between the bottom and the surface, 41.7 % of the differences are less than 0.01 ml/l and 87.5 % are less than 0.03 ml/l for a standard deviation of 0.024 ml/l. By eliminating the levels between the surface and 980 dbar, the standard deviation is 0.015 ml/l.



**Figure 5 :** Differences in oxygen between two bottles closed at the same level :  
 a) as a function of the cast number where the replicate was performed,  
 b) as a function of the pressure at which the replicate was performed.





**Figure 6 :** Histogram of the oxygen differences on the replicates:

- a) for the 24 validated replicates of the cruise,
- b) for the 12 validated replicates performed at a pressure greater than 980 dbar.

### 3.4. New CTD-O<sub>2</sub> data calibration software

After the hardware design of the new CTD acquisition system (see "*Refonte de l'hydrologie*", internal report OPS/LPO 08-04), the LPO has continued to consider ways to also improve the software part of the CTD measurement processing. A working group was established in 2011 to carry this out based on the recommendations of the GO-SHIP experts. The old calibration suite written in Fortran has been replaced by three new modules developed in MATLAB:

. Hydro\_net: software that: 1) cleans the probe measurements, mainly pressure, by thresholding and median deviation testing, 2) corrects the oxygen for hysteresis, 3) regenerates a bottle file from the corrected sensor measurements. (see Hydro\_net: CTD data cleaning software).

. Hydro\_cal: software that: 1) readjusts the CTD measurements according to laboratory calibrations and chemistry measurements, 2) reduces the processed data. (see Hydro\_cal: CTD data calibration software).

. Hydro\_val: CTD measurement validation software that: 1) eliminates the oxygen peaks, 2) corrects the density inversions due to the rosette wake, (see Hydro\_val: CTD data validation software).

One of the main innovations is that the processing is performed on the complete data (24 Hz), rather than reduced data.

The different calibration stages that will be detailed hereafter are :

- . Cleaning of the probe measurements with Hydro\_net. Calculation of the hysteresis on the oxygen sensor.
- . Processing of the measurements with the Seabird post-processing software.
- . Readjustment of the sensor measurements with Hydro\_cal according to the reference laboratory calibrations and chemistry measurements.
- . Reduction of the measurements to 1 Hz.
- . Cleaning, if necessary, of the oxygen peaks and density inversions with Hydro\_val.

### 3.5. Data preparation before calibration

#### 3.5.1. Data cleaning with Hydro\_net

The Hydro\_net software is used primarily to correct aberrant pressure measurements in the .cnv files. The measurements are cleaned with respect to thresholds, then using a median deviation test. The values chosen for CATARINA 2012 are shown in the following figure. Hydro\_net is applied to the probe measurements after decoding by datcnv: cat12st....cnv

Figure 1: Chaîne Hydrologie : Mise au propre des données avant calibration

Information generale   Nettoyage des données   Regeneration des fichiers .ros   Hysteresis   Autres

Nettoyage

Selection du repertoire de données  
   Rep...

Selection du repertoire resultat  
   Rep...

Choix de l'extension  
   File...    Liste des fichiers

Pause inter\_fichier   1

Seuillage	Pression	Temperature	Oxygene	Conductivite
Min.	0	-5	0	0
Max.	7000	30	5	70

Ecart a la mediane	Pression	Temperature	Oxygene	Conductivite
Taille de la fenetre	20	10	10	10
Nb std	2.8	3	2.8	2.8
Ecart min	1.5	0.05	0.01	0.01
Ecart max	10	0.3	0.4	0.4
Iteration	2	2	3	3

Valider   Annuler

**Hydro\_net** : options chosen for CATARINA 2012.

### 3.5.2. Correction for hysteresis

The principle of hysteresis correction on the SBE 43 sensor from Seabird is described in the application note SBE 64-3.

The hysteresis correction depends on three coefficients:  $H_1$ ,  $H_2$  and  $H_3$ . The default values of these coefficients are provided by Seabird. However, the coefficients  $H_1$  and  $H_3$  can be adjusted by minimizing the difference between the downcast and upcast profiles (see Bradley et al., 2010).

Using Hydro\_net, new coefficients were estimated for CATARINA 2012:

	Optimal coefficients	Seabird default settings
H1	-0.026	-0.033
H2	5000	5000
H3	1430	1450

The oxygen data were corrected using the optimal coefficients.

### 3.5.3. Processing with the Seabird routines

Seabird has developed a certain number of routines in its Seasoft V2 (SBEDataPostprocessing) software suite in order to improve the recorded probe measurements. The sequence of programs chosen by the LPO is the result of a study performed on the 2008 CTD cruises (see C. Kermabon, M. Arhan, "Validation et Réduction des données de la sonde 9+", June 2008). The Seabird programs are applied on the measurements output from Hydro\_net. The input files from hydro\_net are called: cat12st...T1\_trait\_hyst.cnv.

#### *Seabird processing*

**Filter:** filters the pressure measurements.

Low pass filter B, time constant (s) = 0.15

**Alignctd:** applies a delay of 4 seconds on the primary and secondary oxygen measurements.

**Celltm:** takes into account the effect of the thermal mass of the conductivity cell using a recursive filter.

Thermal anomaly amplitude (alpha) = 0.03

Thermal anomaly time constant (1/beta) = 7

**Loopedit:** flags the cycles compared to the speed of the probe.

Minimum velocity type = fixed minimum velocity

Minimum CTD velocity (m/s) = 0

Remove surface soak = not selected

Exclude scans marked bad = selected

### **3.6. Calibration of pressure measurements**

The SBE9+ probe is equipped with a Paroscientific digiquartz pressure sensor, whose accuracy is claimed by the manufacturer to be 0.015% of the full scale (10000 psi), or in our case  $\pm 1.5$  psi or  $\pm 1.0$  dbar, the claimed resolution being 0.001%, i.e. 0.1 psi or 0.07 dbar.

In general, the pressure sensor was calibrated before and after the cruise at the IFREMER laboratory of metrology, authorized by the "Bureau National de Métrologie" (B.N.M.). The sensor is connected to a Desgranges and Huot bench-top balance, which delivers a reference pressure with a maximum error of 0.75 dbar at the 6000 dbar level.

#### **3.6.1. Calibration of the pressure sensor under laboratory conditions at 20°C**

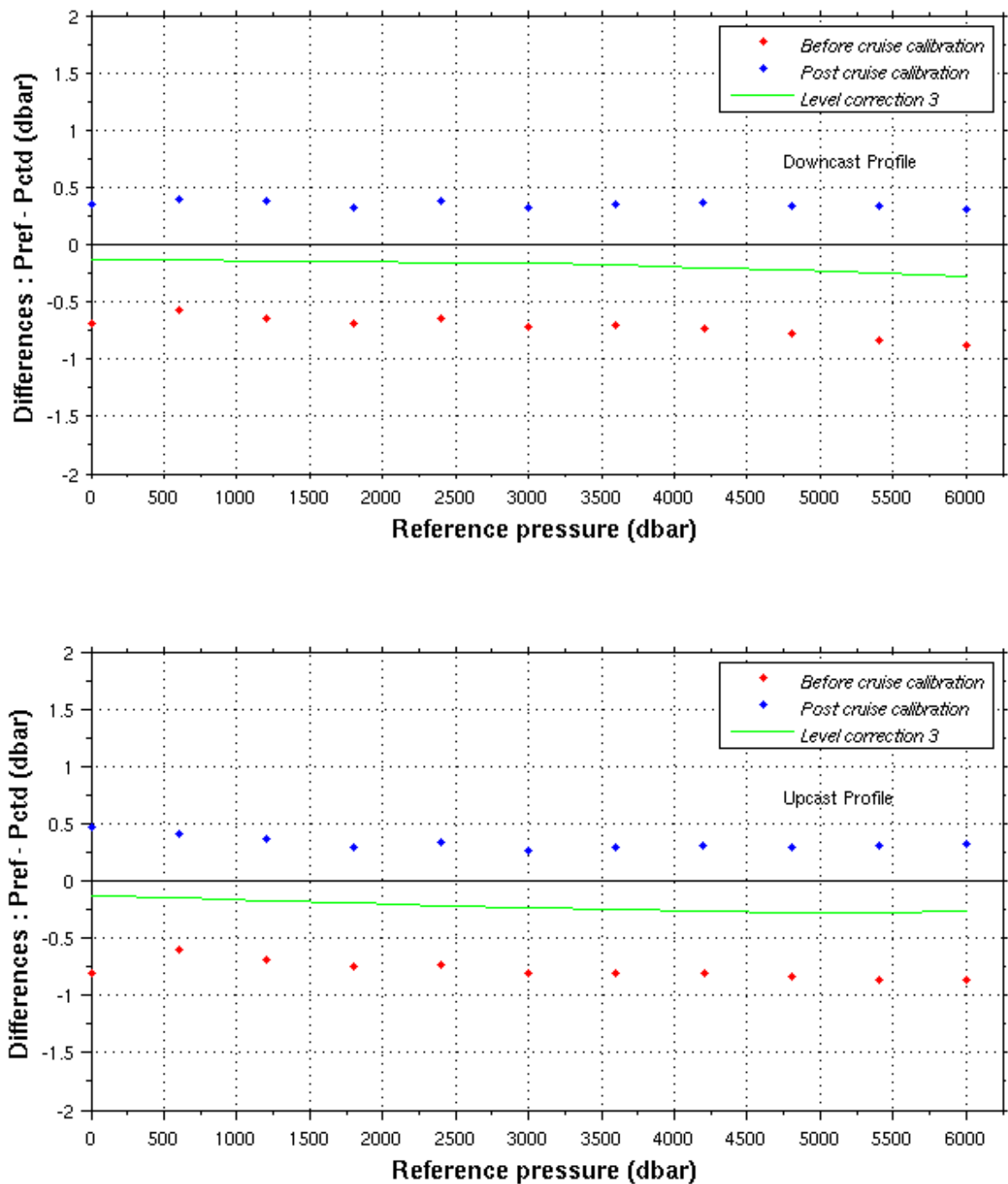
Three cycles of increasing and decreasing pressure, by successive increments of 600 dbar, from 0 to 6000 dbar, are performed at laboratory temperature, i.e. 20°C ( $\pm 1^\circ\text{C}$ ). The results obtained are shown in figure 7, in the form of mean differences between the reference pressure delivered by the bench-top balance and the equivalent pressure indicated by the sensor in the increasing pressure cycles (downcast profile of the probe) and decreasing pressure (upcast profile).

The distribution of points resulting from the pre- and post-cruise calibrations can be corrected by a polynomial of degree 3. These results highlight an excellent stability of the sensor: compared to the polynomial correction, the maximum difference observed (pre-and post-cruise; downcast and upcast) is 0.60 dbar at 20°C.

#### **3.6.2. Influence of the static temperature**

The response of the pressure sensor can be influenced by the outside temperature (see figure 8). The ocean temperature shows differences above 20°C between the surface and the bottom. The static effect of the temperature on the pressure sensor is studied in the laboratory by immersing the probe in a water bath at different temperatures. After stabilization of the bath temperature, we perform a cycle of increasing then decreasing pressure, recording the indication of the pressure sensor at separate increments of 1000 dbar. This operation is repeated at three different temperature points between -1 and 20°C.

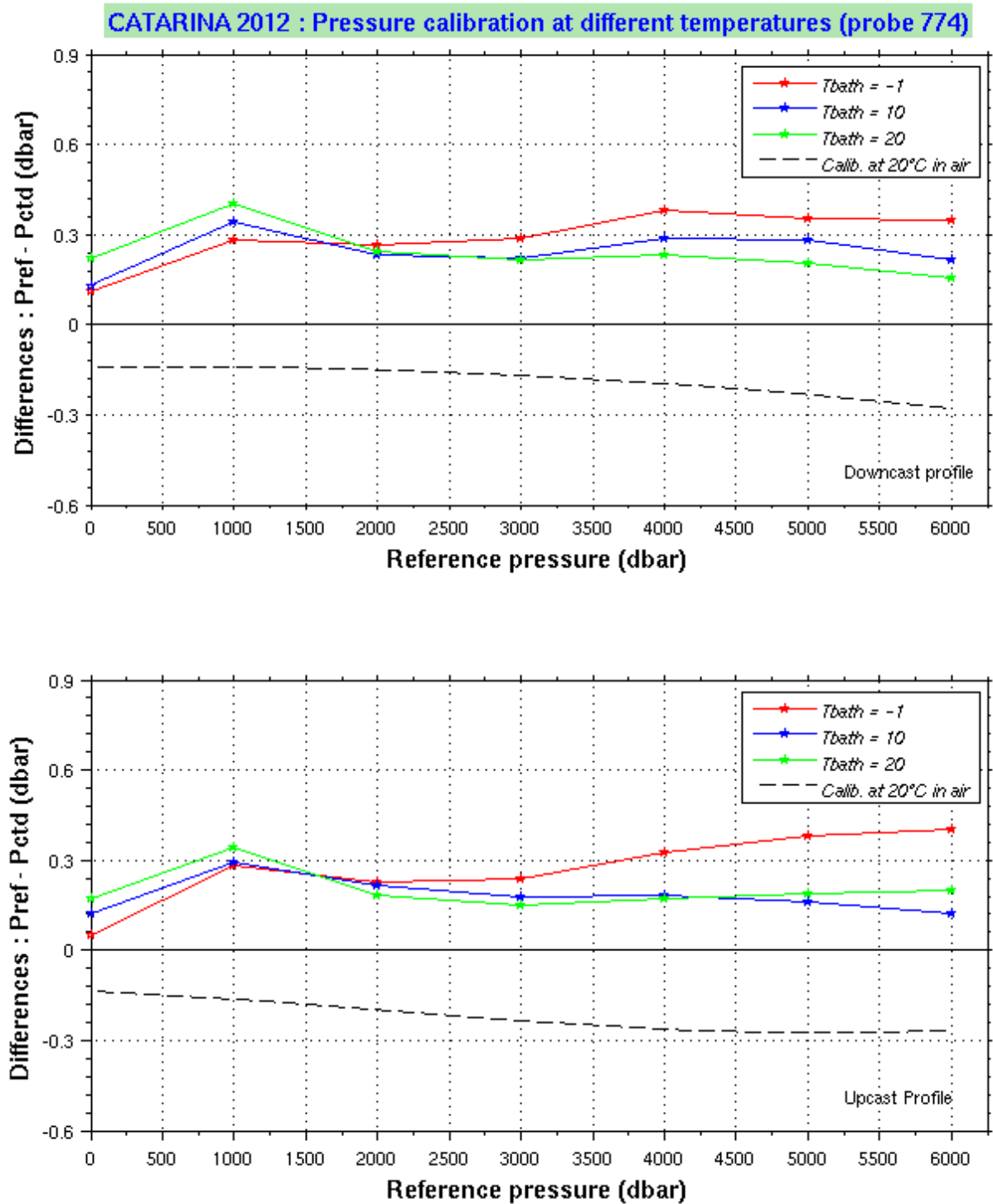
Considering the low impact of temperature changes on the pressure sensor and the strong temperature variations between the cruise casts, we do not apply specific static correction for CATARINA 2012.

**CATARINA 2012 : Pressure calibration at laboratory temperature (20°C) (probe 774)**


**Figure 7 :** Distribution of the mean differences, every 600 dbar, between the reference pressure and the pressure indicated by the Seabird sensor during pre-and post-cruise calibrations at laboratory temperature (20°C) :

- increasing pressure cycles (downcast profile),
- decreasing pressure cycles (upcast profile).

The curve of degree 3 that reduces the differences is represented.



**Figure 8 :** Response of the Paroscientific pressure sensor as a function of the temperature.

### 3.6.3. Influence of the dynamic temperature effect

The crossing of the thermocline, during the downcast and the upcast, causes an abrupt variation in temperature. This thermal shock, called the dynamic temperature effect, is simulated in the laboratory in order to study the behavior of the pressure sensor, which depends mainly on the quality of its insulation.

The sensor was submitted to a series of thermal shocks by suddenly immersing the probe, after a certain period at a given temperature, in a hotter or colder bath as appropriate. The parameters transmitted by the sensor (pressure, in situ temperature and internal temperature of the pressure sensor) were recorded during a time period sufficiently long to study the behavior of the sensor after this phenomenon (see Technical Note LPO-GT09-01, P. Branellec, M. Hamon).

These experiments allow us to conclude that the response of the Paroscientific pressure sensor is not influenced by this thermal shock. Consequently, no dynamic correction is made.

### 3.6.4. Correction of the pressure measurement on the CTD profiles

Taking into account the results of the laboratory calibrations, the pressure sensor is corrected by a pressure polynomial of degree 3 (fig 7).

Finally, we can consider that the uncertainty in the pressure measurement is of the order of the sensor accuracy: 1 dbar.

### 3.6.5. Validation of the CTD pressure measurement

#### *3.6.5.1. Monitoring of the pressure sensor*

The CTD pressure sensor reading was taken at different levels (in air before the launching, at the start of the downcast, at the end of the upcast), at each cast, in order to detect any potential variation during the cruise.

Figure 9 shows the values of the pressure sensor taken :

- . in air at the start of the cast. We record the frequency value indicated by the onboard instrument.
- . at the surface, at the start of the downcast (mean = 6.5) and at the end of the upcast (mean = 5.3).

These readings confirm the good stability of the pressure sensor during the cruise.

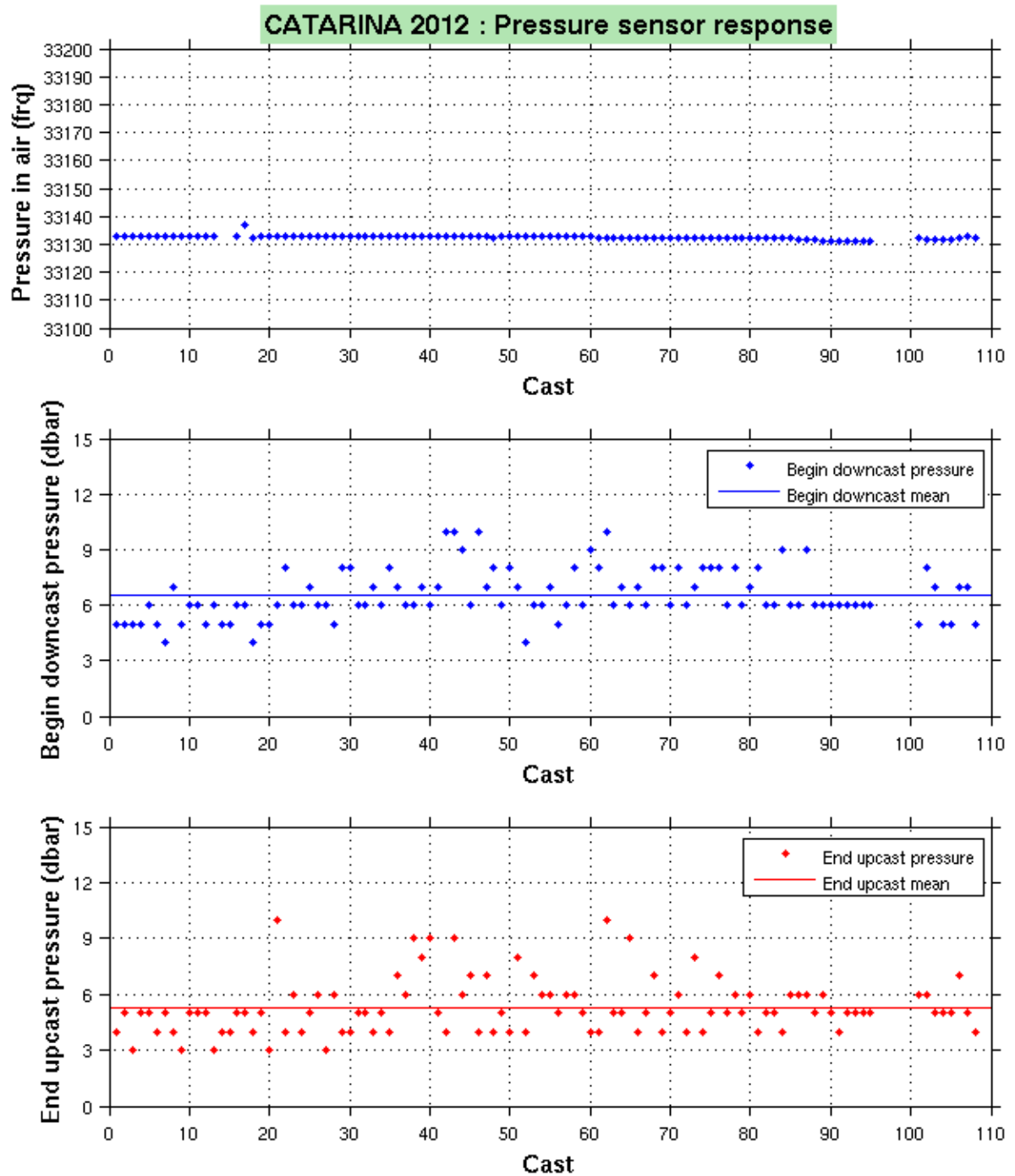


### ***3.6.5.2. Differences between SIS pressure meters and pressure sensor***

Bottle 1 was fitted with a SIS reversing pressure meter (RPM 6000X). The measurement of the pressure meter is taken when the bottle is closed and is fixed until it is read on deck. The accuracy claimed by the manufacturer is 0.1% of the full scale (6000 dbar), or 6 dbar. The pressure meters were not calibrated before the cruise.

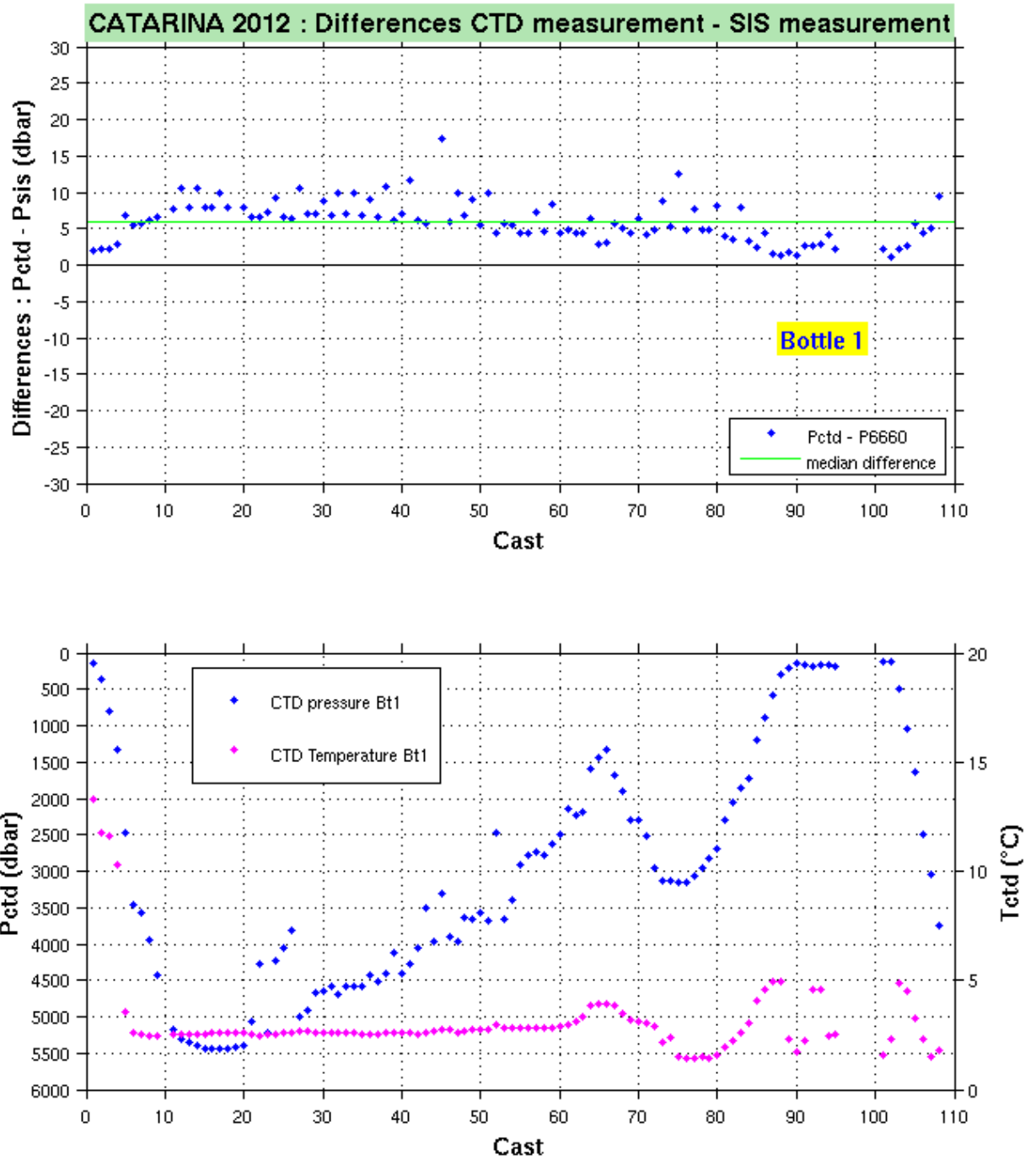
The pressure meter s/n 6660 was installed on bottle 1.

The differences between the readings of the pressure meters and the CTD pressure sensor were recorded at each cast. Figure 10 shows all the differences, which remained stable throughout the cruise. Median differences (bt1 = 6.0 dbar), represented by a solid line on the graphs, are consistent considering the accuracy of the pressure meters.



**Figure 9 :** Monitoring of the pressure sensor readings :

- a) in air at the start of the cast (value in Hertz),
- b) at the start of the downcast (the mean value is shown as a solid line),
- c) at the end of the upcast (the mean value is shown as a solid line).



**Figure 10 :** Monitoring of the differences between the SIS pressure meter and the CTD pressure sensor. The bottom graph specifies the pressure and temperature values upon closure of bottle 1.

### 3.7. Calibration of the temperature measurement

The UTM SBE9+ probes are equipped with two sets of T and C sensors. The temperature sensors are SBE3+ sensors from Seabird, the measurement resolution is  $0.0003^{\circ}\text{C}$  and the accuracy claimed by the manufacturer is  $0.001^{\circ}\text{C}$ .

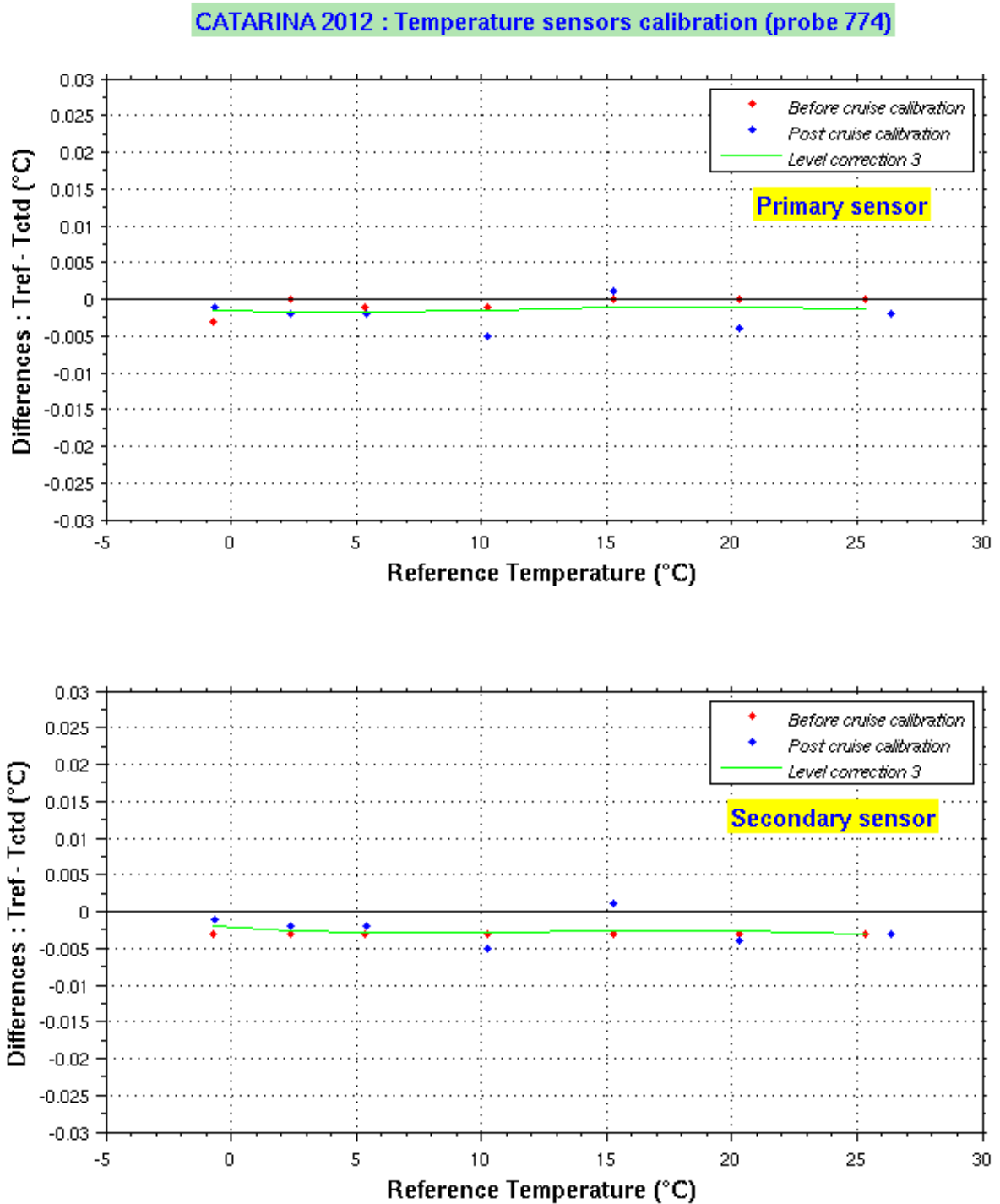
#### 3.7.1. Operating mode

The UTM's probes were calibrated in the IFREMER laboratory of metrology, before and after the cruise. The probe is fully immersed in a thermostat water bath whose temperature stability is strictly controlled. The reference temperature of the bath is provided by a Rosemount-type platinum resistance, placed in close proximity to the CTD sensor. This thermometer is periodically checked and certified by the "*Laboratoire National de Métrologie et d'Essais*" (LNE). The measured temperature is expressed on the EIT 90 scale. Several measurement points are thus tested by recording the temperature indicated by the CTD and comparing it to the reference temperature of the bath at several points between  $-1$  and  $20^{\circ}\text{C}$ .

The choice between the primary ( $T_0$ ) and secondary ( $T_1$ ) temperature is made by visualizing histograms of raw measurements of the probe at 24 Hz. The reduced files only conserve a single temperature. In the case of the CATARINA 2012 cruise, the choice was made to use the primary temperature ( $T_0$ ) for the complete calibration phase because of a more important noise on secondary sensor.

The temperature measurements obtained on the cruise profiles are corrected by applying a polynomial of degree 3, whose curve is shown in figure 11. This curve minimizes the differences (reference temperature - probe temperature) obtained during the calibrations performed before and after the cruise: the maximum error on the primary sensor is  $\pm 0.0035^{\circ}\text{C}$  and the standard deviation is  $0.0017^{\circ}\text{C}$ .

Finally, we consider that the uncertainty in the temperature measurement is of the order of the sensor accuracy:  $0.0017^{\circ}\text{C}$ .



**Figure 11 :** Differences between the reference temperature and the temperature measured by the SBE3+ sensor (primary and secondary) during pre- and post-cruise calibrations. The optimal correction (degree 3) is shown as a solid line.

### 3.7.2. Validation of the CTD temperature measurement

SIS thermometer (RTM 4002 X; accuracy =  $\pm 0.003^{\circ}\text{C}$ ) was installed on the sample bottle (bt1: T1752). The SIS thermometer takes a reading at the time of bottle closure, then the display is fixed until it is read on deck after the upcast of the probe.

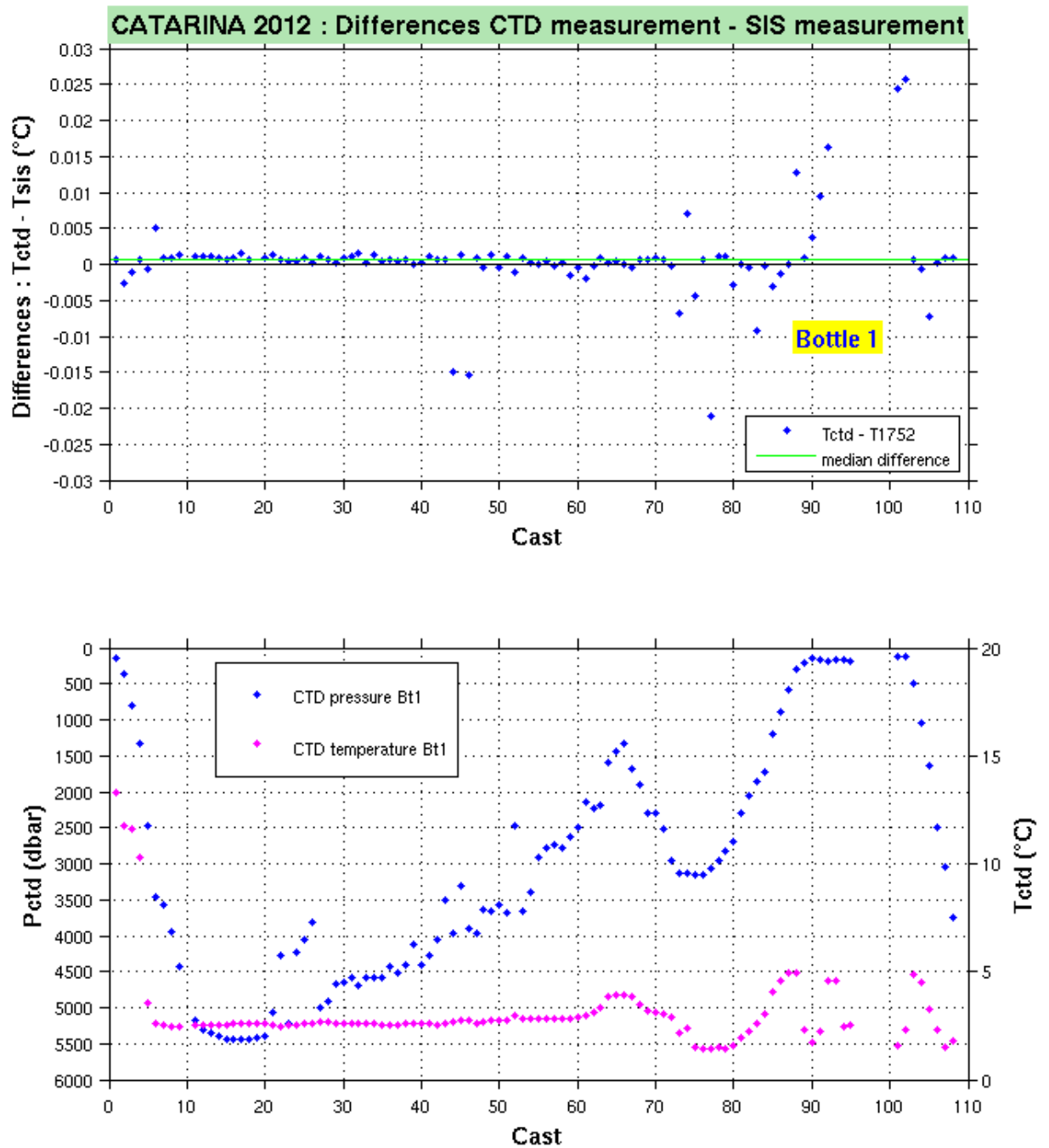
The differences in readings between these thermometers and the CTD measurement, at the level of bottle closure at each cast, are shown in figure 12.

We noted a greater dispersion of differences after the cast 74, which is perhaps related to the reduction in pressure at the time of bottle closure, leading to a greater variability. The median difference is equal to 0.0006 for the bottle 1.

The differences are generally very stable, demonstrating a good stability of the sensors.

*Electronic reversing pressure  
meter and thermometer in their  
supporting case.*





**Figure 12 :** Differences obtained, at each cast, between the SIS thermometer (s/n 1752) reading and the temperature indicated by the Seabird probe. The bottom graph specifies the pressure and temperature values at the time of closure of bottle 1.

### 3.8. Calibration of the conductivity

The SBE9+ probe is equipped with two SBE4 conductivity sensors, with a range of measurements from 0 to 70 mS/cm. The accuracy claimed by the manufacturer is 0.003 mS/cm and the resolution 0.0004 mS/cm. The serial numbers of the sensors, used during the cruise, are given in section III.1.2 Technical summary.

The choice between the primary ( $C_0$ ) and secondary ( $C_1$ ) conductivity is made before, by visualizing histogram of raw measurements of the probe at 24 Hz. The reduced files only conserve a single conductivity. In the case of the CATARINA 2012 cruise, the choice was made to use the primary conductivity ( $C_0$ ).

#### 3.8.1. Operating mode

The new calibration procedure for the conductivity measurements (COs), written according to the recommendations of the Go-Ship group, first involves the conversion of the chemical salinity to chemical conductivity ( $CO_H$ ) using the corrected values of the pressure and temperature sensors, at the sampling level.

The different corrections to be applied are calculated to minimize the differences  $\Delta C = CO_H - CO_S$ :

- . Correction as a function of time to take into account a potential slow drift of the conductivity sensor.
- . Correction as a function of the conductivity. The selected coefficients result from successive iterations on the considered group of samples. The process is stopped when no additional sample is removed at the end of the current iteration. It follows that, at the end of the last iteration, all the differences  $\Delta C$  are lower than the value:  $\Delta C_{\max} = 2.8 * \text{standard-deviation}$ , for the samples used in the calculation process.
- . Correction as a function of the pressure on the conductivity or the salinity.

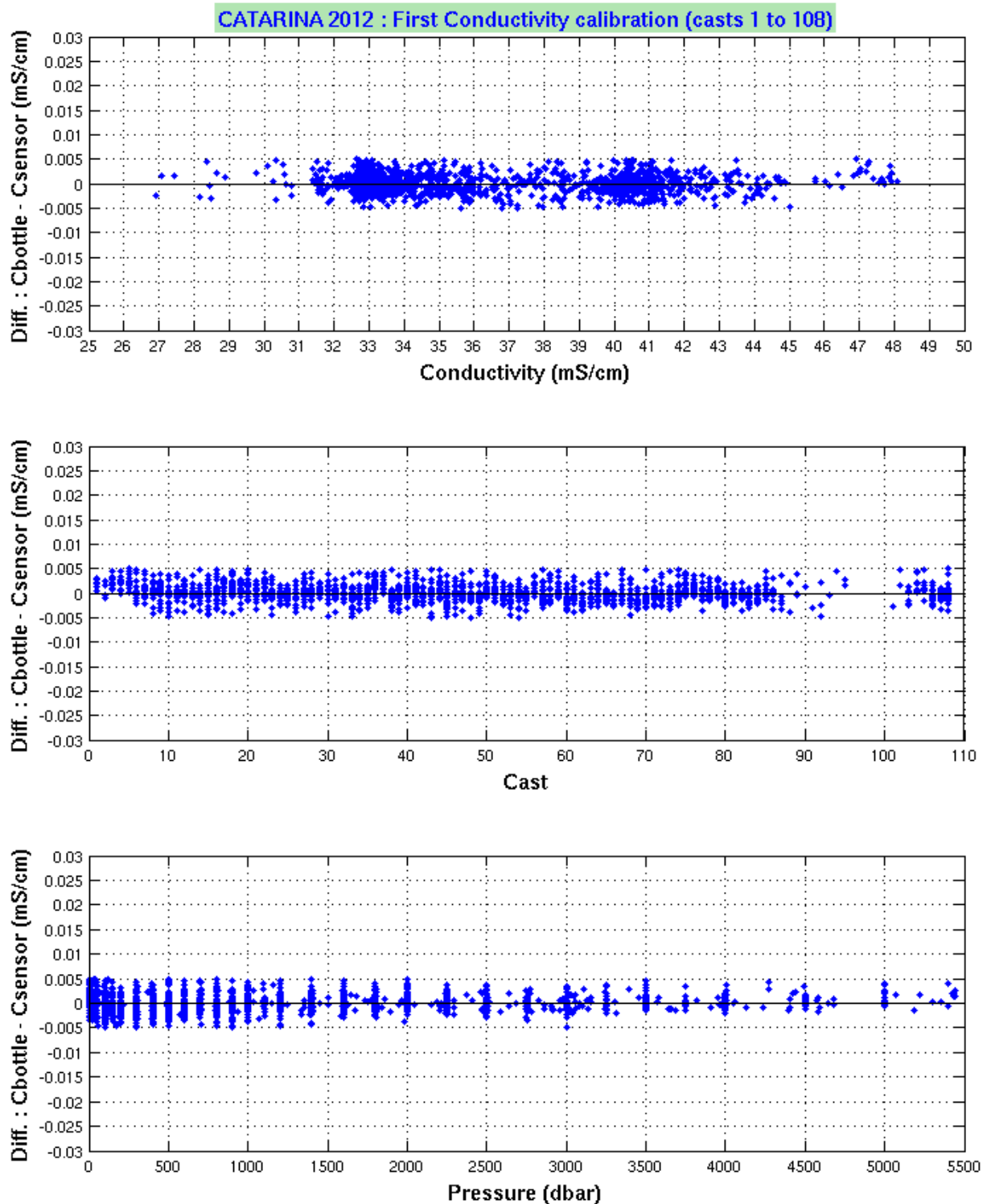
#### 3.8.2. Analysis of the initial results and strategy adopted

No slow drift of the conductivity sensor was observed, consequently no correction as a function of time is applied.

Concerning the correction as a function of the conductivity, a first iteration is performed on all the cruise casts. Figure 13 shows the remaining differences after recalibration of the CTD measures by the same conductivity polynomial (degree 1) for all casts. A detailed observation of the distribution of differences and the results listing shows that dividing the casts into groups does not improve anything. The theta-S diagrams confirm that the calibration on all casts is the most appropriate.

A correction of the pressure effect on the conductivity by application of a degree 1 pressure polynomial improves the differences (see figure 14).





**Figure 13 :** Differences between the conductivity of the samples and corrected probe conductivity at each sampling level:

- a) as a function of the conductivity,
- b) as a function of the number of the cast concerned,
- c) as a function of the pressure at the sampling level.

These differences are the result of a conductivity calibration on all the cruise samples, without temporal correction, without grouping casts and without pressure correction.

### 3.8.3. Assessment of the calibration of the conductivity profiles

The table below shows the results of the calibration of the conductivity measurements for the CATARINA 2012 cruise:

Cast or group	Number of samples considered	Number of samples conserved in the calculation	Standard deviation (0-5500 dbar)
1 – 95; 101-108	2010	1798 (89.5 %)	0.00172

The table shows, for each group of casts or isolated cast, the number of samples used for the calculation, the number of samples conserved by the process, as well as the resulting standard deviation for the group considered.

During the cruise, salinity was measured on 2010 samples. The calculation process validated 1798 of them, i.e. 89.45%.

No temporal correction was applied.

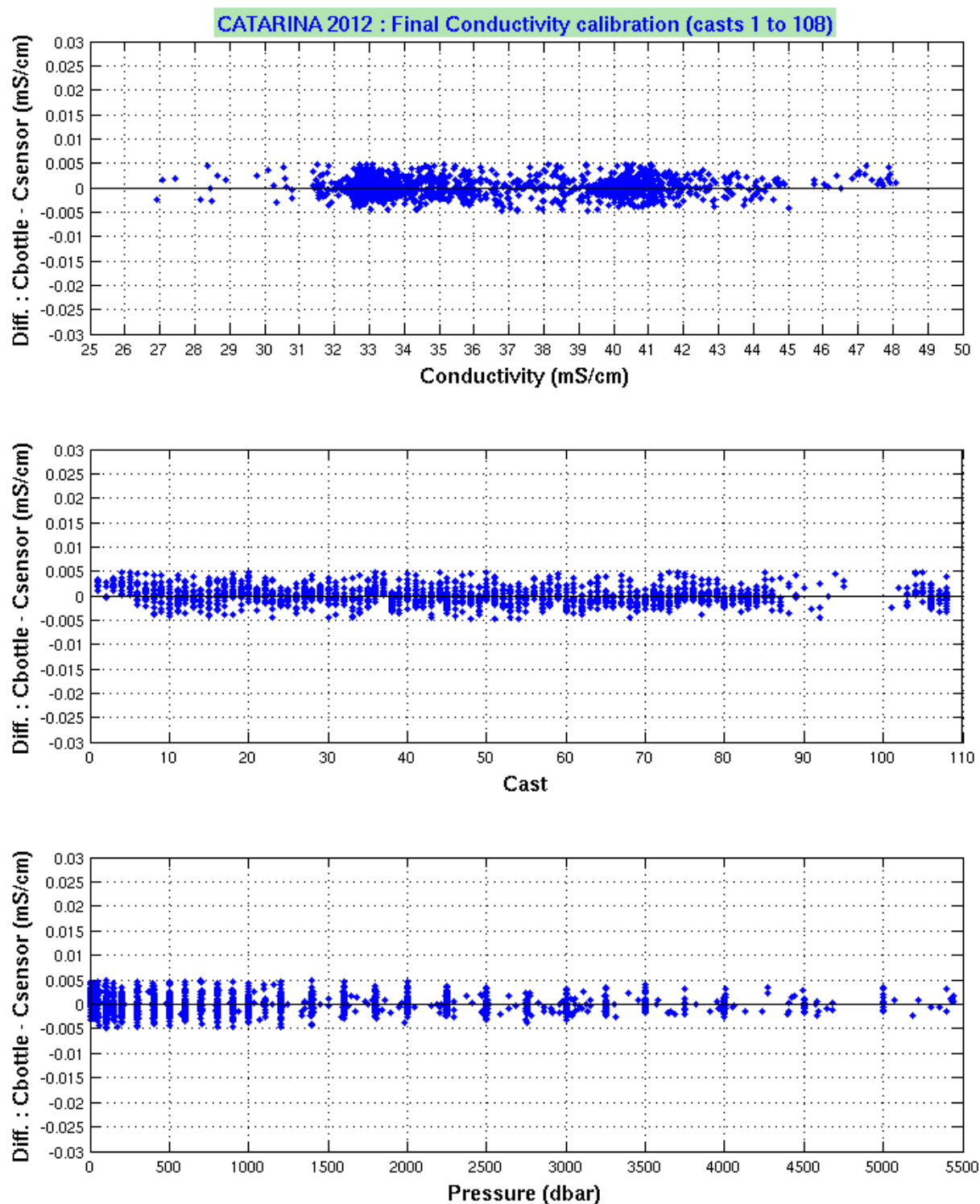
A detailed study of the differences and the theta-S shows that dividing the casts into groups does not improve the conductivity calibration. All of the casts in CATARINA 2012 were calibrated with the same conductivity polynomial degree (1).

Figure 14 shows the remaining differences in conductivity after conductivity calibration of all casts and correction of the pressure effect (polynomial of degree 1).

The histograms in figure 15 confirm that the distribution of the differences is satisfactory. In 48.3 % of cases, the differences in conductivity are lower than 0.001 mS/cm, while in 90.8 %, they are less than 0.003 mS/cm.

The overall assessment can be established as follows: the conductivity values of 1798 validated samples indicate a standard deviation between the sensor data and the chemistry data, for the whole cruise, of 0.0017 mS/cm.

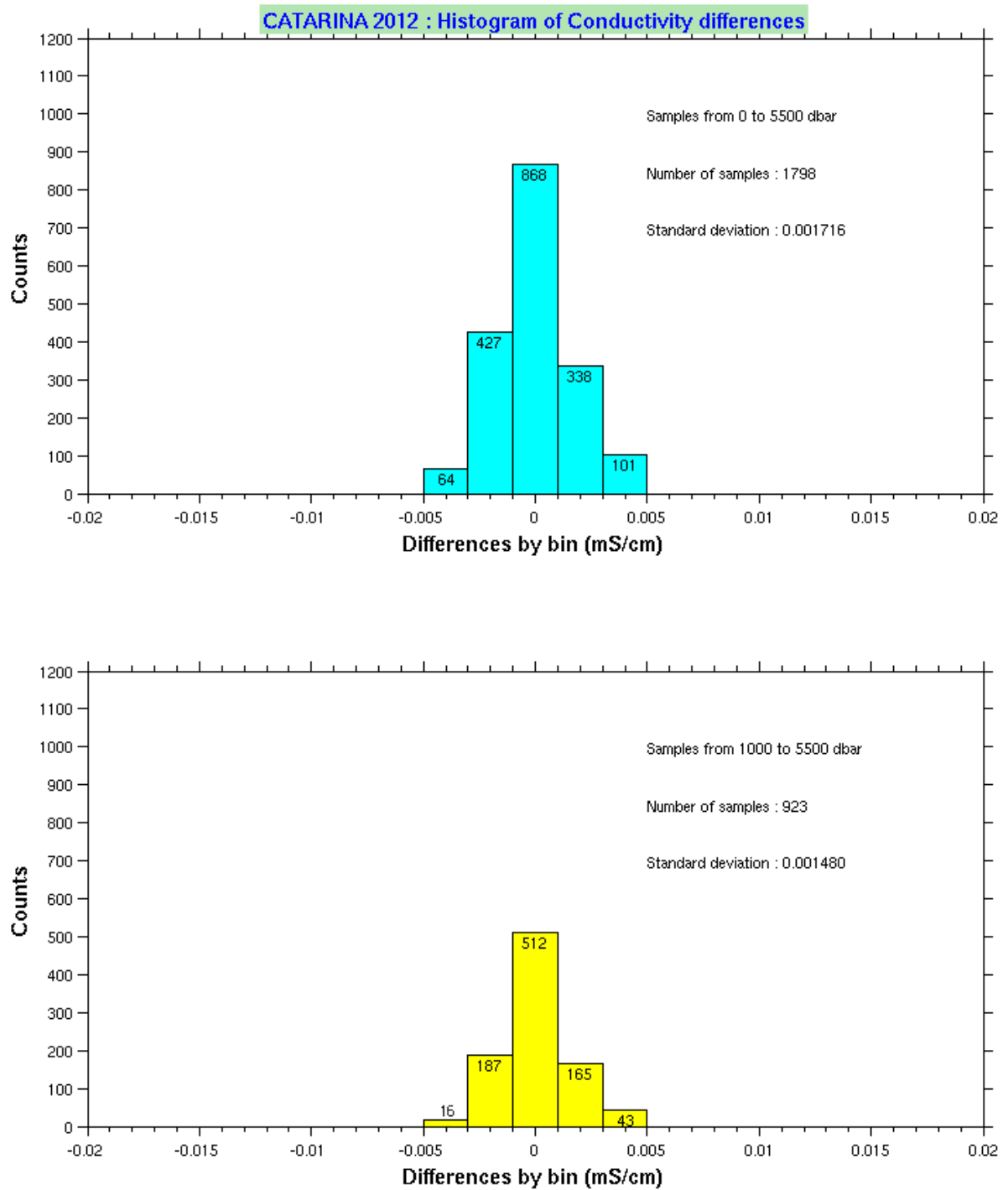
The histograms of differences in salinity after optimization are shown in figure 16: the standard deviation in salinity is 0.0019 psu.



**Figure 14 :** Differences between the conductivity of 1811 validated samples and the probe conductivity corrected at each sampling level:

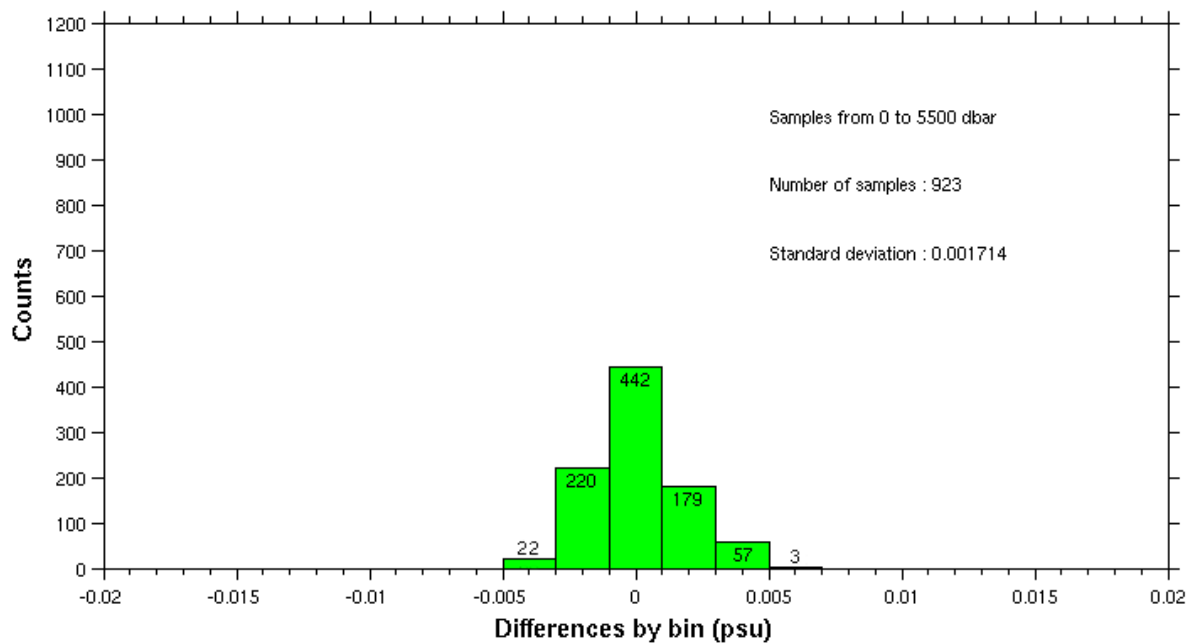
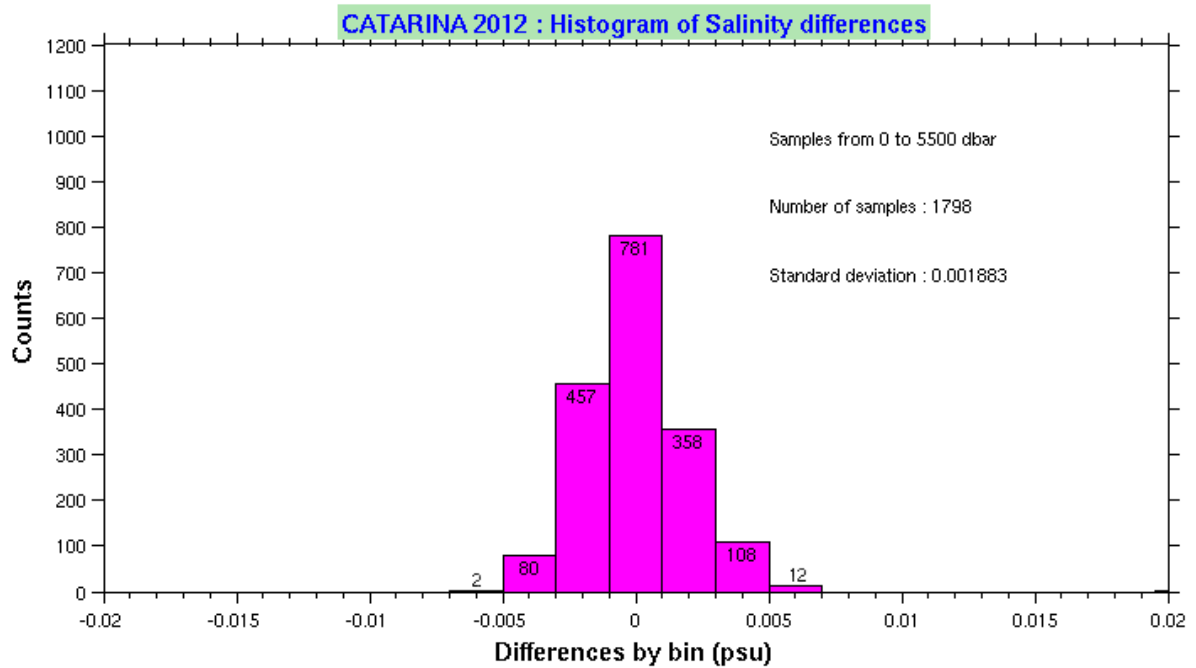
- a) as a function of the conductivity
- b) as a function of the number of the cast concerned,
- c) as a function of the pressure at the sampling level.

These differences are the result of a conductivity calibration on all the cruise samples, without temporal correction, without grouping but with correction of the pressure effect (polynomial of degree 1).



**Figure 15 :** Histograms of the differences between the conductivity of the validated samples and the ctd conductivity at the sampling level :

- for all the 1811 validated cruise samples,
- for the 1104 validated samples collected at a pressure greater than 980 dbar.



**Figure 16 :** Same legend as figure 15, but for the salinity differences.

### 3.8.4. Validation of the results

Figure 17 shows all the theta-S diagrams of the downcast profiles of the CATARINA 2012 cruise in deep waters. We observe a good repeatability of the diagrams that overlap in an acceptable way.

Saunders (1986) established a relationship between potential temperature and salinity in the Northeast Atlantic deep water masses. This relationship ( $S = 34.698 + 0.098 * \theta$ ) is marked in red in figure 17.

Figure 18 shows the theta-S diagrams of CTD casts carried out at the same points during the different OVIDE cruises:

Point 1: N 40 33.06 W 012 38.78

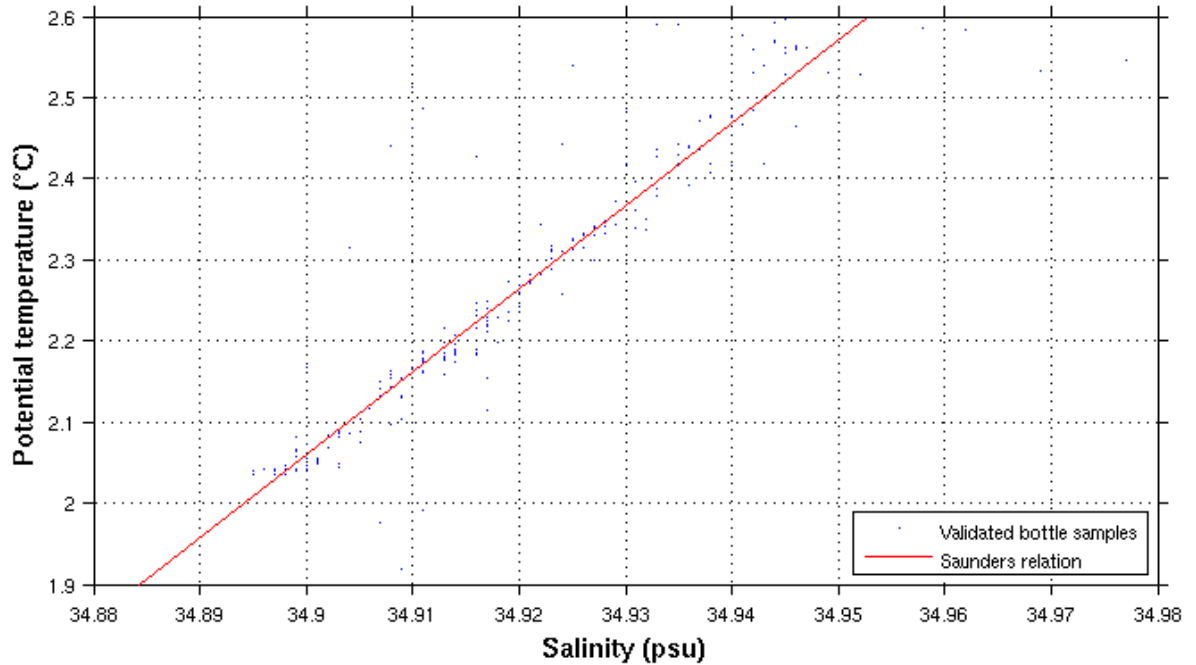
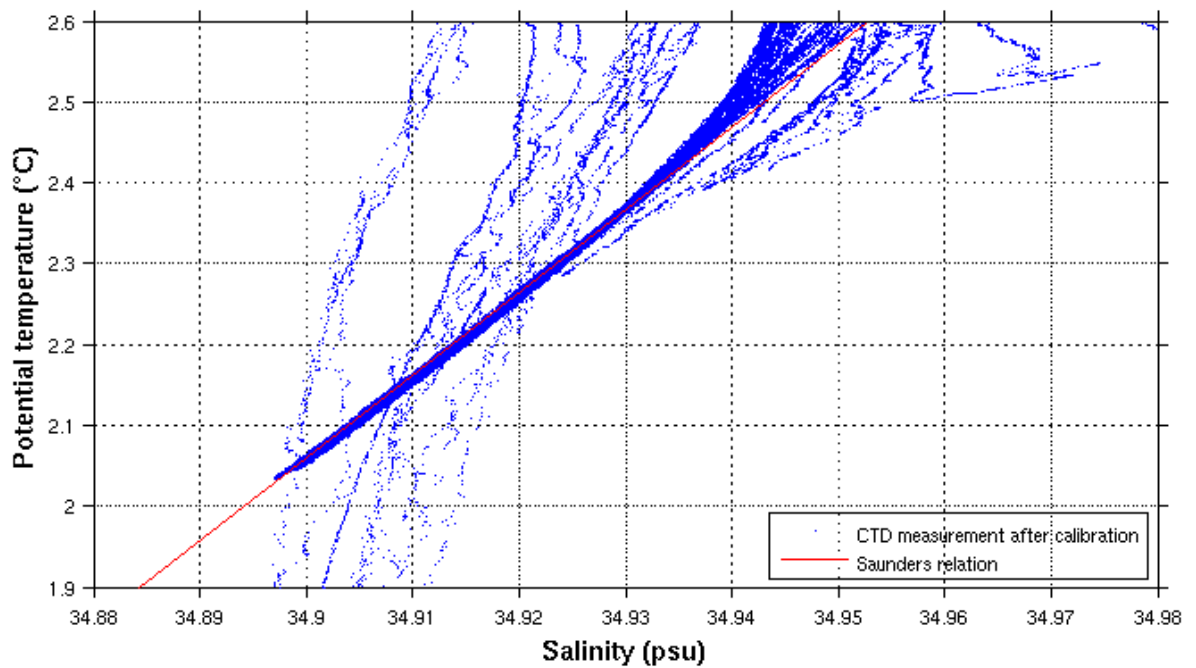
Point 2: N 47 39.78 W 020 33.23

CATARINA 2012 cast 14  
OVIDE 2010 cast 14  
OVIDE 2008 cast 16  
OVIDE 2006 cast 17

CATARINA 2012 cast 36  
OVIDE 2010 cast 36  
OVIDE 2008 cast 38  
OVIDE 2006 cast 39

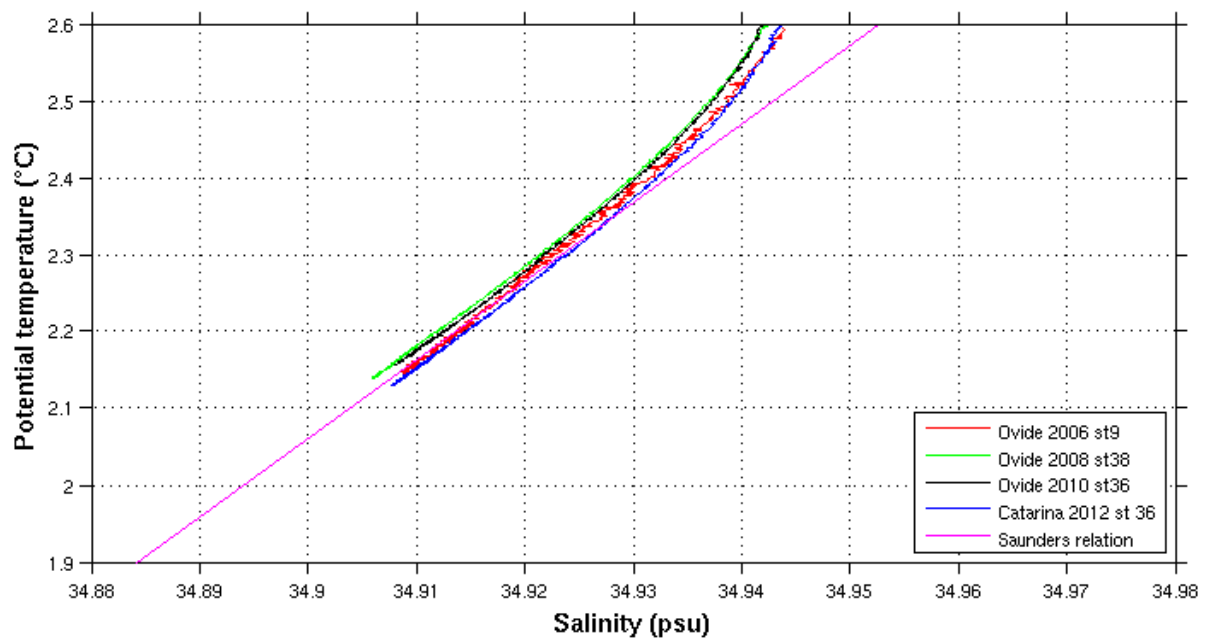
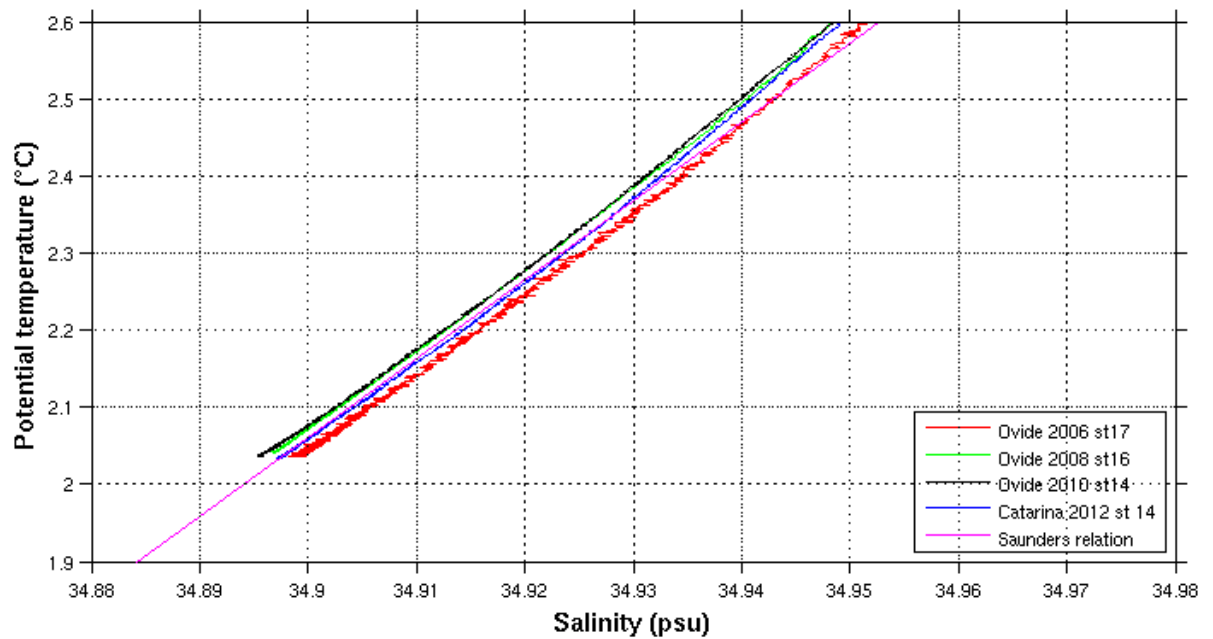
Figure 19 shows all the theta-S of the cruise, the colorimetry of the profiles changes gradually from blue to red, from cast 1 to cast 108.

### CATARINA 2012 : Theta-S diagram from CTD measurement after calibration



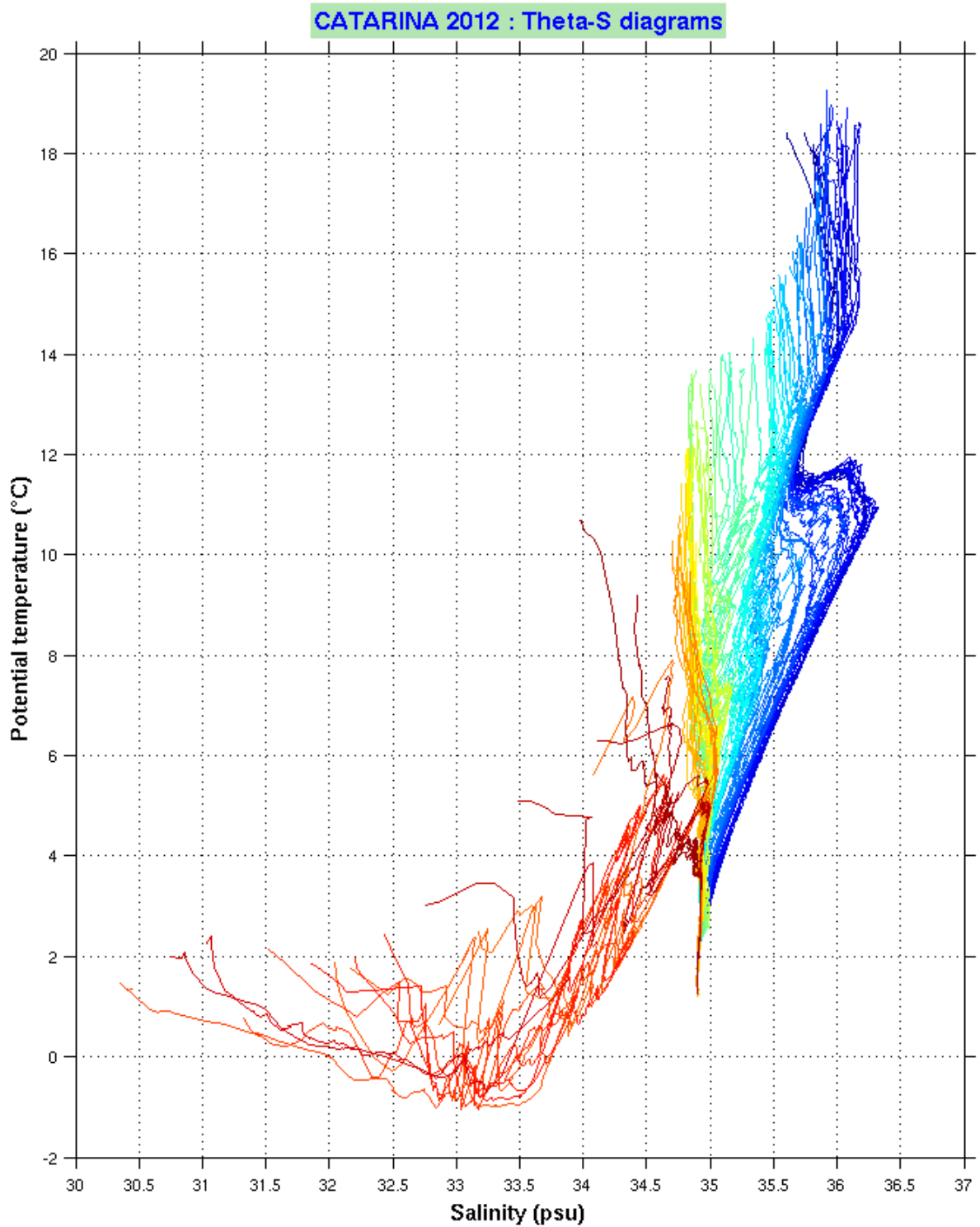
**Figure 17** : All theta-S diagrams of the casts of the CATARINA 2012 :  
 a) top graph, probe measurements on the downcast profiles,  
 b) bottom graph, 'bottle' salinity combined with the CTD potential temperature.  
 The line indicates the relationship proposed by Saunders (1986).

### CATARINA : Theta-S diagram comparison with Ovide cruises



**Figure 18** : Comparison of theta-S diagrams between CATARINA cruise and the different OVIDE cruises.





**Figure 19 :** Theta-S diagrams of casts 1 to 108 of the CATARINA 2012 cruise.

### 3.9. Calibration of dissolved oxygen profiles

The SBE9+ probe is equipped with two SBE43 dissolved oxygen sensors with a range of measurements from 0 to 120 % of the surface saturation. The accuracy claimed by the manufacturer is 2% of the saturation. The serial numbers of the sensors, used during the cruise, are given in the section III.1.2 Technical summary.

There was only one oxygen sensor, the reduced files only conserve a single oxygen measurement.

#### 3.9.1. Operating mode

The dissolved oxygen content, OXYSBE, expressed in ml/l, is calculated from the Vr information transmitted by the sensor using the formula proposed by Millard (1982).

$$\text{OXYSBE (ml/l)} = \text{soc} * (\text{Vr} + \text{Voffset} + \text{tau} (\text{T}, \text{P}) * \delta\text{V}/\delta\text{t}) * \text{oxsol} (\text{T}, \text{S}) \\ * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * e^{(\text{E} * \text{P} / \text{K})}$$

Vr: O<sub>2</sub> measurement in volts  
 $\delta\text{V}/\delta\text{t}$ : derivative of the signal SBE43 (volt/sec)  
 Oxsol: function for the calculation of the oxygen solubility (Garcia & Gordon 1992)  
 P: probe pressure (Daryl)  
 T: probe temperature (° C)  
 K: probe temperature (° K)  
 S: probe salinity (psu)  
 Soc, Voffset, A, B, C, E, tau: characteristics of the Seabird sensor

In practice, the term tau associated with the sensor time constant is neglected because rarely observed sharp oxygen gradients along the OVIDE section, and the tau corrections tends to adds noise in deep water (see Application note 64). The goal of the calibration is the determination of a new Soc and Voffset.

The oxygen in volts is corrected for hysteresis by the Hydro\_net program. For the calibration, the probe oxygen data (OXYS) is obtained from the downcast profile by averaging probe data (in Volts) over a 15 dbar layer centered on the sampling pressure.

The method used for the calibration of the probe measurements from the chemistry measurements (OXYC in ml/l) involves the determination of the coefficients M and B of the equation below to minimize the differences between (OXYC / phi) and (OXYS \* M + B).

$$\text{OXYC (ml/l)} / \text{phi} = \text{OXYS (volt)} * \text{M} + \text{B}$$

where:

- . phi = Oxsol(T,S) \* (1.0 + A\*T + B\*T<sup>2</sup> + C\*T<sup>3</sup>) \* e<sup>(E\*P/K)</sup>
- . M = soc
- . B = Voffset \* soc      thus      Voffset = B / soc

The Soc and Voffset coefficients (deduced from the values of M and B) of the Seabird sensor characteristics are determined for a set of samples, using successive iterations based on a principle similar to that for the conductivity.

### 3.9.2. Dissolved oxygen units

The unit used in the calibration procedure and in the graphical representations of this report is the milliliter per liter (ml/l).

The water temperature, at the time of sampling from the bottles, was taken with an Ebro thermometer (accuracy =  $\pm 0.3^\circ\text{C}$ ) before fixing of the oxygen by the reagents. We then deduce the density of the seawater sample, and the dissolved oxygen content can be converted to micromoles per kilogram ( $\mu\text{mol/kg}$ ) (see Mercier et al. 1992) following the equation :

$$\text{OXYS } (\mu\text{mol/kg}) = \text{OXYS } (\text{ml/l}) * V_{\text{mol}} / [\rho(\text{S,T},0) / 1000]$$

$$\text{avec } V_{\text{mol}} = 44.66 \mu\text{mol}$$

The dissolved oxygen data of the SBE43 sensor are therefore provided in both units.

### 3.9.3. Cast grouping strategy

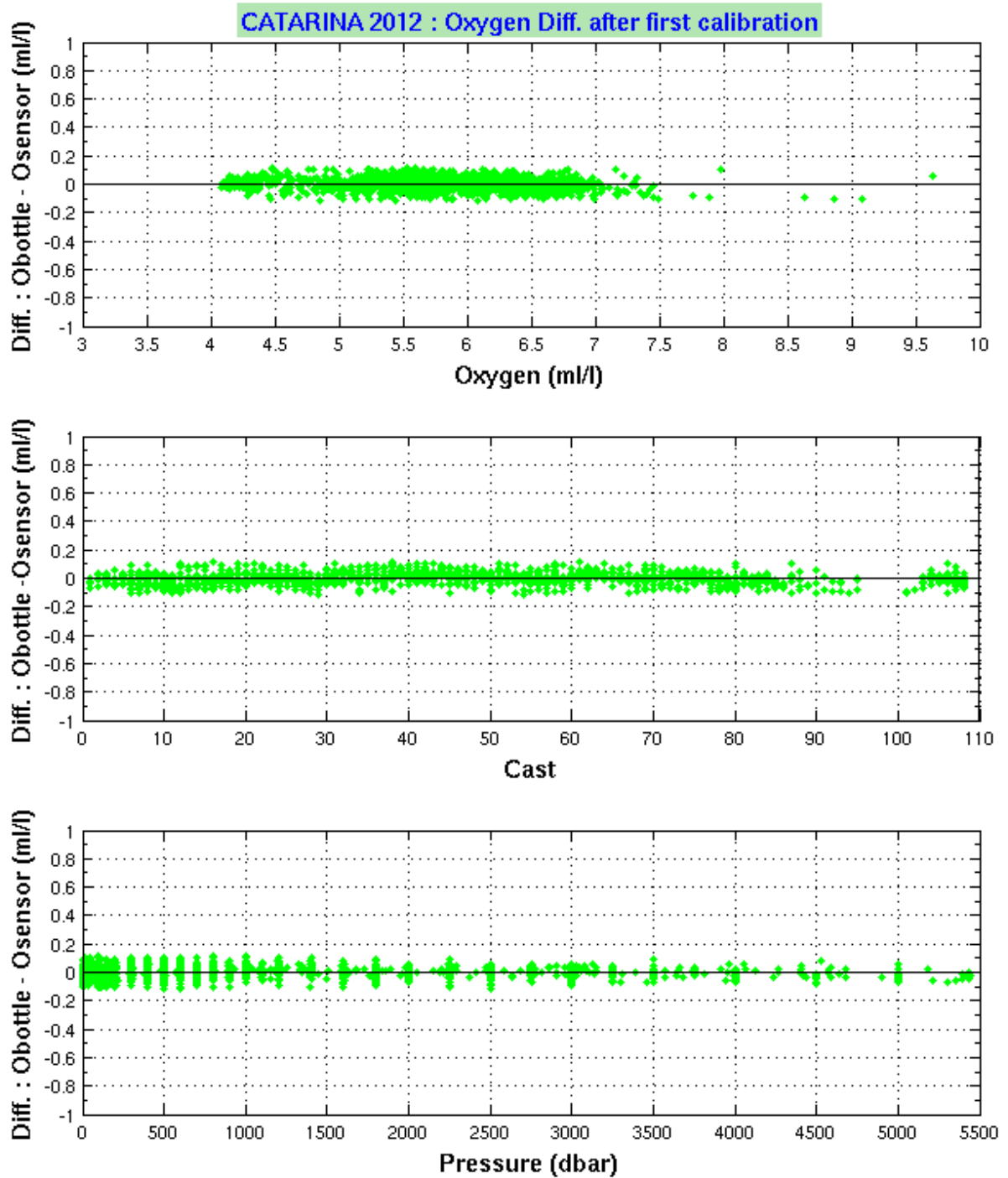
An initial determination of the sensor "characteristics" on all cruise samples allows an observation of the different successive phases of its behavior.

Figure 20 shows the distribution of the differences obtained after this initial global determination of Soc and Voffset coefficients.

A detailed analysis shows that dividing the casts into groups would improve the distribution of differences. Thus, each of these phases should be considered separately. Their identification and then a specific calculation is used to obtain, for each cast, a dissolved oxygen profile that fits well on the oxygen values obtained by chemical analysis.

### 3.9.4. Assessment of the calibration of the dissolved oxygen profiles

The table (page 61) groups all of the characteristic values of the coefficients used to calibrate the cruise profiles. This table shows, for each group of casts, the number of samples considered, the number of validated samples and the standard deviation in three pressure intervals, as well as the characteristic parameters of the sensor.



**Figure 20** : Differences between the oxygen values measured on the samples and that of the ctd downcast profile at the sampling pressure :

- a) as a function of the oxygen,
- b) as a function of the number of the cast concerned,
- c) as a function of the pressure at the sampling level.

These differences are the result of a calculation performed on all the cruise samples with no grouping and no correction for a pressure effect.

### Assessment of the calibration of the dissolved oxygen profiles of the CATARINA 2012 cruise

Cast or group of casts	Number of samples considered	Number of samples conserved in the calculation	Standard deviation			Coefficients	
			0 à 5500	0 à 1000	1000 à 5500	Soc	Voffset
1 - 16	323	289	0.035			0.457006E+00	-0.5239207E+00
17 - 34	417	384	0.034			0.460814E+00	-0.530871E+00
35 - 76	916	833	0.035			0.495476E+00	-0.523164 E+00
77 - 108	344	314	0.038			0.570577E+00	-0.543926E+00
1 - 108	2000	1820 (91.0 %)	0.036		0.029		

Figure 21 shows the final differences, after calibration of the profiles and application of a correction factor of degree 1 depending on the pressure, between the oxygen values obtained by analysis of the samples and those provided by the downcast profile at the sampling level. The distribution of these differences is correctly centered and acceptable for each of the cruise casts. The distribution of the differences presented as a function of the pressure shows that it is also acceptable for all sampling levels.

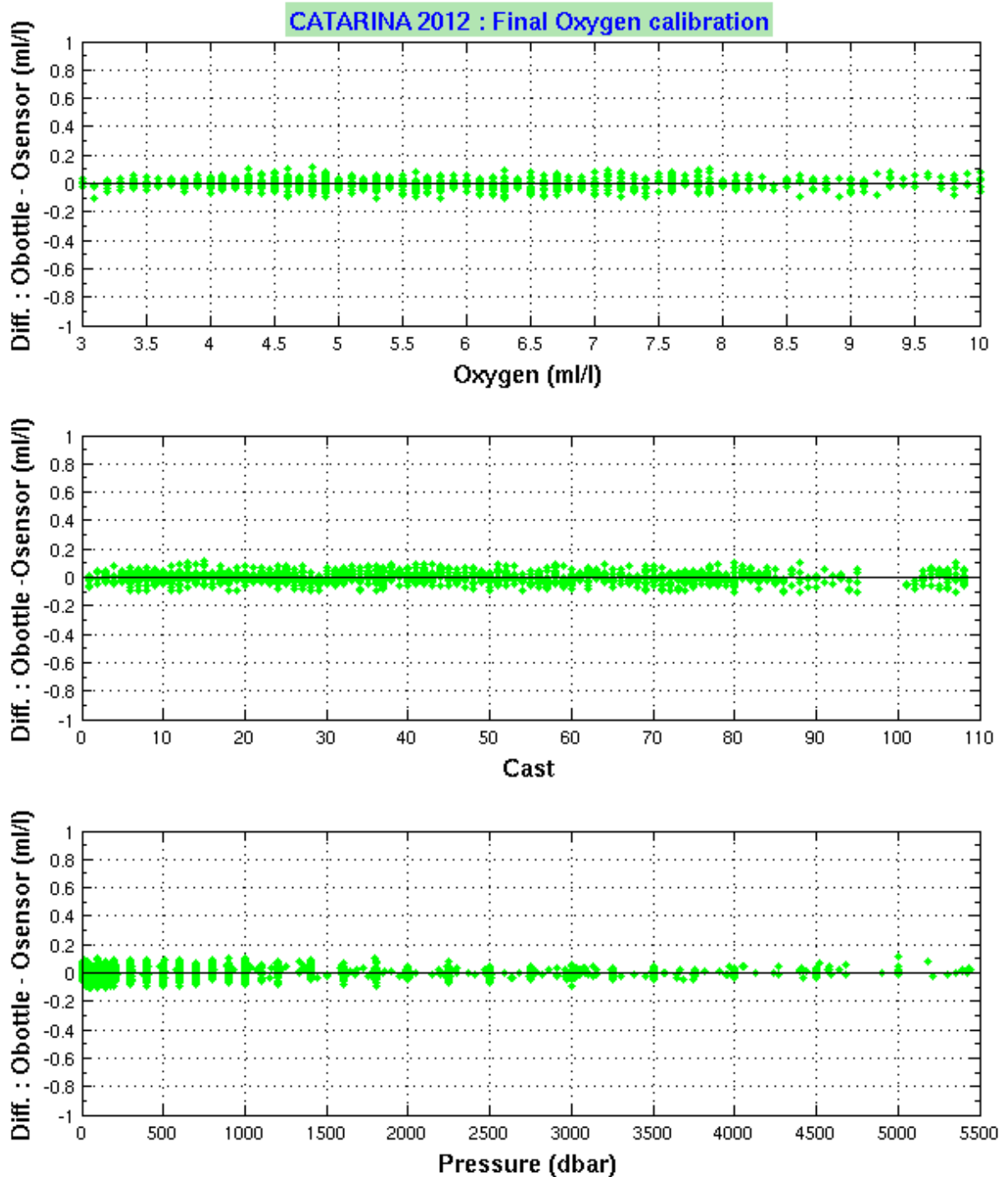
The histograms in figure 22 allow us to visualize the distribution of differences in a different way and to verify that their distribution is properly centered.

For the complete CATARINA 2012 cruise, 1820 samples among the 2000 analyzed, i.e. 91.0 %, were validated and used to calibrate the ctd dissolved oxygen profiles. The differences in oxygen are less than 0.025 ml/l in 54.3 % of cases and less than 0.075 ml/l for 95.2 %, giving a standard deviation of 0.036 ml/l.

Considering only the part of the oxygen profile greater than 980 dbar, i.e. 932 samples, the differences are less than 0.025 ml/l for 62.1 % and less than 0.075 ml/l for 98.1 %. The resulting standard deviation is 0.029 ml/l.

Figure 23 shows the same histograms for oxygen, in  $\mu\text{mol/kg}$ . The differences in oxygen are less than 1  $\mu\text{mol/kg}$  in 38.7 % of cases and less than 3  $\mu\text{mol/kg}$  for 82.4 %, giving a standard deviation of 2.33  $\mu\text{mol/kg}$ .

A test was done to check a possible improvement by using the potential density (instead of the pressure) to match the downcast probe profile and the levels of the bottle sample at the upcast. Although the number of validated pairs were higher, the final precision was similar thanks to the high number of samples.

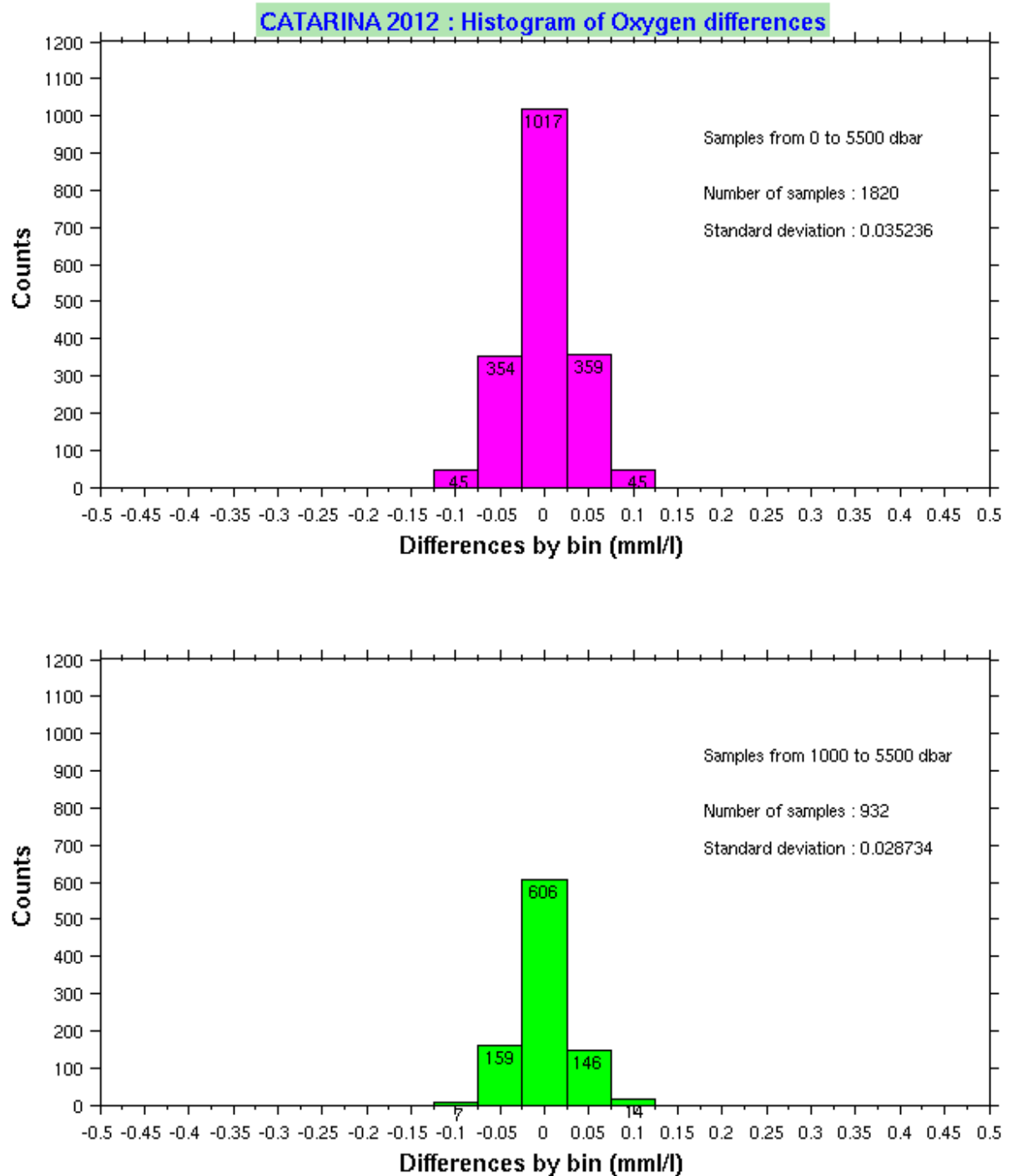


**Figure 21 :** Differences between the oxygen value measured on the 1820 validated samples and that of the ctd downcast profile at the sampling pressure:

- a) as a function of the oxygen
- b) as a function of the number of the cast concerned,
- c) as a function of the pressure at the sampling level.

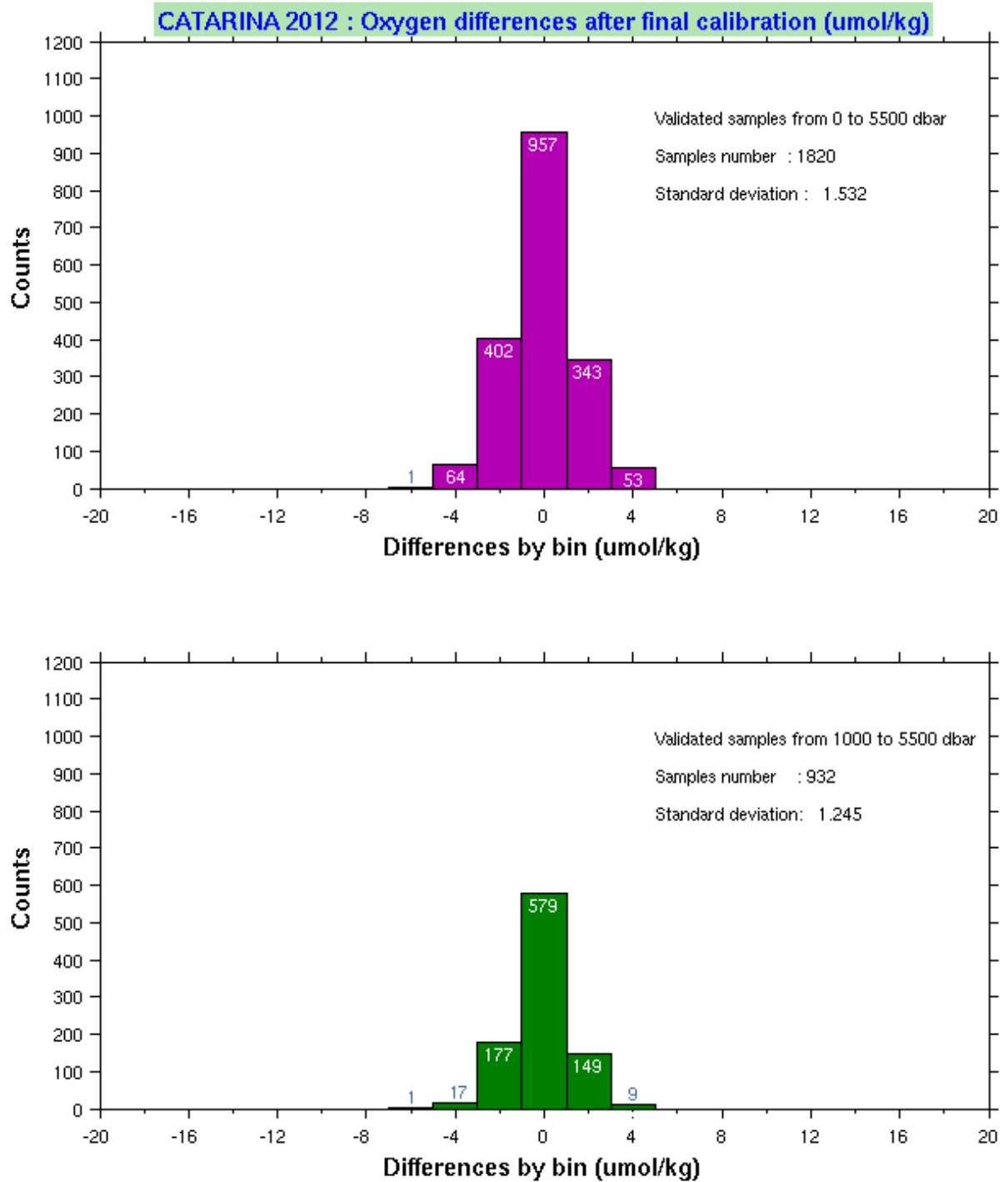
These differences are obtained after a specific calculation performed by cast or group of casts (a polynomial of degree 1 eliminates the dependence of the differences on the pressure).

The ctd measurements are averaged on a water column of 15 dbar.



**Figure 22 :** Histograms of differences in oxygen (ml/l) between the value measured on the validated samples and that of the ctd downcast profile at the sampling pressure (final measurements) :

- for all the 1820 validated samples on the cruise,
- for the 932 validated samples collected at a pressure greater than 980 dbar.



**Figure 23** : Histograms of the differences in oxygen ( $\mu\text{mol/kg}$ ) between the value measured on the validated samples and that of the ctd downcast profile at the sampling pressure (final measurements) :

- for all the 2214 validated samples on the cruise,
- for the 1136 validated samples collected at a pressure greater than 980 dbar.



### 3.9.5. Validation of the results

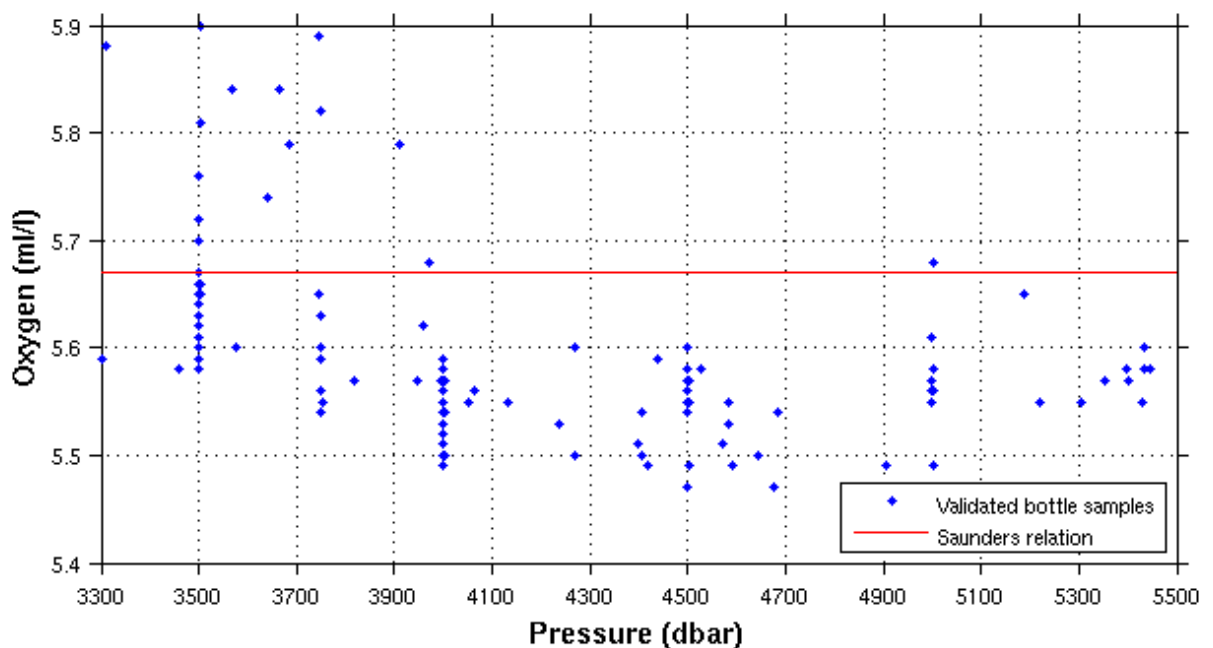
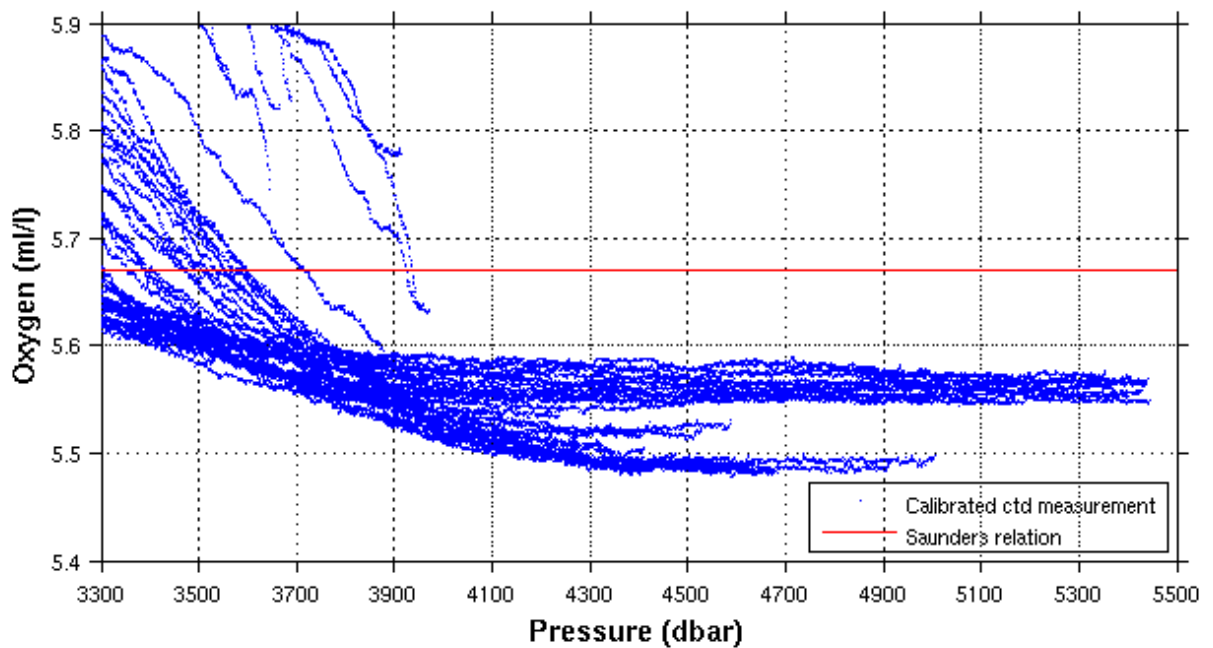
Saunders (1986) suggests that the dissolved oxygen concentration is almost uniform in the North-East Atlantic, at a pressure greater than 3500 dbar, with a value of  $5.67 \pm 0.02$  ml/l. However, he states that this concentration can be lower by 0.010 ml/l in the eastern part of the basin.

Figure 24 shows all dissolved oxygen measurements obtained by the Winkler method on the samples, as well as the calibrated dissolved oxygen profiles of the CATARINA 2012 cruise. From the results of this cruise, at a pressure greater than 3700 dbar and for the casts carried out in the North-East Atlantic, the data show indeed a good homogeneity, but a mean value of the dissolved oxygen measurements lower than Saunders by 0.10 ml/l in the Iberian Abyssal Plain and by 0.17 ml/l when moving to the northwest.

Figure 25 shows the theta-O<sub>2</sub> profiles of the CTD casts carried out at the same points during the different OVIDE cruises. The CATARINA profiles exhibit the lowest values.

Figure 26 shows all the theta-O<sub>2</sub> diagrams for the CATARINA 2012 cruise. The color of the profiles changes gradually from blue to red, from cast 1 to 108.

### CATARINA 2012 : Oxygen-Pressure diagrams after calibration

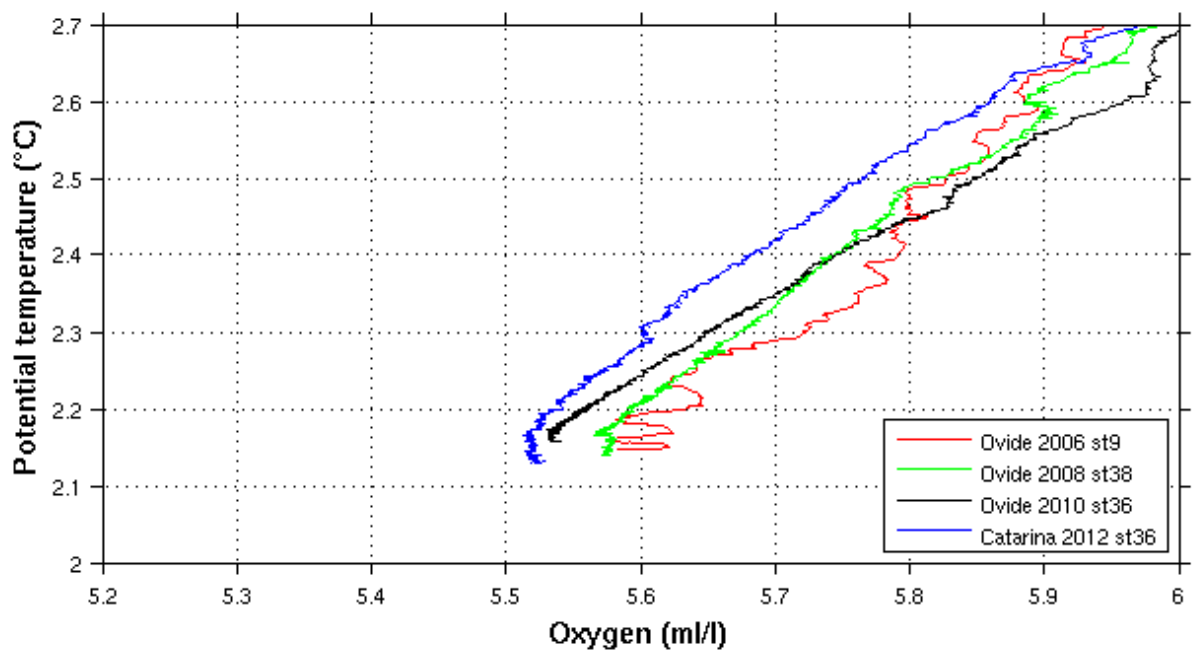
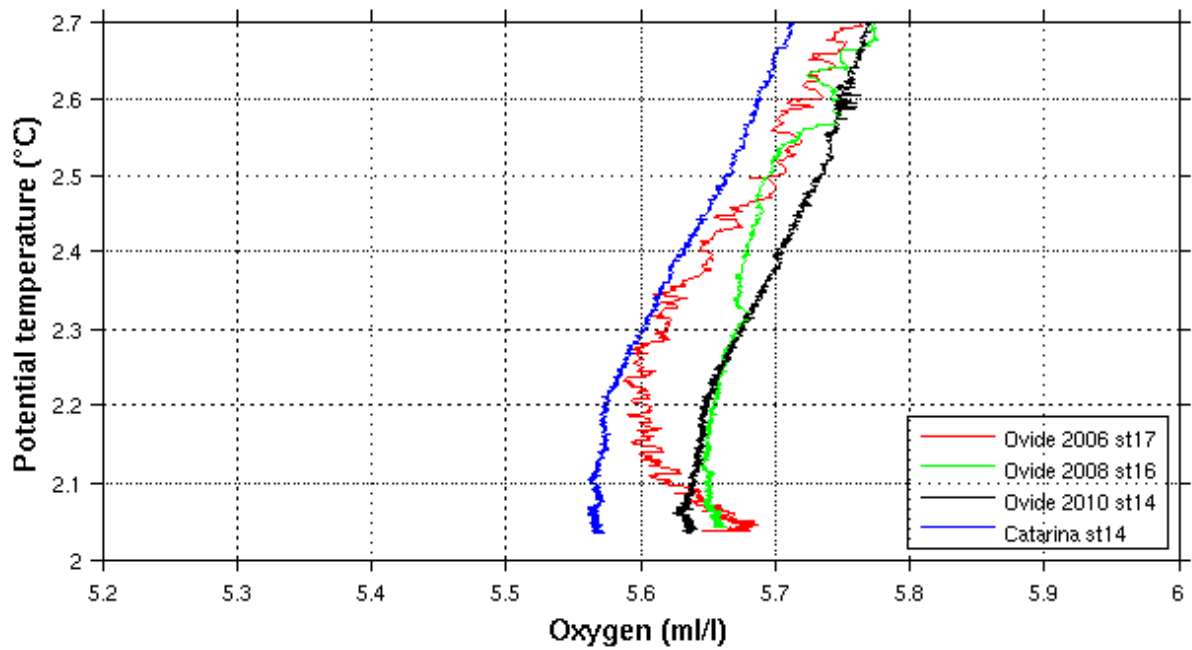


**Figure 24 :** All dissolved oxygen measurements for the CATARINA 2012 cruise at a pressure greater than 3300 dbar:

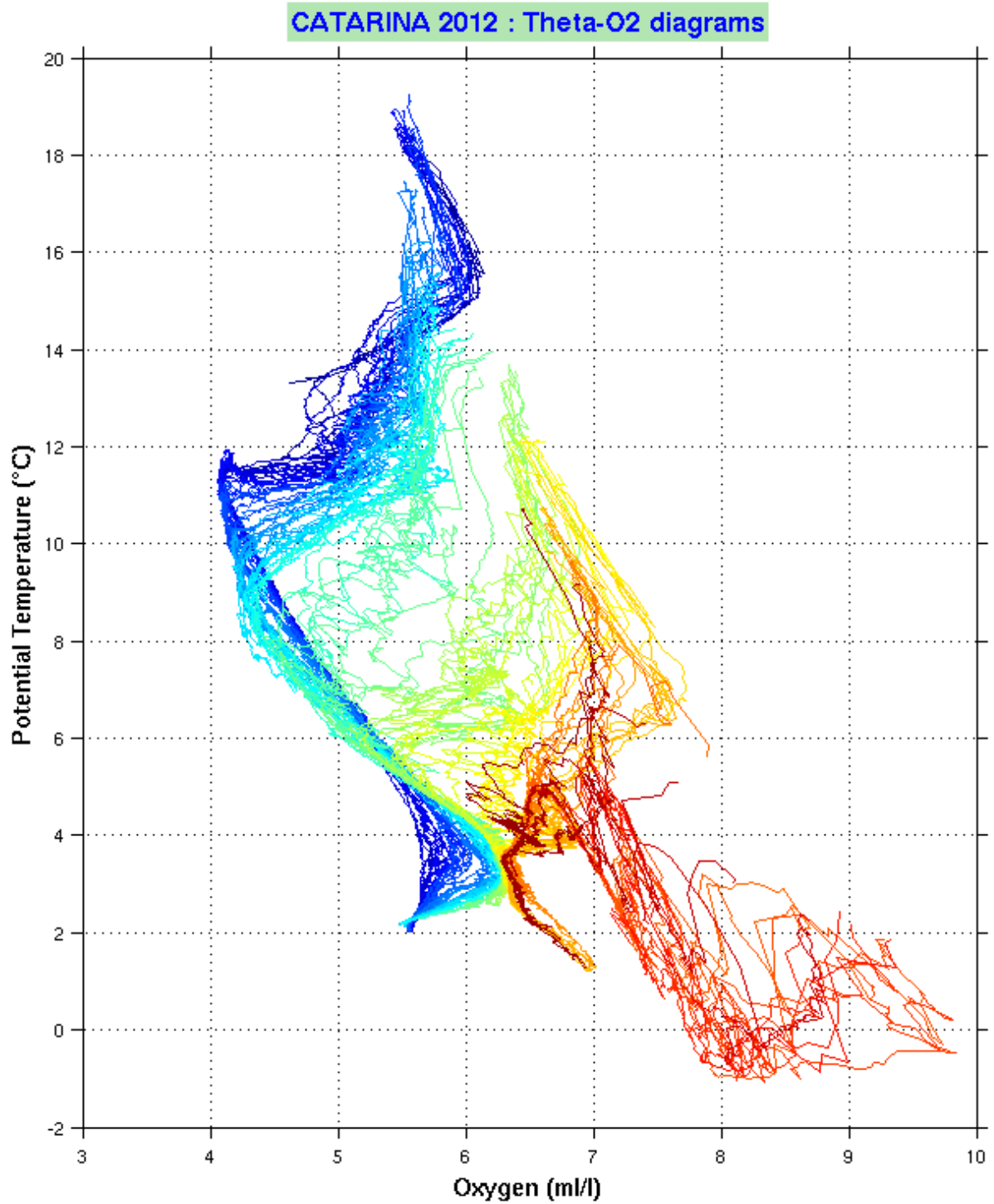
- a) continuous measurements on the probe downcast profiles,
- b) “chemistry” measurements obtained on the samples.

The line represents the reference value proposed by Saunders (1986) in the Northeast Atlantic.

### CATARINA 2012 : Theta-O<sub>2</sub> diagram comparisons with Ovide cruises



**Figure 25 :** Comparison of theta-O<sub>2</sub> profiles carried out at the same points during CATARINA cruise and the different OVIDE cruises.



**Figure 26 :** Theta-O<sub>2</sub> diagrams for casts 1 to 108 of the CATARINA 2012 cruise.

### 3.10. Data reduction

All of the calibration part of the data processing is done based on the total probe measurements at 24 Hz. The data are then reduced to one measurement per decibar and we conserve only the set of sensors (primary here) used during the calibration.

The elimination of non-validated cycles and the data reduction was carried out using the parameter gradients as elimination criteria:

$$\text{abs}((\text{ParamCycle}(N)-\text{ParamCycle}(N-1))/(\text{PressionCycle}(N)-\text{PressionCycle}(N-1)))$$

A cycle is validated if the values of the gradients are lower than the selected thresholds. Initially, a determination of the gradient histograms allows us to choose threshold values beyond which the parameters will be rejected. After removal of non-validated cycles, the decimation of the data is performed by calculating, for each integer pressure value, the mean of the parameters on 1 dbar-width interval centered on this value.

The set of criteria allowing to reduce the probe measurements is described in the document: "Validation et Réduction des données de la sonde SBE9+", C. Kermabon, M. Arhan, Nov 2008.

The options used for the CATARINA 2012 cruise are shown below (surface and bottom mean above and below 1500m respectively):

Threshold values for casts 1 to 86 and 104 to 108 :

Echant.	1	Nb val min	6
Seuil P	0.5		
Seuil T, C surf	1.0	Seuil T,C fond	0.2
Seuil O (Volt) surf	1.0	Seuil O (Volt) fond	1.0

Threshold values for casts 87 to 95 and 101 to 103 :

Echant.	1	Nb val min	6
Seuil P	0.5		
Seuil T, C surf	3.7	Seuil T,C fond	0.5
Seuil O (Volt) surf	2.4	Seuil O (Volt) fond	2.4

The downcast and upcast files were generated in netcdf format:

. cat12d..._cli.nc	for the downcasts
. cat12a..._cli.nc	for the upcasts

### 3.11. Validation of the profiles

The Hydro\_val software (see Hydro\_val: CTD data validation software) first allows to flag as 'bad' (QC = 4) the small number of oxygen peaks which were not eliminated during the data reduction.

The second function of hydro\_val is to analyze the density inversions in order to flag the corresponding T, S, O<sub>2</sub> data as bad, if necessary.

#### 3.11.1. Validation of the oxygen

The window on the right shows the options used to validate the dissolved oxygen profiles from casts 1 to 108. The downcasts and upcasts are corrected. The annex 1 lists all oxygen corrections.

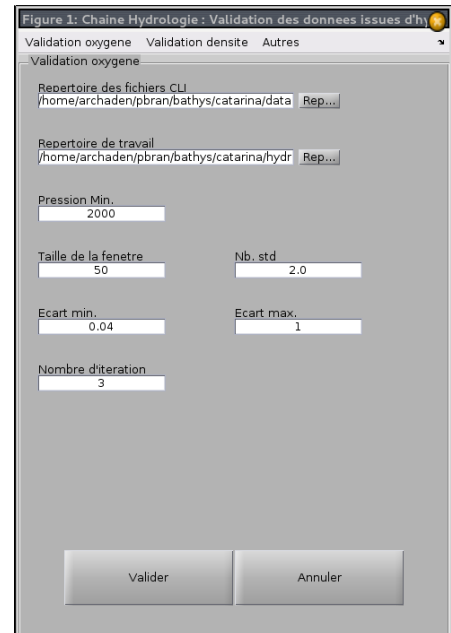


Figure 27 shows an example of oxygen correction for OVIDE 2010 cruise zoom, before and after data flagging.

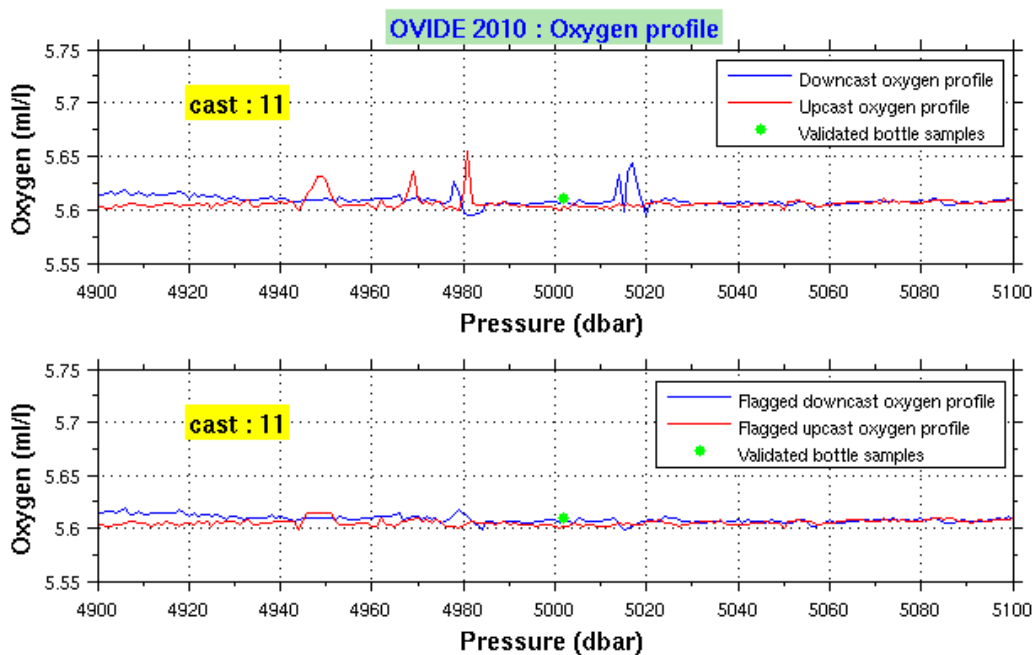


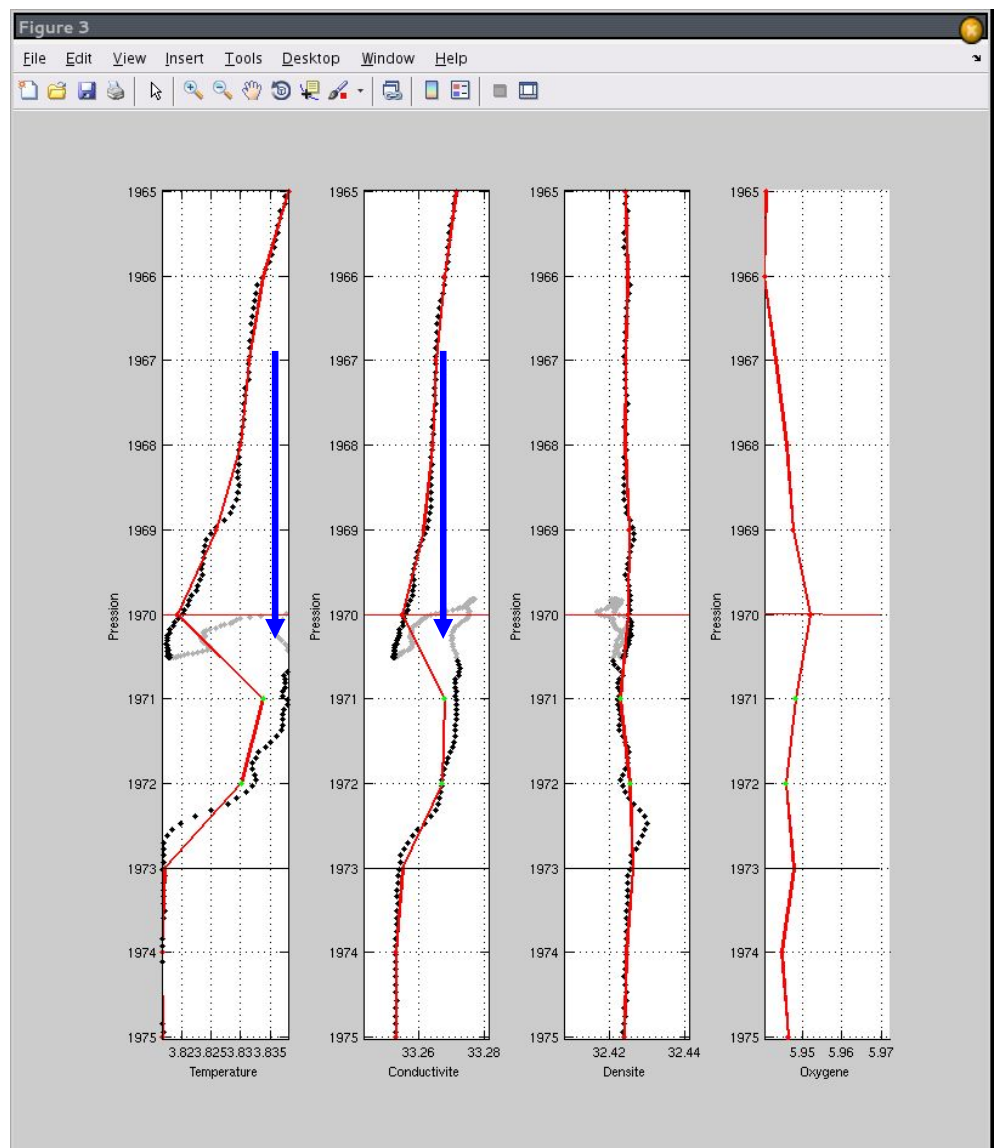
Figure 27 : Example of invalidations of oxygen measures by hydro\_val.

### 3.11.2. Density inversions

By superposing the reduced file, the adjusted file at 24 Hz and the file before loopedit at 24 Hz on the same graph (figure 27), we can detect density inversions linked to the drag of the probe.

We can see on the graph below (figure 28) representing a downcast, that the peak at 1971 and 1972 dbar in T and C corresponds to the measurements recorded by the probe 3.0 dbar upward. This entrained water (blue arrows) was drawn in by the frame and pollutes the sensors when the probe slows down (grey points). These inversions are not at all physical: they must be identified and the quality flag is set to 4 (QC = 4) for all the parameters. During the transfer to the .clc.nc files (intermediate format before the multi-cast format), a linear interpolation will be performed at these locations.

The reduced profile is shown in red, the adjusted data at 24 Hz in black, and the data at 24 Hz before loopedit in grey.



**Figure 28** : Example of invalidation of density inversions.

The list of all density inversions, clearly identified as a wake artefact and flagged to 4, is in annex 2.

### 3.12. Accuracy of the CATARINA 2012 measurements

The calibration phases of the CTD measurements allow us to determine the accuracy of the different types of measurements (probe, chemistry). The table below shows the accuracies obtained for CATARINA 2012 :

- . for P and T CTD data, the standard deviation of the differences between reference and sensor.
- . for C, S, O<sub>2</sub> CTD data, the standard deviation of the differences between chemical and CTD data.
- . for S, O<sub>2</sub> chemical, the standard deviation of the replicates.

Figure 1: Chaîne hydrologie – Ajustage des données CTD sondes SBE

Menu A propos

Precision de la mesure

Configuration

Calcul du polynome de Pressi...

Calcul du polynome de temp...

Concatenation des fichiers bo...

Application des polynomes P,T

Calcul du polynome de condu...

Correction des fichiers CNV (...)

Generation du fichier chimie/...

Calcul du polynome d'oxygene

Calcul oxygene en ml/l dans l...

Creation du fichier chimie final

Reduction des donnees

Precision de la mesure

Selectionnez les fichiers CLI a modifier

PRES (decibar)	1.0	CHPSALB (psu)	0.0016
TEMP (degree)	0.0017	CHOXYLB (ml/l)	0.024
COND (mS/cm)	0.0017	CHOXYKB	1.06
PSAL (psu)	0.0019	CHTMPOB	0.3
OXYL (ml/l)	0.036		
OXYK	2.33		

Validation Annuler



### 3.13. Corrections of CATARINA 2012 profiles

#### 1) Limited corrections

- . cast 7: linear interpolation on oxygen from 181 to 184 dbar. The quality flag remains at 1.
- . cast 19 : linear interpolation on salinity from 44 to 53 dbar. The quality flag remains at 1.
- . cast 25 : replacement of downcast oxygen measurements from 36 dbar to 55 dbar by the upcast oxygen measurements. The quality flag remains at 1.
- . cast 29 : linear interpolation on oxygen at 35 dbar. The quality flag remains at 1.  
replacement of downcast oxygen measurements from 399 dbar to 446 dbar by the upcast oxygen measurements. The quality flag remains at 1.

#### 2) Automatic oxygen corrections

Annex 1. The quality flag is set to 4.

#### 3) Density anomalies corrections

Annex 2. The quality flag is set to 4

### 3.14. Quality flags for CATARINA data

In all the data files of the CATARINA cruise (CTD data, Chemical data), you will find quality flags.

The flags are :

1. good
4. bad
9. no data

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## 5. LISTINGS AND FIGURES OF THE CTD PARAMETERS

Figures of the various sections generated from the cruise data are presented below, followed by listings and detailed figures cast by cast.

### 5.1. Remarks

#### a) Description of the casts :

1. The latitude and longitude indicate the positioning of the ship at the beginning of the descent profile.
2. The depth (in meters) is deduced from the CTD maximum pressure and the LADCP detection of the bottom.

b) The temperature, salinity and dissolved oxygen measurements come from the downcast profile of the ctd.

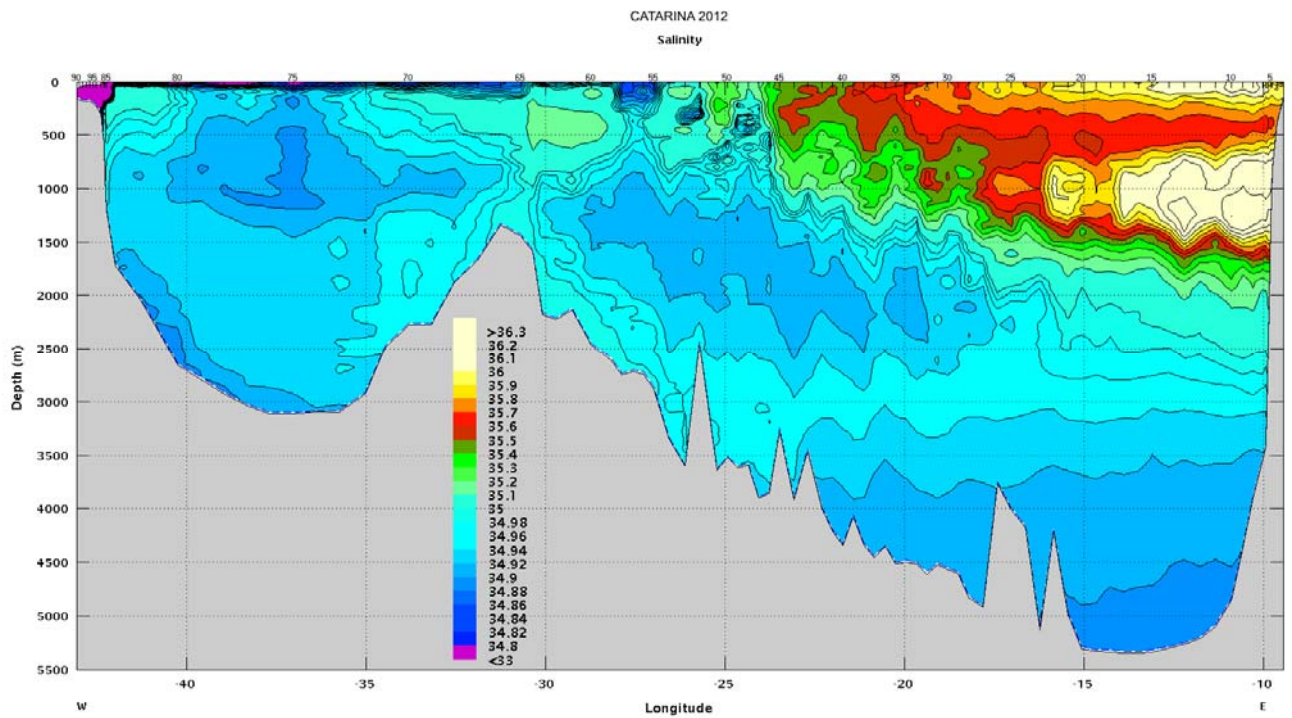
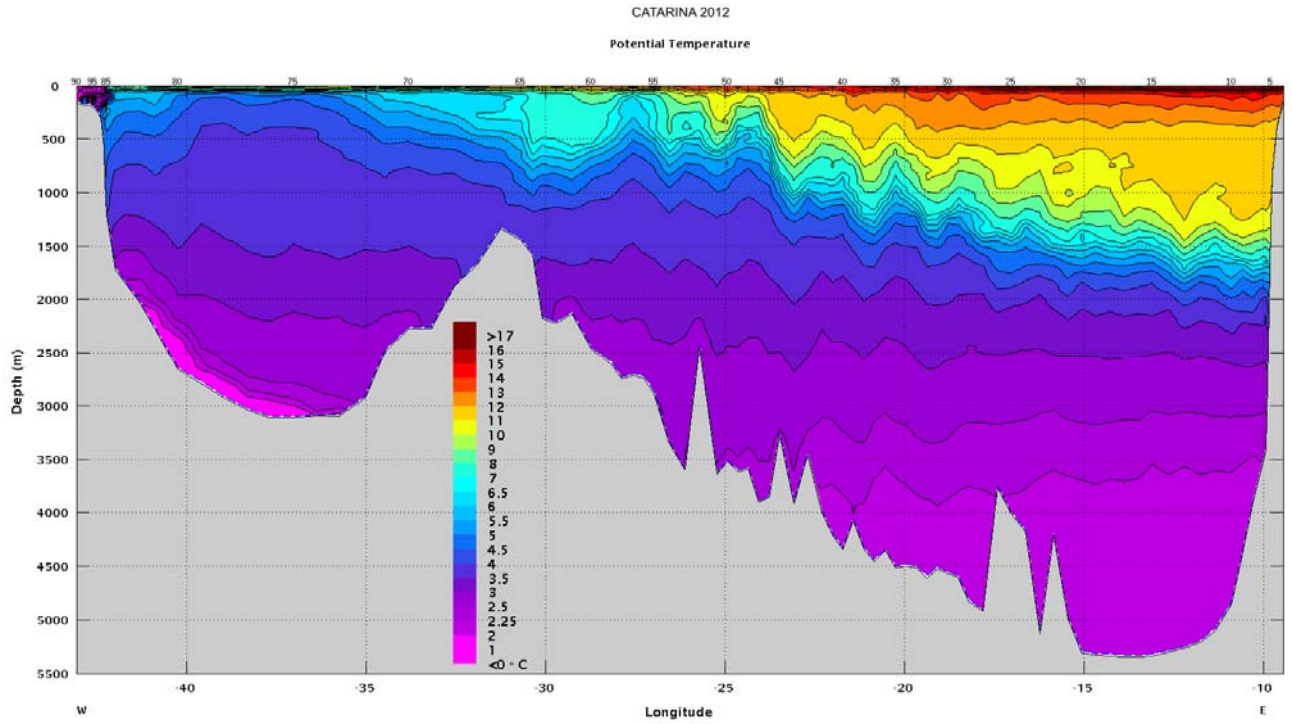
c) The measurements shown are extracted from the files of type **\_clt.nc**, the listed levels are:

- . the first level
- . every 10 dbar up to 50 dbar
- . every 50 dbar from 50 dbar to the bottom
- . the last level

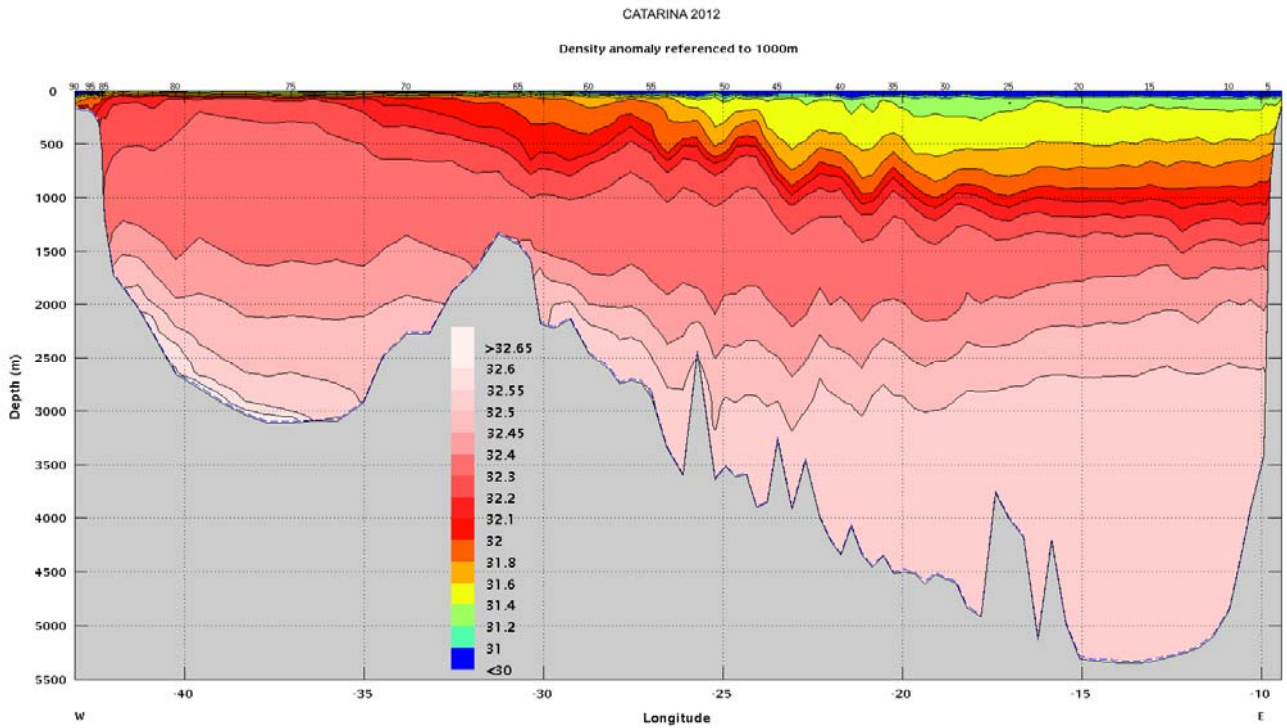
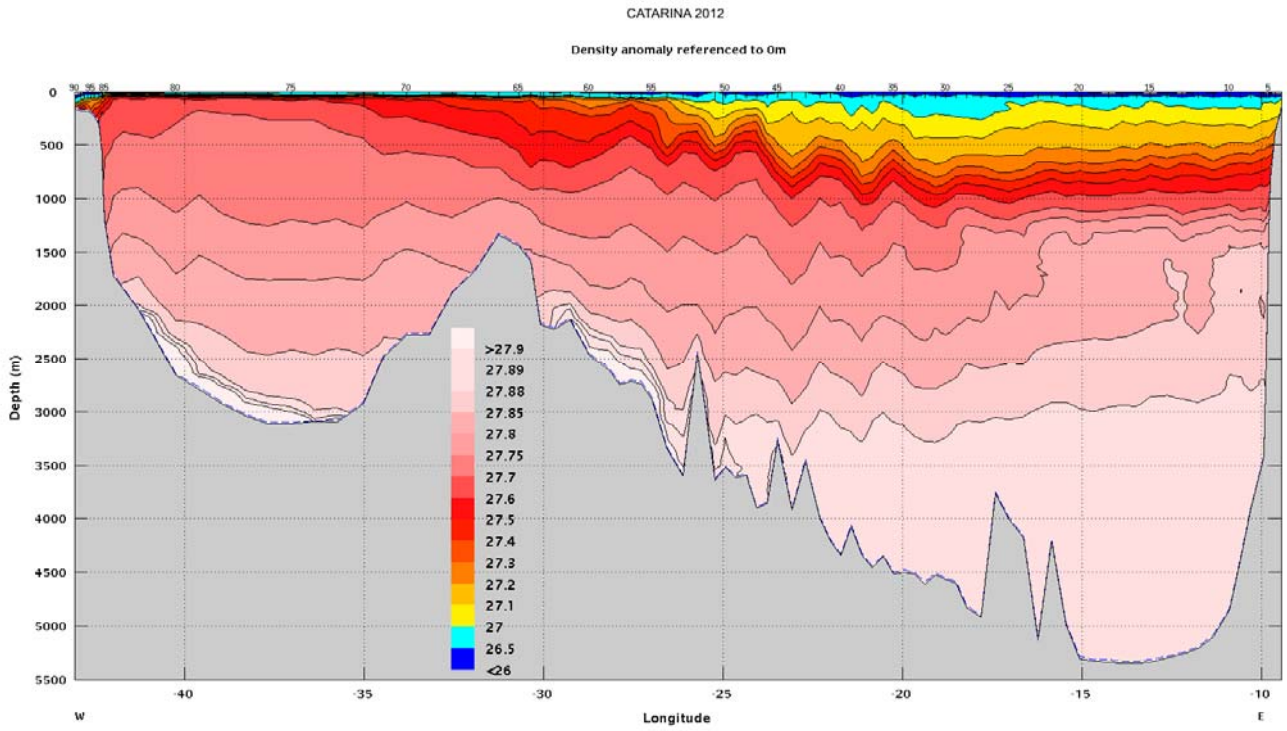
d) For the missing pressure levels (mean not calculated in the data acquisition), the measurements are interpolated. Near the surface, the measures are extrapolated up to level 1 by copying those of the first reduced level.

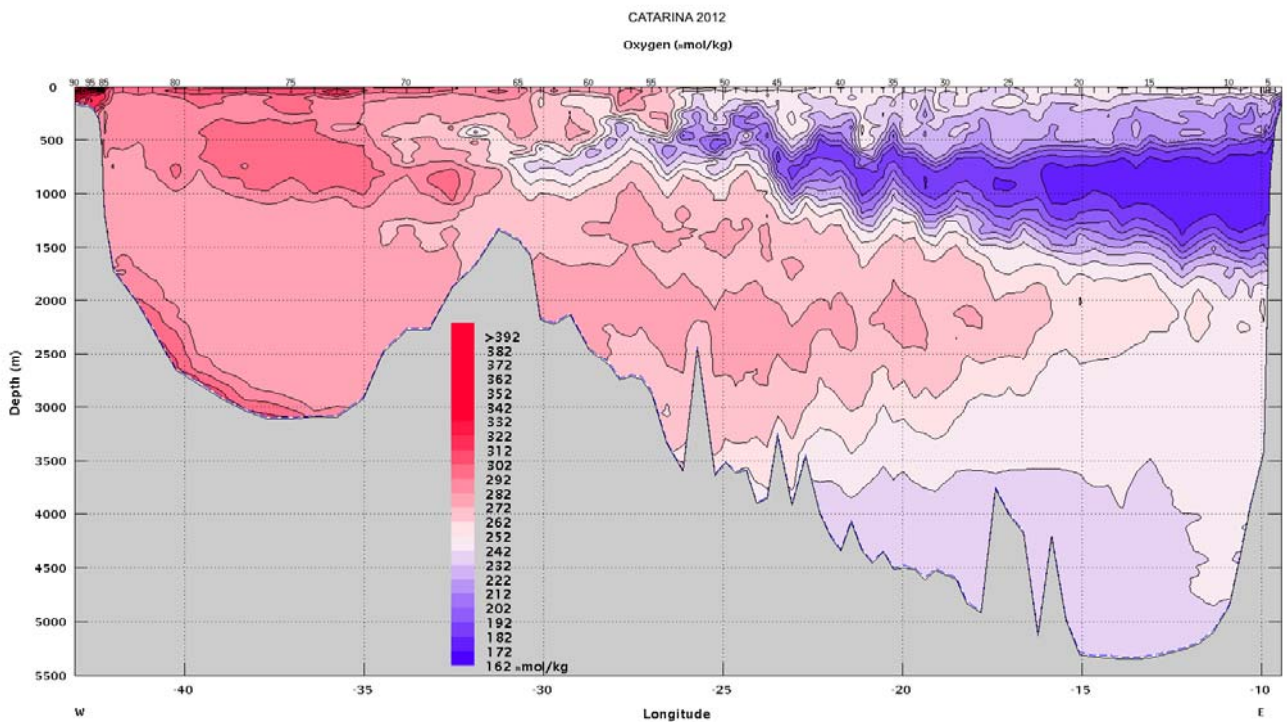
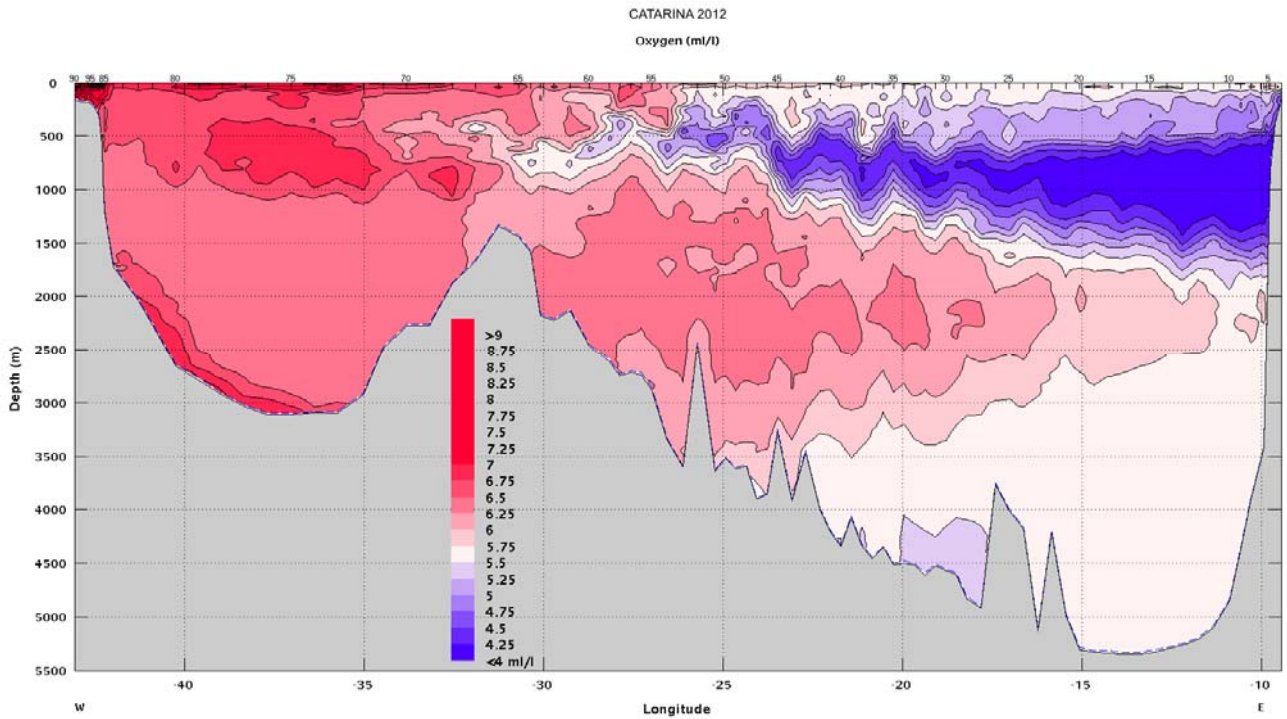
e) Listings and plots show the results as a function of the pressure (expressed in dbar).

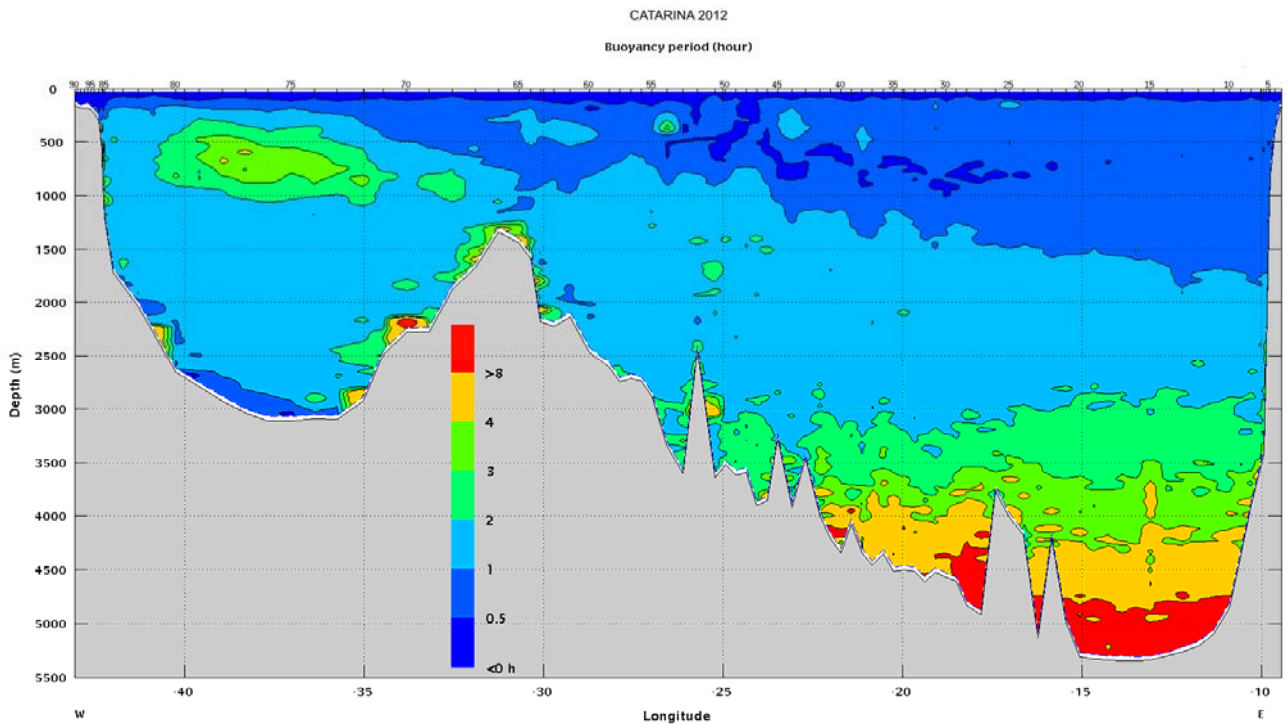
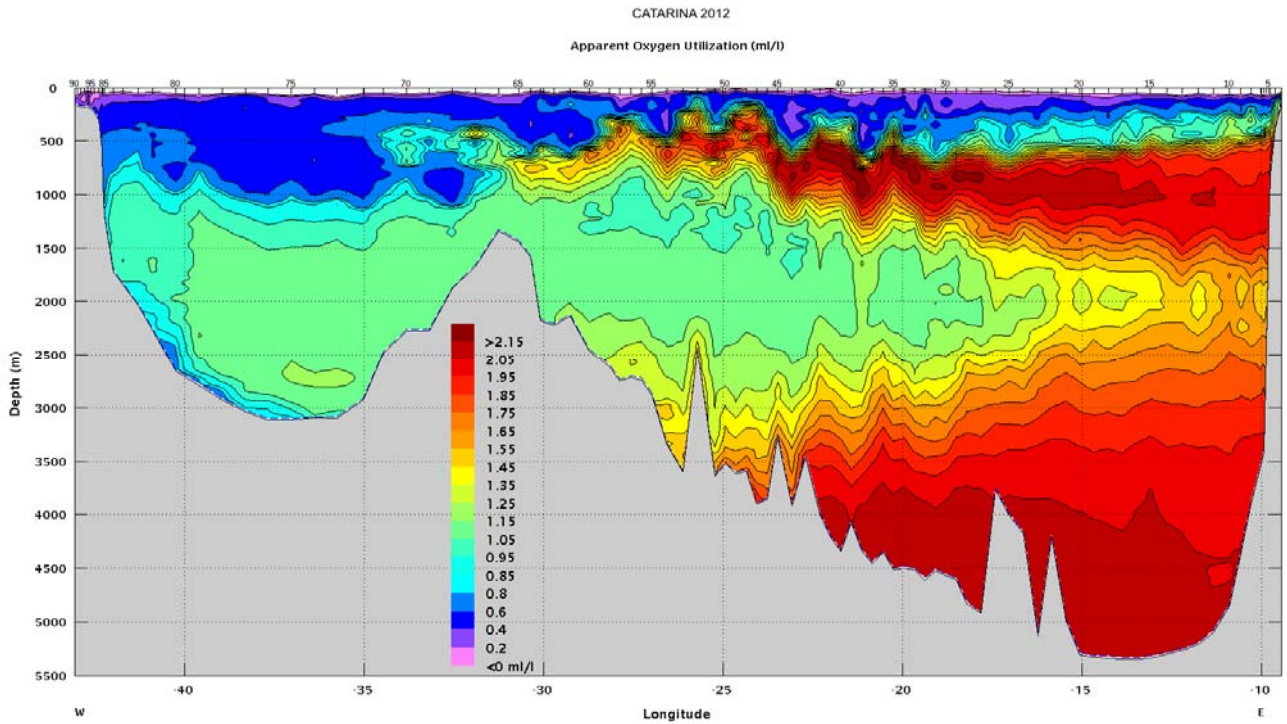
f) The casts are numbered sequentially from 1 to 95 and 101 to 108 and the OVIDE hydrographic section corresponds to cast 1 to 95.





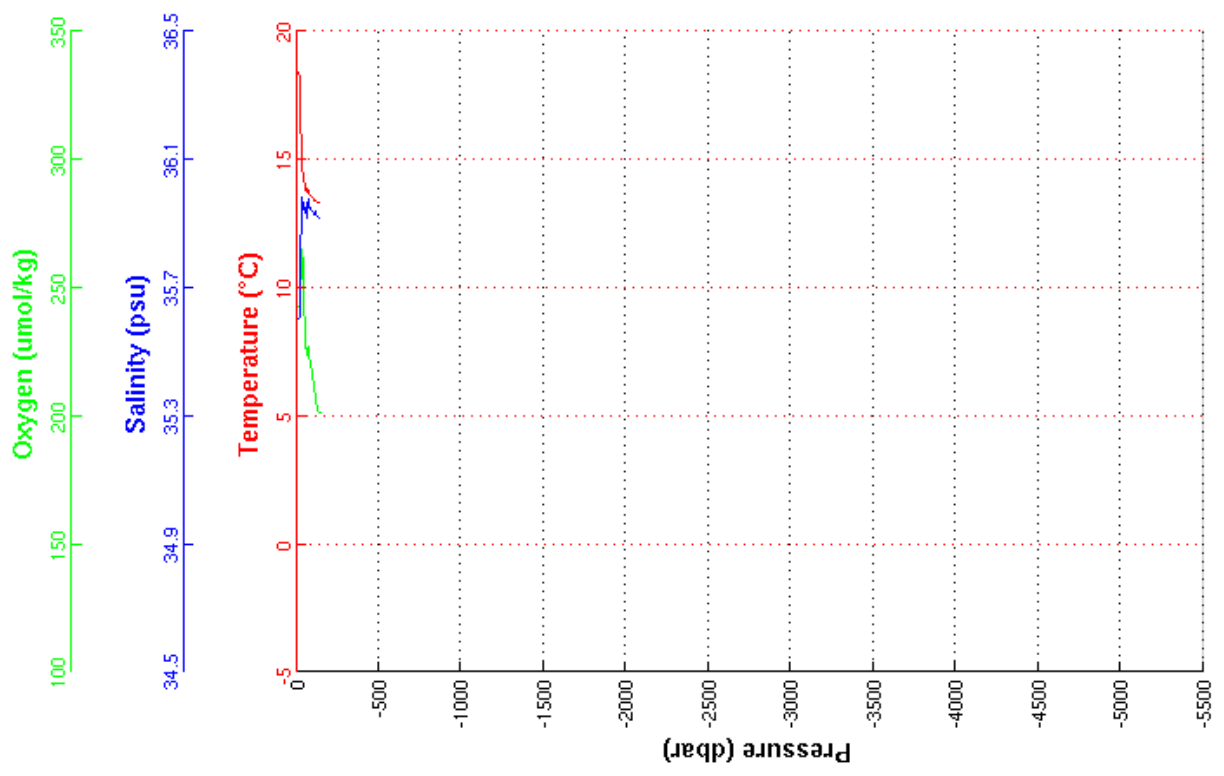
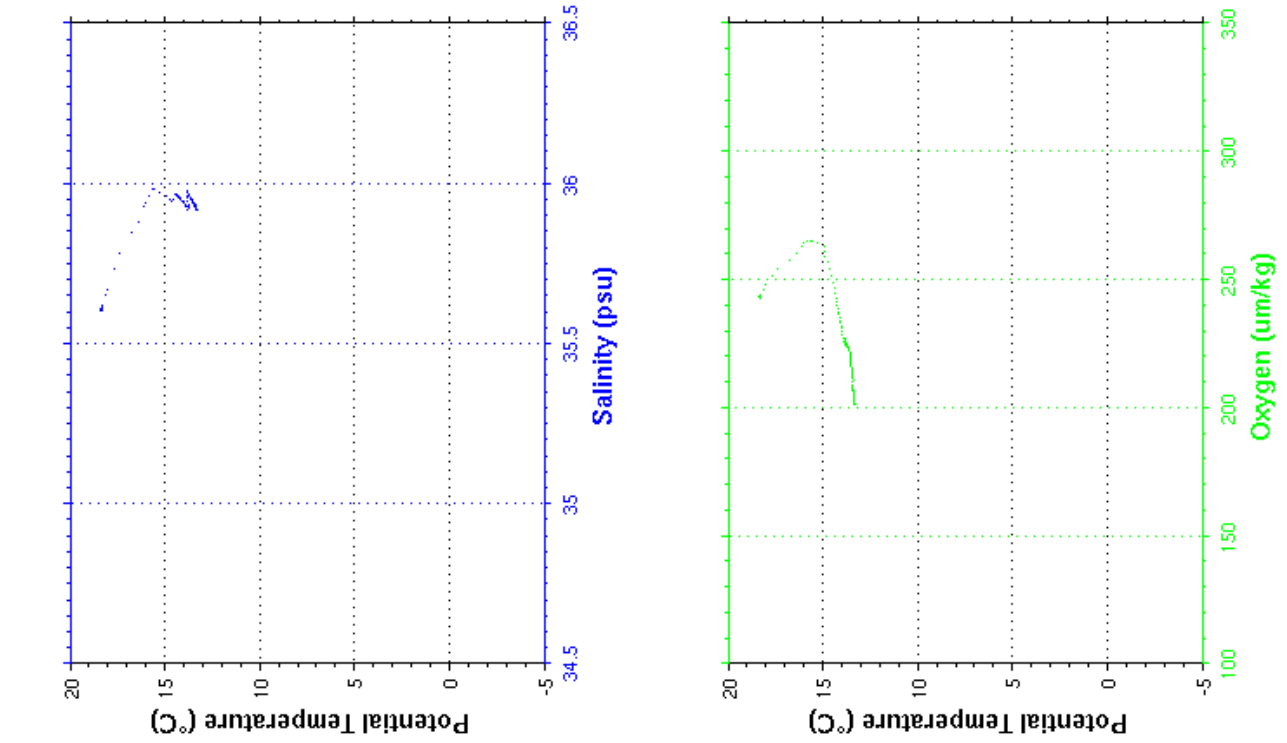






Cast	: 1	Cruise	: CATARINA
Date	: 23/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 154 m	Organism	: CSIC/IIM VIGO
Position	: N 40 19.96 W 009 27.56		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.398	35.606	243.4	18.398
10.0	18.402	35.606	243.4	18.400
20.0	18.292	35.613	242.9	18.289
30.0	16.396	35.882	262.2	16.391
40.0	14.774	35.950	257.9	14.768
50.0	14.215	35.954	238.0	14.208
100.0	13.468	35.934	214.7	13.454
145.0	13.321	35.916	201.4	13.300



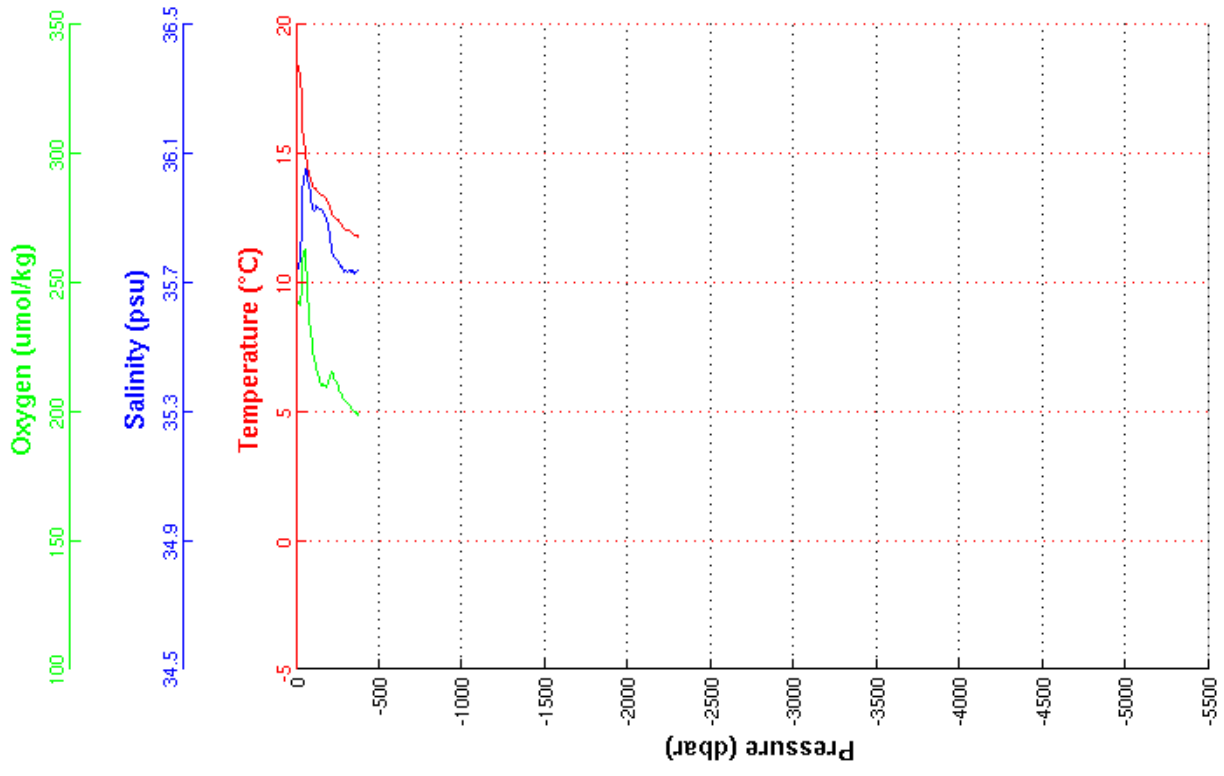
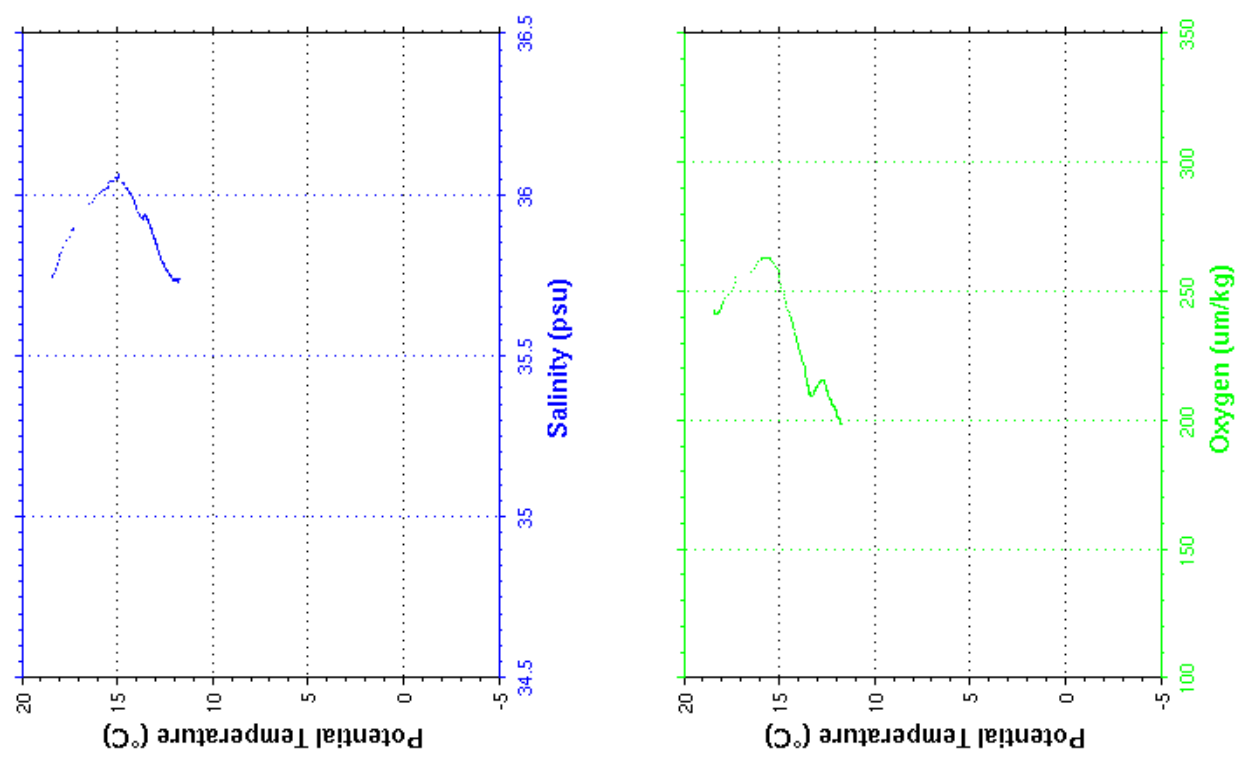
**Cast : 1**

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Cast      : 2           Cruise   : CATARINA
Date      : 23/06/2012 Ship     : R/V Sarmiento de Gamboa
Depth     : 399 m      Organism : CSIC/IIM VIGO
Position  : N 40 19.99
           W 009 38.21
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.410	35.742	242.7	18.409
10.0	18.412	35.742	242.4	18.410
20.0	18.185	35.772	242.0	18.182
30.0	17.816	35.838	247.2	17.811
40.0	15.959	36.004	263.4	15.953
50.0	15.460	36.035	263.3	15.452
100.0	13.798	35.934	223.3	13.783
150.0	13.437	35.927	210.2	13.416
200.0	13.008	35.851	213.2	12.981
250.0	12.449	35.765	210.2	12.416
300.0	12.062	35.736	203.2	12.022
350.0	11.862	35.727	200.8	11.816
373.0	11.817	35.737	199.3	11.768



**Cast : 2**

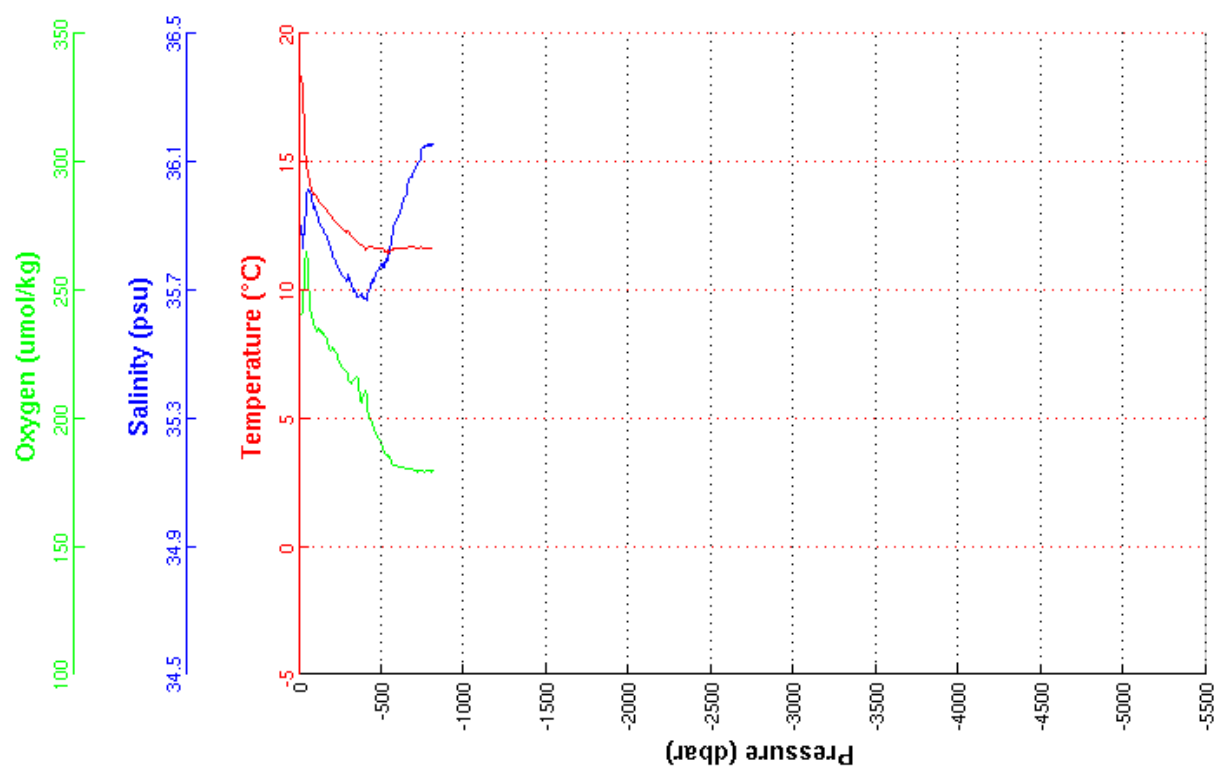
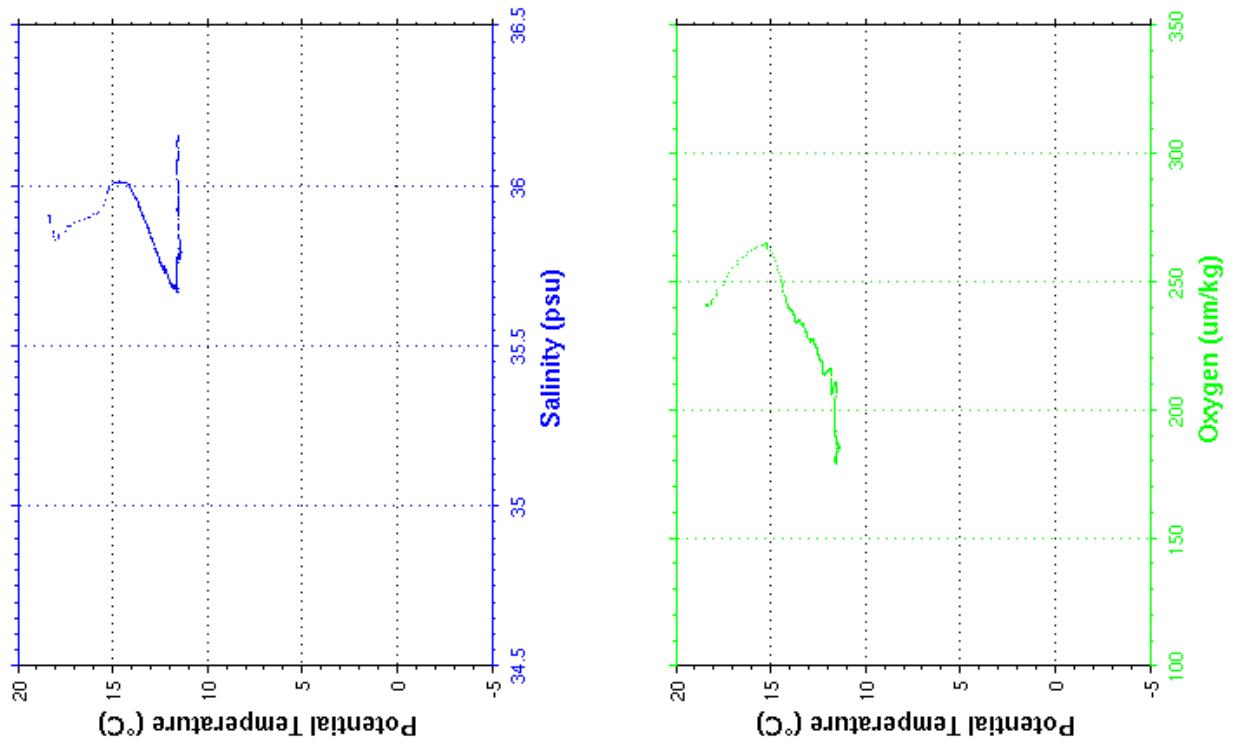
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Cast       : 3           Cruise    : CATARINA
Date       : 23/06/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 819 m       Organism  : CSIC/IIM VIGO
Position  : N 40 20.06
           W 009 46.07
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.357	35.906	241.2	18.357
10.0	18.334	35.900	240.8	18.332
20.0	18.133	35.853	242.1	18.130
30.0	17.195	35.876	252.8	17.190
40.0	15.482	35.942	264.6	15.476
50.0	14.942	36.008	262.0	14.934
100.0	13.725	35.957	235.8	13.711
150.0	13.216	35.878	232.3	13.195
200.0	12.866	35.819	227.8	12.838
250.0	12.481	35.756	221.1	12.447
300.0	12.287	35.744	214.2	12.247
350.0	11.887	35.681	215.7	11.841
400.0	11.662	35.672	210.6	11.610
450.0	11.642	35.725	196.9	11.584
500.0	11.623	35.777	189.4	11.558
550.0	11.538	35.829	184.1	11.466
600.0	11.658	35.930	181.2	11.579
650.0	11.634	35.996	180.6	11.548
700.0	11.691	36.078	179.8	11.598
750.0	11.655	36.146	179.7	11.556
800.0	11.637	36.154	179.6	11.531
811.0	11.627	36.156	179.7	11.519





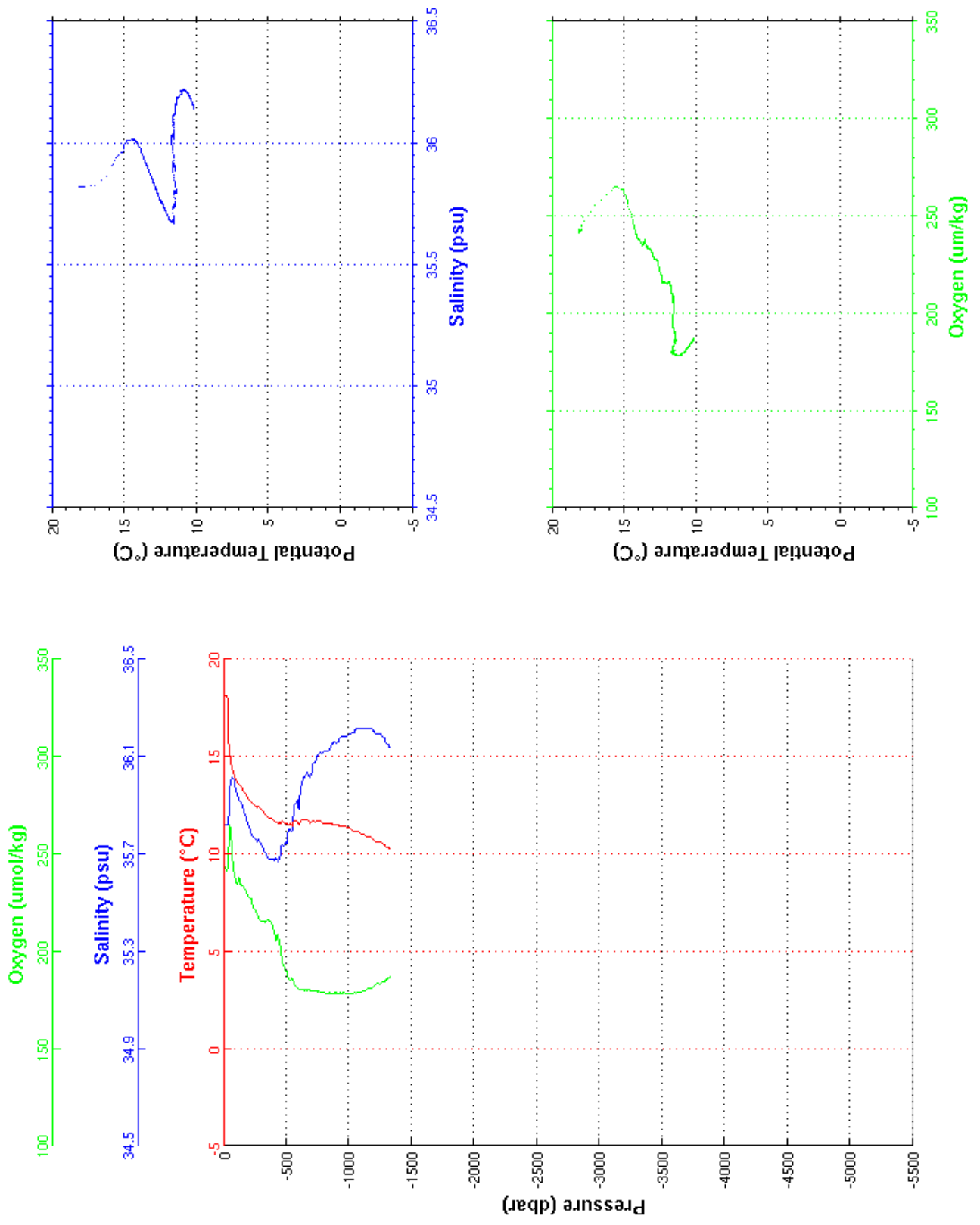
**Cast : 3**

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Cast       : 4           Cruise    : CATARINA
Date       : 23/06/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 1412 m     Organism  : CSIC/IIM VIGO
Position   : N 40 20.02
            W 009 48.12
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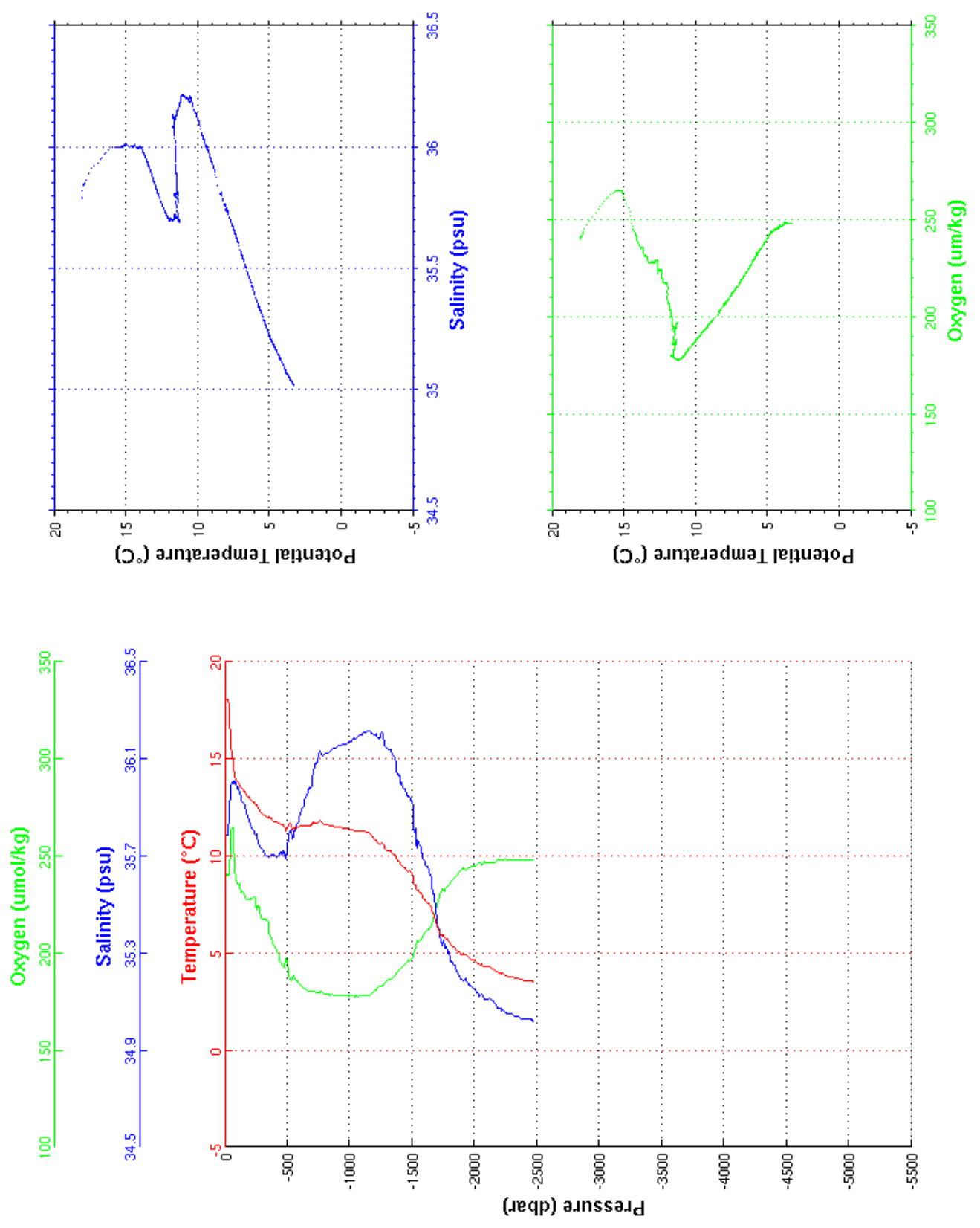
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.158	35.820	243.5	18.158
10.0	18.163	35.820	243.5	18.161
20.0	18.151	35.819	241.5	18.148
30.0	17.986	35.819	243.1	17.981
40.0	16.186	35.865	261.8	16.180
50.0	15.030	35.975	263.7	15.023
100.0	13.719	35.949	235.3	13.705
150.0	13.315	35.890	233.9	13.293
200.0	12.828	35.813	227.5	12.800
250.0	12.508	35.761	221.2	12.474
300.0	12.277	35.737	216.1	12.237
350.0	11.921	35.688	216.5	11.874
400.0	11.720	35.675	210.7	11.668
450.0	11.570	35.690	202.5	11.512
500.0	11.532	35.741	190.4	11.467
550.0	11.476	35.818	185.5	11.405
600.0	11.518	35.889	181.4	11.439
650.0	11.761	36.022	180.5	11.675
700.0	11.602	36.032	179.7	11.510
750.0	11.685	36.107	179.5	11.586
800.0	11.579	36.119	178.6	11.474
850.0	11.520	36.136	178.5	11.407
900.0	11.478	36.160	178.9	11.359
950.0	11.474	36.184	178.5	11.348
1000.0	11.338	36.189	178.5	11.206
1050.0	11.163	36.210	178.5	11.026
1100.0	11.088	36.216	179.3	10.945
1150.0	10.873	36.215	180.9	10.724
1200.0	10.709	36.202	182.7	10.555
1250.0	10.620	36.192	183.7	10.460
1300.0	10.375	36.156	186.0	10.210
1331.0	10.285	36.140	187.1	10.117



**Cast : 4**

Cast	: 5	Cruise	: CATARINA
Date	: 24/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2509 m	Organism	: CSIC/IIM VIGO
Position	: N 40 19.84 W 009 52.61		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.071	35.787	240.9	18.071
10.0	18.072	35.787	240.4	18.070
20.0	18.073	35.787	240.5	18.069
30.0	17.928	35.843	242.2	17.923
40.0	16.971	35.933	254.7	16.964
50.0	15.575	35.999	265.5	15.568
100.0	13.827	35.983	235.5	13.813
150.0	13.398	35.918	230.9	13.377
200.0	12.932	35.835	228.3	12.904
250.0	12.654	35.790	222.1	12.619
300.0	12.200	35.723	217.4	12.160
350.0	11.990	35.699	212.6	11.944
400.0	11.791	35.700	203.3	11.738
450.0	11.612	35.706	194.7	11.553
500.0	11.464	35.734	193.7	11.400
550.0	11.400	35.782	188.3	11.329
600.0	11.538	35.871	183.9	11.460
650.0	11.585	35.948	181.3	11.500
700.0	11.643	36.013	180.4	11.551
750.0	11.783	36.122	180.4	11.683
800.0	11.652	36.120	179.2	11.546
850.0	11.559	36.140	178.8	11.447
900.0	11.487	36.153	178.3	11.368
950.0	11.457	36.162	178.6	11.332
1000.0	11.370	36.172	178.5	11.238
1050.0	11.296	36.186	178.3	11.157
1100.0	11.282	36.205	178.4	11.136
1150.0	11.203	36.217	178.6	11.052
1200.0	10.896	36.203	181.1	10.740
1250.0	10.649	36.207	183.7	10.489
1300.0	10.321	36.142	185.8	10.157
1350.0	10.130	36.112	188.4	9.961
1400.0	9.723	36.031	191.8	9.552
1450.0	9.306	35.961	195.7	9.133
1500.0	9.082	35.924	197.6	8.904
1550.0	8.213	35.755	206.0	8.039
1600.0	7.753	35.679	210.8	7.578
1650.0	7.398	35.616	214.5	7.222
1700.0	6.397	35.431	225.6	6.227
1750.0	5.908	35.350	232.5	5.739
1800.0	5.538	35.288	236.3	5.369
1850.0	5.259	35.242	239.5	5.088
1900.0	4.924	35.190	243.6	4.753
1950.0	4.773	35.172	244.5	4.599
2000.0	4.634	35.156	245.1	4.457
2050.0	4.424	35.130	246.4	4.245
2100.0	4.275	35.109	247.0	4.092
2150.0	4.210	35.102	246.9	4.024
2200.0	4.002	35.073	248.6	3.814
2250.0	3.865	35.058	248.6	3.675
2300.0	3.770	35.048	248.5	3.576
2350.0	3.684	35.038	248.4	3.487
2400.0	3.586	35.027	248.3	3.385
2450.0	3.585	35.026	248.5	3.379
2471.0	3.524	35.020	248.5	3.317



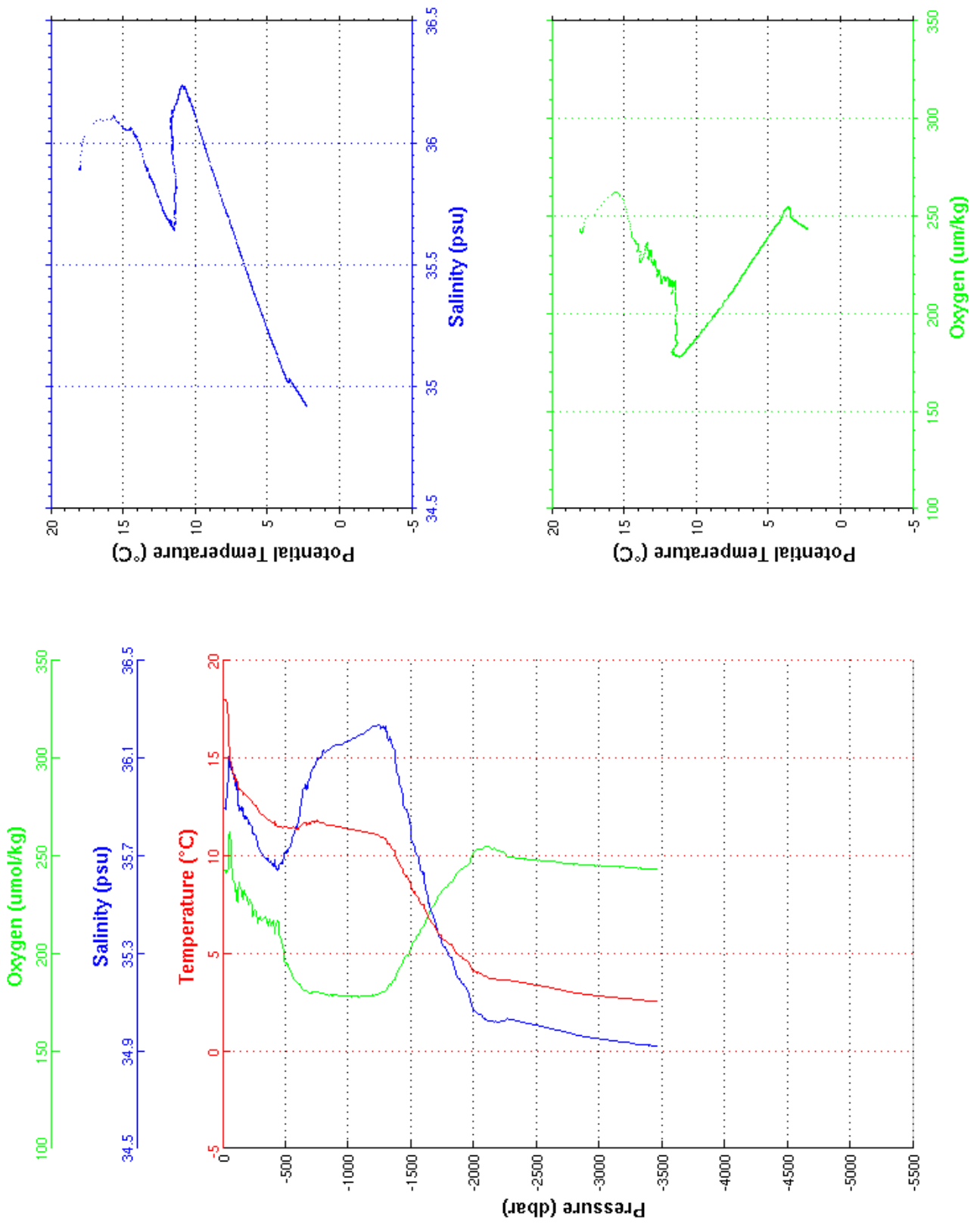
**Cast : 5**

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Cast      : 6           Cruise   : CATARINA
Date      : 24/06/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3418 m     Organism : CSIC/IIM VIGO
Position  : N 40 20.03
           W 009 56.76
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.005	35.893	243.7	18.005	3050.0	2.785	34.946	244.9	2.534
10.0	18.019	35.894	243.5	18.018	3100.0	2.752	34.942	244.8	2.496
20.0	17.991	35.893	242.1	17.988	3150.0	2.721	34.939	244.7	2.461
30.0	17.921	35.948	242.1	17.916	3200.0	2.686	34.935	244.5	2.421
40.0	17.779	36.004	243.8	17.772	3250.0	2.661	34.932	244.4	2.392
50.0	15.702	36.108	262.7	15.694	3300.0	2.613	34.927	243.9	2.340
100.0	14.063	36.026	232.0	14.048	3350.0	2.592	34.924	243.6	2.313
150.0	13.334	35.891	231.9	13.313	3400.0	2.579	34.923	243.7	2.295
200.0	12.986	35.842	224.3	12.958	3450.0	2.573	34.921	243.5	2.284
250.0	12.634	35.787	222.4	12.600	3459.0	2.571	34.921	243.8	2.282
300.0	12.178	35.711	217.5	12.138					
350.0	11.929	35.686	217.1	11.883					
400.0	11.683	35.660	217.3	11.631					
450.0	11.530	35.668	209.2	11.472					
500.0	11.527	35.724	194.1	11.462					
550.0	11.471	35.761	189.1	11.400					
600.0	11.382	35.836	184.5	11.305					
650.0	11.697	35.977	180.8	11.611					
700.0	11.675	36.028	180.2	11.582					
750.0	11.804	36.100	180.2	11.704					
800.0	11.697	36.131	179.6	11.591					
850.0	11.575	36.140	179.2	11.462					
900.0	11.495	36.155	178.9	11.376					
950.0	11.438	36.158	178.3	11.312					
1000.0	11.374	36.173	178.1	11.242					
1050.0	11.323	36.183	178.3	11.185					
1100.0	11.263	36.198	178.0	11.118					
1150.0	11.200	36.212	178.4	11.049					
1200.0	11.131	36.229	178.7	10.974					
1250.0	11.038	36.236	179.8	10.874					
1300.0	10.831	36.222	181.6	10.662					
1350.0	10.348	36.143	185.9	10.177					
1400.0	9.723	36.028	191.8	9.551					
1450.0	9.014	35.893	198.5	8.843					
1500.0	8.533	35.804	202.6	8.361					
1550.0	7.875	35.699	209.7	7.704					
1600.0	7.480	35.628	214.0	7.308					
1650.0	6.702	35.491	222.5	6.534					
1700.0	6.261	35.414	227.5	6.093					
1750.0	5.770	35.335	233.1	5.603					
1800.0	5.485	35.289	236.1	5.317					
1850.0	5.165	35.236	239.7	4.996					
1900.0	4.818	35.182	243.5	4.648					
1950.0	4.565	35.144	245.6	4.394					
2000.0	4.084	35.066	252.6	3.915					
2050.0	3.985	35.052	253.4	3.812					
2100.0	3.789	35.025	254.9	3.615					
2150.0	3.713	35.021	254.0	3.535					
2200.0	3.650	35.020	253.1	3.468					
2250.0	3.629	35.022	251.6	3.443					
2300.0	3.597	35.025	249.8	3.406					
2350.0	3.557	35.023	248.8	3.362					
2400.0	3.491	35.017	248.7	3.291					
2450.0	3.430	35.011	248.3	3.227					
2500.0	3.379	35.006	247.9	3.172					
2550.0	3.314	34.999	247.8	3.103					
2600.0	3.267	34.993	247.8	3.052					
2650.0	3.188	34.987	247.1	2.970					
2700.0	3.122	34.981	246.5	2.899					
2750.0	3.051	34.974	246.2	2.825					
2800.0	2.979	34.967	245.9	2.749					
2850.0	2.931	34.962	245.6	2.697					
2900.0	2.900	34.958	245.5	2.662					
2950.0	2.858	34.954	245.3	2.615					
3000.0	2.819	34.950	245.3	2.572					



**Cast : 6**

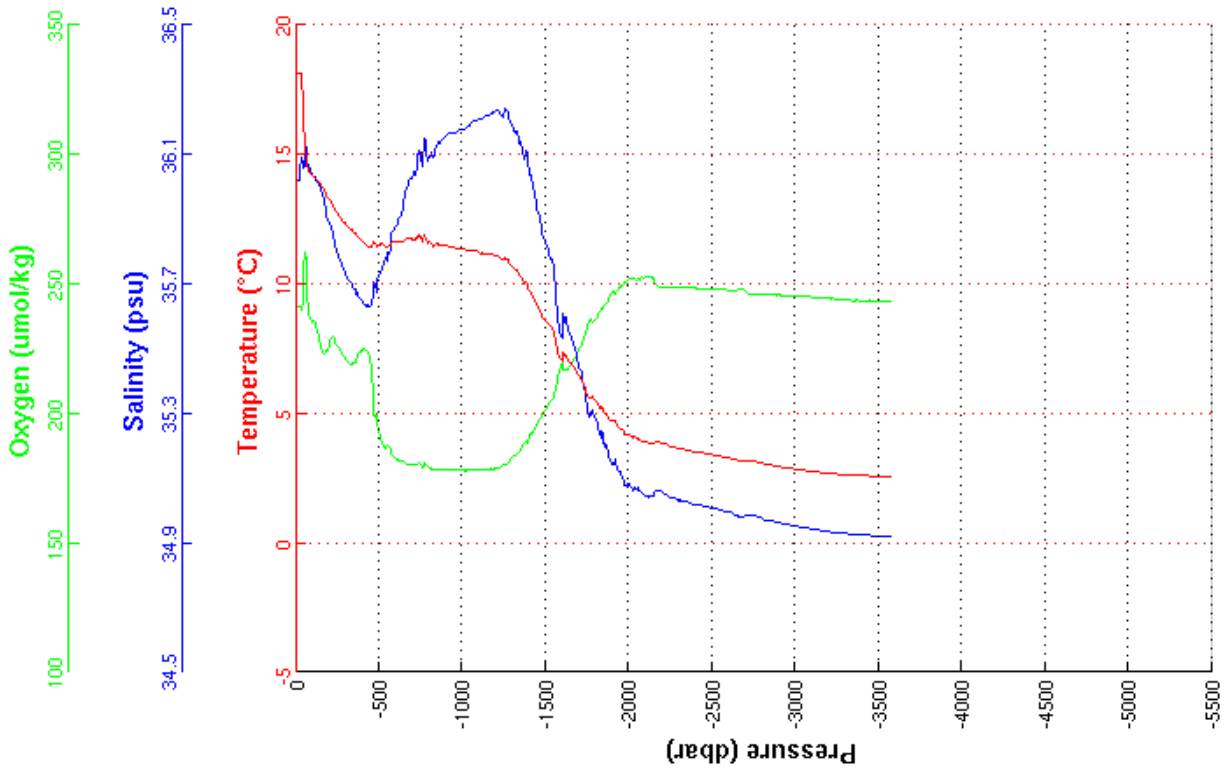
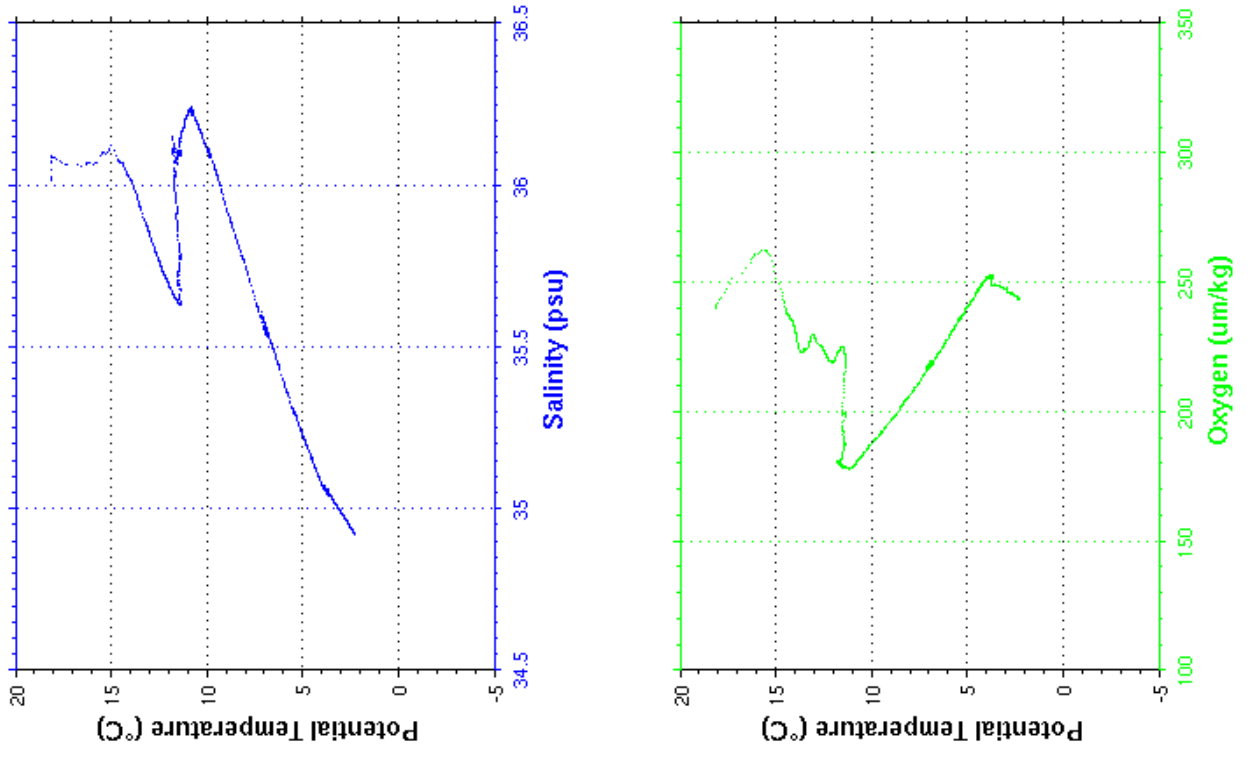
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Cast      :    7           Cruise   : CATARINA
Date      : 24/06/2012   Ship    : R/V Sarmiento de Gamboa
Depth     : 3533 m       Organism : CSIC/IIM VIGO
Position  : N 40 20.06
           W 010  2.16
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.105	36.012	241.7	18.105	3050.0	2.796	34.947	245.4	2.545
10.0	18.102	36.013	241.4	18.100	3100.0	2.761	34.943	245.1	2.505
20.0	18.082	36.021	241.7	18.078	3150.0	2.724	34.939	244.7	2.463
30.0	18.153	36.077	240.2	18.148	3200.0	2.681	34.934	244.7	2.416
40.0	17.842	36.078	244.4	17.836	3250.0	2.660	34.932	244.4	2.390
50.0	16.139	36.069	261.2	16.131	3300.0	2.634	34.929	244.2	2.359
100.0	14.199	36.040	236.2	14.184	3350.0	2.620	34.927	243.9	2.341
150.0	13.849	35.995	225.5	13.828	3400.0	2.605	34.925	243.8	2.321
200.0	13.255	35.888	226.9	13.227	3450.0	2.582	34.922	243.9	2.292
250.0	12.727	35.795	225.8	12.693	3500.0	2.573	34.921	243.7	2.279
300.0	12.333	35.733	221.0	12.293	3550.0	2.564	34.920	243.6	2.264
350.0	11.968	35.684	219.5	11.922	3577.0	2.561	34.919	243.5	2.258
400.0	11.637	35.644	224.9	11.585					
450.0	11.431	35.635	218.8	11.373					
500.0	11.536	35.720	192.5	11.471					
550.0	11.459	35.788	187.2	11.388					
600.0	11.649	35.881	182.6	11.570					
650.0	11.727	35.966	181.4	11.641					
700.0	11.742	36.028	180.5	11.649					
750.0	11.818	36.100	180.0	11.718					
800.0	11.612	36.093	179.2	11.506					
850.0	11.542	36.132	178.6	11.430					
900.0	11.475	36.154	178.6	11.356					
950.0	11.399	36.167	178.3	11.274					
1000.0	11.348	36.177	178.2	11.216					
1050.0	11.298	36.197	178.2	11.160					
1100.0	11.218	36.209	178.3	11.073					
1150.0	11.158	36.221	178.6	11.007					
1200.0	11.108	36.232	178.8	10.951					
1250.0	10.978	36.231	180.3	10.815					
1300.0	10.673	36.193	183.1	10.505					
1350.0	10.303	36.134	186.7	10.132					
1400.0	9.804	36.058	190.8	9.632					
1450.0	9.147	35.928	196.6	8.975					
1500.0	8.619	35.831	202.3	8.446					
1550.0	8.127	35.743	206.8	7.954					
1600.0	7.053	35.534	219.7	6.887					
1650.0	6.978	35.543	219.3	6.807					
1700.0	6.479	35.454	224.9	6.308					
1750.0	5.756	35.317	233.7	5.589					
1800.0	5.502	35.285	236.6	5.334					
1850.0	5.052	35.211	241.3	4.884					
1900.0	4.651	35.146	247.0	4.484					
1950.0	4.443	35.116	249.4	4.274					
2000.0	4.191	35.080	251.8	4.020					
2050.0	4.023	35.059	252.6	3.849					
2100.0	3.895	35.045	253.2	3.719					
2150.0	3.861	35.050	252.0	3.681					
2200.0	3.850	35.056	248.7	3.664					
2250.0	3.716	35.039	249.4	3.528					
2300.0	3.654	35.033	249.1	3.462					
2350.0	3.591	35.026	248.8	3.395					
2400.0	3.502	35.017	248.6	3.303					
2450.0	3.471	35.014	248.7	3.267					
2500.0	3.411	35.008	248.3	3.203					
2550.0	3.351	35.001	248.0	3.139					
2600.0	3.270	34.994	247.7	3.055					
2650.0	3.187	34.985	247.9	2.968					
2700.0	3.168	34.985	247.4	2.945					
2750.0	3.147	34.985	246.2	2.919					
2800.0	3.078	34.977	246.2	2.847					
2850.0	2.996	34.967	246.3	2.761					
2900.0	2.945	34.962	245.8	2.706					
2950.0	2.888	34.956	245.8	2.644					
3000.0	2.842	34.951	245.5	2.595					





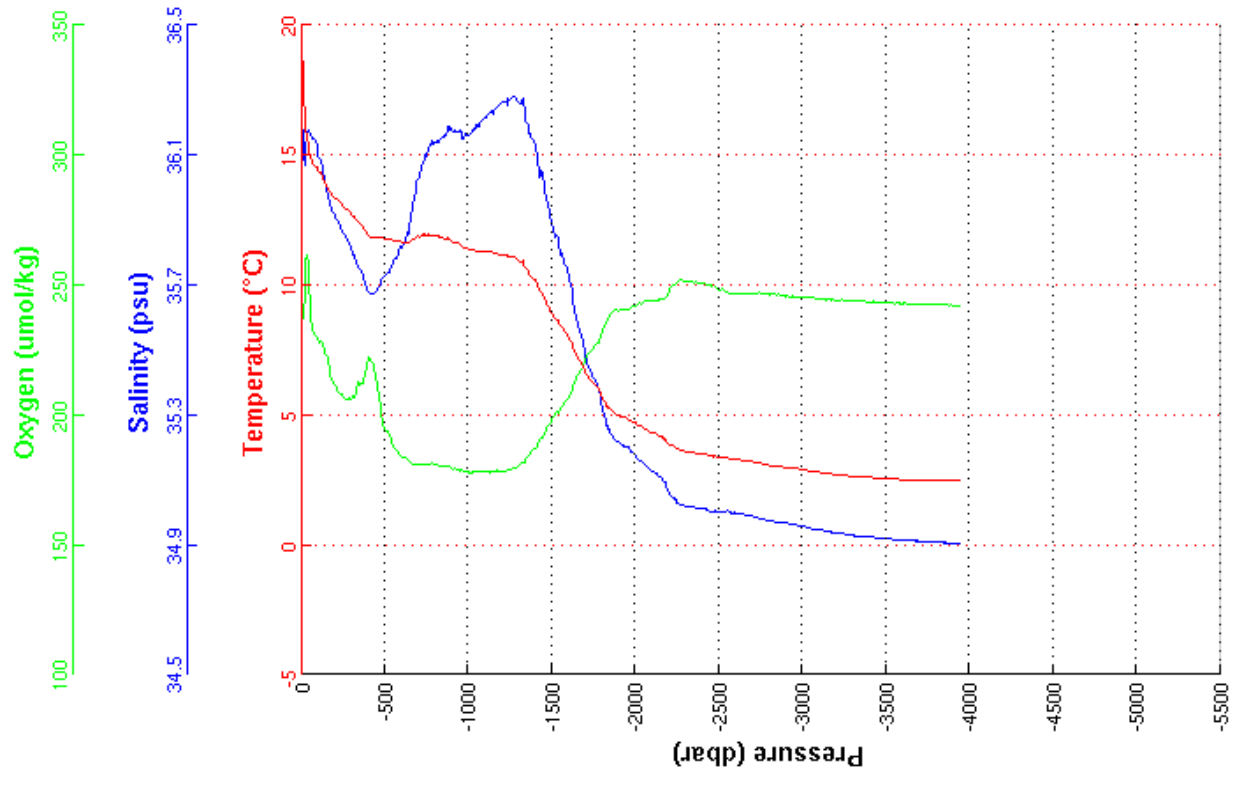
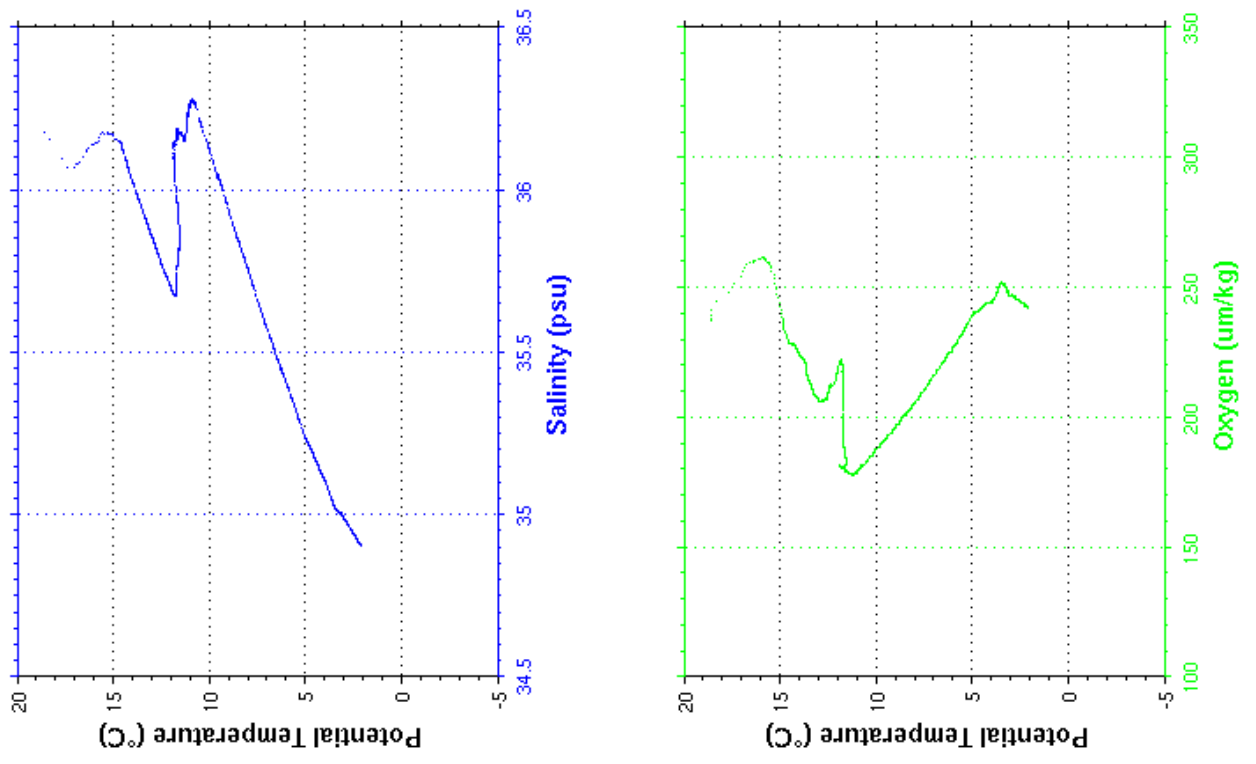
**Cast : 7**

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Cast       :      8           Cruise    : CATARINA
Date       : 01/01/2012      Ship     : R/V Sarmiento de Gamboa
Depth      : 3896 m          Organism  : CSIC/IIM VIGO
Position   : N 40 20.10
            W 010 18.07
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.596	36.178	237.8	18.596	3050.0	2.838	34.951	245.5	2.585
10.0	18.596	36.178	237.5	18.594	3100.0	2.786	34.945	245.0	2.530
20.0	17.021	36.071	258.2	17.018	3150.0	2.741	34.940	244.6	2.480
30.0	15.901	36.143	262.2	15.896	3200.0	2.711	34.937	244.4	2.446
40.0	15.553	36.176	258.9	15.547	3250.0	2.676	34.933	244.3	2.406
50.0	15.055	36.170	245.0	15.047	3300.0	2.637	34.929	244.2	2.363
100.0	14.494	36.119	228.5	14.479	3350.0	2.613	34.926	244.0	2.334
150.0	13.846	35.996	223.0	13.825	3400.0	2.590	34.924	243.8	2.307
200.0	13.364	35.915	211.6	13.336	3450.0	2.575	34.922	243.4	2.286
250.0	13.037	35.858	206.9	13.003	3500.0	2.560	34.920	243.5	2.266
300.0	12.755	35.810	206.6	12.714	3550.0	2.535	34.917	243.1	2.236
350.0	12.363	35.747	211.6	12.316	3600.0	2.515	34.915	243.2	2.211
400.0	11.900	35.677	222.0	11.847	3650.0	2.500	34.913	243.0	2.192
450.0	11.808	35.684	213.3	11.749	3700.0	2.495	34.912	242.9	2.181
500.0	11.770	35.732	193.9	11.704	3750.0	2.484	34.910	242.6	2.164
550.0	11.685	35.778	187.5	11.613	3800.0	2.472	34.908	242.7	2.147
600.0	11.622	35.817	184.5	11.543	3850.0	2.462	34.907	242.7	2.132
650.0	11.660	35.893	181.8	11.574	3900.0	2.457	34.906	242.4	2.122
700.0	11.865	36.026	181.1	11.771	3949.0	2.457	34.905	242.3	2.115
750.0	11.930	36.098	181.2	11.829					
800.0	11.922	36.138	181.1	11.815					
850.0	11.828	36.162	180.7	11.714					
900.0	11.714	36.177	179.5	11.593					
950.0	11.571	36.175	178.6	11.444					
1000.0	11.388	36.164	178.0	11.256					
1050.0	11.320	36.191	178.2	11.182					
1100.0	11.294	36.217	178.5	11.149					
1150.0	11.226	36.234	178.5	11.075					
1200.0	11.203	36.265	178.5	11.045					
1250.0	11.141	36.275	178.9	10.976					
1300.0	10.968	36.266	181.0	10.798					
1350.0	10.578	36.198	184.2	10.404					
1400.0	10.220	36.135	187.3	10.043					
1450.0	9.609	36.025	192.5	9.432					
1500.0	8.900	35.884	199.0	8.724					
1550.0	8.431	35.800	203.0	8.255					
1600.0	8.049	35.734	206.8	7.870					
1650.0	7.276	35.590	215.2	7.100					
1700.0	6.648	35.484	221.5	6.475					
1750.0	6.191	35.411	226.7	6.018					
1800.0	5.723	35.331	232.0	5.551					
1850.0	5.191	35.241	238.8	5.021					
1900.0	5.000	35.214	240.5	4.828					
1950.0	4.878	35.201	241.1	4.702					
2000.0	4.698	35.176	242.1	4.519					
2050.0	4.520	35.151	243.8	4.339					
2100.0	4.336	35.128	244.0	4.153					
2150.0	4.179	35.108	244.4	3.994					
2200.0	3.910	35.064	247.9	3.723					
2250.0	3.708	35.031	251.4	3.521					
2300.0	3.598	35.018	251.8	3.407					
2350.0	3.556	35.015	251.3	3.361					
2400.0	3.499	35.011	250.9	3.300					
2450.0	3.415	35.003	250.2	3.213					
2500.0	3.369	35.004	248.5	3.162					
2550.0	3.344	35.004	247.1	3.133					
2600.0	3.293	34.998	246.9	3.078					
2650.0	3.237	34.992	247.0	3.017					
2700.0	3.207	34.990	246.8	2.983					
2750.0	3.140	34.981	246.9	2.912					
2800.0	3.058	34.973	246.7	2.827					
2850.0	3.026	34.970	246.5	2.790					
2900.0	2.991	34.967	245.8	2.751					
2950.0	2.962	34.963	245.9	2.717					
3000.0	2.899	34.957	245.7	2.651					



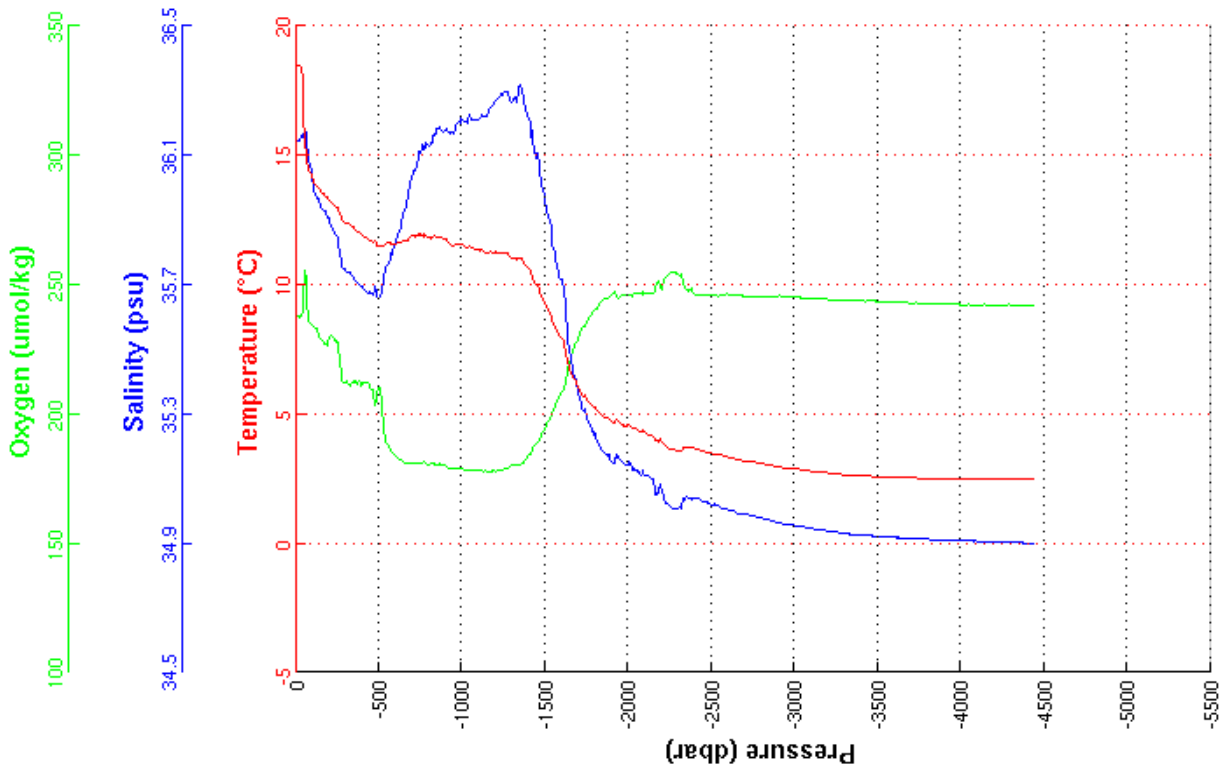
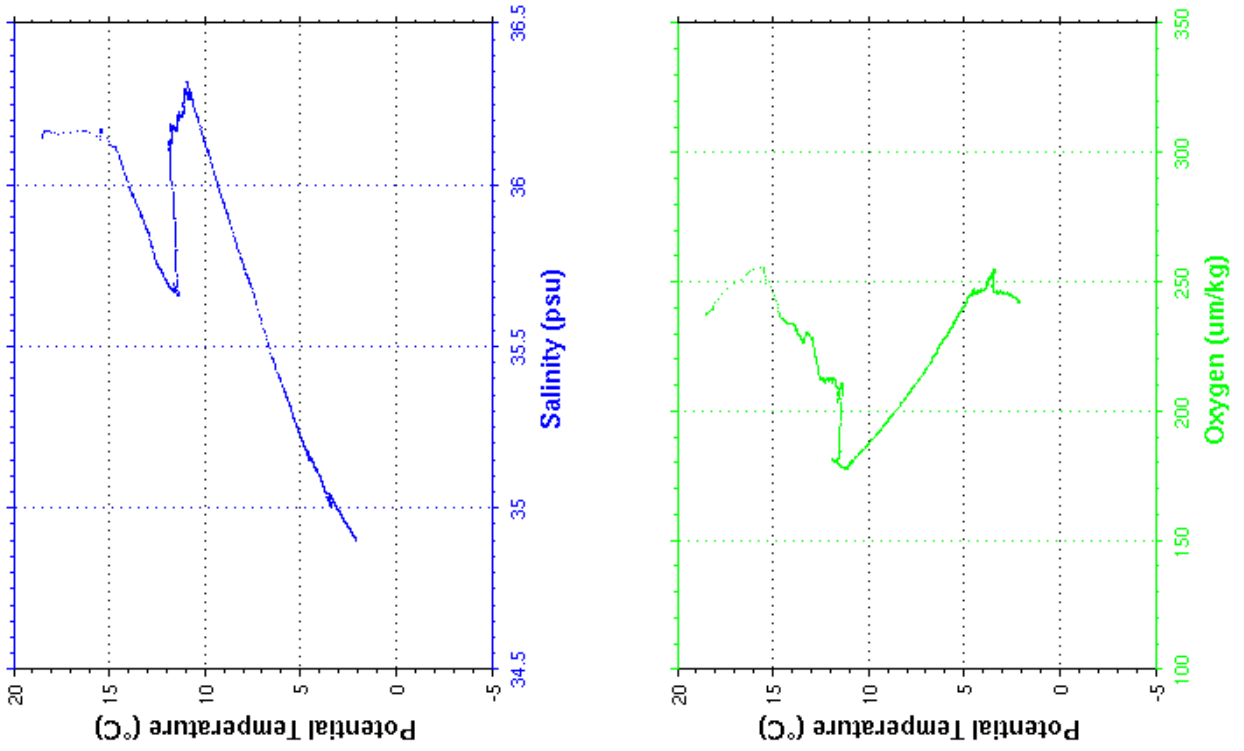
**Cast : 8**

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Cast      :    9           Cruise   : CATARINA
Date      : 25/06/2012   Ship    : R/V Sarmiento de Gamboa
Depth     : 4372 m       Organism : CSIC/IIM VIGO
Position  : N 40 20.20
           W 010 34.64
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.499	36.147	237.9	18.499	3050.0	2.840	34.951	245.3	2.588
10.0	18.500	36.147	237.8	18.498	3100.0	2.785	34.945	245.0	2.528
20.0	18.504	36.147	237.7	18.501	3150.0	2.754	34.942	244.7	2.493
30.0	18.485	36.153	238.0	18.479	3200.0	2.716	34.938	244.5	2.450
40.0	18.128	36.166	239.7	18.121	3250.0	2.687	34.934	244.4	2.417
50.0	16.429	36.164	254.4	16.421	3300.0	2.648	34.930	244.4	2.374
100.0	14.164	36.031	234.1	14.150	3350.0	2.618	34.927	244.3	2.339
150.0	13.588	35.940	229.3	13.567	3400.0	2.606	34.925	244.0	2.322
200.0	13.303	35.901	230.8	13.275	3450.0	2.592	34.923	244.0	2.302
250.0	12.970	35.847	228.1	12.936	3500.0	2.576	34.922	243.8	2.282
300.0	12.425	35.743	213.2	12.384	3550.0	2.562	34.920	243.8	2.263
350.0	12.196	35.718	212.6	12.149	3600.0	2.551	34.918	243.5	2.246
400.0	11.937	35.692	211.7	11.884	3650.0	2.539	34.917	243.5	2.229
450.0	11.704	35.670	209.5	11.645	3700.0	2.528	34.915	243.3	2.212
500.0	11.450	35.661	210.1	11.385	3750.0	2.517	34.913	242.9	2.196
550.0	11.607	35.766	188.0	11.536	3800.0	2.511	34.912	242.9	2.185
600.0	11.587	35.832	183.9	11.508	3850.0	2.507	34.911	242.8	2.175
650.0	11.681	35.923	181.3	11.595	3900.0	2.499	34.910	242.6	2.163
700.0	11.914	36.042	181.2	11.820	3950.0	2.498	34.909	242.5	2.155
750.0	11.940	36.108	181.3	11.839	4000.0	2.494	34.908	242.5	2.146
800.0	11.842	36.128	180.8	11.734	4050.0	2.490	34.907	242.5	2.136
850.0	11.898	36.186	181.2	11.784	4100.0	2.486	34.906	242.6	2.127
900.0	11.745	36.181	180.0	11.625	4150.0	2.477	34.905	242.3	2.112
950.0	11.528	36.170	179.0	11.402	4200.0	2.477	34.904	242.2	2.106
1000.0	11.581	36.212	179.1	11.447	4250.0	2.474	34.903	242.4	2.097
1050.0	11.477	36.222	178.3	11.337	4300.0	2.473	34.903	242.4	2.091
1100.0	11.322	36.209	177.9	11.177	4350.0	2.470	34.902	242.2	2.081
1150.0	11.233	36.224	177.8	11.082	4400.0	2.466	34.901	242.4	2.072
1200.0	11.271	36.269	178.1	11.112	4440.0	2.467	34.900	242.1	2.068
1250.0	11.257	36.296	178.7	11.091					
1300.0	11.024	36.264	180.4	10.854					
1350.0	11.108	36.318	180.2	10.929					
1400.0	10.588	36.215	184.3	10.407					
1450.0	10.012	36.104	189.1	9.831					
1500.0	9.301	35.961	195.3	9.121					
1550.0	8.497	35.812	202.8	8.319					
1600.0	7.933	35.716	208.7	7.756					
1650.0	6.789	35.497	221.1	6.620					
1700.0	6.001	35.362	230.5	5.837					
1750.0	5.581	35.293	235.6	5.416					
1800.0	5.260	35.241	239.8	5.095					
1850.0	4.901	35.182	244.5	4.736					
1900.0	4.713	35.153	246.6	4.545					
1950.0	4.665	35.157	245.6	4.492					
2000.0	4.554	35.145	246.0	4.378					
2050.0	4.414	35.126	246.5	4.235					
2100.0	4.273	35.109	247.2	4.090					
2150.0	4.130	35.092	247.2	3.945					
2200.0	4.011	35.074	247.9	3.823					
2250.0	3.650	35.012	254.7	3.463					
2300.0	3.587	35.010	254.4	3.396					
2350.0	3.708	35.043	247.8	3.510					
2400.0	3.665	35.043	246.2	3.462					
2450.0	3.560	35.031	246.1	3.355					
2500.0	3.477	35.019	246.6	3.268					
2550.0	3.418	35.014	246.1	3.205					
2600.0	3.327	35.003	246.6	3.111					
2650.0	3.244	34.995	246.4	3.024					
2700.0	3.186	34.989	245.9	2.963					
2750.0	3.140	34.984	245.5	2.912					
2800.0	3.088	34.978	245.8	2.856					
2850.0	3.026	34.971	245.7	2.790					
2900.0	2.959	34.964	245.9	2.720					
2950.0	2.918	34.959	245.7	2.674					
3000.0	2.879	34.955	245.6	2.630					



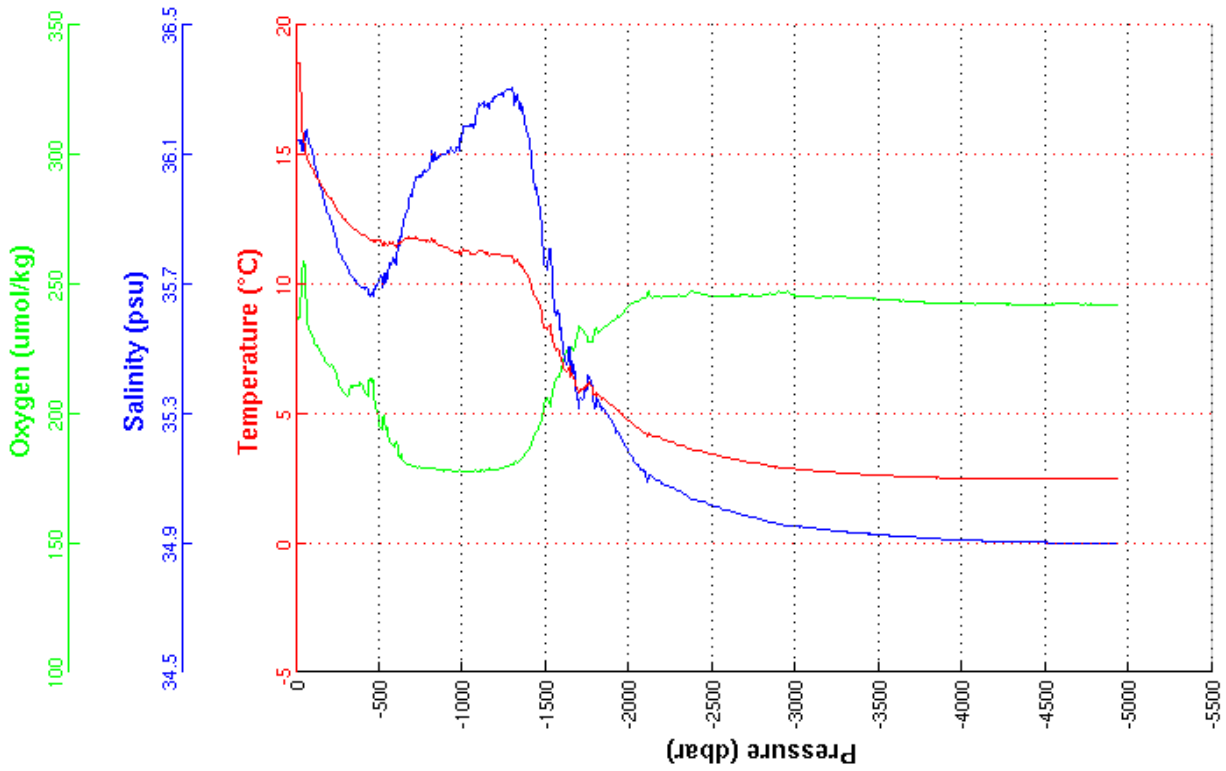
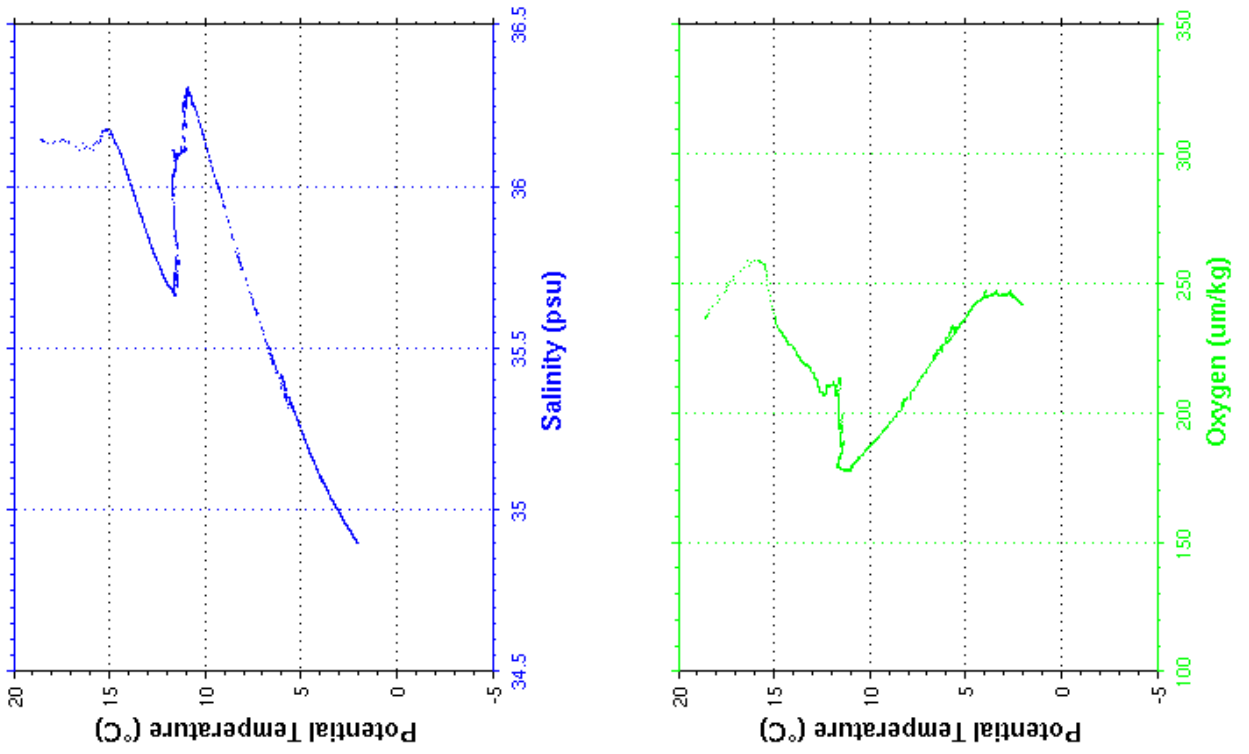
**Cast : 9**

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Cast       : 10           Cruise    : CATARINA
Date       : 25/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4854 m      Organism  : CSIC/IIM VIGO
Position   : N 40 19.88
            W 010 54.39
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.539	36.144	237.3	18.539	3050.0	2.827	34.949	245.6	2.574
10.0	18.545	36.144	237.3	18.543	3100.0	2.797	34.946	245.4	2.540
20.0	18.529	36.143	237.4	18.526	3150.0	2.762	34.942	245.1	2.501
30.0	17.489	36.144	248.3	17.483	3200.0	2.744	34.940	245.4	2.478
40.0	16.379	36.132	257.8	16.373	3250.0	2.719	34.937	245.3	2.448
50.0	15.487	36.146	257.7	15.479	3300.0	2.696	34.934	245.2	2.420
100.0	14.447	36.104	229.5	14.432	3350.0	2.672	34.932	245.0	2.392
150.0	13.829	35.993	222.7	13.807	3400.0	2.653	34.930	244.7	2.368
200.0	13.372	35.909	218.5	13.344	3450.0	2.639	34.928	244.6	2.349
250.0	12.807	35.810	213.2	12.773	3500.0	2.621	34.926	244.4	2.325
300.0	12.463	35.761	207.2	12.422	3550.0	2.600	34.923	244.1	2.300
350.0	12.143	35.714	210.4	12.096	3600.0	2.582	34.921	244.0	2.276
400.0	11.899	35.688	210.8	11.847	3650.0	2.571	34.920	243.8	2.260
450.0	11.694	35.671	211.5	11.635	3700.0	2.559	34.918	243.5	2.243
500.0	11.712	35.717	195.8	11.647	3750.0	2.548	34.916	243.3	2.226
550.0	11.550	35.736	192.7	11.478	3800.0	2.533	34.914	243.1	2.207
600.0	11.434	35.759	189.3	11.357	3850.0	2.521	34.913	242.9	2.190
650.0	11.714	35.897	181.2	11.628	3900.0	2.514	34.912	243.0	2.177
700.0	11.774	35.993	179.9	11.681	3950.0	2.506	34.910	242.8	2.163
750.0	11.725	36.034	179.5	11.625	4000.0	2.502	34.909	242.9	2.153
800.0	11.654	36.061	179.1	11.547	4050.0	2.498	34.908	242.8	2.144
850.0	11.572	36.095	178.6	11.460	4100.0	2.494	34.907	242.7	2.134
900.0	11.412	36.106	177.8	11.294	4150.0	2.487	34.906	242.8	2.122
950.0	11.243	36.107	178.0	11.118	4200.0	2.482	34.905	242.8	2.111
1000.0	11.304	36.178	177.9	11.172	4250.0	2.482	34.904	242.6	2.105
1050.0	11.186	36.189	177.8	11.049	4300.0	2.480	34.903	242.5	2.098
1100.0	11.296	36.255	178.0	11.151	4350.0	2.478	34.903	242.4	2.090
1150.0	11.168	36.251	178.2	11.017	4400.0	2.477	34.902	242.4	2.083
1200.0	11.178	36.281	178.3	11.020	4450.0	2.479	34.902	242.4	2.078
1250.0	11.075	36.287	179.6	10.911	4500.0	2.481	34.901	242.4	2.074
1300.0	11.035	36.299	180.6	10.864	4550.0	2.483	34.901	242.4	2.070
1350.0	10.709	36.237	183.2	10.534	4600.0	2.484	34.900	242.5	2.065
1400.0	10.249	36.152	186.8	10.072	4650.0	2.486	34.900	242.7	2.061
1450.0	9.365	35.975	194.0	9.191	4700.0	2.489	34.899	242.5	2.058
1500.0	8.250	35.746	205.9	8.082	4750.0	2.491	34.899	242.4	2.053
1550.0	7.670	35.643	211.5	7.502	4800.0	2.495	34.899	242.4	2.051
1600.0	6.983	35.520	219.5	6.817	4850.0	2.499	34.899	242.4	2.048
1650.0	6.422	35.422	225.2	6.257	4900.0	2.504	34.898	242.1	2.047
1700.0	5.814	35.317	234.0	5.652	4935.0	2.509	34.898	242.1	2.047
1750.0	6.057	35.383	230.2	5.886					
1800.0	5.672	35.322	233.3	5.501					
1850.0	5.568	35.314	233.3	5.393					
1900.0	5.313	35.273	235.5	5.136					
1950.0	5.018	35.225	238.8	4.840					
2000.0	4.713	35.179	241.8	4.534					
2050.0	4.481	35.146	243.4	4.300					
2100.0	4.272	35.117	244.7	4.090					
2150.0	4.124	35.098	245.4	3.939					
2200.0	4.002	35.085	245.4	3.814					
2250.0	3.914	35.074	245.7	3.722					
2300.0	3.797	35.060	245.8	3.603					
2350.0	3.676	35.043	246.5	3.478					
2400.0	3.583	35.031	246.8	3.382					
2450.0	3.529	35.028	245.8	3.324					
2500.0	3.429	35.017	245.8	3.221					
2550.0	3.358	35.008	245.7	3.146					
2600.0	3.281	35.000	245.6	3.066					
2650.0	3.200	34.991	245.8	2.982					
2700.0	3.132	34.983	245.9	2.909					
2750.0	3.087	34.978	245.8	2.860					
2800.0	3.021	34.970	246.1	2.790					
2850.0	2.974	34.965	246.5	2.739					
2900.0	2.918	34.957	247.2	2.680					
2950.0	2.887	34.954	247.2	2.644					
3000.0	2.857	34.952	246.0	2.610					



**Cast : 10**

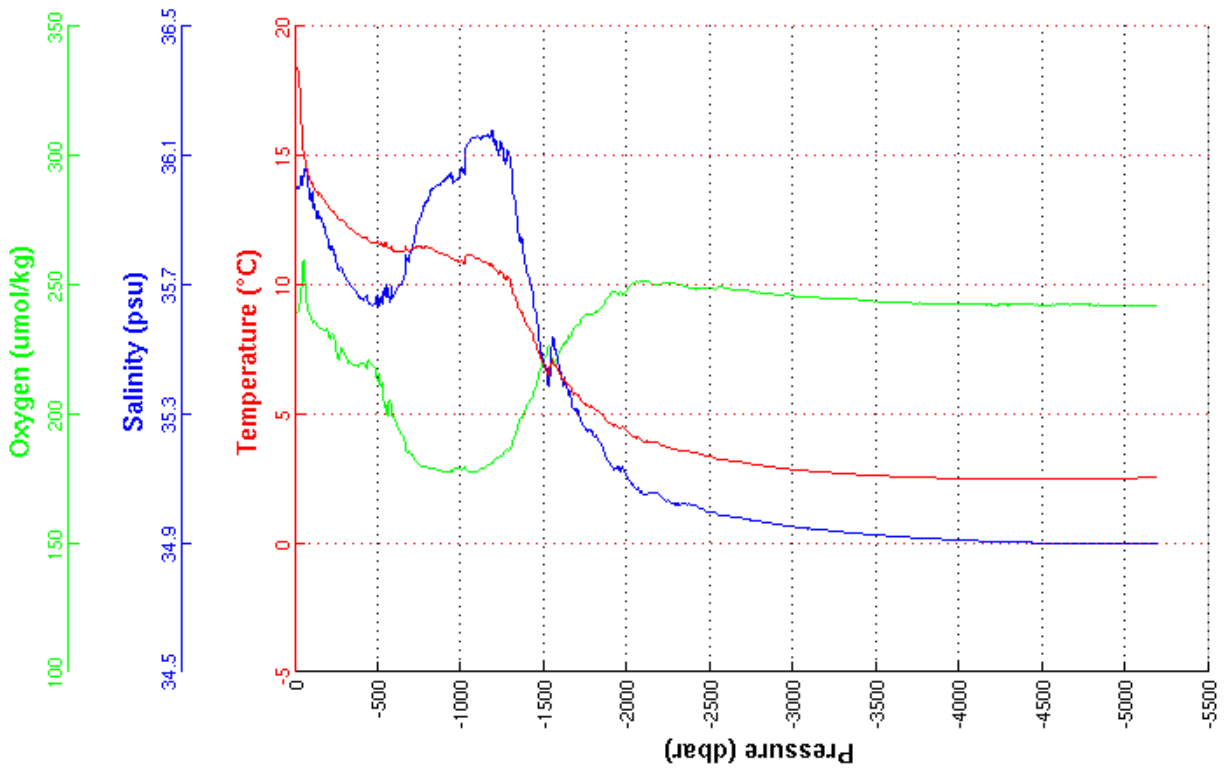
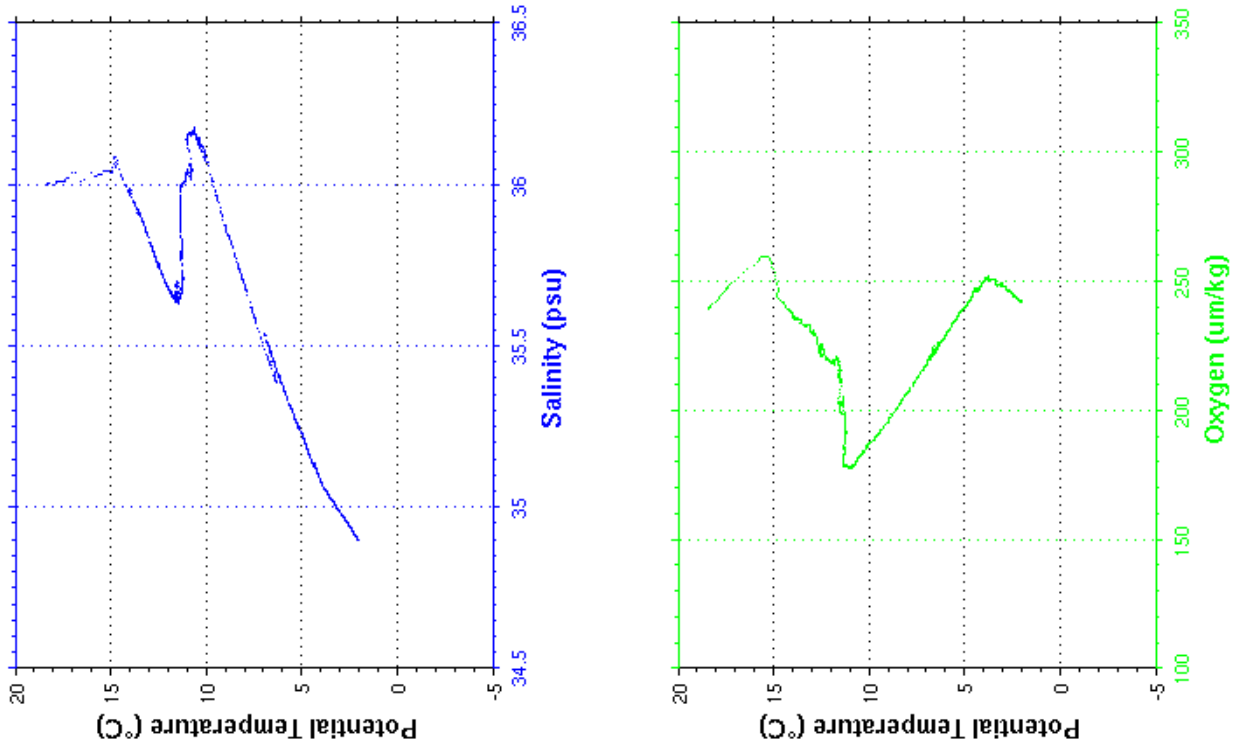
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Cast      : 11           Cruise   : CATARINA
Date     : 25/06/2012  Ship    : R/V Sarmiento de Gamboa
Depth    : 5098 m      Organism : CSIC/IIM VIGO
Position : N 40 19.94
          W 011 20.46
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.383	36.000	239.9	18.382	3050.0	2.819	34.948	245.6	2.567
10.0	18.353	36.001	240.0	18.351	3100.0	2.787	34.944	245.4	2.531
20.0	18.366	36.001	240.0	18.363	3150.0	2.755	34.941	245.3	2.494
30.0	17.773	36.011	244.8	17.767	3200.0	2.738	34.939	245.0	2.472
40.0	16.844	36.037	251.7	16.837	3250.0	2.713	34.937	244.6	2.443
50.0	15.388	36.040	259.9	15.380	3300.0	2.693	34.934	245.2	2.418
100.0	13.989	35.980	236.1	13.975	3350.0	2.666	34.931	244.8	2.385
150.0	13.477	35.909	233.5	13.456	3400.0	2.648	34.929	244.3	2.363
200.0	13.075	35.839	231.2	13.047	3450.0	2.627	34.927	244.1	2.336
250.0	12.667	35.768	223.7	12.633	3500.0	2.610	34.925	244.0	2.315
300.0	12.388	35.728	222.9	12.347	3550.0	2.595	34.923	243.7	2.294
350.0	12.098	35.687	219.3	12.051	3600.0	2.584	34.921	243.5	2.279
400.0	11.856	35.656	220.2	11.803	3650.0	2.569	34.919	243.4	2.258
450.0	11.696	35.641	219.9	11.638	3700.0	2.556	34.918	243.3	2.240
500.0	11.617	35.647	215.0	11.551	3750.0	2.543	34.916	243.2	2.222
550.0	11.609	35.690	200.4	11.537	3800.0	2.533	34.914	243.0	2.206
600.0	11.328	35.676	198.0	11.251	3850.0	2.522	34.913	242.9	2.190
650.0	11.298	35.716	191.1	11.214	3900.0	2.514	34.912	242.8	2.177
700.0	11.359	35.800	184.6	11.268	3950.0	2.505	34.910	242.9	2.162
750.0	11.475	35.903	180.5	11.377	4000.0	2.498	34.909	242.9	2.150
800.0	11.409	35.959	179.2	11.304	4050.0	2.491	34.908	242.7	2.138
850.0	11.311	36.005	178.8	11.200	4100.0	2.489	34.907	242.7	2.129
900.0	11.168	36.022	178.1	11.051	4150.0	2.484	34.906	242.7	2.119
950.0	10.964	36.019	178.4	10.842	4200.0	2.480	34.905	242.5	2.109
1000.0	10.982	36.063	178.5	10.853	4250.0	2.476	34.904	242.4	2.099
1050.0	11.157	36.144	177.4	11.019	4300.0	2.474	34.903	242.6	2.091
1100.0	11.019	36.158	178.2	10.876	4350.0	2.472	34.902	242.7	2.083
1150.0	10.863	36.160	179.8	10.715	4400.0	2.470	34.901	242.7	2.076
1200.0	10.641	36.141	182.5	10.487	4450.0	2.471	34.901	242.6	2.070
1250.0	10.481	36.135	184.0	10.322	4500.0	2.472	34.901	242.3	2.066
1300.0	10.182	36.089	187.1	10.020	4550.0	2.474	34.900	242.4	2.062
1350.0	9.022	35.844	197.6	8.864	4600.0	2.476	34.900	242.6	2.058
1400.0	8.401	35.734	204.3	8.243	4650.0	2.479	34.899	242.7	2.054
1450.0	7.781	35.618	211.2	7.623	4700.0	2.483	34.899	242.7	2.051
1500.0	6.897	35.457	221.5	6.744	4750.0	2.486	34.899	242.6	2.049
1550.0	6.989	35.510	220.5	6.829	4800.0	2.490	34.898	242.5	2.046
1600.0	6.492	35.429	225.4	6.332	4850.0	2.494	34.898	242.3	2.044
1650.0	6.111	35.371	230.3	5.950	4900.0	2.499	34.898	242.3	2.043
1700.0	5.715	35.307	235.0	5.554	4950.0	2.505	34.898	242.1	2.042
1750.0	5.391	35.255	238.4	5.229	5000.0	2.511	34.898	242.1	2.041
1800.0	5.194	35.231	239.8	5.029	5050.0	2.517	34.898	242.1	2.041
1850.0	4.977	35.200	242.0	4.810	5100.0	2.523	34.898	242.1	2.040
1900.0	4.610	35.138	246.9	4.443	5150.0	2.530	34.898	242.1	2.040
1950.0	4.538	35.136	246.5	4.367	5188.0	2.535	34.897	242.1	2.040
2000.0	4.310	35.102	248.6	4.137					
2050.0	4.095	35.070	251.4	3.920					
2100.0	3.946	35.051	252.0	3.770					
2150.0	3.931	35.056	250.4	3.749					
2200.0	3.828	35.044	250.6	3.643					
2250.0	3.699	35.030	250.8	3.511					
2300.0	3.602	35.020	250.6	3.411					
2350.0	3.570	35.021	249.6	3.375					
2400.0	3.511	35.016	248.9	3.312					
2450.0	3.423	35.005	249.0	3.220					
2500.0	3.342	34.997	249.0	3.135					
2550.0	3.251	34.986	249.2	3.041					
2600.0	3.216	34.986	248.8	3.002					
2650.0	3.164	34.981	248.5	2.946					
2700.0	3.116	34.976	248.2	2.894					
2750.0	3.061	34.971	247.6	2.835					
2800.0	3.014	34.966	247.3	2.784					
2850.0	2.965	34.962	247.0	2.730					
2900.0	2.926	34.958	246.5	2.687					
2950.0	2.883	34.954	246.7	2.640					
3000.0	2.848	34.950	246.0	2.600					

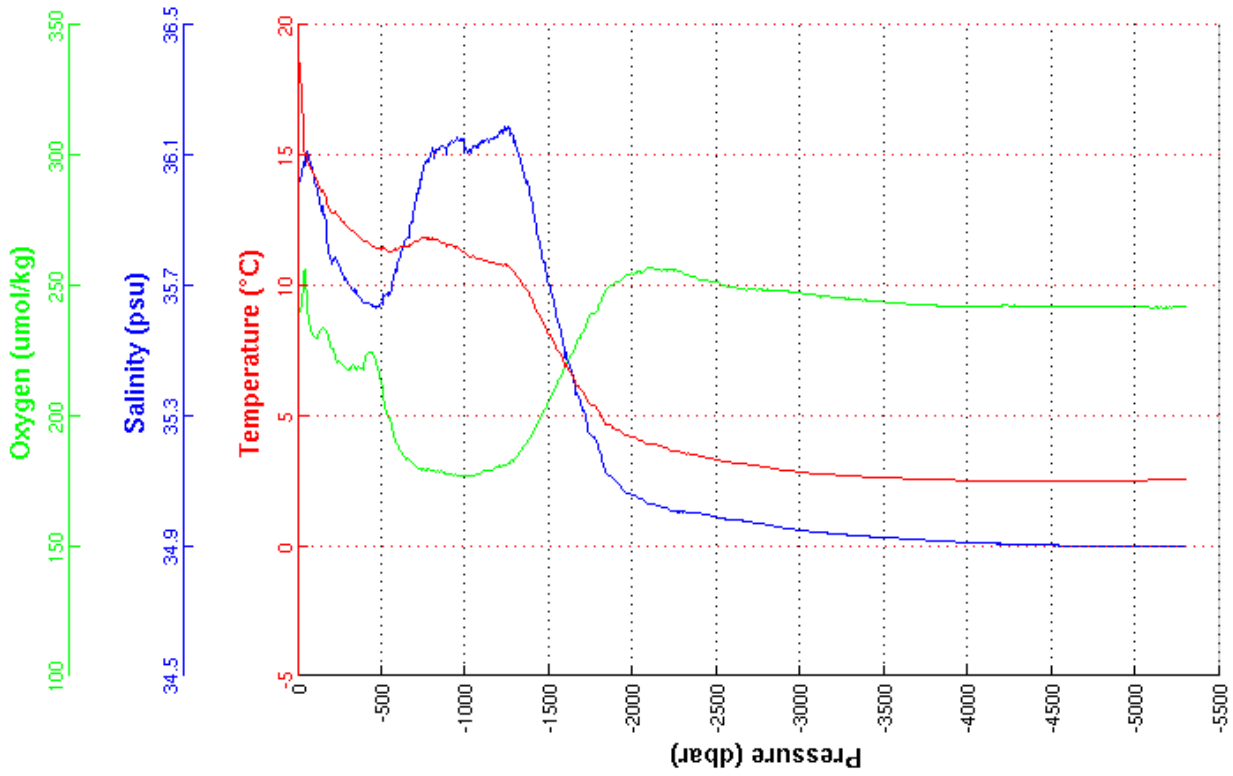
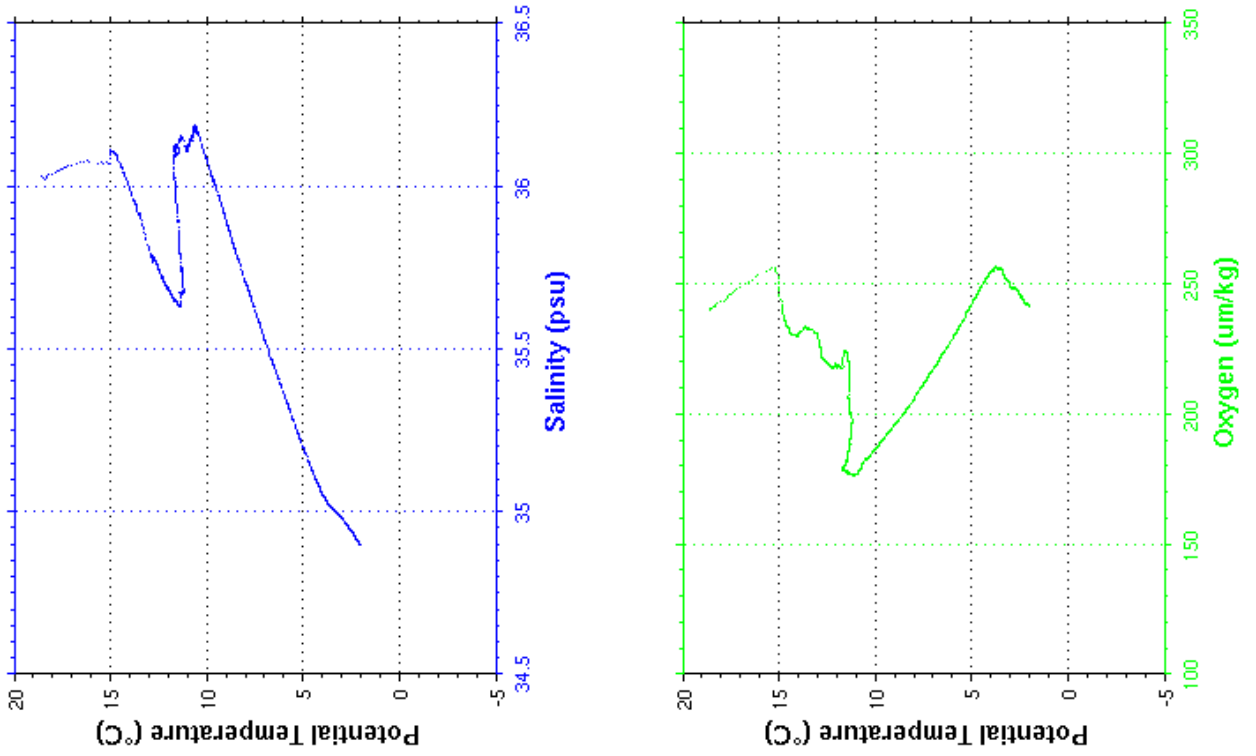




**Cast : 11**

Cast	: 12	Cruise	: CATARINA
Date	: 25/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 5215 m	Organism	: CSIC/IIM VIGO
Position	: N 40 20.00 W 011 46.77		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.580	36.032	239.8	18.580	3050.0	2.792	34.944	246.9	2.541
10.0	18.568	36.031	240.3	18.566	3100.0	2.761	34.941	246.3	2.505
20.0	18.069	36.037	242.9	18.066	3150.0	2.741	34.939	246.2	2.480
30.0	17.048	36.064	248.5	17.043	3200.0	2.726	34.938	245.7	2.460
40.0	15.210	36.075	256.9	15.204	3250.0	2.707	34.936	245.3	2.437
50.0	15.014	36.113	247.5	15.006	3300.0	2.678	34.933	245.0	2.403
100.0	14.177	36.019	230.7	14.162	3350.0	2.665	34.931	244.7	2.385
150.0	13.623	35.932	234.0	13.602	3400.0	2.647	34.929	244.5	2.362
200.0	12.815	35.770	226.3	12.788	3450.0	2.631	34.927	244.3	2.341
250.0	12.602	35.757	220.5	12.568	3500.0	2.614	34.925	244.1	2.319
300.0	12.235	35.703	217.9	12.195	3550.0	2.601	34.924	243.6	2.300
350.0	11.948	35.641	218.4	11.902	3600.0	2.589	34.922	243.3	2.284
400.0	11.711	35.653	222.7	11.659	3650.0	2.574	34.920	242.9	2.264
450.0	11.539	35.638	223.4	11.480	3700.0	2.566	34.919	243.0	2.250
500.0	11.396	35.641	212.6	11.331	3750.0	2.557	34.917	242.8	2.235
550.0	11.277	35.677	198.4	11.206	3800.0	2.548	34.916	242.7	2.221
600.0	11.444	35.777	187.3	11.366	3850.0	2.535	34.914	242.3	2.203
650.0	11.553	35.849	183.7	11.468	3900.0	2.523	34.912	242.2	2.185
700.0	11.675	35.953	180.7	11.583	3950.0	2.518	34.911	242.3	2.175
750.0	11.820	36.058	179.5	11.720	4000.0	2.511	34.910	242.3	2.163
800.0	11.813	36.116	179.2	11.706	4050.0	2.506	34.909	242.3	2.152
850.0	11.706	36.129	178.9	11.592	4100.0	2.504	34.908	242.1	2.144
900.0	11.594	36.141	177.6	11.474	4150.0	2.498	34.907	242.4	2.132
950.0	11.467	36.152	177.0	11.341	4200.0	2.495	34.906	242.6	2.123
1000.0	11.207	36.118	176.9	11.076	4250.0	2.488	34.905	242.4	2.111
1050.0	11.102	36.123	177.0	10.965	4300.0	2.482	34.904	242.4	2.099
1100.0	11.004	36.144	178.4	10.861	4350.0	2.482	34.903	242.5	2.093
1150.0	10.908	36.150	179.5	10.759	4400.0	2.481	34.903	242.3	2.086
1200.0	10.825	36.164	180.7	10.670	4450.0	2.480	34.902	242.0	2.080
1250.0	10.788	36.189	181.4	10.627	4500.0	2.481	34.901	242.0	2.074
1300.0	10.476	36.141	183.8	10.310	4550.0	2.482	34.901	242.2	2.069
1350.0	9.944	36.039	188.7	9.777	4600.0	2.482	34.900	242.2	2.063
1400.0	9.473	35.956	193.0	9.304	4650.0	2.484	34.900	242.1	2.059
1450.0	8.772	35.818	199.7	8.604	4700.0	2.488	34.900	242.3	2.056
1500.0	8.135	35.706	206.4	7.968	4750.0	2.491	34.899	242.4	2.054
1550.0	7.519	35.593	213.2	7.352	4800.0	2.495	34.899	242.3	2.051
1600.0	6.960	35.497	220.2	6.794	4850.0	2.498	34.899	242.3	2.048
1650.0	6.439	35.409	225.5	6.274	4900.0	2.502	34.898	242.1	2.046
1700.0	5.889	35.318	232.7	5.726	4950.0	2.507	34.898	242.2	2.044
1750.0	5.420	35.241	239.3	5.258	5000.0	2.513	34.898	242.0	2.043
1800.0	5.109	35.191	243.4	4.945	5050.0	2.518	34.898	242.0	2.041
1850.0	4.646	35.120	249.6	4.483	5100.0	2.524	34.898	241.8	2.041
1900.0	4.473	35.095	251.1	4.308	5150.0	2.531	34.898	241.8	2.041
1950.0	4.268	35.068	254.0	4.101	5200.0	2.537	34.898	241.8	2.041
2000.0	4.182	35.057	254.6	4.011	5250.0	2.544	34.898	242.0	2.041
2050.0	4.056	35.044	255.3	3.882	5300.0	2.550	34.898	241.9	2.040
2100.0	3.912	35.027	257.1	3.736	5306.0	2.551	34.898	242.1	2.040
2150.0	3.855	35.022	256.4	3.674					
2200.0	3.753	35.016	256.1	3.570					
2250.0	3.631	35.005	256.2	3.444					
2300.0	3.572	35.004	254.7	3.381					
2350.0	3.507	35.001	253.4	3.312					
2400.0	3.456	34.999	252.4	3.258					
2450.0	3.387	34.994	252.2	3.185					
2500.0	3.312	34.988	251.6	3.106					
2550.0	3.230	34.982	250.3	3.020					
2600.0	3.192	34.979	249.4	2.978					
2650.0	3.167	34.977	249.0	2.949					
2700.0	3.114	34.974	248.8	2.892					
2750.0	3.065	34.969	248.6	2.839					
2800.0	3.013	34.964	248.5	2.783					
2850.0	2.961	34.959	248.8	2.726					
2900.0	2.904	34.954	248.4	2.666					
2950.0	2.867	34.951	247.6	2.624					
3000.0	2.830	34.948	247.2	2.583					



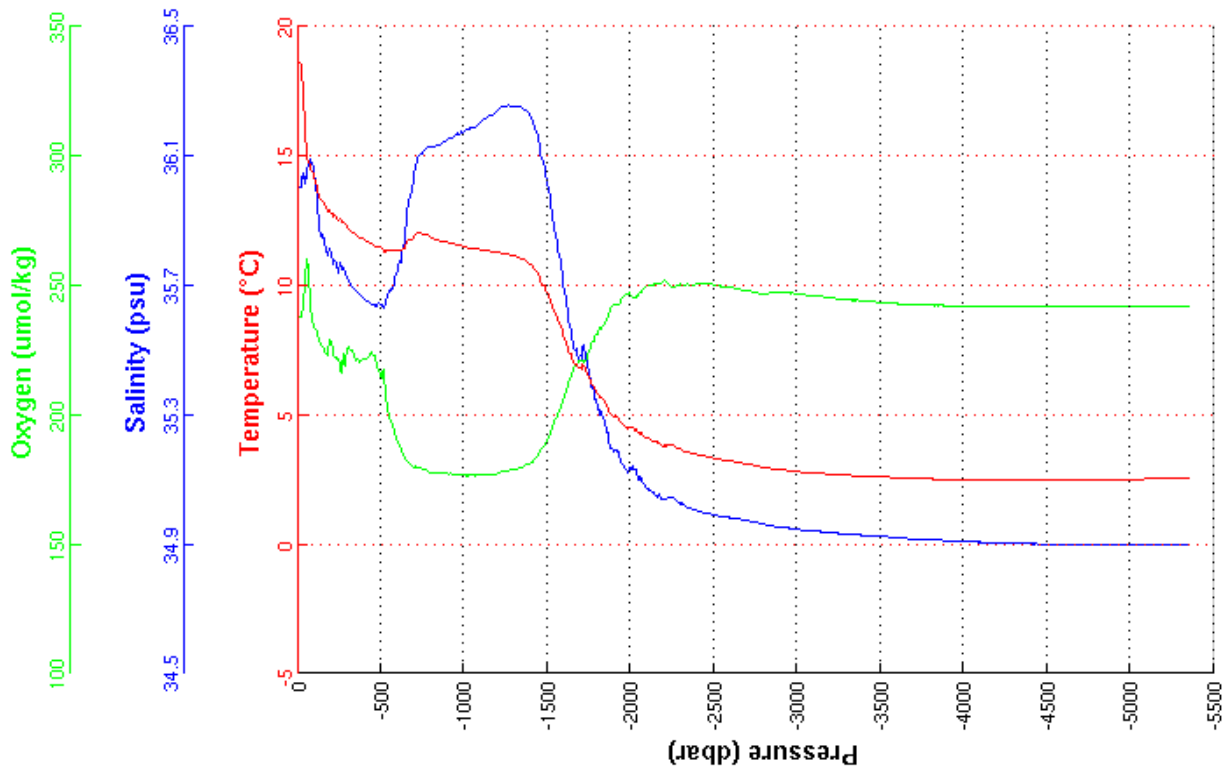
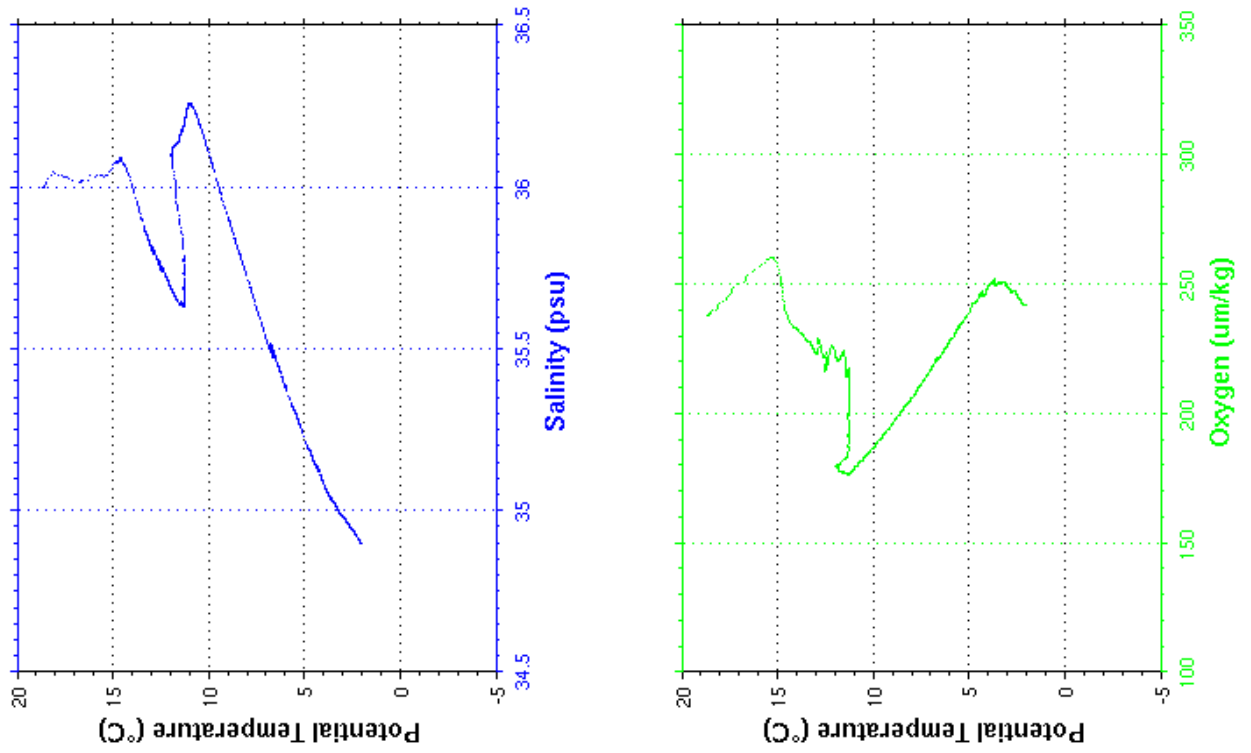
**Cast : 12**

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Cast       : 13           Cruise    : CATARINA
Date       : 01/01/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 5260 m      Organism  : CSIC/IIM VIGO
Position   : N 40 19.93
            W 012 13.16
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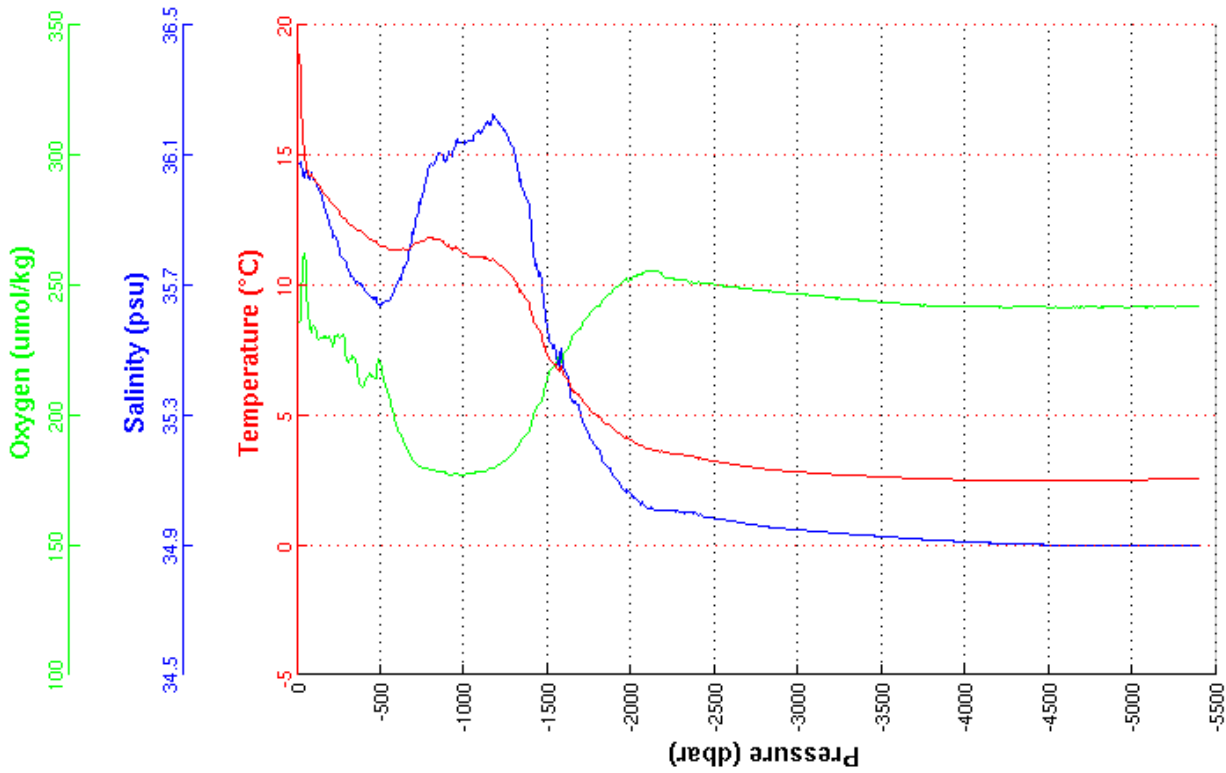
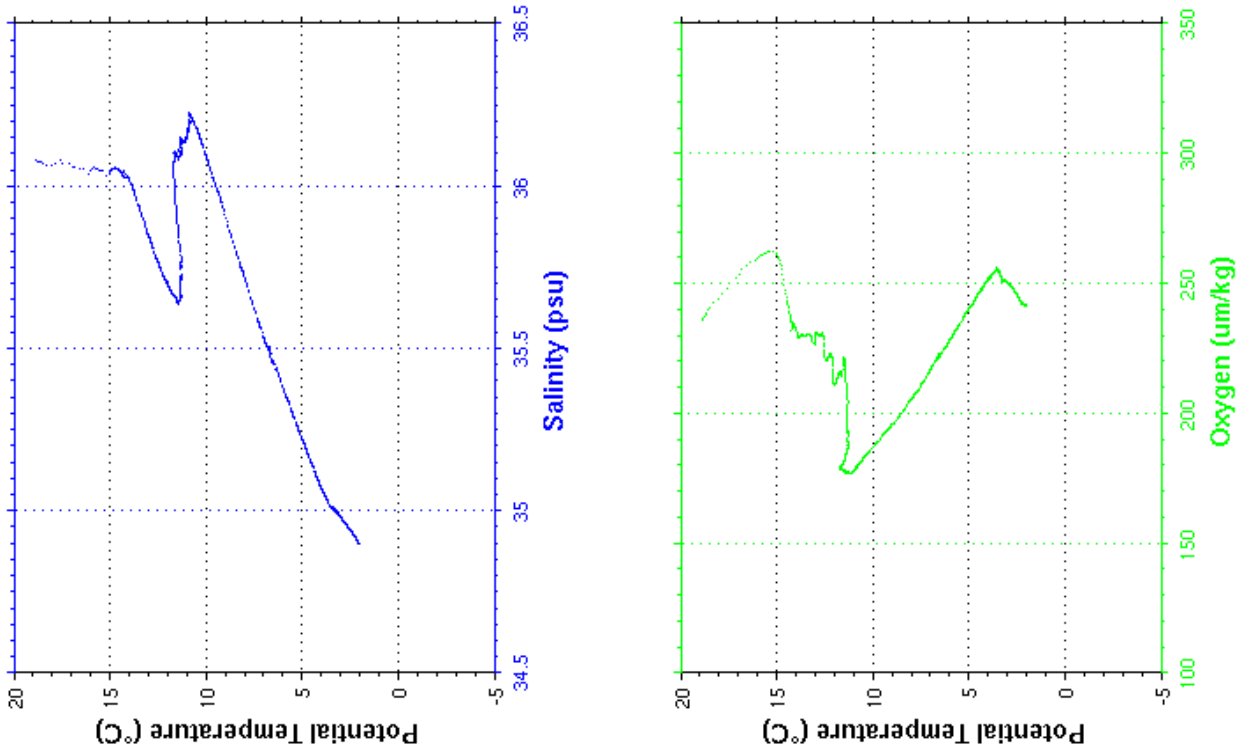
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.650	35.999	238.1	18.650	3050.0	2.776	34.943	246.5	2.525
10.0	18.644	35.999	238.5	18.642	3100.0	2.757	34.941	246.2	2.501
20.0	18.566	36.004	239.0	18.562	3150.0	2.735	34.939	246.1	2.474
30.0	18.110	36.049	241.3	18.104	3200.0	2.707	34.936	245.5	2.441
40.0	17.279	36.027	248.2	17.273	3250.0	2.683	34.934	245.0	2.413
50.0	15.814	36.036	258.5	15.806	3300.0	2.663	34.931	244.8	2.388
100.0	14.195	36.038	234.0	14.180	3350.0	2.647	34.930	244.6	2.368
150.0	13.242	35.849	226.7	13.220	3400.0	2.633	34.928	244.2	2.348
200.0	12.828	35.795	227.5	12.801	3450.0	2.620	34.926	244.0	2.330
250.0	12.522	35.749	219.8	12.488	3500.0	2.603	34.924	243.8	2.308
300.0	12.232	35.719	226.2	12.192	3550.0	2.589	34.922	243.5	2.289
350.0	11.984	35.685	221.5	11.937	3600.0	2.568	34.920	243.2	2.263
400.0	11.774	35.659	221.9	11.722	3650.0	2.551	34.918	243.0	2.241
450.0	11.612	35.643	223.1	11.553	3700.0	2.541	34.916	242.9	2.226
500.0	11.452	35.642	214.3	11.387	3750.0	2.527	34.915	242.7	2.207
550.0	11.380	35.687	198.8	11.309	3800.0	2.523	34.914	242.5	2.197
600.0	11.347	35.745	189.5	11.269	3850.0	2.513	34.912	242.5	2.181
650.0	11.504	35.864	182.8	11.419	3900.0	2.509	34.911	242.4	2.172
700.0	11.915	36.045	180.0	11.821	3950.0	2.502	34.910	242.6	2.159
750.0	11.997	36.109	179.3	11.896	4000.0	2.496	34.909	242.3	2.147
800.0	11.881	36.128	177.9	11.774	4050.0	2.488	34.907	242.2	2.134
850.0	11.733	36.136	177.5	11.620	4100.0	2.482	34.906	242.2	2.123
900.0	11.664	36.151	177.3	11.543	4150.0	2.478	34.906	242.1	2.113
950.0	11.592	36.163	177.3	11.466	4200.0	2.476	34.905	242.2	2.105
1000.0	11.513	36.177	177.2	11.380	4250.0	2.476	34.904	242.1	2.099
1050.0	11.440	36.188	176.9	11.301	4300.0	2.475	34.903	242.0	2.092
1100.0	11.391	36.205	177.0	11.245	4350.0	2.472	34.902	242.1	2.083
1150.0	11.339	36.226	177.1	11.186	4400.0	2.469	34.901	242.0	2.074
1200.0	11.278	36.240	177.6	11.119	4450.0	2.469	34.901	242.1	2.069
1250.0	11.210	36.255	178.6	11.045	4500.0	2.471	34.901	242.0	2.065
1300.0	11.139	36.254	178.9	10.967	4550.0	2.474	34.900	242.1	2.061
1350.0	11.019	36.249	179.9	10.841	4600.0	2.476	34.900	242.2	2.057
1400.0	10.823	36.223	181.7	10.641	4650.0	2.479	34.899	242.2	2.054
1450.0	10.379	36.146	185.6	10.194	4700.0	2.482	34.899	242.3	2.051
1500.0	9.696	36.010	191.3	9.512	4750.0	2.487	34.899	242.1	2.049
1550.0	8.937	35.865	198.8	8.755	4800.0	2.491	34.899	242.1	2.047
1600.0	8.014	35.692	207.5	7.836	4850.0	2.495	34.898	242.0	2.045
1650.0	7.204	35.538	216.7	7.030	4900.0	2.500	34.898	242.1	2.043
1700.0	6.829	35.483	221.5	6.653	4950.0	2.505	34.898	242.1	2.042
1750.0	6.500	35.440	224.6	6.324	5000.0	2.510	34.898	242.1	2.041
1800.0	5.927	35.342	231.1	5.752	5050.0	2.516	34.898	242.1	2.040
1850.0	5.431	35.268	236.3	5.258	5100.0	2.522	34.898	242.0	2.039
1900.0	4.959	35.190	242.8	4.787	5150.0	2.527	34.898	242.1	2.038
1950.0	4.622	35.143	245.8	4.450	5200.0	2.533	34.897	242.2	2.037
2000.0	4.509	35.133	246.4	4.333	5250.0	2.539	34.897	242.2	2.036
2050.0	4.288	35.100	247.9	4.111	5300.0	2.546	34.897	242.2	2.036
2100.0	4.093	35.070	250.3	3.914	5350.0	2.553	34.897	242.1	2.036
2150.0	3.942	35.050	251.5	3.760	5354.0	2.553	34.897	242.3	2.036
2200.0	3.804	35.034	252.3	3.619					
2250.0	3.835	35.047	249.7	3.645					
2300.0	3.672	35.026	250.6	3.480					
2350.0	3.558	35.014	250.4	3.363					
2400.0	3.464	35.004	250.7	3.266					
2450.0	3.401	34.996	251.0	3.198					
2500.0	3.323	34.990	250.3	3.117					
2550.0	3.265	34.985	250.0	3.055					
2600.0	3.223	34.982	249.6	3.008					
2650.0	3.161	34.977	248.8	2.942					
2700.0	3.114	34.974	248.2	2.892					
2750.0	3.038	34.967	247.6	2.812					
2800.0	2.973	34.962	247.1	2.743					
2850.0	2.916	34.956	247.9	2.683					
2900.0	2.886	34.953	247.9	2.648					
2950.0	2.851	34.950	247.4	2.608					
3000.0	2.806	34.946	246.9	2.560					



**Cast : 13**

Cast	: 14	Cruise	: CATARINA
Date	: 26/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 5305 m	Organism	: CSIC/IIM VIGO
Position	: N 40 33.09 W 012 38.08		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.881	36.078	236.7	18.881	3050.0	2.791	34.944	246.6	2.539
10.0	18.876	36.079	235.7	18.875	3100.0	2.771	34.942	246.3	2.515
20.0	18.659	36.073	238.5	18.656	3150.0	2.748	34.940	246.1	2.487
30.0	16.812	36.059	255.7	16.807	3200.0	2.725	34.938	245.5	2.459
40.0	15.517	36.049	262.6	15.510	3250.0	2.709	34.936	245.3	2.439
50.0	14.831	36.054	259.5	14.823	3300.0	2.693	34.934	244.9	2.417
100.0	14.090	36.027	234.3	14.076	3350.0	2.677	34.932	244.8	2.397
150.0	13.662	35.961	230.3	13.640	3400.0	2.662	34.931	244.3	2.376
200.0	13.192	35.878	228.8	13.164	3450.0	2.643	34.928	244.0	2.353
250.0	12.845	35.818	229.9	12.811	3500.0	2.628	34.927	243.9	2.333
300.0	12.498	35.760	221.0	12.457	3550.0	2.611	34.925	243.5	2.310
350.0	12.163	35.709	222.3	12.116	3600.0	2.595	34.922	243.3	2.289
400.0	11.975	35.689	212.4	11.922	3650.0	2.580	34.921	242.9	2.269
450.0	11.746	35.663	215.3	11.687	3700.0	2.565	34.919	242.8	2.249
500.0	11.521	35.638	220.2	11.457	3750.0	2.553	34.917	242.5	2.232
550.0	11.394	35.652	207.3	11.323	3800.0	2.543	34.916	242.2	2.217
600.0	11.383	35.706	195.1	11.305	3850.0	2.532	34.914	242.1	2.200
650.0	11.388	35.763	187.6	11.304	3900.0	2.524	34.913	242.2	2.186
700.0	11.557	35.869	182.5	11.465	3950.0	2.516	34.911	242.1	2.173
750.0	11.712	35.973	179.8	11.612	4000.0	2.509	34.910	242.2	2.160
800.0	11.819	36.071	179.1	11.712	4050.0	2.502	34.909	242.1	2.148
850.0	11.765	36.104	178.7	11.652	4100.0	2.495	34.908	242.0	2.135
900.0	11.515	36.089	177.9	11.396	4150.0	2.488	34.907	241.9	2.122
950.0	11.453	36.141	177.5	11.327	4200.0	2.484	34.906	241.8	2.113
1000.0	11.233	36.135	177.4	11.102	4250.0	2.482	34.905	241.8	2.105
1050.0	11.077	36.147	177.9	10.941	4300.0	2.478	34.904	241.8	2.095
1100.0	11.053	36.171	178.9	10.910	4350.0	2.475	34.903	242.0	2.086
1150.0	11.001	36.201	179.4	10.851	4400.0	2.474	34.902	242.0	2.079
1200.0	10.876	36.205	180.6	10.720	4450.0	2.471	34.901	241.9	2.071
1250.0	10.587	36.170	183.1	10.427	4500.0	2.474	34.901	241.7	2.067
1300.0	10.228	36.105	186.6	10.065	4550.0	2.476	34.901	241.8	2.063
1350.0	9.635	35.997	191.8	9.470	4600.0	2.479	34.900	241.7	2.060
1400.0	9.113	35.901	196.1	8.948	4650.0	2.482	34.900	241.9	2.057
1450.0	8.236	35.733	205.2	8.074	4700.0	2.485	34.899	241.8	2.054
1500.0	7.330	35.564	214.9	7.172	4750.0	2.488	34.899	241.8	2.051
1550.0	6.916	35.496	219.8	6.757	4800.0	2.492	34.899	241.8	2.048
1600.0	6.511	35.434	224.5	6.351	4850.0	2.496	34.899	241.8	2.046
1650.0	5.961	35.346	230.9	5.802	4900.0	2.500	34.898	242.0	2.044
1700.0	5.668	35.302	234.2	5.508	4950.0	2.505	34.898	241.8	2.042
1750.0	5.291	35.241	238.9	5.130	5000.0	2.511	34.898	241.9	2.041
1800.0	5.006	35.198	242.0	4.844	5050.0	2.516	34.898	241.9	2.039
1850.0	4.661	35.145	246.2	4.499	5100.0	2.521	34.898	241.8	2.038
1900.0	4.432	35.108	249.1	4.268	5150.0	2.526	34.898	241.9	2.037
1950.0	4.192	35.073	251.8	4.026	5200.0	2.532	34.898	241.9	2.036
2000.0	4.043	35.055	252.5	3.875	5250.0	2.538	34.897	241.9	2.035
2050.0	3.845	35.029	254.7	3.675	5300.0	2.544	34.897	241.8	2.034
2100.0	3.712	35.013	256.3	3.539	5350.0	2.551	34.897	241.9	2.034
2150.0	3.620	35.006	255.6	3.444	5400.0	2.558	34.897	242.0	2.035
2200.0	3.585	35.010	253.7	3.404					
2250.0	3.511	35.005	252.8	3.327					
2300.0	3.475	35.002	252.4	3.286					
2350.0	3.440	35.002	251.3	3.247					
2400.0	3.351	34.993	251.4	3.155					
2450.0	3.268	34.986	250.9	3.068					
2500.0	3.214	34.981	250.5	3.010					
2550.0	3.170	34.978	250.1	2.962					
2600.0	3.121	34.974	249.7	2.909					
2650.0	3.062	34.969	249.4	2.846					
2700.0	3.008	34.965	248.6	2.788					
2750.0	2.969	34.961	248.4	2.745					
2800.0	2.928	34.957	248.2	2.699					
2850.0	2.891	34.954	247.6	2.658					
2900.0	2.860	34.951	247.4	2.623					
2950.0	2.837	34.949	247.1	2.595					
3000.0	2.814	34.946	246.8	2.568					

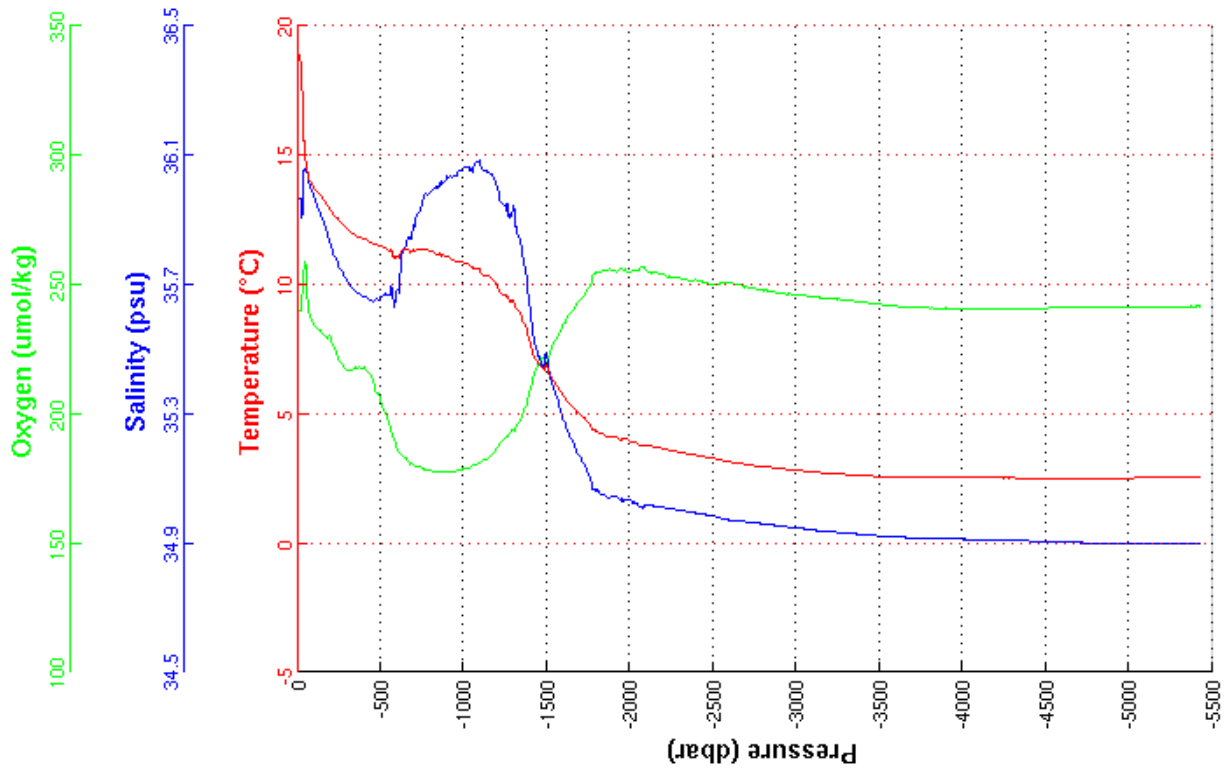
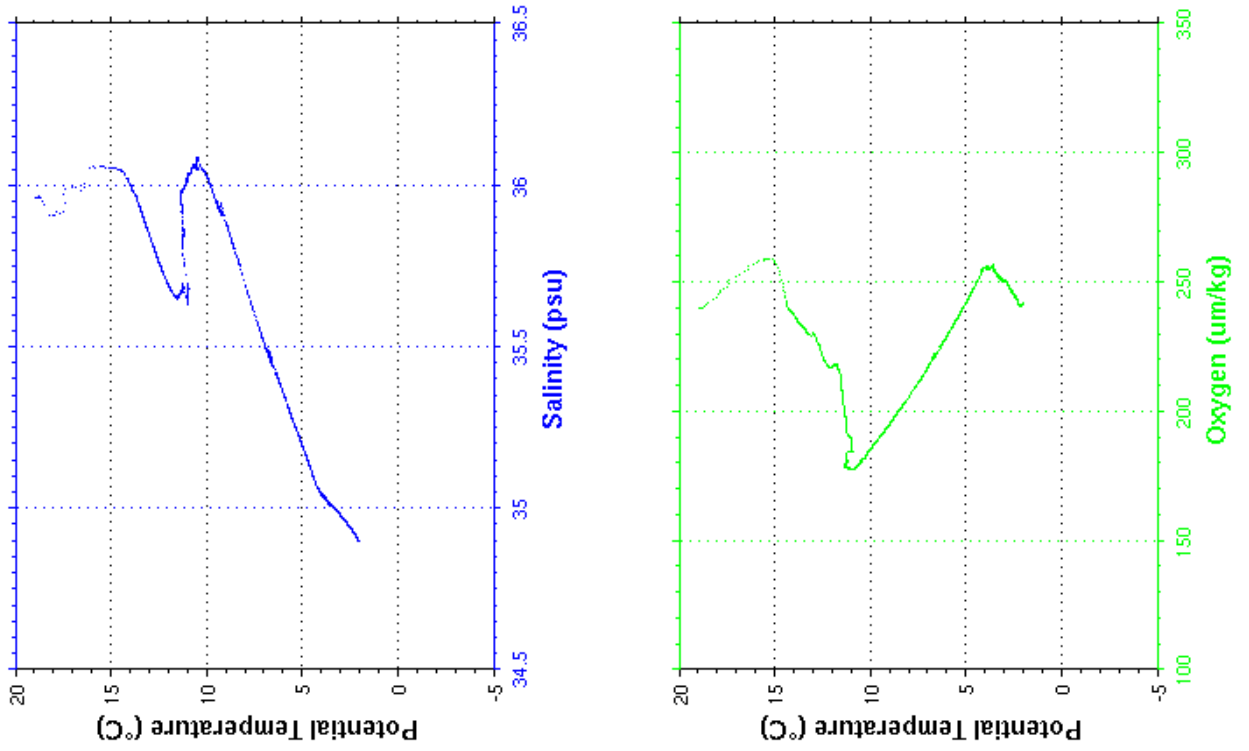


**Cast : 14**

Cast	: 15	Cruise	: CATARINA
Date	: 26/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 5337 m	Organism	: CSIC/IIM VIGO
Position	: N 40 47.24 W 013 6.02		

PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.901	35.963	239.9	18.900	3050.0	2.788	34.944	245.9	2.536
10.0	18.897	35.963	240.0	18.895	3100.0	2.751	34.941	245.6	2.495
20.0	18.726	35.963	239.7	18.722	3150.0	2.719	34.938	245.1	2.458
30.0	17.507	35.915	249.5	17.502	3200.0	2.697	34.935	244.9	2.432
40.0	15.947	36.056	257.5	15.940	3250.0	2.674	34.933	244.5	2.405
50.0	14.931	36.053	257.6	14.923	3300.0	2.652	34.931	244.2	2.378
100.0	13.744	35.970	234.4	13.730	3350.0	2.636	34.929	243.8	2.356
150.0	13.357	35.905	230.9	13.335	3400.0	2.618	34.927	243.3	2.334
200.0	12.893	35.823	229.2	12.866	3450.0	2.594	34.924	243.0	2.304
250.0	12.470	35.753	220.2	12.436	3500.0	2.572	34.922	242.6	2.278
300.0	12.157	35.708	216.9	12.117	3550.0	2.559	34.920	242.2	2.260
350.0	11.933	35.680	218.2	11.887	3600.0	2.554	34.919	241.9	2.249
400.0	11.792	35.663	218.3	11.739	3650.0	2.546	34.918	241.6	2.236
450.0	11.601	35.650	213.1	11.543	3700.0	2.541	34.917	241.5	2.225
500.0	11.472	35.660	204.9	11.408	3750.0	2.538	34.916	241.3	2.217
550.0	11.319	35.670	196.0	11.248	3800.0	2.536	34.915	241.3	2.209
600.0	11.060	35.680	185.7	10.984	3850.0	2.534	34.914	241.1	2.202
650.0	11.368	35.819	183.0	11.284	3900.0	2.532	34.913	241.2	2.194
700.0	11.324	35.881	180.3	11.234	3950.0	2.531	34.913	241.0	2.188
750.0	11.408	35.954	179.3	11.310	4000.0	2.528	34.912	241.1	2.179
800.0	11.307	35.990	178.3	11.203	4050.0	2.526	34.911	241.0	2.171
850.0	11.141	35.999	177.9	11.031	4100.0	2.524	34.911	240.9	2.164
900.0	11.109	36.032	177.5	10.993	4150.0	2.522	34.910	240.8	2.156
950.0	10.916	36.037	178.0	10.794	4200.0	2.522	34.909	240.9	2.150
1000.0	10.831	36.062	179.1	10.703	4250.0	2.520	34.908	240.7	2.142
1050.0	10.671	36.057	179.9	10.538	4300.0	2.521	34.908	240.8	2.137
1100.0	10.581	36.083	181.5	10.441	4350.0	2.519	34.907	240.8	2.129
1150.0	10.313	36.048	183.9	10.169	4400.0	2.518	34.906	240.8	2.122
1200.0	9.983	36.005	187.0	9.836	4450.0	2.515	34.906	240.8	2.114
1250.0	9.593	35.940	190.7	9.442	4500.0	2.512	34.905	241.0	2.104
1300.0	9.397	35.942	193.2	9.242	4550.0	2.510	34.904	241.3	2.096
1350.0	8.770	35.815	199.2	8.614	4600.0	2.506	34.903	241.4	2.086
1400.0	7.807	35.632	209.5	7.655	4650.0	2.505	34.902	241.4	2.079
1450.0	6.923	35.474	220.0	6.775	4700.0	2.504	34.902	241.4	2.072
1500.0	6.865	35.481	220.6	6.712	4750.0	2.501	34.900	241.5	2.063
1550.0	6.199	35.368	228.7	6.048	4800.0	2.503	34.900	241.4	2.058
1600.0	5.676	35.279	235.4	5.526	4850.0	2.506	34.900	241.7	2.055
1650.0	5.321	35.223	240.1	5.170	4900.0	2.509	34.899	241.5	2.052
1700.0	4.948	35.163	244.9	4.797	4950.0	2.513	34.899	241.5	2.050
1750.0	4.655	35.113	249.4	4.503	5000.0	2.518	34.899	241.7	2.048
1800.0	4.322	35.060	254.6	4.169	5050.0	2.521	34.899	241.6	2.044
1850.0	4.182	35.045	255.8	4.026	5100.0	2.525	34.898	241.5	2.042
1900.0	4.083	35.039	255.7	3.924	5150.0	2.531	34.898	241.5	2.041
1950.0	4.002	35.030	256.8	3.840	5200.0	2.536	34.898	241.5	2.040
2000.0	3.963	35.034	255.2	3.795	5250.0	2.541	34.898	241.4	2.038
2050.0	3.849	35.022	255.7	3.679	5300.0	2.547	34.898	241.7	2.037
2100.0	3.765	35.017	255.4	3.591	5350.0	2.552	34.898	241.7	2.035
2150.0	3.683	35.010	255.3	3.506	5400.0	2.558	34.897	241.8	2.034
2200.0	3.657	35.011	254.1	3.475	5434.0	2.562	34.897	241.9	2.034
2250.0	3.574	35.006	253.1	3.389					
2300.0	3.517	35.001	252.8	3.328					
2350.0	3.456	34.998	251.8	3.262					
2400.0	3.396	34.992	251.8	3.198					
2450.0	3.338	34.987	251.8	3.137					
2500.0	3.295	34.987	250.2	3.090					
2550.0	3.199	34.976	251.1	2.991					
2600.0	3.135	34.972	250.8	2.922					
2650.0	3.074	34.967	250.1	2.858					
2700.0	3.034	34.965	249.3	2.814					
2750.0	2.992	34.962	248.7	2.767					
2800.0	2.954	34.959	248.0	2.725					
2850.0	2.922	34.957	247.5	2.689					
2900.0	2.884	34.954	246.9	2.646					
2950.0	2.843	34.950	246.7	2.600					
3000.0	2.815	34.947	246.2	2.568					





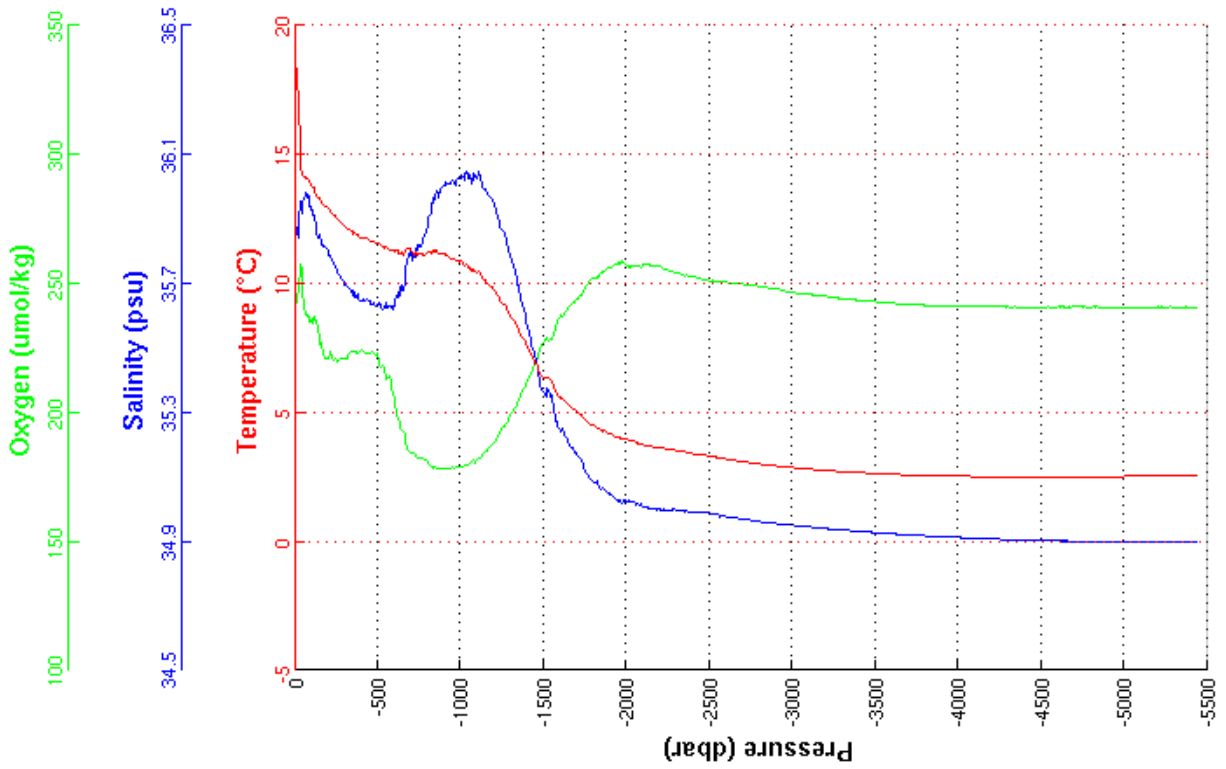
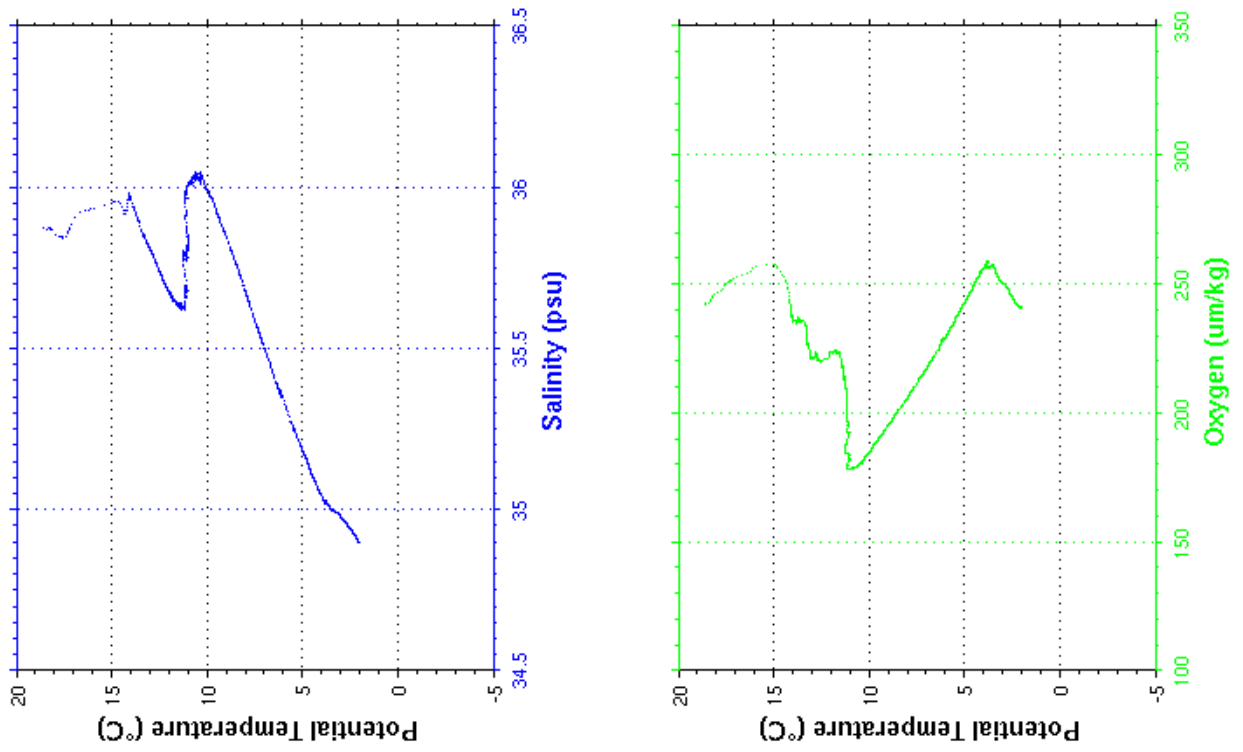
**Cast : 15**

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Cast       : 16           Cruise    : CATARINA
Date       : 27/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 5346 m      Organism  : CSIC/IIM VIGO
Position   : N 41 5.07
            W 013 29.54
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PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.570	35.872	242.0	18.570	3050.0	2.831	34.947	246.4	2.579
10.0	18.330	35.874	243.8	18.329	3100.0	2.808	34.945	246.0	2.551
20.0	17.611	35.844	249.4	17.608	3150.0	2.778	34.943	245.6	2.517
30.0	16.371	35.927	255.0	16.366	3200.0	2.756	34.940	245.3	2.490
40.0	14.571	35.948	253.2	14.565	3250.0	2.730	34.938	244.9	2.459
50.0	14.151	35.952	242.8	14.144	3300.0	2.709	34.935	244.5	2.433
100.0	13.815	35.931	235.1	13.801	3350.0	2.692	34.934	244.1	2.411
150.0	13.288	35.848	226.7	13.267	3400.0	2.670	34.931	243.7	2.385
200.0	12.953	35.801	221.3	12.925	3450.0	2.651	34.929	243.5	2.360
250.0	12.559	35.744	220.1	12.525	3500.0	2.636	34.927	243.3	2.340
300.0	12.229	35.698	221.0	12.189	3550.0	2.622	34.926	242.9	2.321
350.0	12.021	35.676	223.5	11.975	3600.0	2.605	34.924	242.6	2.298
400.0	11.799	35.647	224.3	11.747	3650.0	2.592	34.922	242.2	2.280
450.0	11.683	35.646	222.8	11.625	3700.0	2.578	34.920	242.1	2.261
500.0	11.551	35.634	222.1	11.486	3750.0	2.567	34.919	242.0	2.245
550.0	11.407	35.635	212.3	11.336	3800.0	2.558	34.917	241.9	2.231
600.0	11.235	35.634	204.9	11.158	3850.0	2.550	34.916	241.8	2.217
650.0	11.182	35.692	192.2	11.099	3900.0	2.542	34.915	241.7	2.203
700.0	11.290	35.791	184.7	11.199	3950.0	2.536	34.914	241.6	2.193
750.0	11.138	35.820	182.0	11.042	4000.0	2.529	34.912	241.4	2.180
800.0	11.165	35.878	181.1	11.062	4050.0	2.523	34.911	241.4	2.168
850.0	11.289	35.984	178.4	11.178	4100.0	2.516	34.910	241.4	2.156
900.0	11.128	36.002	178.3	11.012	4150.0	2.508	34.909	241.4	2.142
950.0	10.965	36.019	178.6	10.843	4200.0	2.502	34.907	241.3	2.131
1000.0	10.856	36.029	179.2	10.728	4250.0	2.500	34.907	241.3	2.123
1050.0	10.656	36.039	180.1	10.523	4300.0	2.496	34.906	241.2	2.113
1100.0	10.435	36.033	181.9	10.297	4350.0	2.492	34.905	241.1	2.103
1150.0	10.104	35.990	185.5	9.962	4400.0	2.491	34.904	241.1	2.096
1200.0	9.765	35.947	188.9	9.619	4450.0	2.490	34.903	241.1	2.089
1250.0	9.257	35.863	194.3	9.109	4500.0	2.490	34.903	241.1	2.083
1300.0	8.729	35.779	199.7	8.580	4550.0	2.490	34.902	241.1	2.077
1350.0	8.197	35.686	205.4	8.047	4600.0	2.491	34.901	241.1	2.072
1400.0	7.561	35.573	212.6	7.412	4650.0	2.494	34.901	241.1	2.068
1450.0	6.964	35.473	219.6	6.816	4700.0	2.497	34.901	241.2	2.065
1500.0	6.332	35.363	227.4	6.185	4750.0	2.500	34.900	241.1	2.062
1550.0	6.211	35.354	228.9	6.060	4800.0	2.503	34.900	241.1	2.059
1600.0	5.567	35.243	237.7	5.418	4850.0	2.507	34.900	241.0	2.056
1650.0	5.294	35.206	241.1	5.144	4900.0	2.511	34.900	240.9	2.054
1700.0	5.059	35.174	244.1	4.906	4950.0	2.515	34.899	241.1	2.052
1750.0	4.703	35.117	248.7	4.550	5000.0	2.521	34.899	241.0	2.050
1800.0	4.498	35.087	252.1	4.343	5050.0	2.525	34.899	241.0	2.049
1850.0	4.307	35.061	255.1	4.149	5100.0	2.531	34.899	241.0	2.047
1900.0	4.177	35.046	256.3	4.017	5150.0	2.536	34.899	241.0	2.046
1950.0	4.020	35.027	258.0	3.857	5200.0	2.541	34.898	241.2	2.045
2000.0	3.948	35.024	257.4	3.781	5250.0	2.547	34.898	241.1	2.044
2050.0	3.869	35.019	256.8	3.698	5300.0	2.553	34.898	241.1	2.043
2100.0	3.759	35.008	257.5	3.585	5350.0	2.559	34.898	241.1	2.042
2150.0	3.683	35.001	257.7	3.505	5400.0	2.566	34.898	241.0	2.042
2200.0	3.626	34.998	257.0	3.445	5445.0	2.572	34.898	241.1	2.042
2250.0	3.584	34.999	255.3	3.398					
2300.0	3.526	34.997	254.2	3.336					
2350.0	3.471	34.994	253.3	3.277					
2400.0	3.396	34.990	253.0	3.199					
2450.0	3.363	34.990	252.0	3.161					
2500.0	3.320	34.988	251.3	3.114					
2550.0	3.262	34.984	250.8	3.052					
2600.0	3.193	34.977	250.8	2.979					
2650.0	3.147	34.973	250.5	2.930					
2700.0	3.090	34.968	250.0	2.869					
2750.0	3.049	34.965	249.5	2.823					
2800.0	3.002	34.961	249.2	2.772					
2850.0	2.963	34.958	248.7	2.729					
2900.0	2.927	34.955	248.2	2.688					
2950.0	2.897	34.953	247.5	2.654					
3000.0	2.863	34.950	246.7	2.615					



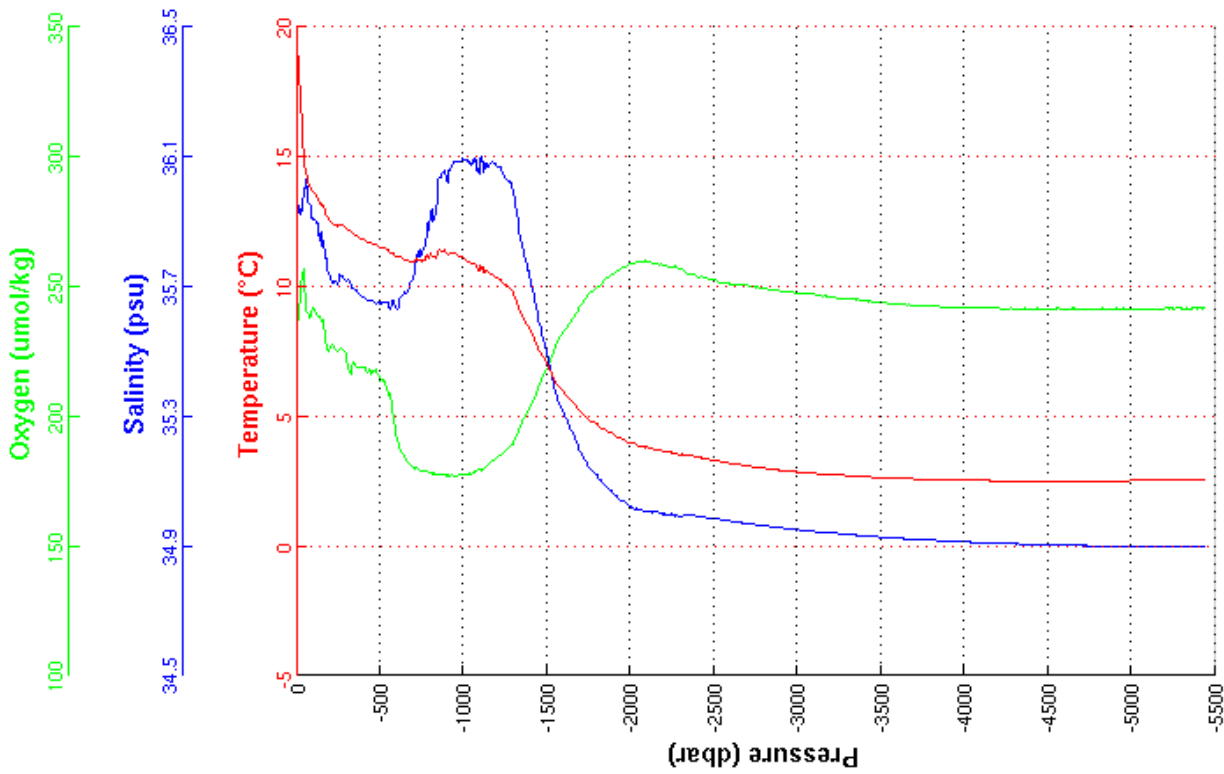
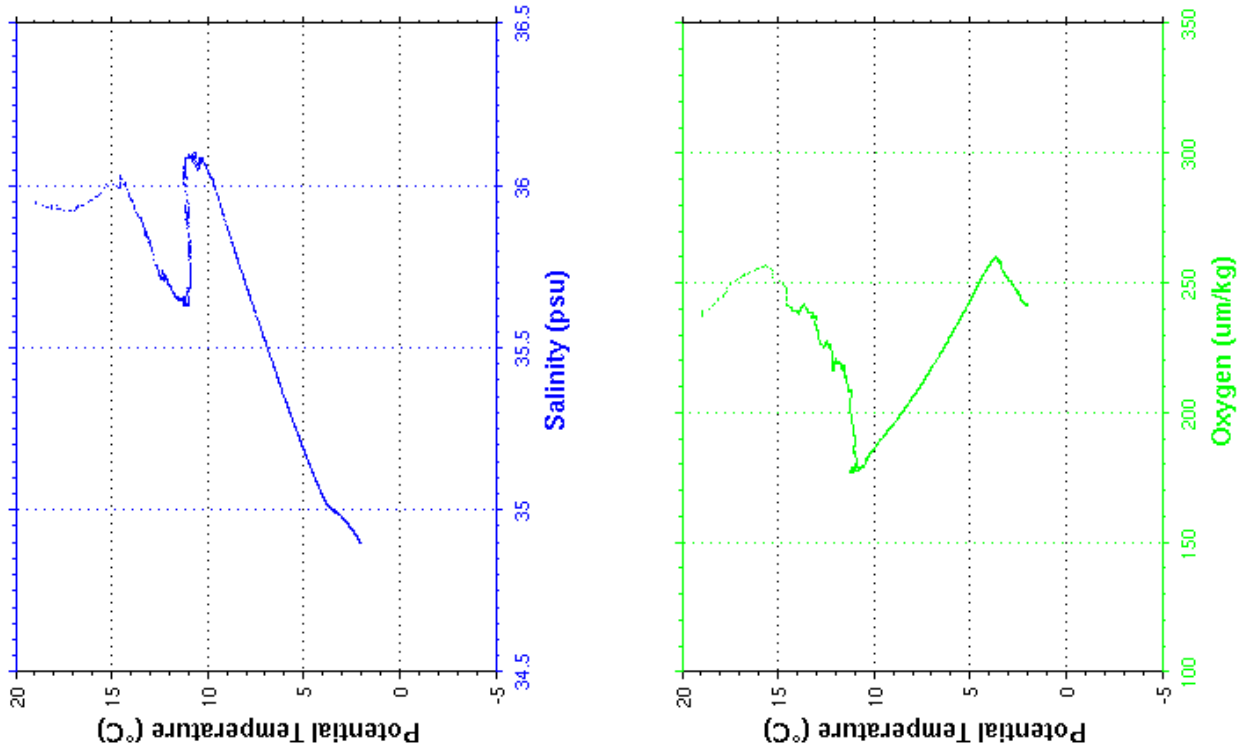
**Cast : 16**

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Cast       : 17           Cruise    : CATARINA
Date      : 27/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 5346 m      Organism : CSIC/IIM VIGO
Position  : N 41 23.02
           W 013 53.34
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.943	35.949	237.7	18.943	3050.0	2.830	34.947	247.4	2.578
10.0	18.941	35.948	237.6	18.939	3100.0	2.801	34.944	247.2	2.544
20.0	17.785	35.928	245.8	17.781	3150.0	2.778	34.943	246.5	2.517
30.0	16.771	35.935	252.9	16.766	3200.0	2.754	34.940	246.4	2.487
40.0	15.575	35.976	256.1	15.568	3250.0	2.737	34.938	245.9	2.466
50.0	14.583	36.001	247.4	14.575	3300.0	2.714	34.936	245.7	2.438
100.0	13.630	35.907	241.7	13.615	3350.0	2.695	34.934	245.3	2.414
150.0	13.157	35.845	236.9	13.136	3400.0	2.673	34.931	244.8	2.387
200.0	12.537	35.725	227.0	12.510	3450.0	2.654	34.930	244.5	2.363
250.0	12.327	35.709	226.0	12.294	3500.0	2.640	34.928	244.2	2.344
300.0	12.240	35.718	221.8	12.200	3550.0	2.622	34.926	243.8	2.321
350.0	12.011	35.688	220.1	11.965	3600.0	2.611	34.924	243.5	2.305
400.0	11.823	35.669	219.0	11.771	3650.0	2.597	34.923	243.1	2.286
450.0	11.676	35.655	217.1	11.617	3700.0	2.587	34.921	243.0	2.270
500.0	11.568	35.655	213.6	11.503	3750.0	2.577	34.920	242.9	2.255
550.0	11.403	35.649	208.0	11.332	3800.0	2.566	34.918	242.7	2.239
600.0	11.091	35.632	190.9	11.015	3850.0	2.556	34.917	242.5	2.224
650.0	11.063	35.680	183.5	10.980	3900.0	2.548	34.915	242.4	2.209
700.0	10.973	35.739	180.5	10.884	3950.0	2.541	34.914	242.3	2.197
750.0	10.978	35.796	179.1	10.882	4000.0	2.534	34.913	242.3	2.185
800.0	11.212	35.914	178.4	11.109	4050.0	2.527	34.912	242.1	2.172
850.0	11.383	36.029	177.5	11.271	4100.0	2.523	34.911	242.1	2.163
900.0	11.227	36.025	177.5	11.110	4150.0	2.521	34.910	242.0	2.155
950.0	11.265	36.085	177.2	11.141	4200.0	2.514	34.909	241.9	2.142
1000.0	11.097	36.093	177.7	10.967	4250.0	2.510	34.908	241.7	2.133
1050.0	10.918	36.087	178.2	10.782	4300.0	2.506	34.907	241.8	2.122
1100.0	10.718	36.077	179.8	10.578	4350.0	2.504	34.906	241.8	2.114
1150.0	10.526	36.072	182.0	10.380	4400.0	2.498	34.905	241.8	2.103
1200.0	10.331	36.071	184.4	10.181	4450.0	2.497	34.904	241.8	2.096
1250.0	10.078	36.035	187.0	9.923	4500.0	2.496	34.903	241.7	2.089
1300.0	9.667	35.976	190.6	9.509	4550.0	2.496	34.903	241.8	2.082
1350.0	8.888	35.826	198.1	8.731	4600.0	2.496	34.902	241.8	2.077
1400.0	8.308	35.723	204.6	8.151	4650.0	2.499	34.902	241.8	2.073
1450.0	7.575	35.594	212.3	7.420	4700.0	2.502	34.901	241.8	2.070
1500.0	7.045	35.501	218.8	6.889	4750.0	2.503	34.901	241.7	2.065
1550.0	6.344	35.379	227.2	6.191	4800.0	2.506	34.901	241.7	2.062
1600.0	5.932	35.311	233.2	5.779	4850.0	2.509	34.900	241.8	2.058
1650.0	5.547	35.250	238.2	5.393	4900.0	2.513	34.900	241.7	2.056
1700.0	5.164	35.188	243.2	5.010	4950.0	2.517	34.900	241.8	2.053
1750.0	4.875	35.144	247.4	4.719	5000.0	2.521	34.899	241.7	2.051
1800.0	4.704	35.118	249.9	4.546	5050.0	2.526	34.899	241.8	2.049
1850.0	4.478	35.085	253.2	4.318	5100.0	2.531	34.899	241.6	2.047
1900.0	4.298	35.061	255.3	4.136	5150.0	2.536	34.899	241.7	2.046
1950.0	4.122	35.039	257.5	3.958	5200.0	2.541	34.899	241.8	2.045
2000.0	3.972	35.020	259.4	3.805	5250.0	2.547	34.898	241.8	2.044
2050.0	3.875	35.011	259.9	3.704	5300.0	2.552	34.898	241.8	2.042
2100.0	3.809	35.008	259.7	3.634	5350.0	2.559	34.898	241.7	2.042
2150.0	3.726	35.001	259.7	3.547	5400.0	2.566	34.898	241.9	2.042
2200.0	3.658	34.998	258.7	3.476	5440.0	2.571	34.898	241.9	2.042
2250.0	3.599	34.998	257.7	3.413					
2300.0	3.535	34.993	257.1	3.345					
2350.0	3.506	34.996	255.2	3.311					
2400.0	3.429	34.992	254.1	3.231					
2450.0	3.371	34.988	253.5	3.169					
2500.0	3.298	34.983	252.8	3.092					
2550.0	3.246	34.981	251.9	3.036					
2600.0	3.188	34.977	251.3	2.975					
2650.0	3.138	34.973	251.2	2.921					
2700.0	3.084	34.968	250.8	2.862					
2750.0	3.042	34.965	250.0	2.816					
2800.0	2.996	34.961	249.7	2.766					
2850.0	2.958	34.959	248.8	2.724					
2900.0	2.922	34.956	248.3	2.683					
2950.0	2.888	34.953	248.1	2.645					
3000.0	2.857	34.950	247.8	2.609					



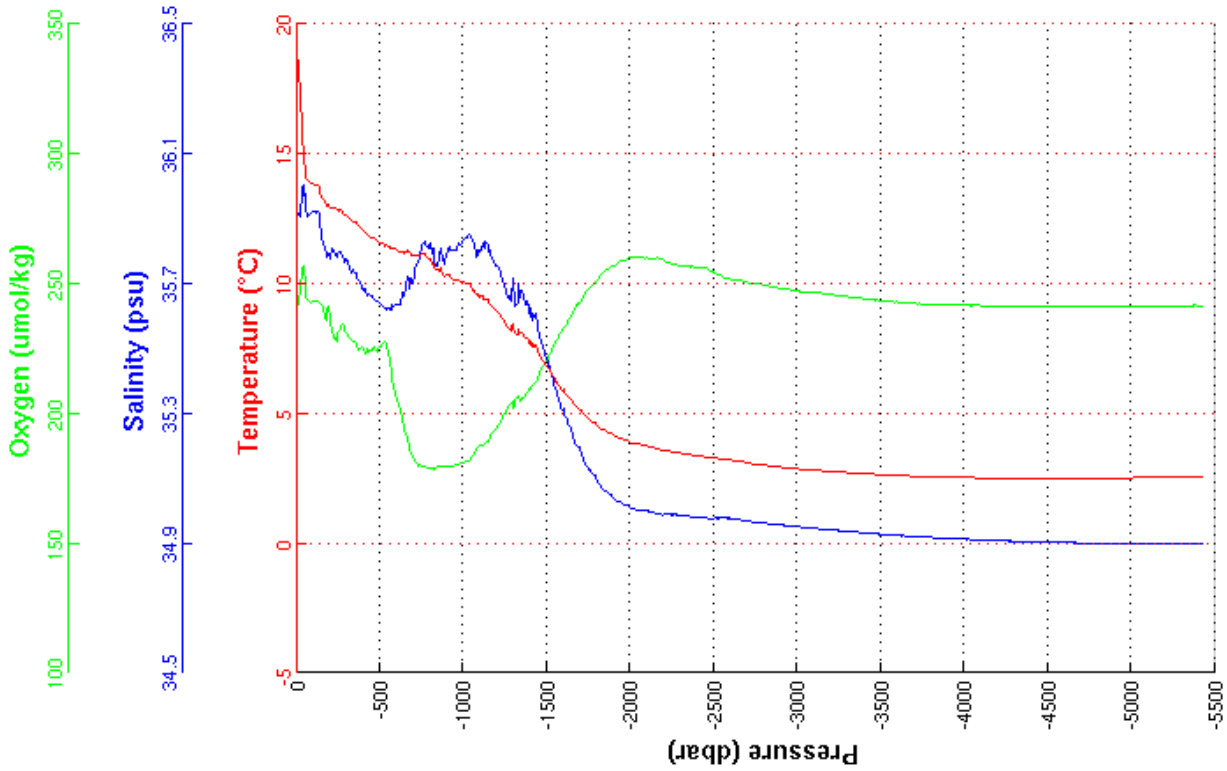
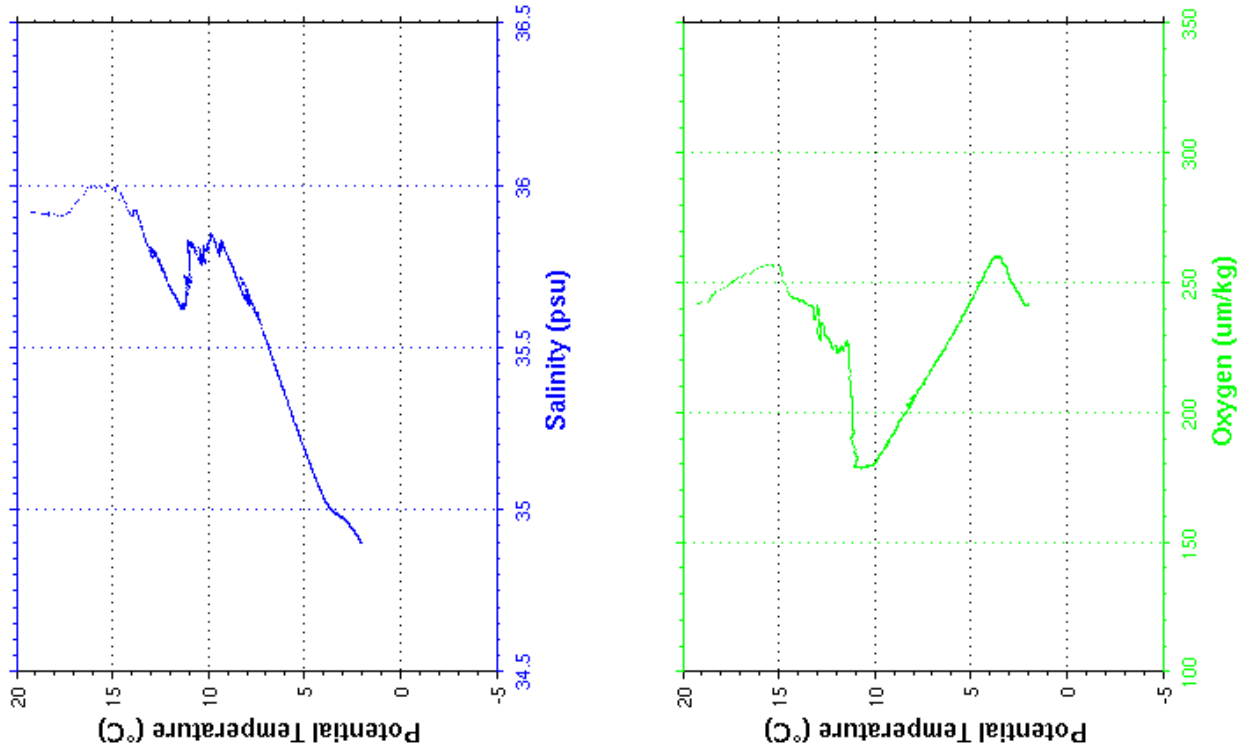
**Cast : 17**

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Cast       : 18           Cruise    : CATARINA
Date       : 27/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 5336 m      Organism  : CSIC/IIM VIGO
Position   : N 41 40.92
            W 014 16.62
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	19.241	35.919	242.0	19.241	3050.0	2.841	34.948	246.8	2.589
10.0	18.592	35.913	244.1	18.590	3100.0	2.811	34.945	246.8	2.554
20.0	18.040	35.910	247.1	18.036	3150.0	2.787	34.943	246.4	2.525
30.0	16.815	35.951	253.1	16.810	3200.0	2.764	34.941	245.9	2.498
40.0	15.348	35.984	258.2	15.342	3250.0	2.747	34.939	245.7	2.475
50.0	14.802	35.985	252.5	14.794	3300.0	2.722	34.937	245.4	2.446
100.0	13.832	35.922	243.5	13.817	3350.0	2.701	34.934	244.7	2.420
150.0	13.390	35.848	241.5	13.369	3400.0	2.678	34.932	244.2	2.392
200.0	12.952	35.780	237.6	12.925	3450.0	2.658	34.930	244.1	2.367
250.0	12.859	35.798	232.1	12.825	3500.0	2.641	34.928	243.7	2.345
300.0	12.660	35.777	231.5	12.619	3550.0	2.626	34.926	243.4	2.325
350.0	12.365	35.733	227.7	12.318	3600.0	2.610	34.924	243.1	2.303
400.0	12.027	35.683	224.8	11.974	3650.0	2.594	34.922	243.1	2.282
450.0	11.809	35.662	224.0	11.749	3700.0	2.580	34.920	242.7	2.263
500.0	11.616	35.639	225.5	11.551	3750.0	2.569	34.919	242.4	2.247
550.0	11.424	35.624	222.6	11.353	3800.0	2.559	34.917	242.2	2.231
600.0	11.273	35.630	205.7	11.196	3850.0	2.548	34.916	242.2	2.215
650.0	11.172	35.663	192.3	11.088	3900.0	2.542	34.915	242.0	2.204
700.0	11.011	35.703	182.6	10.922	3950.0	2.533	34.913	242.0	2.190
750.0	11.152	35.810	180.0	11.056	4000.0	2.529	34.912	242.0	2.179
800.0	10.982	35.823	179.1	10.880	4050.0	2.521	34.911	241.8	2.166
850.0	10.469	35.765	179.6	10.364	4100.0	2.516	34.910	241.7	2.156
900.0	10.361	35.798	179.7	10.249	4150.0	2.511	34.909	241.8	2.145
950.0	10.129	35.801	180.3	10.013	4200.0	2.505	34.908	241.7	2.133
1000.0	10.045	35.838	181.6	9.923	4250.0	2.502	34.907	241.6	2.125
1050.0	9.868	35.839	183.6	9.741	4300.0	2.500	34.906	241.7	2.117
1100.0	9.504	35.799	187.7	9.374	4350.0	2.497	34.905	241.7	2.108
1150.0	9.367	35.818	190.0	9.231	4400.0	2.496	34.905	241.7	2.101
1200.0	8.949	35.757	195.1	8.810	4450.0	2.494	34.904	241.5	2.093
1250.0	8.507	35.688	200.6	8.366	4500.0	2.493	34.903	241.5	2.086
1300.0	8.391	35.701	202.5	8.246	4550.0	2.492	34.902	241.6	2.079
1350.0	8.129	35.677	205.7	7.980	4600.0	2.492	34.902	241.7	2.073
1400.0	7.755	35.616	210.0	7.603	4650.0	2.494	34.901	241.5	2.068
1450.0	7.307	35.551	215.1	7.155	4700.0	2.496	34.901	241.6	2.064
1500.0	6.844	35.472	221.4	6.691	4750.0	2.500	34.901	241.6	2.062
1550.0	6.308	35.379	227.6	6.156	4800.0	2.502	34.900	241.7	2.058
1600.0	5.910	35.315	233.4	5.757	4850.0	2.506	34.900	241.7	2.055
1650.0	5.489	35.242	238.5	5.337	4900.0	2.510	34.899	241.6	2.053
1700.0	5.169	35.190	243.0	5.015	4950.0	2.515	34.899	241.7	2.051
1750.0	4.785	35.129	248.5	4.631	5000.0	2.519	34.899	241.6	2.049
1800.0	4.547	35.094	251.9	4.391	5050.0	2.525	34.899	241.5	2.048
1850.0	4.339	35.063	255.3	4.181	5100.0	2.529	34.899	241.6	2.046
1900.0	4.168	35.040	257.5	4.008	5150.0	2.535	34.899	241.5	2.045
1950.0	4.036	35.025	259.0	3.872	5200.0	2.541	34.898	241.6	2.044
2000.0	3.895	35.009	260.3	3.729	5250.0	2.547	34.898	241.5	2.044
2050.0	3.820	35.003	260.4	3.650	5300.0	2.553	34.898	241.6	2.043
2100.0	3.746	34.999	260.3	3.572	5350.0	2.556	34.898	241.7	2.040
2150.0	3.657	34.992	260.0	3.480	5400.0	2.563	34.898	241.8	2.039
2200.0	3.571	34.989	258.9	3.391	5433.0	2.568	34.898	241.8	2.040
2250.0	3.523	34.988	258.2	3.339					
2300.0	3.469	34.986	257.2	3.281					
2350.0	3.422	34.983	257.2	3.229					
2400.0	3.371	34.981	256.5	3.174					
2450.0	3.325	34.978	256.3	3.124					
2500.0	3.281	34.976	254.9	3.076					
2550.0	3.258	34.978	253.1	3.048					
2600.0	3.212	34.976	251.9	2.998					
2650.0	3.152	34.972	251.4	2.934					
2700.0	3.100	34.969	250.7	2.878					
2750.0	3.038	34.964	250.2	2.812					
2800.0	3.005	34.962	249.7	2.775					
2850.0	2.970	34.959	248.9	2.735					
2900.0	2.932	34.956	248.4	2.694					
2950.0	2.911	34.955	248.1	2.667					
3000.0	2.875	34.951	247.6	2.627					

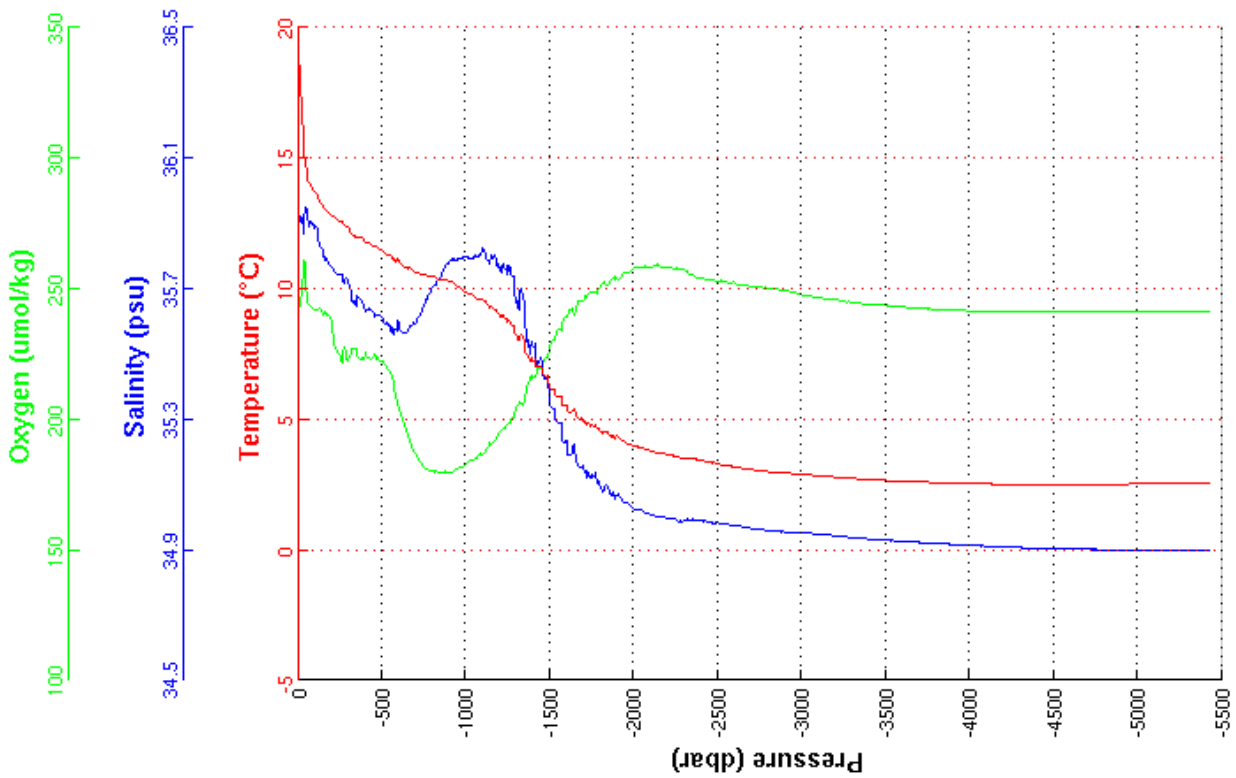
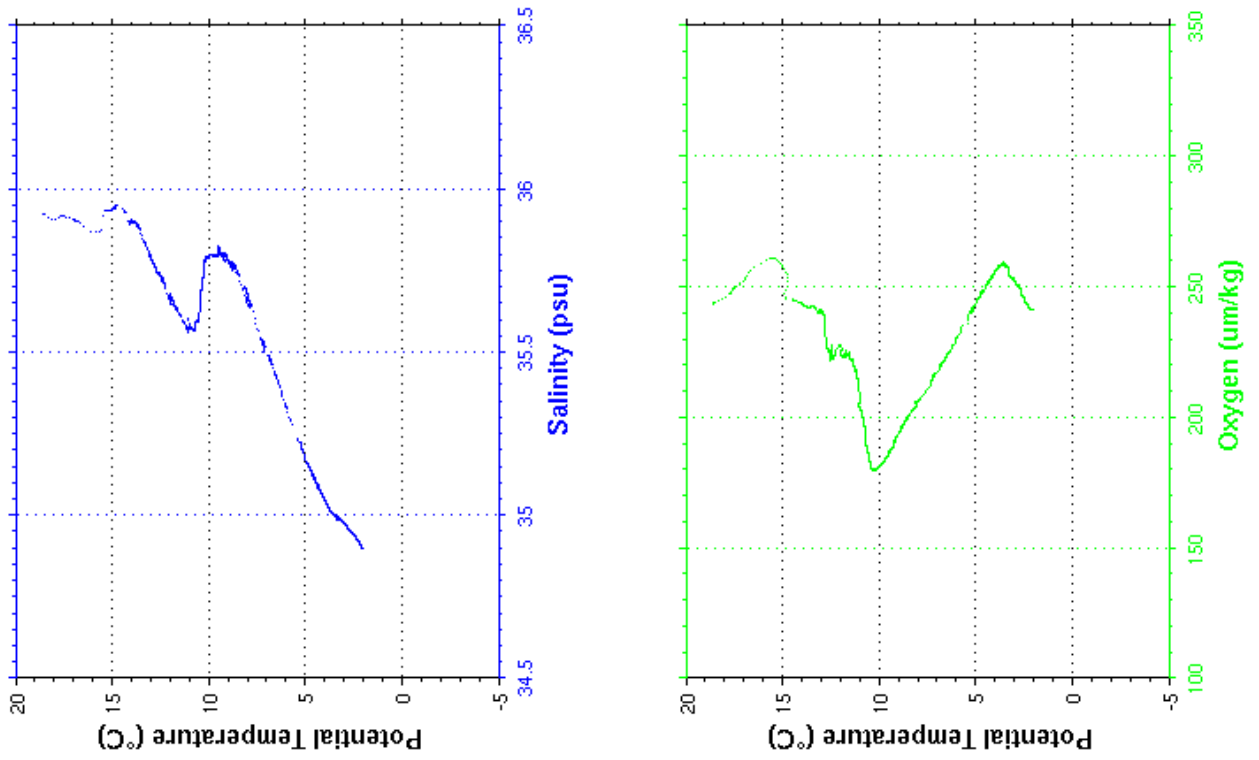


**Cast : 18**

Cast	: 19	Cruise	: CATARINA
Date	: 27/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 5330 m	Organism	: CSIC/IIM VIGO
Position	: N 41 59.00 W 014 40.38		

PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.552	35.924	244.5	18.552	3050.0	2.865	34.950	247.4	2.612
10.0	18.543	35.925	243.6	18.541	3100.0	2.840	34.948	246.8	2.582
20.0	17.541	35.917	248.9	17.538	3150.0	2.812	34.945	246.3	2.549
30.0	16.645	35.894	255.3	16.640	3200.0	2.785	34.943	246.0	2.518
40.0	15.063	35.932	259.0	15.057	3250.0	2.755	34.940	245.4	2.484
50.0	14.892	35.945	246.2	14.884	3300.0	2.735	34.938	245.2	2.459
100.0	13.718	35.888	242.4	13.703	3350.0	2.710	34.935	244.6	2.429
150.0	13.171	35.814	240.0	13.150	3400.0	2.687	34.933	244.1	2.401
200.0	12.837	35.766	236.8	12.810	3450.0	2.672	34.931	244.3	2.381
250.0	12.594	35.738	224.2	12.560	3500.0	2.657	34.929	243.8	2.360
300.0	12.387	35.721	224.0	12.346	3550.0	2.641	34.928	243.5	2.339
350.0	12.047	35.669	224.5	12.001	3600.0	2.628	34.926	243.3	2.322
400.0	11.799	35.637	225.5	11.747	3650.0	2.616	34.925	243.0	2.304
450.0	11.642	35.623	224.5	11.583	3700.0	2.601	34.923	242.6	2.284
500.0	11.485	35.608	221.7	11.420	3750.0	2.591	34.921	242.5	2.269
550.0	11.220	35.568	218.9	11.150	3800.0	2.576	34.919	242.2	2.249
600.0	11.054	35.581	204.8	10.978	3850.0	2.568	34.918	242.1	2.234
650.0	10.809	35.570	194.5	10.727	3900.0	2.557	34.916	242.1	2.219
700.0	10.620	35.595	186.5	10.533	3950.0	2.549	34.915	241.9	2.205
750.0	10.540	35.647	181.7	10.447	4000.0	2.539	34.914	241.8	2.190
800.0	10.470	35.705	180.1	10.371	4050.0	2.533	34.913	241.6	2.178
850.0	10.363	35.740	179.6	10.258	4100.0	2.526	34.911	241.6	2.165
900.0	10.305	35.782	179.8	10.194	4150.0	2.519	34.910	241.5	2.152
950.0	10.104	35.792	181.2	9.987	4200.0	2.512	34.909	241.5	2.140
1000.0	9.900	35.798	183.1	9.779	4250.0	2.507	34.908	241.5	2.129
1050.0	9.691	35.795	185.4	9.565	4300.0	2.504	34.907	241.5	2.120
1100.0	9.599	35.820	187.2	9.468	4350.0	2.499	34.906	241.4	2.110
1150.0	9.325	35.794	191.1	9.190	4400.0	2.497	34.905	241.4	2.102
1200.0	9.013	35.765	195.3	8.874	4450.0	2.495	34.904	241.3	2.094
1250.0	8.803	35.753	198.5	8.660	4500.0	2.495	34.903	241.4	2.088
1300.0	8.194	35.660	205.1	8.050	4550.0	2.496	34.903	241.4	2.082
1350.0	8.007	35.655	207.5	7.859	4600.0	2.497	34.902	241.4	2.077
1400.0	7.259	35.520	217.0	7.113	4650.0	2.499	34.902	241.4	2.074
1450.0	6.994	35.485	219.9	6.845	4700.0	2.501	34.901	241.3	2.069
1500.0	6.281	35.355	228.0	6.134	4750.0	2.503	34.901	241.3	2.065
1550.0	5.868	35.290	234.4	5.721	4800.0	2.507	34.901	241.3	2.062
1600.0	5.526	35.232	239.3	5.378	4850.0	2.510	34.900	241.3	2.059
1650.0	5.278	35.197	241.3	5.128	4900.0	2.515	34.900	241.4	2.058
1700.0	4.944	35.145	246.7	4.793	4950.0	2.520	34.900	241.3	2.057
1750.0	4.779	35.126	248.8	4.625	5000.0	2.525	34.900	241.5	2.055
1800.0	4.574	35.097	251.0	4.418	5050.0	2.530	34.900	241.4	2.054
1850.0	4.500	35.092	251.5	4.340	5100.0	2.535	34.900	241.3	2.051
1900.0	4.351	35.073	253.6	4.188	5150.0	2.540	34.900	241.4	2.050
1950.0	4.142	35.044	256.4	3.978	5200.0	2.546	34.899	241.4	2.049
2000.0	3.990	35.027	257.6	3.823	5250.0	2.551	34.899	241.4	2.048
2050.0	3.914	35.020	258.0	3.742	5300.0	2.557	34.899	241.4	2.047
2100.0	3.802	35.008	258.8	3.627	5350.0	2.564	34.899	241.4	2.047
2150.0	3.712	34.999	259.4	3.534	5400.0	2.571	34.899	241.4	2.047
2200.0	3.654	34.997	258.7	3.472	5428.0	2.574	34.899	241.5	2.047
2250.0	3.578	34.992	258.0	3.393					
2300.0	3.514	34.989	257.5	3.324					
2350.0	3.490	34.993	255.5	3.296					
2400.0	3.424	34.990	254.4	3.226					
2450.0	3.365	34.986	253.6	3.163					
2500.0	3.308	34.982	253.1	3.103					
2550.0	3.232	34.976	252.9	3.022					
2600.0	3.180	34.973	252.5	2.966					
2650.0	3.119	34.968	251.5	2.902					
2700.0	3.079	34.966	251.1	2.857					
2750.0	3.040	34.963	250.8	2.814					
2800.0	2.997	34.959	250.5	2.767					
2850.0	2.973	34.957	250.2	2.738					
2900.0	2.941	34.955	249.6	2.702					
2950.0	2.922	34.954	248.7	2.678					
3000.0	2.893	34.952	247.9	2.644					





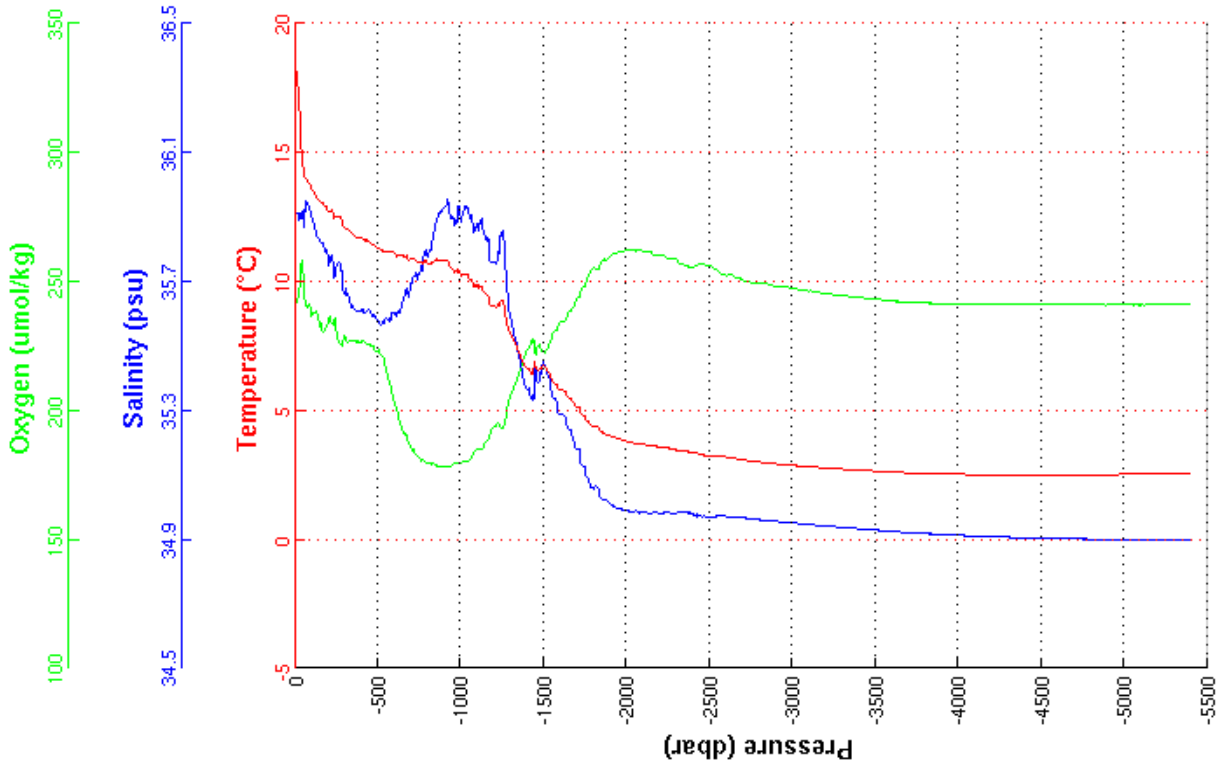
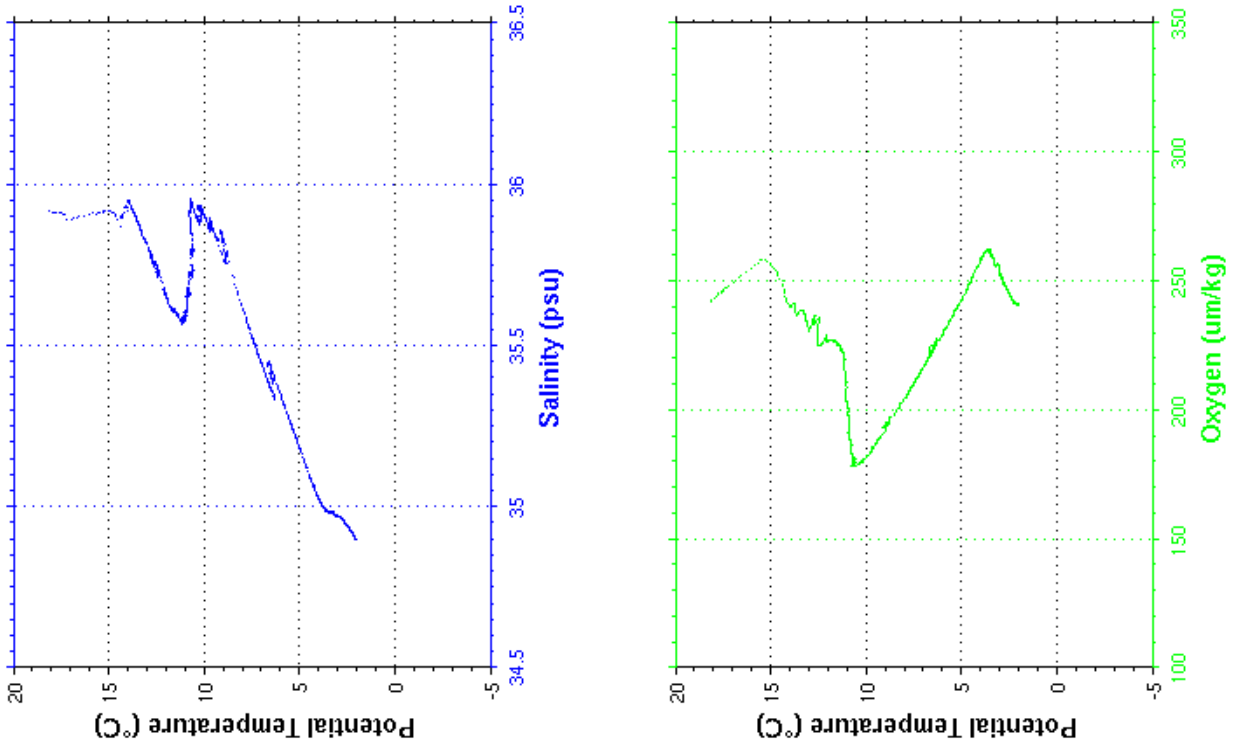
**Cast : 19**

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Cast       : 20           Cruise    : CATARINA
Date       : 28/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 5305 m      Organism  : CSIC/IIM VIGO
Position   : N 42 16.90
            W 015  3.90
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	18.152	35.916	242.9	18.152	3050.0	2.843	34.948	247.1	2.591
10.0	18.163	35.917	241.6	18.162	3100.0	2.822	34.946	246.6	2.564
20.0	17.758	35.913	244.9	17.755	3150.0	2.795	34.944	246.0	2.533
30.0	16.833	35.895	250.3	16.828	3200.0	2.763	34.941	245.7	2.497
40.0	15.280	35.916	259.4	15.274	3250.0	2.745	34.939	245.1	2.474
50.0	14.610	35.900	252.5	14.603	3300.0	2.723	34.937	244.8	2.447
100.0	13.640	35.904	236.9	13.626	3350.0	2.704	34.935	244.5	2.422
150.0	13.147	35.831	232.2	13.126	3400.0	2.684	34.933	244.0	2.398
200.0	12.797	35.771	235.2	12.770	3450.0	2.665	34.931	243.7	2.374
250.0	12.597	35.754	230.0	12.563	3500.0	2.648	34.929	243.5	2.352
300.0	12.105	35.662	229.1	12.065	3550.0	2.631	34.927	243.1	2.330
350.0	11.801	35.619	227.2	11.755	3600.0	2.609	34.925	242.7	2.302
400.0	11.698	35.614	226.7	11.646	3650.0	2.591	34.923	242.3	2.280
450.0	11.546	35.607	225.4	11.487	3700.0	2.581	34.921	242.2	2.264
500.0	11.311	35.577	223.8	11.247	3750.0	2.572	34.920	242.1	2.250
550.0	11.215	35.589	216.7	11.145	3800.0	2.564	34.919	241.9	2.236
600.0	11.082	35.600	203.1	11.005	3850.0	2.555	34.917	241.8	2.222
650.0	10.978	35.637	192.3	10.896	3900.0	2.544	34.915	241.7	2.206
700.0	10.857	35.674	185.8	10.769	3950.0	2.537	34.914	241.7	2.194
750.0	10.745	35.724	181.5	10.651	4000.0	2.530	34.913	241.6	2.181
800.0	10.702	35.781	179.9	10.602	4050.0	2.519	34.911	241.5	2.164
850.0	10.823	35.877	178.5	10.715	4100.0	2.511	34.910	241.4	2.151
900.0	10.829	35.933	178.4	10.714	4150.0	2.508	34.909	241.3	2.142
950.0	10.482	35.894	179.3	10.364	4200.0	2.504	34.908	241.4	2.133
1000.0	10.278	35.893	180.3	10.154	4250.0	2.503	34.908	241.4	2.126
1050.0	10.163	35.909	181.2	10.034	4300.0	2.500	34.907	241.3	2.117
1100.0	9.840	35.876	184.9	9.706	4350.0	2.498	34.906	241.3	2.109
1150.0	9.532	35.839	188.4	9.395	4400.0	2.496	34.905	241.4	2.101
1200.0	9.038	35.761	193.9	8.898	4450.0	2.495	34.904	241.2	2.094
1250.0	9.217	35.843	193.6	9.069	4500.0	2.495	34.904	241.4	2.088
1300.0	7.957	35.587	206.5	7.816	4550.0	2.496	34.903	241.2	2.082
1350.0	7.315	35.474	214.6	7.174	4600.0	2.497	34.903	241.3	2.077
1400.0	6.629	35.363	223.9	6.490	4650.0	2.499	34.902	241.3	2.073
1450.0	6.852	35.444	221.9	6.705	4700.0	2.500	34.902	241.3	2.068
1500.0	6.743	35.447	222.5	6.591	4750.0	2.502	34.901	241.3	2.064
1550.0	6.164	35.351	229.1	6.014	4800.0	2.505	34.901	241.3	2.060
1600.0	5.786	35.289	234.6	5.634	4850.0	2.510	34.901	241.3	2.059
1650.0	5.505	35.241	238.6	5.351	4900.0	2.512	34.900	241.2	2.055
1700.0	5.126	35.178	244.0	4.972	4950.0	2.517	34.900	241.3	2.054
1750.0	4.778	35.121	248.9	4.624	5000.0	2.522	34.900	241.3	2.052
1800.0	4.358	35.055	255.9	4.205	5050.0	2.527	34.900	241.2	2.050
1850.0	4.176	35.030	258.3	4.020	5100.0	2.532	34.900	241.2	2.049
1900.0	4.029	35.011	260.3	3.871	5150.0	2.538	34.899	241.3	2.048
1950.0	3.910	34.998	261.5	3.748	5200.0	2.544	34.899	241.3	2.047
2000.0	3.799	34.989	262.4	3.634	5250.0	2.549	34.899	241.4	2.046
2050.0	3.726	34.985	262.5	3.558	5300.0	2.556	34.899	241.3	2.046
2100.0	3.706	34.990	261.2	3.533	5350.0	2.562	34.899	241.3	2.045
2150.0	3.614	34.983	261.3	3.438	5400.0	2.568	34.899	241.2	2.045
2200.0	3.574	34.982	260.7	3.394	5402.0	2.569	34.899	241.4	2.045
2250.0	3.551	34.984	259.3	3.366					
2300.0	3.466	34.980	259.1	3.277					
2350.0	3.440	34.984	256.8	3.247					
2400.0	3.374	34.980	256.2	3.177					
2450.0	3.307	34.973	256.5	3.106					
2500.0	3.230	34.968	256.3	3.026					
2550.0	3.226	34.973	254.4	3.017					
2600.0	3.186	34.972	252.6	2.972					
2650.0	3.143	34.971	251.5	2.925					
2700.0	3.098	34.968	250.8	2.876					
2750.0	3.045	34.965	249.9	2.819					
2800.0	3.016	34.963	249.1	2.786					
2850.0	2.968	34.959	249.0	2.734					
2900.0	2.936	34.956	248.4	2.697					
2950.0	2.906	34.953	248.0	2.662					
3000.0	2.878	34.951	247.5	2.630					



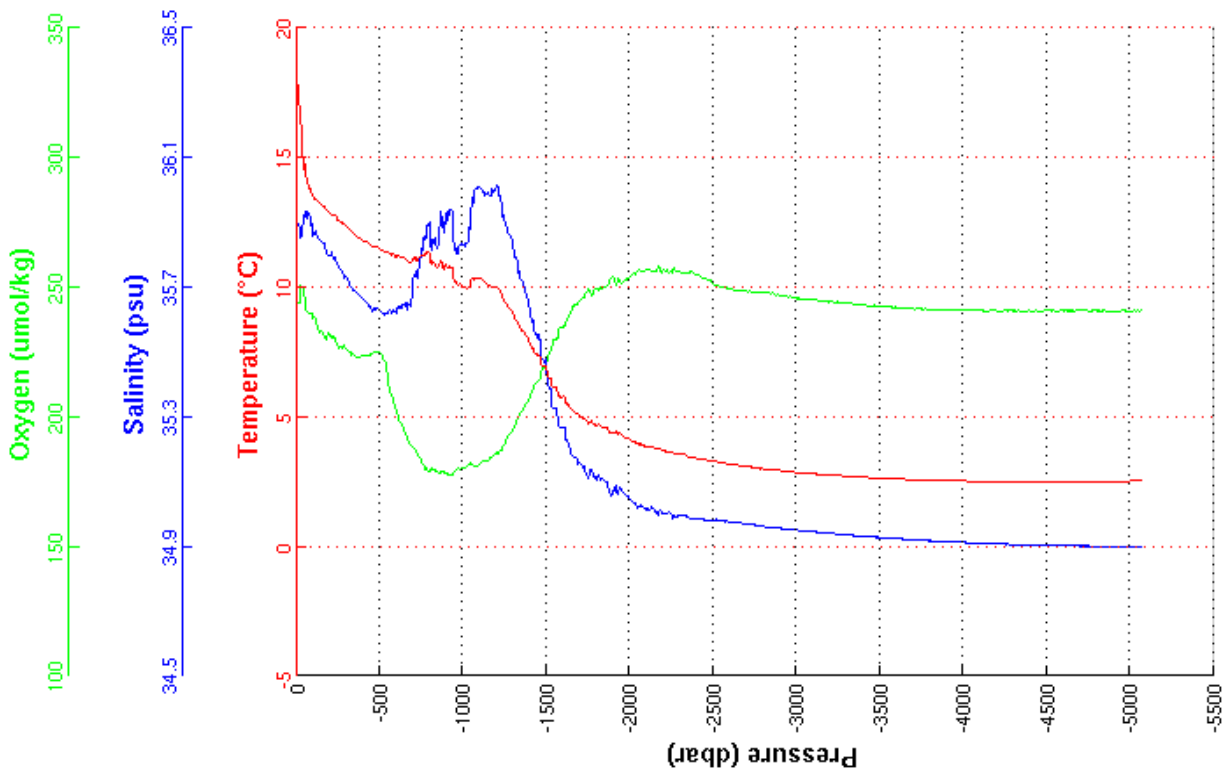
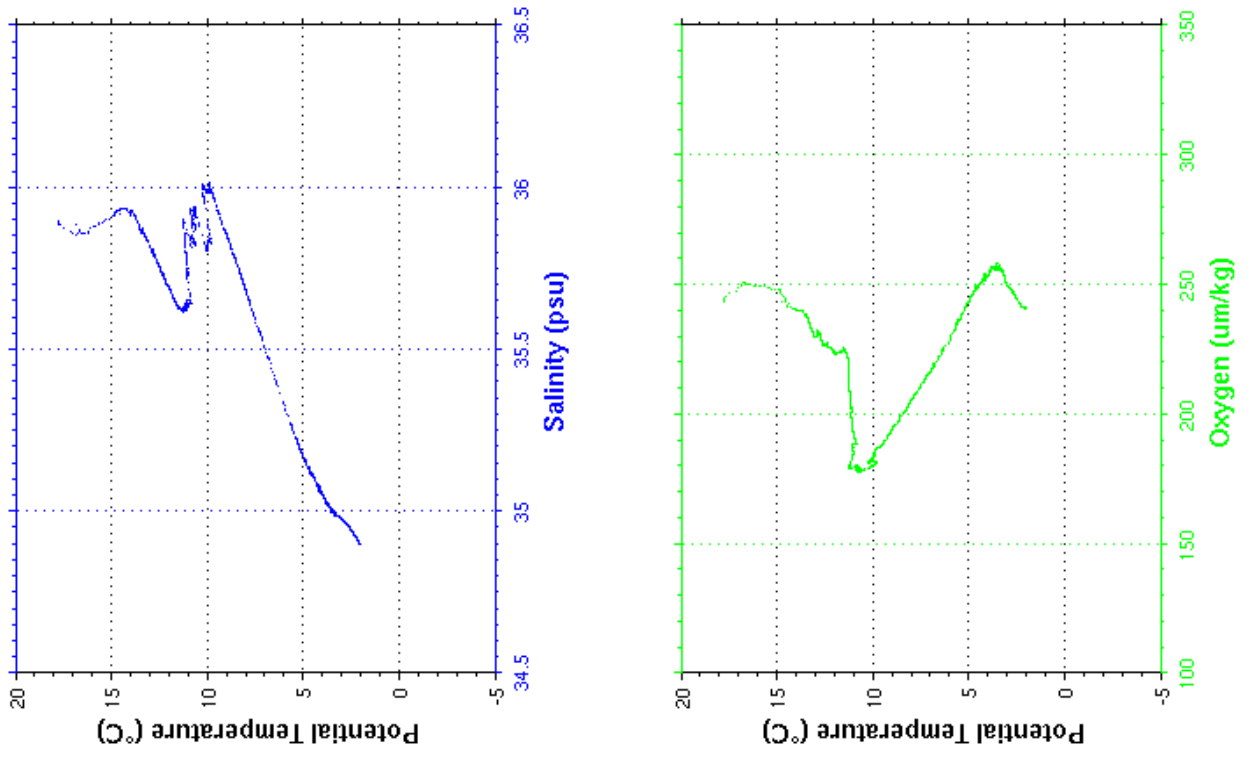
**Cast : 20**

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Cast      : 21           Cruise   : CATARINA
Date      : 28/06/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 5045 m      Organism : CSIC/IIM VIGO
Position  : N 42 34.84
           W 015 27.56
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	17.800	35.893	243.6	17.799	3050.0	2.820	34.947	245.7	2.567
10.0	17.803	35.894	243.3	17.801	3100.0	2.799	34.945	245.5	2.542
20.0	17.477	35.873	246.1	17.474	3150.0	2.777	34.943	245.0	2.515
30.0	16.469	35.860	250.5	16.464	3200.0	2.754	34.941	244.6	2.487
40.0	15.401	35.896	248.7	15.395	3250.0	2.732	34.938	244.6	2.460
50.0	14.612	35.927	246.5	14.605	3300.0	2.715	34.936	244.3	2.439
100.0	13.486	35.864	238.7	13.472	3350.0	2.683	34.933	243.7	2.402
150.0	13.189	35.841	232.9	13.168	3400.0	2.667	34.932	243.6	2.381
200.0	12.864	35.797	231.6	12.836	3450.0	2.646	34.930	242.9	2.356
250.0	12.619	35.766	227.0	12.585	3500.0	2.632	34.928	243.0	2.336
300.0	12.349	35.732	225.6	12.309	3550.0	2.619	34.926	242.7	2.318
350.0	12.034	35.688	223.6	11.988	3600.0	2.601	34.924	242.6	2.295
400.0	11.820	35.660	224.1	11.767	3650.0	2.588	34.922	242.3	2.277
450.0	11.612	35.631	224.9	11.554	3700.0	2.572	34.920	241.7	2.256
500.0	11.479	35.625	224.8	11.414	3750.0	2.562	34.919	241.8	2.240
550.0	11.321	35.619	213.6	11.251	3800.0	2.554	34.917	241.7	2.226
600.0	11.191	35.624	202.9	11.115	3850.0	2.548	34.917	241.6	2.215
650.0	11.130	35.650	194.2	11.047	3900.0	2.540	34.915	241.5	2.202
700.0	11.156	35.723	188.5	11.066	3950.0	2.533	34.914	241.5	2.190
750.0	11.208	35.795	182.2	11.111	4000.0	2.523	34.912	241.4	2.174
800.0	11.305	35.892	179.6	11.201	4050.0	2.516	34.911	241.3	2.161
850.0	10.758	35.825	179.4	10.651	4100.0	2.511	34.910	241.4	2.151
900.0	10.869	35.928	178.0	10.754	4150.0	2.503	34.909	241.0	2.137
950.0	10.225	35.817	179.5	10.108	4200.0	2.500	34.908	241.1	2.128
1000.0	10.061	35.834	180.4	9.938	4250.0	2.496	34.907	241.2	2.119
1050.0	10.220	35.933	181.7	10.090	4300.0	2.491	34.906	241.1	2.108
1100.0	10.331	36.003	182.0	10.193	4350.0	2.490	34.905	241.1	2.101
1150.0	10.125	35.992	183.7	9.983	4400.0	2.488	34.904	240.9	2.093
1200.0	10.017	36.008	186.3	9.869	4450.0	2.489	34.904	241.1	2.088
1250.0	9.535	35.915	190.4	9.385	4500.0	2.490	34.903	241.3	2.083
1300.0	8.987	35.828	195.8	8.836	4550.0	2.490	34.903	241.0	2.077
1350.0	8.347	35.718	202.6	8.195	4600.0	2.491	34.902	241.2	2.072
1400.0	7.889	35.633	207.9	7.737	4650.0	2.492	34.902	241.2	2.067
1450.0	7.408	35.556	214.3	7.255	4700.0	2.496	34.901	241.1	2.064
1500.0	6.945	35.467	219.3	6.791	4750.0	2.499	34.901	241.1	2.061
1550.0	6.130	35.328	230.6	5.980	4800.0	2.502	34.901	241.2	2.058
1600.0	5.773	35.268	235.2	5.622	4850.0	2.506	34.900	241.1	2.056
1650.0	5.259	35.184	241.3	5.109	4900.0	2.511	34.900	241.0	2.054
1700.0	5.048	35.157	245.2	4.896	4950.0	2.515	34.900	241.2	2.052
1750.0	4.777	35.115	249.2	4.623	5000.0	2.520	34.900	241.2	2.050
1800.0	4.697	35.109	249.8	4.539	5050.0	2.525	34.900	241.3	2.048
1850.0	4.613	35.106	249.9	4.452	5074.0	2.527	34.899	241.3	2.048
1900.0	4.312	35.061	254.5	4.150					
1950.0	4.323	35.075	251.8	4.155					
2000.0	4.133	35.048	253.9	3.964					
2050.0	3.917	35.018	257.4	3.746					
2100.0	3.839	35.013	257.1	3.664					
2150.0	3.806	35.014	255.7	3.626					
2200.0	3.704	35.004	256.8	3.521					
2250.0	3.628	34.998	256.0	3.442					
2300.0	3.567	34.997	255.8	3.376					
2350.0	3.489	34.989	255.7	3.295					
2400.0	3.396	34.983	254.9	3.199					
2450.0	3.340	34.983	253.6	3.139					
2500.0	3.314	34.985	251.6	3.108					
2550.0	3.242	34.980	250.6	3.033					
2600.0	3.184	34.976	249.7	2.971					
2650.0	3.131	34.973	249.2	2.914					
2700.0	3.091	34.970	248.8	2.869					
2750.0	3.045	34.966	248.0	2.819					
2800.0	2.990	34.962	248.0	2.760					
2850.0	2.958	34.959	248.0	2.723					
2900.0	2.927	34.956	246.9	2.688					
2950.0	2.883	34.953	246.6	2.640					
3000.0	2.853	34.950	246.2	2.605					



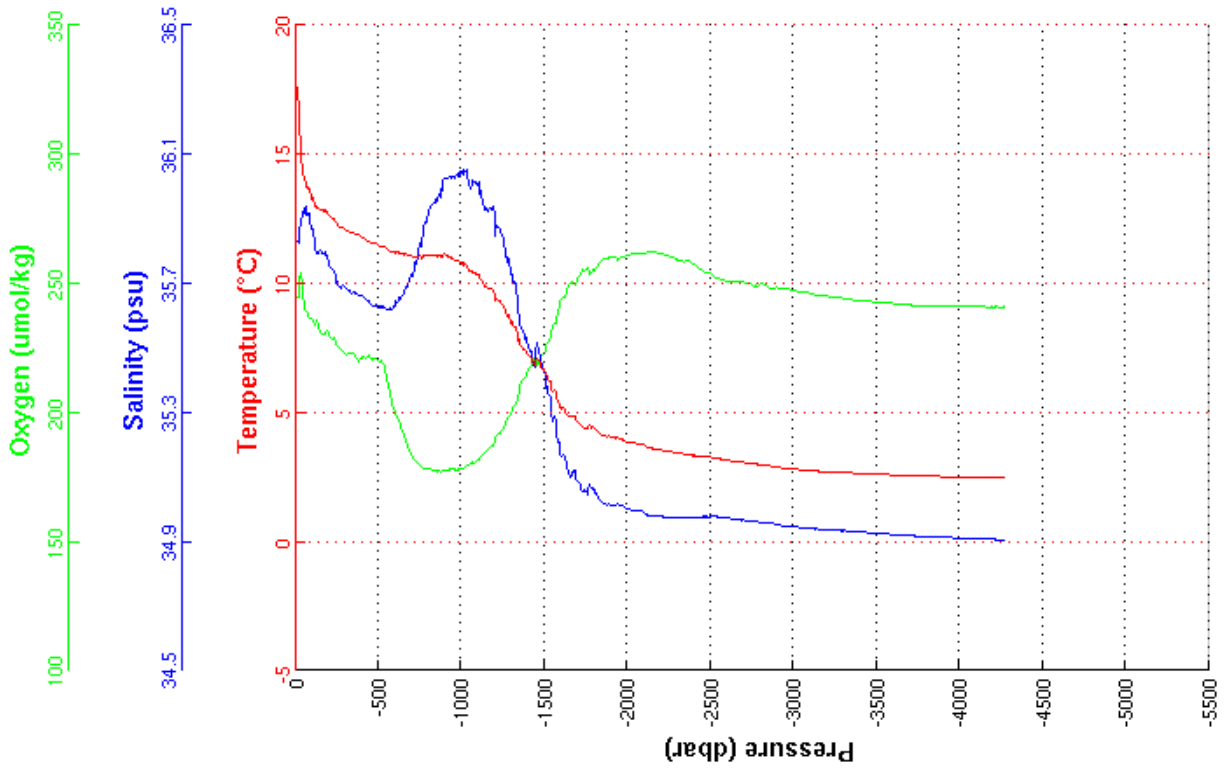
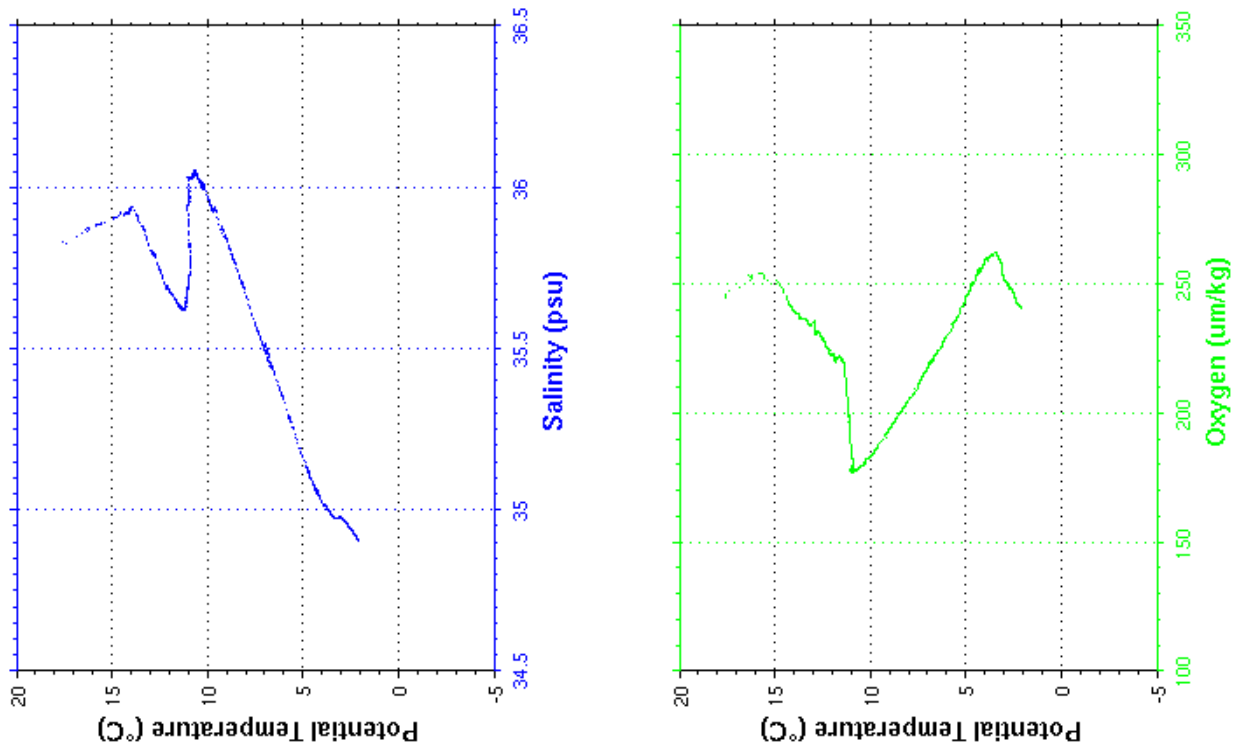
**Cast : 21**

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Cast      : 22           Cruise   : CATARINA
Date      : 29/06/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 4207 m     Organism : CSIC/IIM VIGO
Position  : N 42 52.79
           W 015 50.99
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	17.604	35.831	245.8	17.604	3050.0	2.779	34.943	246.8	2.528
10.0	17.604	35.831	245.2	17.603	3100.0	2.751	34.941	246.4	2.495
20.0	17.586	35.833	244.7	17.583	3150.0	2.727	34.939	245.7	2.467
30.0	15.797	35.880	255.8	15.792	3200.0	2.714	34.937	245.3	2.448
40.0	14.930	35.905	249.8	14.924	3250.0	2.700	34.936	245.0	2.430
50.0	14.285	35.921	243.2	14.277	3300.0	2.680	34.934	244.4	2.405
100.0	13.365	35.869	236.2	13.351	3350.0	2.661	34.931	244.0	2.380
150.0	12.922	35.804	231.1	12.901	3400.0	2.648	34.930	243.8	2.362
200.0	12.626	35.760	230.2	12.599	3450.0	2.629	34.928	243.4	2.338
250.0	12.283	35.703	226.2	12.249	3500.0	2.611	34.926	243.2	2.316
300.0	12.091	35.685	222.5	12.051	3550.0	2.600	34.924	242.9	2.299
350.0	11.948	35.675	222.5	11.902	3600.0	2.580	34.922	242.4	2.274
400.0	11.824	35.662	221.1	11.772	3650.0	2.564	34.920	242.2	2.253
450.0	11.610	35.635	220.9	11.551	3700.0	2.553	34.918	242.1	2.237
500.0	11.489	35.627	219.8	11.424	3750.0	2.543	34.917	241.7	2.222
550.0	11.361	35.620	213.7	11.290	3800.0	2.535	34.916	241.6	2.209
600.0	11.206	35.629	199.7	11.130	3850.0	2.526	34.914	241.5	2.194
650.0	11.137	35.669	191.8	11.054	3900.0	2.518	34.913	241.6	2.181
700.0	11.062	35.726	183.1	10.973	3950.0	2.513	34.912	241.3	2.170
750.0	11.067	35.823	179.3	10.971	4000.0	2.507	34.911	241.5	2.158
800.0	11.119	35.911	178.3	11.016	4050.0	2.508	34.910	241.4	2.153
850.0	11.090	35.962	177.8	10.980	4100.0	2.499	34.909	241.3	2.139
900.0	11.125	36.029	177.8	11.008	4150.0	2.490	34.908	241.2	2.125
950.0	10.944	36.026	178.0	10.822	4200.0	2.490	34.907	241.1	2.119
1000.0	10.819	36.046	178.2	10.691	4250.0	2.486	34.906	241.0	2.109
1050.0	10.472	36.005	179.9	10.340	4270.0	2.484	34.905	241.3	2.104
1100.0	10.353	36.012	182.0	10.215					
1150.0	9.889	35.932	185.5	9.749					
1200.0	9.678	35.924	188.4	9.533					
1250.0	9.180	35.846	193.8	9.033					
1300.0	8.605	35.746	200.0	8.457					
1350.0	7.685	35.580	209.9	7.541					
1400.0	7.236	35.510	216.6	7.090					
1450.0	6.946	35.475	221.1	6.797					
1500.0	6.637	35.426	223.4	6.486					
1550.0	5.806	35.274	233.8	5.660					
1600.0	5.157	35.166	244.4	5.013					
1650.0	4.823	35.109	250.0	4.679					
1700.0	4.627	35.085	252.8	4.480					
1750.0	4.373	35.046	256.2	4.224					
1800.0	4.410	35.063	255.0	4.256					
1850.0	4.146	35.022	259.2	3.990					
1900.0	4.038	35.011	260.5	3.880					
1950.0	3.987	35.013	260.1	3.825					
2000.0	3.878	35.003	261.0	3.713					
2050.0	3.808	34.995	261.8	3.639					
2100.0	3.725	34.989	261.6	3.552					
2150.0	3.604	34.979	262.7	3.428					
2200.0	3.547	34.977	261.8	3.367					
2250.0	3.494	34.977	260.9	3.310					
2300.0	3.417	34.974	259.5	3.229					
2350.0	3.390	34.974	259.0	3.198					
2400.0	3.325	34.972	257.7	3.129					
2450.0	3.299	34.977	255.4	3.099					
2500.0	3.266	34.977	253.9	3.061					
2550.0	3.214	34.976	252.3	3.005					
2600.0	3.163	34.974	251.4	2.950					
2650.0	3.102	34.968	251.0	2.885					
2700.0	3.063	34.966	250.6	2.842					
2750.0	3.025	34.964	249.9	2.799					
2800.0	2.974	34.959	249.7	2.744					
2850.0	2.934	34.957	248.7	2.700					
2900.0	2.889	34.952	248.6	2.650					
2950.0	2.841	34.948	248.4	2.599					
3000.0	2.812	34.946	247.5	2.565					

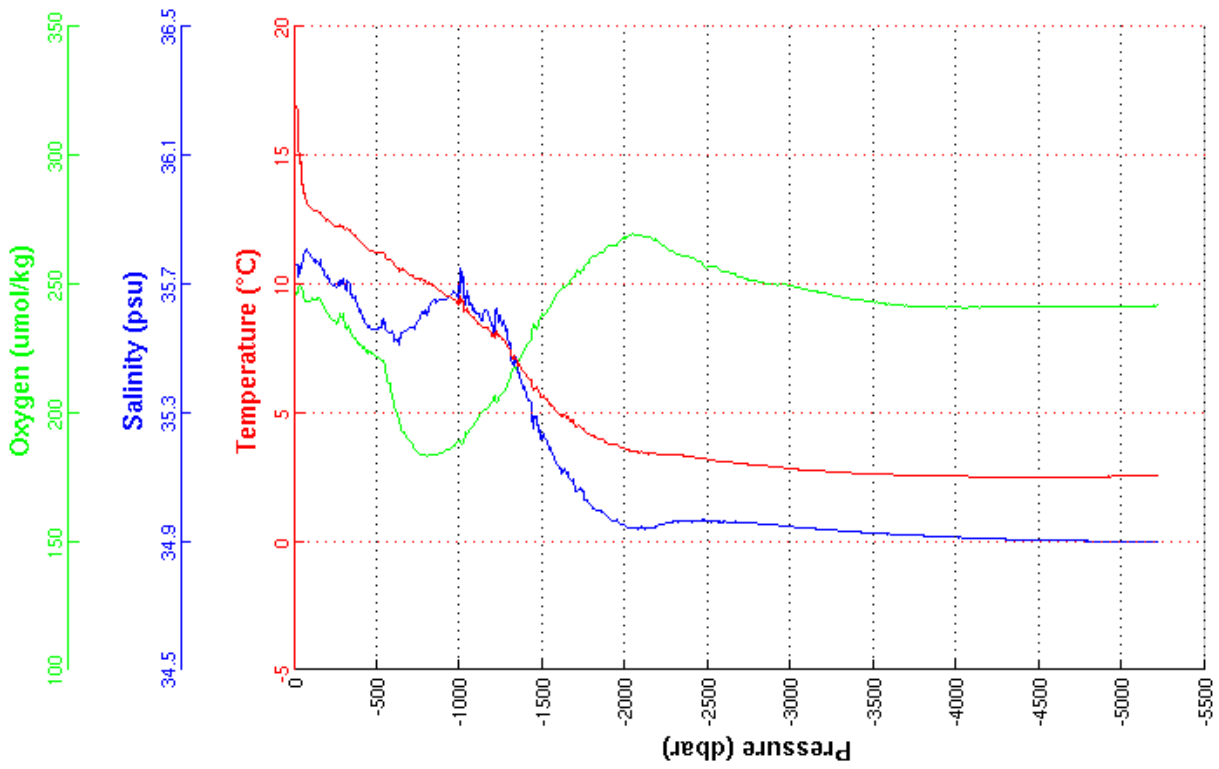
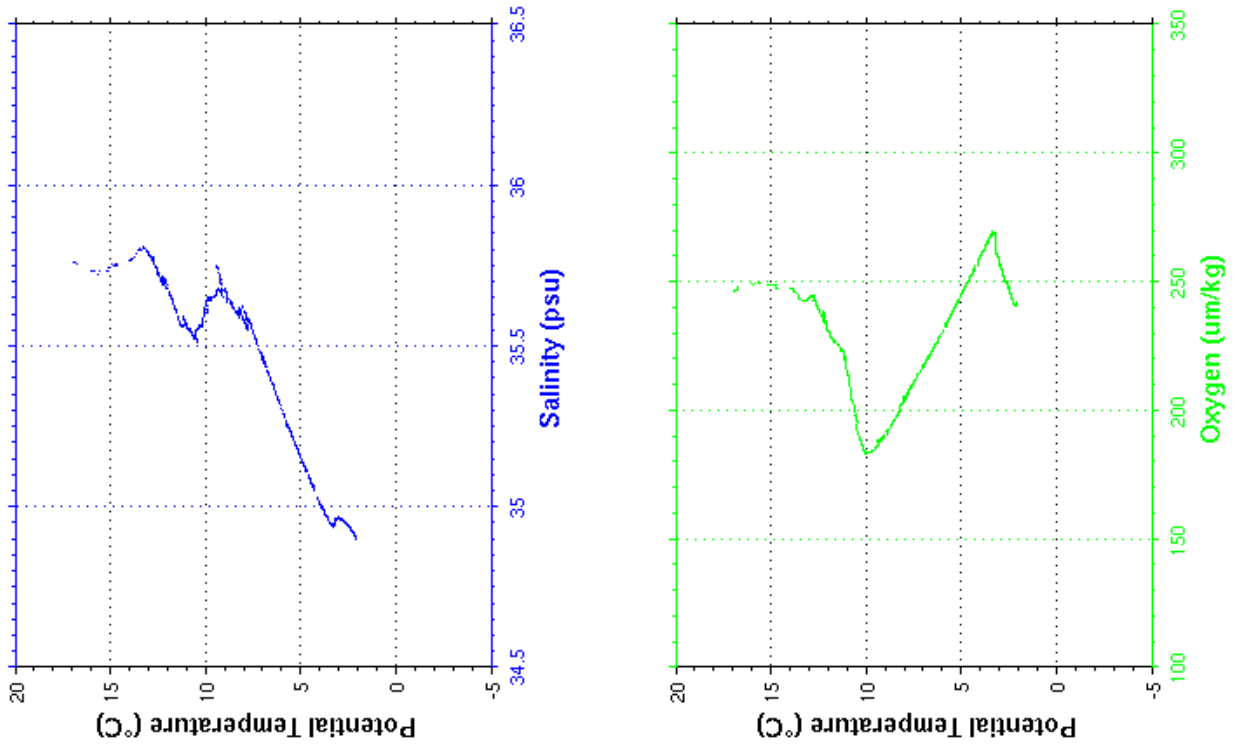


**Cast : 22**

Cast	: 23	Cruise	: CATARINA
Date	: 29/06/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 5125 m	Organism	: CSIC/IIM VIGO
Position	: N 43 10.85 W 016 14.61		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.919	35.761	246.8	16.918	3050.0	2.792	34.943	248.8	2.540
10.0	16.911	35.761	246.3	16.909	3100.0	2.766	34.941	248.0	2.509
20.0	16.798	35.757	246.9	16.794	3150.0	2.745	34.939	247.4	2.484
30.0	15.580	35.733	248.3	15.576	3200.0	2.728	34.937	246.6	2.462
40.0	14.728	35.754	248.3	14.722	3250.0	2.703	34.935	245.9	2.433
50.0	13.919	35.770	248.6	13.912	3300.0	2.676	34.933	245.4	2.401
100.0	12.985	35.787	244.0	12.972	3350.0	2.660	34.931	244.6	2.380
150.0	12.776	35.762	244.4	12.756	3400.0	2.643	34.929	244.2	2.357
200.0	12.477	35.722	238.9	12.450	3450.0	2.627	34.927	243.7	2.337
250.0	12.268	35.693	235.0	12.234	3500.0	2.613	34.926	243.3	2.318
300.0	12.207	35.705	236.7	12.167	3550.0	2.598	34.924	242.9	2.298
350.0	11.919	35.659	229.4	11.873	3600.0	2.590	34.923	242.4	2.284
400.0	11.645	35.616	226.5	11.593	3650.0	2.579	34.921	242.1	2.268
450.0	11.363	35.569	224.5	11.305	3700.0	2.573	34.920	241.9	2.256
500.0	11.213	35.563	222.4	11.150	3750.0	2.568	34.919	241.6	2.246
550.0	11.136	35.576	216.9	11.066	3800.0	2.555	34.917	241.3	2.228
600.0	10.835	35.546	204.2	10.759	3850.0	2.544	34.916	241.2	2.212
650.0	10.595	35.548	192.9	10.515	3900.0	2.541	34.915	241.2	2.203
700.0	10.387	35.562	188.6	10.301	3950.0	2.533	34.914	241.4	2.190
750.0	10.204	35.589	184.7	10.113	4000.0	2.526	34.913	241.3	2.177
800.0	10.040	35.603	183.9	9.944	4050.0	2.522	34.912	241.2	2.168
850.0	9.931	35.650	183.8	9.829	4100.0	2.516	34.911	241.3	2.156
900.0	9.633	35.652	185.1	9.526	4150.0	2.508	34.909	241.2	2.142
950.0	9.487	35.671	186.6	9.375	4200.0	2.506	34.908	241.4	2.134
1000.0	9.259	35.677	189.1	9.143	4250.0	2.504	34.908	241.2	2.127
1050.0	8.948	35.657	192.6	8.828	4300.0	2.500	34.907	241.3	2.117
1100.0	8.565	35.609	197.3	8.442	4350.0	2.497	34.906	241.5	2.107
1150.0	8.369	35.614	201.0	8.242	4400.0	2.496	34.905	241.4	2.100
1200.0	8.004	35.564	205.5	7.874	4450.0	2.493	34.904	241.3	2.092
1250.0	7.919	35.585	207.3	7.784	4500.0	2.494	34.903	241.4	2.086
1300.0	7.474	35.516	213.4	7.338	4550.0	2.497	34.903	241.5	2.084
1350.0	7.007	35.445	219.0	6.869	4600.0	2.498	34.903	241.4	2.079
1400.0	6.495	35.363	225.7	6.357	4650.0	2.501	34.902	241.5	2.075
1450.0	5.891	35.260	235.2	5.754	4700.0	2.505	34.902	241.4	2.073
1500.0	5.626	35.226	238.7	5.487	4750.0	2.507	34.902	241.5	2.069
1550.0	5.332	35.184	241.7	5.192	4800.0	2.508	34.901	241.6	2.063
1600.0	4.994	35.131	247.7	4.852	4850.0	2.512	34.901	241.6	2.061
1650.0	4.848	35.118	249.5	4.703	4900.0	2.517	34.900	241.6	2.060
1700.0	4.479	35.058	254.9	4.334	4950.0	2.522	34.901	241.6	2.058
1750.0	4.406	35.054	255.8	4.257	5000.0	2.528	34.900	241.6	2.058
1800.0	4.118	35.006	261.0	3.968	5050.0	2.534	34.900	241.6	2.057
1850.0	3.980	34.990	262.4	3.827	5100.0	2.539	34.900	241.5	2.056
1900.0	3.824	34.972	265.1	3.669	5150.0	2.546	34.900	241.7	2.055
1950.0	3.762	34.968	265.5	3.603	5200.0	2.552	34.900	241.8	2.055
2000.0	3.608	34.950	268.2	3.447	5220.0	2.554	34.900	241.9	2.055
2050.0	3.509	34.941	269.6	3.344					
2100.0	3.477	34.944	269.1	3.308					
2150.0	3.403	34.942	268.6	3.230					
2200.0	3.393	34.949	266.5	3.215					
2250.0	3.410	34.959	264.1	3.227					
2300.0	3.363	34.961	262.4	3.176					
2350.0	3.332	34.962	261.4	3.141					
2400.0	3.286	34.961	260.5	3.091					
2450.0	3.242	34.962	259.2	3.043					
2500.0	3.188	34.964	256.6	2.985					
2550.0	3.125	34.959	257.1	2.918					
2600.0	3.110	34.961	255.2	2.898					
2650.0	3.066	34.959	254.3	2.850					
2700.0	3.030	34.958	253.1	2.809					
2750.0	2.985	34.956	252.2	2.760					
2800.0	2.961	34.955	251.2	2.732					
2850.0	2.932	34.954	250.3	2.698					
2900.0	2.897	34.951	250.3	2.659					
2950.0	2.864	34.948	250.0	2.622					
3000.0	2.827	34.946	249.4	2.580					





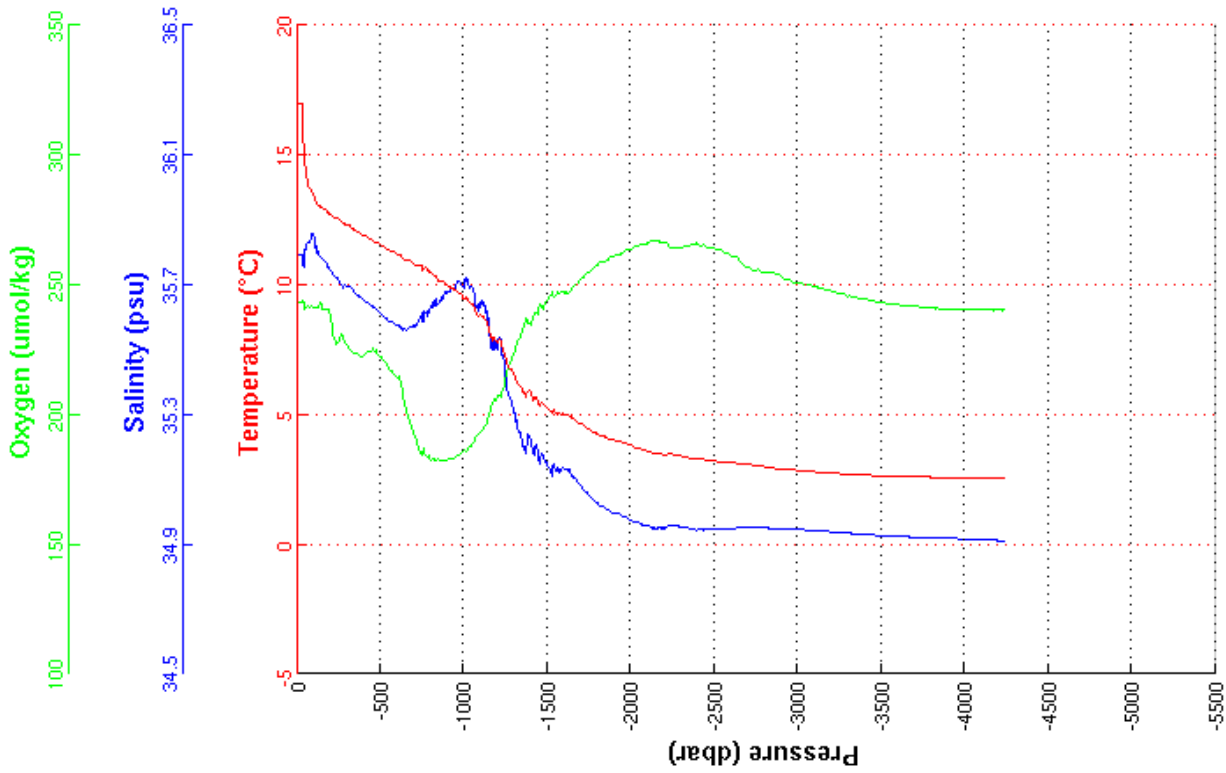
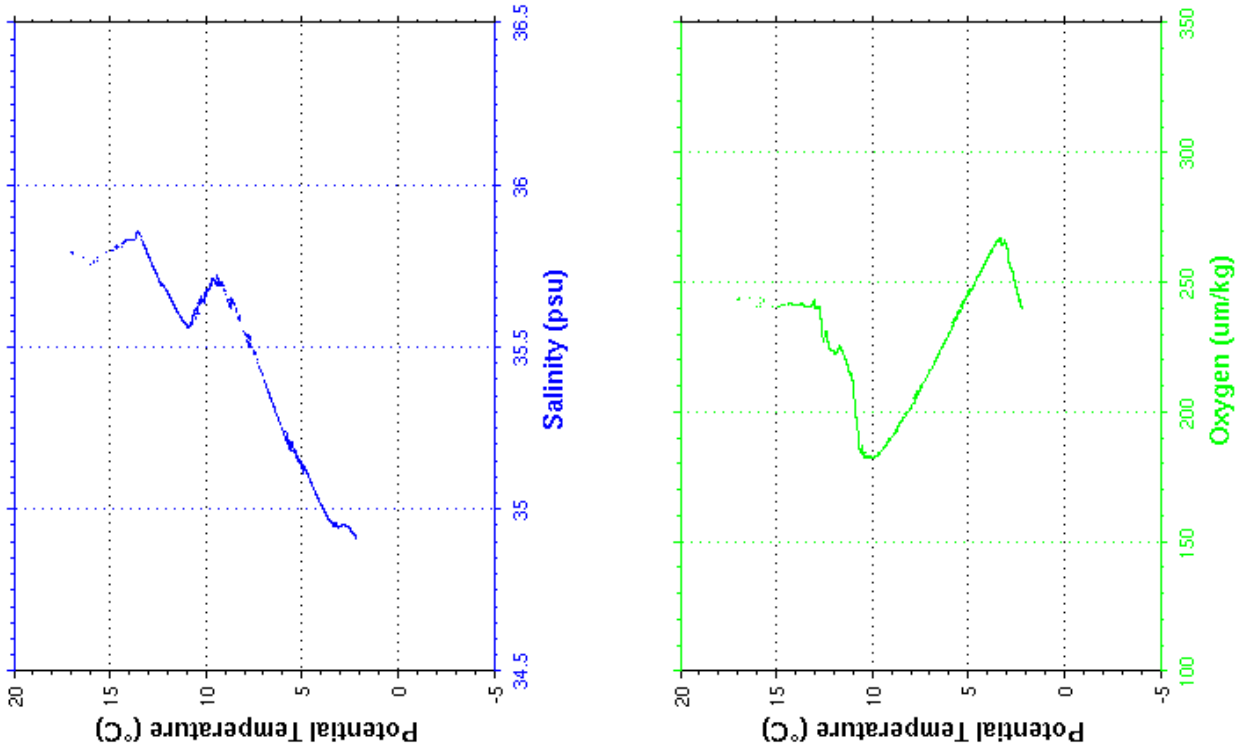
**Cast : 23**

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Cast       : 24           Cruise    : CATARINA
Date       : 29/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4173 m      Organism  : CSIC/IIM VIGO
Position   : N 43 28.70
            W 016 38.15
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.997	35.790	243.5	16.997	3050.0	2.824	34.944	250.5	2.572
10.0	17.002	35.790	243.3	17.000	3100.0	2.796	34.942	249.6	2.539
20.0	17.004	35.791	243.5	17.000	3150.0	2.774	34.940	248.8	2.513
30.0	17.006	35.791	243.1	17.001	3200.0	2.752	34.939	247.7	2.486
40.0	15.849	35.767	241.1	15.843	3250.0	2.725	34.936	247.1	2.454
50.0	14.661	35.809	241.6	14.653	3300.0	2.710	34.935	245.9	2.434
100.0	13.520	35.857	241.2	13.506	3350.0	2.684	34.932	245.4	2.403
150.0	12.997	35.780	240.6	12.976	3400.0	2.672	34.931	244.6	2.386
200.0	12.712	35.738	237.3	12.685	3450.0	2.650	34.929	244.0	2.359
250.0	12.545	35.717	228.6	12.512	3500.0	2.630	34.927	243.4	2.335
300.0	12.324	35.696	226.9	12.283	3550.0	2.617	34.925	243.0	2.316
350.0	12.095	35.671	224.4	12.049	3600.0	2.610	34.924	242.6	2.304
400.0	11.916	35.651	223.1	11.863	3650.0	2.602	34.923	242.2	2.291
450.0	11.763	35.636	225.1	11.704	3700.0	2.597	34.922	241.9	2.280
500.0	11.557	35.611	222.0	11.492	3750.0	2.593	34.921	241.5	2.271
550.0	11.354	35.589	217.5	11.284	3800.0	2.587	34.920	241.3	2.259
600.0	11.225	35.578	214.3	11.148	3850.0	2.583	34.919	241.2	2.249
650.0	10.953	35.561	202.7	10.870	3900.0	2.583	34.919	241.1	2.244
700.0	10.825	35.573	192.5	10.737	3950.0	2.574	34.918	240.8	2.229
750.0	10.744	35.612	184.8	10.650	4000.0	2.568	34.916	240.7	2.218
800.0	10.499	35.635	182.4	10.399	4050.0	2.563	34.915	240.7	2.207
850.0	10.176	35.644	182.8	10.073	4100.0	2.556	34.914	240.7	2.195
900.0	9.969	35.674	182.9	9.860	4150.0	2.553	34.913	240.6	2.186
950.0	9.817	35.698	183.3	9.703	4200.0	2.541	34.911	240.5	2.168
1000.0	9.498	35.692	186.5	9.380	4238.0	2.529	34.910	240.7	2.152
1050.0	9.245	35.692	189.3	9.123					
1100.0	8.817	35.644	193.9	8.691					
1150.0	8.396	35.592	199.3	8.269					
1200.0	7.750	35.498	207.3	7.623					
1250.0	7.193	35.417	215.1	7.064					
1300.0	6.583	35.318	224.0	6.455					
1350.0	5.993	35.222	232.4	5.866					
1400.0	5.856	35.224	235.1	5.725					
1450.0	5.418	35.161	241.8	5.286					
1500.0	5.271	35.150	244.1	5.136					
1550.0	5.059	35.128	246.7	4.922					
1600.0	5.010	35.130	247.4	4.868					
1650.0	4.855	35.110	248.9	4.710					
1700.0	4.647	35.080	252.4	4.499					
1750.0	4.423	35.049	255.7	4.273					
1800.0	4.256	35.027	258.1	4.104					
1850.0	4.140	35.012	259.7	3.985					
1900.0	4.011	34.997	261.7	3.853					
1950.0	3.926	34.988	262.6	3.765					
2000.0	3.816	34.976	264.0	3.651					
2050.0	3.685	34.965	265.6	3.517					
2100.0	3.590	34.958	266.3	3.419					
2150.0	3.506	34.951	267.1	3.331					
2200.0	3.462	34.950	266.5	3.283					
2250.0	3.470	34.959	264.6	3.287					
2300.0	3.407	34.954	264.6	3.219					
2350.0	3.327	34.947	265.5	3.136					
2400.0	3.294	34.946	266.2	3.098					
2450.0	3.238	34.945	264.8	3.039					
2500.0	3.205	34.946	264.3	3.001					
2550.0	3.174	34.947	263.3	2.966					
2600.0	3.137	34.949	261.7	2.925					
2650.0	3.127	34.953	259.5	2.910					
2700.0	3.079	34.954	257.0	2.858					
2750.0	3.032	34.953	255.9	2.807					
2800.0	2.985	34.952	254.9	2.755					
2850.0	2.930	34.949	254.8	2.696					
2900.0	2.913	34.949	253.5	2.674					
2950.0	2.874	34.947	252.3	2.632					
3000.0	2.845	34.946	250.9	2.598					



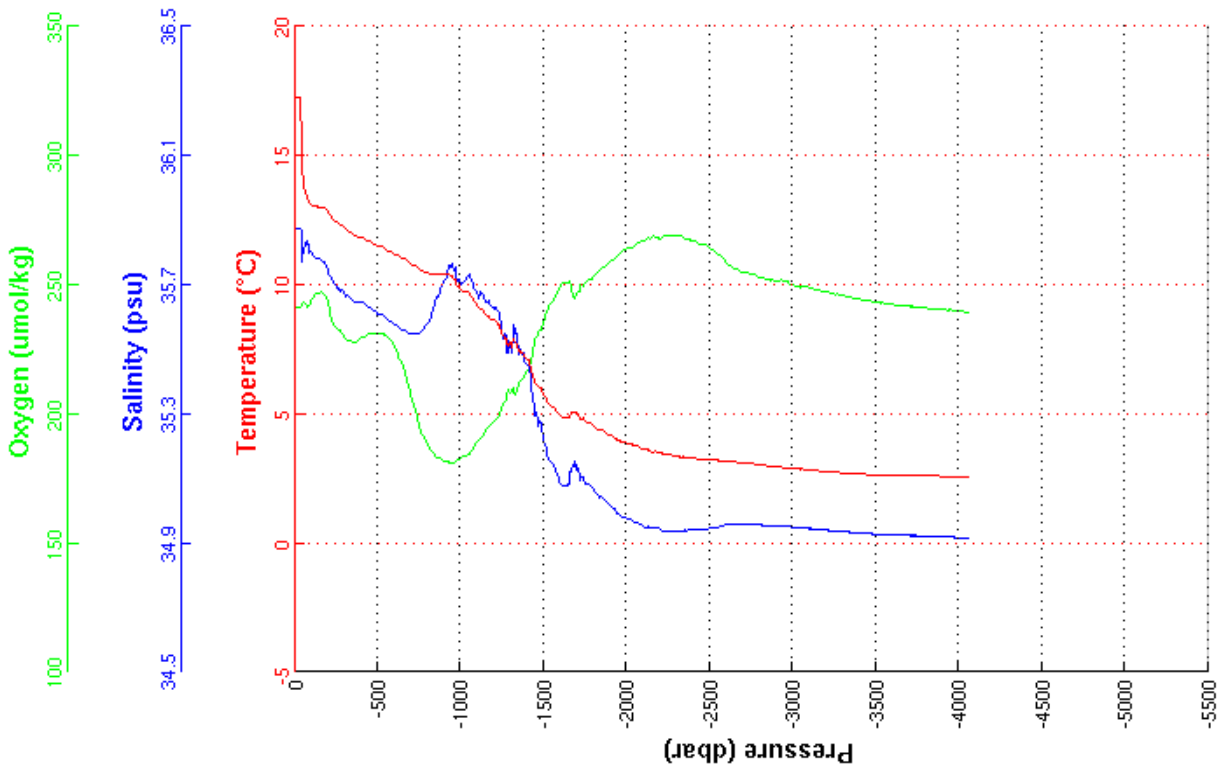
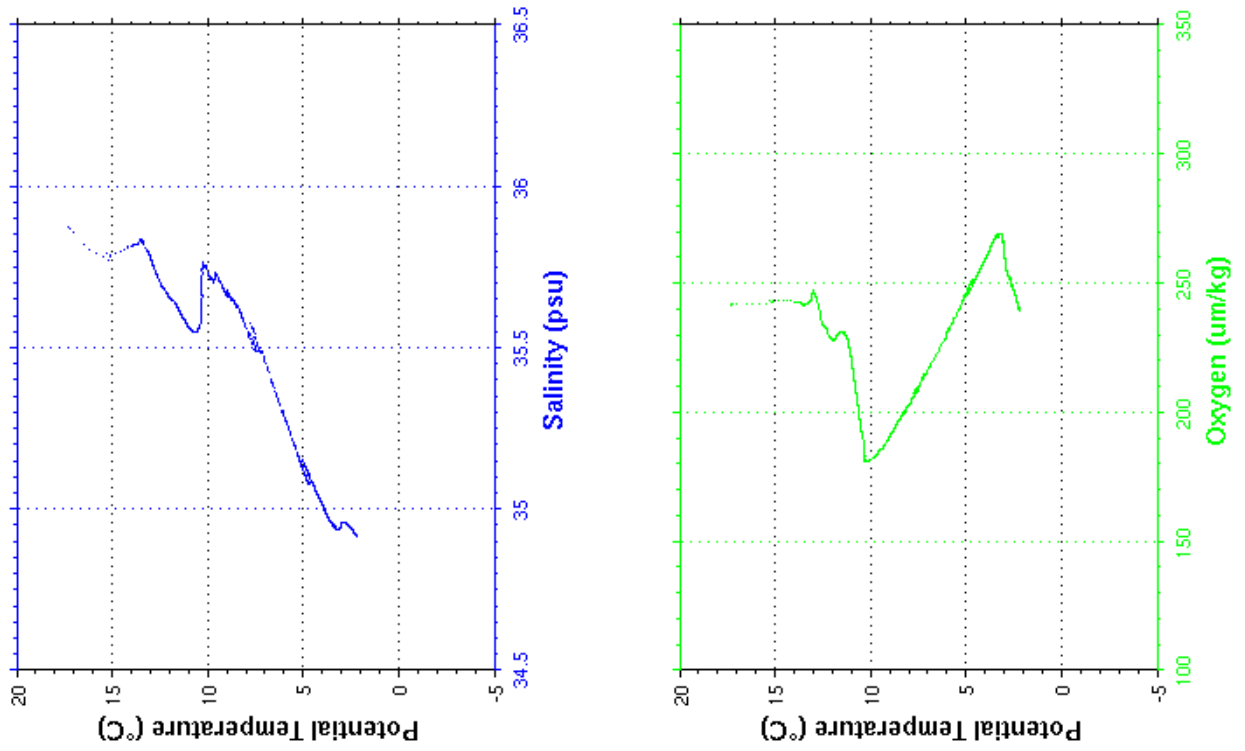
**Cast : 24**

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Cast       : 25           Cruise    : CATARINA
Date       : 30/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4005 m      Organism  : CSIC/IIM VIGO
Position   : N 43 46.75
            W 017 1.81
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	17.278	35.873	242.0	17.278	3050.0	2.863	34.948	249.2	2.610
10.0	17.281	35.873	241.4	17.279	3100.0	2.829	34.945	249.0	2.571
20.0	17.282	35.873	241.2	17.278	3150.0	2.794	34.942	248.2	2.532
30.0	17.282	35.873	241.2	17.277	3200.0	2.763	34.940	247.5	2.496
40.0	17.194	35.866	242.3	17.187	3250.0	2.734	34.937	246.6	2.463
50.0	14.852	35.790	244.8	14.844	3300.0	2.712	34.935	246.0	2.435
100.0	13.123	35.799	244.6	13.110	3350.0	2.693	34.933	245.3	2.412
150.0	13.008	35.778	247.3	12.987	3400.0	2.671	34.931	244.8	2.385
200.0	12.821	35.745	243.6	12.793	3450.0	2.655	34.929	244.1	2.364
250.0	12.442	35.693	233.3	12.408	3500.0	2.644	34.928	243.6	2.348
300.0	12.230	35.675	229.9	12.189	3550.0	2.634	34.927	243.0	2.332
350.0	11.974	35.652	228.3	11.928	3600.0	2.624	34.925	242.7	2.317
400.0	11.823	35.644	229.6	11.770	3650.0	2.614	34.924	242.1	2.302
450.0	11.686	35.631	231.0	11.628	3700.0	2.609	34.923	241.9	2.291
500.0	11.512	35.611	231.7	11.448	3750.0	2.608	34.922	241.6	2.285
550.0	11.375	35.595	230.4	11.304	3800.0	2.600	34.921	241.2	2.271
600.0	11.228	35.579	226.4	11.151	3850.0	2.593	34.920	240.9	2.259
650.0	11.054	35.562	219.3	10.971	3900.0	2.586	34.919	240.7	2.247
700.0	10.824	35.547	207.0	10.736	3950.0	2.580	34.918	240.5	2.236
750.0	10.633	35.551	195.4	10.539	4000.0	2.577	34.917	240.1	2.227
800.0	10.454	35.581	188.3	10.355	4050.0	2.579	34.916	239.8	2.223
850.0	10.406	35.647	183.3	10.301	4064.0	2.581	34.916	239.8	2.223
900.0	10.421	35.716	182.1	10.310					
950.0	10.335	35.765	181.3	10.217					
1000.0	9.852	35.704	183.2	9.731					
1050.0	9.706	35.730	184.7	9.580					
1100.0	9.206	35.672	189.6	9.078					
1150.0	8.856	35.648	194.0	8.724					
1200.0	8.640	35.631	197.1	8.505					
1250.0	8.108	35.557	203.3	7.971					
1300.0	7.759	35.521	208.5	7.620					
1350.0	7.527	35.510	211.8	7.384					
1400.0	7.116	35.453	217.4	6.972					
1450.0	6.207	35.297	230.0	6.067					
1500.0	5.803	35.234	236.0	5.662					
1550.0	5.303	35.148	243.9	5.163					
1600.0	4.900	35.082	250.2	4.760					
1650.0	4.830	35.079	251.6	4.685					
1700.0	5.018	35.132	246.4	4.866					
1750.0	4.713	35.088	251.2	4.560					
1800.0	4.546	35.065	253.5	4.390					
1850.0	4.372	35.040	256.2	4.214					
1900.0	4.180	35.015	259.5	4.019					
1950.0	3.993	34.991	262.1	3.830					
2000.0	3.870	34.977	264.2	3.704					
2050.0	3.781	34.966	265.7	3.612					
2100.0	3.652	34.953	267.6	3.480					
2150.0	3.544	34.943	268.9	3.369					
2200.0	3.498	34.944	268.1	3.319					
2250.0	3.428	34.937	269.3	3.245					
2300.0	3.369	34.936	269.2	3.182					
2350.0	3.327	34.939	268.0	3.136					
2400.0	3.296	34.940	267.1	3.101					
2450.0	3.246	34.941	266.4	3.046					
2500.0	3.225	34.946	264.6	3.021					
2550.0	3.200	34.950	262.4	2.992					
2600.0	3.173	34.956	258.7	2.960					
2650.0	3.140	34.958	256.7	2.922					
2700.0	3.093	34.958	255.2	2.871					
2750.0	3.069	34.958	254.3	2.842					
2800.0	3.021	34.956	253.2	2.790					
2850.0	2.990	34.955	252.2	2.755					
2900.0	2.949	34.952	251.6	2.710					
2950.0	2.919	34.950	251.9	2.675					
3000.0	2.886	34.949	250.1	2.638					



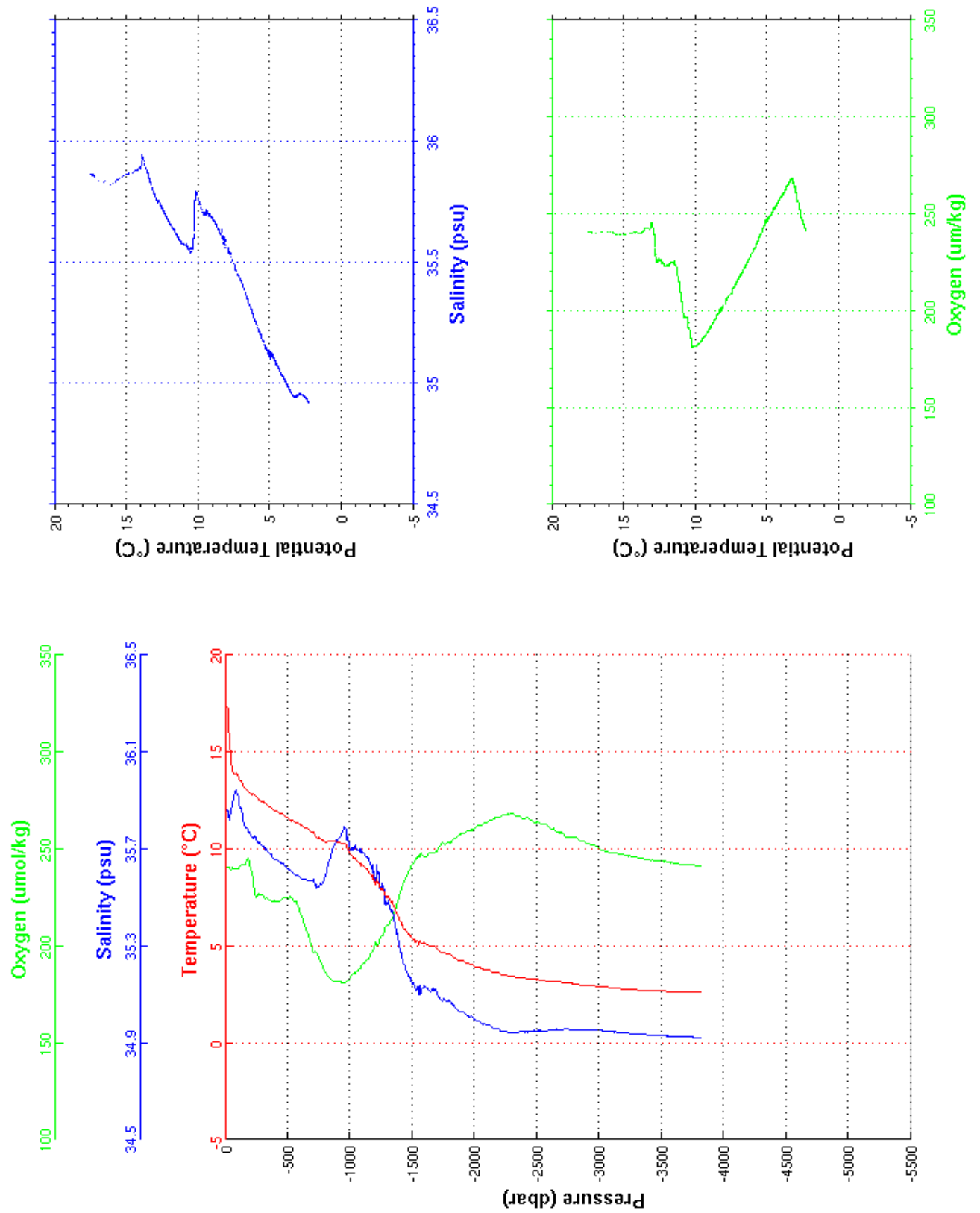
**Cast : 25**

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Cast      : 26           Cruise   : CATARINA
Date      : 30/06/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3768 m     Organism : CSIC/IIM VIGO
Position  : N 44  4.63
           W 017 25.44
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	17.430	35.862	240.7	17.430	3050.0	2.875	34.949	249.2	2.621
10.0	17.338	35.861	240.9	17.336	3100.0	2.838	34.946	248.2	2.581
20.0	17.258	35.860	240.9	17.255	3150.0	2.803	34.943	247.8	2.541
30.0	16.450	35.839	241.1	16.445	3200.0	2.781	34.942	247.1	2.514
40.0	15.434	35.845	239.5	15.427	3250.0	2.749	34.939	246.6	2.478
50.0	14.497	35.875	239.9	14.490	3300.0	2.728	34.937	245.8	2.452
100.0	13.817	35.921	240.4	13.802	3350.0	2.705	34.934	245.3	2.423
150.0	13.173	35.800	241.7	13.152	3400.0	2.692	34.933	244.7	2.406
200.0	12.928	35.759	240.8	12.901	3450.0	2.681	34.932	244.6	2.390
250.0	12.637	35.735	226.0	12.603	3500.0	2.672	34.930	244.3	2.375
300.0	12.433	35.706	225.8	12.393	3550.0	2.651	34.928	243.5	2.349
350.0	12.216	35.683	224.7	12.169	3600.0	2.640	34.927	243.2	2.333
400.0	11.984	35.656	223.6	11.931	3650.0	2.624	34.925	242.6	2.312
450.0	11.818	35.641	224.7	11.759	3700.0	2.618	34.924	242.2	2.301
500.0	11.625	35.620	224.5	11.560	3750.0	2.612	34.923	241.9	2.289
550.0	11.428	35.598	223.7	11.357	3800.0	2.602	34.922	241.4	2.273
600.0	11.255	35.583	217.2	11.178	3821.0	2.604	34.921	241.7	2.273
650.0	11.066	35.573	207.5	10.983					
700.0	10.909	35.574	196.9	10.820					
750.0	10.570	35.544	194.5	10.477					
800.0	10.393	35.587	186.0	10.295					
850.0	10.377	35.686	182.4	10.272					
900.0	10.332	35.741	181.6	10.221					
950.0	10.281	35.783	181.3	10.164					
1000.0	9.702	35.698	184.5	9.583					
1050.0	9.421	35.699	186.7	9.297					
1100.0	9.147	35.685	190.7	9.019					
1150.0	8.863	35.657	193.4	8.731					
1200.0	8.274	35.571	200.6	8.141					
1250.0	7.939	35.539	205.7	7.804					
1300.0	7.515	35.474	210.9	7.378					
1350.0	7.104	35.420	216.4	6.965					
1400.0	6.306	35.288	227.9	6.170					
1450.0	5.770	35.201	236.0	5.635					
1500.0	5.393	35.145	242.6	5.256					
1550.0	5.187	35.120	246.1	5.048					
1600.0	5.151	35.133	246.3	5.007					
1650.0	4.966	35.111	248.8	4.820					
1700.0	4.863	35.105	249.3	4.713					
1750.0	4.677	35.084	252.6	4.525					
1800.0	4.583	35.073	253.3	4.427					
1850.0	4.354	35.041	256.6	4.196					
1900.0	4.232	35.027	258.3	4.071					
1950.0	4.086	35.010	259.9	3.922					
2000.0	3.969	34.998	261.4	3.802					
2050.0	3.875	34.986	262.7	3.705					
2100.0	3.784	34.974	264.2	3.609					
2150.0	3.650	34.958	266.3	3.473					
2200.0	3.579	34.951	266.4	3.398					
2250.0	3.495	34.946	267.9	3.311					
2300.0	3.420	34.940	268.5	3.232					
2350.0	3.390	34.945	267.7	3.198					
2400.0	3.361	34.947	266.2	3.164					
2450.0	3.322	34.948	265.3	3.121					
2500.0	3.275	34.949	264.1	3.070					
2550.0	3.217	34.948	263.0	3.008					
2600.0	3.185	34.952	261.2	2.971					
2650.0	3.157	34.954	259.4	2.939					
2700.0	3.128	34.953	259.0	2.906					
2750.0	3.092	34.956	256.7	2.865					
2800.0	3.030	34.952	256.2	2.799					
2850.0	2.991	34.952	254.5	2.756					
2900.0	2.969	34.952	253.6	2.729					
2950.0	2.939	34.951	252.2	2.695					
3000.0	2.908	34.951	250.8	2.660					



**Cast : 26**

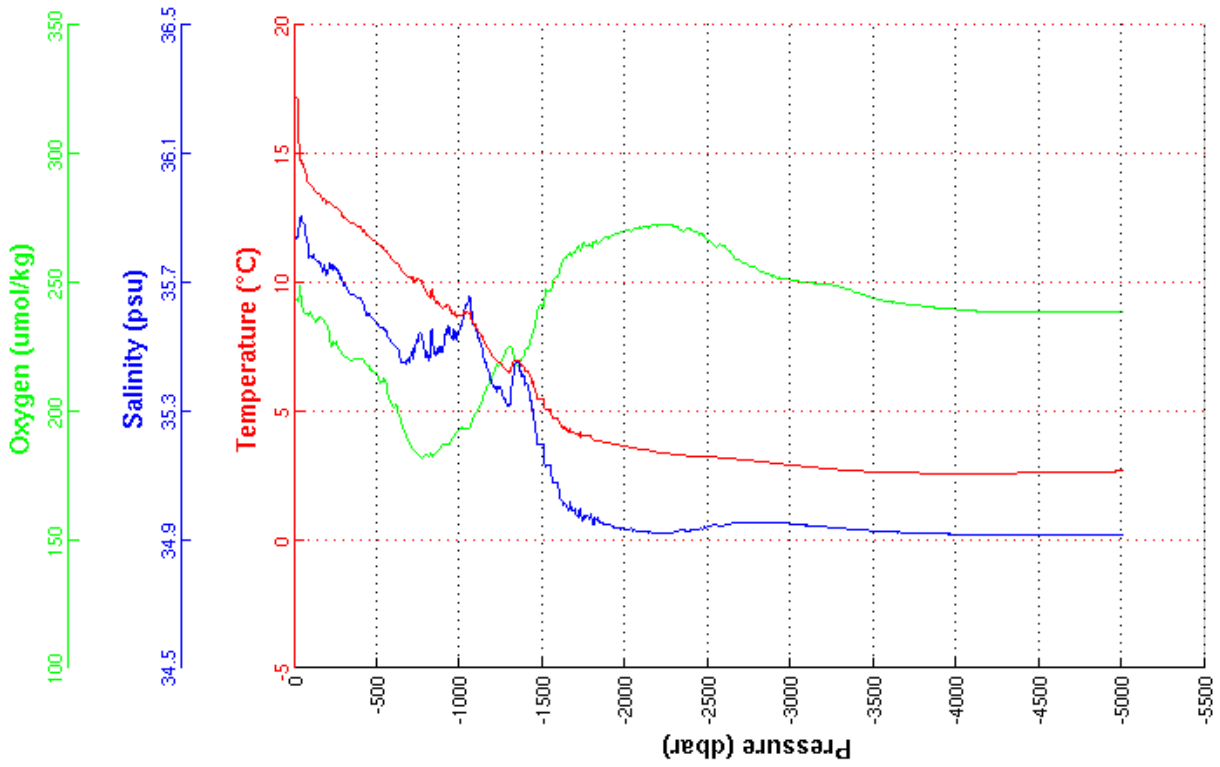
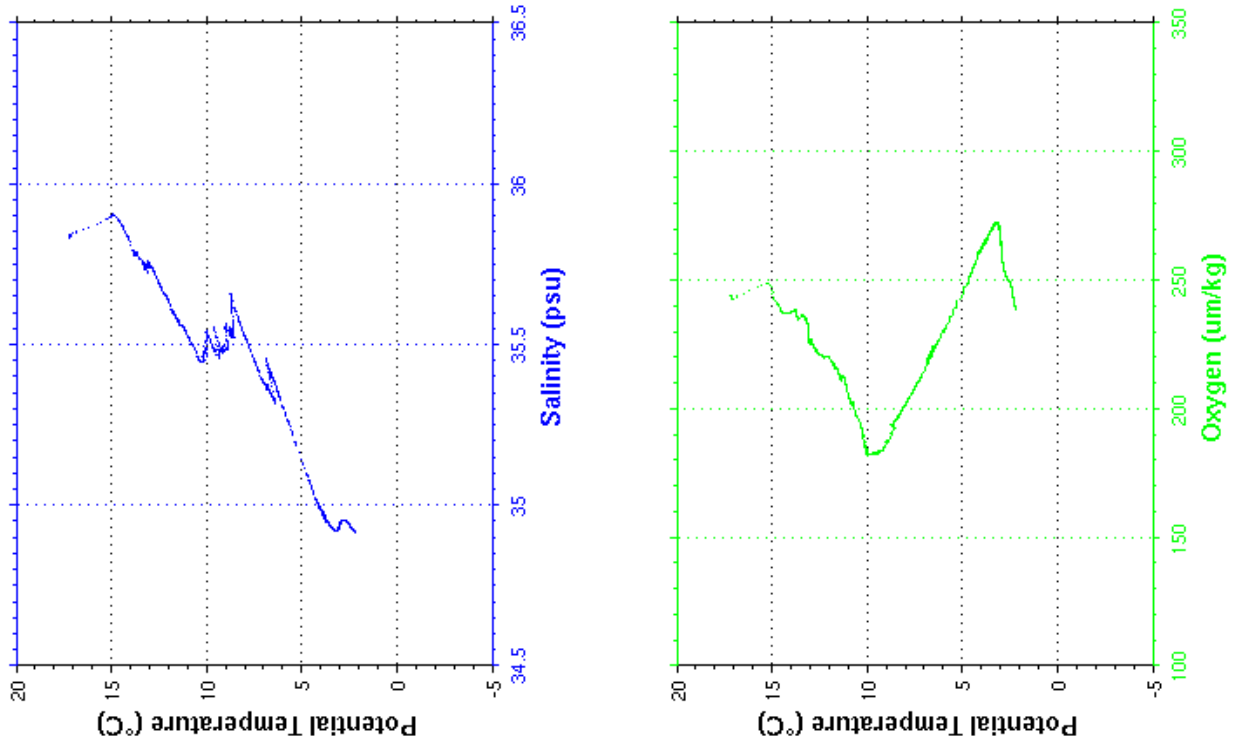
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Cast       : 27           Cruise    : CATARINA
Date       : 30/06/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4920 m      Organism  : CSIC/IIM VIGO
Position   : N 44 22.65
            W 017 48.88
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	17.241	35.832	244.5	17.241	3050.0	2.871	34.947	250.8	2.618
10.0	17.177	35.839	244.0	17.176	3100.0	2.835	34.945	250.4	2.577
20.0	17.129	35.842	243.3	17.125	3150.0	2.802	34.942	249.8	2.539
30.0	15.724	35.873	247.8	15.720	3200.0	2.771	34.940	249.5	2.504
40.0	14.929	35.905	242.2	14.923	3250.0	2.742	34.937	249.1	2.471
50.0	14.651	35.892	239.8	14.644	3300.0	2.714	34.935	248.2	2.438
100.0	13.730	35.776	237.6	13.716	3350.0	2.695	34.933	247.7	2.414
150.0	13.416	35.758	236.3	13.395	3400.0	2.669	34.931	246.1	2.383
200.0	13.090	35.727	233.5	13.062	3450.0	2.652	34.929	245.3	2.361
250.0	12.938	35.740	226.8	12.904	3500.0	2.633	34.927	244.2	2.337
300.0	12.549	35.692	221.3	12.508	3550.0	2.620	34.925	243.3	2.319
350.0	12.306	35.661	220.1	12.259	3600.0	2.608	34.924	242.8	2.302
400.0	12.172	35.652	220.5	12.118	3650.0	2.603	34.923	242.1	2.291
450.0	11.812	35.600	218.0	11.753	3700.0	2.594	34.922	241.7	2.277
500.0	11.546	35.573	214.0	11.481	3750.0	2.591	34.921	241.2	2.269
550.0	11.253	35.549	211.7	11.183	3800.0	2.587	34.920	240.9	2.259
600.0	10.854	35.502	201.5	10.779	3850.0	2.584	34.919	240.7	2.250
650.0	10.463	35.452	194.6	10.383	3900.0	2.579	34.918	240.5	2.240
700.0	10.206	35.460	187.4	10.121	3950.0	2.576	34.918	240.0	2.231
750.0	10.107	35.538	182.4	10.016	4000.0	2.573	34.917	239.8	2.223
800.0	9.615	35.480	182.8	9.521	4050.0	2.573	34.916	239.6	2.216
850.0	9.304	35.478	184.6	9.206	4100.0	2.570	34.915	239.1	2.208
900.0	9.014	35.501	187.6	8.912	4150.0	2.574	34.915	239.1	2.206
950.0	8.874	35.531	189.6	8.766	4200.0	2.576	34.915	239.1	2.202
1000.0	8.693	35.555	193.3	8.581	4250.0	2.581	34.915	238.8	2.201
1050.0	8.831	35.639	193.3	8.712	4300.0	2.585	34.915	238.8	2.199
1100.0	8.273	35.551	199.8	8.152	4350.0	2.587	34.914	238.6	2.195
1150.0	7.651	35.454	207.7	7.530	4400.0	2.591	34.914	238.8	2.193
1200.0	7.114	35.379	215.0	6.992	4450.0	2.595	34.914	238.7	2.191
1250.0	6.868	35.365	219.5	6.742	4500.0	2.600	34.914	238.7	2.189
1300.0	6.509	35.320	225.2	6.381	4550.0	2.604	34.913	238.7	2.188
1350.0	7.022	35.453	218.5	6.884	4600.0	2.610	34.913	238.6	2.187
1400.0	6.588	35.386	224.3	6.449	4650.0	2.616	34.913	238.7	2.186
1450.0	6.018	35.291	231.6	5.879	4700.0	2.622	34.913	238.7	2.186
1500.0	5.457	35.197	241.2	5.320	4750.0	2.628	34.913	238.7	2.186
1550.0	5.069	35.132	247.2	4.931	4800.0	2.635	34.913	238.7	2.186
1600.0	4.621	35.057	253.9	4.484	4850.0	2.641	34.913	238.6	2.186
1650.0	4.233	34.995	261.0	4.096	4900.0	2.647	34.913	238.7	2.185
1700.0	4.138	34.987	262.7	3.998	4950.0	2.654	34.913	238.6	2.185
1750.0	3.968	34.963	265.8	3.825	5000.0	2.659	34.913	238.6	2.184
1800.0	3.970	34.970	263.9	3.823	5005.0	2.659	34.913	238.8	2.184
1850.0	3.835	34.953	266.5	3.684					
1900.0	3.772	34.948	267.5	3.617					
1950.0	3.682	34.937	269.5	3.525					
2000.0	3.615	34.931	270.4	3.454					
2050.0	3.560	34.929	270.9	3.394					
2100.0	3.504	34.925	271.9	3.335					
2150.0	3.453	34.923	272.0	3.279					
2200.0	3.386	34.921	272.6	3.208					
2250.0	3.348	34.921	272.4	3.166					
2300.0	3.315	34.924	272.2	3.129					
2350.0	3.292	34.929	270.3	3.101					
2400.0	3.245	34.930	270.7	3.050					
2450.0	3.218	34.934	268.8	3.019					
2500.0	3.207	34.939	266.9	3.003					
2550.0	3.216	34.947	263.7	3.007					
2600.0	3.164	34.945	264.3	2.951					
2650.0	3.155	34.953	260.7	2.937					
2700.0	3.118	34.954	258.5	2.896					
2750.0	3.084	34.955	256.7	2.858					
2800.0	3.039	34.954	255.4	2.808					
2850.0	3.010	34.955	253.7	2.775					
2900.0	2.971	34.953	252.6	2.732					
2950.0	2.931	34.951	251.7	2.687					
3000.0	2.900	34.949	251.3	2.651					





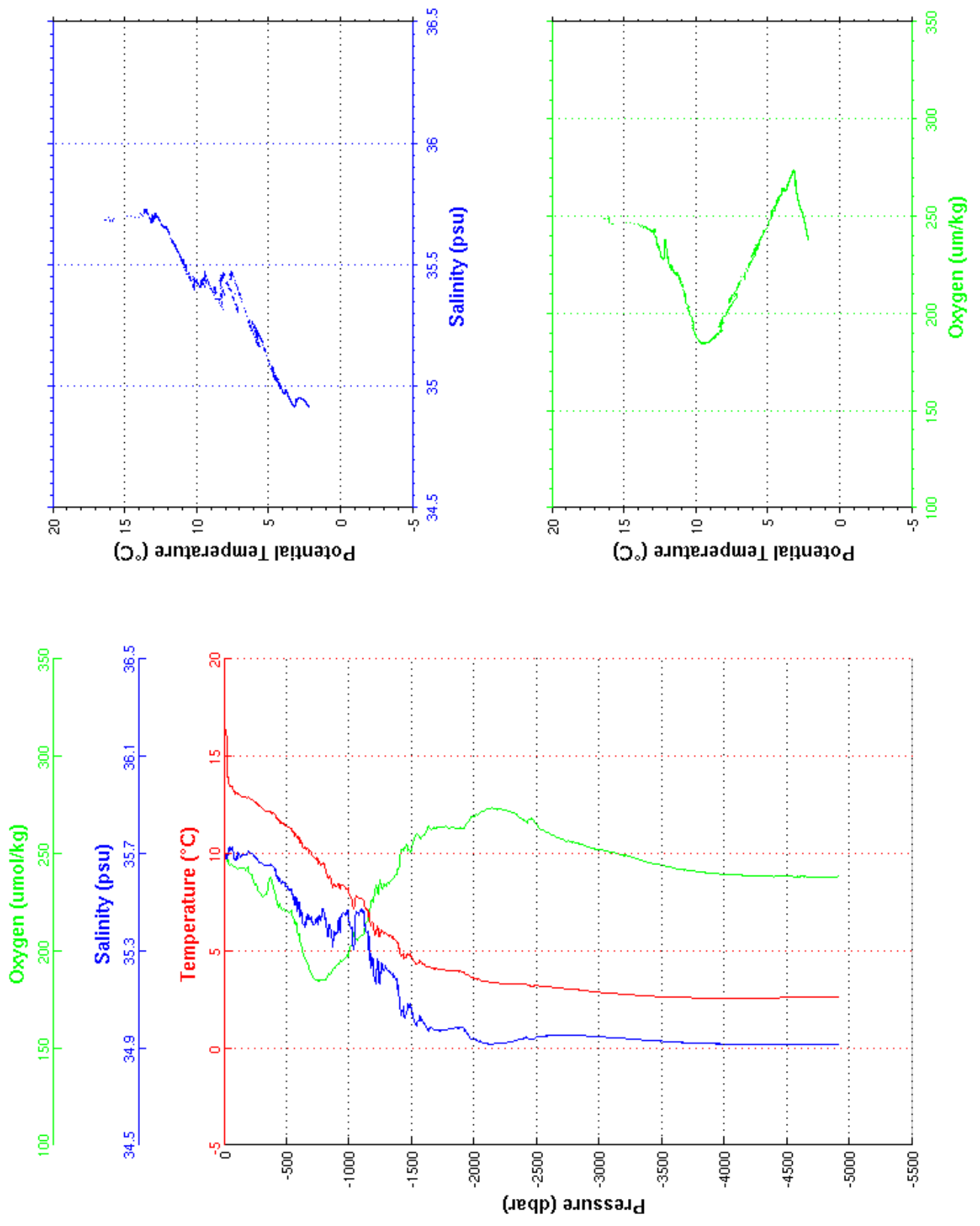
**Cast : 27**

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Cast      : 28           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 4827 m     Organism : CSIC/IIM VIGO
Position  : N 44 40.43
           W 018 12.60
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.345	35.683	248.8	16.345	3050.0	2.835	34.944	251.7	2.582
10.0	16.348	35.683	248.7	16.346	3100.0	2.815	34.943	250.7	2.558
20.0	16.064	35.682	249.0	16.060	3150.0	2.793	34.941	250.1	2.531
30.0	14.301	35.697	246.6	14.296	3200.0	2.766	34.940	249.3	2.499
40.0	13.604	35.725	244.6	13.598	3250.0	2.737	34.937	248.6	2.466
50.0	13.465	35.715	244.8	13.458	3300.0	2.713	34.935	247.3	2.437
100.0	13.107	35.688	242.0	13.093	3350.0	2.689	34.933	246.5	2.408
150.0	12.940	35.697	242.7	12.919	3400.0	2.670	34.931	245.4	2.384
200.0	12.870	35.708	240.0	12.842	3450.0	2.653	34.929	245.0	2.362
250.0	12.639	35.683	234.6	12.605	3500.0	2.644	34.928	244.4	2.348
300.0	12.334	35.658	228.0	12.293	3550.0	2.627	34.926	243.5	2.326
350.0	12.196	35.654	234.2	12.149	3600.0	2.611	34.924	242.9	2.304
400.0	12.045	35.642	230.4	11.991	3650.0	2.602	34.923	242.2	2.291
450.0	11.670	35.589	222.1	11.612	3700.0	2.594	34.922	241.7	2.277
500.0	11.435	35.565	220.7	11.371	3750.0	2.587	34.921	241.2	2.264
550.0	11.153	35.530	217.5	11.083	3800.0	2.580	34.920	240.7	2.253
600.0	10.837	35.501	208.8	10.762	3850.0	2.578	34.919	240.6	2.245
650.0	10.239	35.410	195.8	10.160	3900.0	2.575	34.918	240.1	2.236
700.0	9.959	35.421	187.6	9.876	3950.0	2.572	34.917	239.9	2.227
750.0	9.712	35.434	184.5	9.623	4000.0	2.570	34.917	239.8	2.220
800.0	9.431	35.458	184.9	9.338	4050.0	2.570	34.916	239.4	2.214
850.0	8.767	35.398	188.4	8.672	4100.0	2.570	34.916	239.2	2.208
900.0	8.284	35.372	193.1	8.187	4150.0	2.570	34.915	239.0	2.202
950.0	8.384	35.457	195.3	8.280	4200.0	2.571	34.915	238.9	2.198
1000.0	7.936	35.421	200.9	7.829	4250.0	2.573	34.914	238.8	2.193
1050.0	7.791	35.460	206.0	7.680	4300.0	2.576	34.914	238.6	2.191
1100.0	7.654	35.461	208.0	7.538	4350.0	2.580	34.914	238.4	2.188
1150.0	7.110	35.380	215.9	6.993	4400.0	2.584	34.913	238.4	2.186
1200.0	6.008	35.191	230.7	5.895	4450.0	2.589	34.913	238.6	2.185
1250.0	5.921	35.213	234.5	5.804	4500.0	2.594	34.913	238.5	2.184
1300.0	5.844	35.219	234.8	5.723	4550.0	2.599	34.913	238.4	2.182
1350.0	5.698	35.204	237.5	5.574	4600.0	2.604	34.913	238.4	2.181
1400.0	5.135	35.102	244.5	5.012	4650.0	2.610	34.913	238.4	2.181
1450.0	4.686	35.040	254.7	4.563	4700.0	2.616	34.913	238.4	2.181
1500.0	4.621	35.042	254.4	4.494	4750.0	2.623	34.913	238.3	2.181
1550.0	4.397	35.013	259.3	4.267	4800.0	2.629	34.913	238.4	2.181
1600.0	4.298	35.002	260.4	4.165	4850.0	2.636	34.913	238.3	2.181
1650.0	4.150	34.983	262.7	4.015	4900.0	2.642	34.913	238.3	2.181
1700.0	4.078	34.976	263.4	3.938	4910.0	2.644	34.913	238.5	2.181
1750.0	4.026	34.973	264.1	3.882					
1800.0	4.004	34.977	263.2	3.856					
1850.0	3.984	34.984	263.1	3.832					
1900.0	3.936	34.984	263.5	3.779					
1950.0	3.750	34.958	266.7	3.591					
2000.0	3.622	34.941	269.2	3.460					
2050.0	3.497	34.927	271.6	3.332					
2100.0	3.417	34.918	273.1	3.248					
2150.0	3.367	34.917	273.6	3.194					
2200.0	3.336	34.920	273.0	3.159					
2250.0	3.306	34.923	272.6	3.126					
2300.0	3.299	34.927	271.5	3.114					
2350.0	3.292	34.936	269.3	3.101					
2400.0	3.276	34.942	267.5	3.081					
2450.0	3.202	34.936	268.1	3.003					
2500.0	3.200	34.944	265.8	2.997					
2550.0	3.179	34.949	262.5	2.971					
2600.0	3.140	34.951	260.4	2.927					
2650.0	3.107	34.952	259.0	2.890					
2700.0	3.075	34.953	257.7	2.853					
2750.0	3.046	34.953	256.7	2.820					
2800.0	3.014	34.952	256.1	2.784					
2850.0	2.981	34.951	255.1	2.747					
2900.0	2.938	34.950	254.0	2.698					
2950.0	2.895	34.948	252.9	2.651					
3000.0	2.864	34.946	252.1	2.616					



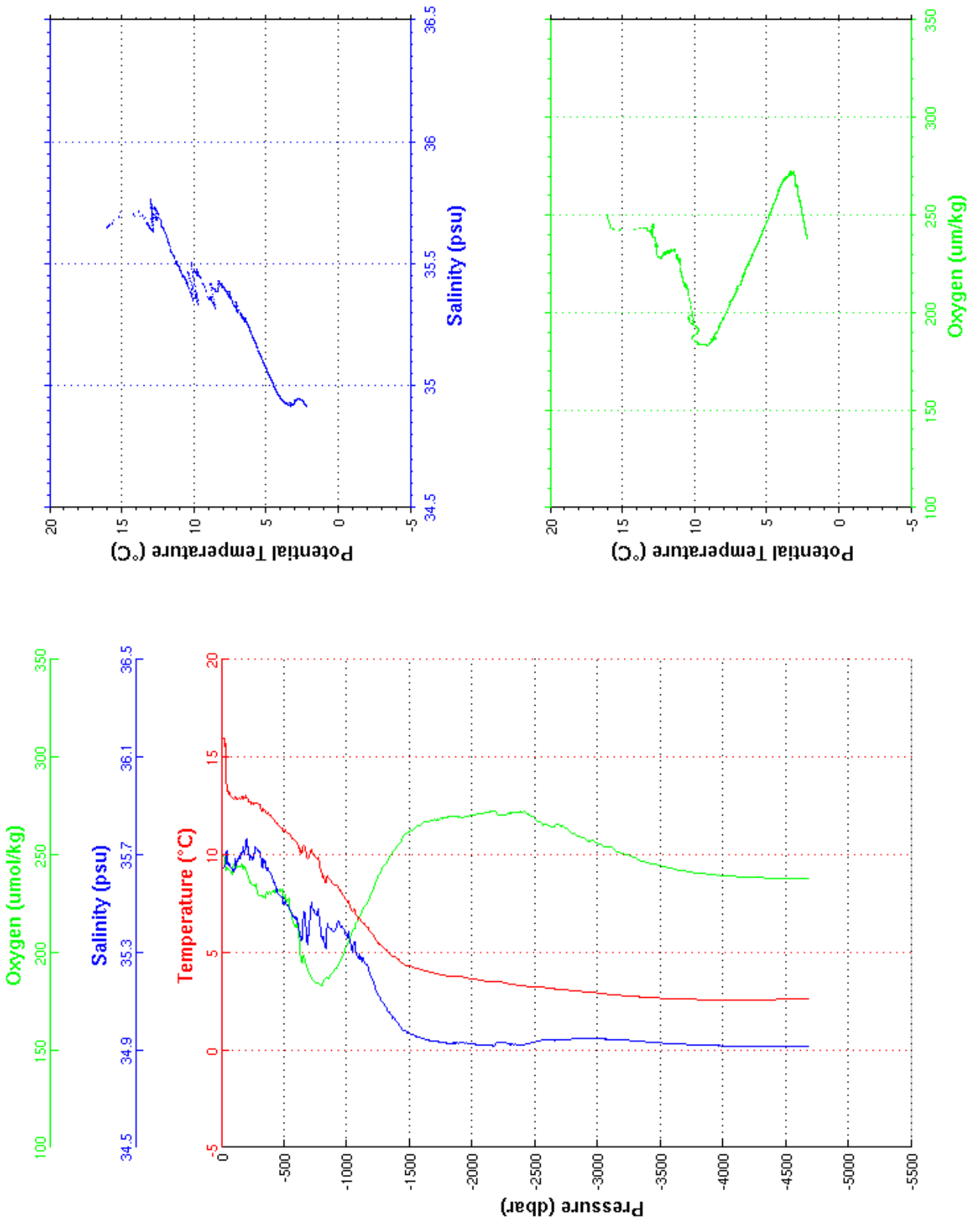
**Cast : 28**

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Cast       : 29           Cruise    : CATARINA
Date       : 01/01/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4603 m      Organism  : CSIC/IIM VIGO
Position   : N 45 3.08
            W 018 30.22
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.043	35.648	250.2	16.043	3050.0	2.877	34.944	254.6	2.624
10.0	16.043	35.648	250.0	16.041	3100.0	2.844	34.943	254.3	2.586
20.0	15.994	35.652	248.0	15.991	3150.0	2.813	34.942	252.2	2.551
30.0	15.659	35.665	242.6	15.654	3200.0	2.789	34.941	250.8	2.522
40.0	13.840	35.715	242.9	13.834	3250.0	2.771	34.939	250.0	2.499
50.0	13.310	35.671	243.0	13.303	3300.0	2.738	34.937	248.5	2.461
100.0	12.839	35.635	245.2	12.825	3350.0	2.708	34.934	247.1	2.426
150.0	12.871	35.686	244.0	12.850	3400.0	2.692	34.933	246.0	2.406
200.0	12.987	35.749	239.7	12.960	3450.0	2.669	34.931	245.4	2.377
250.0	12.616	35.687	234.3	12.582	3500.0	2.651	34.929	244.5	2.355
300.0	12.604	35.719	229.1	12.563	3550.0	2.633	34.927	243.7	2.332
350.0	12.190	35.651	230.0	12.143	3600.0	2.624	34.926	242.9	2.318
400.0	11.925	35.607	232.4	11.872	3650.0	2.611	34.924	242.2	2.300
450.0	11.543	35.541	232.3	11.484	3700.0	2.605	34.923	241.7	2.288
500.0	11.265	35.505	227.9	11.201	3750.0	2.593	34.921	241.3	2.271
550.0	10.989	35.472	220.7	10.920	3800.0	2.586	34.920	240.7	2.258
600.0	10.623	35.435	214.2	10.549	3850.0	2.584	34.920	240.6	2.251
650.0	10.236	35.394	199.4	10.158	3900.0	2.580	34.919	240.2	2.241
700.0	9.990	35.407	189.0	9.906	3950.0	2.577	34.918	239.8	2.232
750.0	9.867	35.455	184.9	9.778	4000.0	2.575	34.917	239.5	2.225
800.0	9.040	35.357	183.9	8.949	4050.0	2.575	34.917	239.4	2.219
850.0	8.913	35.418	186.5	8.817	4100.0	2.574	34.916	239.2	2.212
900.0	8.435	35.385	191.7	8.337	4150.0	2.574	34.915	238.9	2.206
950.0	8.151	35.408	196.7	8.048	4200.0	2.575	34.915	238.7	2.202
1000.0	7.632	35.364	204.5	7.527	4250.0	2.577	34.915	238.7	2.197
1050.0	7.168	35.331	212.5	7.062	4300.0	2.581	34.914	238.7	2.195
1100.0	6.776	35.292	218.8	6.668	4350.0	2.583	34.914	238.5	2.192
1150.0	6.379	35.250	224.9	6.268	4400.0	2.587	34.914	238.1	2.189
1200.0	5.945	35.189	231.7	5.834	4450.0	2.590	34.913	238.4	2.186
1250.0	5.476	35.123	240.0	5.364	4500.0	2.595	34.913	238.3	2.184
1300.0	5.191	35.084	245.0	5.077	4550.0	2.600	34.913	238.2	2.183
1350.0	4.890	35.043	250.4	4.774	4600.0	2.605	34.913	238.2	2.182
1400.0	4.659	35.012	255.1	4.541	4650.0	2.611	34.913	238.3	2.182
1450.0	4.411	34.979	260.3	4.291	4680.0	2.613	34.913	238.4	2.180
1500.0	4.292	34.965	262.7	4.168					
1550.0	4.179	34.955	264.7	4.052					
1600.0	4.090	34.947	266.4	3.959					
1650.0	4.012	34.940	267.2	3.878					
1700.0	3.928	34.936	268.2	3.790					
1750.0	3.860	34.933	268.8	3.719					
1800.0	3.790	34.927	269.7	3.645					
1850.0	3.770	34.928	269.9	3.620					
1900.0	3.755	34.931	269.5	3.601					
1950.0	3.713	34.930	269.7	3.555					
2000.0	3.639	34.924	270.9	3.477					
2050.0	3.597	34.922	271.2	3.431					
2100.0	3.532	34.920	271.7	3.362					
2150.0	3.487	34.918	272.6	3.312					
2200.0	3.521	34.932	270.5	3.342					
2250.0	3.465	34.930	270.6	3.282					
2300.0	3.377	34.924	271.5	3.190					
2350.0	3.325	34.922	272.2	3.134					
2400.0	3.282	34.922	272.2	3.087					
2450.0	3.263	34.926	271.0	3.064					
2500.0	3.250	34.934	268.7	3.045					
2550.0	3.237	34.940	266.3	3.027					
2600.0	3.177	34.940	265.5	2.964					
2650.0	3.150	34.941	264.6	2.932					
2700.0	3.101	34.940	265.2	2.879					
2750.0	3.070	34.943	263.5	2.844					
2800.0	3.039	34.945	261.3	2.808					
2850.0	3.006	34.946	259.8	2.771					
2900.0	2.971	34.946	258.2	2.731					
2950.0	2.934	34.945	257.9	2.690					
3000.0	2.916	34.946	256.1	2.667					



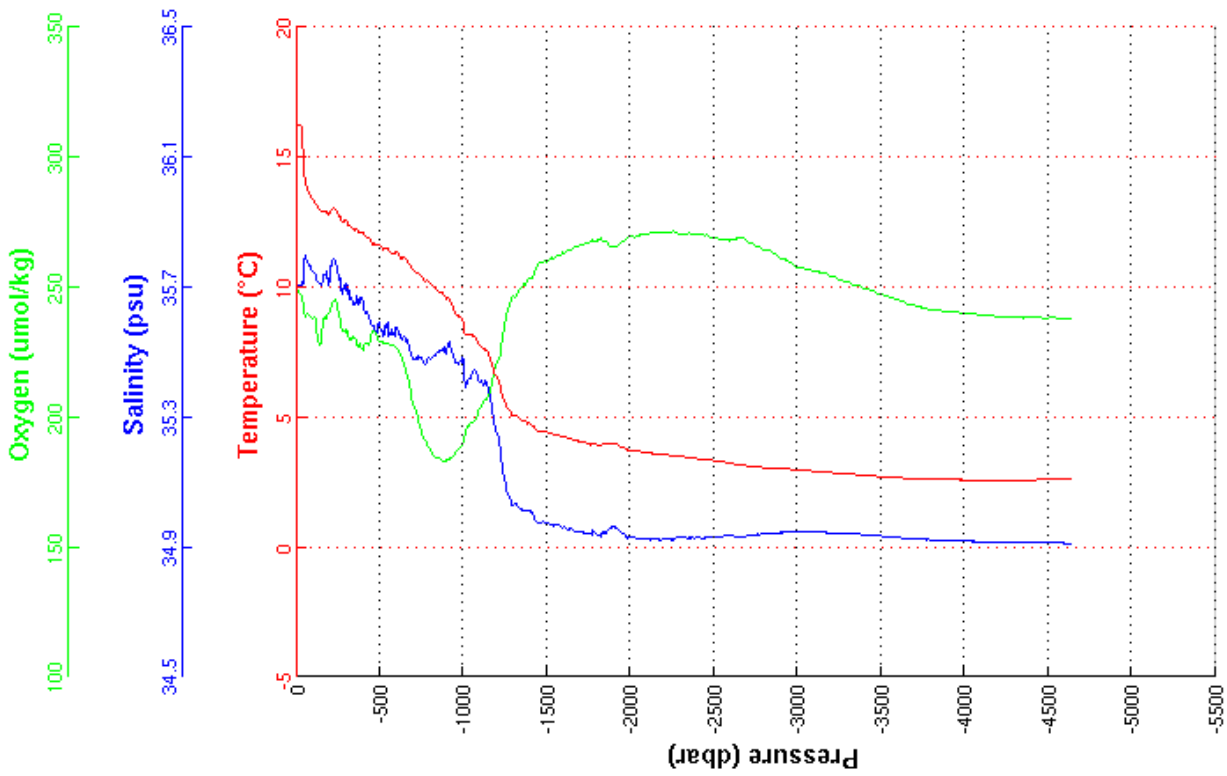
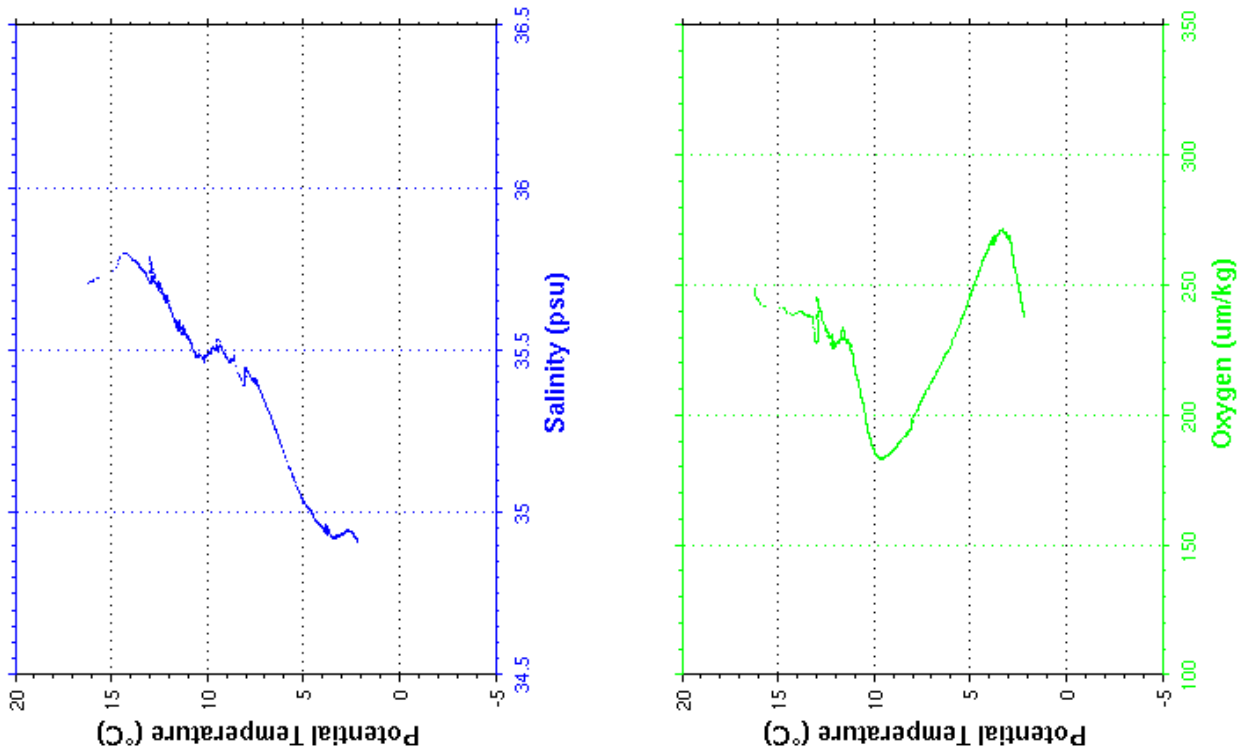
**Cast : 29**

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Cast       : 30           Cruise    : CATARINA
Date       : 01/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4570 m      Organism  : CSIC/IIM VIGO
Position   : N 45 25.23
            W 018 47.74
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.210	35.706	248.7	16.210	3050.0	2.946	34.946	257.2	2.691
10.0	16.211	35.706	248.5	16.209	3100.0	2.918	34.946	256.5	2.658
20.0	16.212	35.706	247.2	16.209	3150.0	2.894	34.945	256.1	2.630
30.0	16.198	35.707	246.5	16.193	3200.0	2.869	34.944	254.4	2.600
40.0	15.917	35.713	242.0	15.911	3250.0	2.837	34.943	253.2	2.563
50.0	14.326	35.796	238.9	14.318	3300.0	2.813	34.941	252.3	2.534
100.0	13.372	35.747	238.8	13.358	3350.0	2.789	34.940	251.0	2.506
150.0	12.919	35.711	232.2	12.898	3400.0	2.760	34.938	249.9	2.472
200.0	12.813	35.719	241.2	12.786	3450.0	2.738	34.936	248.8	2.445
250.0	12.818	35.739	240.5	12.783	3500.0	2.715	34.934	247.6	2.417
300.0	12.562	35.712	234.0	12.521	3550.0	2.685	34.931	246.3	2.383
350.0	12.204	35.648	230.9	12.158	3600.0	2.668	34.929	245.4	2.360
400.0	12.115	35.655	226.4	12.062	3650.0	2.647	34.927	244.2	2.334
450.0	11.754	35.589	232.3	11.695	3700.0	2.631	34.925	243.2	2.313
500.0	11.607	35.576	229.0	11.542	3750.0	2.620	34.924	242.3	2.297
550.0	11.497	35.588	228.3	11.425	3800.0	2.609	34.922	241.6	2.280
600.0	11.336	35.574	226.4	11.259	3850.0	2.602	34.921	241.2	2.268
650.0	11.112	35.543	218.8	11.029	3900.0	2.598	34.920	241.0	2.259
700.0	10.647	35.484	204.3	10.560	3950.0	2.592	34.919	240.6	2.247
750.0	10.412	35.483	194.3	10.320	4000.0	2.587	34.918	240.1	2.236
800.0	10.152	35.481	187.8	10.055	4050.0	2.584	34.917	239.9	2.227
850.0	9.863	35.499	184.5	9.762	4100.0	2.581	34.917	239.5	2.219
900.0	9.548	35.500	183.9	9.443	4150.0	2.580	34.916	239.2	2.212
950.0	9.050	35.472	186.9	8.942	4200.0	2.578	34.915	239.0	2.204
1000.0	8.740	35.477	190.1	8.628	4250.0	2.580	34.915	238.7	2.200
1050.0	8.137	35.430	198.0	8.024	4300.0	2.582	34.914	238.6	2.196
1100.0	7.753	35.408	204.0	7.637	4350.0	2.583	34.914	238.5	2.191
1150.0	7.476	35.393	208.5	7.356	4400.0	2.586	34.914	238.4	2.188
1200.0	6.544	35.253	221.5	6.428	4450.0	2.590	34.913	238.6	2.186
1250.0	5.567	35.100	237.0	5.454	4500.0	2.594	34.913	238.4	2.183
1300.0	5.113	35.039	246.3	5.000	4550.0	2.594	34.913	238.3	2.178
1350.0	4.908	35.018	250.5	4.792	4600.0	2.594	34.912	238.3	2.171
1400.0	4.748	35.009	253.8	4.629	4644.0	2.596	34.911	238.4	2.168
1450.0	4.475	34.974	259.8	4.354					
1500.0	4.426	34.975	260.3	4.301					
1550.0	4.323	34.965	262.2	4.194					
1600.0	4.264	34.963	263.2	4.132					
1650.0	4.148	34.952	265.2	4.012					
1700.0	4.071	34.947	266.5	3.932					
1750.0	3.978	34.939	267.3	3.835					
1800.0	3.927	34.938	268.0	3.780					
1850.0	3.927	34.943	267.7	3.775					
1900.0	3.960	34.958	265.9	3.802					
1950.0	3.846	34.945	267.6	3.686					
2000.0	3.720	34.928	270.3	3.557					
2050.0	3.680	34.926	270.3	3.513					
2100.0	3.631	34.924	270.9	3.459					
2150.0	3.587	34.924	271.4	3.412					
2200.0	3.552	34.924	271.3	3.372					
2250.0	3.501	34.923	271.7	3.317					
2300.0	3.494	34.929	270.7	3.305					
2350.0	3.449	34.928	270.9	3.256					
2400.0	3.396	34.929	270.6	3.199					
2450.0	3.353	34.930	270.3	3.151					
2500.0	3.322	34.933	269.5	3.116					
2550.0	3.273	34.933	269.3	3.063					
2600.0	3.225	34.934	268.4	3.011					
2650.0	3.158	34.931	269.3	2.940					
2700.0	3.129	34.935	268.0	2.907					
2750.0	3.095	34.938	266.6	2.868					
2800.0	3.059	34.940	264.9	2.828					
2850.0	3.037	34.941	263.7	2.801					
2900.0	3.019	34.944	261.4	2.778					
2950.0	2.996	34.945	260.5	2.750					
3000.0	2.967	34.947	257.9	2.716					



**Cast : 30**

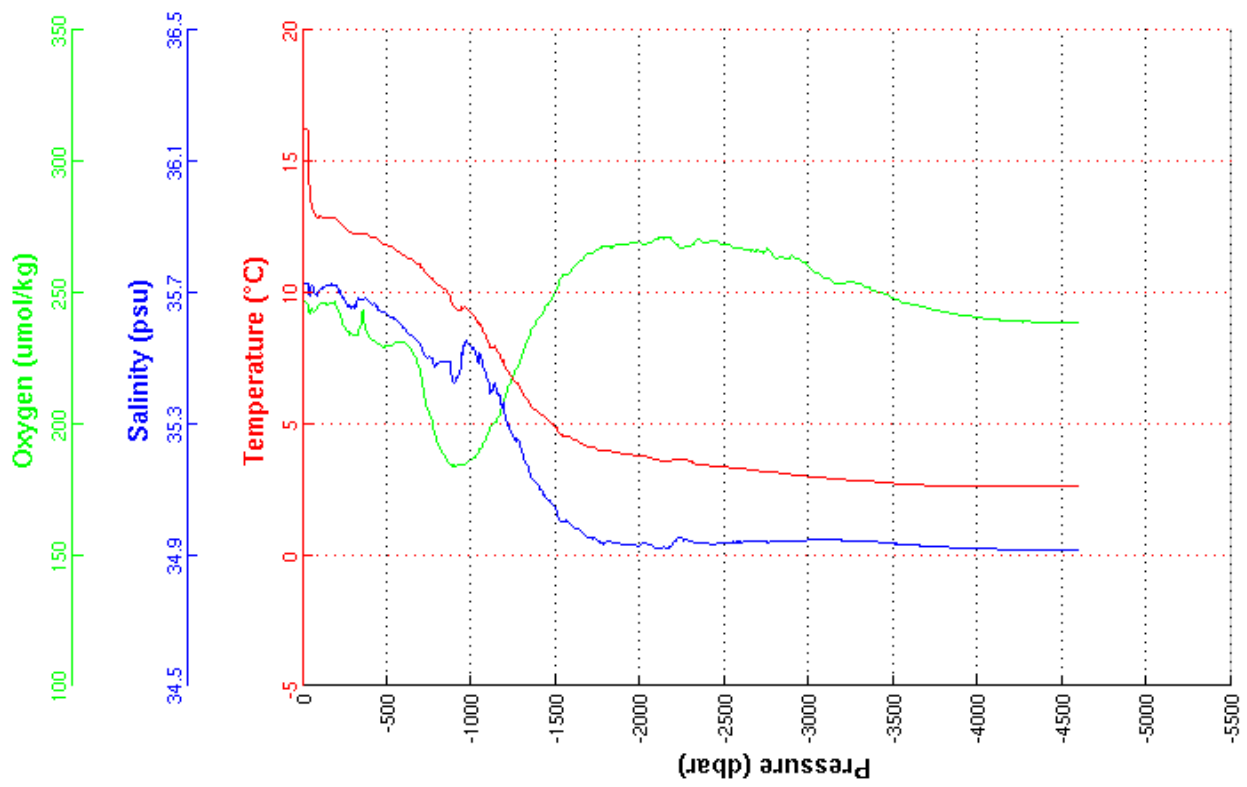
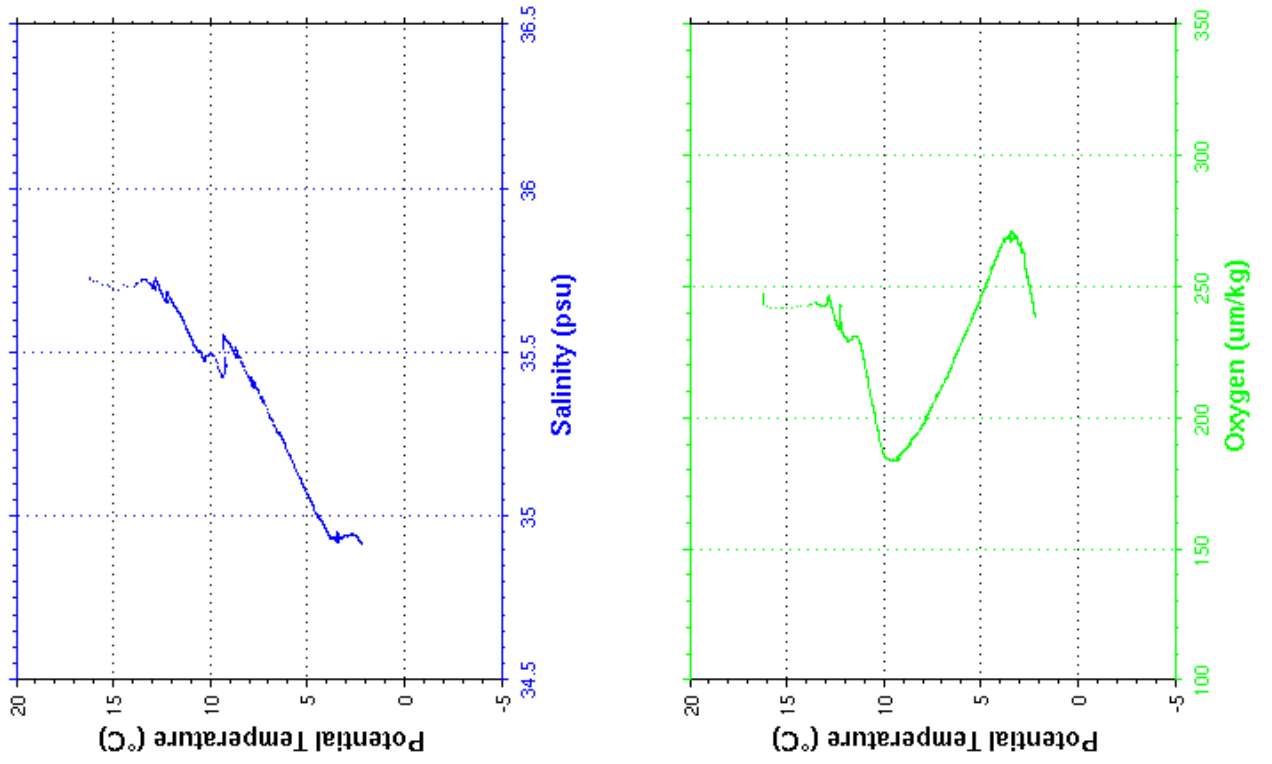
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Cast       : 31           Cruise    : CATARINA
Date       : 02/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4519 m      Organism  : CSIC/IIM VIGO
Position   : N 45 47.61
            W 019 5.39
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	16.217	35.725	247.6	16.217	3050.0	2.964	34.946	257.9	2.708
10.0	16.218	35.725	246.5	16.216	3100.0	2.925	34.947	255.4	2.666
20.0	16.217	35.725	245.8	16.214	3150.0	2.907	34.946	254.3	2.642
30.0	16.213	35.725	245.4	16.208	3200.0	2.874	34.944	253.9	2.605
40.0	14.759	35.691	243.2	14.753	3250.0	2.844	34.942	254.3	2.571
50.0	13.426	35.724	243.6	13.419	3300.0	2.828	34.941	253.7	2.549
100.0	12.875	35.706	245.5	12.861	3350.0	2.806	34.940	252.4	2.523
150.0	12.854	35.722	245.6	12.833	3400.0	2.789	34.939	250.4	2.501
200.0	12.783	35.717	244.7	12.756	3450.0	2.759	34.937	249.8	2.466
250.0	12.491	35.673	236.0	12.457	3500.0	2.727	34.935	248.3	2.429
300.0	12.268	35.651	233.9	12.228	3550.0	2.701	34.932	246.4	2.398
350.0	12.272	35.680	242.5	12.225	3600.0	2.688	34.931	245.9	2.380
400.0	12.151	35.667	232.7	12.098	3650.0	2.668	34.928	245.1	2.355
450.0	11.992	35.649	230.6	11.932	3700.0	2.651	34.927	244.4	2.333
500.0	11.821	35.633	230.1	11.755	3750.0	2.641	34.925	243.7	2.317
550.0	11.644	35.617	231.1	11.572	3800.0	2.630	34.924	242.7	2.301
600.0	11.436	35.591	231.3	11.359	3850.0	2.618	34.922	242.4	2.283
650.0	11.227	35.564	227.5	11.144	3900.0	2.611	34.921	241.7	2.271
700.0	11.013	35.535	218.6	10.924	3950.0	2.606	34.920	241.2	2.261
750.0	10.636	35.502	204.3	10.543	4000.0	2.602	34.919	240.9	2.251
800.0	10.337	35.485	192.6	10.239	4050.0	2.596	34.918	240.4	2.239
850.0	10.106	35.492	186.5	10.003	4100.0	2.594	34.918	240.1	2.232
900.0	9.428	35.425	184.2	9.323	4150.0	2.590	34.917	239.8	2.222
950.0	9.440	35.525	184.7	9.328	4200.0	2.591	34.916	239.5	2.217
1000.0	9.221	35.530	186.5	9.105	4250.0	2.590	34.916	239.4	2.210
1050.0	8.830	35.514	190.3	8.711	4300.0	2.591	34.915	239.3	2.205
1100.0	8.150	35.423	197.3	8.031	4350.0	2.589	34.914	238.8	2.197
1150.0	7.851	35.406	201.5	7.728	4400.0	2.591	34.914	238.7	2.193
1200.0	7.203	35.324	210.9	7.080	4450.0	2.595	34.914	238.8	2.191
1250.0	6.664	35.257	219.1	6.541	4500.0	2.599	34.914	238.8	2.189
1300.0	6.262	35.218	226.5	6.137	4550.0	2.603	34.913	238.7	2.186
1350.0	5.736	35.145	235.1	5.612	4595.0	2.607	34.913	238.8	2.184
1400.0	5.459	35.112	240.4	5.332					
1450.0	5.171	35.072	245.6	5.042					
1500.0	4.861	35.037	251.0	4.731					
1550.0	4.547	34.996	257.7	4.416					
1600.0	4.430	34.988	259.8	4.295					
1650.0	4.287	34.971	262.1	4.149					
1700.0	4.127	34.953	265.5	3.986					
1750.0	4.029	34.943	266.9	3.886					
1800.0	3.963	34.938	268.2	3.815					
1850.0	3.899	34.934	268.6	3.747					
1900.0	3.857	34.933	268.9	3.701					
1950.0	3.813	34.930	269.2	3.653					
2000.0	3.751	34.928	269.6	3.587					
2050.0	3.731	34.933	269.3	3.563					
2100.0	3.620	34.921	271.1	3.449					
2150.0	3.584	34.920	271.4	3.408					
2200.0	3.634	34.939	269.4	3.452					
2250.0	3.650	34.950	267.4	3.463					
2300.0	3.560	34.942	268.3	3.370					
2350.0	3.457	34.929	270.7	3.264					
2400.0	3.422	34.935	269.5	3.224					
2450.0	3.378	34.933	269.8	3.176					
2500.0	3.343	34.935	269.1	3.137					
2550.0	3.318	34.939	268.0	3.107					
2600.0	3.277	34.939	267.3	3.062					
2650.0	3.251	34.941	266.1	3.031					
2700.0	3.203	34.940	266.3	2.979					
2750.0	3.151	34.937	266.7	2.923					
2800.0	3.144	34.943	263.9	2.911					
2850.0	3.102	34.943	263.5	2.865					
2900.0	3.059	34.942	264.4	2.817					
2950.0	3.025	34.943	262.8	2.779					
3000.0	2.992	34.946	259.6	2.742					





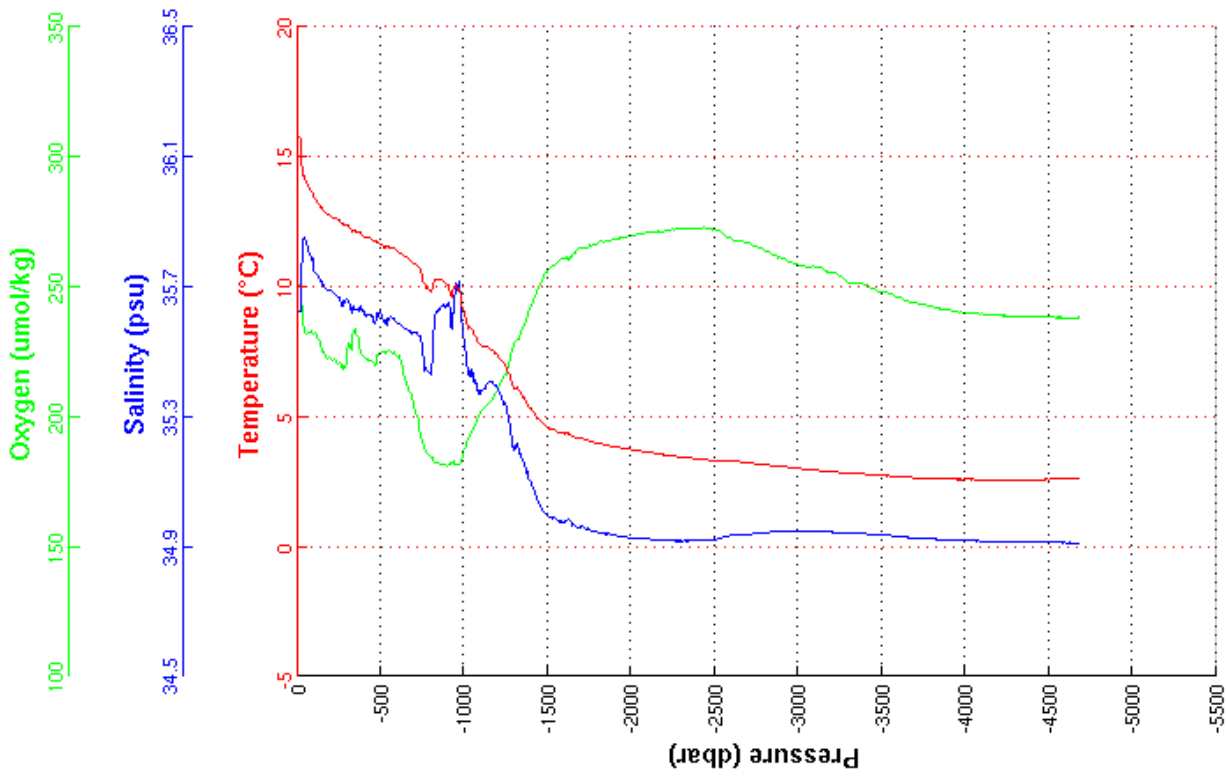
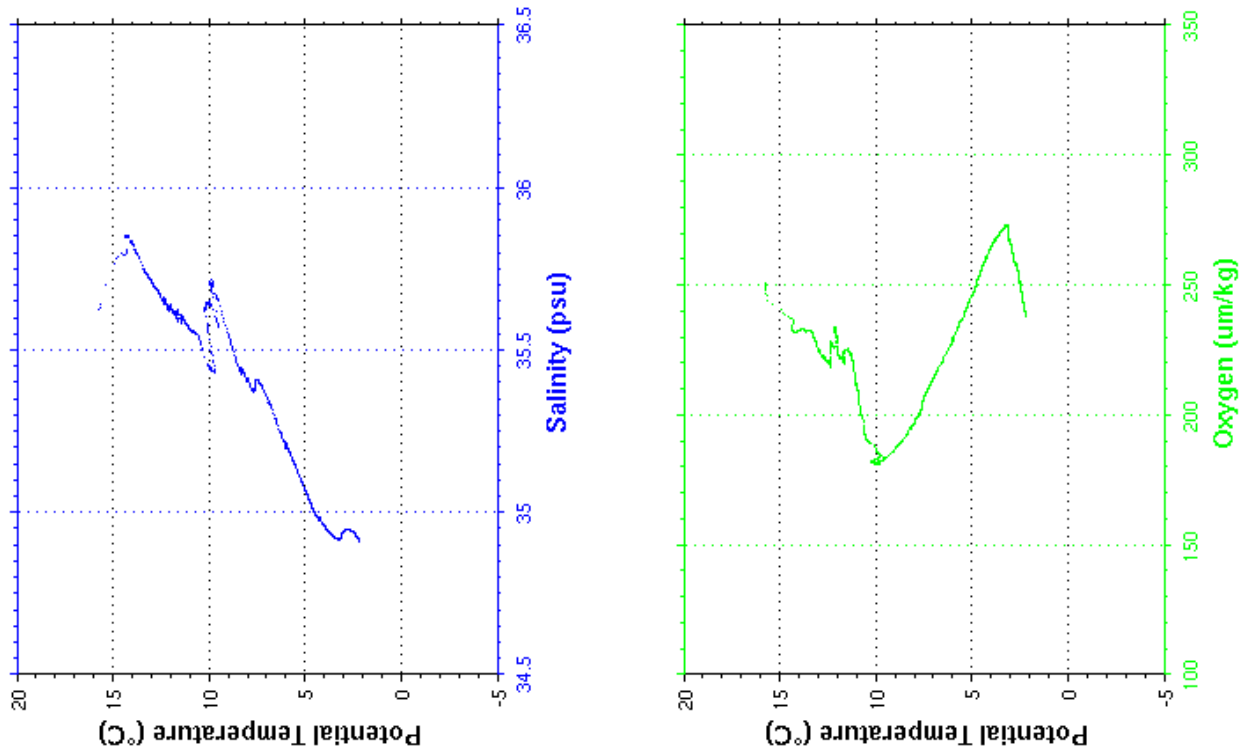
**Cast : 31**

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Cast       : 32           Cruise    : CATARINA
Date       : 02/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4608 m      Organism  : CSIC/IIM VIGO
Position   : N 46 10.21
            W 019 22.83
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.732	35.625	250.8	15.732	3050.0	2.971	34.947	257.9	2.716
10.0	15.739	35.625	250.6	15.738	3100.0	2.953	34.946	258.3	2.692
20.0	15.713	35.625	249.1	15.710	3150.0	2.910	34.945	256.9	2.645
30.0	14.832	35.783	239.5	14.827	3200.0	2.889	34.945	255.7	2.620
40.0	14.411	35.855	233.1	14.405	3250.0	2.853	34.943	254.8	2.579
50.0	14.212	35.852	231.8	14.205	3300.0	2.828	34.942	252.1	2.550
100.0	13.492	35.760	232.6	13.478	3350.0	2.810	34.941	251.3	2.526
150.0	13.012	35.711	225.2	12.991	3400.0	2.787	34.939	251.1	2.499
200.0	12.754	35.690	222.6	12.727	3450.0	2.758	34.937	249.6	2.464
250.0	12.563	35.667	221.4	12.529	3500.0	2.735	34.936	248.4	2.437
300.0	12.360	35.656	226.7	12.319	3550.0	2.718	34.934	247.5	2.415
350.0	12.142	35.638	232.2	12.095	3600.0	2.695	34.932	246.1	2.386
400.0	11.956	35.622	222.9	11.904	3650.0	2.664	34.929	244.8	2.351
450.0	11.814	35.610	221.2	11.755	3700.0	2.649	34.927	243.9	2.331
500.0	11.682	35.616	224.7	11.617	3750.0	2.638	34.925	243.4	2.314
550.0	11.531	35.608	225.5	11.460	3800.0	2.624	34.924	242.7	2.295
600.0	11.374	35.592	223.6	11.297	3850.0	2.615	34.922	241.9	2.280
650.0	11.135	35.568	213.5	11.052	3900.0	2.604	34.921	241.4	2.264
700.0	10.939	35.559	204.0	10.851	3950.0	2.592	34.919	240.6	2.247
750.0	10.487	35.519	190.3	10.395	4000.0	2.589	34.918	240.4	2.238
800.0	9.832	35.435	184.2	9.737	4050.0	2.588	34.918	240.1	2.231
850.0	10.283	35.630	181.4	10.179	4100.0	2.585	34.917	239.8	2.222
900.0	10.108	35.652	181.7	9.998	4150.0	2.582	34.916	239.5	2.214
950.0	10.028	35.699	181.2	9.913	4200.0	2.583	34.916	239.2	2.209
1000.0	9.048	35.537	187.7	8.933	4250.0	2.582	34.915	239.1	2.202
1050.0	8.331	35.440	195.2	8.215	4300.0	2.583	34.915	238.7	2.197
1100.0	7.751	35.377	202.5	7.635	4350.0	2.583	34.914	238.7	2.191
1150.0	7.659	35.409	206.0	7.538	4400.0	2.583	34.913	238.5	2.186
1200.0	7.363	35.387	211.1	7.239	4450.0	2.587	34.913	238.6	2.183
1250.0	6.987	35.338	216.4	6.861	4500.0	2.587	34.913	238.5	2.177
1300.0	6.106	35.196	228.9	5.983	4550.0	2.591	34.913	238.5	2.175
1350.0	5.780	35.164	235.1	5.655	4600.0	2.592	34.912	238.4	2.170
1400.0	5.323	35.099	242.9	5.197	4650.0	2.596	34.912	238.2	2.167
1450.0	4.862	35.031	251.1	4.737	4686.0	2.600	34.912	238.5	2.167
1500.0	4.616	34.997	256.5	4.488					
1550.0	4.466	34.983	259.6	4.336					
1600.0	4.376	34.978	261.2	4.242					
1650.0	4.242	34.967	263.0	4.105					
1700.0	4.168	34.962	264.6	4.027					
1750.0	4.060	34.951	266.4	3.916					
1800.0	3.973	34.944	267.1	3.826					
1850.0	3.912	34.939	267.8	3.761					
1900.0	3.846	34.934	268.9	3.691					
1950.0	3.789	34.930	269.5	3.630					
2000.0	3.734	34.927	270.0	3.571					
2050.0	3.688	34.925	270.4	3.520					
2100.0	3.644	34.923	271.0	3.473					
2150.0	3.584	34.921	271.4	3.408					
2200.0	3.530	34.919	272.1	3.351					
2250.0	3.489	34.919	272.2	3.305					
2300.0	3.450	34.917	272.9	3.262					
2350.0	3.410	34.918	272.9	3.218					
2400.0	3.381	34.921	272.4	3.185					
2450.0	3.339	34.919	272.9	3.138					
2500.0	3.308	34.922	272.2	3.103					
2550.0	3.307	34.929	270.3	3.096					
2600.0	3.292	34.934	268.6	3.077					
2650.0	3.267	34.937	267.3	3.047					
2700.0	3.218	34.937	267.2	2.994					
2750.0	3.175	34.941	265.8	2.946					
2800.0	3.144	34.943	264.5	2.911					
2850.0	3.122	34.945	262.6	2.884					
2900.0	3.083	34.947	261.1	2.841					
2950.0	3.049	34.947	259.9	2.802					
3000.0	3.007	34.947	258.7	2.756					



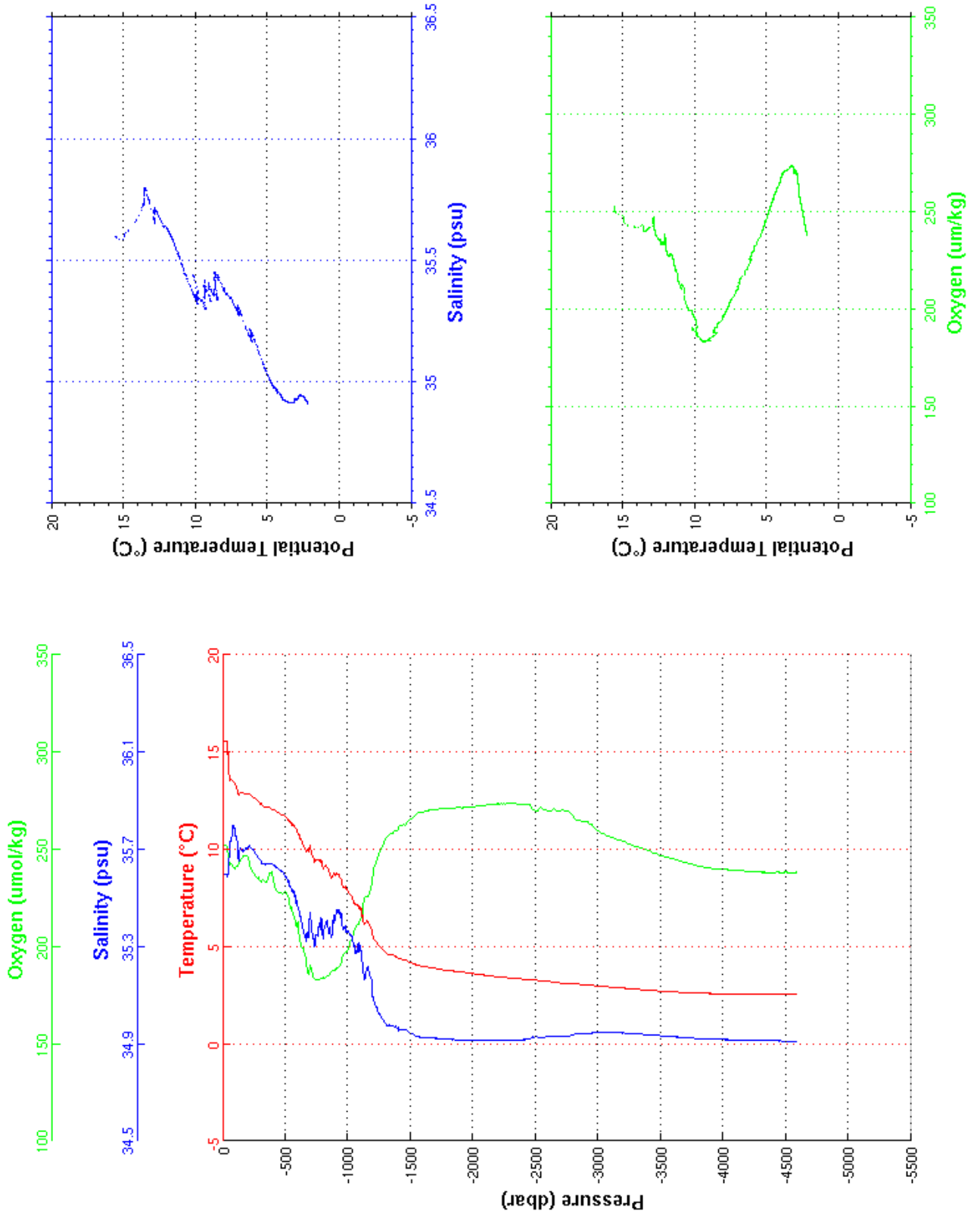
**Cast : 32**

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Cast       : 33           Cruise    : CATARINA
Date       : 02/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4511 m      Organism  : CSIC/IIM VIGO
Position   : N 46 32.68
            W 019 40.27
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.573	35.596	252.8	15.573	3050.0	2.950	34.946	258.1	2.695
10.0	15.569	35.597	252.8	15.568	3100.0	2.919	34.946	256.4	2.660
20.0	15.562	35.597	252.1	15.559	3150.0	2.899	34.945	255.3	2.634
30.0	15.547	35.597	251.5	15.542	3200.0	2.872	34.945	254.4	2.603
40.0	14.936	35.597	246.0	14.930	3250.0	2.833	34.943	252.9	2.560
50.0	14.132	35.664	241.7	14.124	3300.0	2.807	34.941	251.6	2.529
100.0	13.298	35.759	241.1	13.284	3350.0	2.781	34.940	250.8	2.498
150.0	12.900	35.699	246.2	12.879	3400.0	2.756	34.938	249.7	2.468
200.0	12.830	35.702	245.1	12.802	3450.0	2.732	34.936	248.2	2.440
250.0	12.640	35.690	237.8	12.606	3500.0	2.707	34.933	247.1	2.409
300.0	12.360	35.655	233.2	12.319	3550.0	2.690	34.932	246.1	2.387
350.0	12.164	35.640	234.3	12.117	3600.0	2.676	34.930	245.5	2.368
400.0	12.055	35.634	234.6	12.001	3650.0	2.653	34.928	244.5	2.340
450.0	11.880	35.616	227.9	11.821	3700.0	2.638	34.926	243.5	2.320
500.0	11.669	35.589	228.1	11.604	3750.0	2.615	34.923	242.6	2.292
550.0	11.346	35.538	219.6	11.275	3800.0	2.599	34.922	241.7	2.271
600.0	10.843	35.454	212.0	10.768	3850.0	2.595	34.921	241.1	2.261
650.0	10.152	35.354	195.7	10.074	3900.0	2.588	34.920	240.6	2.248
700.0	10.210	35.439	190.1	10.125	3950.0	2.583	34.919	240.3	2.238
750.0	9.405	35.341	183.3	9.318	4000.0	2.581	34.918	240.1	2.230
800.0	9.067	35.342	183.9	8.976	4050.0	2.579	34.917	239.6	2.223
850.0	8.850	35.366	185.7	8.755	4100.0	2.571	34.916	239.5	2.210
900.0	8.659	35.410	189.2	8.559	4150.0	2.572	34.915	239.2	2.204
950.0	8.414	35.419	193.0	8.310	4200.0	2.576	34.915	239.0	2.202
1000.0	7.869	35.363	199.7	7.763	4250.0	2.570	34.914	238.8	2.190
1050.0	7.267	35.302	208.7	7.160	4300.0	2.570	34.913	238.3	2.185
1100.0	6.986	35.291	214.8	6.876	4350.0	2.573	34.913	238.3	2.182
1150.0	6.266	35.206	226.0	6.157	4400.0	2.573	34.912	238.4	2.176
1200.0	5.502	35.094	238.0	5.395	4450.0	2.575	34.912	238.4	2.171
1250.0	5.008	35.021	248.9	4.901	4500.0	2.573	34.911	238.4	2.164
1300.0	4.694	34.982	255.8	4.585	4550.0	2.576	34.911	238.3	2.161
1350.0	4.563	34.974	258.5	4.451	4585.0	2.579	34.911	238.4	2.159
1400.0	4.471	34.971	260.4	4.354					
1450.0	4.333	34.960	263.0	4.213					
1500.0	4.182	34.945	265.6	4.060					
1550.0	4.063	34.931	268.7	3.938					
1600.0	3.998	34.928	269.4	3.869					
1650.0	3.928	34.924	270.5	3.795					
1700.0	3.869	34.922	270.7	3.732					
1750.0	3.812	34.920	271.2	3.671					
1800.0	3.769	34.918	271.5	3.624					
1850.0	3.734	34.917	271.2	3.585					
1900.0	3.696	34.916	272.0	3.542					
1950.0	3.655	34.916	271.9	3.497					
2000.0	3.601	34.915	272.3	3.440					
2050.0	3.565	34.915	272.6	3.400					
2100.0	3.528	34.914	273.0	3.358					
2150.0	3.484	34.913	273.3	3.310					
2200.0	3.446	34.913	273.7	3.268					
2250.0	3.413	34.913	273.5	3.231					
2300.0	3.374	34.913	274.1	3.187					
2350.0	3.349	34.916	273.2	3.158					
2400.0	3.320	34.918	273.4	3.124					
2450.0	3.291	34.919	273.2	3.091					
2500.0	3.295	34.929	270.1	3.090					
2550.0	3.239	34.927	271.2	3.030					
2600.0	3.219	34.930	269.9	3.005					
2650.0	3.167	34.929	271.1	2.949					
2700.0	3.124	34.930	270.3	2.901					
2750.0	3.098	34.932	270.0	2.872					
2800.0	3.076	34.938	267.4	2.844					
2850.0	3.062	34.940	265.1	2.826					
2900.0	3.028	34.942	264.3	2.787					
2950.0	3.001	34.943	263.3	2.756					
3000.0	2.971	34.945	259.5	2.721					



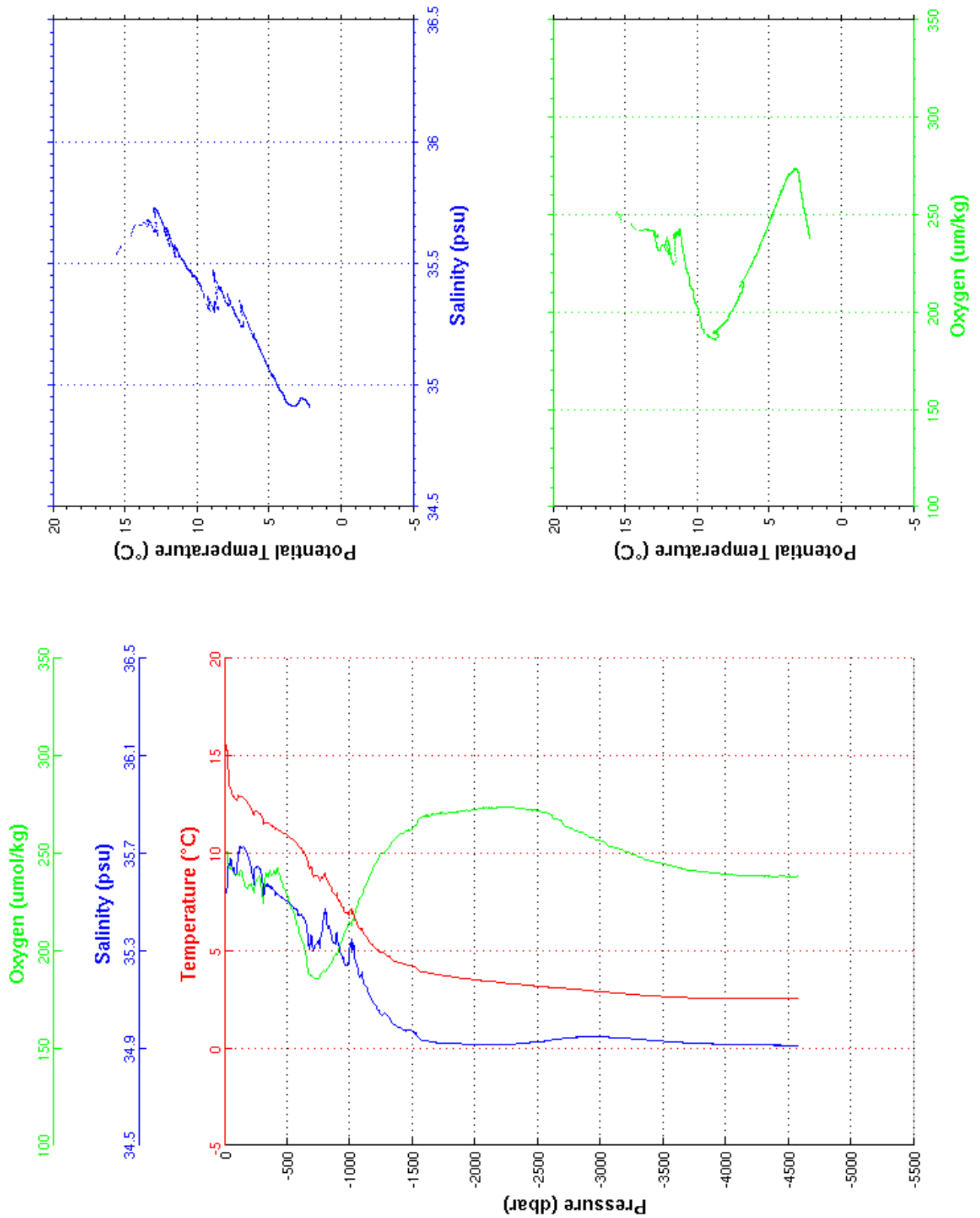
**Cast : 33**

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Cast       : 34           Cruise    : CATARINA
Date       : 03/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4500 m      Organism  : CSIC/IIM VIGO
Position   : N 46 55.02
            W 019 58.17
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.574	35.540	252.0	15.574	3050.0	2.876	34.945	254.9	2.623
10.0	15.574	35.540	251.8	15.573	3100.0	2.844	34.944	253.3	2.587
20.0	15.324	35.563	250.9	15.321	3150.0	2.813	34.942	252.4	2.551
30.0	14.355	35.652	244.1	14.351	3200.0	2.787	34.941	251.3	2.520
40.0	13.603	35.668	242.0	13.597	3250.0	2.756	34.939	249.8	2.484
50.0	13.340	35.676	241.6	13.333	3300.0	2.730	34.936	248.7	2.454
100.0	12.817	35.653	238.9	12.803	3350.0	2.701	34.934	247.5	2.420
150.0	12.857	35.723	236.1	12.837	3400.0	2.682	34.932	246.5	2.396
200.0	12.420	35.666	234.9	12.393	3450.0	2.664	34.930	245.5	2.373
250.0	12.183	35.647	236.1	12.150	3500.0	2.646	34.928	244.8	2.350
300.0	11.808	35.585	227.8	11.769	3550.0	2.633	34.927	244.2	2.332
350.0	11.563	35.569	240.3	11.518	3600.0	2.622	34.925	243.5	2.315
400.0	11.334	35.543	240.6	11.283	3650.0	2.604	34.923	242.5	2.292
450.0	11.128	35.520	235.9	11.071	3700.0	2.587	34.921	241.8	2.270
500.0	10.954	35.505	228.4	10.891	3750.0	2.586	34.921	241.3	2.264
550.0	10.678	35.476	221.0	10.610	3800.0	2.575	34.919	240.8	2.248
600.0	10.284	35.451	207.6	10.211	3850.0	2.574	34.919	240.6	2.241
650.0	9.910	35.419	197.6	9.832	3900.0	2.567	34.917	240.1	2.228
700.0	9.107	35.335	186.8	9.028	3950.0	2.560	34.916	239.9	2.216
750.0	8.820	35.341	186.1	8.736	4000.0	2.558	34.916	239.4	2.209
800.0	8.961	35.465	189.3	8.871	4050.0	2.559	34.915	239.1	2.203
850.0	8.271	35.373	194.2	8.179	4100.0	2.558	34.914	238.9	2.196
900.0	7.831	35.350	199.4	7.737	4150.0	2.561	34.914	238.8	2.194
950.0	7.184	35.270	208.2	7.089	4200.0	2.566	34.914	238.8	2.192
1000.0	7.079	35.318	213.8	6.978	4250.0	2.566	34.914	238.6	2.187
1050.0	6.517	35.248	222.1	6.416	4300.0	2.566	34.913	238.6	2.181
1100.0	6.030	35.189	229.0	5.928	4350.0	2.566	34.912	238.5	2.175
1150.0	5.548	35.125	237.6	5.445	4400.0	2.570	34.912	238.3	2.172
1200.0	5.161	35.075	245.0	5.056	4450.0	2.573	34.912	238.5	2.169
1250.0	4.866	35.034	250.9	4.760	4500.0	2.574	34.911	238.5	2.164
1300.0	4.754	35.032	253.0	4.645	4550.0	2.576	34.911	238.3	2.161
1350.0	4.495	34.997	257.3	4.384	4573.0	2.579	34.911	238.5	2.161
1400.0	4.390	34.985	260.1	4.275					
1450.0	4.267	34.972	262.5	4.149					
1500.0	4.178	34.965	263.6	4.056					
1550.0	3.985	34.940	267.8	3.860					
1600.0	3.890	34.930	269.6	3.762					
1650.0	3.833	34.925	270.2	3.701					
1700.0	3.769	34.922	270.7	3.633					
1750.0	3.730	34.922	270.8	3.590					
1800.0	3.674	34.919	271.5	3.531					
1850.0	3.627	34.918	271.7	3.479					
1900.0	3.576	34.917	271.9	3.425					
1950.0	3.545	34.916	272.2	3.389					
2000.0	3.505	34.915	273.0	3.345					
2050.0	3.462	34.914	273.2	3.298					
2100.0	3.419	34.914	273.5	3.251					
2150.0	3.414	34.914	273.7	3.241					
2200.0	3.365	34.914	274.0	3.188					
2250.0	3.324	34.915	274.0	3.143					
2300.0	3.296	34.916	274.0	3.110					
2350.0	3.273	34.918	273.2	3.083					
2400.0	3.249	34.921	273.0	3.054					
2450.0	3.211	34.924	272.6	3.012					
2500.0	3.183	34.925	272.2	2.980					
2550.0	3.154	34.928	271.3	2.946					
2600.0	3.121	34.932	270.4	2.909					
2650.0	3.090	34.936	267.7	2.873					
2700.0	3.076	34.941	265.2	2.855					
2750.0	3.054	34.943	263.3	2.828					
2800.0	3.024	34.944	262.2	2.793					
2850.0	2.992	34.945	261.1	2.757					
2900.0	2.957	34.945	259.2	2.718					
2950.0	2.925	34.946	257.9	2.681					
3000.0	2.905	34.945	256.6	2.657					



**Cast : 34**

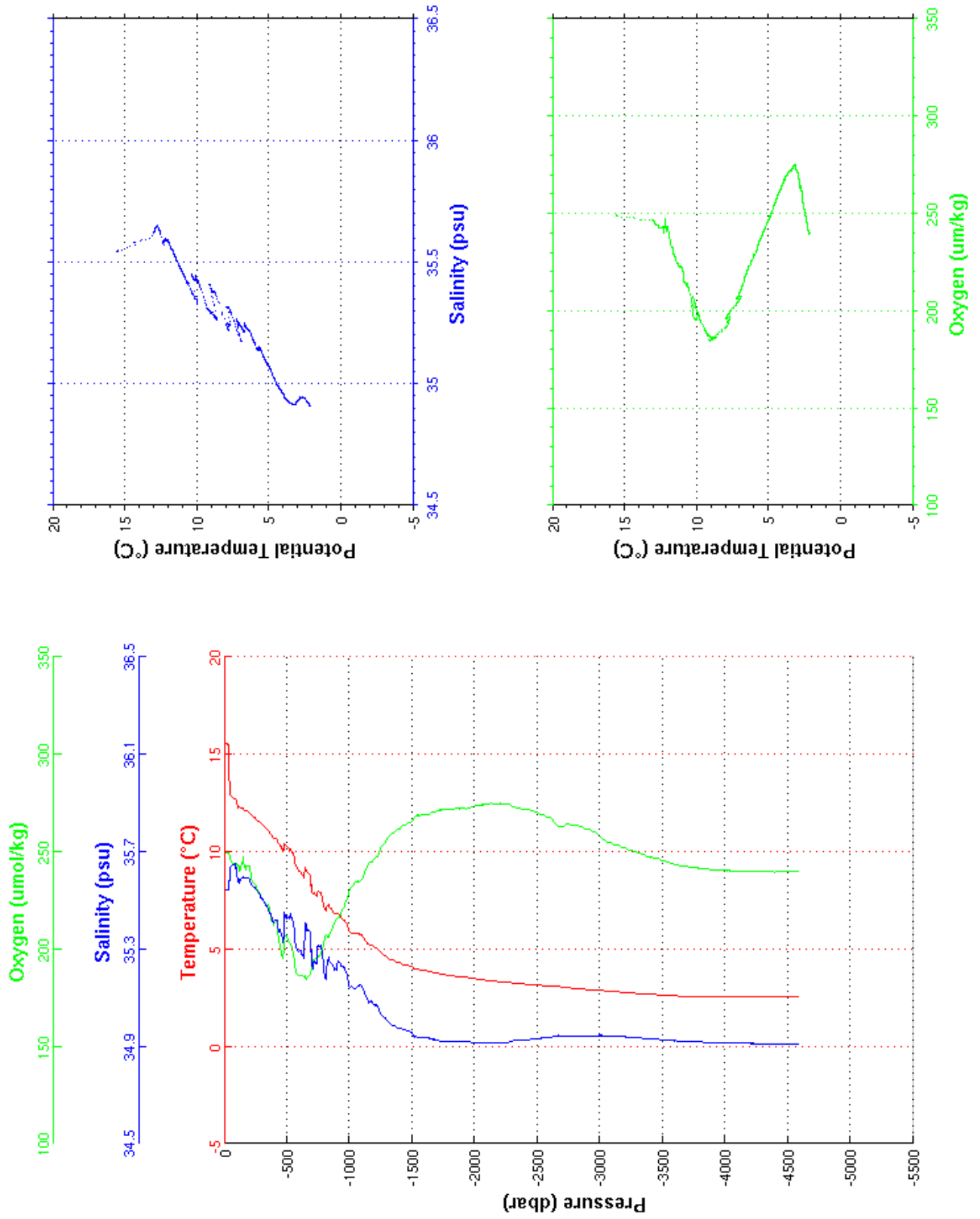
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Cast       : 35           Cruise    : CATARINA
Date       : 03/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4513 m      Organism  : CSIC/IIM VIGO
Position   : N 47 17.39
            W 020 15.69
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.527	35.543	249.6	15.527	3050.0	2.850	34.944	255.8	2.597
10.0	15.527	35.543	249.6	15.526	3100.0	2.828	34.943	254.6	2.570
20.0	15.528	35.543	249.7	15.525	3150.0	2.795	34.941	253.4	2.533
30.0	15.527	35.544	249.4	15.522	3200.0	2.768	34.939	252.1	2.501
40.0	14.274	35.581	246.8	14.268	3250.0	2.744	34.937	251.1	2.472
50.0	12.898	35.635	245.2	12.891	3300.0	2.712	34.935	249.7	2.436
100.0	12.560	35.623	242.9	12.547	3350.0	2.691	34.933	248.6	2.410
150.0	12.203	35.595	248.4	12.183	3400.0	2.668	34.931	247.5	2.383
200.0	11.994	35.584	241.9	11.968	3450.0	2.657	34.929	246.9	2.366
250.0	11.698	35.546	232.9	11.666	3500.0	2.629	34.927	245.8	2.333
300.0	11.425	35.507	225.3	11.387	3550.0	2.609	34.925	244.7	2.308
350.0	11.054	35.461	222.6	11.010	3600.0	2.594	34.923	243.7	2.288
400.0	10.693	35.420	213.8	10.644	3650.0	2.583	34.921	243.1	2.272
450.0	10.315	35.372	198.7	10.261	3700.0	2.574	34.920	242.7	2.258
500.0	10.241	35.427	205.9	10.181	3750.0	2.569	34.919	242.1	2.247
550.0	9.899	35.408	196.7	9.835	3800.0	2.560	34.918	241.8	2.233
600.0	8.998	35.293	186.8	8.931	3850.0	2.553	34.917	241.3	2.221
650.0	9.160	35.404	185.0	9.087	3900.0	2.549	34.916	241.0	2.211
700.0	7.998	35.238	192.1	7.925	3950.0	2.549	34.915	240.6	2.205
750.0	7.965	35.312	196.3	7.886	4000.0	2.547	34.914	240.6	2.197
800.0	7.125	35.198	205.4	7.046	4050.0	2.545	34.914	240.4	2.190
850.0	7.065	35.240	209.9	6.981	4100.0	2.546	34.913	240.3	2.184
900.0	6.789	35.240	216.3	6.702	4150.0	2.544	34.912	240.1	2.177
950.0	6.537	35.223	221.4	6.446	4200.0	2.546	34.912	239.9	2.173
1000.0	5.903	35.141	231.1	5.812	4250.0	2.548	34.912	239.9	2.169
1050.0	5.778	35.140	234.5	5.683	4300.0	2.548	34.911	240.0	2.163
1100.0	5.693	35.144	236.7	5.594	4350.0	2.549	34.911	240.0	2.158
1150.0	5.237	35.084	244.0	5.137	4400.0	2.549	34.910	239.9	2.152
1200.0	5.120	35.073	246.7	5.016	4450.0	2.547	34.909	240.0	2.144
1250.0	4.792	35.029	252.9	4.687	4500.0	2.548	34.909	240.1	2.139
1300.0	4.572	35.002	257.3	4.464	4550.0	2.549	34.908	240.0	2.134
1350.0	4.437	34.987	260.0	4.326	4587.0	2.552	34.908	240.3	2.133
1400.0	4.315	34.979	262.1	4.201					
1450.0	4.177	34.964	264.6	4.060					
1500.0	4.078	34.954	266.3	3.957					
1550.0	3.945	34.938	269.0	3.821					
1600.0	3.893	34.934	269.6	3.765					
1650.0	3.836	34.932	269.8	3.704					
1700.0	3.759	34.925	271.2	3.624					
1750.0	3.697	34.921	271.7	3.558					
1800.0	3.649	34.919	272.3	3.506					
1850.0	3.600	34.919	272.4	3.453					
1900.0	3.570	34.920	272.5	3.418					
1950.0	3.532	34.919	272.8	3.376					
2000.0	3.472	34.915	273.8	3.313					
2050.0	3.429	34.915	274.4	3.265					
2100.0	3.385	34.913	275.0	3.217					
2150.0	3.355	34.914	275.1	3.183					
2200.0	3.317	34.915	275.0	3.141					
2250.0	3.286	34.917	274.6	3.106					
2300.0	3.263	34.922	273.8	3.078					
2350.0	3.236	34.925	272.6	3.046					
2400.0	3.198	34.927	272.1	3.004					
2450.0	3.172	34.929	271.4	2.974					
2500.0	3.153	34.932	270.4	2.950					
2550.0	3.121	34.935	269.1	2.914					
2600.0	3.092	34.937	268.1	2.880					
2650.0	3.080	34.944	263.8	2.863					
2700.0	3.052	34.944	263.3	2.832					
2750.0	3.013	34.942	264.2	2.788					
2800.0	2.968	34.940	264.2	2.738					
2850.0	2.944	34.942	262.9	2.710					
2900.0	2.917	34.942	262.1	2.678					
2950.0	2.895	34.942	260.6	2.652					
3000.0	2.878	34.944	257.6	2.630					





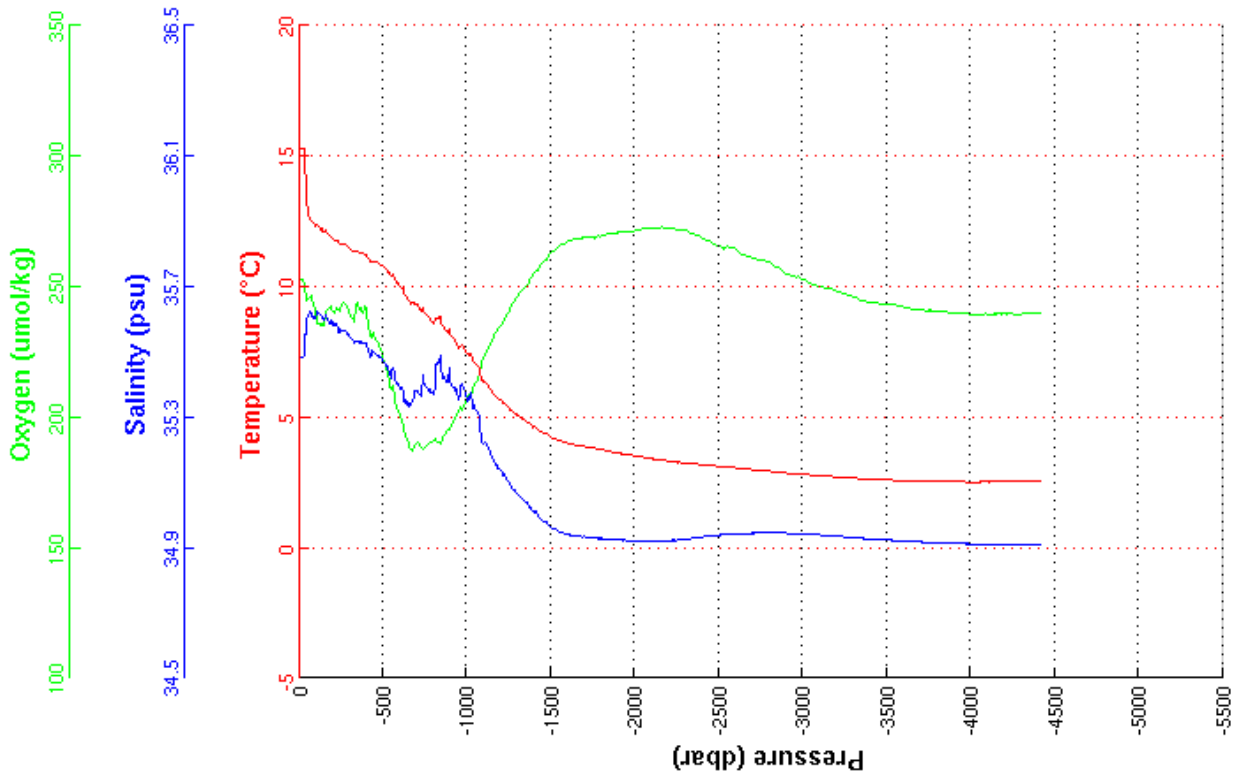
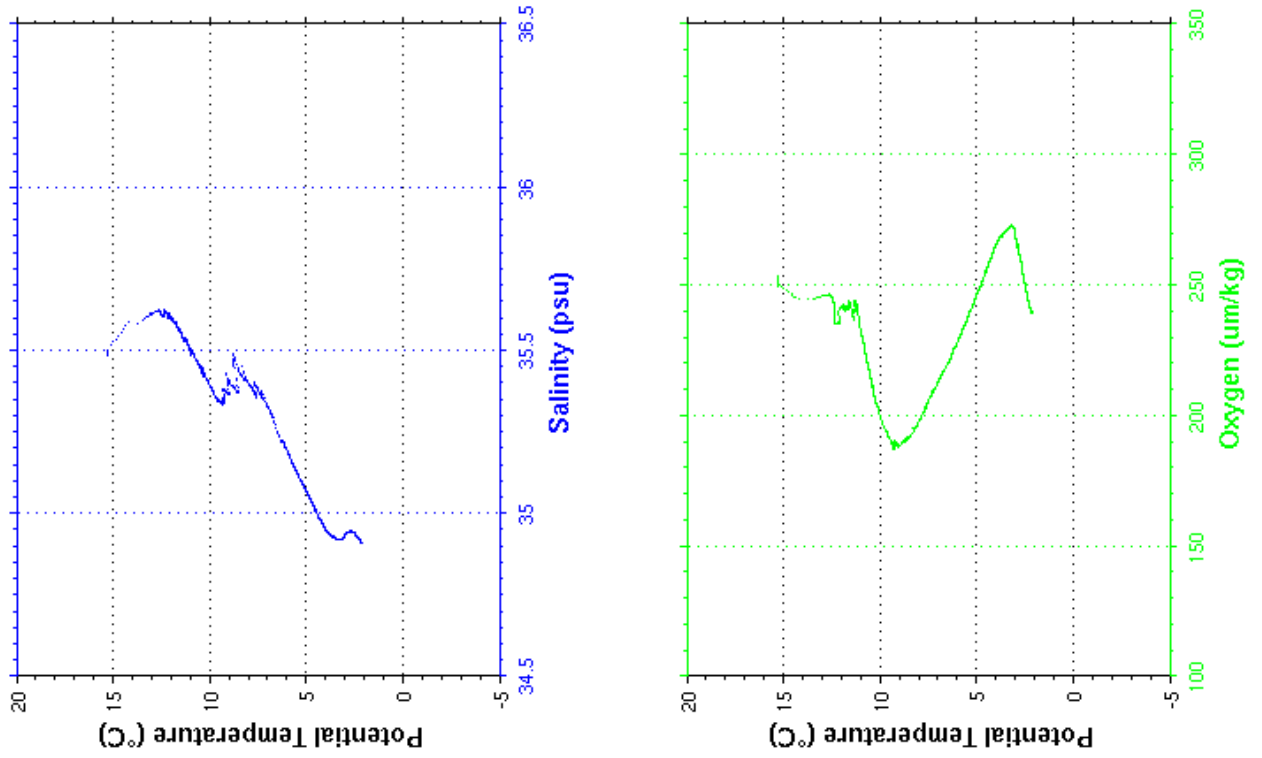
**Cast : 35**

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Cast       : 36           Cruise    : CATARINA
Date       : 03/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4352 m      Organism  : CSIC/IIM VIGO
Position   : N 47 39.92
            W 020 33.19
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.320	35.484	253.9	15.320	3050.0	2.776	34.941	251.2	2.525
10.0	15.320	35.484	253.8	15.319	3100.0	2.754	34.939	250.5	2.498
20.0	15.318	35.484	252.6	15.315	3150.0	2.734	34.937	249.5	2.474
30.0	15.309	35.490	251.4	15.305	3200.0	2.709	34.936	248.8	2.444
40.0	14.521	35.555	246.4	14.515	3250.0	2.684	34.933	247.5	2.414
50.0	13.130	35.607	245.6	13.123	3300.0	2.663	34.931	246.4	2.388
100.0	12.329	35.607	240.4	12.316	3350.0	2.635	34.928	244.8	2.355
150.0	12.138	35.600	236.9	12.118	3400.0	2.612	34.926	244.2	2.328
200.0	11.842	35.581	240.9	11.816	3450.0	2.603	34.925	243.7	2.313
250.0	11.648	35.568	243.6	11.615	3500.0	2.593	34.924	243.5	2.299
300.0	11.462	35.542	239.5	11.424	3550.0	2.580	34.922	243.3	2.280
350.0	11.339	35.537	245.1	11.295	3600.0	2.560	34.920	242.5	2.255
400.0	11.230	35.527	241.0	11.179	3650.0	2.553	34.919	241.7	2.243
450.0	10.977	35.494	230.4	10.921	3700.0	2.546	34.917	241.5	2.230
500.0	10.768	35.470	222.4	10.706	3750.0	2.541	34.917	241.1	2.220
550.0	10.394	35.423	210.8	10.327	3800.0	2.538	34.916	240.6	2.211
600.0	10.038	35.390	199.8	9.966	3850.0	2.532	34.914	240.7	2.200
650.0	9.520	35.341	190.6	9.444	3900.0	2.527	34.914	240.1	2.190
700.0	9.335	35.377	190.1	9.254	3950.0	2.522	34.912	240.1	2.179
750.0	8.989	35.393	189.2	8.905	4000.0	2.519	34.912	239.7	2.170
800.0	8.611	35.369	191.3	8.523	4050.0	2.520	34.911	239.6	2.165
850.0	8.637	35.446	191.2	8.542	4100.0	2.522	34.911	239.7	2.161
900.0	8.205	35.414	196.3	8.108	4150.0	2.523	34.910	239.8	2.156
950.0	7.709	35.361	202.9	7.610	4200.0	2.524	34.910	239.8	2.152
1000.0	7.434	35.358	208.2	7.331	4250.0	2.524	34.909	239.8	2.146
1050.0	7.077	35.325	213.5	6.971	4300.0	2.525	34.909	239.7	2.141
1100.0	6.380	35.223	223.9	6.275	4350.0	2.526	34.909	239.8	2.136
1150.0	5.985	35.176	230.3	5.878	4400.0	2.527	34.908	239.9	2.131
1200.0	5.679	35.138	235.8	5.570	4421.0	2.530	34.908	240.2	2.131
1250.0	5.378	35.100	240.9	5.267					
1300.0	5.084	35.065	246.5	4.971					
1350.0	4.878	35.041	250.2	4.762					
1400.0	4.627	35.007	255.6	4.509					
1450.0	4.427	34.984	259.4	4.306					
1500.0	4.253	34.964	263.3	4.130					
1550.0	4.126	34.951	265.7	4.000					
1600.0	3.996	34.939	267.9	3.867					
1650.0	3.940	34.935	268.8	3.806					
1700.0	3.882	34.933	268.8	3.745					
1750.0	3.823	34.930	269.8	3.682					
1800.0	3.757	34.928	270.1	3.612					
1850.0	3.681	34.924	270.8	3.533					
1900.0	3.631	34.923	270.9	3.479					
1950.0	3.574	34.922	270.9	3.418					
2000.0	3.528	34.921	272.0	3.368					
2050.0	3.468	34.920	272.5	3.304					
2100.0	3.412	34.920	272.5	3.244					
2150.0	3.364	34.920	272.8	3.191					
2200.0	3.322	34.922	272.7	3.146					
2250.0	3.282	34.923	272.2	3.102					
2300.0	3.228	34.924	272.2	3.044					
2350.0	3.208	34.930	270.4	3.019					
2400.0	3.185	34.932	269.0	2.992					
2450.0	3.156	34.936	267.5	2.958					
2500.0	3.122	34.938	265.8	2.920					
2550.0	3.078	34.940	265.6	2.871					
2600.0	3.059	34.942	264.7	2.848					
2650.0	3.034	34.944	262.3	2.818					
2700.0	2.989	34.944	261.4	2.769					
2750.0	2.956	34.945	260.3	2.732					
2800.0	2.929	34.945	259.5	2.700					
2850.0	2.893	34.945	257.7	2.660					
2900.0	2.861	34.944	255.1	2.624					
2950.0	2.829	34.943	254.1	2.587					
3000.0	2.814	34.943	253.0	2.568					



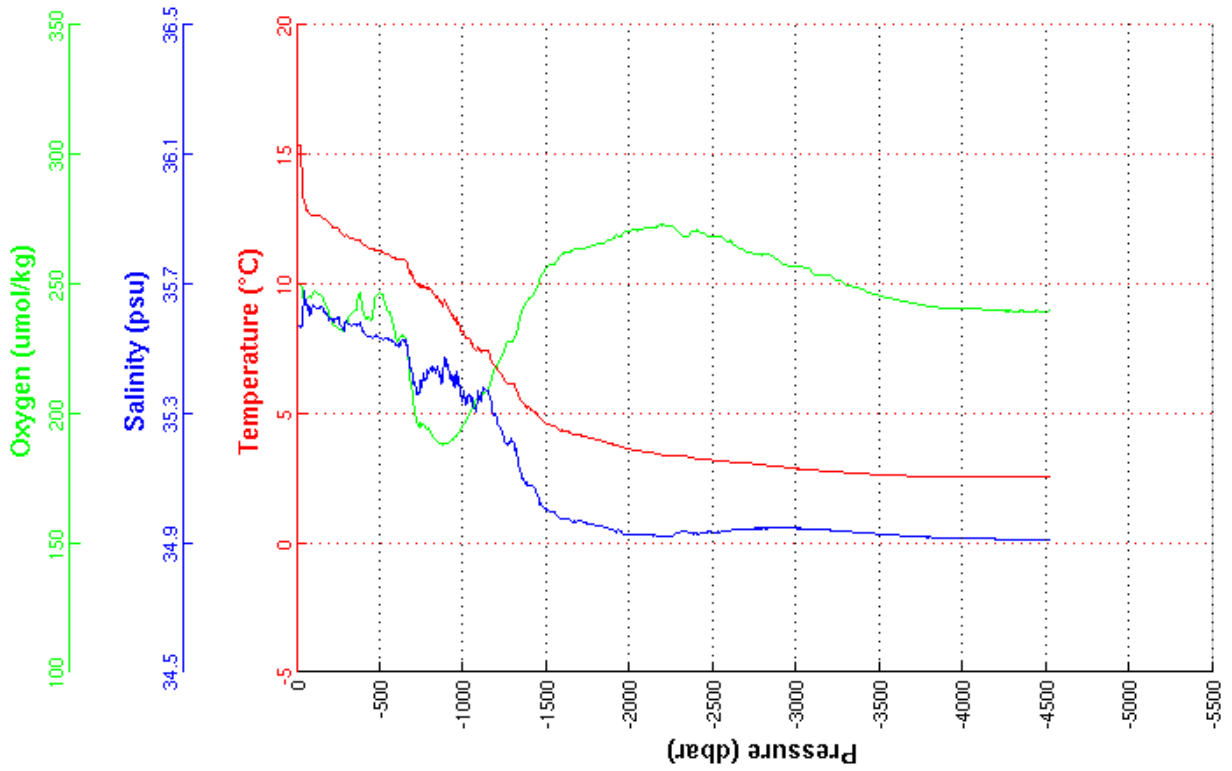
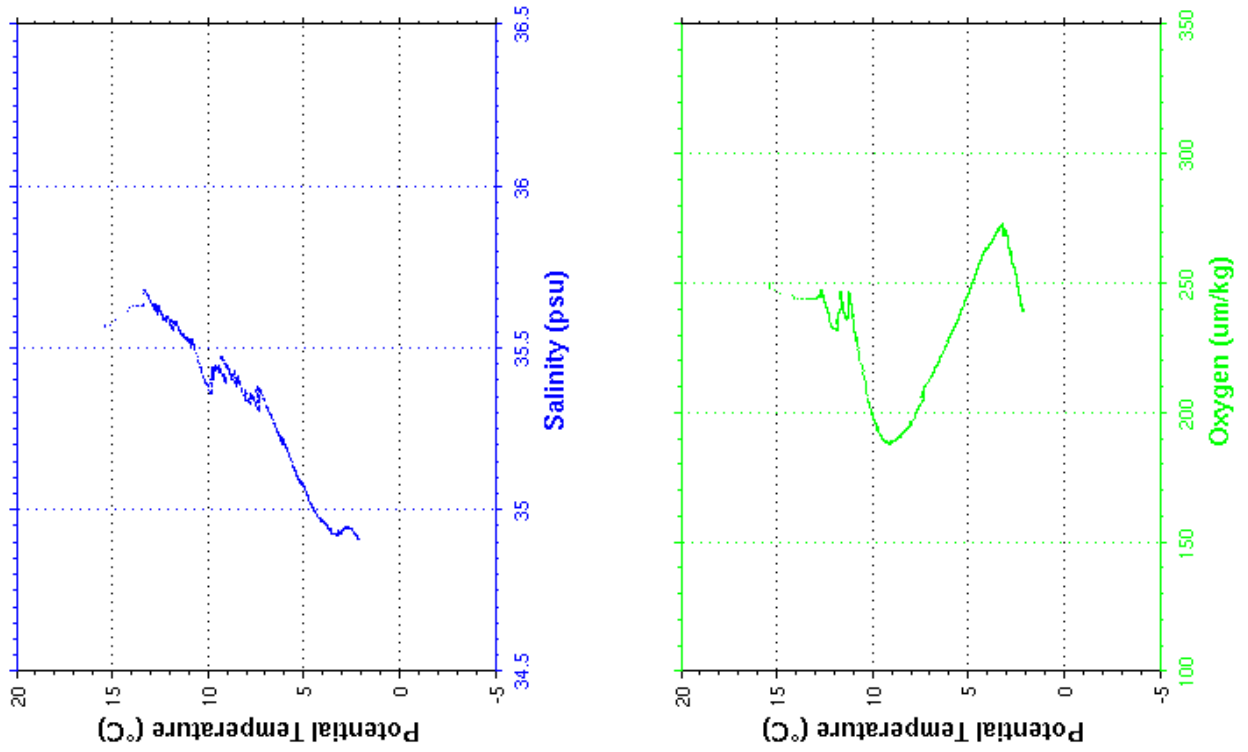
**Cast : 36**

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Cast       : 37           Cruise    : CATARINA
Date       : 03/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 4456 m      Organism  : CSIC/IIM VIGO
Position   : N 48  2.30
            W 020 50.77
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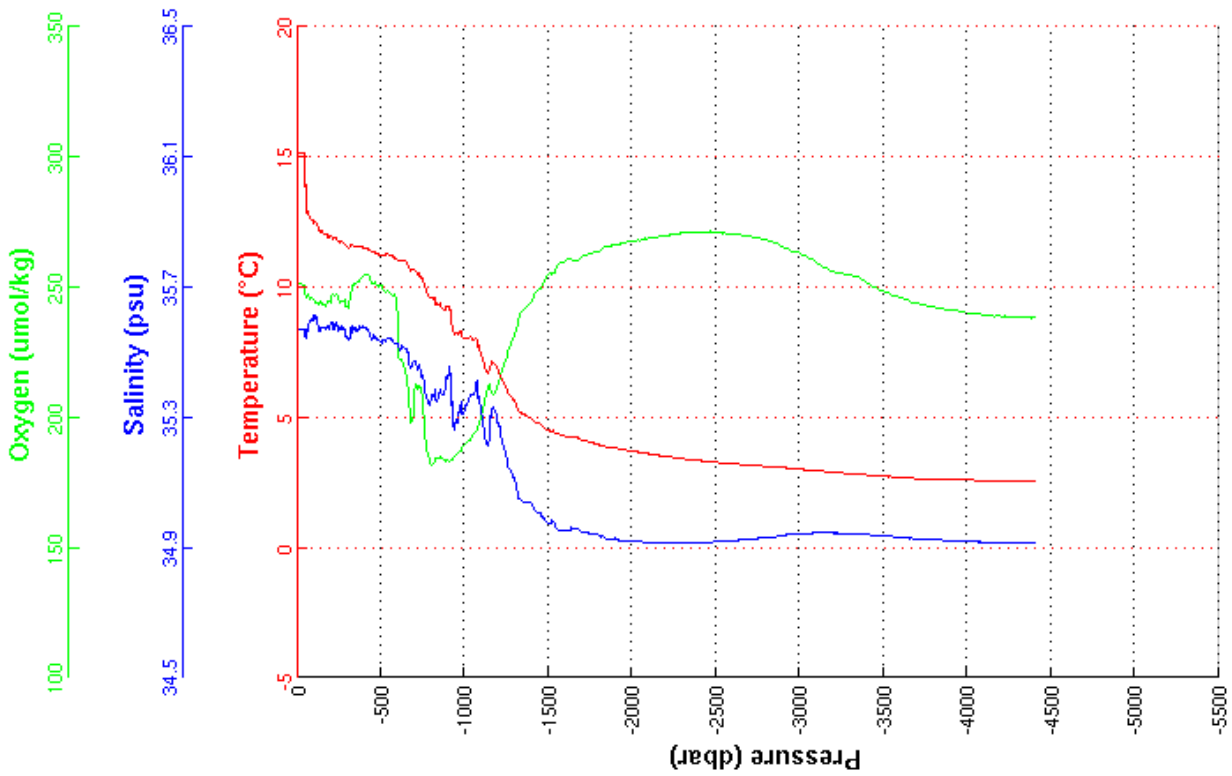
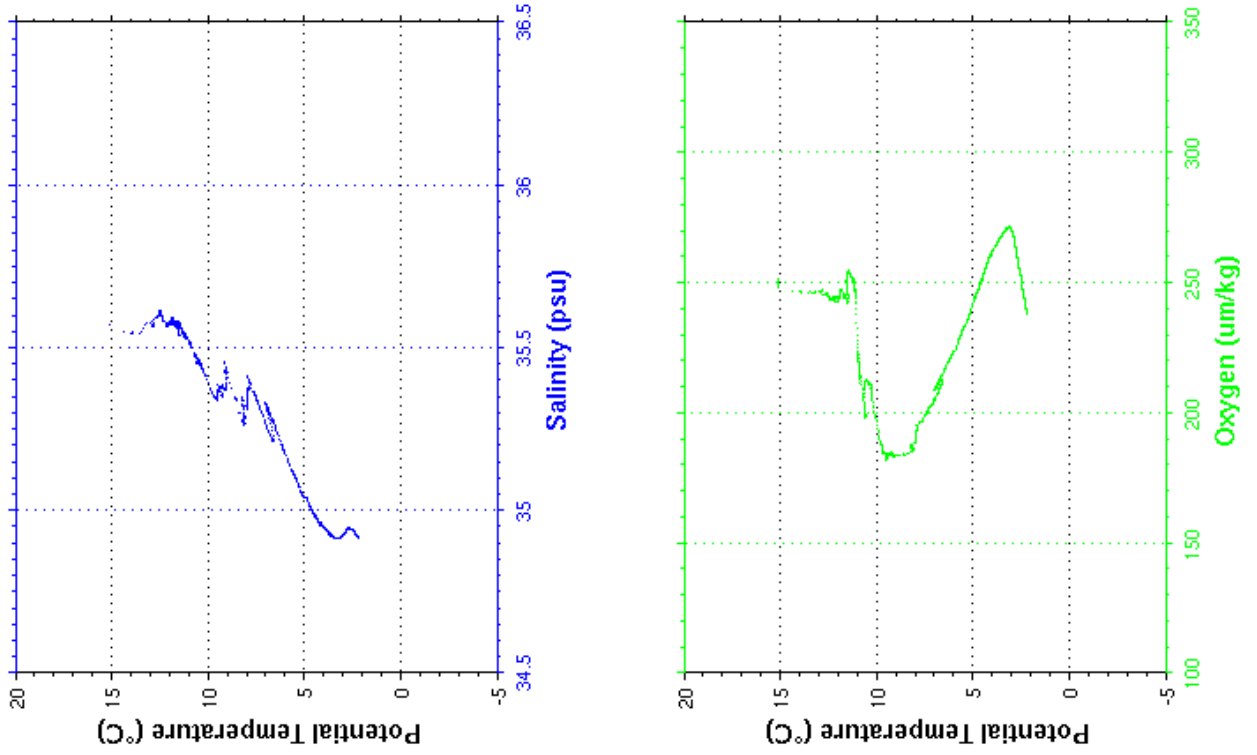
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.378	35.568	250.5	15.378	3050.0	2.849	34.944	256.6	2.597
10.0	15.378	35.569	250.4	15.376	3100.0	2.819	34.943	254.3	2.561
20.0	15.380	35.568	250.1	15.377	3150.0	2.787	34.941	254.3	2.526
30.0	15.081	35.573	245.8	15.077	3200.0	2.764	34.939	253.8	2.497
40.0	13.347	35.634	245.0	13.341	3250.0	2.733	34.937	251.9	2.462
50.0	13.104	35.657	244.0	13.097	3300.0	2.712	34.935	249.9	2.436
100.0	12.690	35.631	247.6	12.676	3350.0	2.692	34.934	248.9	2.411
150.0	12.598	35.629	244.6	12.578	3400.0	2.672	34.931	248.0	2.386
200.0	12.322	35.594	236.6	12.296	3450.0	2.648	34.929	246.7	2.358
250.0	12.115	35.596	233.1	12.082	3500.0	2.630	34.927	245.8	2.334
300.0	11.860	35.579	235.5	11.821	3550.0	2.616	34.925	244.9	2.315
350.0	11.723	35.569	239.9	11.678	3600.0	2.603	34.924	244.1	2.297
400.0	11.538	35.554	239.0	11.487	3650.0	2.589	34.922	243.5	2.278
450.0	11.346	35.535	236.7	11.289	3700.0	2.580	34.921	242.8	2.264
500.0	11.277	35.535	246.2	11.213	3750.0	2.567	34.919	242.0	2.245
550.0	11.147	35.530	239.2	11.077	3800.0	2.555	34.917	241.6	2.228
600.0	10.951	35.505	228.0	10.875	3850.0	2.553	34.917	241.2	2.220
650.0	10.916	35.524	229.2	10.834	3900.0	2.551	34.916	240.9	2.212
700.0	10.224	35.394	203.3	10.140	3950.0	2.549	34.915	240.7	2.205
750.0	9.856	35.386	195.3	9.767	4000.0	2.550	34.915	240.5	2.201
800.0	9.827	35.440	193.4	9.732	4050.0	2.550	34.914	240.8	2.194
850.0	9.461	35.432	189.2	9.362	4100.0	2.546	34.913	240.6	2.185
900.0	9.216	35.449	188.9	9.113	4150.0	2.544	34.912	240.2	2.177
950.0	8.603	35.382	191.6	8.497	4200.0	2.544	34.912	240.2	2.171
1000.0	8.134	35.352	196.1	8.026	4250.0	2.542	34.911	239.8	2.164
1050.0	7.736	35.340	202.1	7.626	4300.0	2.543	34.911	239.8	2.158
1100.0	7.465	35.345	207.4	7.351	4350.0	2.544	34.910	239.7	2.154
1150.0	7.378	35.368	210.4	7.259	4400.0	2.544	34.910	239.7	2.148
1200.0	6.791	35.287	218.1	6.672	4450.0	2.548	34.909	239.8	2.146
1250.0	6.270	35.211	226.2	6.150	4500.0	2.551	34.909	239.7	2.142
1300.0	6.148	35.210	229.0	6.024	4528.0	2.553	34.909	240.0	2.141
1350.0	5.471	35.107	239.6	5.349					
1400.0	5.217	35.083	244.9	5.093					
1450.0	4.934	35.046	249.8	4.808					
1500.0	4.606	35.001	256.6	4.479					
1550.0	4.498	34.993	258.2	4.367					
1600.0	4.332	34.974	261.9	4.198					
1650.0	4.240	34.968	263.0	4.103					
1700.0	4.175	34.968	263.2	4.034					
1750.0	4.075	34.960	264.6	3.930					
1800.0	3.976	34.953	266.0	3.828					
1850.0	3.887	34.947	266.7	3.735					
1900.0	3.807	34.940	267.7	3.652					
1950.0	3.718	34.934	269.1	3.560					
2000.0	3.624	34.926	270.9	3.462					
2050.0	3.566	34.926	271.1	3.400					
2100.0	3.507	34.923	271.9	3.338					
2150.0	3.463	34.923	272.2	3.290					
2200.0	3.399	34.919	273.0	3.222					
2250.0	3.388	34.920	273.0	3.205					
2300.0	3.389	34.933	269.6	3.202					
2350.0	3.326	34.932	269.1	3.135					
2400.0	3.261	34.928	271.0	3.066					
2450.0	3.235	34.932	269.3	3.036					
2500.0	3.195	34.932	268.8	2.992					
2550.0	3.170	34.935	268.4	2.962					
2600.0	3.128	34.937	266.9	2.916					
2650.0	3.109	34.941	264.7	2.892					
2700.0	3.081	34.943	262.9	2.859					
2750.0	3.038	34.944	261.9	2.812					
2800.0	3.010	34.944	262.3	2.780					
2850.0	2.983	34.945	261.2	2.748					
2900.0	2.939	34.946	258.4	2.700					
2950.0	2.908	34.946	257.4	2.664					
3000.0	2.862	34.944	257.3	2.614					



**Cast : 37**

Cast	: 38	Cruise	: CATARINA
Date	: 04/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 4351 m	Organism	: CSIC/IIM VIGO
Position	: N 48 24.78 W 021 8.49		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	15.134	35.571	251.6	15.134	3050.0	2.985	34.944	261.8	2.730
10.0	15.135	35.572	251.6	15.133	3100.0	2.958	34.945	260.0	2.698
20.0	15.135	35.572	251.4	15.132	3150.0	2.927	34.945	258.0	2.662
30.0	15.136	35.572	250.9	15.131	3200.0	2.895	34.945	256.1	2.625
40.0	15.137	35.572	250.7	15.131	3250.0	2.867	34.944	255.7	2.593
50.0	13.974	35.544	246.1	13.967	3300.0	2.846	34.943	254.8	2.567
100.0	12.536	35.614	245.1	12.523	3350.0	2.822	34.942	254.3	2.538
150.0	12.143	35.575	243.0	12.123	3400.0	2.788	34.940	252.3	2.499
200.0	11.943	35.589	245.2	11.916	3450.0	2.764	34.938	250.3	2.470
250.0	11.736	35.566	244.1	11.703	3500.0	2.735	34.936	248.5	2.437
300.0	11.534	35.539	241.6	11.495	3550.0	2.717	34.934	247.5	2.413
350.0	11.587	35.574	251.9	11.542	3600.0	2.694	34.932	246.0	2.386
400.0	11.529	35.576	254.3	11.477	3650.0	2.670	34.929	245.2	2.357
450.0	11.377	35.551	252.4	11.319	3700.0	2.654	34.927	244.4	2.336
500.0	11.242	35.529	251.5	11.178	3750.0	2.638	34.925	243.4	2.314
550.0	11.240	35.541	247.7	11.169	3800.0	2.627	34.924	242.7	2.298
600.0	11.088	35.520	230.5	11.012	3850.0	2.620	34.923	242.0	2.286
650.0	10.983	35.513	216.7	10.901	3900.0	2.611	34.922	241.3	2.271
700.0	10.686	35.476	210.6	10.599	3950.0	2.602	34.920	241.1	2.256
750.0	10.321	35.428	207.2	10.229	4000.0	2.597	34.919	240.3	2.246
800.0	9.614	35.357	182.1	9.520	4050.0	2.587	34.918	240.0	2.231
850.0	9.403	35.382	184.4	9.304	4100.0	2.582	34.917	239.6	2.219
900.0	9.174	35.423	183.5	9.070	4150.0	2.578	34.916	239.3	2.210
950.0	8.241	35.291	186.2	8.139	4200.0	2.577	34.915	239.0	2.203
1000.0	8.038	35.323	190.2	7.931	4250.0	2.577	34.915	238.9	2.197
1050.0	8.006	35.376	193.9	7.893	4300.0	2.574	34.914	238.7	2.188
1100.0	7.429	35.318	201.3	7.315	4350.0	2.573	34.913	238.7	2.181
1150.0	6.857	35.268	212.0	6.743	4400.0	2.571	34.912	238.4	2.174
1200.0	6.791	35.280	213.6	6.671	4407.0	2.571	34.912	238.6	2.173
1250.0	6.153	35.179	222.9	6.034					
1300.0	5.589	35.102	232.9	5.471					
1350.0	5.123	35.040	242.0	5.004					
1400.0	4.972	35.034	245.2	4.850					
1450.0	4.759	35.007	250.0	4.635					
1500.0	4.528	34.977	254.6	4.402					
1550.0	4.360	34.959	258.7	4.231					
1600.0	4.269	34.952	260.6	4.137					
1650.0	4.276	34.963	259.9	4.139					
1700.0	4.127	34.948	262.2	3.987					
1750.0	4.058	34.944	263.1	3.914					
1800.0	3.968	34.938	264.2	3.821					
1850.0	3.857	34.928	265.9	3.706					
1900.0	3.827	34.928	266.6	3.672					
1950.0	3.754	34.922	267.2	3.595					
2000.0	3.698	34.919	268.1	3.535					
2050.0	3.658	34.918	268.6	3.491					
2100.0	3.603	34.916	269.3	3.432					
2150.0	3.547	34.915	269.4	3.372					
2200.0	3.505	34.914	269.5	3.326					
2250.0	3.462	34.914	270.5	3.279					
2300.0	3.416	34.913	271.2	3.229					
2350.0	3.374	34.913	271.6	3.182					
2400.0	3.345	34.914	271.5	3.148					
2450.0	3.305	34.916	271.6	3.105					
2500.0	3.270	34.918	271.1	3.065					
2550.0	3.237	34.919	271.2	3.027					
2600.0	3.221	34.921	270.8	3.007					
2650.0	3.195	34.923	270.3	2.976					
2700.0	3.181	34.925	269.9	2.957					
2750.0	3.150	34.928	269.3	2.922					
2800.0	3.120	34.931	268.2	2.888					
2850.0	3.105	34.933	267.3	2.868					
2900.0	3.071	34.938	265.9	2.829					
2950.0	3.037	34.941	264.2	2.791					
3000.0	3.017	34.942	263.1	2.766					



**Cast : 38**

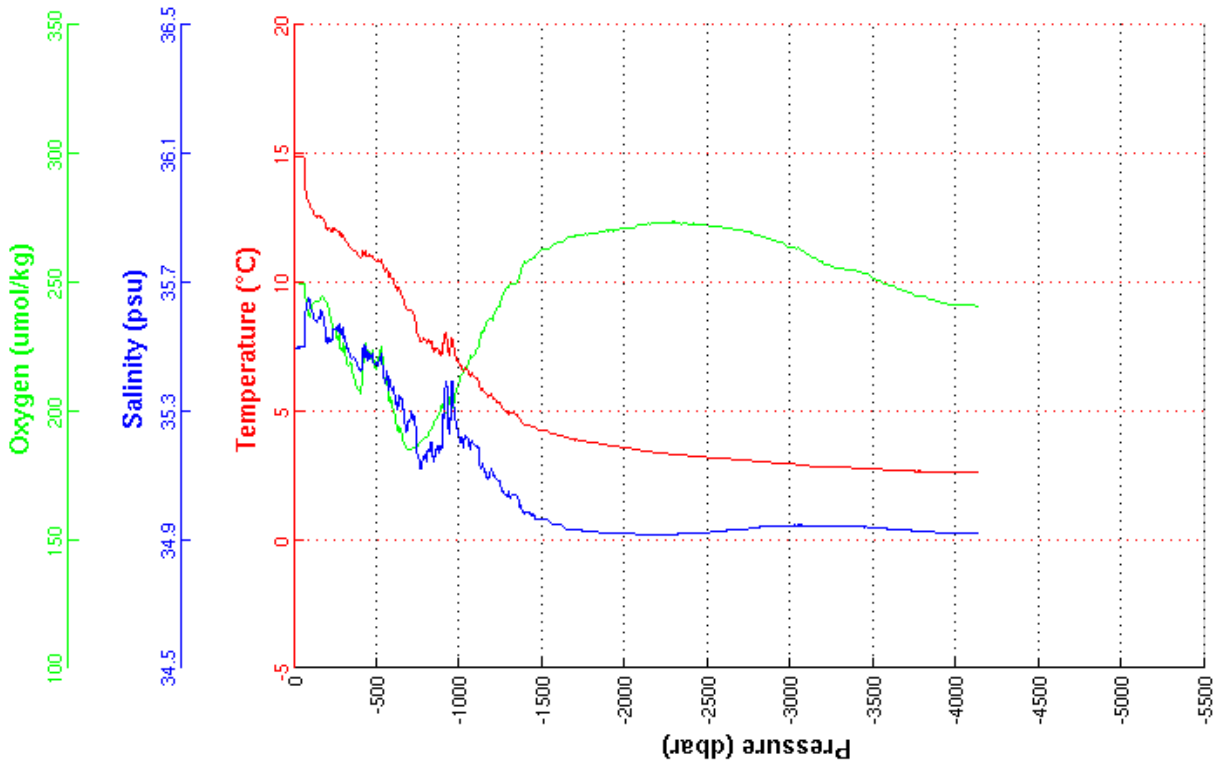
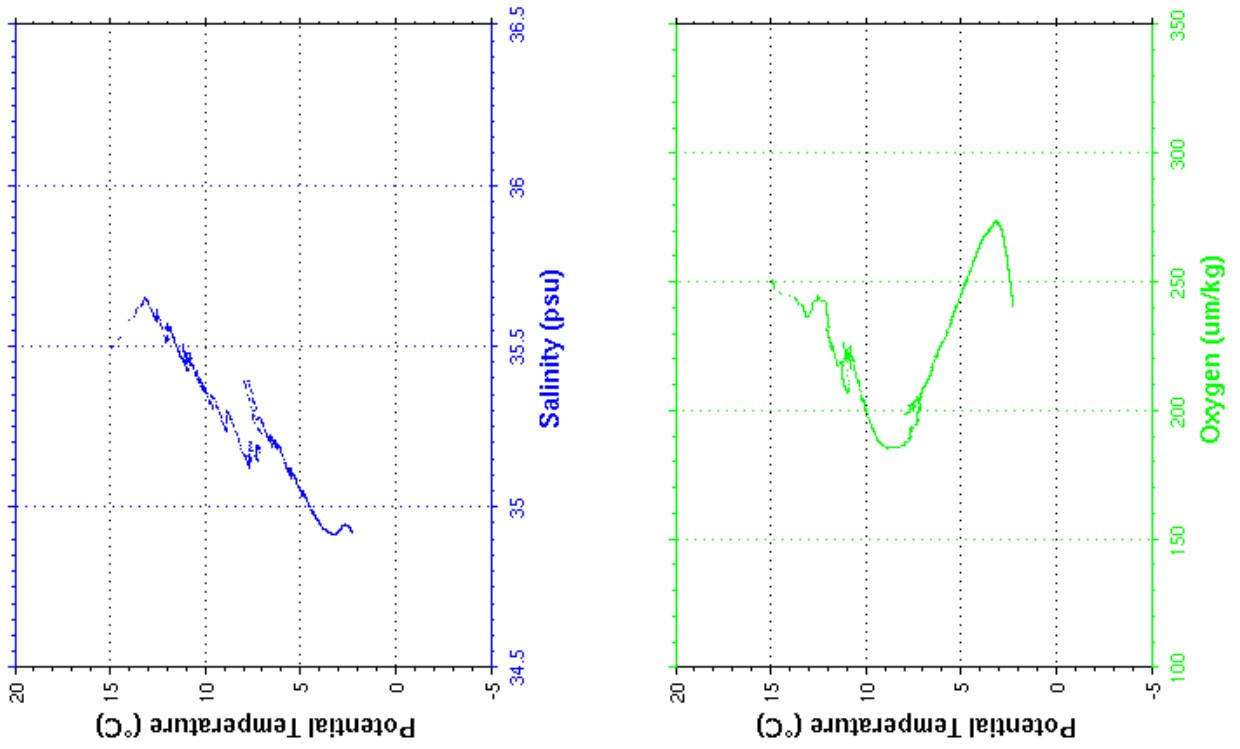
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Cast       : 39           Cruise    : CATARINA
Date       : 05/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4086 m      Organism  : CSIC/IIM VIGO
Position   : N 48 47.20
            W 021 25.83
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.878	35.496	251.2	14.878	3050.0	2.912	34.945	263.5	2.657
10.0	14.878	35.496	250.8	14.877	3100.0	2.876	34.944	261.4	2.617
20.0	14.880	35.496	249.9	14.877	3150.0	2.852	34.943	259.6	2.588
30.0	14.882	35.497	250.1	14.877	3200.0	2.833	34.943	257.4	2.565
40.0	14.881	35.499	249.8	14.875	3250.0	2.813	34.942	256.3	2.540
50.0	14.883	35.498	249.7	14.875	3300.0	2.805	34.942	255.8	2.527
100.0	12.978	35.631	237.0	12.964	3350.0	2.796	34.941	255.2	2.512
150.0	12.542	35.589	243.6	12.521	3400.0	2.777	34.940	254.6	2.489
200.0	12.101	35.517	242.0	12.074	3450.0	2.767	34.939	253.7	2.473
250.0	12.072	35.561	231.4	12.039	3500.0	2.741	34.937	252.0	2.443
300.0	11.800	35.546	225.9	11.761	3550.0	2.724	34.935	250.3	2.420
350.0	11.274	35.459	217.2	11.230	3600.0	2.712	34.933	249.1	2.403
400.0	10.987	35.426	206.8	10.937	3650.0	2.692	34.931	247.9	2.378
450.0	11.110	35.481	223.8	11.054	3700.0	2.679	34.930	246.6	2.360
500.0	10.845	35.448	218.4	10.783	3750.0	2.657	34.927	245.4	2.333
550.0	10.423	35.385	210.0	10.356	3800.0	2.651	34.926	244.6	2.321
600.0	10.097	35.360	200.5	10.025	3850.0	2.635	34.924	243.7	2.300
650.0	9.601	35.338	191.5	9.525	3900.0	2.615	34.922	242.6	2.275
700.0	8.930	35.272	185.1	8.852	3950.0	2.609	34.921	241.8	2.263
750.0	7.997	35.160	187.6	7.918	4000.0	2.602	34.920	241.3	2.251
800.0	7.696	35.150	189.9	7.613	4050.0	2.610	34.920	241.3	2.253
850.0	7.359	35.157	196.8	7.273	4100.0	2.612	34.919	241.1	2.249
900.0	7.590	35.283	200.8	7.497	4133.0	2.608	34.919	241.1	2.242
950.0	7.577	35.325	202.7	7.479					
1000.0	6.822	35.220	212.1	6.724					
1050.0	6.612	35.217	217.9	6.510					
1100.0	6.270	35.192	223.9	6.166					
1150.0	5.708	35.108	233.0	5.604					
1200.0	5.596	35.112	235.9	5.488					
1250.0	5.192	35.061	243.3	5.083					
1300.0	4.965	35.041	248.4	4.853					
1350.0	4.835	35.033	250.8	4.720					
1400.0	4.469	34.983	258.0	4.353					
1450.0	4.376	34.976	259.6	4.256					
1500.0	4.240	34.959	262.7	4.118					
1550.0	4.158	34.953	264.3	4.032					
1600.0	4.072	34.946	265.6	3.942					
1650.0	3.956	34.933	267.5	3.823					
1700.0	3.889	34.930	268.3	3.751					
1750.0	3.823	34.928	269.0	3.682					
1800.0	3.793	34.927	269.2	3.648					
1850.0	3.720	34.922	269.8	3.571					
1900.0	3.667	34.919	270.2	3.514					
1950.0	3.627	34.919	270.5	3.470					
2000.0	3.564	34.918	271.3	3.403					
2050.0	3.527	34.918	271.5	3.362					
2100.0	3.455	34.914	272.8	3.286					
2150.0	3.415	34.913	273.0	3.242					
2200.0	3.367	34.914	273.5	3.190					
2250.0	3.340	34.915	273.6	3.159					
2300.0	3.315	34.916	273.8	3.129					
2350.0	3.280	34.918	273.1	3.090					
2400.0	3.254	34.919	272.9	3.060					
2450.0	3.230	34.920	272.9	3.030					
2500.0	3.196	34.922	272.4	2.992					
2550.0	3.173	34.924	272.0	2.965					
2600.0	3.140	34.926	271.5	2.927					
2650.0	3.121	34.930	271.0	2.904					
2700.0	3.102	34.932	270.6	2.881					
2750.0	3.071	34.934	269.3	2.845					
2800.0	3.043	34.937	268.7	2.813					
2850.0	3.008	34.940	267.6	2.773					
2900.0	2.986	34.941	266.3	2.746					
2950.0	2.971	34.943	265.6	2.726					
3000.0	2.938	34.944	263.9	2.689					





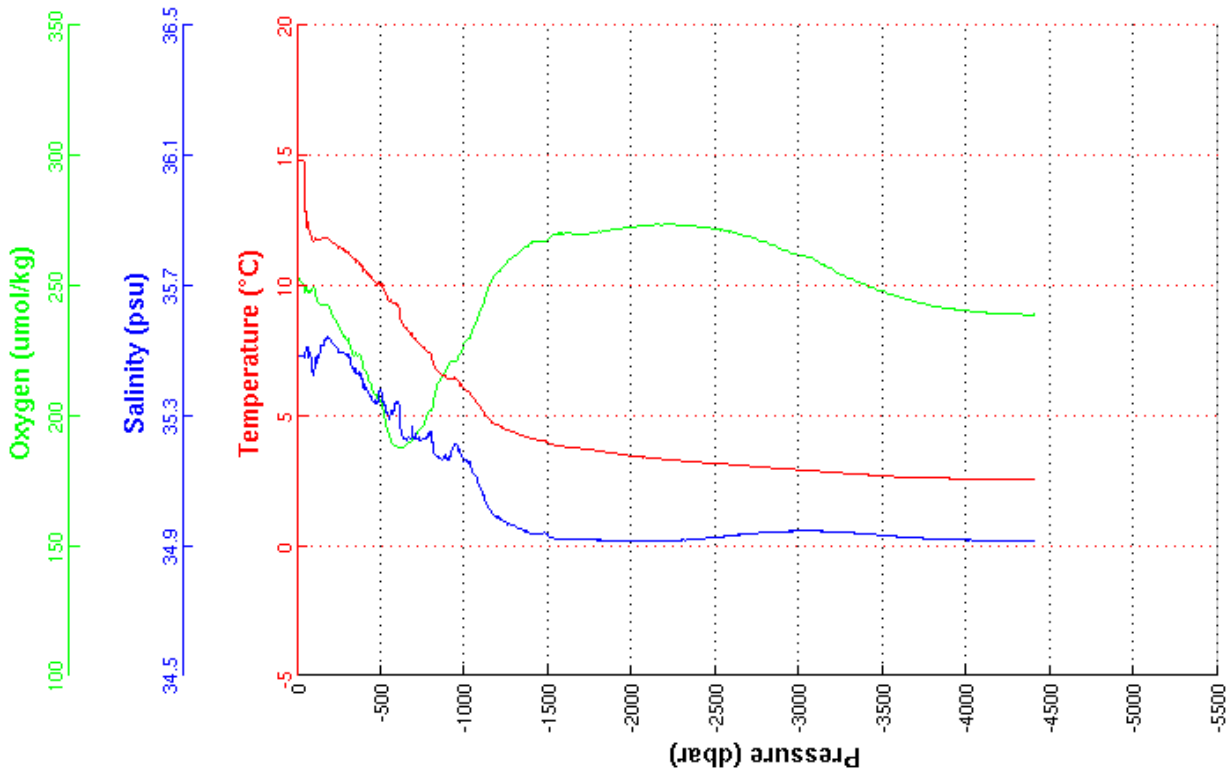
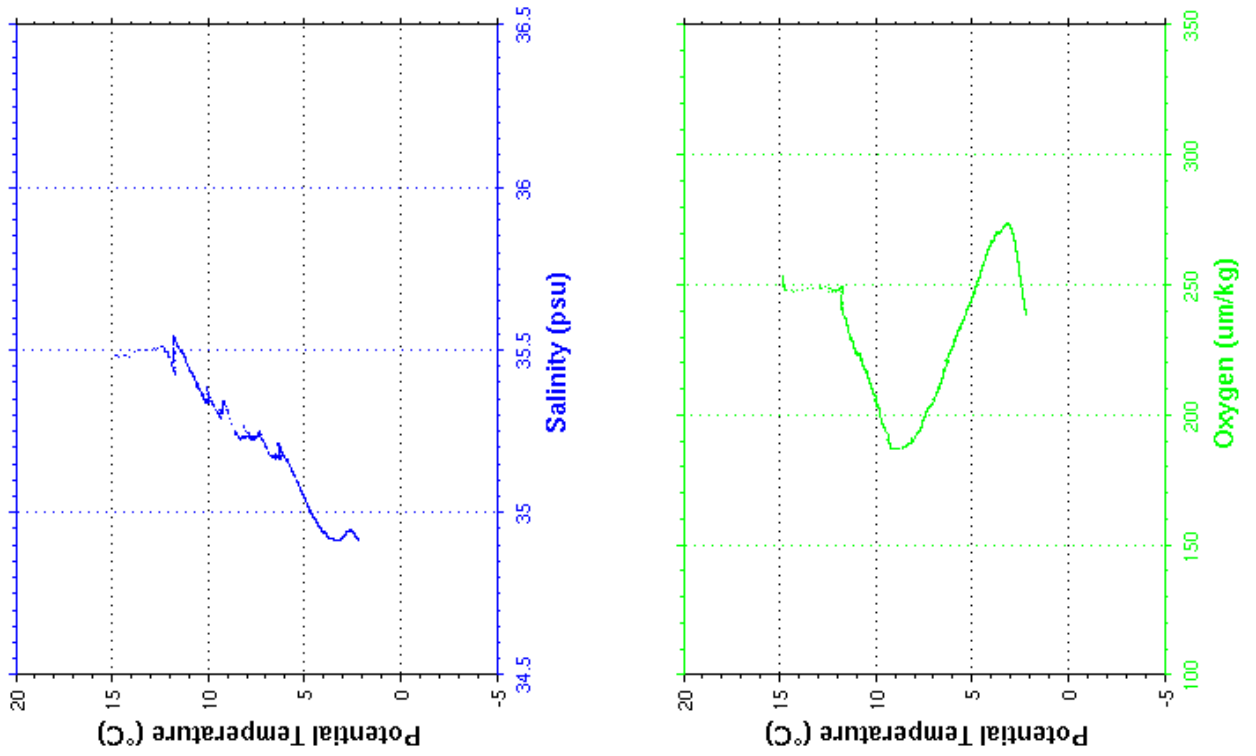
**Cast : 39**

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Cast       : 40           Cruise    : CATARINA
Date       : 05/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4355 m      Organism  : CSIC/IIM VIGO
Position   : N 49  9.53
            W 021 43.59
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.837	35.485	253.6	14.837	3050.0	2.893	34.945	261.1	2.639
10.0	14.838	35.485	252.5	14.836	3100.0	2.871	34.945	259.9	2.613
20.0	14.823	35.484	251.7	14.820	3150.0	2.847	34.944	258.1	2.584
30.0	14.814	35.485	250.8	14.810	3200.0	2.821	34.943	256.5	2.553
40.0	14.788	35.484	250.1	14.782	3250.0	2.799	34.942	254.5	2.526
50.0	13.524	35.498	249.2	13.517	3300.0	2.773	34.940	253.1	2.495
100.0	11.701	35.424	249.5	11.689	3350.0	2.750	34.938	251.9	2.467
150.0	11.841	35.519	242.9	11.821	3400.0	2.728	34.937	250.5	2.441
200.0	11.734	35.527	239.6	11.708	3450.0	2.707	34.934	249.3	2.415
250.0	11.472	35.497	233.9	11.440	3500.0	2.682	34.932	248.0	2.385
300.0	11.304	35.489	229.5	11.266	3550.0	2.663	34.930	246.9	2.361
350.0	11.012	35.445	224.3	10.968	3600.0	2.649	34.928	245.8	2.341
400.0	10.569	35.381	217.2	10.521	3650.0	2.632	34.926	244.9	2.319
450.0	10.233	35.346	210.1	10.179	3700.0	2.620	34.924	243.7	2.302
500.0	10.086	35.376	205.6	10.027	3750.0	2.609	34.923	243.2	2.286
550.0	9.408	35.291	191.7	9.345	3800.0	2.598	34.921	242.4	2.270
600.0	9.291	35.345	187.8	9.222	3850.0	2.592	34.920	241.9	2.259
650.0	8.358	35.225	189.3	8.288	3900.0	2.588	34.919	241.4	2.249
700.0	7.945	35.228	192.5	7.872	3950.0	2.585	34.919	241.0	2.240
750.0	7.691	35.234	196.4	7.614	4000.0	2.580	34.917	240.6	2.229
800.0	7.388	35.247	202.5	7.307	4050.0	2.579	34.917	240.3	2.223
850.0	6.649	35.172	213.8	6.568	4100.0	2.578	34.916	240.1	2.215
900.0	6.403	35.165	219.9	6.318	4150.0	2.576	34.915	239.6	2.209
950.0	6.434	35.210	221.2	6.344	4200.0	2.578	34.915	239.5	2.204
1000.0	6.003	35.160	228.8	5.911	4250.0	2.583	34.915	239.4	2.203
1050.0	5.728	35.127	233.6	5.633	4300.0	2.587	34.915	239.2	2.201
1100.0	5.293	35.073	241.5	5.197	4350.0	2.581	34.914	239.0	2.189
1150.0	4.829	35.010	251.3	4.732	4400.0	2.586	34.913	239.0	2.188
1200.0	4.621	34.987	255.8	4.522	4411.0	2.586	34.913	239.2	2.187
1250.0	4.466	34.969	259.0	4.363					
1300.0	4.355	34.960	261.8	4.249					
1350.0	4.220	34.947	264.6	4.111					
1400.0	4.111	34.936	267.2	3.998					
1450.0	4.056	34.937	267.1	3.940					
1500.0	3.983	34.932	267.8	3.863					
1550.0	3.866	34.921	269.9	3.742					
1600.0	3.808	34.920	270.4	3.681					
1650.0	3.776	34.921	270.2	3.645					
1700.0	3.729	34.920	270.1	3.594					
1750.0	3.691	34.919	270.4	3.552					
1800.0	3.646	34.917	271.1	3.503					
1850.0	3.601	34.916	271.3	3.453					
1900.0	3.548	34.915	271.9	3.397					
1950.0	3.489	34.914	272.6	3.334					
2000.0	3.444	34.913	273.2	3.285					
2050.0	3.418	34.913	273.1	3.255					
2100.0	3.382	34.913	273.5	3.215					
2150.0	3.350	34.913	273.9	3.178					
2200.0	3.321	34.914	273.8	3.145					
2250.0	3.289	34.915	273.8	3.108					
2300.0	3.263	34.917	273.5	3.078					
2350.0	3.236	34.918	273.6	3.046					
2400.0	3.217	34.921	272.5	3.023					
2450.0	3.181	34.923	272.6	2.983					
2500.0	3.162	34.927	271.9	2.959					
2550.0	3.140	34.928	271.4	2.932					
2600.0	3.112	34.931	271.1	2.900					
2650.0	3.087	34.934	269.9	2.871					
2700.0	3.062	34.936	269.3	2.841					
2750.0	3.038	34.939	268.1	2.812					
2800.0	3.007	34.941	266.9	2.777					
2850.0	2.983	34.942	265.8	2.748					
2900.0	2.957	34.944	264.1	2.718					
2950.0	2.935	34.944	262.7	2.690					
3000.0	2.915	34.945	261.9	2.666					



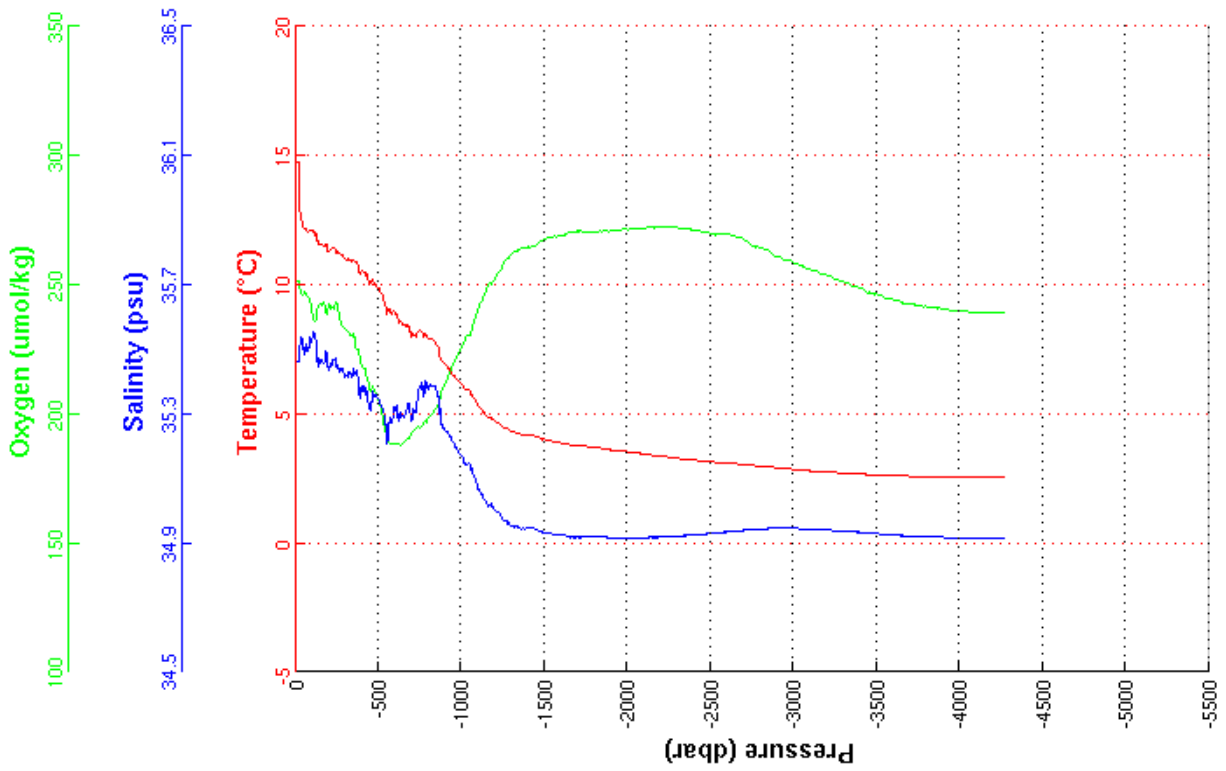
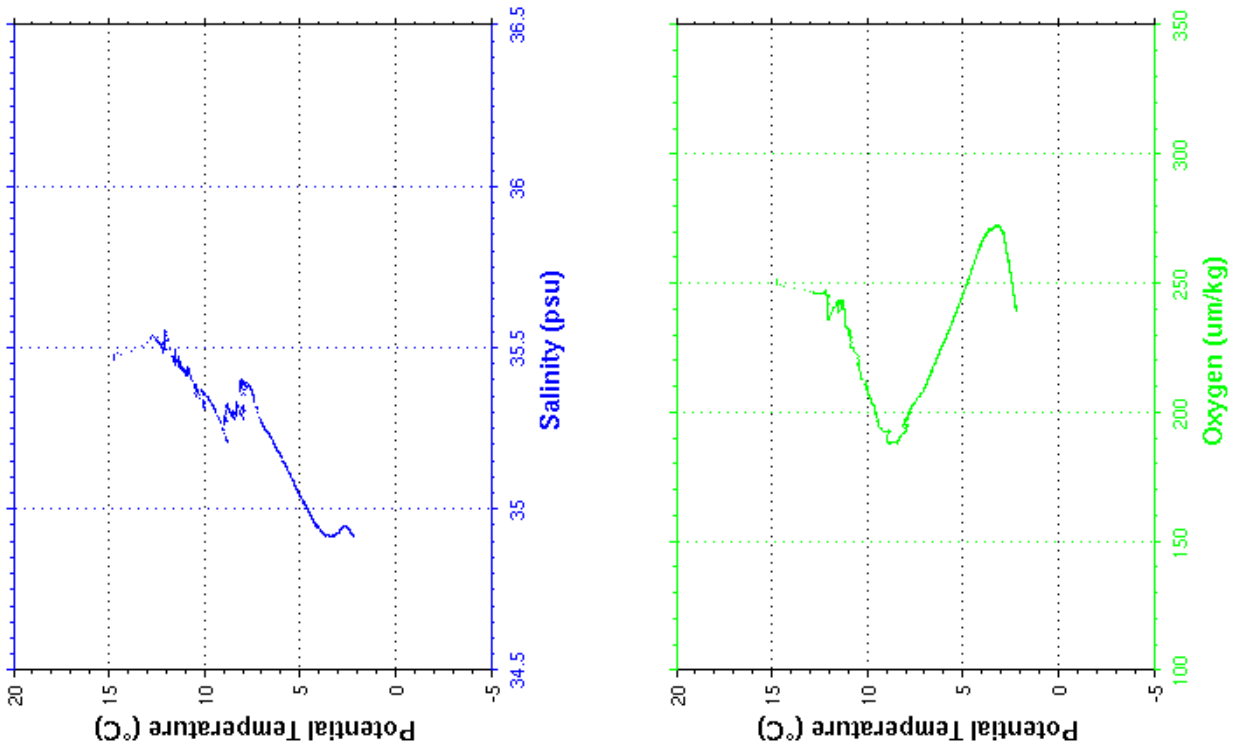
**Cast : 40**

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Cast       : 41           Cruise    : CATARINA
Date       : 05/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 4205 m      Organism  : CSIC/IIM VIGO
Position   : N 49 31.85
            W 022 0.99
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.777	35.461	251.6	14.777	3050.0	2.822	34.944	257.3	2.570
10.0	14.776	35.463	251.7	14.775	3100.0	2.798	34.943	256.2	2.541
20.0	14.773	35.463	251.6	14.770	3150.0	2.772	34.942	255.1	2.510
30.0	12.992	35.514	245.3	12.988	3200.0	2.755	34.940	254.0	2.488
40.0	12.431	35.523	245.7	12.426	3250.0	2.733	34.938	252.9	2.462
50.0	12.256	35.502	247.0	12.249	3300.0	2.712	34.936	251.1	2.436
100.0	12.064	35.526	240.6	12.051	3350.0	2.695	34.934	250.1	2.414
150.0	11.585	35.467	242.5	11.566	3400.0	2.686	34.933	249.1	2.400
200.0	11.356	35.444	242.1	11.331	3450.0	2.650	34.930	247.4	2.359
250.0	11.270	35.445	242.5	11.238	3500.0	2.642	34.928	246.7	2.346
300.0	11.015	35.415	233.2	10.978	3550.0	2.624	34.926	245.4	2.323
350.0	10.934	35.432	231.3	10.891	3600.0	2.613	34.925	244.6	2.307
400.0	10.569	35.388	218.5	10.520	3650.0	2.597	34.923	243.5	2.286
450.0	10.086	35.321	208.8	10.032	3700.0	2.587	34.921	242.8	2.270
500.0	9.858	35.345	205.1	9.799	3750.0	2.582	34.920	242.2	2.260
550.0	9.067	35.243	193.3	9.006	3800.0	2.580	34.920	241.7	2.252
600.0	8.901	35.313	188.2	8.835	3850.0	2.573	34.919	241.4	2.240
650.0	8.464	35.298	189.2	8.394	3900.0	2.568	34.918	240.8	2.229
700.0	8.034	35.279	193.3	7.960	3950.0	2.562	34.916	240.2	2.217
750.0	8.234	35.386	194.7	8.154	4000.0	2.562	34.916	240.0	2.212
800.0	7.948	35.382	199.1	7.864	4050.0	2.559	34.915	239.8	2.203
850.0	7.708	35.378	202.8	7.620	4100.0	2.557	34.914	239.5	2.196
900.0	6.941	35.249	212.2	6.852	4150.0	2.559	34.914	239.6	2.192
950.0	6.514	35.212	219.7	6.424	4200.0	2.563	34.914	239.5	2.190
1000.0	6.144	35.169	226.3	6.051	4250.0	2.569	34.914	239.3	2.190
1050.0	5.895	35.144	230.7	5.799	4270.0	2.571	34.913	239.6	2.189
1100.0	5.335	35.071	241.3	5.239					
1150.0	4.944	35.024	248.9	4.847					
1200.0	4.729	35.004	252.9	4.628					
1250.0	4.519	34.976	258.2	4.416					
1300.0	4.305	34.954	262.8	4.200					
1350.0	4.227	34.947	264.2	4.118					
1400.0	4.187	34.947	265.0	4.074					
1450.0	4.119	34.942	265.8	4.002					
1500.0	3.997	34.931	267.8	3.876					
1550.0	3.926	34.927	269.2	3.802					
1600.0	3.872	34.924	269.7	3.744					
1650.0	3.813	34.921	270.3	3.682					
1700.0	3.751	34.917	270.9	3.616					
1750.0	3.743	34.919	270.5	3.604					
1800.0	3.701	34.918	270.9	3.557					
1850.0	3.660	34.918	271.1	3.512					
1900.0	3.606	34.917	271.2	3.453					
1950.0	3.571	34.916	271.6	3.415					
2000.0	3.532	34.916	271.8	3.371					
2050.0	3.498	34.916	272.1	3.333					
2100.0	3.453	34.917	272.2	3.284					
2150.0	3.394	34.917	272.5	3.221					
2200.0	3.367	34.918	272.9	3.190					
2250.0	3.322	34.919	272.4	3.141					
2300.0	3.276	34.921	272.0	3.091					
2350.0	3.251	34.923	271.8	3.061					
2400.0	3.215	34.925	271.3	3.021					
2450.0	3.183	34.927	270.8	2.985					
2500.0	3.146	34.930	270.2	2.944					
2550.0	3.112	34.932	270.1	2.905					
2600.0	3.086	34.934	270.0	2.875					
2650.0	3.066	34.936	268.8	2.850					
2700.0	3.035	34.939	268.1	2.814					
2750.0	3.001	34.942	265.4	2.776					
2800.0	2.971	34.943	264.7	2.742					
2850.0	2.949	34.945	263.5	2.715					
2900.0	2.913	34.945	261.4	2.674					
2950.0	2.887	34.945	259.9	2.644					
3000.0	2.850	34.945	258.9	2.602					



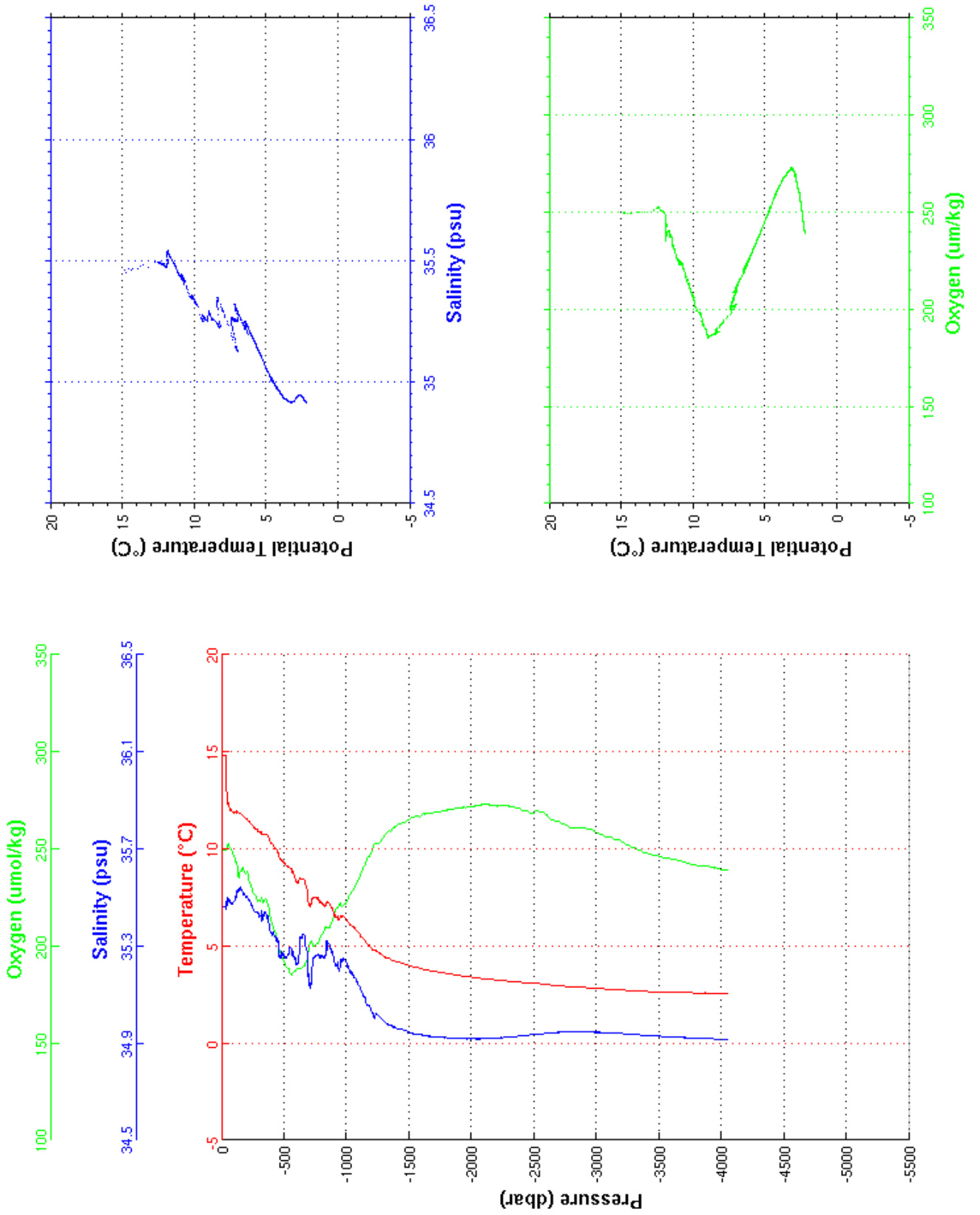
**Cast : 41**

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Cast      : 42          Cruise   : CATARINA
Date      : 06/07/2012 Ship     : R/V Sarmiento de Gamboa
Depth     : 4000 m    Organism : CSIC/IIM VIGO
Position  : N 49 54.25
           W 022 18.70
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.844	35.464	250.3	14.844	3050.0	2.800	34.944	257.6	2.548
10.0	14.844	35.464	250.3	14.842	3100.0	2.775	34.942	256.4	2.519
20.0	14.845	35.464	249.7	14.842	3150.0	2.762	34.941	255.2	2.501
30.0	14.837	35.464	249.5	14.833	3200.0	2.746	34.940	254.2	2.480
40.0	13.958	35.465	246.2	13.953	3250.0	2.711	34.937	252.2	2.441
50.0	12.338	35.490	254.2	12.332	3300.0	2.696	34.936	250.8	2.420
100.0	11.873	35.487	245.4	11.860	3350.0	2.674	34.933	249.5	2.393
150.0	11.849	35.534	239.0	11.829	3400.0	2.657	34.931	248.1	2.371
200.0	11.542	35.503	239.4	11.517	3450.0	2.646	34.929	247.1	2.355
250.0	11.158	35.452	226.7	11.127	3500.0	2.639	34.928	246.5	2.343
300.0	10.894	35.427	223.9	10.857	3550.0	2.631	34.927	245.7	2.329
350.0	10.818	35.437	224.6	10.775	3600.0	2.620	34.925	245.0	2.314
400.0	10.270	35.349	212.1	10.222	3650.0	2.618	34.925	244.3	2.306
450.0	9.842	35.318	201.5	9.790	3700.0	2.605	34.923	243.4	2.288
500.0	9.261	35.256	191.6	9.205	3750.0	2.592	34.921	242.2	2.269
550.0	9.062	35.296	185.2	9.001	3800.0	2.585	34.920	241.8	2.257
600.0	8.274	35.226	188.8	8.210	3850.0	2.583	34.919	241.6	2.250
650.0	8.439	35.345	189.5	8.369	3900.0	2.579	34.918	241.2	2.240
700.0	7.195	35.148	201.0	7.126	3950.0	2.569	34.917	240.6	2.225
750.0	7.495	35.256	201.0	7.419	4000.0	2.556	34.915	239.7	2.206
800.0	7.240	35.258	206.2	7.160	4050.0	2.553	34.914	239.5	2.198
850.0	7.229	35.312	208.9	7.144	4055.0	2.554	34.914	239.6	2.198
900.0	6.705	35.244	216.8	6.618					
950.0	6.451	35.222	221.9	6.360					
1000.0	6.354	35.228	223.4	6.259					
1050.0	6.029	35.184	229.0	5.932					
1100.0	5.671	35.138	235.2	5.572					
1150.0	5.248	35.080	242.3	5.147					
1200.0	4.861	35.027	249.7	4.760					
1250.0	4.692	35.013	253.1	4.588					
1300.0	4.459	34.987	257.4	4.352					
1350.0	4.337	34.978	259.7	4.227					
1400.0	4.186	34.962	262.5	4.073					
1450.0	4.089	34.954	263.8	3.972					
1500.0	3.967	34.942	266.0	3.847					
1550.0	3.902	34.938	267.1	3.779					
1600.0	3.833	34.934	267.8	3.705					
1650.0	3.743	34.928	268.9	3.612					
1700.0	3.705	34.927	269.3	3.570					
1750.0	3.646	34.924	269.8	3.507					
1800.0	3.590	34.922	270.4	3.448					
1850.0	3.533	34.920	270.8	3.386					
1900.0	3.487	34.919	271.3	3.337					
1950.0	3.445	34.918	271.6	3.291					
2000.0	3.398	34.917	272.1	3.240					
2050.0	3.346	34.917	273.1	3.184					
2100.0	3.319	34.918	273.3	3.152					
2150.0	3.282	34.919	273.0	3.111					
2200.0	3.252	34.921	272.2	3.077					
2250.0	3.216	34.923	272.2	3.037					
2300.0	3.195	34.925	272.4	3.011					
2350.0	3.163	34.928	271.6	2.975					
2400.0	3.133	34.931	270.6	2.941					
2450.0	3.116	34.933	269.3	2.919					
2500.0	3.082	34.936	269.3	2.881					
2550.0	3.060	34.938	269.4	2.854					
2600.0	3.029	34.941	268.1	2.819					
2650.0	2.983	34.942	265.1	2.768					
2700.0	2.946	34.944	264.3	2.727					
2750.0	2.920	34.945	262.6	2.697					
2800.0	2.893	34.945	261.1	2.665					
2850.0	2.872	34.945	261.1	2.639					
2900.0	2.865	34.946	261.3	2.628					
2950.0	2.847	34.945	260.3	2.605					
3000.0	2.816	34.945	258.1	2.569					



**Cast : 42**

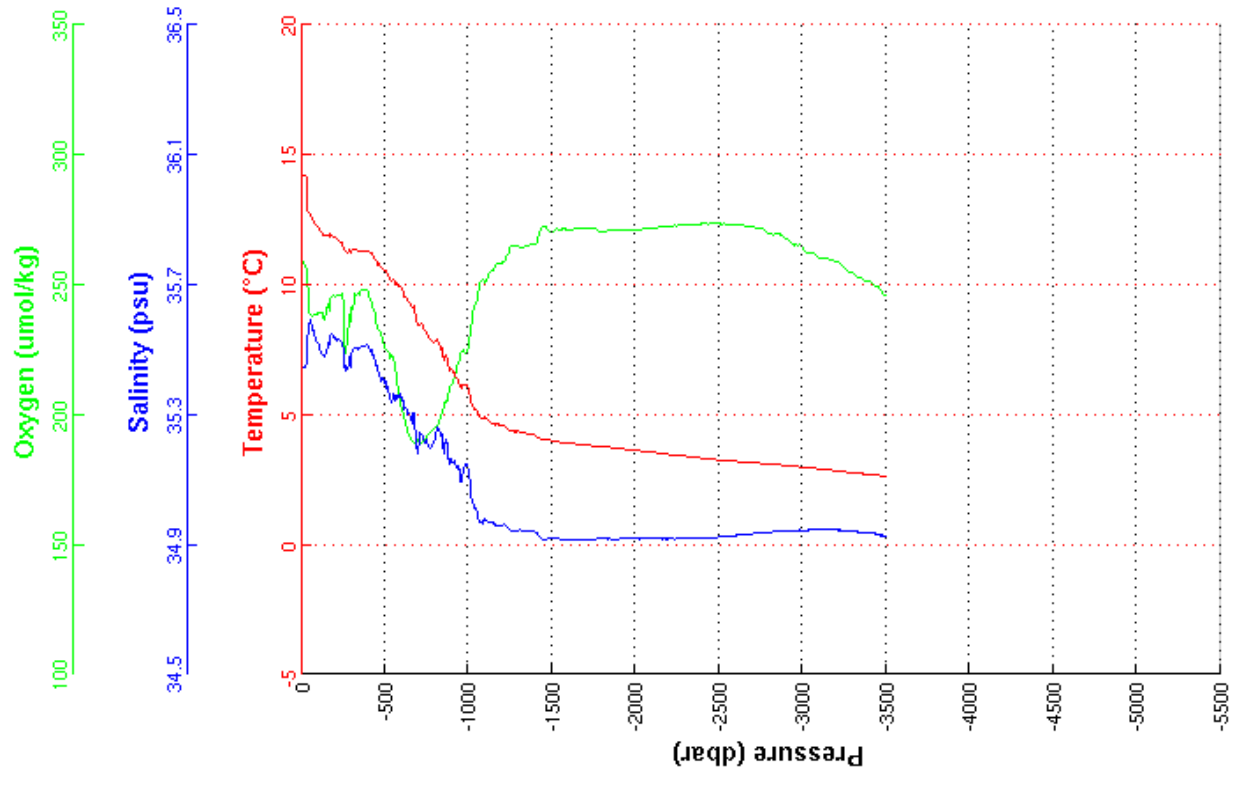
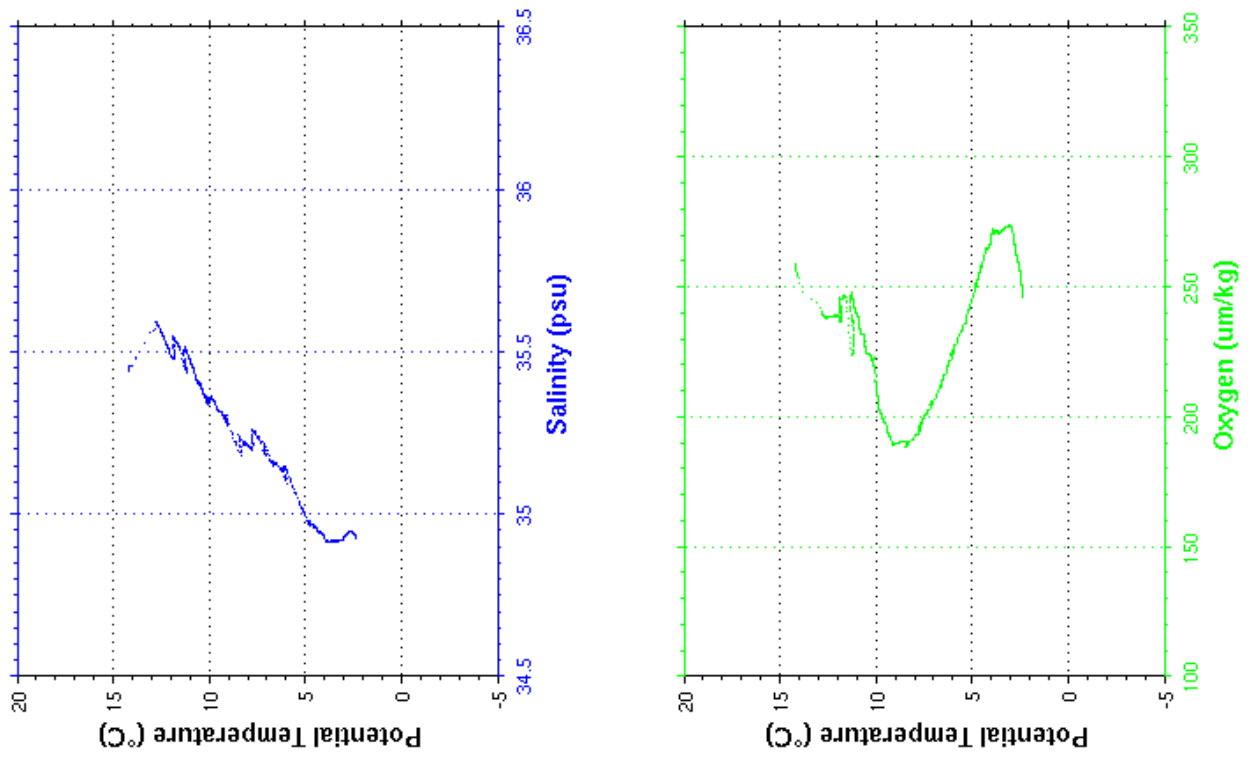
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Cast      : 43           Cruise   : CATARINA
Date      : 06/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3460 m      Organism : CSIC/IIM VIGO
Position  : N 50 24.23
           W 022 42.18
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.210	35.441	258.8	14.210	3050.0	2.952	34.945	262.5	2.697
10.0	14.210	35.441	258.8	14.208	3100.0	2.909	34.945	260.5	2.649
20.0	14.199	35.445	257.7	14.196	3150.0	2.872	34.946	260.1	2.608
30.0	14.161	35.457	256.4	14.157	3200.0	2.846	34.945	259.1	2.577
40.0	13.048	35.558	244.2	13.043	3250.0	2.799	34.943	256.9	2.526
50.0	12.725	35.590	239.2	12.718	3300.0	2.758	34.940	254.8	2.481
100.0	12.195	35.517	239.2	12.182	3350.0	2.732	34.938	253.1	2.450
150.0	11.845	35.498	240.9	11.826	3400.0	2.720	34.936	251.5	2.433
200.0	11.829	35.535	245.6	11.803	3450.0	2.686	34.933	249.5	2.394
250.0	11.557	35.506	243.5	11.525	3500.0	2.628	34.927	246.1	2.332
300.0	11.348	35.489	242.1	11.310	3506.0	2.629	34.927	246.1	2.332
350.0	11.314	35.507	247.8	11.269					
400.0	11.276	35.509	246.6	11.225					
450.0	10.921	35.455	234.6	10.865					
500.0	10.548	35.400	225.5	10.487					
550.0	10.227	35.364	221.3	10.161					
600.0	9.899	35.351	202.4	9.828					
650.0	9.279	35.298	191.5	9.205					
700.0	8.441	35.196	189.8	8.365					
750.0	8.167	35.218	191.3	8.087					
800.0	7.818	35.225	195.5	7.734					
850.0	7.266	35.199	203.3	7.180					
900.0	6.747	35.163	211.7	6.659					
950.0	6.149	35.113	223.1	6.061					
1000.0	6.052	35.132	226.7	5.960					
1050.0	5.140	35.003	244.4	5.050					
1100.0	4.889	34.978	251.3	4.796					
1150.0	4.682	34.966	256.3	4.586					
1200.0	4.565	34.959	259.1	4.466					
1250.0	4.397	34.940	264.8	4.296					
1300.0	4.362	34.945	264.3	4.256					
1350.0	4.273	34.942	265.4	4.163					
1400.0	4.203	34.938	266.2	4.090					
1450.0	4.028	34.916	273.0	3.912					
1500.0	4.001	34.921	270.9	3.881					
1550.0	3.933	34.917	272.1	3.809					
1600.0	3.901	34.917	271.8	3.773					
1650.0	3.862	34.916	271.9	3.730					
1700.0	3.835	34.915	271.9	3.699					
1750.0	3.799	34.916	271.9	3.658					
1800.0	3.784	34.920	270.7	3.639					
1850.0	3.735	34.917	271.3	3.586					
1900.0	3.701	34.918	271.2	3.548					
1950.0	3.656	34.917	271.5	3.499					
2000.0	3.628	34.918	271.5	3.466					
2050.0	3.582	34.917	271.8	3.416					
2100.0	3.552	34.918	272.2	3.382					
2150.0	3.514	34.918	272.5	3.339					
2200.0	3.467	34.917	272.6	3.288					
2250.0	3.433	34.918	273.1	3.250					
2300.0	3.398	34.918	273.2	3.211					
2350.0	3.366	34.919	273.5	3.174					
2400.0	3.328	34.920	273.8	3.132					
2450.0	3.296	34.921	273.7	3.096					
2500.0	3.255	34.923	273.7	3.051					
2550.0	3.223	34.926	273.6	3.014					
2600.0	3.204	34.928	273.2	2.990					
2650.0	3.175	34.931	273.0	2.957					
2700.0	3.146	34.934	272.4	2.923					
2750.0	3.125	34.936	271.8	2.897					
2800.0	3.093	34.937	270.1	2.861					
2850.0	3.069	34.941	270.1	2.832					
2900.0	3.049	34.941	268.3	2.808					
2950.0	3.015	34.943	265.6	2.769					
3000.0	2.982	34.944	264.4	2.732					





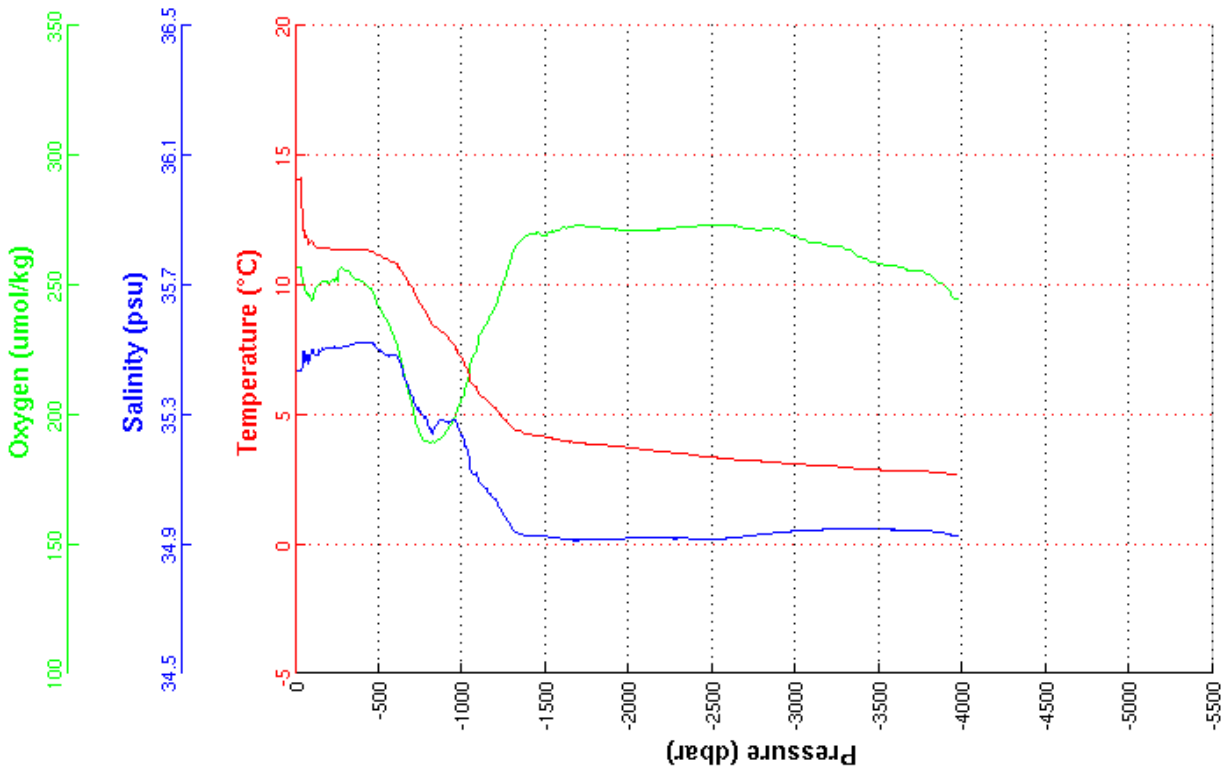
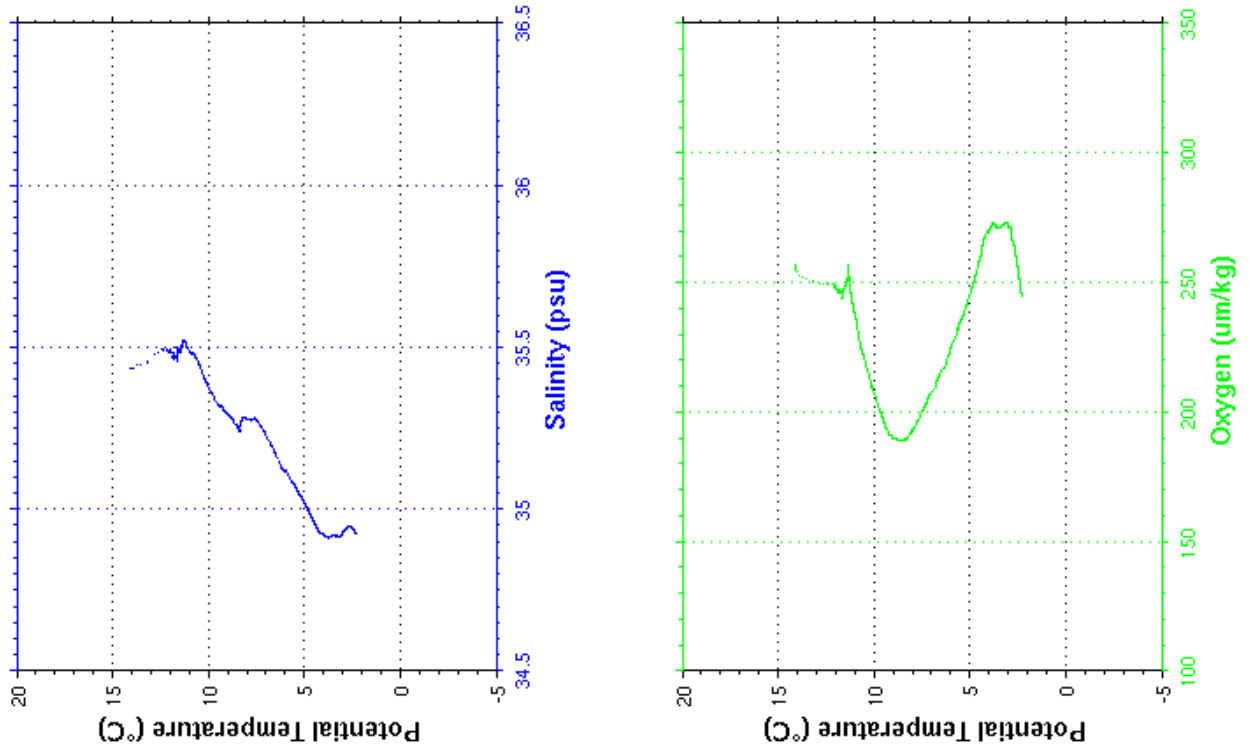
**Cast : 43**

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Cast      : 44          Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3915 m    Organism : CSIC/IIM VIGO
Position  : N 50 54.12
           W 023 5.50
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.102	35.434	257.4	14.102	3050.0	3.073	34.941	267.8	2.815
10.0	14.103	35.434	257.2	14.101	3100.0	3.048	34.943	266.6	2.786
20.0	14.105	35.434	257.4	14.102	3150.0	3.038	34.944	266.3	2.770
30.0	14.107	35.434	257.0	14.103	3200.0	3.008	34.946	265.5	2.735
40.0	13.507	35.444	250.8	13.501	3250.0	2.995	34.948	265.4	2.717
50.0	12.173	35.494	249.9	12.166	3300.0	2.962	34.948	264.2	2.680
100.0	11.650	35.496	244.7	11.637	3350.0	2.927	34.947	262.4	2.641
150.0	11.436	35.498	250.9	11.417	3400.0	2.900	34.946	260.7	2.608
200.0	11.402	35.507	250.7	11.376	3450.0	2.877	34.946	259.2	2.580
250.0	11.360	35.510	251.3	11.328	3500.0	2.861	34.945	258.4	2.560
300.0	11.343	35.511	255.4	11.305	3550.0	2.857	34.945	257.9	2.550
350.0	11.350	35.519	253.0	11.305	3600.0	2.850	34.944	257.6	2.538
400.0	11.347	35.523	251.6	11.296	3650.0	2.825	34.943	256.7	2.507
450.0	11.319	35.522	248.5	11.261	3700.0	2.817	34.943	255.8	2.494
500.0	11.169	35.500	241.7	11.106	3750.0	2.812	34.942	255.5	2.484
550.0	10.992	35.482	235.6	10.922	3800.0	2.792	34.940	254.4	2.458
600.0	10.848	35.482	228.0	10.773	3850.0	2.758	34.937	251.9	2.419
650.0	10.406	35.421	215.9	10.326	3900.0	2.727	34.933	249.4	2.384
700.0	9.928	35.359	204.0	9.845	3950.0	2.657	34.925	244.8	2.310
750.0	9.279	35.307	191.3	9.193	3972.0	2.659	34.925	244.8	2.309
800.0	8.700	35.263	189.4	8.612					
850.0	8.367	35.272	190.2	8.275					
900.0	8.066	35.277	193.3	7.970					
950.0	7.696	35.281	198.8	7.597					
1000.0	7.167	35.236	207.0	7.067					
1050.0	6.294	35.129	220.2	6.195					
1100.0	5.776	35.087	230.6	5.676					
1150.0	5.550	35.068	235.8	5.447					
1200.0	5.237	35.037	242.5	5.132					
1250.0	4.823	34.986	252.5	4.718					
1300.0	4.491	34.946	262.7	4.384					
1350.0	4.351	34.932	267.3	4.241					
1400.0	4.236	34.926	269.8	4.122					
1450.0	4.166	34.924	270.4	4.049					
1500.0	4.138	34.926	269.1	4.017					
1550.0	4.059	34.918	271.1	3.934					
1600.0	3.994	34.915	272.3	3.865					
1650.0	3.950	34.913	272.4	3.816					
1700.0	3.907	34.912	273.3	3.769					
1750.0	3.872	34.912	272.9	3.730					
1800.0	3.849	34.913	272.7	3.703					
1850.0	3.824	34.915	272.1	3.673					
1900.0	3.780	34.916	271.9	3.625					
1950.0	3.761	34.917	271.4	3.602					
2000.0	3.718	34.918	271.1	3.555					
2050.0	3.683	34.918	271.2	3.516					
2100.0	3.643	34.919	271.4	3.471					
2150.0	3.602	34.918	271.6	3.426					
2200.0	3.574	34.918	271.8	3.394					
2250.0	3.534	34.918	272.2	3.349					
2300.0	3.504	34.918	272.5	3.315					
2350.0	3.474	34.918	272.6	3.280					
2400.0	3.418	34.914	273.0	3.220					
2450.0	3.384	34.914	273.5	3.182					
2500.0	3.358	34.916	273.6	3.151					
2550.0	3.316	34.917	273.5	3.105					
2600.0	3.293	34.918	273.5	3.077					
2650.0	3.264	34.921	272.7	3.044					
2700.0	3.235	34.924	272.1	3.011					
2750.0	3.213	34.928	271.7	2.983					
2800.0	3.189	34.930	271.8	2.955					
2850.0	3.167	34.933	272.0	2.929					
2900.0	3.140	34.937	271.9	2.897					
2950.0	3.114	34.939	270.8	2.866					
3000.0	3.094	34.940	269.0	2.841					



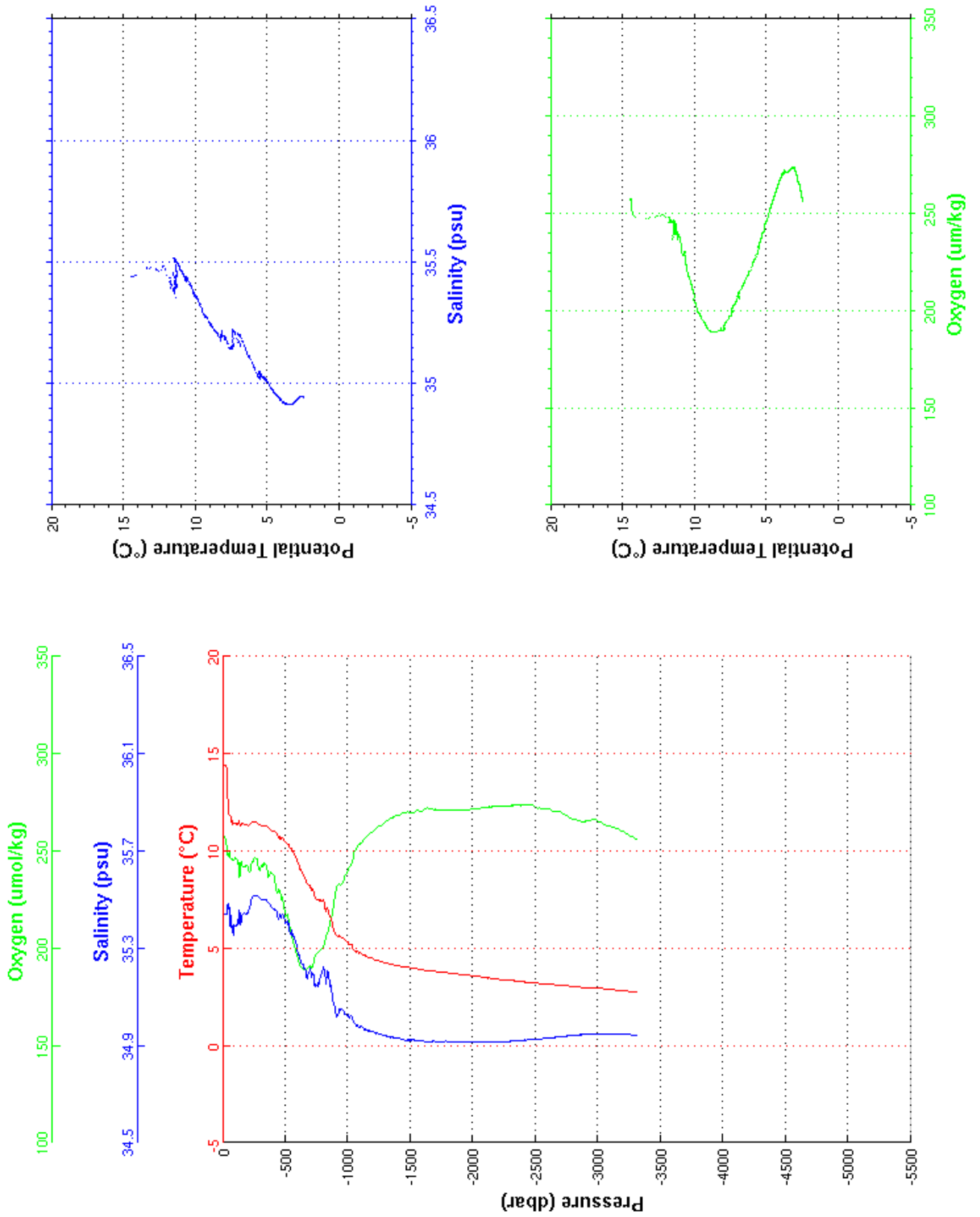
**Cast : 44**

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Cast       : 45           Cruise    : CATARINA
Date       : 07/07/2012  Ship      : R/V Sarmiento de Gamboa
Depth      : 3282 m      Organism  : CSIC/IIM VIGO
Position   : N 51 24.07
            W 023 28.84
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.420	35.443	257.6	14.420	3050.0	2.918	34.949	264.3	2.663
10.0	14.417	35.443	257.2	14.416	3100.0	2.890	34.949	263.1	2.631
20.0	14.403	35.442	255.7	14.400	3150.0	2.854	34.949	261.9	2.591
30.0	14.329	35.441	251.4	14.324	3200.0	2.818	34.948	260.3	2.550
40.0	13.052	35.479	248.1	13.047	3250.0	2.787	34.946	258.7	2.514
50.0	12.104	35.472	249.3	12.097	3300.0	2.752	34.943	256.6	2.475
100.0	11.429	35.394	246.6	11.417	3312.0	2.753	34.943	256.7	2.475
150.0	11.366	35.426	242.6	11.347					
200.0	11.307	35.451	241.3	11.282					
250.0	11.487	35.514	246.9	11.455					
300.0	11.345	35.501	241.3	11.307					
350.0	11.260	35.497	241.2	11.215					
400.0	11.026	35.461	238.2	10.976					
450.0	10.705	35.425	230.1	10.650					
500.0	10.431	35.406	216.5	10.370					
550.0	10.128	35.375	206.7	10.062					
600.0	9.404	35.278	194.8	9.335					
650.0	8.718	35.218	189.2	8.647					
700.0	8.236	35.212	191.1	8.161					
750.0	7.513	35.146	198.1	7.437					
800.0	7.469	35.216	200.5	7.388					
850.0	6.793	35.176	211.8	6.711					
900.0	5.799	35.043	228.4	5.718					
950.0	5.629	35.052	233.6	5.544					
1000.0	5.334	35.026	239.8	5.248					
1050.0	4.908	34.989	250.2	4.820					
1100.0	4.764	34.981	253.9	4.673					
1150.0	4.597	34.964	257.9	4.502					
1200.0	4.467	34.956	260.6	4.369					
1250.0	4.354	34.947	263.0	4.253					
1300.0	4.253	34.939	264.9	4.148					
1350.0	4.166	34.933	267.3	4.058					
1400.0	4.116	34.931	268.5	4.004					
1450.0	4.042	34.923	269.9	3.926					
1500.0	3.998	34.922	270.2	3.878					
1550.0	3.942	34.918	271.1	3.818					
1600.0	3.898	34.919	271.4	3.770					
1650.0	3.842	34.915	272.1	3.710					
1700.0	3.809	34.916	271.7	3.672					
1750.0	3.772	34.917	271.3	3.632					
1800.0	3.735	34.916	271.7	3.590					
1850.0	3.699	34.917	271.5	3.550					
1900.0	3.653	34.917	271.6	3.500					
1950.0	3.620	34.916	271.7	3.463					
2000.0	3.581	34.916	271.9	3.420					
2050.0	3.547	34.916	272.0	3.382					
2100.0	3.496	34.915	272.6	3.327					
2150.0	3.444	34.915	273.3	3.271					
2200.0	3.405	34.914	273.5	3.227					
2250.0	3.379	34.917	273.3	3.197					
2300.0	3.346	34.918	273.6	3.159					
2350.0	3.328	34.918	273.9	3.137					
2400.0	3.286	34.922	273.7	3.091					
2450.0	3.245	34.924	273.7	3.045					
2500.0	3.217	34.925	273.1	3.013					
2550.0	3.190	34.927	272.2	2.982					
2600.0	3.160	34.930	271.8	2.947					
2650.0	3.130	34.933	270.8	2.913					
2700.0	3.107	34.936	270.2	2.885					
2750.0	3.074	34.939	268.7	2.848					
2800.0	3.046	34.941	266.7	2.815					
2850.0	3.001	34.944	265.8	2.766					
2900.0	2.992	34.945	265.6	2.751					
2950.0	2.974	34.949	266.6	2.729					
3000.0	2.942	34.949	265.5	2.692					



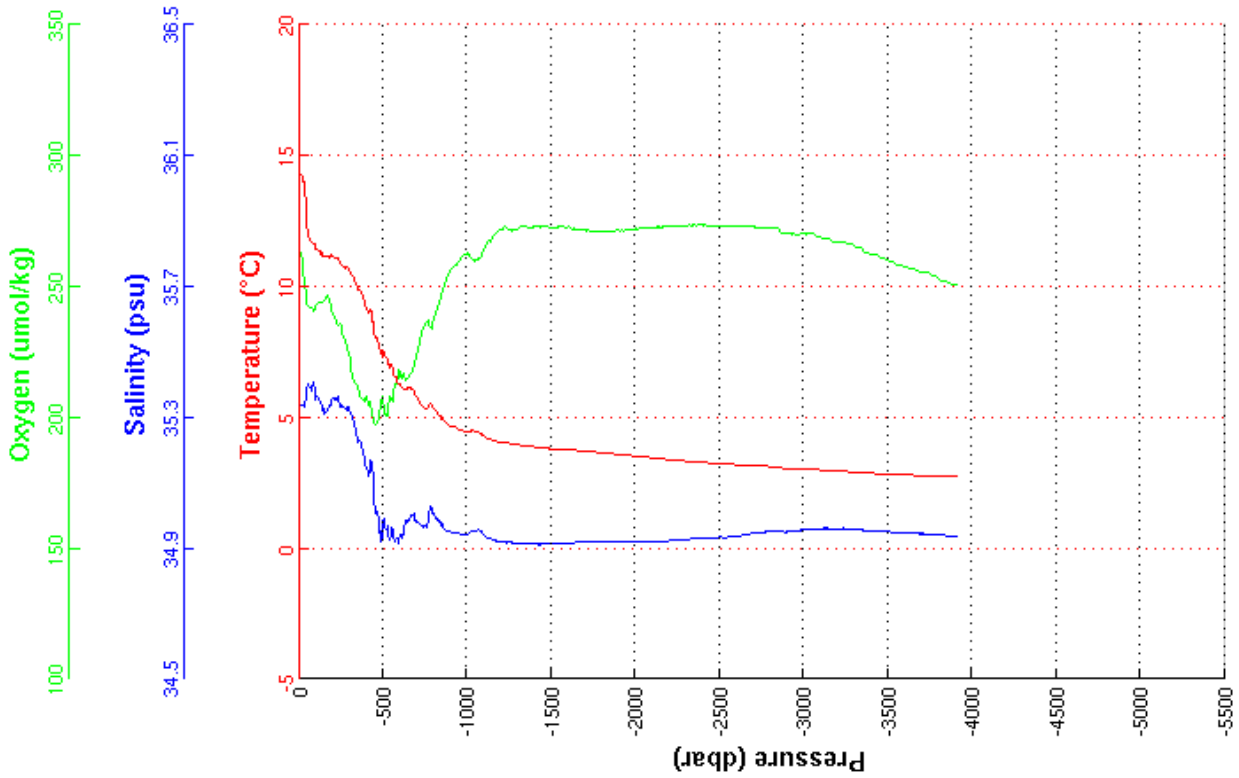
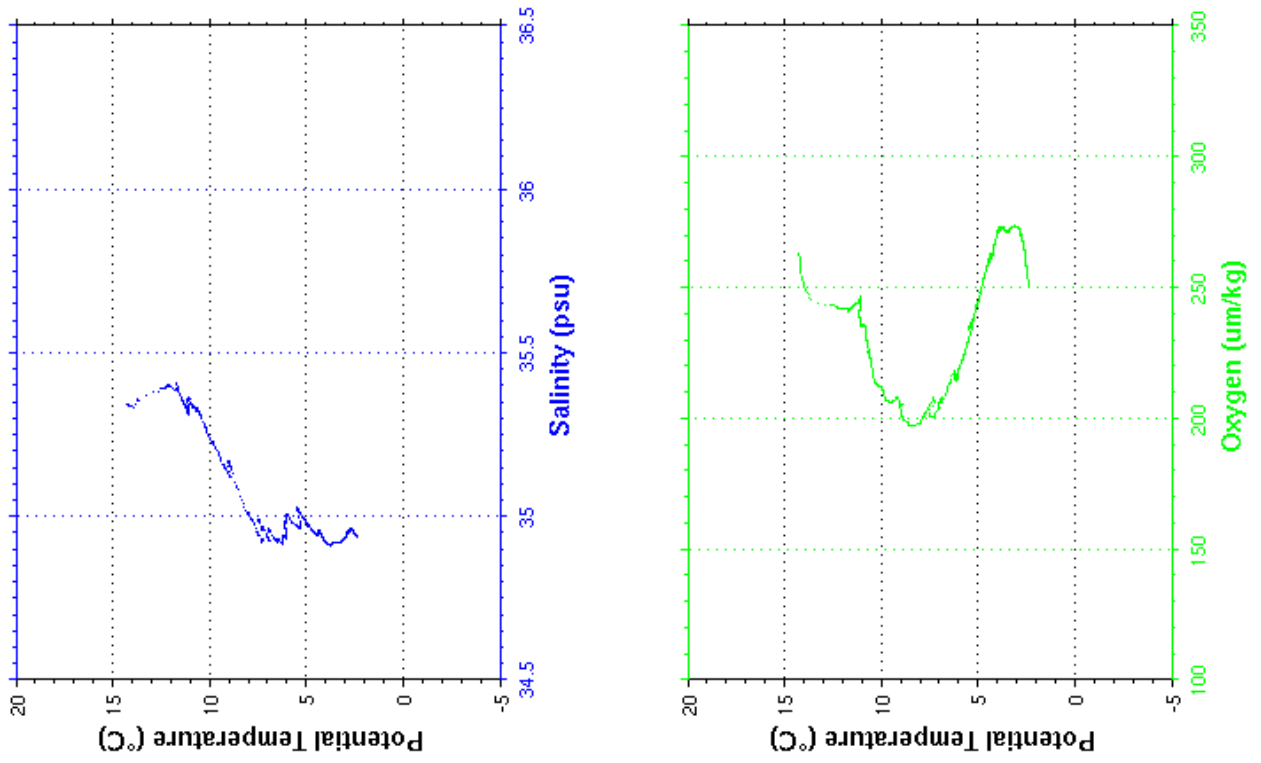
**Cast : 45**

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Cast       : 46           Cruise    : CATARINA
Date       : 07/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 3872 m      Organism  : CSIC/IIM VIGO
Position   : N 51 46.16
            W 023 46.47
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.311	35.342	263.4	14.311	3050.0	3.035	34.961	270.4	2.778
10.0	14.311	35.342	263.4	14.309	3100.0	2.990	34.959	269.3	2.729
20.0	14.189	35.340	259.7	14.186	3150.0	2.968	34.960	268.5	2.702
30.0	14.037	35.339	252.4	14.033	3200.0	2.939	34.958	267.1	2.668
40.0	13.753	35.352	248.4	13.747	3250.0	2.935	34.960	267.1	2.659
50.0	12.245	35.393	243.0	12.239	3300.0	2.911	34.958	265.7	2.630
100.0	11.442	35.354	243.7	11.430	3350.0	2.882	34.955	264.4	2.597
150.0	11.117	35.313	245.7	11.098	3400.0	2.865	34.954	262.8	2.575
200.0	11.178	35.358	239.5	11.153	3450.0	2.854	34.953	261.9	2.558
250.0	10.861	35.332	235.1	10.830	3500.0	2.835	34.951	260.3	2.535
300.0	10.636	35.328	224.4	10.599	3550.0	2.818	34.949	258.8	2.512
350.0	9.986	35.237	211.4	9.945	3600.0	2.806	34.947	257.9	2.495
400.0	9.202	35.144	208.0	9.157	3650.0	2.794	34.946	256.9	2.477
450.0	8.272	35.038	197.3	8.225	3700.0	2.782	34.944	255.9	2.460
500.0	7.296	34.927	208.6	7.247	3750.0	2.776	34.944	255.3	2.449
550.0	6.982	34.953	206.5	6.929	3800.0	2.755	34.942	253.5	2.423
600.0	6.283	34.937	216.0	6.229	3850.0	2.737	34.939	251.8	2.400
650.0	6.121	34.984	215.3	6.062	3900.0	2.738	34.938	251.0	2.395
700.0	5.767	34.981	224.6	5.705	3913.0	2.736	34.937	251.1	2.391
750.0	5.356	34.964	236.1	5.293					
800.0	5.318	35.003	238.2	5.250					
850.0	4.948	34.972	248.5	4.878					
900.0	4.675	34.950	256.6	4.602					
950.0	4.558	34.945	259.9	4.482					
1000.0	4.444	34.941	262.9	4.364					
1050.0	4.448	34.955	260.9	4.363					
1100.0	4.280	34.938	265.0	4.193					
1150.0	4.139	34.925	269.7	4.049					
1200.0	4.056	34.920	271.9	3.962					
1250.0	4.000	34.917	272.0	3.902					
1300.0	3.959	34.915	272.6	3.857					
1350.0	3.913	34.914	273.1	3.807					
1400.0	3.870	34.913	273.1	3.760					
1450.0	3.830	34.912	273.6	3.716					
1500.0	3.801	34.913	272.7	3.683					
1550.0	3.794	34.913	272.8	3.672					
1600.0	3.765	34.915	273.1	3.638					
1650.0	3.736	34.918	272.2	3.606					
1700.0	3.711	34.919	272.0	3.576					
1750.0	3.686	34.920	271.5	3.547					
1800.0	3.655	34.920	271.5	3.512					
1850.0	3.617	34.920	271.5	3.469					
1900.0	3.578	34.920	271.9	3.426					
1950.0	3.548	34.921	271.9	3.392					
2000.0	3.512	34.921	272.3	3.352					
2050.0	3.475	34.919	272.5	3.311					
2100.0	3.449	34.920	272.8	3.280					
2150.0	3.426	34.921	273.1	3.253					
2200.0	3.377	34.923	273.4	3.199					
2250.0	3.356	34.925	273.5	3.175					
2300.0	3.328	34.926	273.6	3.142					
2350.0	3.305	34.930	273.8	3.115					
2400.0	3.285	34.933	273.8	3.090					
2450.0	3.246	34.932	273.7	3.046					
2500.0	3.232	34.934	273.5	3.027					
2550.0	3.204	34.934	273.5	2.996					
2600.0	3.193	34.936	273.3	2.979					
2650.0	3.166	34.939	273.1	2.948					
2700.0	3.149	34.946	273.2	2.926					
2750.0	3.136	34.949	272.6	2.909					
2800.0	3.121	34.952	272.8	2.889					
2850.0	3.094	34.952	272.2	2.857					
2900.0	3.045	34.950	270.2	2.803					
2950.0	3.039	34.952	270.2	2.792					
3000.0	3.034	34.956	270.5	2.782					



**Cast : 46**

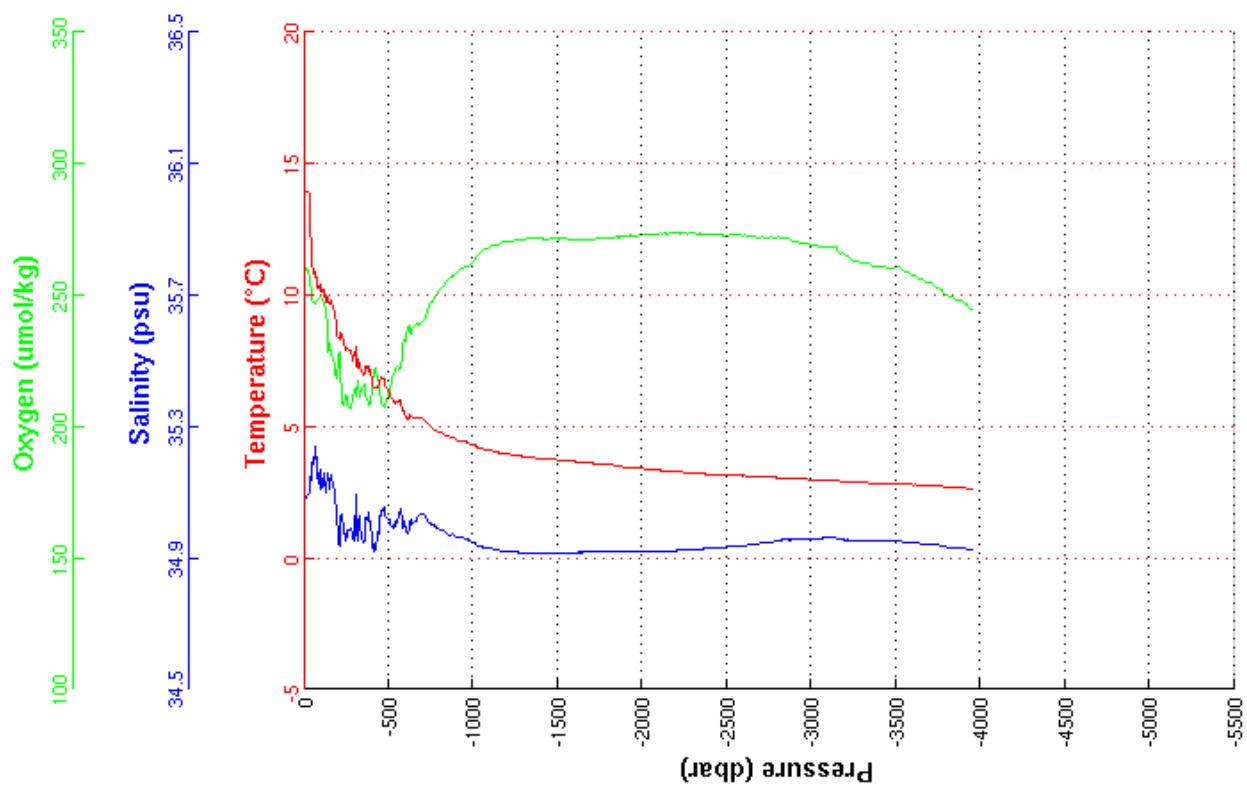
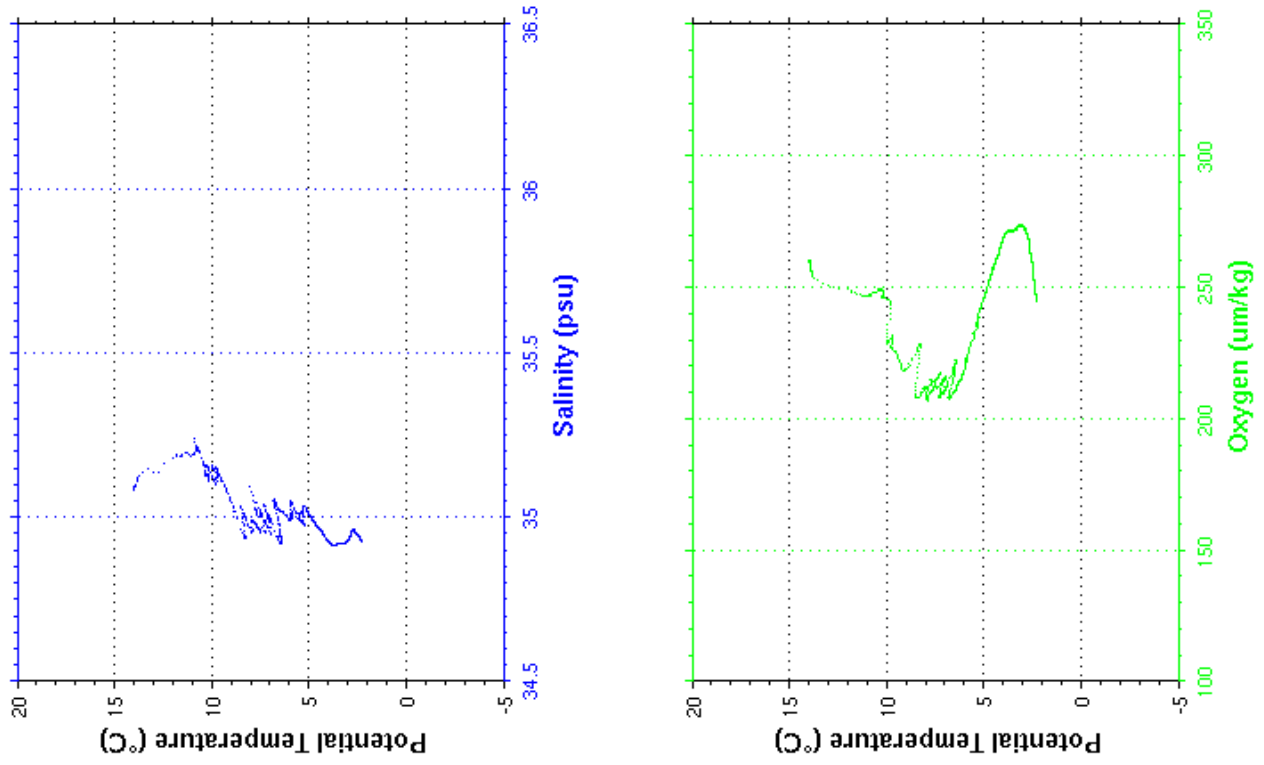
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Cast       : 47           Cruise    : CATARINA
Date       : 08/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3917 m      Organism  : CSIC/IIM VIGO
Position   : N 52  8.85
            W 024  4.34
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.028	35.084	260.1	14.028	3050.0	2.971	34.958	268.7	2.715
10.0	14.020	35.086	260.2	14.018	3100.0	2.964	34.962	268.6	2.704
20.0	13.938	35.092	259.3	13.935	3150.0	2.949	34.960	268.2	2.683
30.0	13.887	35.097	257.0	13.883	3200.0	2.908	34.955	265.3	2.638
40.0	13.021	35.136	251.0	13.015	3250.0	2.887	34.953	263.6	2.612
50.0	11.284	35.195	248.0	11.278	3300.0	2.870	34.952	262.6	2.590
100.0	10.175	35.114	248.9	10.163	3350.0	2.851	34.951	261.9	2.566
150.0	9.732	35.124	232.6	9.715	3400.0	2.845	34.951	261.3	2.555
200.0	8.436	34.955	226.3	8.416	3450.0	2.835	34.951	260.8	2.539
250.0	7.932	34.958	211.6	7.906	3500.0	2.832	34.951	261.3	2.531
300.0	7.695	35.011	215.4	7.665	3550.0	2.812	34.949	259.5	2.506
350.0	7.006	34.954	216.3	6.973	3600.0	2.793	34.946	257.7	2.482
400.0	6.902	34.981	212.8	6.864	3650.0	2.779	34.944	256.2	2.463
450.0	6.756	35.024	211.6	6.714	3700.0	2.764	34.942	254.9	2.443
500.0	6.369	35.019	213.2	6.324	3750.0	2.744	34.939	253.2	2.418
550.0	5.919	35.013	222.5	5.871	3800.0	2.709	34.934	250.3	2.378
600.0	5.441	34.987	234.4	5.390	3850.0	2.690	34.931	248.7	2.353
650.0	5.334	35.014	238.7	5.279	3900.0	2.677	34.930	247.7	2.335
700.0	5.323	35.036	240.3	5.263	3950.0	2.635	34.924	244.9	2.289
750.0	5.016	35.007	247.3	4.955	3960.0	2.634	34.924	245.0	2.286
800.0	4.796	34.987	252.2	4.731					
850.0	4.633	34.972	256.3	4.565					
900.0	4.512	34.964	259.2	4.441					
950.0	4.432	34.960	260.8	4.356					
1000.0	4.324	34.949	263.4	4.245					
1050.0	4.164	34.934	267.1	4.082					
1100.0	4.093	34.929	268.6	4.008					
1150.0	4.036	34.924	269.6	3.946					
1200.0	3.979	34.921	270.6	3.886					
1250.0	3.914	34.918	271.1	3.817					
1300.0	3.874	34.916	271.5	3.773					
1350.0	3.821	34.914	271.9	3.716					
1400.0	3.786	34.914	271.8	3.677					
1450.0	3.773	34.915	271.7	3.660					
1500.0	3.738	34.915	271.7	3.621					
1550.0	3.714	34.916	271.8	3.593					
1600.0	3.680	34.917	271.5	3.555					
1650.0	3.646	34.918	271.7	3.517					
1700.0	3.611	34.918	271.7	3.478					
1750.0	3.580	34.918	271.8	3.442					
1800.0	3.548	34.919	272.0	3.406					
1850.0	3.514	34.919	272.3	3.368					
1900.0	3.463	34.918	272.9	3.313					
1950.0	3.434	34.918	272.7	3.280					
2000.0	3.404	34.918	273.2	3.246					
2050.0	3.371	34.919	273.6	3.208					
2100.0	3.336	34.920	273.7	3.169					
2150.0	3.318	34.921	273.8	3.147					
2200.0	3.296	34.923	273.9	3.121					
2250.0	3.263	34.924	273.8	3.082					
2300.0	3.241	34.925	274.0	3.057					
2350.0	3.212	34.927	273.7	3.023					
2400.0	3.186	34.929	273.4	2.992					
2450.0	3.165	34.932	273.3	2.967					
2500.0	3.156	34.934	272.9	2.954					
2550.0	3.143	34.937	273.1	2.935					
2600.0	3.130	34.939	273.0	2.918					
2650.0	3.112	34.941	272.7	2.895					
2700.0	3.089	34.945	272.4	2.867					
2750.0	3.075	34.948	272.3	2.849					
2800.0	3.057	34.953	272.4	2.826					
2850.0	3.053	34.956	272.2	2.816					
2900.0	3.020	34.956	270.8	2.780					
2950.0	3.007	34.957	270.1	2.761					
3000.0	2.987	34.958	269.3	2.737					





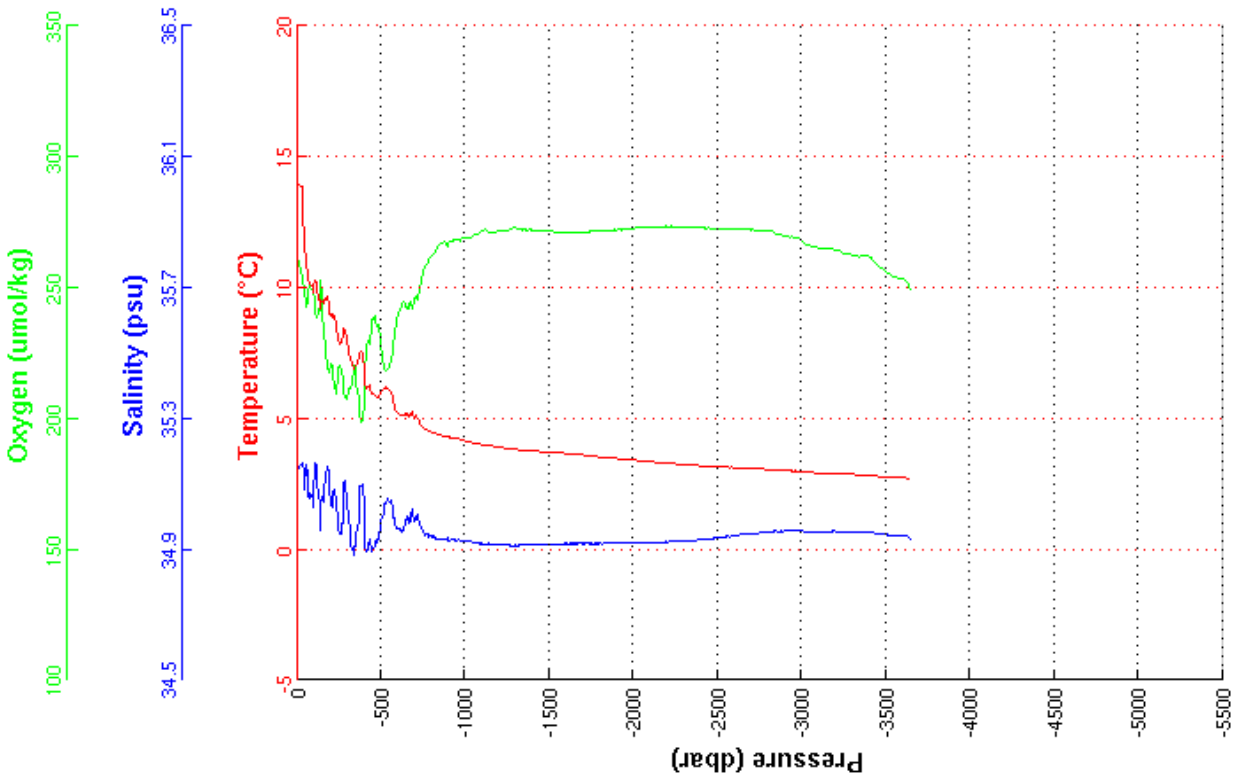
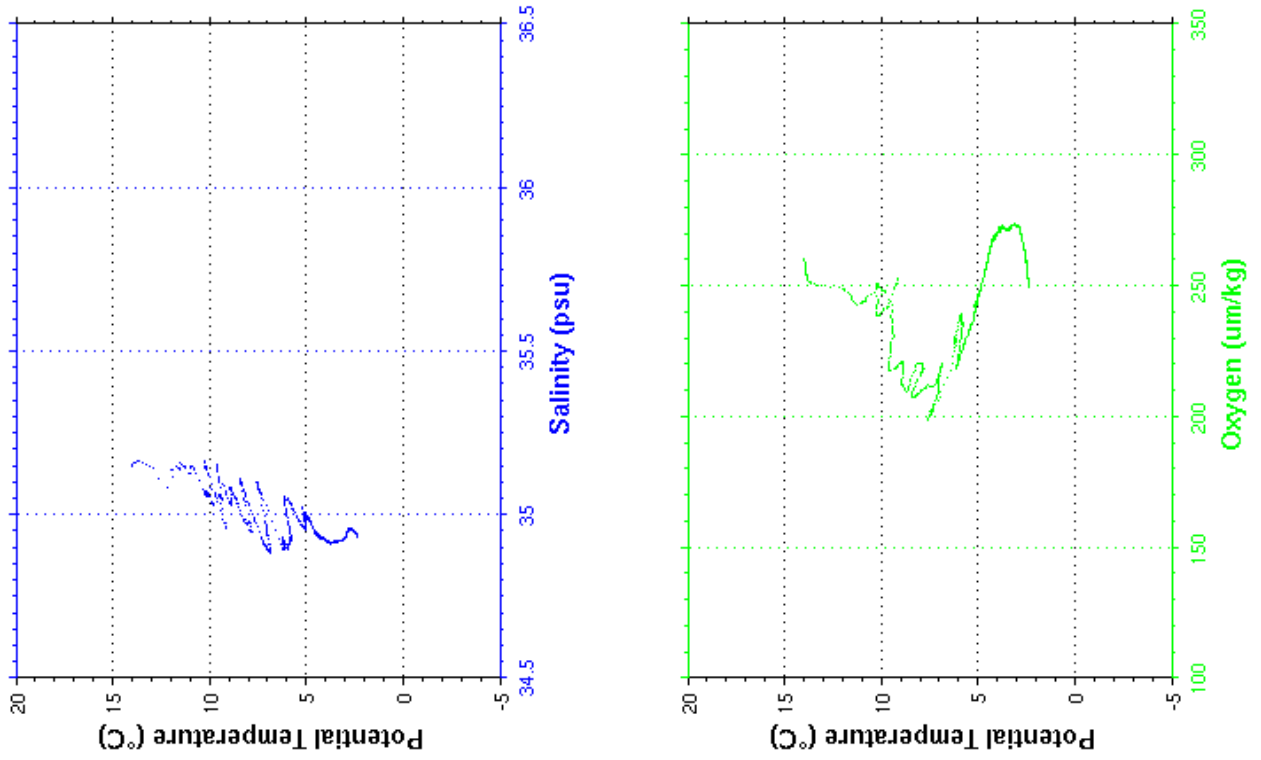
**Cast : 47**

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Cast      : 48           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3607 m      Organism : CSIC/IIM VIGO
Position  : N 52 31.20
           W 024 21.50
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	14.010	35.151	260.8	14.010	3050.0	2.936	34.954	266.3	2.681
10.0	13.999	35.153	259.8	13.997	3100.0	2.918	34.954	265.5	2.658
20.0	13.890	35.158	257.2	13.887	3150.0	2.913	34.955	265.2	2.648
30.0	13.862	35.158	254.3	13.858	3200.0	2.899	34.955	264.9	2.630
40.0	13.078	35.149	251.5	13.072	3250.0	2.875	34.954	263.8	2.601
50.0	11.530	35.139	246.5	11.524	3300.0	2.863	34.954	262.8	2.583
100.0	9.803	35.027	248.6	9.792	3350.0	2.835	34.952	262.6	2.550
150.0	9.494	35.062	237.6	9.477	3400.0	2.826	34.953	261.9	2.536
200.0	8.964	35.032	221.0	8.942	3450.0	2.791	34.948	258.5	2.497
250.0	7.968	34.954	220.6	7.942	3500.0	2.768	34.945	256.3	2.469
300.0	7.998	35.033	209.9	7.968	3550.0	2.745	34.942	254.4	2.441
350.0	7.042	34.940	213.7	7.009	3600.0	2.743	34.942	253.5	2.434
400.0	7.242	35.046	204.4	7.204	3645.0	2.681	34.934	NaN	2.368
450.0	5.970	34.906	238.6	5.931					
500.0	5.968	34.976	227.8	5.924					
550.0	6.055	35.043	221.2	6.006					
600.0	5.208	34.962	240.3	5.158					
650.0	5.196	34.992	242.1	5.142					
700.0	5.037	34.990	246.3	4.980					
750.0	4.678	34.955	256.2	4.618					
800.0	4.486	34.939	262.8	4.423					
850.0	4.362	34.932	266.8	4.296					
900.0	4.321	34.927	266.6	4.250					
950.0	4.214	34.928	268.9	4.141					
1000.0	4.141	34.925	269.8	4.064					
1050.0	4.072	34.922	270.6	3.991					
1100.0	3.995	34.917	271.9	3.911					
1150.0	3.965	34.919	270.6	3.876					
1200.0	3.897	34.914	272.1	3.804					
1250.0	3.860	34.913	272.3	3.763					
1300.0	3.815	34.912	273.2	3.715					
1350.0	3.786	34.913	272.3	3.682					
1400.0	3.757	34.914	272.0	3.649					
1450.0	3.734	34.915	271.9	3.622					
1500.0	3.719	34.916	271.8	3.602					
1550.0	3.692	34.916	271.3	3.571					
1600.0	3.666	34.917	271.4	3.540					
1650.0	3.627	34.917	271.4	3.497					
1700.0	3.600	34.917	271.5	3.466					
1750.0	3.569	34.917	271.6	3.431					
1800.0	3.526	34.917	271.9	3.384					
1850.0	3.509	34.919	272.2	3.363					
1900.0	3.473	34.919	272.6	3.323					
1950.0	3.442	34.919	272.7	3.288					
2000.0	3.415	34.920	273.1	3.256					
2050.0	3.377	34.919	273.3	3.214					
2100.0	3.349	34.920	273.5	3.182					
2150.0	3.315	34.921	273.5	3.143					
2200.0	3.291	34.923	273.6	3.115					
2250.0	3.267	34.924	273.5	3.087					
2300.0	3.235	34.925	273.5	3.051					
2350.0	3.209	34.927	273.3	3.020					
2400.0	3.191	34.929	273.3	2.998					
2450.0	3.163	34.932	273.1	2.965					
2500.0	3.144	34.935	273.0	2.942					
2550.0	3.132	34.937	272.8	2.924					
2600.0	3.123	34.942	273.0	2.911					
2650.0	3.100	34.945	272.5	2.883					
2700.0	3.089	34.948	272.3	2.867					
2750.0	3.075	34.951	272.2	2.848					
2800.0	3.052	34.953	272.2	2.821					
2850.0	3.042	34.956	271.0	2.806					
2900.0	3.021	34.956	270.0	2.780					
2950.0	2.995	34.957	269.3	2.749					
3000.0	2.969	34.956	268.2	2.719					



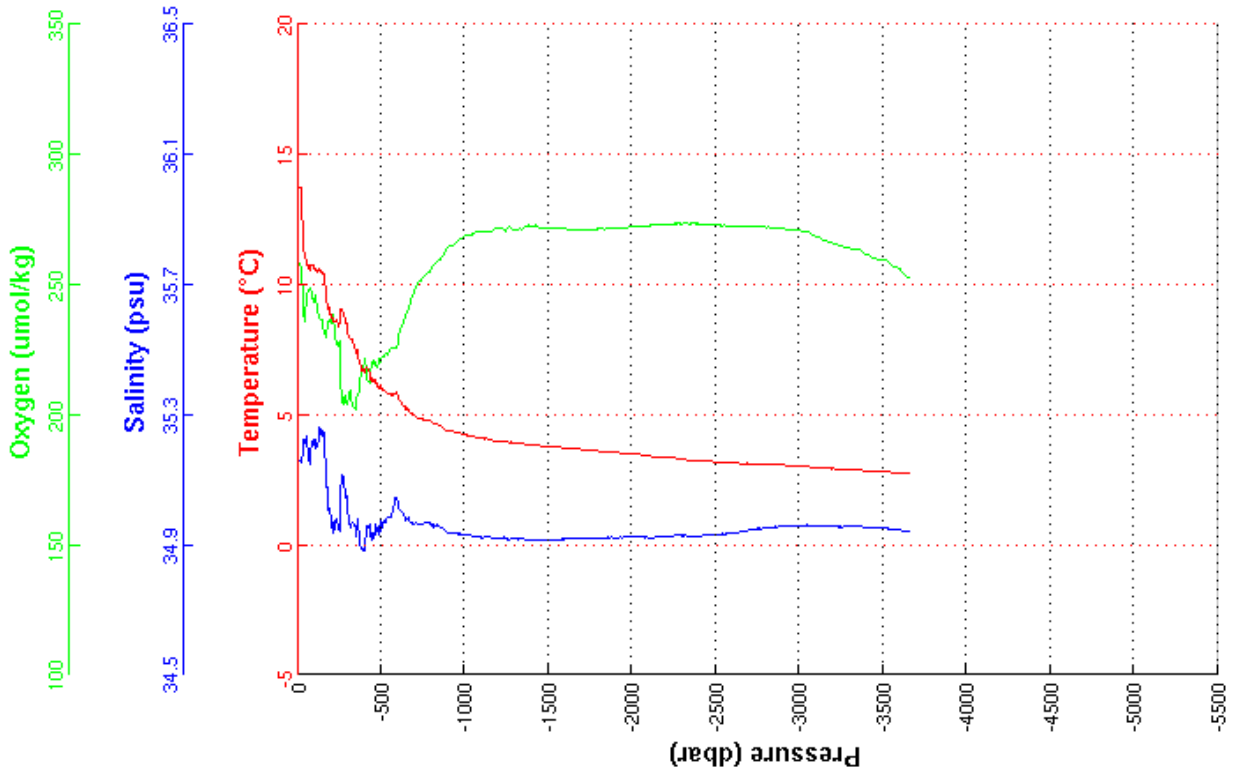
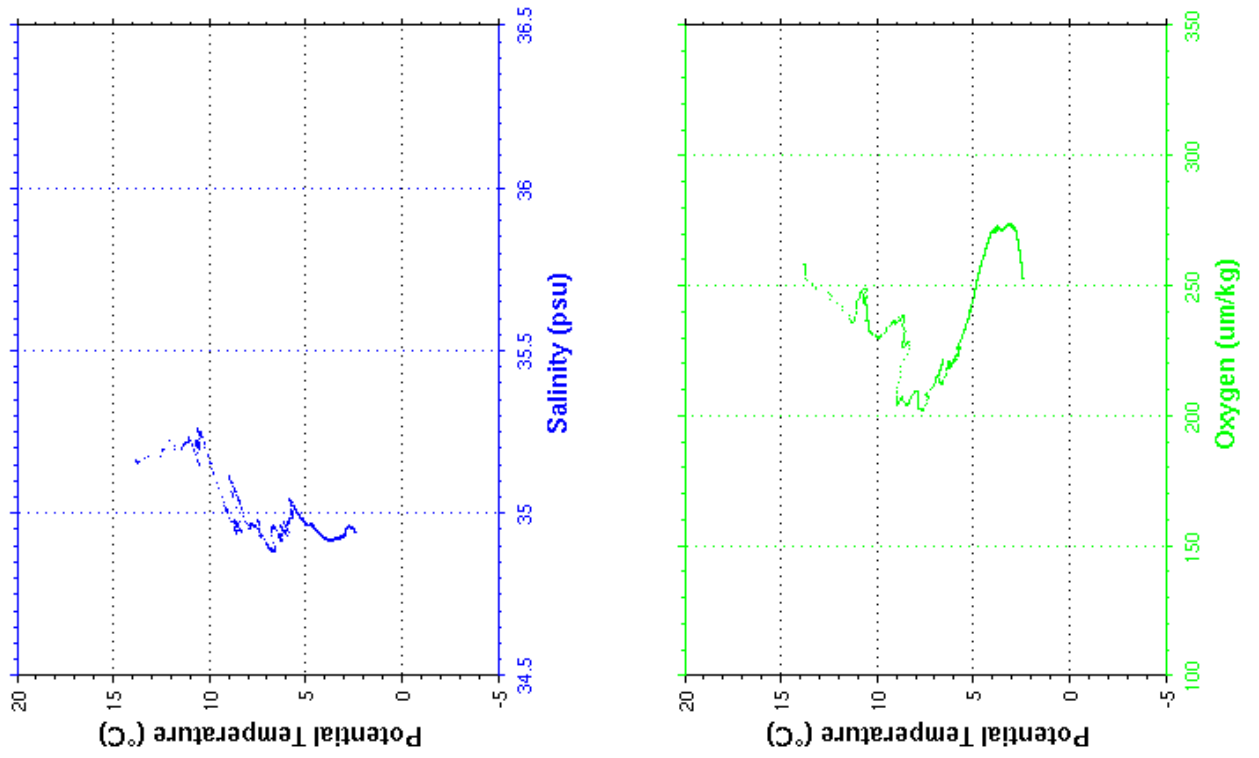
**Cast : 48**

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Cast       : 49           Cruise    : CATARINA
Date       : 08/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3628 m      Organism  : CSIC/IIM VIGO
Position   : N 52 53.45
            W 024 39.42
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.847	35.166	258.7	13.847	3050.0	3.010	34.961	270.4	2.753
10.0	13.759	35.156	258.4	13.757	3100.0	2.979	34.958	268.7	2.718
20.0	13.702	35.156	256.0	13.699	3150.0	2.948	34.957	267.4	2.682
30.0	12.498	35.174	246.9	12.494	3200.0	2.927	34.956	266.2	2.657
40.0	11.272	35.214	236.1	11.267	3250.0	2.908	34.955	264.9	2.632
50.0	11.060	35.235	243.6	11.054	3300.0	2.889	34.957	264.4	2.609
100.0	10.662	35.214	244.4	10.650	3350.0	2.880	34.957	263.9	2.594
150.0	10.481	35.252	233.4	10.463	3400.0	2.850	34.953	261.7	2.560
200.0	8.844	34.972	237.4	8.823	3450.0	2.830	34.952	260.6	2.534
250.0	8.387	34.945	229.2	8.361	3500.0	2.815	34.950	259.2	2.515
300.0	8.387	35.020	205.0	8.356	3550.0	2.787	34.948	257.9	2.482
350.0	7.362	34.926	208.3	7.328	3600.0	2.773	34.947	256.2	2.463
400.0	6.639	34.882	220.9	6.602	3650.0	2.732	34.942	253.0	2.417
450.0	6.284	34.920	222.0	6.244	3665.0	2.733	34.942	253.0	2.416
500.0	5.934	34.944	222.1	5.891					
550.0	5.786	34.984	225.3	5.738					
600.0	5.765	35.033	228.3	5.713					
650.0	5.224	34.977	239.7	5.170					
700.0	4.970	34.967	248.4	4.913					
750.0	4.824	34.966	253.8	4.763					
800.0	4.719	34.963	256.7	4.654					
850.0	4.606	34.959	259.7	4.538					
900.0	4.400	34.939	264.4	4.329					
950.0	4.320	34.936	266.8	4.246					
1000.0	4.234	34.931	268.8	4.156					
1050.0	4.173	34.927	269.7	4.091					
1100.0	4.093	34.923	271.2	4.007					
1150.0	4.051	34.923	270.6	3.962					
1200.0	3.990	34.919	271.8	3.896					
1250.0	3.960	34.919	271.8	3.863					
1300.0	3.941	34.921	270.9	3.840					
1350.0	3.886	34.918	272.0	3.780					
1400.0	3.831	34.914	273.0	3.721					
1450.0	3.815	34.917	272.2	3.701					
1500.0	3.783	34.916	272.1	3.665					
1550.0	3.749	34.917	271.9	3.628					
1600.0	3.731	34.918	271.7	3.605					
1650.0	3.696	34.918	271.6	3.566					
1700.0	3.670	34.918	271.5	3.535					
1750.0	3.637	34.919	271.5	3.499					
1800.0	3.604	34.919	271.4	3.461					
1850.0	3.584	34.921	271.8	3.437					
1900.0	3.550	34.922	271.9	3.399					
1950.0	3.525	34.923	271.9	3.369					
2000.0	3.493	34.926	272.6	3.333					
2050.0	3.473	34.926	272.8	3.308					
2100.0	3.424	34.924	273.1	3.256					
2150.0	3.384	34.925	273.5	3.212					
2200.0	3.367	34.926	273.6	3.190					
2250.0	3.338	34.928	273.7	3.156					
2300.0	3.300	34.929	273.5	3.114					
2350.0	3.254	34.926	273.8	3.065					
2400.0	3.228	34.927	273.5	3.034					
2450.0	3.211	34.930	273.4	3.013					
2500.0	3.196	34.933	273.2	2.993					
2550.0	3.168	34.933	273.2	2.960					
2600.0	3.141	34.935	272.9	2.929					
2650.0	3.130	34.940	272.4	2.913					
2700.0	3.125	34.945	272.5	2.902					
2750.0	3.125	34.949	272.7	2.897					
2800.0	3.103	34.953	272.3	2.871					
2850.0	3.090	34.954	272.1	2.853					
2900.0	3.074	34.957	272.0	2.832					
2950.0	3.050	34.957	271.3	2.803					
3000.0	3.027	34.960	271.2	2.775					



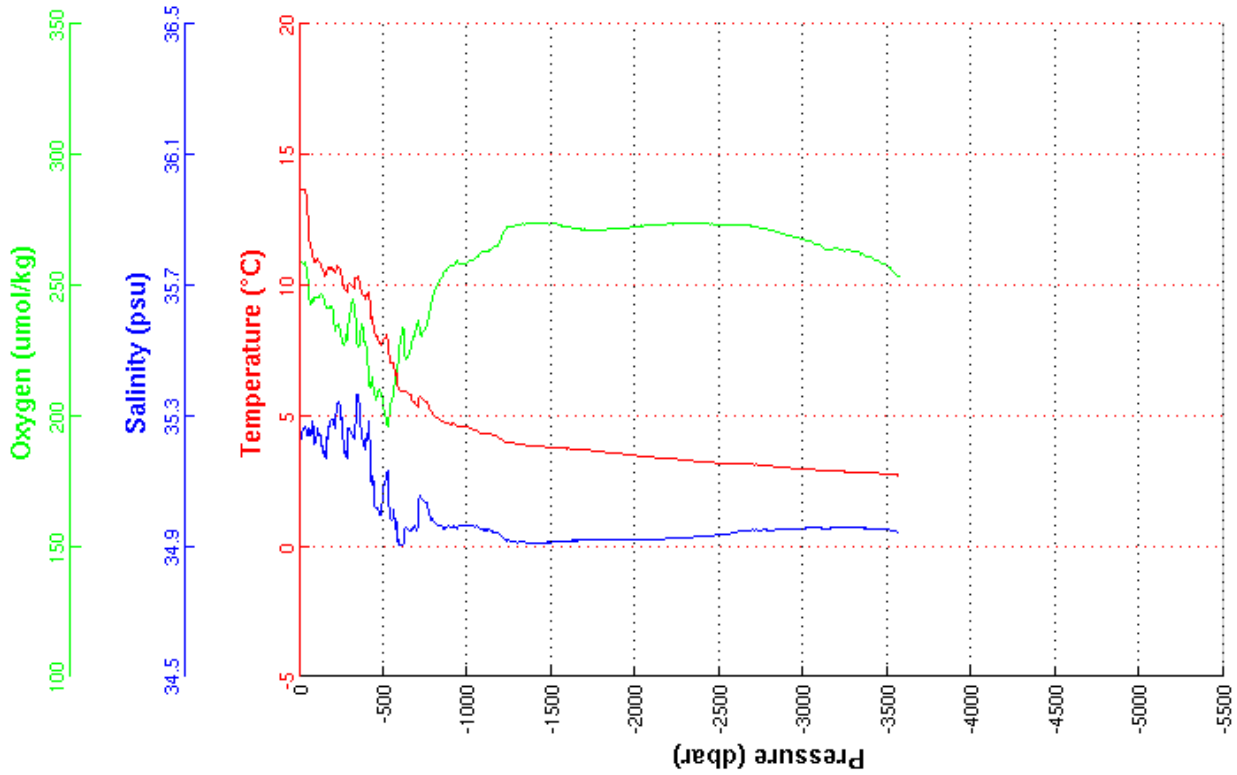
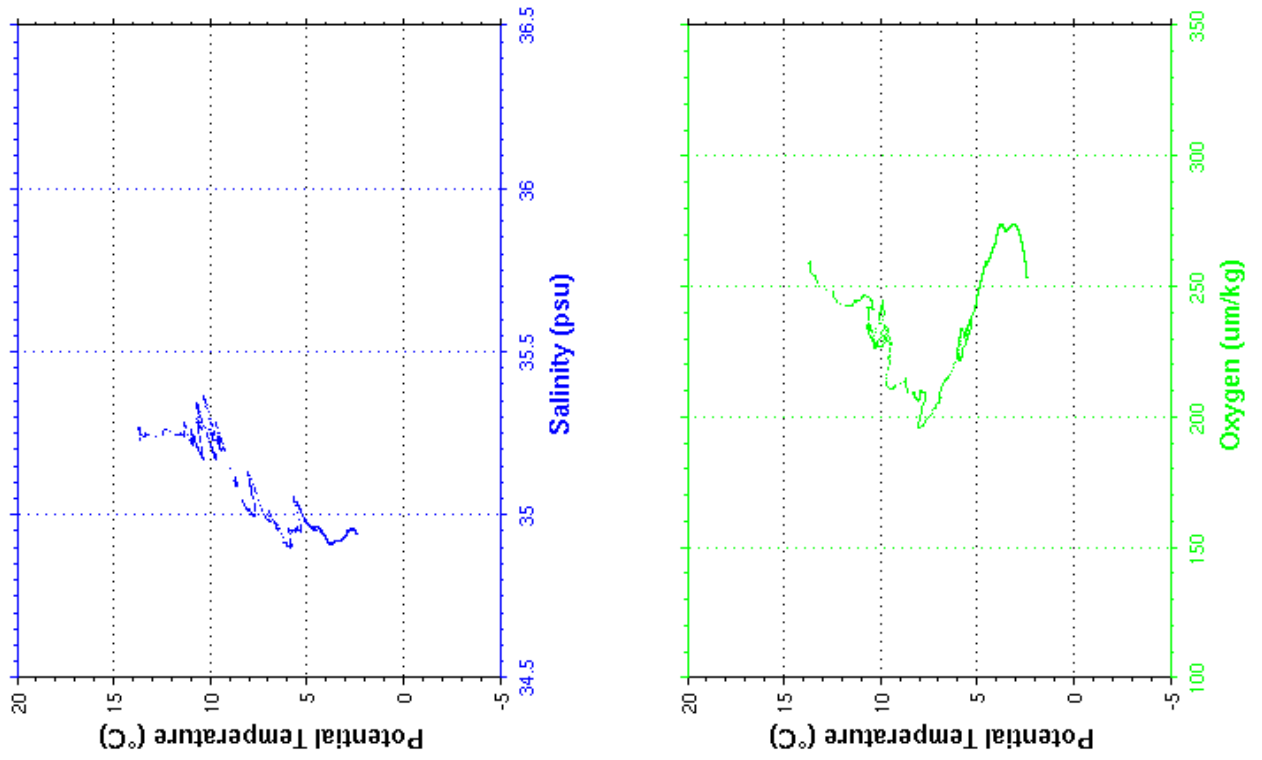
**Cast : 49**

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Cast      : 50           Cruise   : CATARINA
Date      : 08/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3535 m      Organism : CSIC/IIM VIGO
Position  : N 53 15.93
           W 024 57.06
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.679	35.235	259.5	13.679	3050.0	2.943	34.956	267.2	2.688
10.0	13.638	35.232	257.8	13.637	3100.0	2.915	34.956	265.6	2.656
20.0	13.674	35.259	258.6	13.671	3150.0	2.875	34.955	263.6	2.611
30.0	13.685	35.268	259.3	13.681	3200.0	2.874	34.958	264.3	2.605
40.0	13.614	35.258	256.6	13.608	3250.0	2.859	34.958	263.4	2.585
50.0	13.258	35.247	253.5	13.251	3300.0	2.853	34.958	263.4	2.573
100.0	10.910	35.224	246.7	10.898	3350.0	2.835	34.956	262.2	2.550
150.0	10.491	35.189	243.5	10.473	3400.0	2.817	34.954	261.1	2.527
200.0	10.629	35.287	239.0	10.605	3450.0	2.795	34.952	259.5	2.501
250.0	10.441	35.291	230.3	10.411	3500.0	2.773	34.952	257.7	2.473
300.0	10.062	35.261	239.4	10.027	3550.0	2.737	34.946	254.6	2.433
350.0	10.360	35.360	226.4	10.318	3571.0	2.726	34.944	253.8	2.420
400.0	9.605	35.235	223.5	9.560					
450.0	8.244	35.026	207.4	8.197					
500.0	7.908	35.072	202.7	7.857					
550.0	6.956	34.978	207.5	6.903					
600.0	5.980	34.904	229.5	5.927					
650.0	5.832	34.950	224.0	5.775					
700.0	5.370	34.953	235.7	5.311					
750.0	5.561	35.035	233.8	5.496					
800.0	5.024	34.975	247.3	4.958					
850.0	4.817	34.959	254.1	4.748					
900.0	4.687	34.958	257.9	4.614					
950.0	4.612	34.963	258.4	4.535					
1000.0	4.554	34.965	258.9	4.474					
1050.0	4.467	34.961	260.4	4.382					
1100.0	4.325	34.950	263.7	4.237					
1150.0	4.253	34.945	264.8	4.162					
1200.0	4.111	34.931	268.4	4.017					
1250.0	3.991	34.918	272.0	3.893					
1300.0	3.924	34.913	274.0	3.823					
1350.0	3.871	34.911	274.1	3.766					
1400.0	3.830	34.911	274.0	3.721					
1450.0	3.810	34.911	274.1	3.697					
1500.0	3.795	34.912	273.8	3.677					
1550.0	3.768	34.914	273.3	3.646					
1600.0	3.740	34.916	272.5	3.614					
1650.0	3.719	34.917	272.0	3.588					
1700.0	3.688	34.918	271.7	3.554					
1750.0	3.661	34.919	271.5	3.522					
1800.0	3.628	34.919	271.4	3.485					
1850.0	3.583	34.921	272.0	3.436					
1900.0	3.554	34.922	272.1	3.403					
1950.0	3.507	34.919	272.2	3.352					
2000.0	3.473	34.920	272.7	3.314					
2050.0	3.441	34.920	273.1	3.277					
2100.0	3.411	34.919	273.2	3.243					
2150.0	3.386	34.921	273.3	3.213					
2200.0	3.358	34.924	273.9	3.181					
2250.0	3.333	34.925	274.0	3.152					
2300.0	3.304	34.926	273.9	3.118					
2350.0	3.265	34.929	274.1	3.075					
2400.0	3.228	34.931	273.8	3.034					
2450.0	3.210	34.932	273.7	3.011					
2500.0	3.185	34.934	273.5	2.981					
2550.0	3.164	34.936	273.3	2.956					
2600.0	3.166	34.943	273.4	2.953					
2650.0	3.147	34.946	273.2	2.929					
2700.0	3.137	34.950	273.1	2.914					
2750.0	3.093	34.949	271.7	2.866					
2800.0	3.080	34.953	271.3	2.848					
2850.0	3.046	34.952	270.8	2.810					
2900.0	3.012	34.953	269.6	2.771					
2950.0	2.987	34.954	268.6	2.741					
3000.0	2.966	34.955	267.8	2.716					



**Cast : 50**

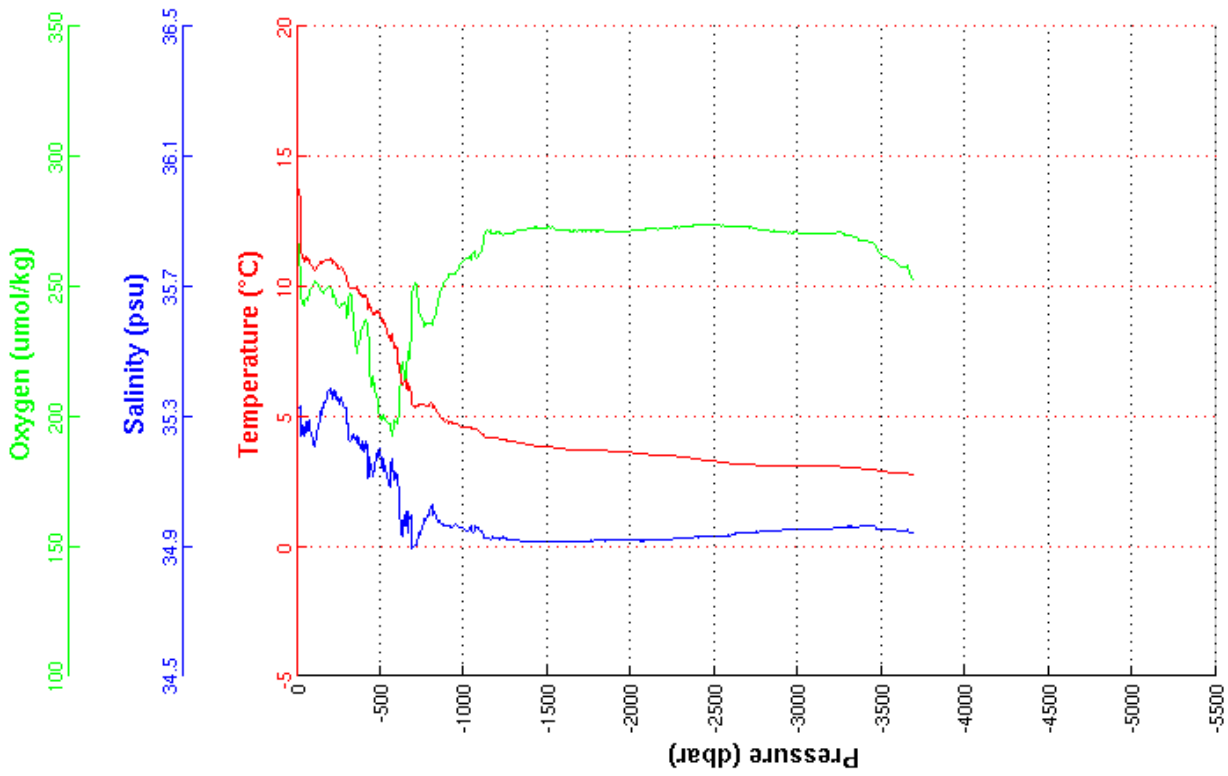
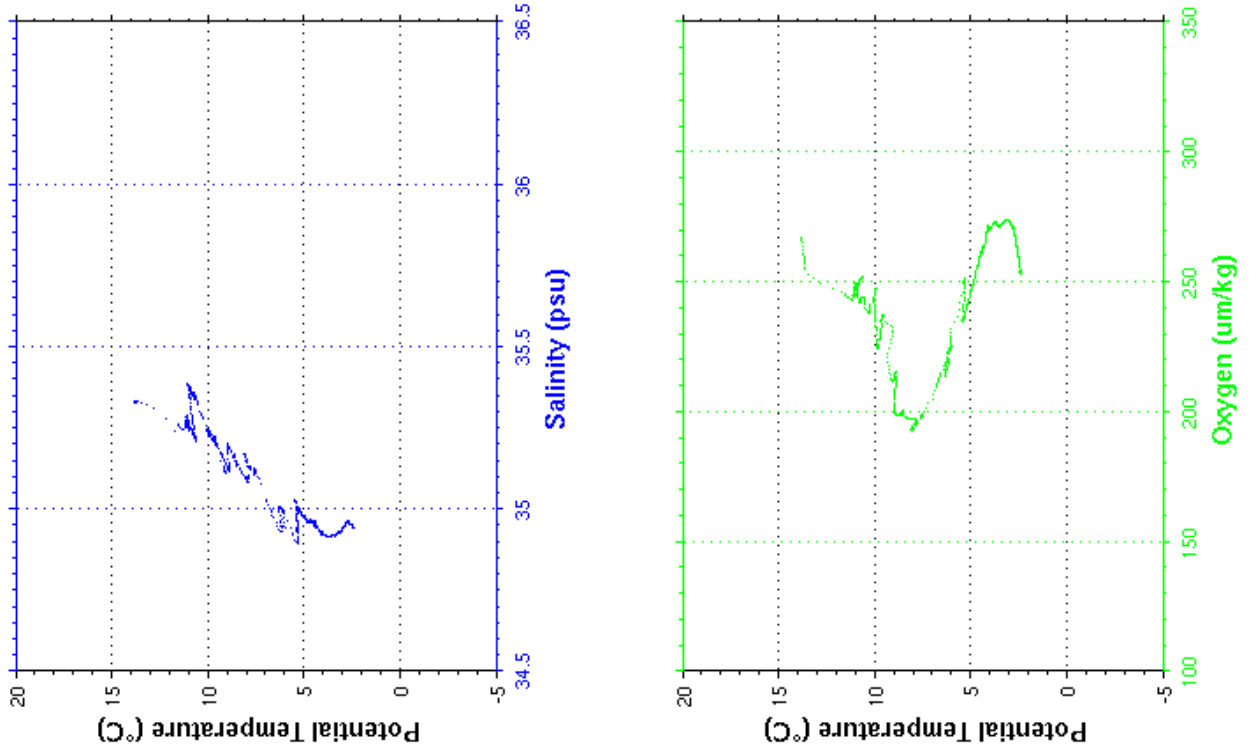
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Cast       : 51           Cruise    : CATARINA
Date       : 09/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3640 m      Organism  : CSIC/IIM VIGO
Position   : N 53 38.35
            W 025 14.16
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.808	35.328	267.5	13.808	3050.0	3.077	34.952	270.8	2.820
10.0	13.732	35.328	264.0	13.730	3100.0	3.081	34.952	270.6	2.818
20.0	13.633	35.332	257.0	13.630	3150.0	3.080	34.953	270.7	2.811
30.0	11.324	35.248	243.9	11.320	3200.0	3.075	34.954	270.7	2.801
40.0	11.171	35.269	243.1	11.166	3250.0	3.063	34.960	271.1	2.784
50.0	11.003	35.244	246.1	10.997	3300.0	3.045	34.961	270.3	2.761
100.0	10.652	35.210	251.6	10.640	3350.0	3.017	34.961	269.0	2.728
150.0	10.876	35.310	247.9	10.857	3400.0	2.979	34.962	267.8	2.686
200.0	11.072	35.387	250.2	11.047	3450.0	2.961	34.961	266.9	2.662
250.0	10.717	35.340	242.0	10.687	3500.0	2.882	34.953	262.6	2.580
300.0	10.293	35.278	237.7	10.258	3550.0	2.853	34.951	260.8	2.546
350.0	9.944	35.230	233.8	9.903	3600.0	2.798	34.949	258.4	2.487
400.0	9.664	35.209	236.0	9.618	3650.0	2.808	34.953	258.8	2.491
450.0	9.061	35.133	212.4	9.011	3688.0	2.725	34.940	253.2	2.406
500.0	8.926	35.186	199.1	8.871					
550.0	8.062	35.093	197.8	8.004					
600.0	7.613	35.120	197.8	7.552					
650.0	6.386	34.997	214.0	6.326					
700.0	5.372	34.898	251.1	5.313					
750.0	5.403	34.958	237.2	5.339					
800.0	5.500	35.023	235.6	5.431					
850.0	5.069	34.978	246.4	4.998					
900.0	4.809	34.959	253.8	4.735					
950.0	4.745	34.966	255.2	4.667					
1000.0	4.577	34.954	260.6	4.496					
1050.0	4.475	34.945	262.7	4.391					
1100.0	4.393	34.947	264.1	4.305					
1150.0	4.177	34.923	271.6	4.087					
1200.0	4.160	34.926	270.7	4.065					
1250.0	4.094	34.923	270.7	3.996					
1300.0	4.027	34.921	270.7	3.925					
1350.0	3.958	34.917	271.8	3.852					
1400.0	3.895	34.914	272.8	3.785					
1450.0	3.865	34.914	272.8	3.751					
1500.0	3.827	34.913	272.9	3.709					
1550.0	3.794	34.914	272.0	3.672					
1600.0	3.749	34.915	271.7	3.623					
1650.0	3.727	34.916	271.9	3.597					
1700.0	3.713	34.916	271.5	3.578					
1750.0	3.709	34.917	271.6	3.570					
1800.0	3.700	34.918	271.7	3.556					
1850.0	3.675	34.917	271.5	3.527					
1900.0	3.649	34.919	271.4	3.497					
1950.0	3.638	34.919	271.4	3.481					
2000.0	3.612	34.919	271.8	3.450					
2050.0	3.574	34.918	272.1	3.409					
2100.0	3.536	34.918	272.4	3.366					
2150.0	3.527	34.919	272.4	3.352					
2200.0	3.505	34.921	272.7	3.326					
2250.0	3.476	34.923	272.9	3.292					
2300.0	3.454	34.927	273.2	3.266					
2350.0	3.409	34.928	273.5	3.217					
2400.0	3.347	34.928	273.8	3.151					
2450.0	3.322	34.931	274.0	3.122					
2500.0	3.278	34.931	274.1	3.073					
2550.0	3.231	34.933	273.6	3.022					
2600.0	3.191	34.935	273.1	2.977					
2650.0	3.186	34.940	273.5	2.967					
2700.0	3.157	34.943	273.1	2.934					
2750.0	3.118	34.944	272.3	2.891					
2800.0	3.104	34.946	271.8	2.872					
2850.0	3.095	34.947	271.5	2.858					
2900.0	3.076	34.949	271.1	2.834					
2950.0	3.075	34.951	271.0	2.827					
3000.0	3.075	34.951	271.0	2.823					





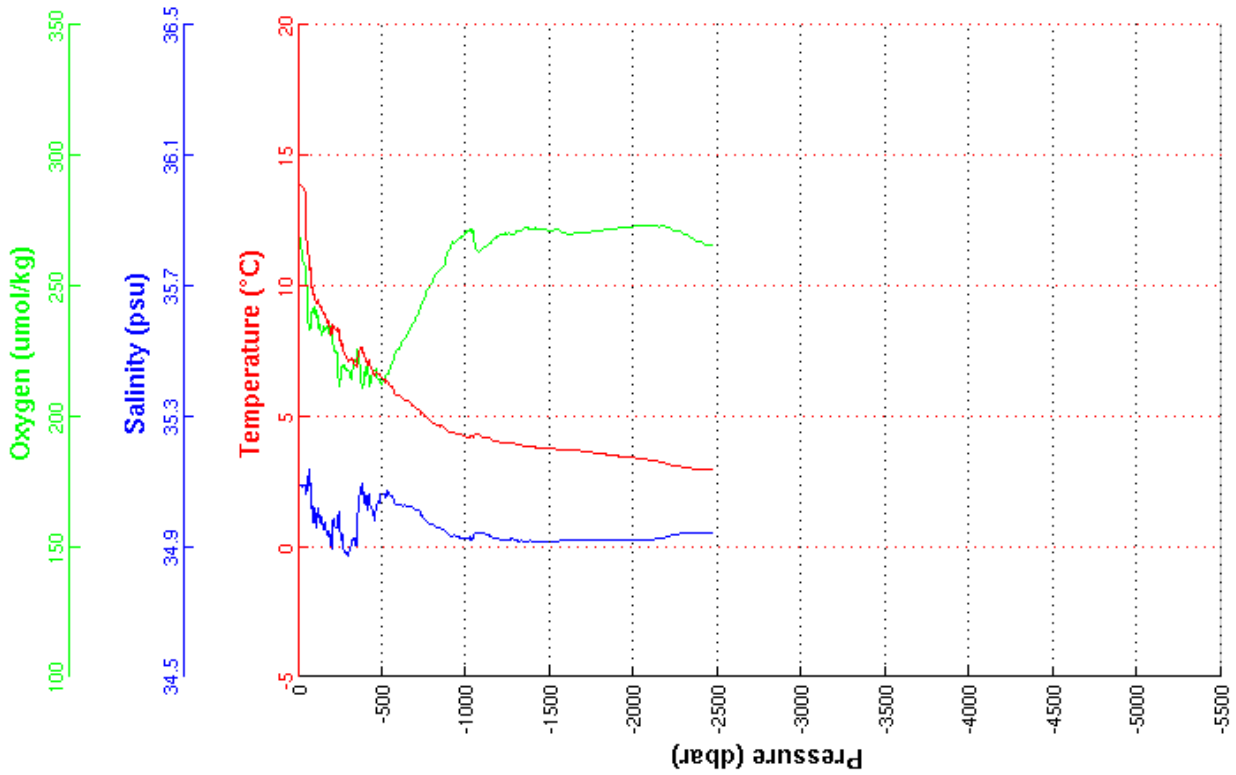
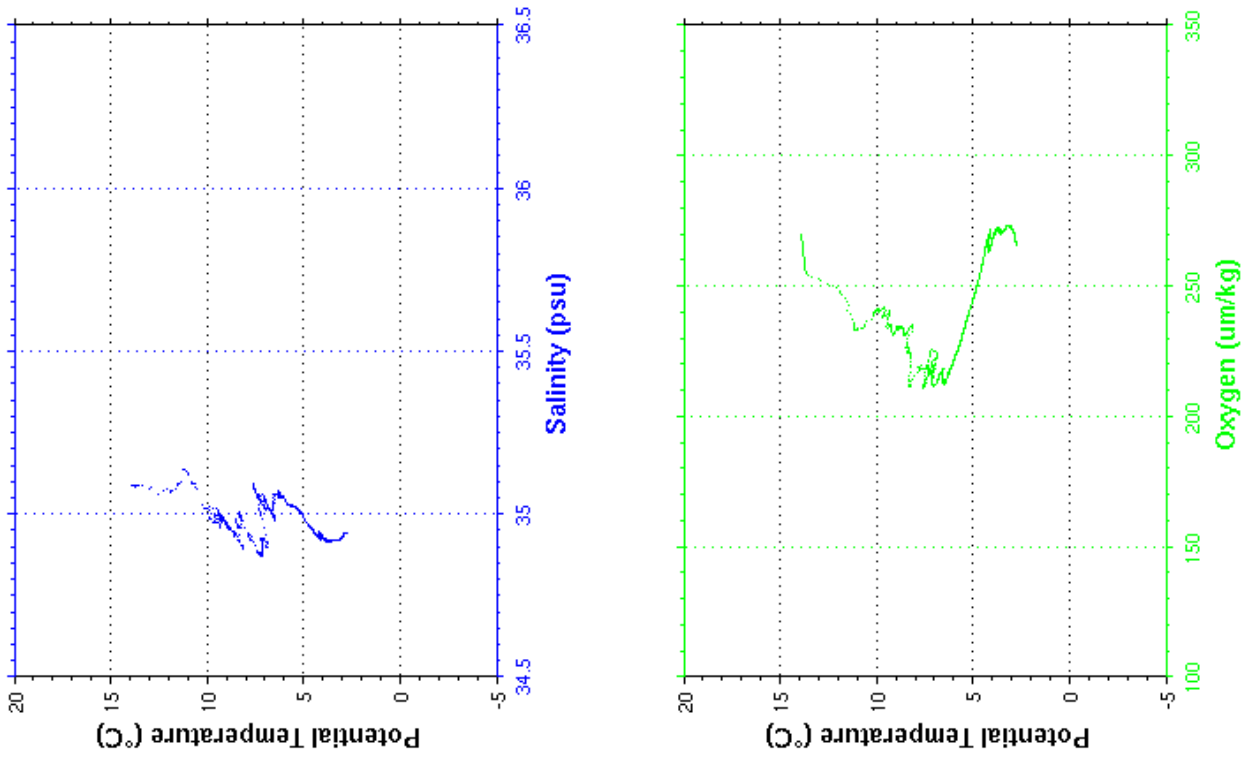
**Cast : 51**

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Cast      : 52           Cruise   : CATARINA
Date      : 09/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2451 m     Organism : CSIC/IIM VIGO
Position  : N 54 16.00
           W 025 43.63
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.942	35.088	270.2	13.942
10.0	13.858	35.086	266.6	13.857
20.0	13.784	35.086	262.8	13.781
30.0	13.731	35.086	258.8	13.727
40.0	13.707	35.089	256.8	13.702
50.0	11.945	35.068	249.1	11.938
100.0	9.647	34.999	239.4	9.636
150.0	8.952	34.957	234.7	8.936
200.0	8.136	34.892	235.5	8.115
250.0	8.096	34.959	215.4	8.070
300.0	7.128	34.874	217.3	7.099
350.0	7.003	34.934	226.3	6.970
400.0	7.294	35.053	215.4	7.255
450.0	6.591	34.989	217.8	6.550
500.0	6.481	35.059	213.4	6.435
550.0	6.147	35.051	219.7	6.097
600.0	5.818	35.027	226.2	5.766
650.0	5.589	35.025	231.8	5.533
700.0	5.318	35.014	238.6	5.259
750.0	5.018	34.984	246.1	4.957
800.0	4.803	34.967	252.0	4.738
850.0	4.623	34.955	257.3	4.555
900.0	4.434	34.937	264.4	4.363
950.0	4.302	34.928	268.7	4.227
1000.0	4.218	34.924	270.5	4.140
1050.0	4.261	34.939	266.9	4.179
1100.0	4.220	34.940	264.7	4.133
1150.0	4.106	34.930	267.2	4.015
1200.0	4.018	34.922	269.4	3.925
1250.0	3.963	34.920	270.4	3.865
1300.0	3.905	34.916	271.9	3.804
1350.0	3.850	34.914	272.7	3.745
1400.0	3.826	34.915	272.0	3.717
1450.0	3.793	34.914	272.1	3.680
1500.0	3.769	34.915	271.5	3.651
1550.0	3.731	34.916	271.8	3.610
1600.0	3.724	34.921	270.3	3.598
1650.0	3.678	34.921	270.5	3.548
1700.0	3.656	34.921	270.8	3.521
1750.0	3.616	34.919	271.3	3.478
1800.0	3.580	34.919	271.4	3.438
1850.0	3.530	34.919	271.8	3.383
1900.0	3.474	34.919	272.3	3.323
1950.0	3.433	34.920	272.7	3.279
2000.0	3.409	34.920	273.2	3.251
2050.0	3.349	34.921	273.3	3.186
2100.0	3.321	34.921	273.5	3.155
2150.0	3.254	34.926	273.0	3.084
2200.0	3.172	34.931	272.7	2.998
2250.0	3.078	34.938	271.2	2.901
2300.0	3.044	34.941	270.1	2.862
2350.0	2.993	34.943	268.6	2.808
2400.0	2.972	34.943	267.1	2.782
2450.0	2.951	34.944	266.1	2.757
2472.0	2.955	34.944	266.2	2.759



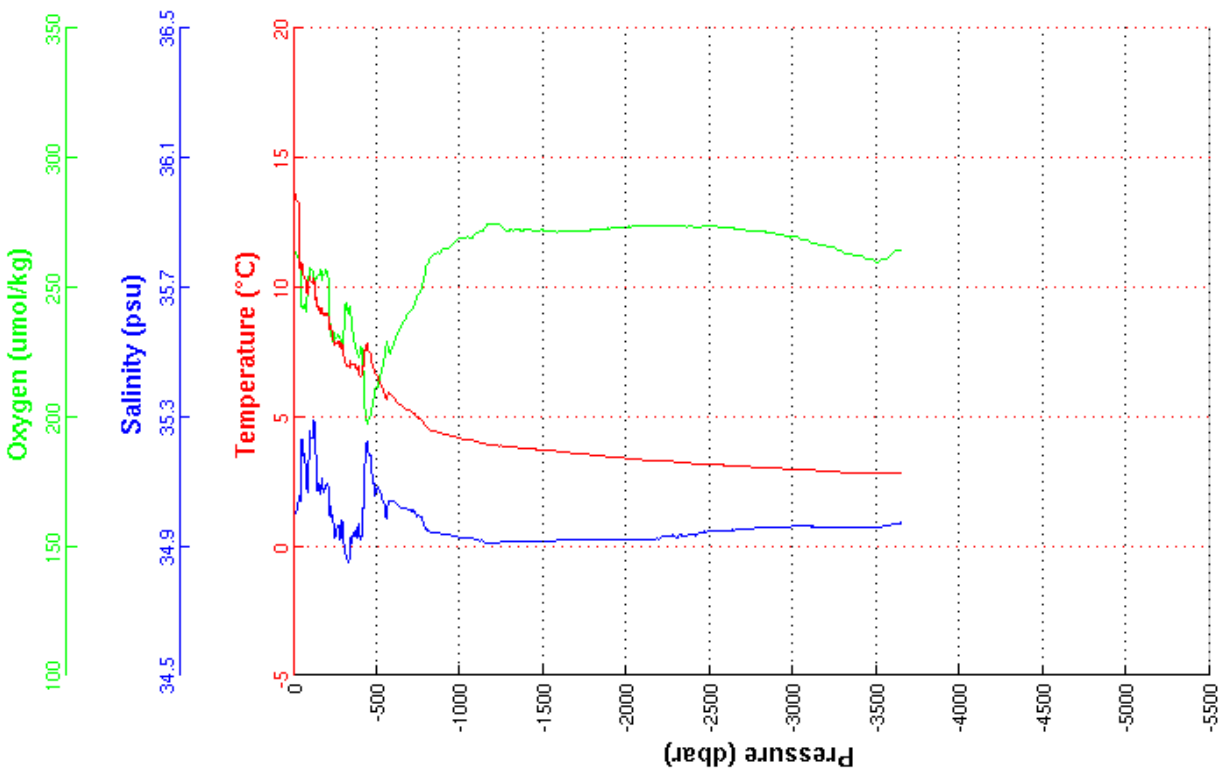
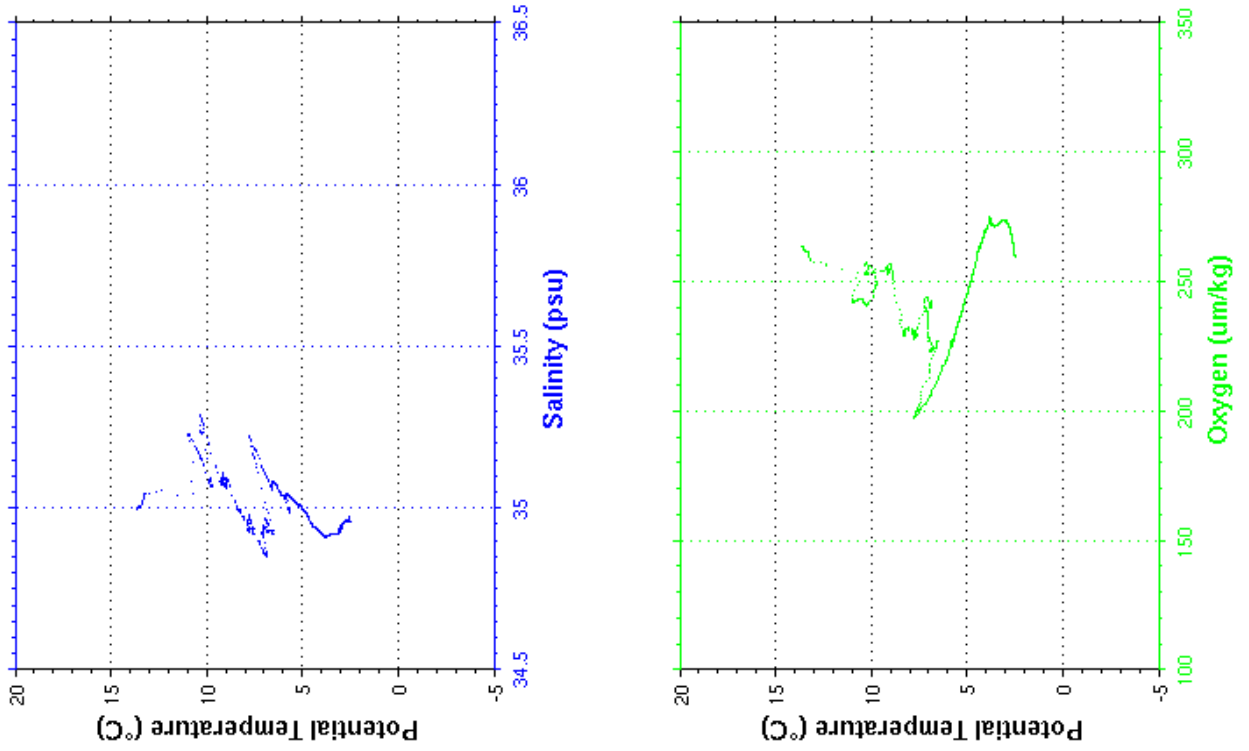
**Cast : 52**

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Cast       : 53           Cruise    : CATARINA
Date       : 09/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3620 m      Organism  : CSIC/IIM VIGO
Position   : N 54 45.67
            W 026  7.36
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.666	34.994	264.2	13.666	3050.0	2.962	34.961	268.9	2.707
10.0	13.607	35.001	264.5	13.606	3100.0	2.944	34.962	268.2	2.683
20.0	13.373	35.013	261.8	13.371	3150.0	2.919	34.960	266.9	2.654
30.0	13.263	35.041	260.8	13.259	3200.0	2.900	34.959	266.3	2.630
40.0	11.522	35.041	256.3	11.517	3250.0	2.882	34.959	265.5	2.608
50.0	10.888	35.224	242.7	10.882	3300.0	2.852	34.958	263.9	2.572
100.0	10.276	35.233	257.7	10.265	3350.0	2.840	34.958	262.9	2.556
150.0	9.253	35.087	255.4	9.236	3400.0	2.832	34.958	262.5	2.542
200.0	8.961	35.088	256.6	8.940	3450.0	2.815	34.958	261.4	2.520
250.0	7.805	34.932	231.0	7.780	3500.0	2.802	34.957	260.2	2.502
300.0	7.616	34.942	231.6	7.587	3550.0	2.817	34.962	261.3	2.511
350.0	7.094	34.923	236.1	7.061	3600.0	2.838	34.969	263.5	2.526
400.0	6.609	34.925	226.2	6.572	3650.0	2.850	34.971	264.5	2.532
450.0	7.561	35.185	199.4	7.516	3653.0	2.851	34.972	264.8	2.533
500.0	6.621	35.073	211.8	6.574					
550.0	5.771	34.997	226.3	5.723					
600.0	5.730	35.038	228.7	5.678					
650.0	5.432	35.020	236.2	5.377					
700.0	5.228	35.009	241.2	5.170					
750.0	4.954	34.993	248.0	4.892					
800.0	4.572	34.949	259.5	4.509					
850.0	4.450	34.941	263.1	4.383					
900.0	4.341	34.936	265.1	4.271					
950.0	4.248	34.931	266.8	4.174					
1000.0	4.167	34.925	269.3	4.089					
1050.0	4.127	34.926	269.7	4.046					
1100.0	4.027	34.919	271.1	3.942					
1150.0	3.945	34.912	273.9	3.857					
1200.0	3.889	34.910	274.8	3.796					
1250.0	3.876	34.912	273.3	3.779					
1300.0	3.842	34.913	272.3	3.741					
1350.0	3.806	34.914	272.5	3.701					
1400.0	3.771	34.914	272.7	3.662					
1450.0	3.745	34.915	272.0	3.632					
1500.0	3.725	34.916	272.3	3.608					
1550.0	3.685	34.917	271.6	3.564					
1600.0	3.659	34.918	271.9	3.534					
1650.0	3.617	34.919	272.0	3.488					
1700.0	3.582	34.919	271.9	3.449					
1750.0	3.555	34.919	272.0	3.417					
1800.0	3.524	34.920	272.4	3.382					
1850.0	3.487	34.919	272.8	3.341					
1900.0	3.453	34.919	273.1	3.303					
1950.0	3.422	34.920	273.2	3.268					
2000.0	3.395	34.920	273.6	3.237					
2050.0	3.369	34.921	273.8	3.206					
2100.0	3.317	34.919	274.0	3.150					
2150.0	3.289	34.919	273.9	3.118					
2200.0	3.285	34.924	274.1	3.109					
2250.0	3.276	34.930	274.2	3.096					
2300.0	3.245	34.930	273.9	3.060					
2350.0	3.208	34.932	274.0	3.019					
2400.0	3.181	34.934	273.6	2.988					
2450.0	3.188	34.943	273.7	2.989					
2500.0	3.169	34.945	273.9	2.966					
2550.0	3.147	34.947	273.5	2.940					
2600.0	3.118	34.948	273.3	2.906					
2650.0	3.094	34.950	273.1	2.877					
2700.0	3.079	34.952	272.6	2.857					
2750.0	3.059	34.955	272.1	2.833					
2800.0	3.042	34.957	271.5	2.811					
2850.0	3.029	34.959	271.4	2.794					
2900.0	3.009	34.958	270.9	2.768					
2950.0	2.991	34.959	270.1	2.745					
3000.0	2.979	34.962	269.8	2.728					



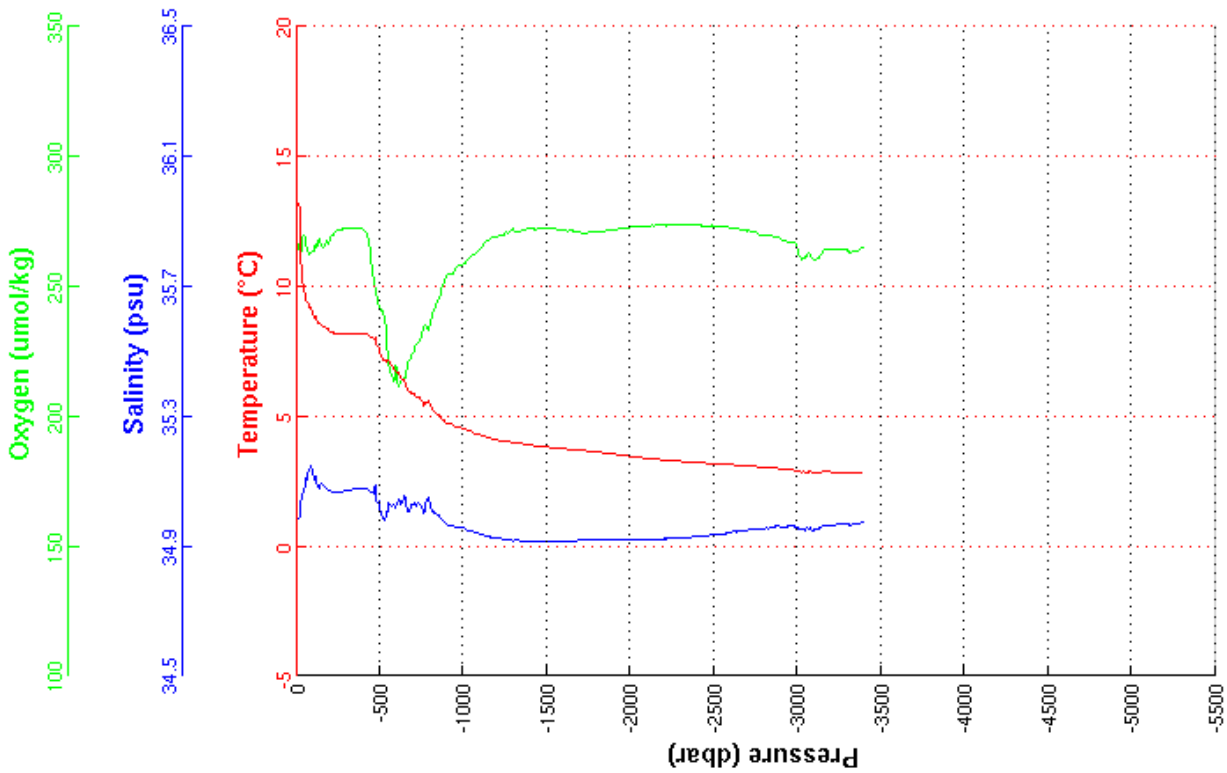
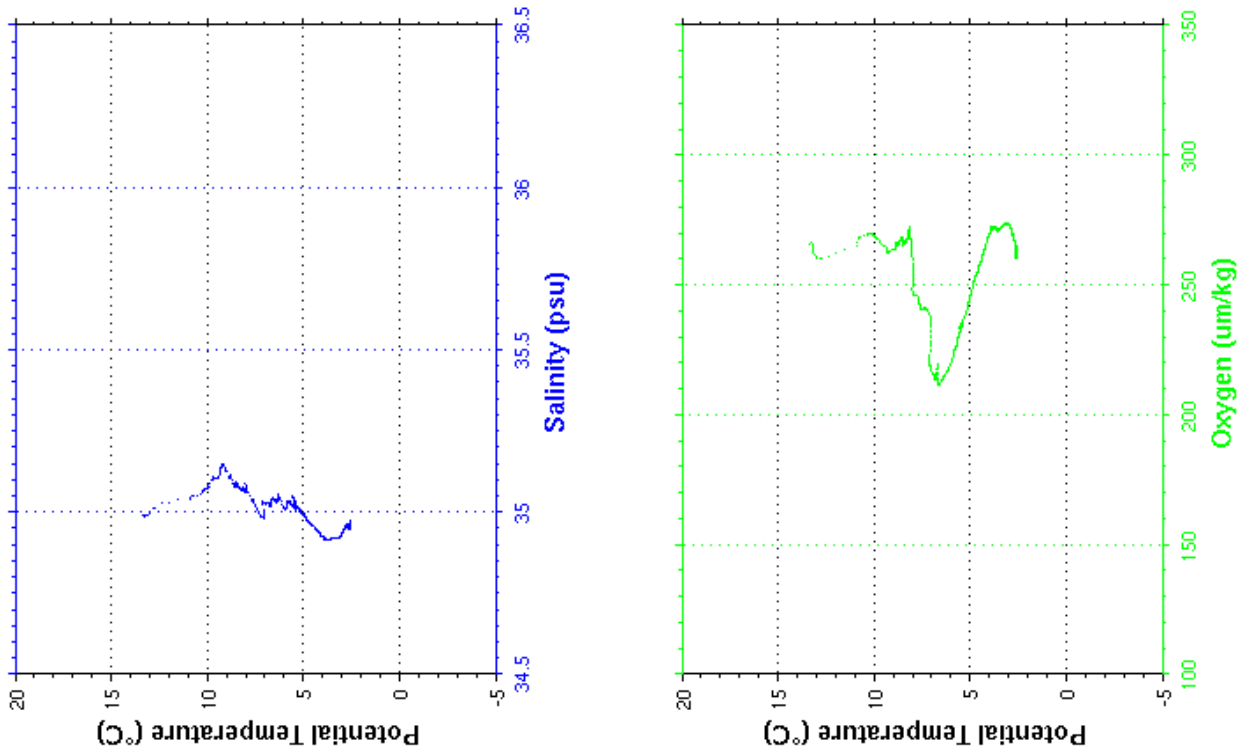
**Cast : 53**

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Cast      : 54           Cruise   : CATARINA
Date      : 09/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3361 m     Organism : CSIC/IIM VIGO
Position  : N 55 19.72
           W 026 33.56
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.405	34.990	265.9	13.405	3050.0	2.853	34.949	261.2	2.600
10.0	13.226	34.988	266.5	13.225	3100.0	2.831	34.950	260.3	2.574
20.0	13.160	34.989	262.0	13.158	3150.0	2.865	34.961	263.5	2.601
30.0	10.882	35.045	268.5	10.878	3200.0	2.858	34.964	264.5	2.589
40.0	10.208	35.068	269.9	10.203	3250.0	2.843	34.968	264.6	2.569
50.0	9.931	35.079	269.2	9.926	3300.0	2.825	34.967	264.2	2.546
100.0	9.011	35.128	263.6	9.001	3350.0	2.816	34.969	263.5	2.532
150.0	8.517	35.088	265.5	8.501	3392.0	2.836	34.974	265.5	2.547
200.0	8.277	35.069	269.0	8.256					
250.0	8.186	35.069	272.1	8.160					
300.0	8.171	35.071	272.8	8.140					
350.0	8.185	35.076	273.0	8.149					
400.0	8.196	35.079	272.1	8.155					
450.0	8.039	35.063	258.8	7.993					
500.0	7.549	35.022	240.7	7.499					
550.0	7.181	35.032	221.4	7.127					
600.0	6.731	35.027	218.5	6.675					
650.0	6.379	35.055	215.2	6.319					
700.0	5.888	35.034	224.9	5.826					
750.0	5.581	35.017	231.9	5.516					
800.0	5.481	35.033	235.8	5.411					
850.0	5.058	34.993	245.8	4.987					
900.0	4.736	34.963	255.3	4.663					
950.0	4.612	34.960	257.0	4.536					
1000.0	4.522	34.956	259.1	4.441					
1050.0	4.411	34.947	262.0	4.327					
1100.0	4.292	34.938	265.2	4.205					
1150.0	4.170	34.929	268.0	4.079					
1200.0	4.088	34.924	269.3	3.994					
1250.0	4.031	34.920	271.2	3.933					
1300.0	3.995	34.919	272.0	3.893					
1350.0	3.944	34.916	271.7	3.838					
1400.0	3.889	34.914	272.4	3.780					
1450.0	3.847	34.913	272.6	3.734					
1500.0	3.812	34.913	272.8	3.694					
1550.0	3.778	34.914	272.4	3.656					
1600.0	3.752	34.915	271.8	3.626					
1650.0	3.717	34.917	271.6	3.587					
1700.0	3.695	34.919	271.1	3.560					
1750.0	3.656	34.918	271.2	3.517					
1800.0	3.623	34.918	271.4	3.480					
1850.0	3.585	34.918	271.9	3.438					
1900.0	3.543	34.919	272.1	3.392					
1950.0	3.504	34.919	272.5	3.349					
2000.0	3.454	34.919	273.0	3.294					
2050.0	3.424	34.920	273.4	3.260					
2100.0	3.382	34.920	273.5	3.214					
2150.0	3.350	34.920	273.9	3.179					
2200.0	3.317	34.923	273.9	3.141					
2250.0	3.287	34.924	274.0	3.106					
2300.0	3.266	34.925	274.1	3.081					
2350.0	3.245	34.927	273.9	3.056					
2400.0	3.225	34.930	273.9	3.031					
2450.0	3.202	34.932	273.7	3.003					
2500.0	3.177	34.935	273.7	2.974					
2550.0	3.150	34.938	273.2	2.942					
2600.0	3.145	34.943	272.7	2.932					
2650.0	3.107	34.946	272.3	2.890					
2700.0	3.083	34.948	271.6	2.862					
2750.0	3.072	34.954	271.3	2.845					
2800.0	3.029	34.955	270.0	2.799					
2850.0	3.002	34.958	269.4	2.767					
2900.0	2.974	34.960	268.7	2.734					
2950.0	2.940	34.961	267.5	2.696					
3000.0	2.897	34.956	265.0	2.648					



**Cast : 54**

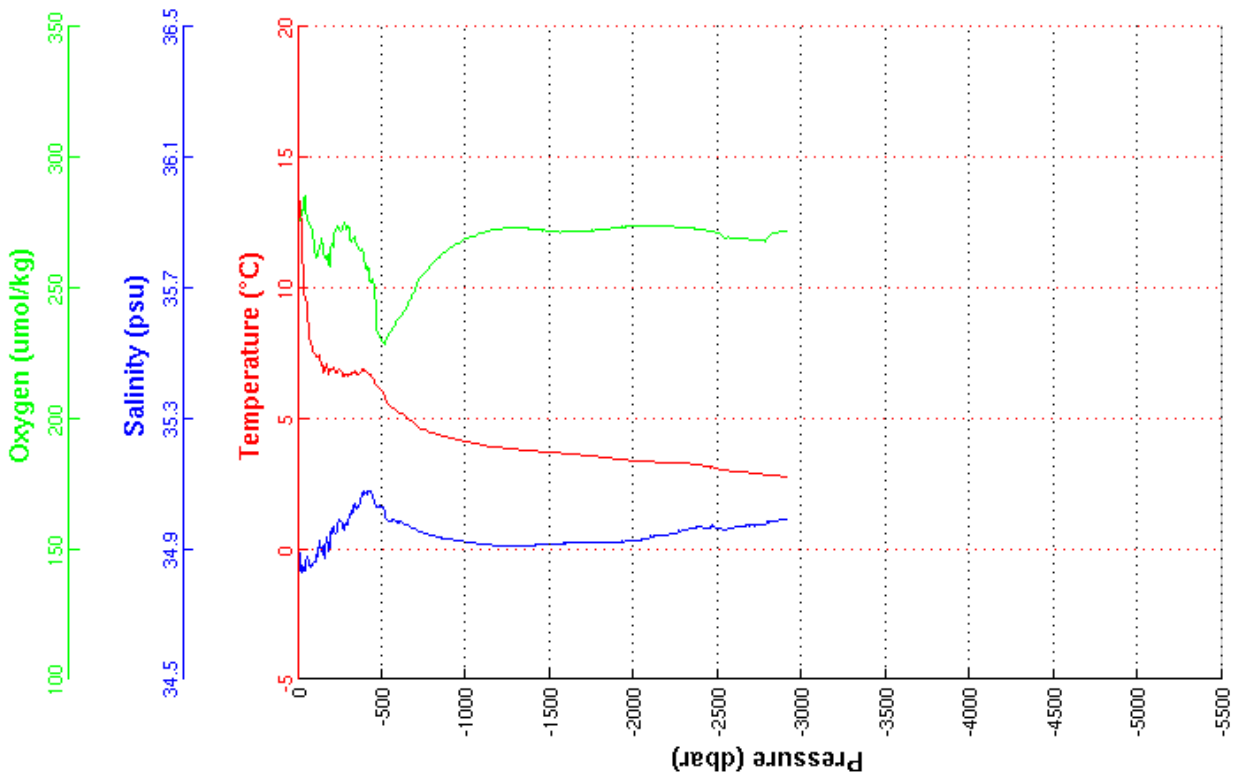
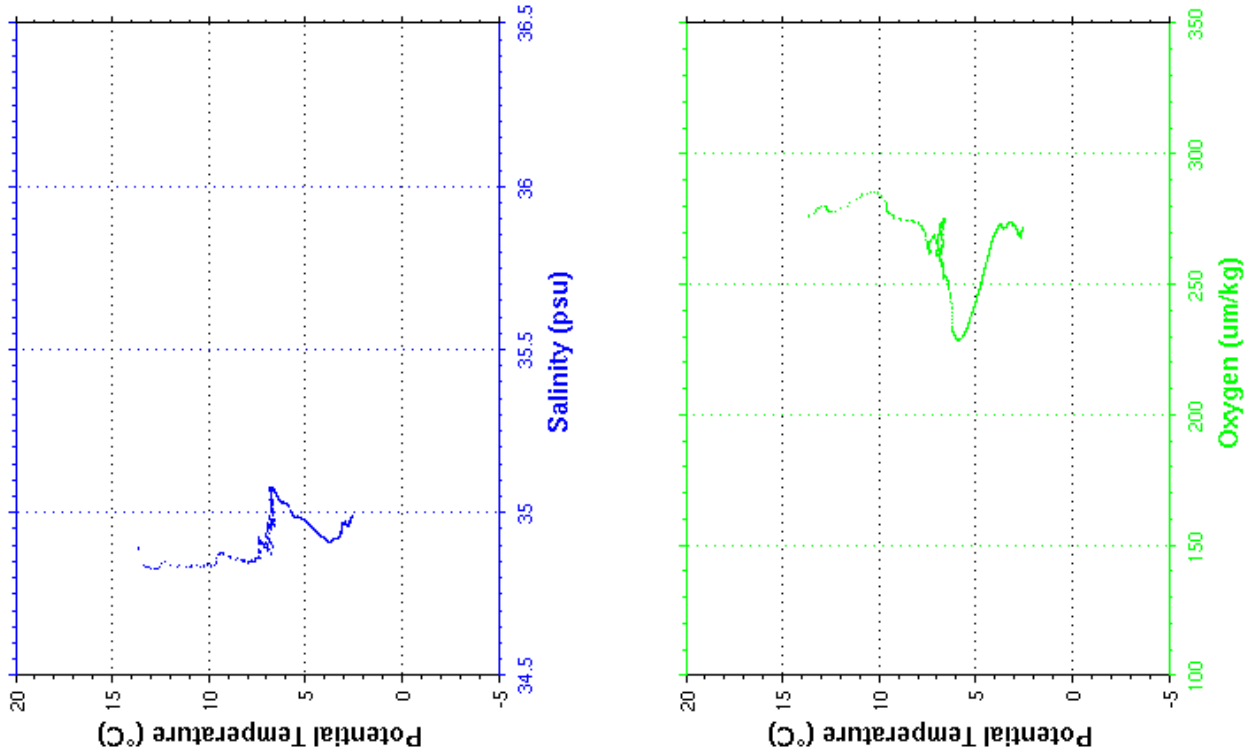
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Cast      : 55           Cruise   : CATARINA
Date      : 10/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2882 m     Organism : CSIC/IIM VIGO
Position  : N 55 52.95
           W 026 59.91
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PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.671	34.894	275.8	13.670
10.0	13.393	34.839	278.4	13.391
20.0	12.705	34.827	279.4	12.702
30.0	11.126	34.836	282.3	11.122
40.0	9.878	34.835	285.6	9.873
50.0	9.535	34.870	277.3	9.530
100.0	7.460	34.863	263.5	7.450
150.0	6.938	34.883	265.0	6.924
200.0	6.942	34.956	267.6	6.924
250.0	6.860	34.985	271.3	6.837
300.0	6.657	34.979	274.2	6.630
350.0	6.725	35.025	266.5	6.692
400.0	6.819	35.071	258.7	6.781
450.0	6.487	35.051	251.6	6.446
500.0	6.067	35.028	229.3	6.023
550.0	5.467	34.987	233.9	5.421
600.0	5.240	34.982	238.9	5.191
650.0	5.057	34.975	243.1	5.004
700.0	4.778	34.959	250.5	4.722
750.0	4.595	34.949	256.1	4.536
800.0	4.456	34.940	259.5	4.393
850.0	4.349	34.934	262.9	4.283
900.0	4.270	34.930	265.4	4.200
950.0	4.187	34.926	267.1	4.113
1000.0	4.109	34.921	269.3	4.032
1050.0	4.053	34.918	270.2	3.972
1100.0	3.971	34.914	271.3	3.887
1150.0	3.920	34.912	272.7	3.832
1200.0	3.889	34.911	272.7	3.797
1250.0	3.834	34.909	273.5	3.738
1300.0	3.809	34.909	273.6	3.709
1350.0	3.787	34.909	273.4	3.682
1400.0	3.765	34.911	272.8	3.657
1450.0	3.732	34.913	272.5	3.620
1500.0	3.704	34.915	272.3	3.587
1550.0	3.685	34.916	271.9	3.564
1600.0	3.654	34.917	272.0	3.529
1650.0	3.619	34.919	271.8	3.490
1700.0	3.594	34.919	271.9	3.460
1750.0	3.556	34.919	272.2	3.418
1800.0	3.527	34.921	272.6	3.385
1850.0	3.489	34.921	272.9	3.343
1900.0	3.447	34.921	273.3	3.297
1950.0	3.414	34.923	273.8	3.260
2000.0	3.376	34.925	274.0	3.218
2050.0	3.351	34.928	274.0	3.189
2100.0	3.353	34.938	274.0	3.185
2150.0	3.332	34.943	274.1	3.160
2200.0	3.304	34.944	273.9	3.128
2250.0	3.291	34.949	273.4	3.110
2300.0	3.281	34.959	273.3	3.096
2350.0	3.259	34.966	273.3	3.069
2400.0	3.213	34.967	272.6	3.019
2450.0	3.138	34.967	272.2	2.940
2500.0	3.063	34.965	271.1	2.862
2550.0	2.988	34.959	269.6	2.783
2600.0	2.982	34.966	269.4	2.772
2650.0	2.949	34.970	269.1	2.735
2700.0	2.911	34.973	268.8	2.693
2750.0	2.883	34.977	269.3	2.660
2800.0	2.837	34.982	270.1	2.611
2850.0	2.799	34.987	271.6	2.568
2900.0	2.785	34.989	271.9	2.549
2914.0	2.787	34.989	272.1	2.549





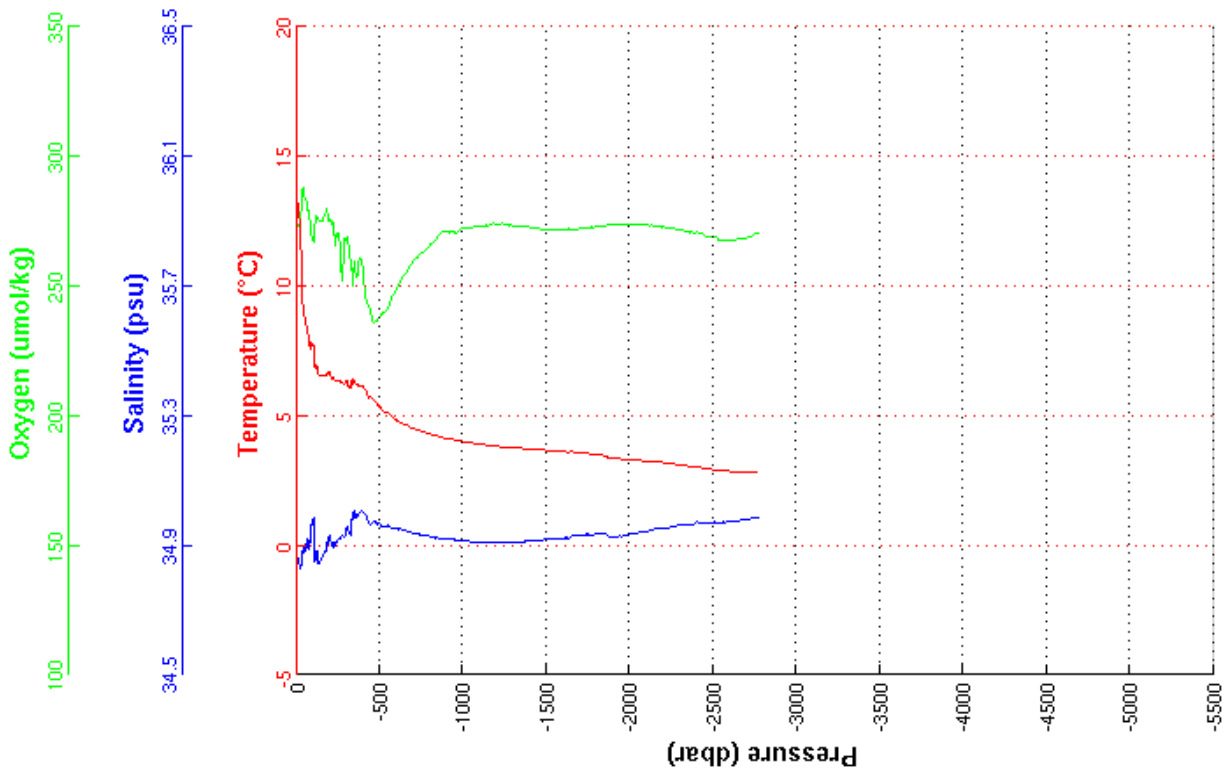
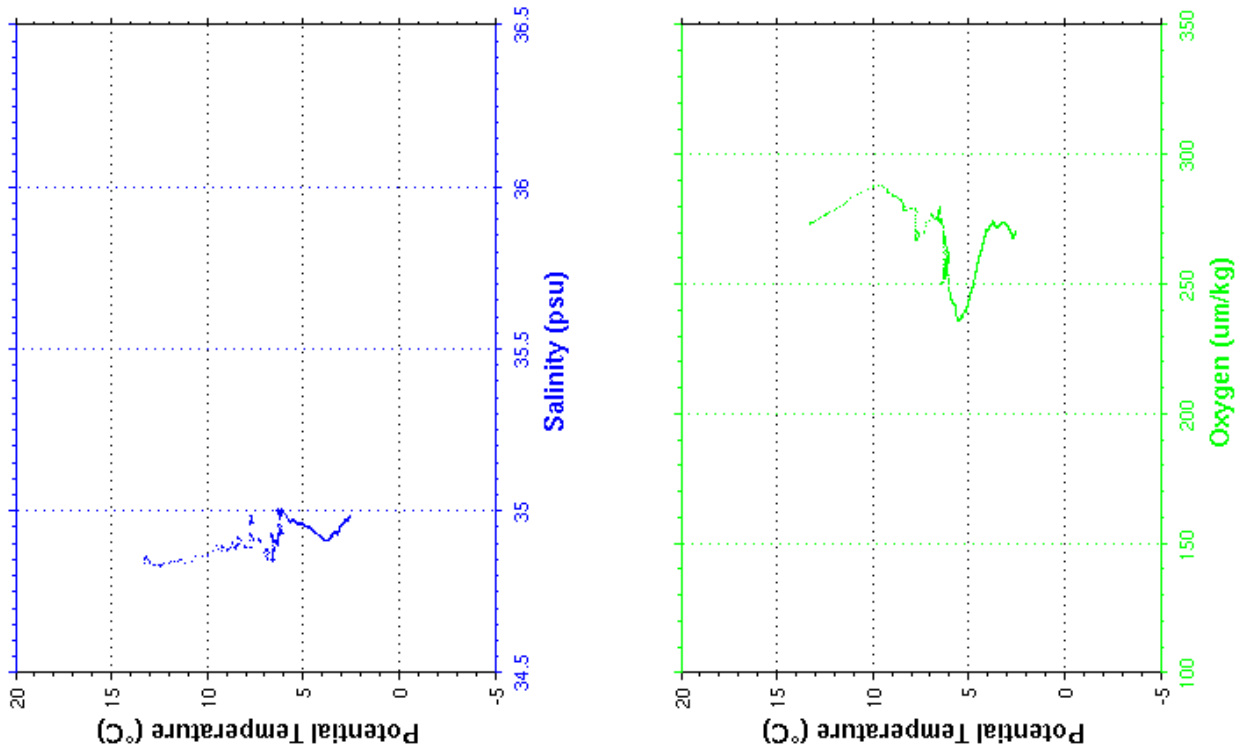
**Cast : 55**

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Cast      : 56           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2743 m     Organism : CSIC/IIM VIGO
Position  : N 56 15.12
           W 027 17.55
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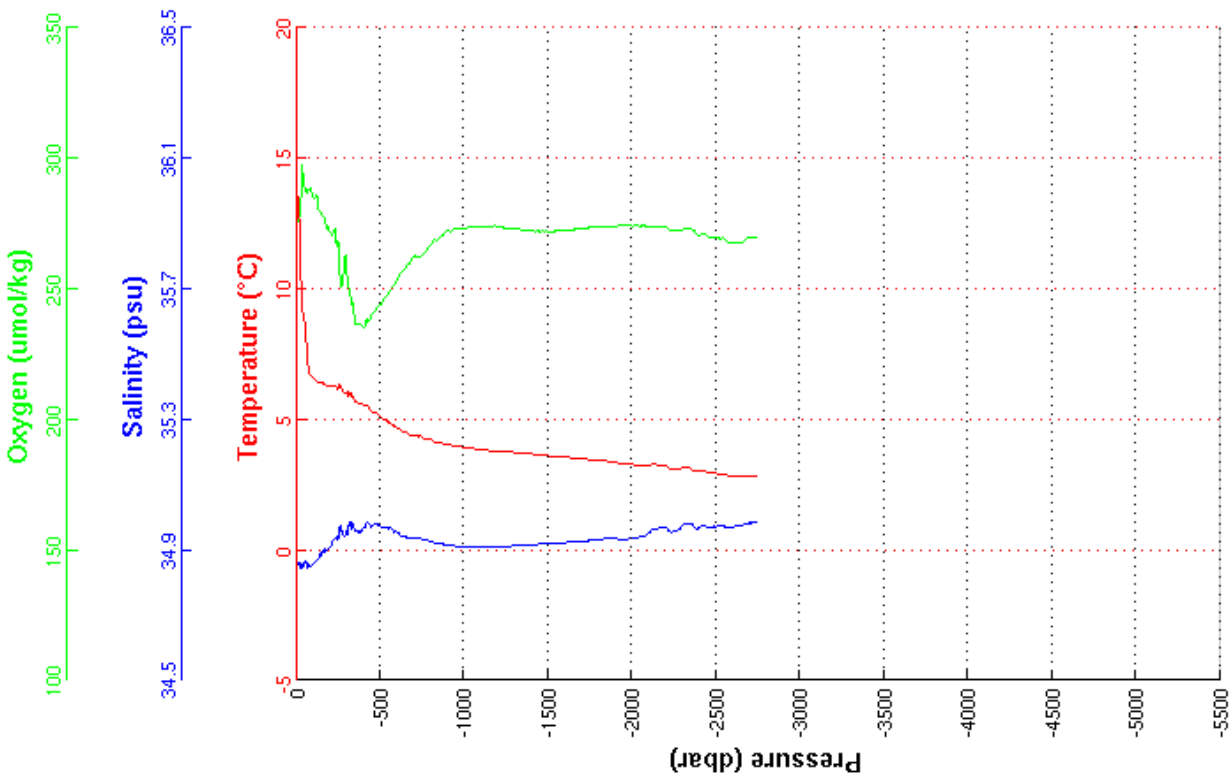
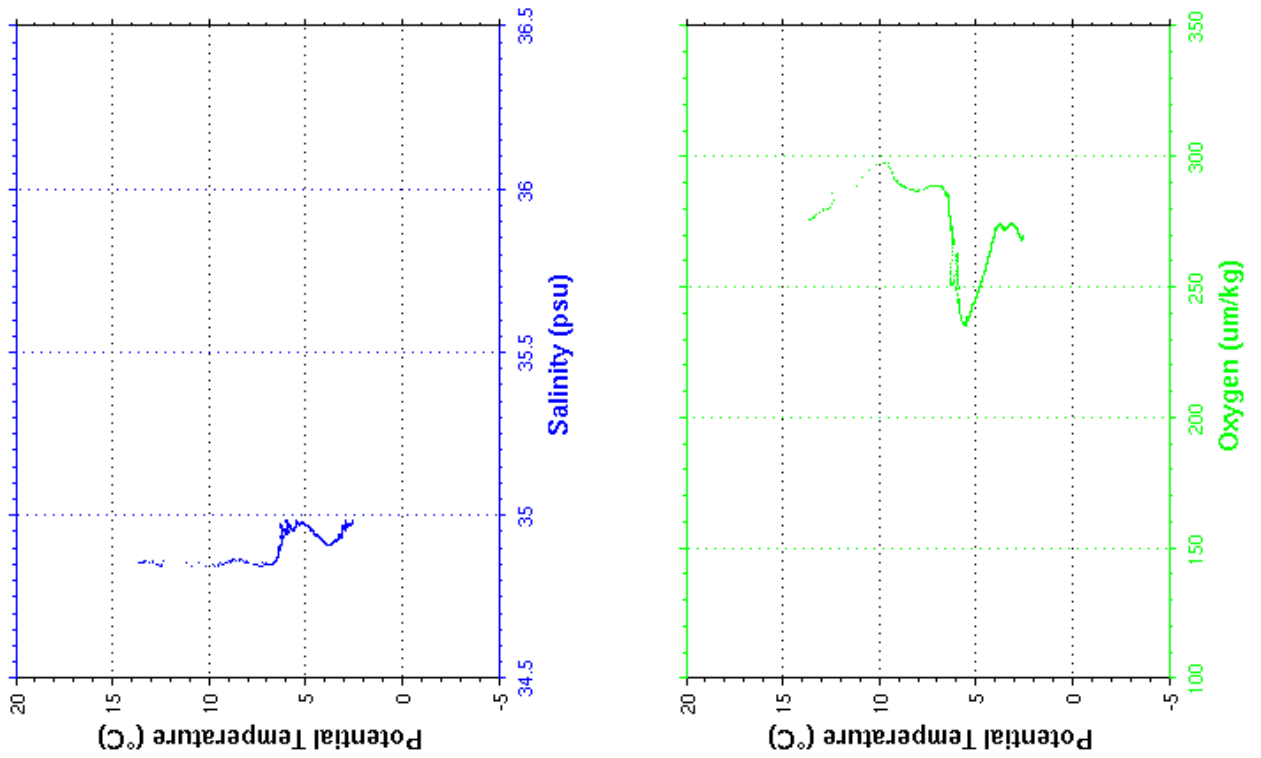
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.258	34.839	273.2	13.258
10.0	13.224	34.859	274.1	13.223
20.0	12.844	34.836	274.7	12.841
30.0	11.499	34.844	281.1	11.496
40.0	9.540	34.892	289.0	9.536
50.0	8.835	34.880	284.2	8.830
100.0	7.671	34.962	267.7	7.661
150.0	6.603	34.866	275.6	6.589
200.0	6.667	34.928	276.4	6.649
250.0	6.351	34.916	269.8	6.329
300.0	6.321	34.955	269.0	6.294
350.0	6.344	35.006	252.4	6.313
400.0	6.143	35.002	256.4	6.108
450.0	5.672	34.969	238.5	5.634
500.0	5.348	34.965	238.4	5.306
550.0	5.115	34.962	241.7	5.070
600.0	4.858	34.952	248.8	4.810
650.0	4.668	34.947	254.9	4.617
700.0	4.509	34.936	260.2	4.454
750.0	4.399	34.932	263.0	4.341
800.0	4.299	34.927	266.3	4.237
850.0	4.196	34.921	270.0	4.131
900.0	4.128	34.918	271.4	4.059
950.0	4.077	34.917	271.0	4.005
1000.0	4.011	34.914	272.4	3.934
1050.0	3.963	34.912	272.5	3.883
1100.0	3.902	34.909	273.6	3.818
1150.0	3.858	34.908	273.8	3.770
1200.0	3.820	34.907	273.6	3.729
1250.0	3.786	34.908	274.0	3.691
1300.0	3.764	34.909	273.7	3.665
1350.0	3.740	34.911	273.3	3.636
1400.0	3.714	34.913	272.9	3.606
1450.0	3.691	34.915	272.4	3.579
1500.0	3.668	34.918	272.1	3.552
1550.0	3.652	34.923	272.1	3.531
1600.0	3.605	34.921	272.0	3.480
1650.0	3.615	34.931	272.1	3.486
1700.0	3.579	34.932	272.5	3.445
1750.0	3.537	34.933	272.8	3.400
1800.0	3.491	34.934	273.1	3.350
1850.0	3.459	34.938	273.4	3.314
1900.0	3.347	34.925	274.0	3.199
1950.0	3.314	34.928	274.0	3.161
2000.0	3.312	34.934	274.2	3.155
2050.0	3.283	34.939	274.1	3.122
2100.0	3.256	34.941	273.9	3.091
2150.0	3.240	34.951	273.6	3.070
2200.0	3.188	34.952	273.0	3.014
2250.0	3.161	34.957	272.9	2.983
2300.0	3.101	34.962	272.1	2.918
2350.0	3.060	34.964	271.3	2.874
2400.0	3.034	34.972	271.1	2.843
2450.0	2.959	34.969	269.7	2.765
2500.0	2.925	34.970	269.0	2.727
2550.0	2.885	34.970	268.2	2.682
2600.0	2.852	34.973	268.0	2.644
2650.0	2.834	34.976	268.5	2.622
2700.0	2.817	34.980	269.0	2.601
2750.0	2.806	34.985	270.1	2.585
2771.0	2.808	34.985	270.9	2.585



**Cast : 56**

Cast	: 57	Cruise	: CATARINA
Date	: 10/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2716 m	Organism	: CSIC/IIM VIGO
Position	: N 56 37.67 W 027 34.76		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.614	34.854	275.9	13.614
10.0	13.528	34.855	276.1	13.527
20.0	12.878	34.857	280.7	12.876
30.0	10.860	34.845	294.7	10.856
40.0	9.284	34.850	292.2	9.279
50.0	8.825	34.861	288.9	8.820
100.0	6.535	34.860	285.6	6.526
150.0	6.408	34.892	278.8	6.394
200.0	6.281	34.911	271.8	6.263
250.0	6.179	34.933	268.5	6.157
300.0	5.997	34.951	256.1	5.971
350.0	5.754	34.959	237.2	5.724
400.0	5.555	34.967	235.5	5.522
450.0	5.300	34.972	240.6	5.263
500.0	5.107	34.972	244.2	5.066
550.0	4.891	34.966	249.3	4.847
600.0	4.695	34.953	254.0	4.648
650.0	4.516	34.942	258.6	4.466
700.0	4.372	34.933	262.7	4.318
750.0	4.305	34.932	263.9	4.248
800.0	4.216	34.926	267.2	4.155
850.0	4.110	34.920	269.9	4.045
900.0	4.026	34.914	272.6	3.958
950.0	3.967	34.911	273.2	3.895
1000.0	3.924	34.910	273.6	3.848
1050.0	3.881	34.909	274.0	3.801
1100.0	3.846	34.908	274.1	3.763
1150.0	3.804	34.907	274.3	3.716
1200.0	3.776	34.909	274.0	3.685
1250.0	3.756	34.910	273.8	3.660
1300.0	3.733	34.913	273.3	3.634
1350.0	3.694	34.915	272.8	3.591
1400.0	3.673	34.916	272.4	3.566
1450.0	3.640	34.918	272.3	3.529
1500.0	3.609	34.919	272.4	3.494
1550.0	3.563	34.919	272.6	3.444
1600.0	3.546	34.921	272.9	3.422
1650.0	3.522	34.924	272.8	3.394
1700.0	3.488	34.927	273.5	3.356
1750.0	3.448	34.929	273.8	3.312
1800.0	3.424	34.931	274.0	3.283
1850.0	3.408	34.936	274.1	3.263
1900.0	3.348	34.935	274.3	3.200
1950.0	3.294	34.935	274.6	3.141
2000.0	3.278	34.938	274.2	3.121
2050.0	3.256	34.942	274.3	3.095
2100.0	3.257	34.953	274.2	3.092
2150.0	3.265	34.966	273.9	3.094
2200.0	3.207	34.967	273.8	3.032
2250.0	3.109	34.958	272.7	2.931
2300.0	3.142	34.973	273.0	2.959
2350.0	3.128	34.983	273.2	2.940
2400.0	3.012	34.969	270.9	2.821
2450.0	2.964	34.969	270.3	2.769
2500.0	2.927	34.971	269.6	2.728
2550.0	2.878	34.973	269.0	2.675
2600.0	2.831	34.971	267.6	2.624
2650.0	2.815	34.975	268.2	2.603
2700.0	2.794	34.982	269.8	2.578
2744.0	2.796	34.984	270.2	2.575



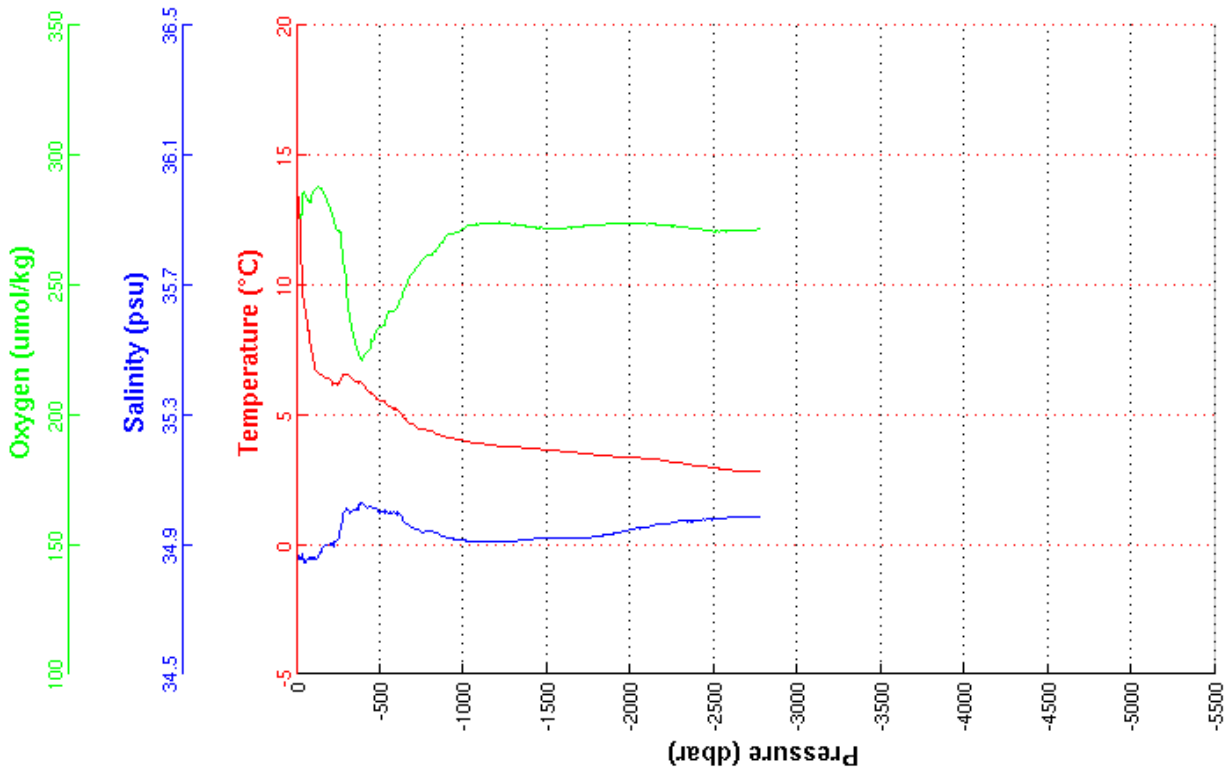
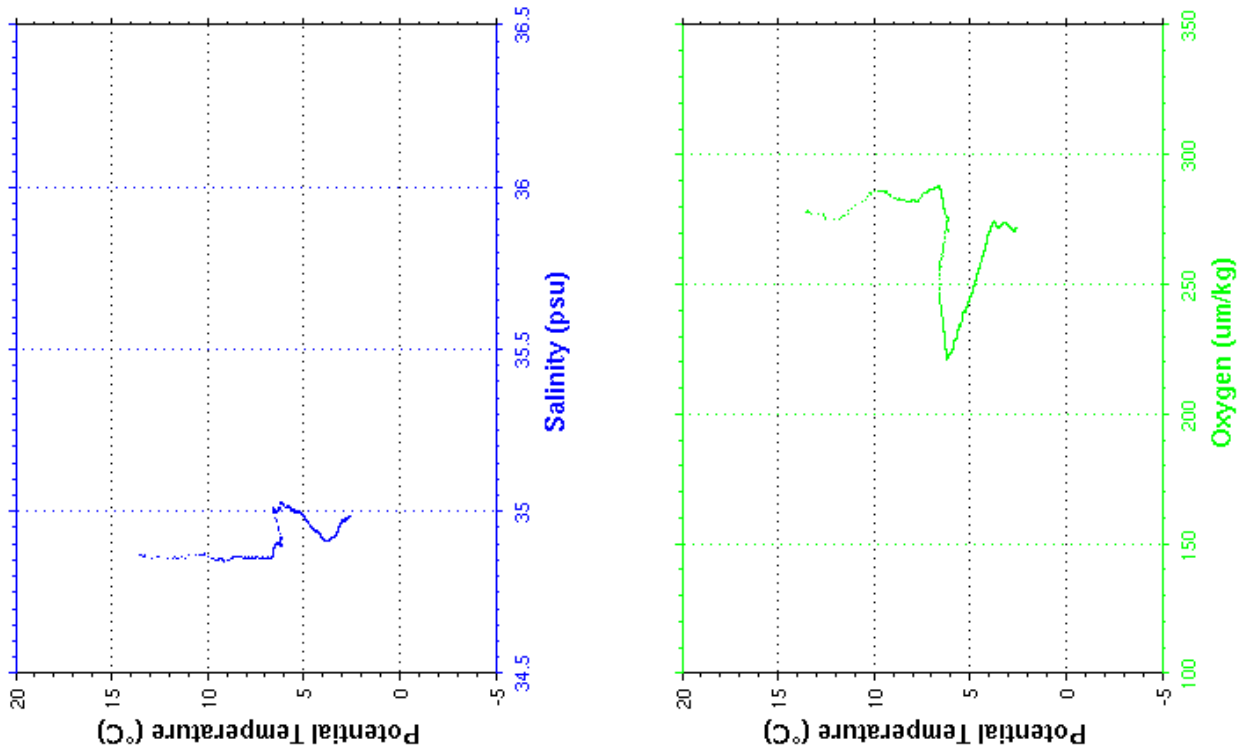
**Cast : 57**

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Cast      : 58           Cruise   : CATARINA
Date      : 10/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2750 m      Organism : CSIC/IIM VIGO
Position  : N 57 0.24
           W 027 52.73
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.474	34.863	278.7	13.474
10.0	13.432	34.867	278.9	13.431
20.0	12.585	34.859	276.9	12.582
30.0	11.172	34.856	278.2	11.168
40.0	9.713	34.857	287.1	9.709
50.0	9.134	34.846	285.2	9.129
100.0	7.170	34.855	286.4	7.161
150.0	6.548	34.890	287.0	6.535
200.0	6.368	34.904	279.5	6.350
250.0	6.179	34.916	270.9	6.157
300.0	6.577	35.006	245.3	6.550
350.0	6.343	35.006	228.1	6.312
400.0	6.145	35.025	223.2	6.109
450.0	5.804	35.015	228.7	5.765
500.0	5.581	35.005	234.5	5.538
550.0	5.373	34.997	240.1	5.327
600.0	5.205	34.999	241.9	5.155
650.0	4.850	34.968	249.5	4.798
700.0	4.607	34.951	255.8	4.552
750.0	4.438	34.939	260.4	4.379
800.0	4.386	34.943	261.6	4.324
850.0	4.255	34.932	265.1	4.189
900.0	4.139	34.922	269.5	4.070
950.0	4.066	34.918	270.8	3.993
1000.0	3.996	34.913	272.5	3.920
1050.0	3.929	34.910	273.3	3.849
1100.0	3.890	34.909	273.8	3.806
1150.0	3.842	34.908	274.2	3.754
1200.0	3.804	34.908	274.5	3.712
1250.0	3.780	34.909	274.1	3.684
1300.0	3.756	34.911	273.6	3.657
1350.0	3.739	34.914	273.1	3.636
1400.0	3.703	34.917	272.7	3.596
1450.0	3.674	34.918	272.4	3.562
1500.0	3.654	34.919	272.4	3.538
1550.0	3.622	34.921	272.0	3.502
1600.0	3.591	34.921	272.2	3.467
1650.0	3.561	34.922	272.4	3.433
1700.0	3.508	34.922	273.0	3.376
1750.0	3.483	34.922	273.2	3.346
1800.0	3.453	34.924	273.6	3.313
1850.0	3.438	34.931	273.8	3.293
1900.0	3.396	34.934	274.0	3.247
1950.0	3.378	34.940	273.9	3.224
2000.0	3.367	34.946	273.8	3.209
2050.0	3.344	34.952	273.9	3.182
2100.0	3.270	34.953	273.9	3.104
2150.0	3.272	34.962	273.9	3.101
2200.0	3.218	34.964	273.5	3.043
2250.0	3.191	34.969	273.1	3.012
2300.0	3.142	34.972	272.8	2.959
2350.0	3.088	34.971	272.2	2.901
2400.0	3.044	34.976	272.0	2.853
2450.0	3.011	34.977	271.7	2.816
2500.0	2.945	34.979	270.8	2.746
2550.0	2.913	34.981	271.1	2.710
2600.0	2.866	34.983	271.3	2.658
2650.0	2.841	34.985	271.2	2.629
2700.0	2.829	34.986	271.5	2.612
2750.0	2.826	34.987	271.8	2.604
2779.0	2.821	34.987	272.2	2.596



**Cast : 58**

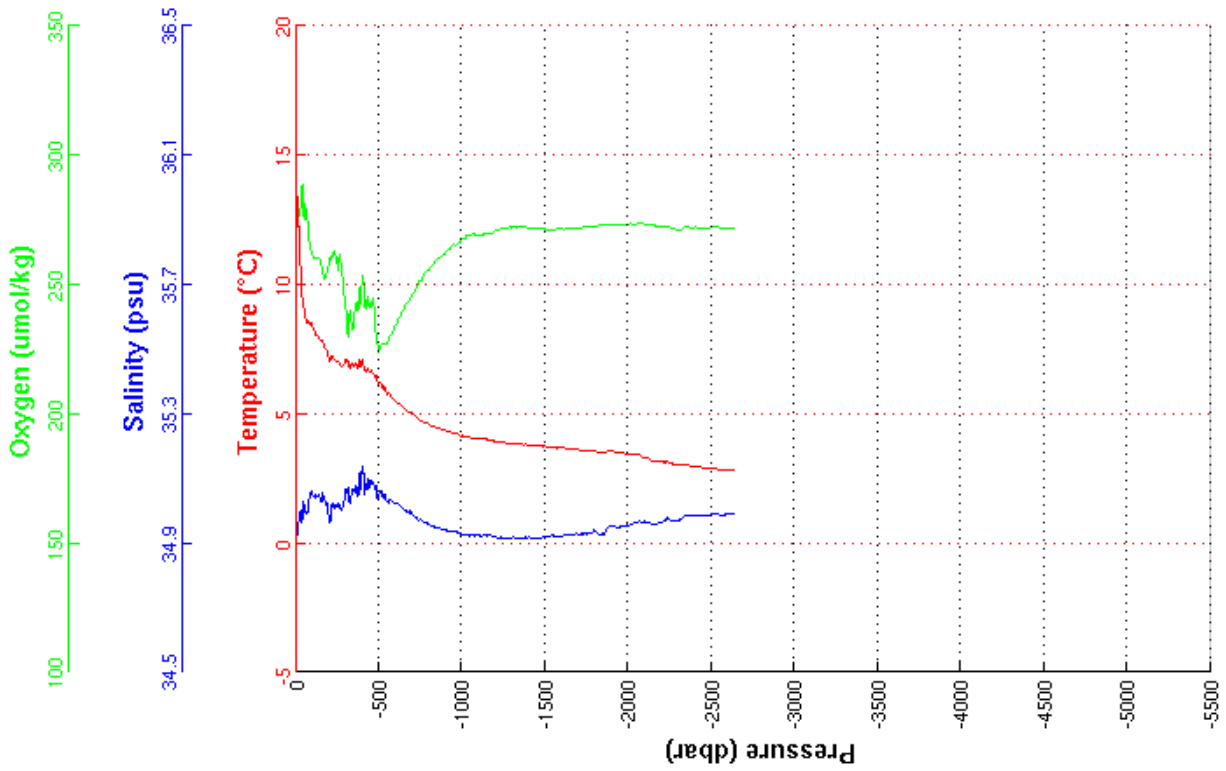
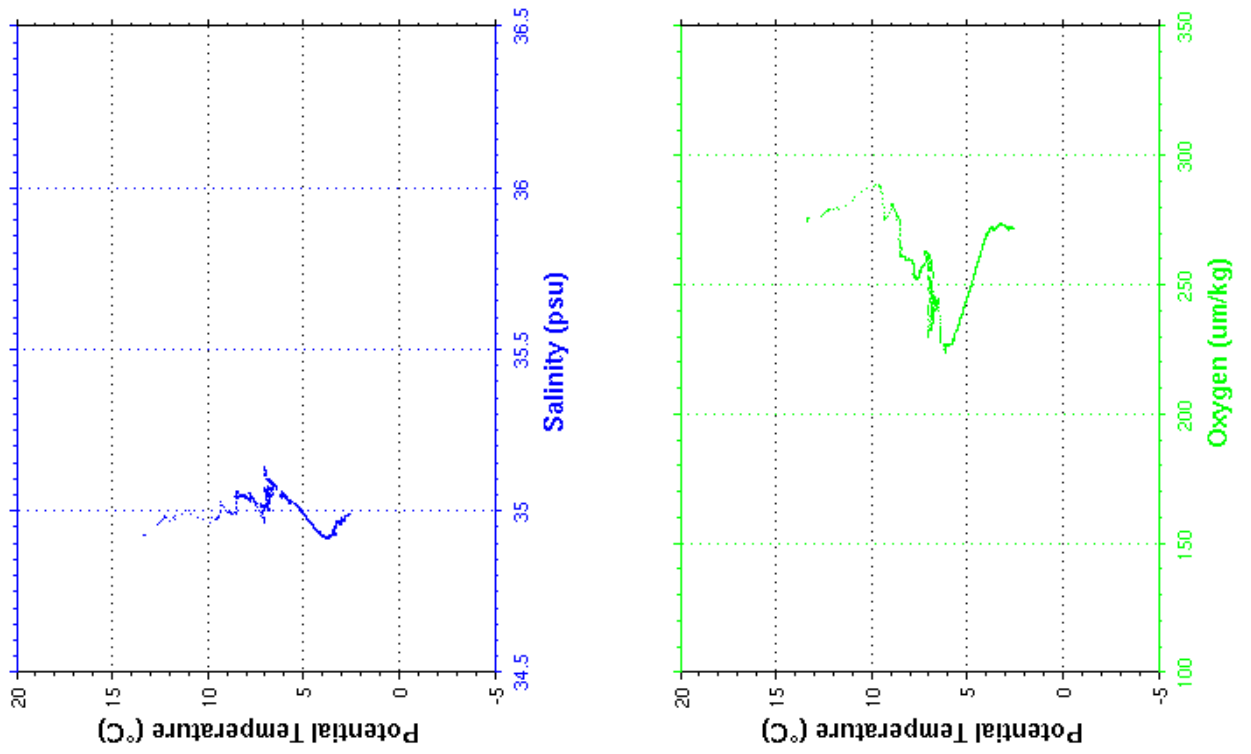
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Cast       : 59           Cruise    : CATARINA
Date       : 11/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 2610 m      Organism  : CSIC/IIM VIGO
Position   : N 57 22.67
            W 028 10.35
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	13.396	34.923	276.1	13.396
10.0	13.398	34.924	276.1	13.396
20.0	12.321	34.975	279.2	12.319
30.0	10.971	35.000	282.7	10.967
40.0	9.545	34.976	288.7	9.540
50.0	9.304	35.026	273.7	9.299
100.0	8.446	35.059	260.6	8.436
150.0	7.830	35.033	259.0	7.815
200.0	7.134	34.978	259.5	7.115
250.0	7.031	35.015	256.0	7.008
300.0	7.076	35.068	241.5	7.048
350.0	6.916	35.066	238.7	6.883
400.0	7.105	35.135	253.8	7.067
450.0	6.680	35.092	243.6	6.638
500.0	6.173	35.045	224.1	6.128
550.0	5.792	35.028	228.1	5.744
600.0	5.500	35.021	234.7	5.449
650.0	5.237	35.006	241.0	5.183
700.0	4.997	34.988	246.4	4.940
750.0	4.792	34.972	251.6	4.731
800.0	4.613	34.959	256.3	4.549
850.0	4.462	34.948	260.2	4.395
900.0	4.351	34.940	262.8	4.280
950.0	4.248	34.932	266.3	4.174
1000.0	4.145	34.927	268.1	4.068
1050.0	4.082	34.922	269.5	4.001
1100.0	4.048	34.924	269.4	3.963
1150.0	4.014	34.924	270.0	3.925
1200.0	3.938	34.918	271.6	3.845
1250.0	3.899	34.918	271.8	3.803
1300.0	3.852	34.916	272.3	3.752
1350.0	3.817	34.915	272.5	3.712
1400.0	3.805	34.918	272.1	3.696
1450.0	3.749	34.916	272.2	3.637
1500.0	3.740	34.920	271.5	3.622
1550.0	3.723	34.924	271.3	3.602
1600.0	3.674	34.923	271.8	3.549
1650.0	3.647	34.927	271.9	3.517
1700.0	3.608	34.927	272.4	3.475
1750.0	3.555	34.927	272.8	3.418
1800.0	3.573	34.939	272.8	3.430
1850.0	3.478	34.928	273.4	3.333
1900.0	3.556	34.953	273.1	3.404
1950.0	3.486	34.950	273.7	3.331
2000.0	3.438	34.955	273.6	3.278
2050.0	3.405	34.964	273.7	3.241
2100.0	3.310	34.966	273.7	3.144
2150.0	3.194	34.958	273.2	3.025
2200.0	3.151	34.965	273.0	2.978
2250.0	3.089	34.969	272.4	2.911
2300.0	3.032	34.972	271.4	2.851
2350.0	3.025	34.985	272.5	2.839
2400.0	2.970	34.986	272.5	2.780
2450.0	2.907	34.985	271.8	2.713
2500.0	2.882	34.987	272.5	2.684
2550.0	2.846	34.987	272.2	2.644
2600.0	2.813	34.988	272.2	2.606
2638.0	2.793	34.988	272.0	2.584





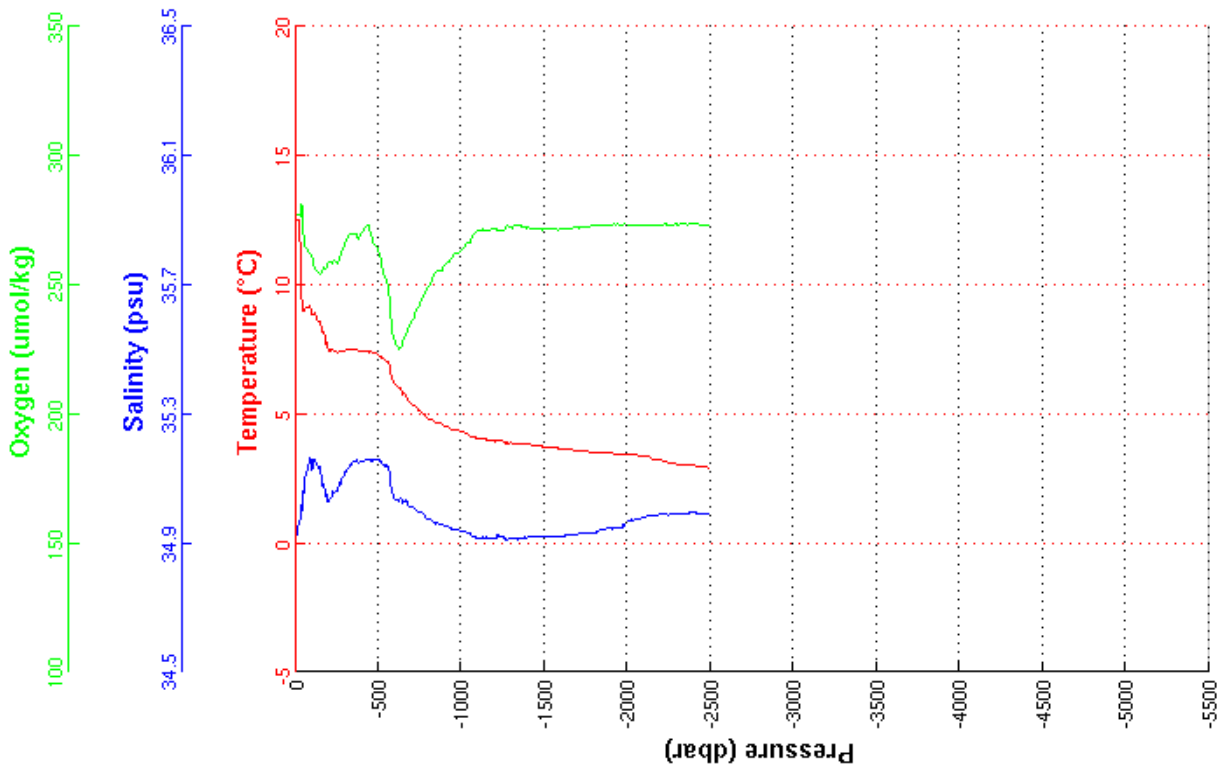
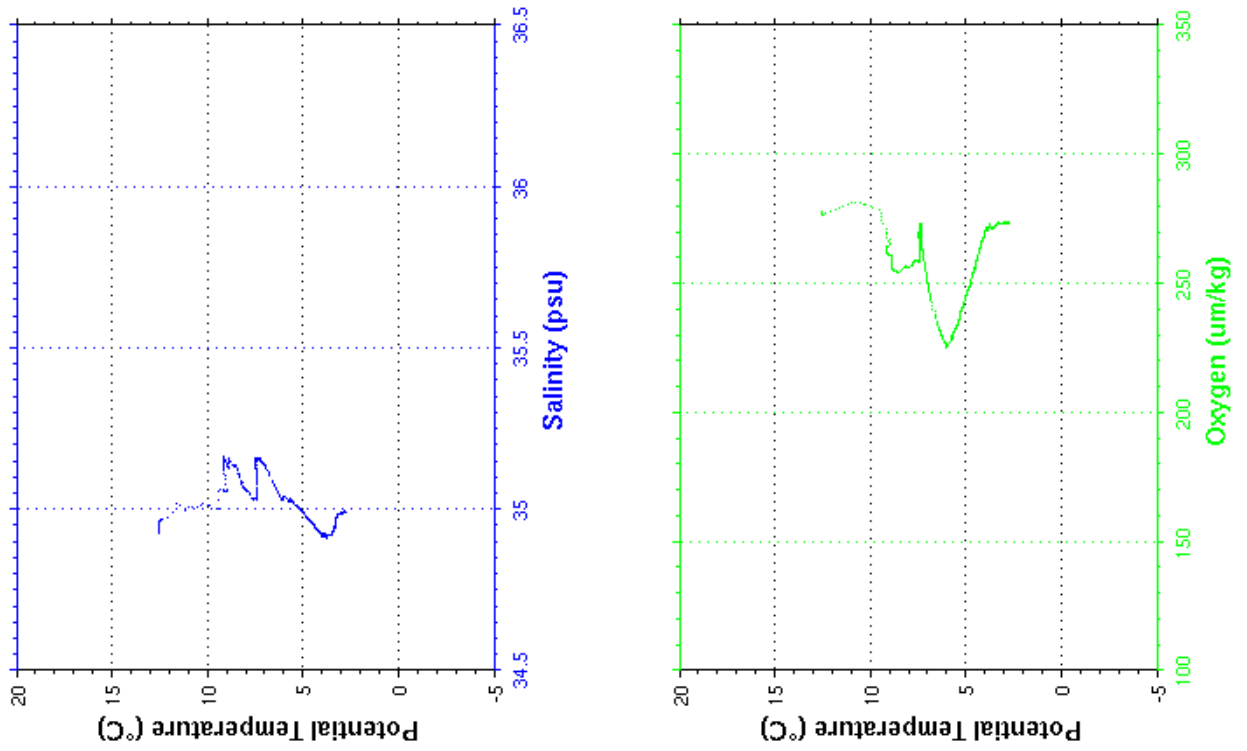
**Cast : 59**

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Cast      : 60           Cruise   : CATARINA
Date      : 12/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2474 m      Organism : CSIC/IIM VIGO
Position  : N 57 40.49
           W 028 43.84
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.536	34.928	277.9	12.536
10.0	12.536	34.928	277.7	12.534
20.0	12.513	34.960	277.5	12.511
30.0	12.098	34.976	278.9	12.094
40.0	9.967	35.014	282.7	9.962
50.0	9.114	35.062	266.9	9.108
100.0	8.948	35.131	261.1	8.938
150.0	8.574	35.137	254.2	8.559
200.0	7.530	35.035	258.5	7.511
250.0	7.409	35.063	258.7	7.385
300.0	7.466	35.121	266.9	7.436
350.0	7.516	35.153	270.1	7.481
400.0	7.433	35.155	270.8	7.394
450.0	7.396	35.159	271.3	7.351
500.0	7.327	35.159	262.8	7.278
550.0	7.094	35.140	251.4	7.040
600.0	6.162	35.033	227.5	6.108
650.0	5.779	35.029	229.7	5.722
700.0	5.400	35.012	236.9	5.340
750.0	5.139	34.996	243.0	5.077
800.0	4.854	34.973	249.7	4.789
850.0	4.655	34.960	255.1	4.586
900.0	4.516	34.951	258.4	4.444
950.0	4.412	34.943	261.9	4.336
1000.0	4.317	34.938	263.9	4.238
1050.0	4.201	34.930	266.6	4.119
1100.0	4.049	34.916	270.8	3.964
1150.0	4.009	34.917	271.3	3.920
1200.0	3.955	34.915	272.3	3.862
1250.0	3.938	34.920	271.0	3.841
1300.0	3.876	34.915	271.8	3.775
1350.0	3.818	34.914	273.3	3.713
1400.0	3.811	34.918	272.5	3.702
1450.0	3.773	34.918	272.1	3.660
1500.0	3.732	34.919	271.8	3.614
1550.0	3.698	34.919	271.9	3.576
1600.0	3.652	34.920	271.8	3.527
1650.0	3.625	34.926	272.0	3.496
1700.0	3.594	34.928	272.7	3.461
1750.0	3.538	34.929	272.4	3.401
1800.0	3.514	34.932	273.4	3.372
1850.0	3.508	34.940	273.4	3.362
1900.0	3.482	34.946	273.5	3.331
1950.0	3.429	34.945	273.2	3.275
2000.0	3.464	34.963	273.5	3.305
2050.0	3.409	34.974	273.5	3.245
2100.0	3.357	34.980	273.4	3.189
2150.0	3.290	34.986	273.0	3.119
2200.0	3.210	34.990	273.8	3.035
2250.0	3.116	34.988	273.5	2.938
2300.0	3.054	34.991	273.8	2.872
2350.0	3.027	34.992	273.8	2.841
2400.0	3.001	34.994	273.8	2.811
2450.0	2.946	34.993	273.6	2.752
2488.0	2.922	34.992	273.2	2.724



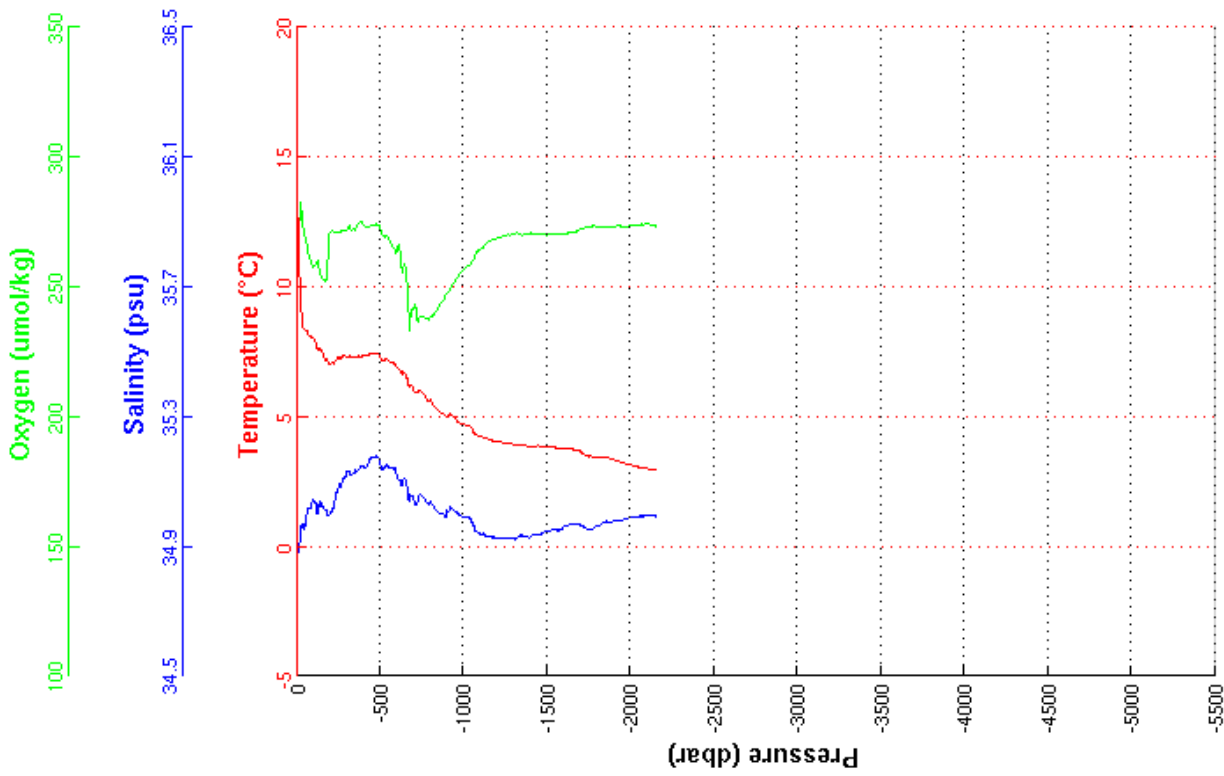
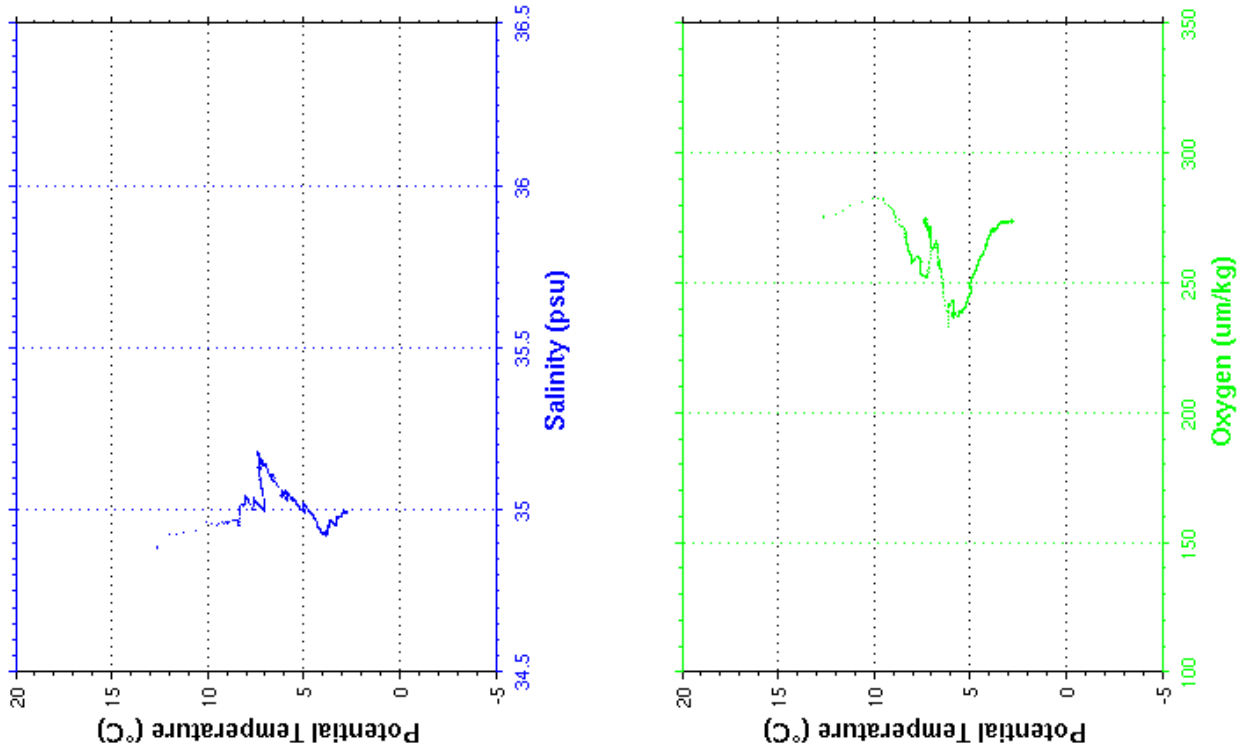
**Cast : 60**

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Cast       : 61           Cruise    : CATARINA
Date       : 12/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 2143 m      Organism  : CSIC/IIM VIGO
Position   : N 57 58.32
            W 029 16.75
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.664	34.885	275.5	12.664
10.0	12.661	34.885	275.6	12.660
20.0	11.299	34.930	277.2	11.296
30.0	9.033	34.961	279.2	9.030
40.0	8.557	34.966	271.3	8.553
50.0	8.365	34.963	268.3	8.359
100.0	8.038	35.041	258.0	8.028
150.0	7.507	35.026	253.5	7.493
200.0	7.058	35.004	271.7	7.039
250.0	7.254	35.083	271.3	7.230
300.0	7.333	35.117	272.0	7.304
350.0	7.302	35.128	272.1	7.268
400.0	7.331	35.146	274.3	7.292
450.0	7.421	35.174	274.7	7.377
500.0	7.324	35.160	272.7	7.275
550.0	7.152	35.144	268.4	7.099
600.0	6.904	35.119	264.3	6.847
650.0	6.625	35.104	258.2	6.563
700.0	6.090	35.050	242.1	6.027
750.0	5.951	35.056	238.8	5.884
800.0	5.642	35.038	239.3	5.572
850.0	5.223	35.002	242.7	5.151
900.0	5.051	35.004	248.5	4.976
950.0	4.944	35.010	253.1	4.864
1000.0	4.711	34.992	257.0	4.629
1050.0	4.536	34.977	260.2	4.451
1100.0	4.241	34.941	265.3	4.154
1150.0	4.131	34.932	267.4	4.041
1200.0	4.035	34.926	269.3	3.941
1250.0	3.989	34.923	270.1	3.891
1300.0	3.936	34.923	270.7	3.834
1350.0	3.932	34.933	270.1	3.826
1400.0	3.856	34.929	271.1	3.746
1450.0	3.871	34.939	270.5	3.757
1500.0	3.846	34.946	270.4	3.728
1550.0	3.806	34.950	270.7	3.683
1600.0	3.786	34.964	271.0	3.659
1650.0	3.743	34.968	271.7	3.613
1700.0	3.656	34.965	272.4	3.522
1750.0	3.488	34.953	273.7	3.351
1800.0	3.466	34.964	273.6	3.325
1850.0	3.438	34.975	273.3	3.292
1900.0	3.330	34.981	273.5	3.182
1950.0	3.217	34.982	273.6	3.066
2000.0	3.143	34.990	274.1	2.988
2050.0	3.055	34.993	274.2	2.897
2100.0	3.001	34.994	274.5	2.839
2150.0	2.950	34.994	273.7	2.785
2153.0	2.939	34.993	274.0	2.773



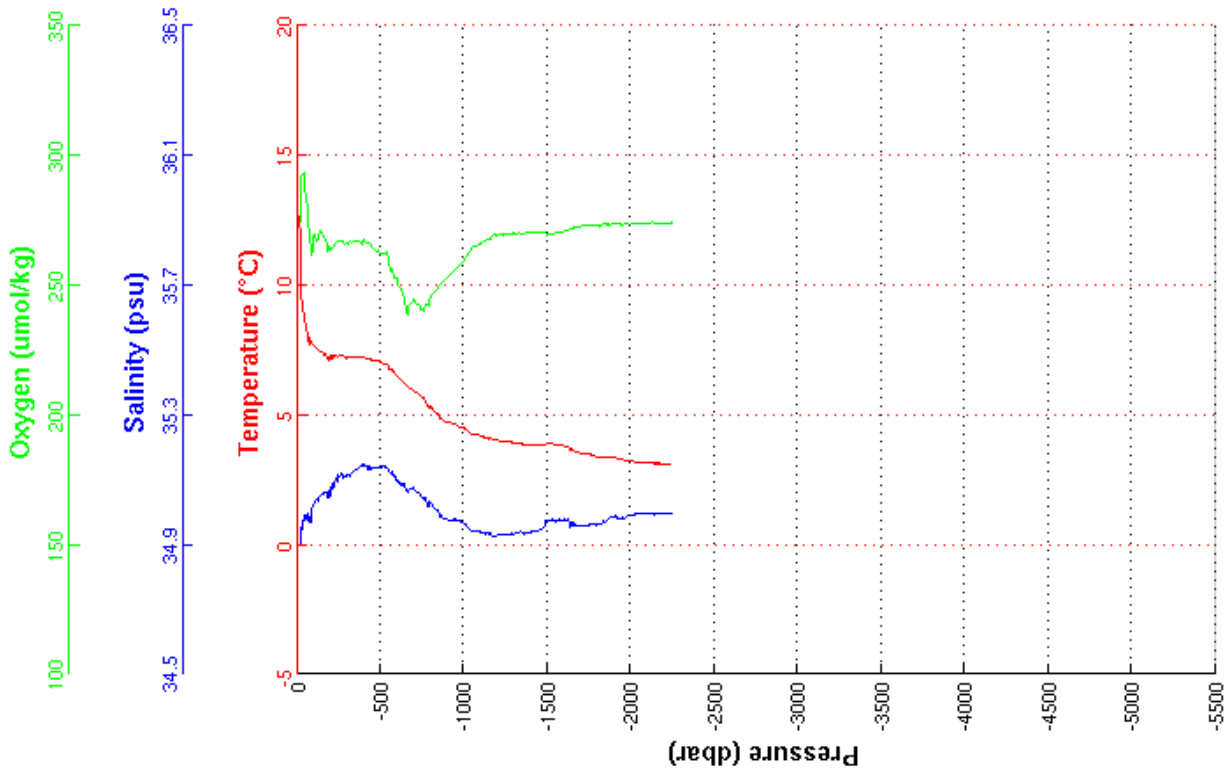
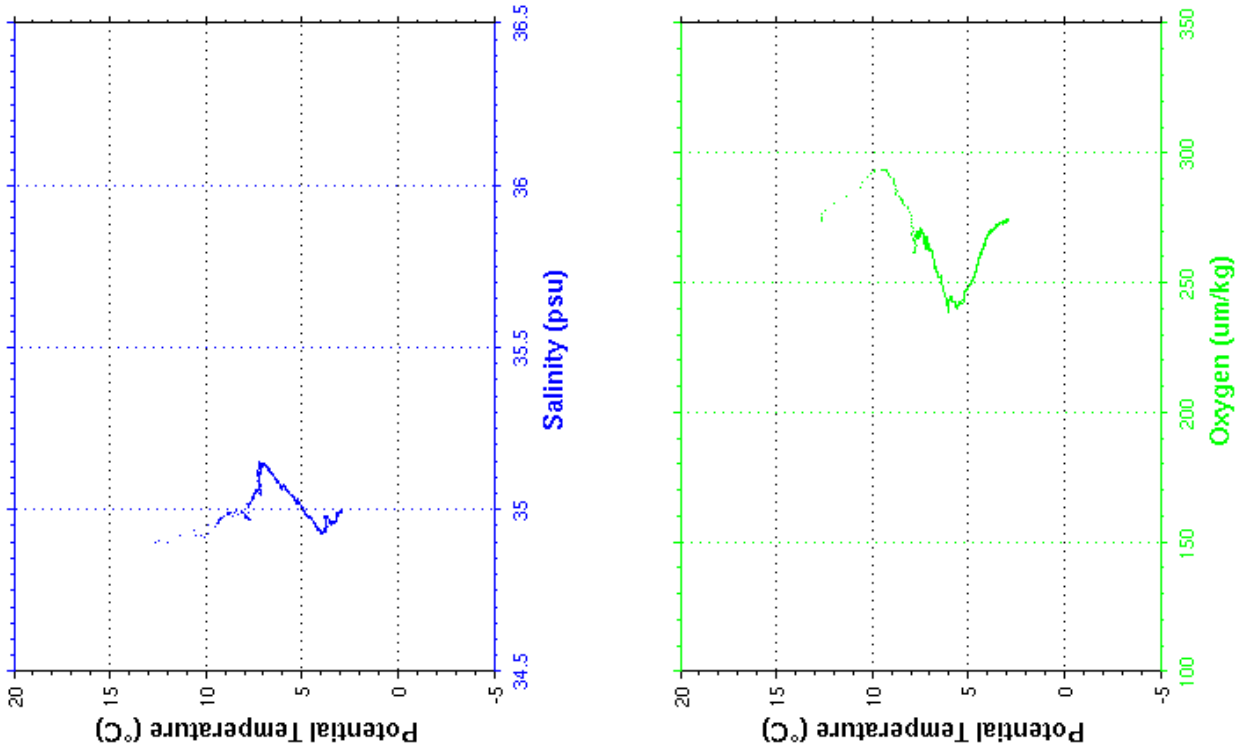
**Cast : 61**

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Cast      : 62           Cruise   : CATARINA
Date      : 12/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2232 m     Organism : CSIC/IIM VIGO
Position  : N 58 12.48
           W 029 43.54
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.624	34.900	274.3	12.624
10.0	12.624	34.900	274.3	12.623
20.0	12.622	34.900	273.8	12.619
30.0	9.503	34.946	293.4	9.500
40.0	9.179	34.974	293.8	9.175
50.0	8.769	34.988	286.4	8.764
100.0	7.667	35.024	270.4	7.657
150.0	7.401	35.059	270.2	7.386
200.0	7.169	35.059	264.2	7.150
250.0	7.311	35.115	267.9	7.287
300.0	7.215	35.113	265.6	7.186
350.0	7.231	35.131	267.7	7.197
400.0	7.231	35.142	268.3	7.193
450.0	7.118	35.135	264.5	7.075
500.0	7.059	35.143	263.4	7.011
550.0	6.873	35.131	259.4	6.820
600.0	6.461	35.094	252.5	6.406
650.0	6.175	35.073	242.2	6.116
700.0	5.950	35.070	244.6	5.887
750.0	5.644	35.042	239.7	5.579
800.0	5.302	35.030	246.1	5.234
850.0	4.947	34.994	250.0	4.876
900.0	4.743	34.976	253.5	4.670
950.0	4.652	34.977	256.4	4.575
1000.0	4.481	34.965	260.1	4.401
1050.0	4.233	34.937	265.1	4.151
1100.0	4.191	34.941	266.1	4.105
1150.0	4.101	34.934	267.5	4.011
1200.0	4.029	34.930	269.4	3.935
1250.0	3.966	34.930	270.0	3.868
1300.0	3.929	34.933	270.3	3.828
1350.0	3.884	34.937	270.3	3.779
1400.0	3.846	34.938	270.3	3.736
1450.0	3.818	34.944	270.0	3.705
1500.0	3.931	34.975	269.6	3.811
1550.0	3.841	34.970	270.4	3.718
1600.0	3.813	34.979	271.3	3.686
1650.0	3.674	34.967	272.7	3.544
1700.0	3.517	34.959	273.2	3.385
1750.0	3.478	34.961	273.0	3.342
1800.0	3.393	34.964	273.3	3.253
1850.0	3.357	34.975	273.9	3.213
1900.0	3.374	34.987	274.1	3.225
1950.0	3.275	34.981	273.4	3.123
2000.0	3.210	34.989	273.8	3.054
2050.0	3.167	34.995	274.3	3.007
2100.0	3.146	34.994	274.3	2.981
2150.0	3.130	34.993	274.2	2.961
2200.0	3.125	34.994	274.4	2.951
2243.0	3.115	34.995	274.4	2.938

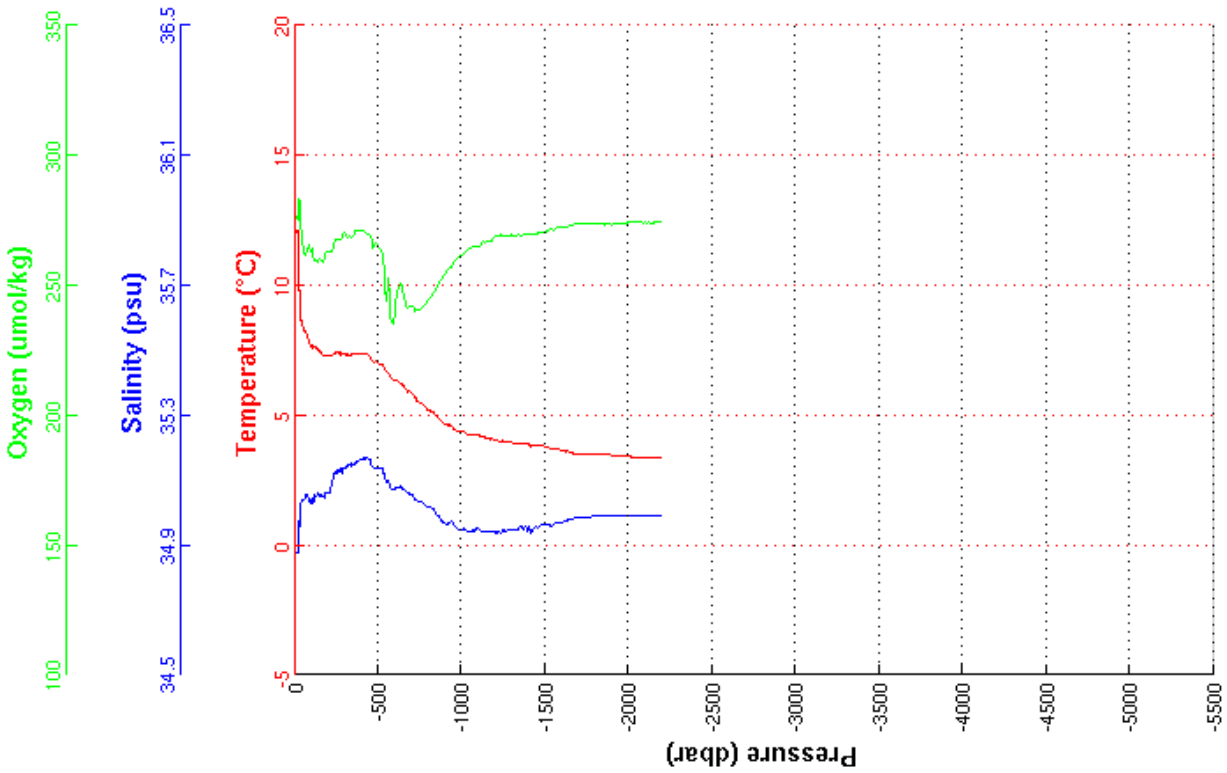
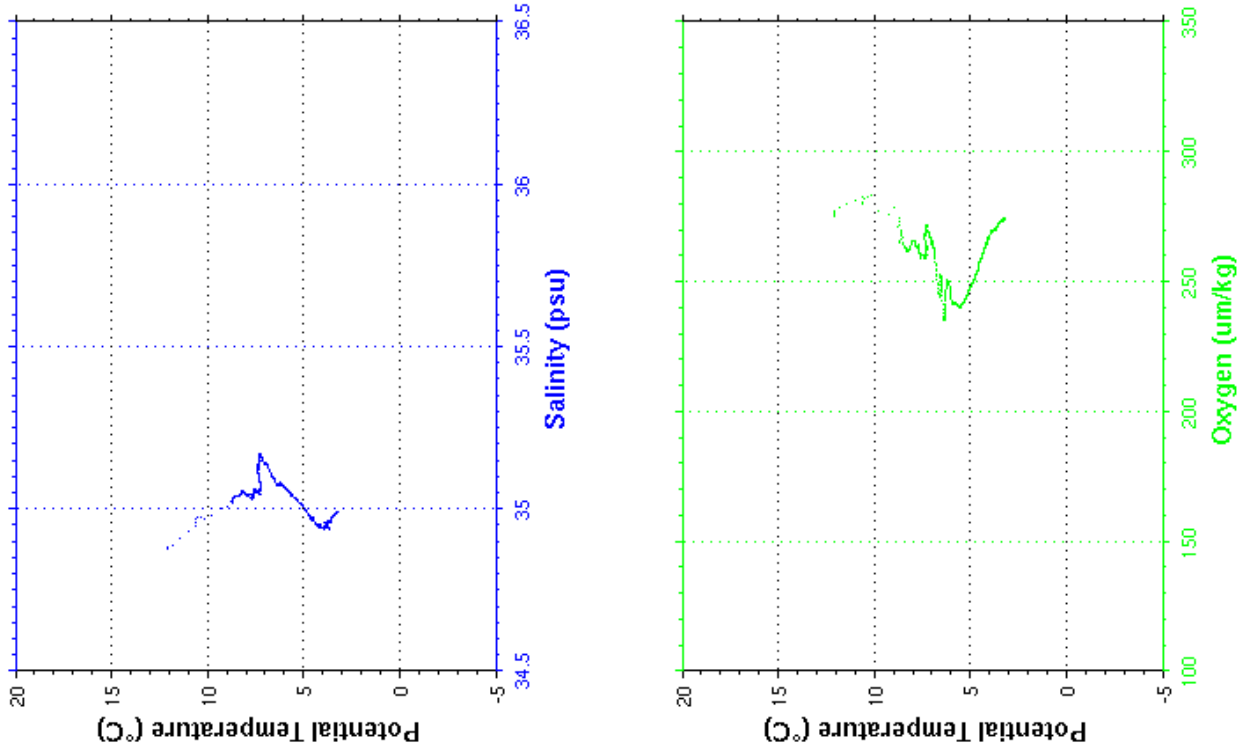


**Cast : 62**

Cast	: 63	Cruise	: CATARINA
Date	: 12/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2187 m	Organism	: CSIC/IIM VIGO
Position	: N 58 24.48 W 030 6.17		

PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.111	34.877	277.2	12.110
10.0	12.111	34.877	276.0	12.110
20.0	12.090	34.877	275.6	12.087
30.0	10.575	34.966	278.6	10.571
40.0	8.613	35.032	269.1	8.608
50.0	8.469	35.039	264.6	8.464
100.0	7.676	35.029	264.8	7.667
150.0	7.476	35.053	259.9	7.461
200.0	7.236	35.056	262.3	7.217
250.0	7.401	35.122	268.6	7.377
300.0	7.373	35.142	270.7	7.344
350.0	7.349	35.154	269.9	7.314
400.0	7.359	35.168	271.4	7.320
450.0	7.251	35.160	269.6	7.207
500.0	7.016	35.139	265.1	6.968
550.0	6.654	35.095	243.3	6.602
600.0	6.348	35.072	239.4	6.293
650.0	6.120	35.073	247.1	6.061
700.0	5.861	35.058	242.1	5.799
750.0	5.516	35.035	240.8	5.452
800.0	5.230	35.018	245.1	5.162
850.0	4.934	34.993	249.9	4.864
900.0	4.660	34.966	255.3	4.587
950.0	4.500	34.959	259.2	4.424
1000.0	4.370	34.950	262.1	4.290
1050.0	4.242	34.941	264.6	4.159
1100.0	4.243	34.950	265.6	4.156
1150.0	4.130	34.942	267.3	4.040
1200.0	4.014	34.937	269.1	3.920
1250.0	4.014	34.945	269.3	3.916
1300.0	3.962	34.947	269.6	3.860
1350.0	3.982	34.958	269.4	3.875
1400.0	3.867	34.947	270.4	3.757
1450.0	3.821	34.954	270.4	3.707
1500.0	3.790	34.962	271.1	3.672
1550.0	3.709	34.964	271.5	3.588
1600.0	3.648	34.972	272.5	3.523
1650.0	3.589	34.978	273.2	3.460
1700.0	3.503	34.986	273.9	3.370
1750.0	3.478	34.987	274.2	3.342
1800.0	3.471	34.988	274.1	3.330
1850.0	3.471	34.989	274.1	3.325
1900.0	3.464	34.991	273.9	3.314
1950.0	3.433	34.991	274.3	3.278
2000.0	3.413	34.991	274.6	3.254
2050.0	3.360	34.992	274.3	3.197
2100.0	3.356	34.992	274.7	3.188
2150.0	3.344	34.993	274.7	3.172
2196.0	3.344	34.993	275.0	3.167

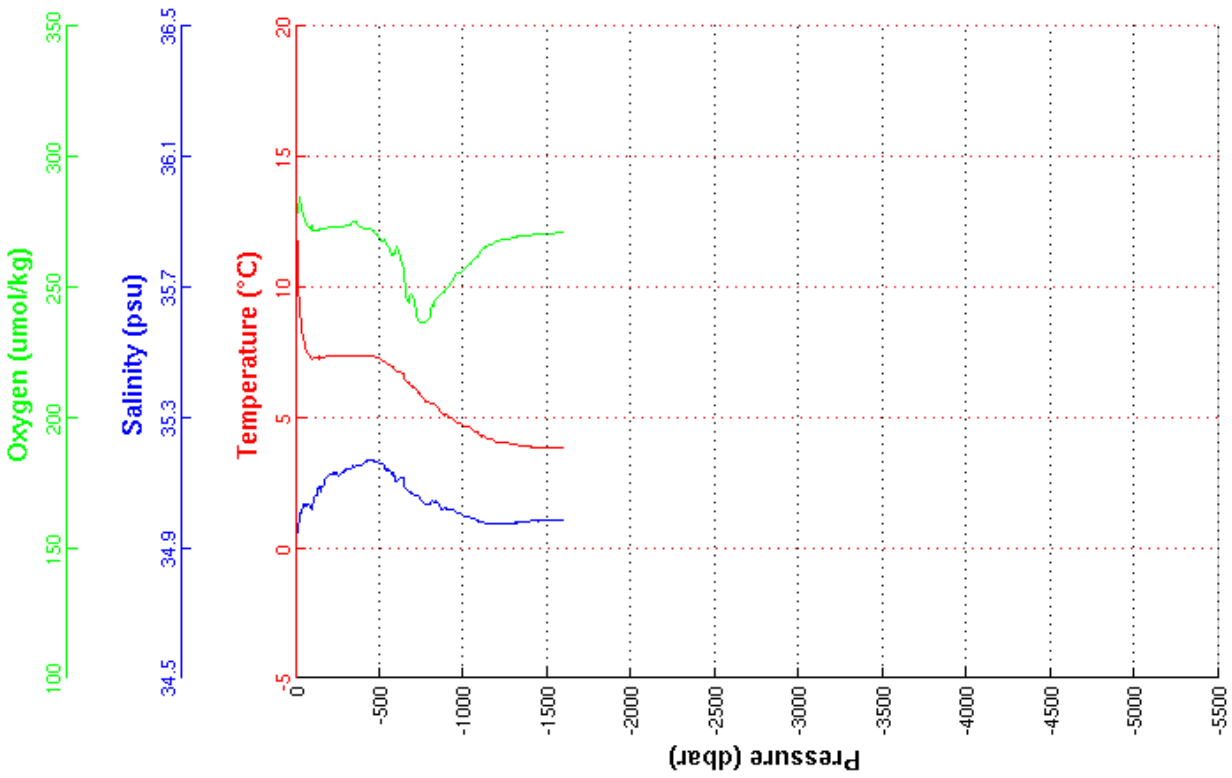
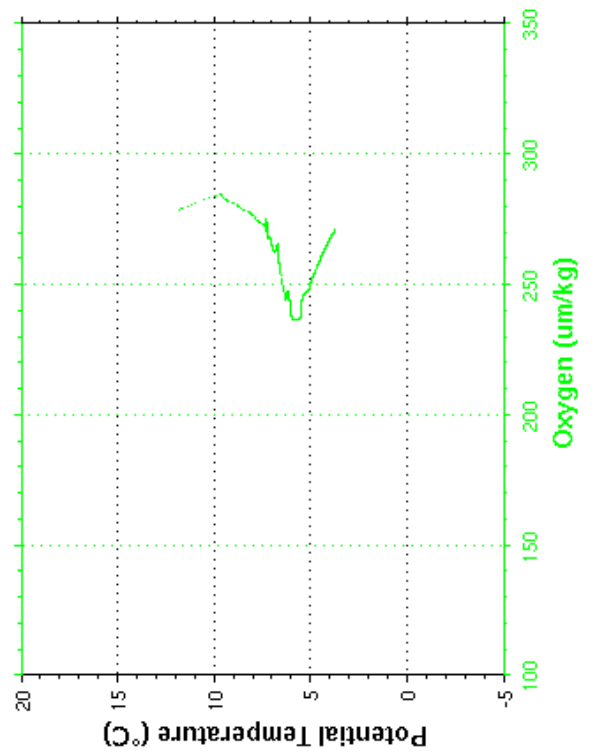
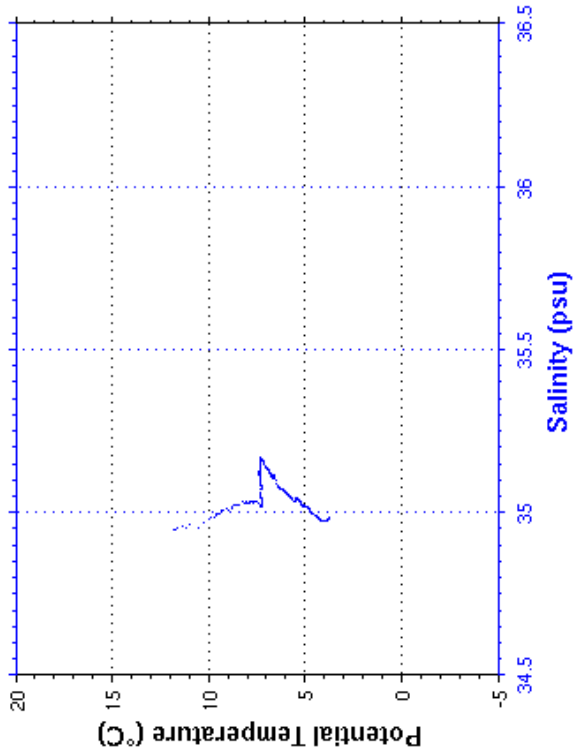




**Cast : 63**

Cast	: 64	Cruise	: CATARINA
Date	: 13/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 1589 m	Organism	: CSIC/IIM VIGO
Position	: N 58 32.99 W 030 21.74		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.830	34.946	278.8	11.830
10.0	11.824	34.945	278.5	11.823
20.0	9.847	34.983	285.0	9.844
30.0	9.105	35.011	280.3	9.102
40.0	8.377	35.021	278.4	8.373
50.0	7.935	35.030	276.3	7.930
100.0	7.251	35.029	271.4	7.242
150.0	7.294	35.086	271.8	7.279
200.0	7.385	35.121	273.4	7.365
250.0	7.324	35.123	273.0	7.300
300.0	7.343	35.140	274.6	7.314
350.0	7.362	35.151	275.3	7.328
400.0	7.362	35.159	273.0	7.323
450.0	7.363	35.169	272.1	7.319
500.0	7.258	35.160	268.4	7.209
550.0	7.061	35.139	265.6	7.008
600.0	6.757	35.106	265.6	6.700
650.0	6.592	35.101	252.3	6.531
700.0	6.168	35.066	245.8	6.105
750.0	5.806	35.047	236.9	5.740
800.0	5.576	35.032	238.6	5.506
850.0	5.358	35.036	246.7	5.285
900.0	5.074	35.017	250.2	4.998
950.0	4.856	35.009	254.8	4.778
1000.0	4.710	34.998	257.2	4.628
1050.0	4.536	34.989	260.6	4.451
1100.0	4.330	34.980	264.0	4.242
1150.0	4.185	34.975	266.6	4.094
1200.0	4.062	34.974	268.1	3.968
1250.0	4.021	34.975	268.5	3.923
1300.0	3.974	34.976	269.2	3.872
1350.0	3.923	34.979	270.0	3.818
1400.0	3.876	34.983	270.3	3.766
1450.0	3.860	34.982	270.8	3.746
1500.0	3.847	34.983	270.9	3.728
1550.0	3.836	34.985	271.2	3.713
1591.0	3.833	34.985	271.3	3.706



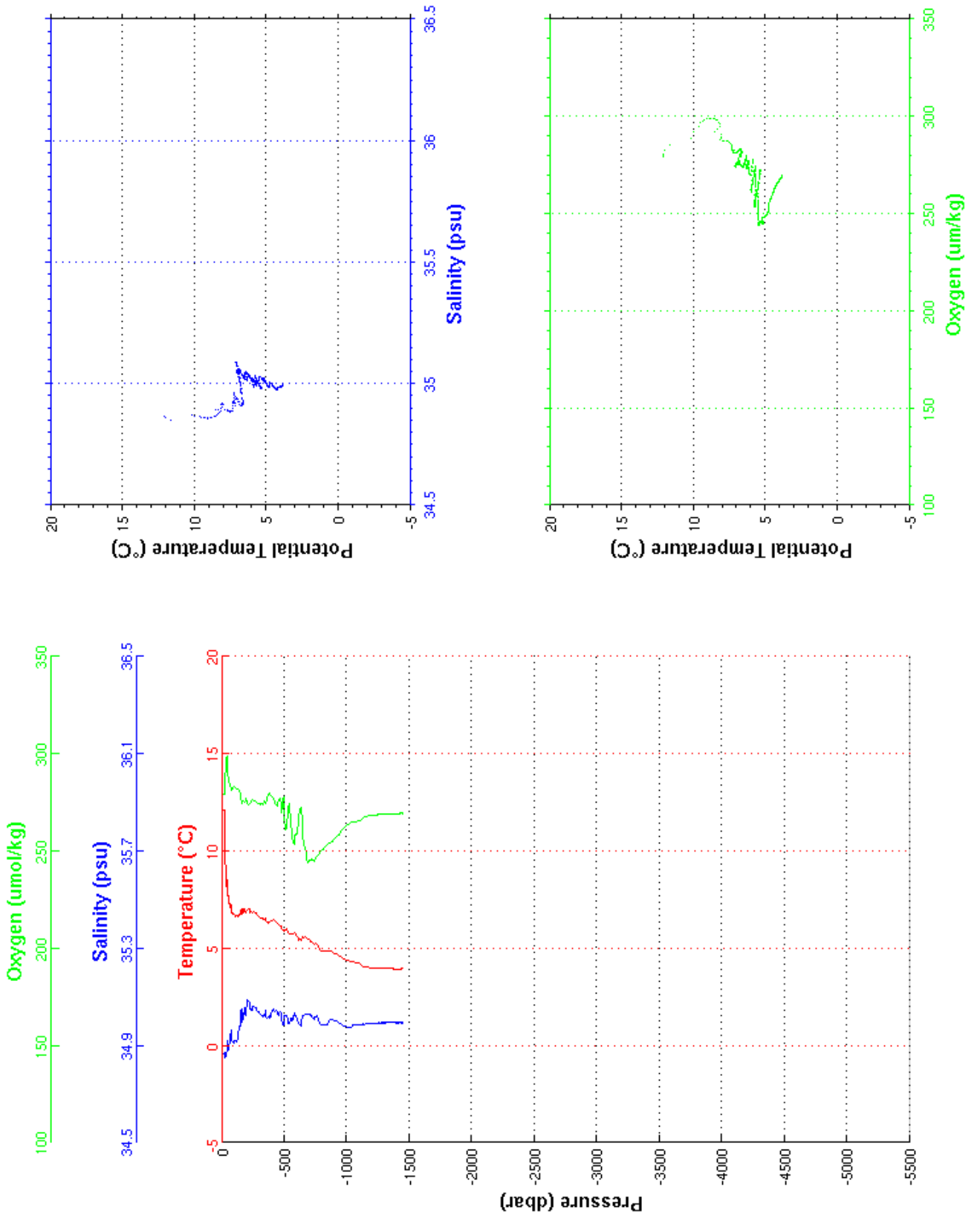
**Cast : 64**

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Cast      : 65           Cruise   : CATARINA
Date     : 01/01/2012  Ship     : R/V Sarmiento de Gamboa
Depth    : 1447 m      Organism  : CSIC/IIM VIGO
Position : N 58 43.45
          W 030 41.87
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.119	34.867	279.9	12.119
10.0	12.119	34.867	279.2	12.118
20.0	12.116	34.867	279.6	12.113
30.0	9.507	34.863	298.5	9.504
40.0	8.325	34.878	298.8	8.321
50.0	7.989	34.913	286.5	7.984
100.0	6.702	34.916	283.4	6.693
150.0	6.892	35.012	278.4	6.878
200.0	6.976	35.059	275.8	6.958
250.0	6.887	35.061	276.2	6.864
300.0	6.628	35.029	273.9	6.601
350.0	6.561	35.042	274.4	6.529
400.0	6.417	35.038	277.5	6.381
450.0	6.199	35.025	276.0	6.159
500.0	5.985	35.014	266.7	5.941
550.0	5.734	35.001	266.1	5.686
600.0	5.640	35.009	259.5	5.588
650.0	5.574	35.023	255.7	5.518
700.0	5.432	35.027	246.3	5.372
750.0	5.256	35.025	247.6	5.192
800.0	4.869	34.984	251.3	4.804
850.0	4.828	34.993	253.9	4.758
900.0	4.742	34.999	257.2	4.669
950.0	4.569	34.990	260.4	4.492
1000.0	4.387	34.976	263.3	4.307
1050.0	4.295	34.983	265.0	4.212
1100.0	4.211	34.986	266.0	4.124
1150.0	4.035	34.990	268.2	3.945
1200.0	3.978	34.991	268.8	3.884
1250.0	3.960	34.993	268.8	3.863
1300.0	3.948	34.993	269.5	3.846
1350.0	3.949	34.993	269.6	3.843
1400.0	3.940	34.993	269.3	3.830
1449.0	3.944	34.993	269.9	3.829



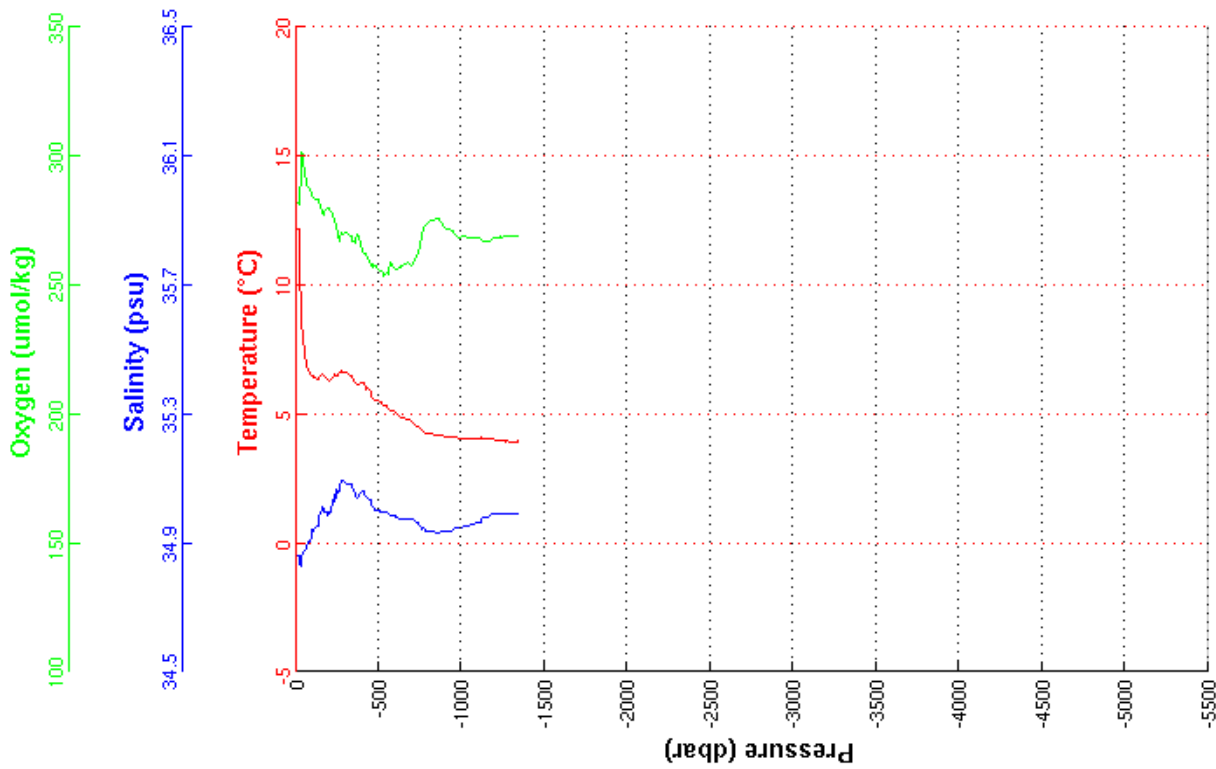
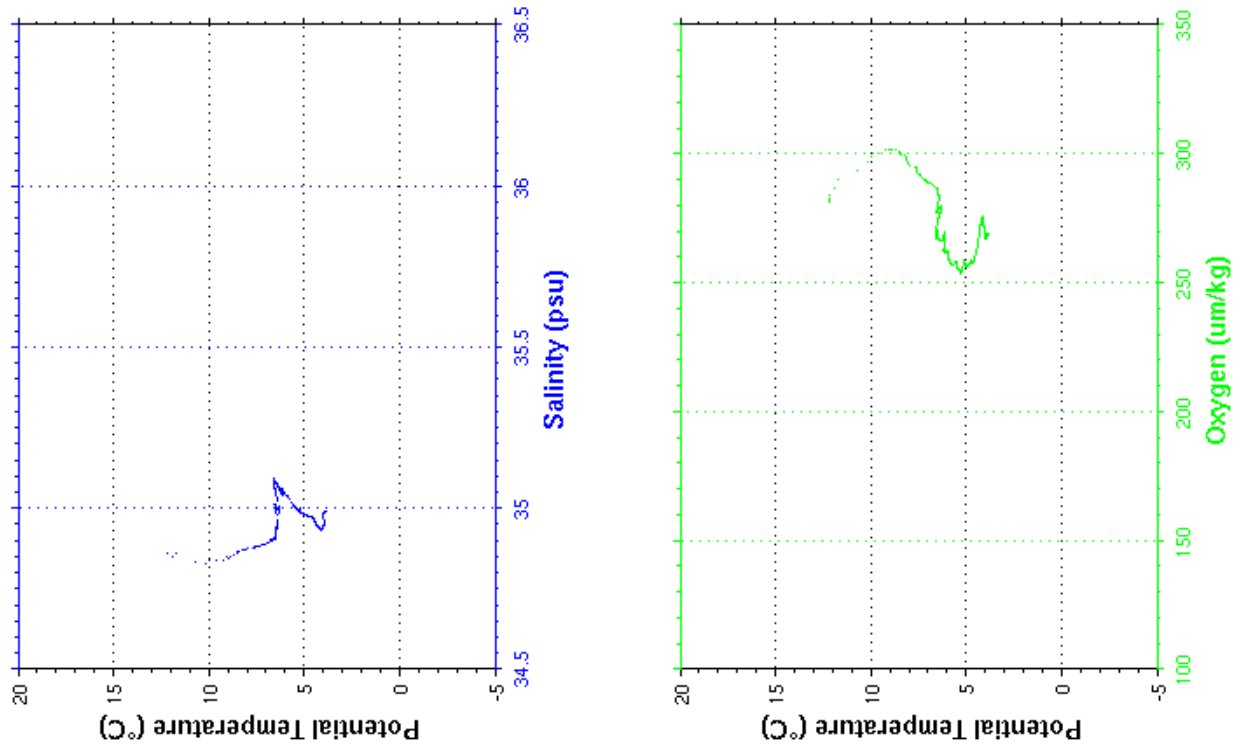
Cast : 65

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Cast      : 66           Cruise   : CATARINA
Date      : 13/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 1348 m     Organism : CSIC/IIM VIGO
Position  : N 58 50.57
           W 031 15.92
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.188	34.862	282.8	12.188
10.0	12.189	34.862	282.5	12.187
20.0	12.189	34.862	281.6	12.187
30.0	10.199	34.826	301.0	10.195
40.0	8.452	34.864	301.2	8.448
50.0	7.707	34.877	294.5	7.702
100.0	6.484	34.932	284.7	6.475
150.0	6.488	34.990	280.1	6.475
200.0	6.308	34.990	279.8	6.291
250.0	6.583	35.064	271.2	6.561
300.0	6.632	35.090	270.1	6.604
350.0	6.304	35.058	266.8	6.273
400.0	6.204	35.060	263.6	6.168
450.0	5.879	35.035	258.4	5.839
500.0	5.495	35.001	256.2	5.453
550.0	5.288	34.992	254.8	5.242
600.0	5.057	34.983	256.3	5.008
650.0	4.853	34.974	257.7	4.800
700.0	4.687	34.973	258.2	4.631
750.0	4.424	34.951	266.5	4.366
800.0	4.256	34.937	274.9	4.194
850.0	4.158	34.932	276.2	4.093
900.0	4.135	34.937	272.1	4.066
950.0	4.083	34.942	270.6	4.010
1000.0	4.058	34.950	269.1	3.981
1050.0	4.027	34.957	269.0	3.947
1100.0	4.040	34.961	268.4	3.955
1150.0	4.068	34.981	267.4	3.978
1200.0	4.008	34.991	268.3	3.914
1250.0	3.960	34.992	269.0	3.862
1300.0	3.940	34.992	269.3	3.838
1340.0	3.943	34.992	269.4	3.838

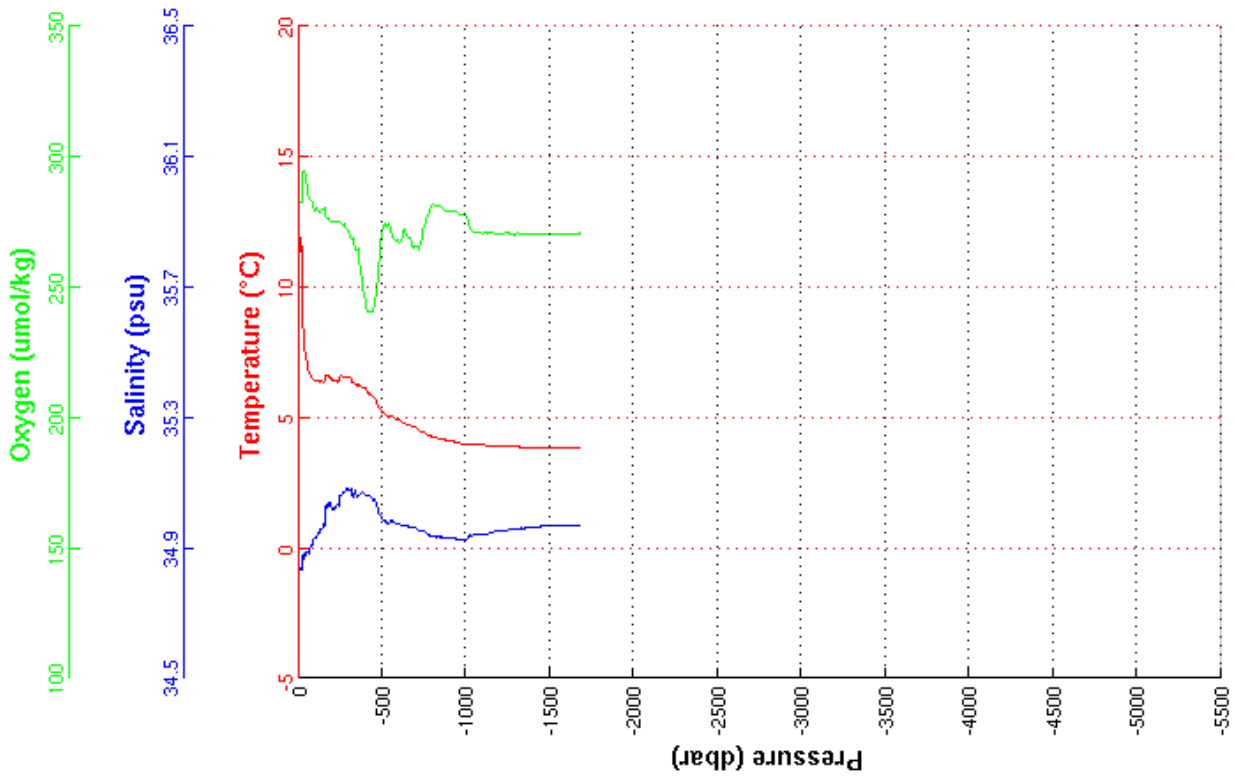
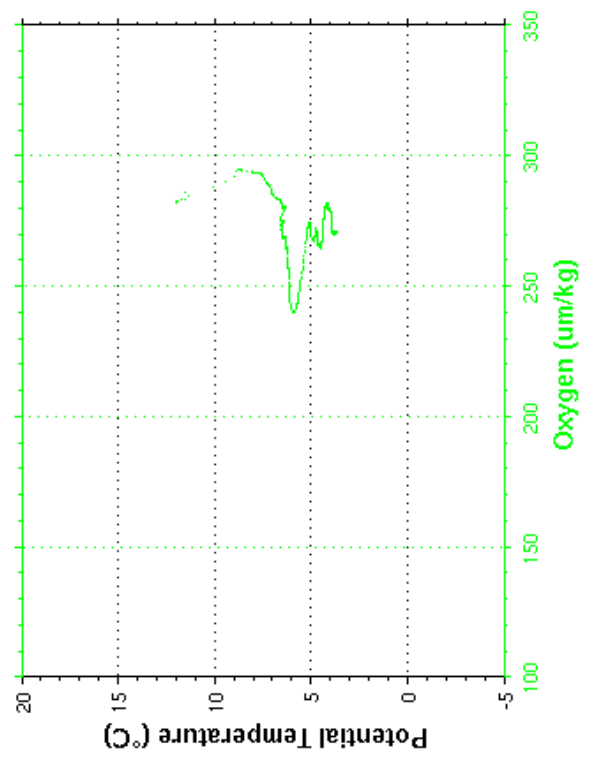
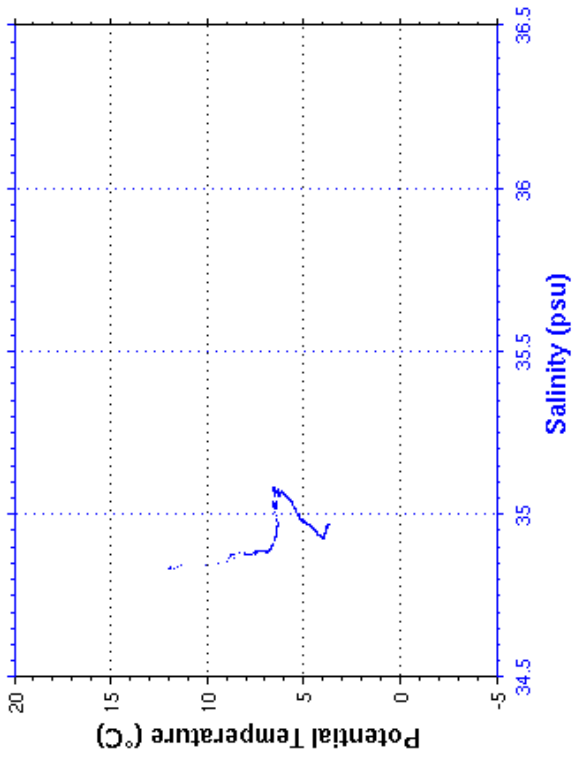


Cast : 66

Cast	: 67	Cruise	: CATARINA
Date	: 13/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 1676 m	Organism	: CSIC/IIM VIGO
Position	: N 58 54.64 W 031 54.47		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.975	34.832	282.4	11.975
10.0	11.932	34.832	282.7	11.930
20.0	11.565	34.841	284.9	11.563
30.0	8.621	34.866	296.0	8.618
40.0	7.553	34.880	293.8	7.549
50.0	7.230	34.887	289.8	7.226
100.0	6.445	34.932	279.7	6.436
150.0	6.356	34.967	280.8	6.343
200.0	6.432	35.017	275.8	6.414
250.0	6.494	35.054	274.6	6.472
300.0	6.523	35.079	271.0	6.496
350.0	6.232	35.056	265.4	6.201
400.0	6.133	35.068	245.5	6.097
450.0	5.765	35.047	243.0	5.726
500.0	5.220	34.988	272.4	5.179
550.0	5.054	34.979	272.7	5.009
600.0	4.917	34.973	267.0	4.869
650.0	4.743	34.967	269.6	4.691
700.0	4.593	34.959	266.4	4.538
750.0	4.446	34.952	273.3	4.388
800.0	4.278	34.938	281.9	4.217
850.0	4.179	34.934	280.5	4.114
900.0	4.109	34.931	279.6	4.041
950.0	4.040	34.927	278.8	3.967
1000.0	3.973	34.927	277.1	3.897
1050.0	4.006	34.940	271.4	3.926
1100.0	3.963	34.943	271.0	3.879
1150.0	3.924	34.948	271.2	3.836
1200.0	3.930	34.955	270.4	3.837
1250.0	3.888	34.956	270.9	3.791
1300.0	3.865	34.960	270.8	3.764
1350.0	3.855	34.961	270.6	3.750
1400.0	3.849	34.963	270.7	3.739
1450.0	3.844	34.966	270.7	3.730
1500.0	3.841	34.968	270.6	3.723
1550.0	3.840	34.969	270.6	3.717
1600.0	3.828	34.968	270.5	3.700
1650.0	3.829	34.968	270.8	3.697
1677.0	3.820	34.967	271.1	3.686

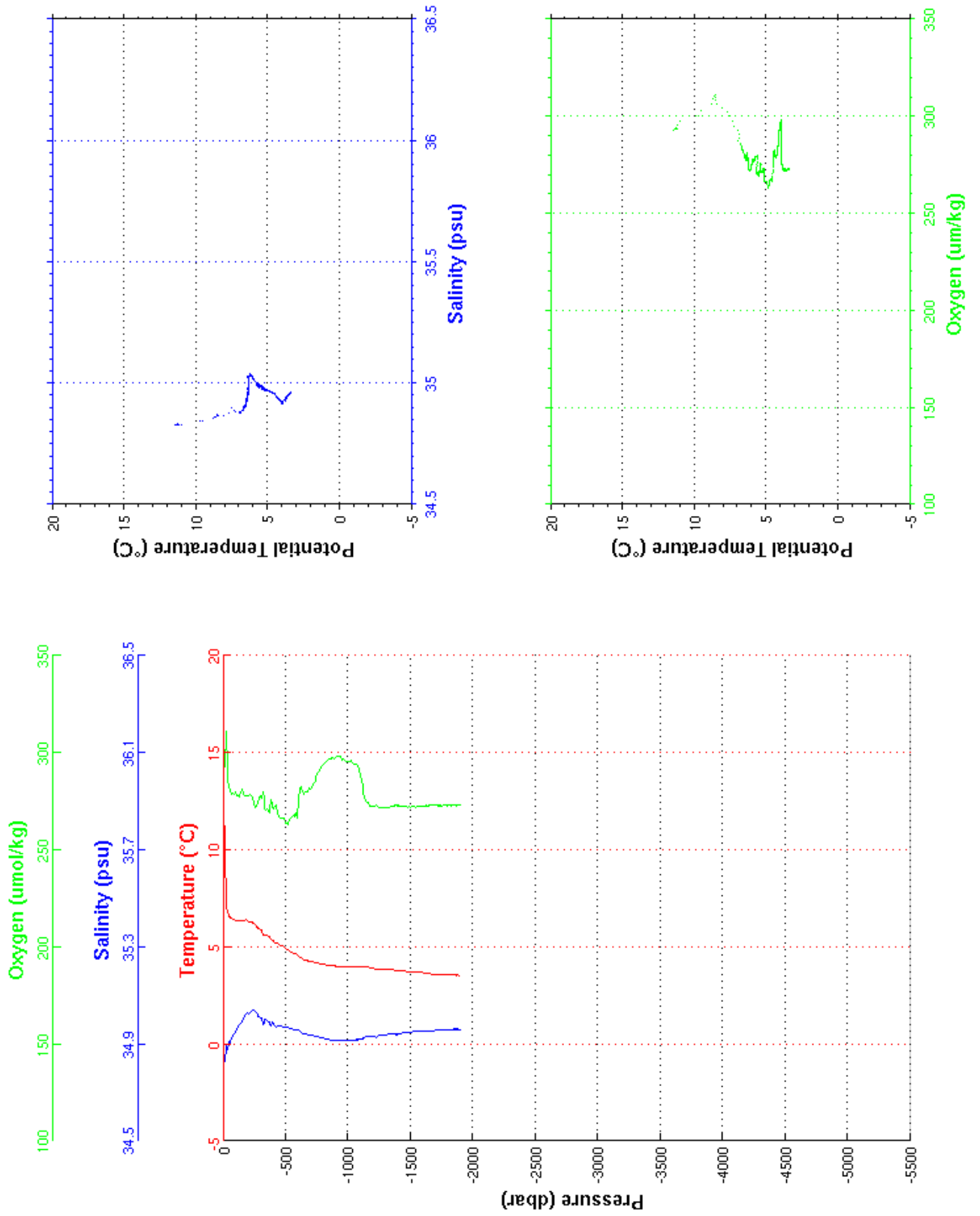




**Cast : 67**

Cast	: 68	Cruise	: CATARINA
Date	: 01/01/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 1889 m	Organism	: CSIC/IIM VIGO
Position	: N 58 58.41 W 032 33.33		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.434	34.829	292.7	11.434
10.0	11.272	34.831	294.1	11.271
20.0	8.578	34.860	312.0	8.576
30.0	7.194	34.882	292.5	7.191
40.0	6.710	34.893	283.5	6.707
50.0	6.575	34.901	280.8	6.571
100.0	6.355	34.951	279.4	6.346
150.0	6.333	34.998	280.7	6.319
200.0	6.294	35.025	278.9	6.277
250.0	6.193	35.034	272.4	6.171
300.0	5.870	35.007	277.2	5.844
350.0	5.594	34.991	271.0	5.564
400.0	5.346	34.982	271.0	5.313
450.0	5.109	34.974	266.4	5.073
500.0	4.906	34.969	263.8	4.866
550.0	4.727	34.960	267.7	4.684
600.0	4.557	34.956	274.8	4.510
650.0	4.341	34.941	280.0	4.291
700.0	4.250	34.936	282.0	4.197
750.0	4.163	34.929	289.9	4.107
800.0	4.105	34.923	294.3	4.044
850.0	4.044	34.917	297.1	3.980
900.0	4.012	34.915	298.0	3.944
950.0	3.992	34.913	297.0	3.920
1000.0	3.989	34.915	295.9	3.912
1050.0	3.981	34.916	294.4	3.901
1100.0	3.976	34.920	287.9	3.891
1150.0	3.961	34.929	274.7	3.872
1200.0	3.882	34.929	273.0	3.790
1250.0	3.863	34.935	272.2	3.766
1300.0	3.833	34.937	272.5	3.732
1350.0	3.817	34.940	272.6	3.712
1400.0	3.764	34.940	272.9	3.655
1450.0	3.745	34.948	272.5	3.632
1500.0	3.733	34.949	272.3	3.616
1550.0	3.688	34.951	272.6	3.567
1600.0	3.670	34.951	272.7	3.544
1650.0	3.619	34.952	273.1	3.489
1700.0	3.588	34.956	273.2	3.455
1750.0	3.579	34.959	273.1	3.441
1800.0	3.577	34.960	273.1	3.435
1850.0	3.560	34.961	273.2	3.413
1896.0	3.494	34.960	273.5	3.344



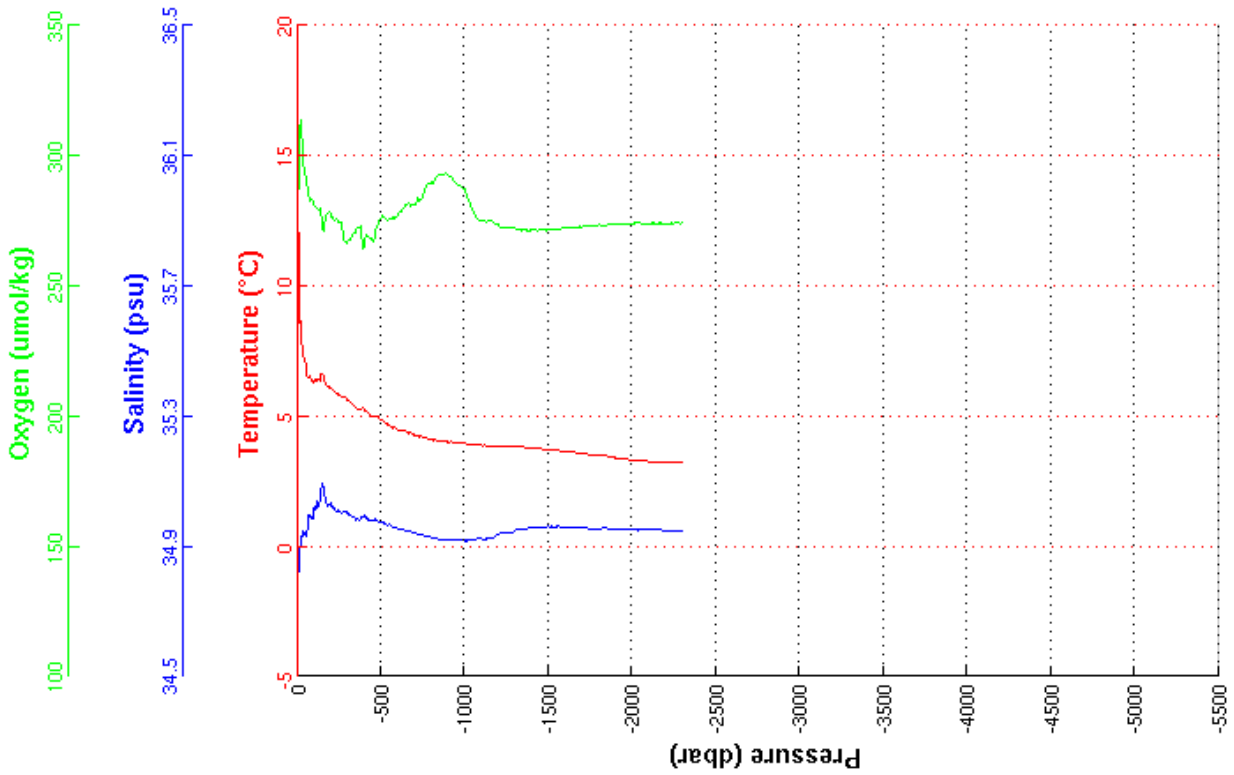
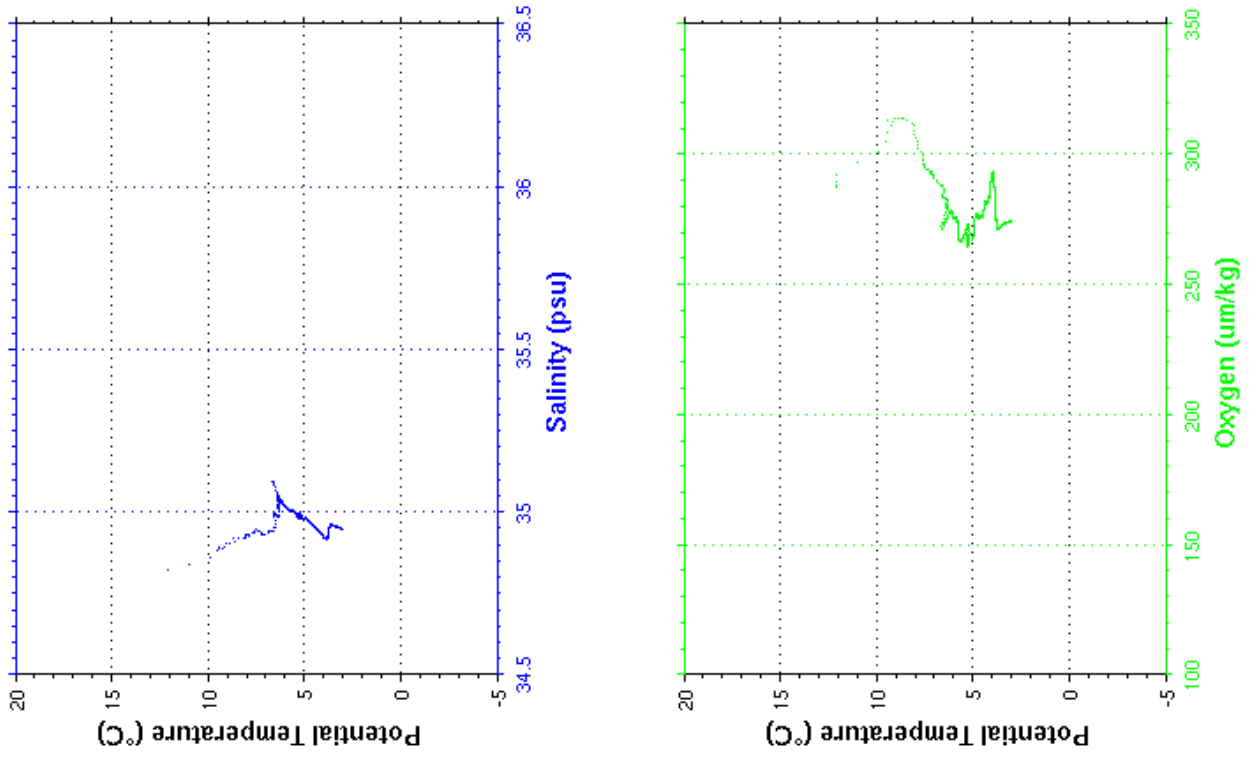
**Cast : 68**

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Cast      : 69           Cruise   : CATARINA
Date      : 13/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2286 m     Organism : CSIC/IIM VIGO
Position  : N 59  2.43
           W 033 11.78
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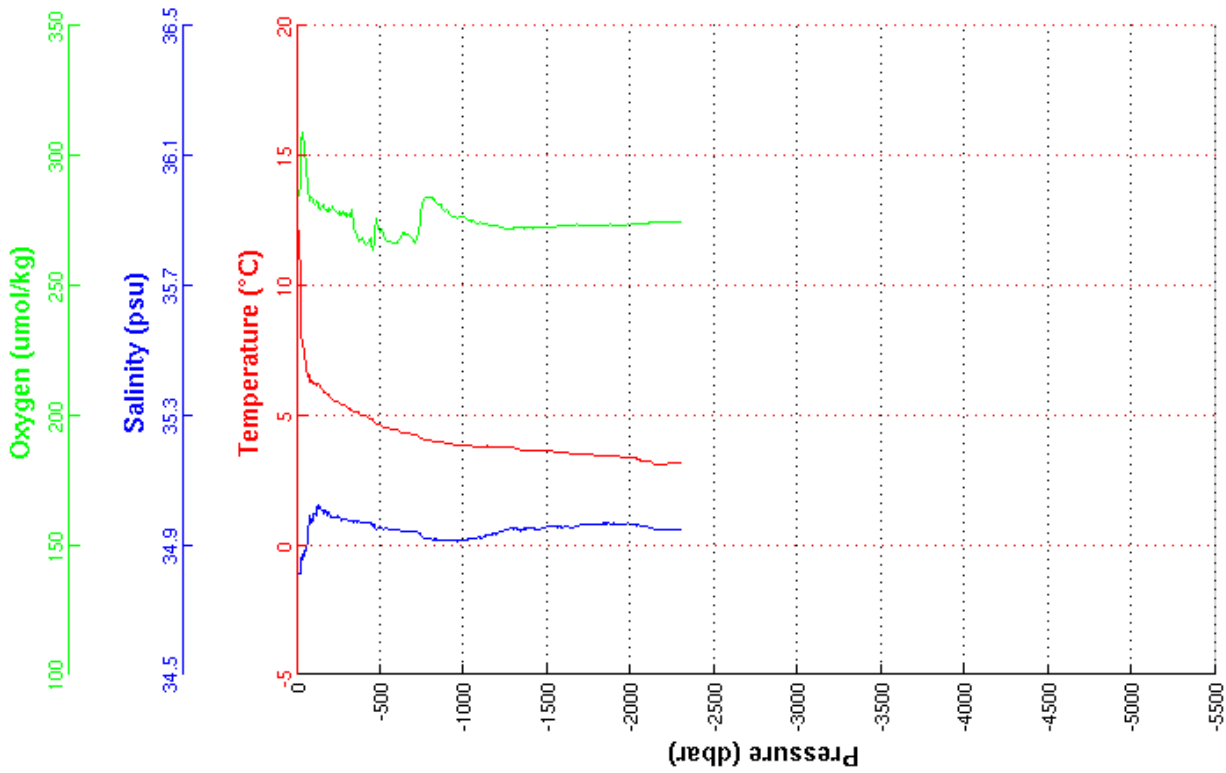
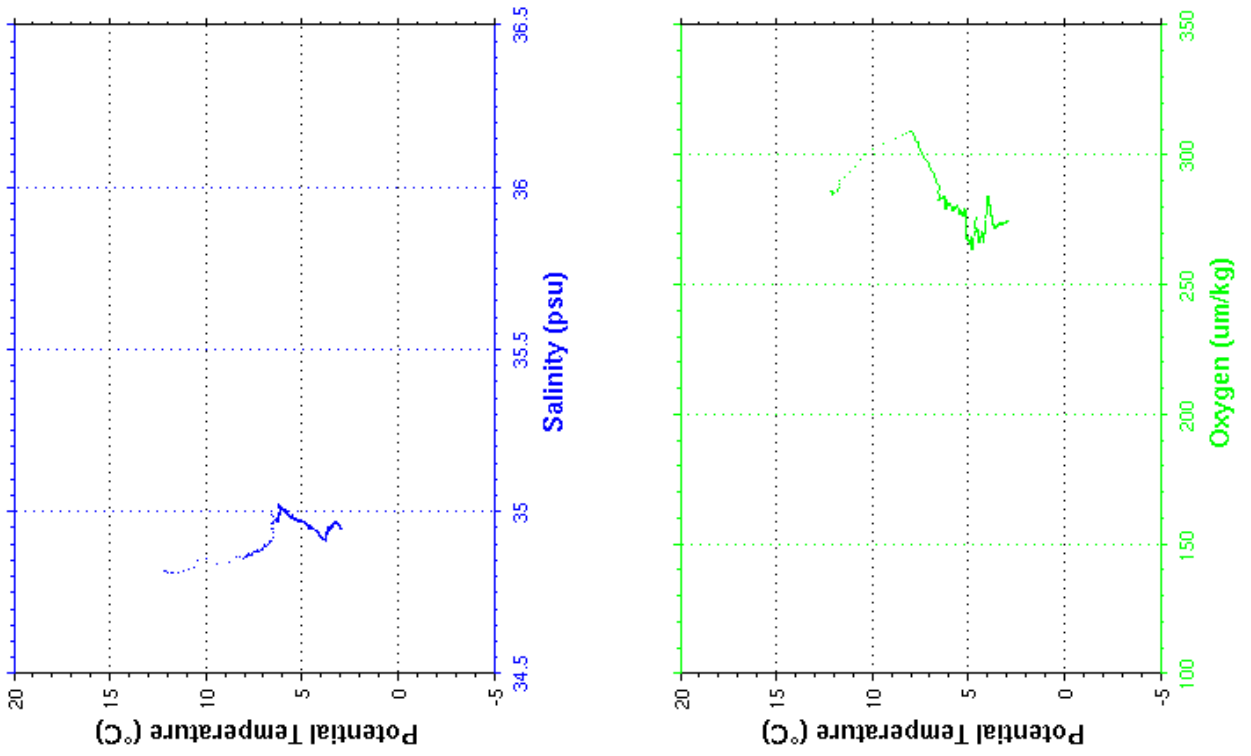
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.086	34.823	287.9	12.086
10.0	12.116	34.822	286.9	12.115
20.0	8.861	34.906	315.1	8.859
30.0	7.869	34.930	304.1	7.866
40.0	7.416	34.944	294.8	7.412
50.0	7.086	34.932	292.7	7.081
100.0	6.420	35.020	281.2	6.411
150.0	6.639	35.093	271.6	6.625
200.0	6.137	35.031	276.6	6.120
250.0	5.832	35.006	274.7	5.810
300.0	5.616	35.001	267.3	5.591
350.0	5.345	34.985	272.1	5.317
400.0	5.276	34.996	266.0	5.243
450.0	5.042	34.980	266.9	5.006
500.0	4.876	34.976	276.9	4.836
550.0	4.661	34.964	276.3	4.618
600.0	4.493	34.954	278.2	4.447
650.0	4.400	34.948	281.1	4.350
700.0	4.275	34.940	282.2	4.221
750.0	4.193	34.934	285.0	4.136
800.0	4.111	34.928	290.0	4.050
850.0	4.055	34.922	292.7	3.991
900.0	4.011	34.919	293.0	3.943
950.0	4.001	34.920	289.7	3.929
1000.0	3.959	34.918	287.3	3.883
1050.0	3.920	34.919	278.8	3.840
1100.0	3.889	34.925	275.1	3.805
1150.0	3.825	34.923	275.2	3.738
1200.0	3.847	34.936	273.6	3.755
1250.0	3.822	34.941	272.3	3.726
1300.0	3.826	34.950	271.8	3.726
1350.0	3.825	34.955	271.8	3.720
1400.0	3.784	34.960	271.5	3.676
1450.0	3.745	34.959	271.9	3.632
1500.0	3.726	34.960	271.9	3.609
1550.0	3.685	34.961	272.1	3.564
1600.0	3.647	34.959	272.5	3.522
1650.0	3.616	34.958	272.5	3.486
1700.0	3.577	34.957	272.7	3.444
1750.0	3.524	34.954	273.2	3.387
1800.0	3.494	34.953	273.8	3.353
1850.0	3.454	34.953	273.7	3.308
1900.0	3.405	34.952	274.0	3.255
1950.0	3.364	34.951	274.1	3.211
2000.0	3.314	34.952	274.2	3.157
2050.0	3.285	34.951	274.4	3.123
2100.0	3.261	34.951	274.3	3.095
2150.0	3.249	34.950	274.4	3.078
2200.0	3.227	34.949	274.3	3.052
2250.0	3.220	34.949	274.5	3.041
2297.0	3.215	34.949	274.6	3.031



**Cast : 69**

Cast	: 70	Cruise	: CATARINA
Date	: 13/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2276 m	Organism	: CSIC/IIM VIGO
Position	: N 59 6.15 W 033 49.57		

PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.125	34.817	286.1	12.125
10.0	12.118	34.817	284.9	12.117
20.0	11.417	34.814	290.9	11.414
30.0	8.020	34.854	309.0	8.017
40.0	7.624	34.866	304.9	7.620
50.0	7.226	34.877	298.0	7.221
100.0	6.226	34.990	282.3	6.218
150.0	6.003	35.007	281.3	5.990
200.0	5.702	34.990	280.2	5.686
250.0	5.521	34.988	277.9	5.501
300.0	5.305	34.977	276.7	5.281
350.0	5.129	34.971	270.7	5.101
400.0	5.005	34.970	267.0	4.973
450.0	4.836	34.966	264.4	4.800
500.0	4.595	34.953	271.2	4.557
550.0	4.490	34.949	266.9	4.448
600.0	4.428	34.948	266.3	4.382
650.0	4.327	34.941	270.2	4.277
700.0	4.266	34.942	266.8	4.212
750.0	4.094	34.924	281.8	4.038
800.0	4.017	34.918	284.3	3.957
850.0	3.964	34.917	281.5	3.901
900.0	3.926	34.916	278.8	3.858
950.0	3.862	34.914	276.3	3.791
1000.0	3.812	34.913	276.5	3.737
1050.0	3.804	34.920	275.0	3.725
1100.0	3.790	34.923	274.5	3.707
1150.0	3.803	34.932	273.3	3.716
1200.0	3.757	34.934	273.2	3.666
1250.0	3.770	34.947	272.2	3.674
1300.0	3.719	34.949	272.5	3.620
1350.0	3.695	34.952	272.5	3.591
1400.0	3.648	34.949	272.5	3.541
1450.0	3.622	34.949	272.9	3.511
1500.0	3.627	34.956	272.8	3.511
1550.0	3.585	34.956	272.8	3.465
1600.0	3.552	34.956	273.4	3.428
1650.0	3.490	34.954	273.7	3.362
1700.0	3.500	34.962	273.4	3.367
1750.0	3.486	34.965	273.6	3.349
1800.0	3.462	34.966	273.4	3.321
1850.0	3.445	34.966	273.6	3.300
1900.0	3.433	34.966	273.5	3.283
1950.0	3.396	34.965	273.8	3.242
2000.0	3.354	34.965	273.8	3.196
2050.0	3.280	34.959	274.0	3.118
2100.0	3.221	34.956	274.3	3.056
2150.0	3.128	34.949	274.7	2.960
2200.0	3.128	34.949	274.5	2.955
2250.0	3.135	34.949	274.8	2.957
2298.0	3.138	34.949	274.9	2.955



**Cast : 70**

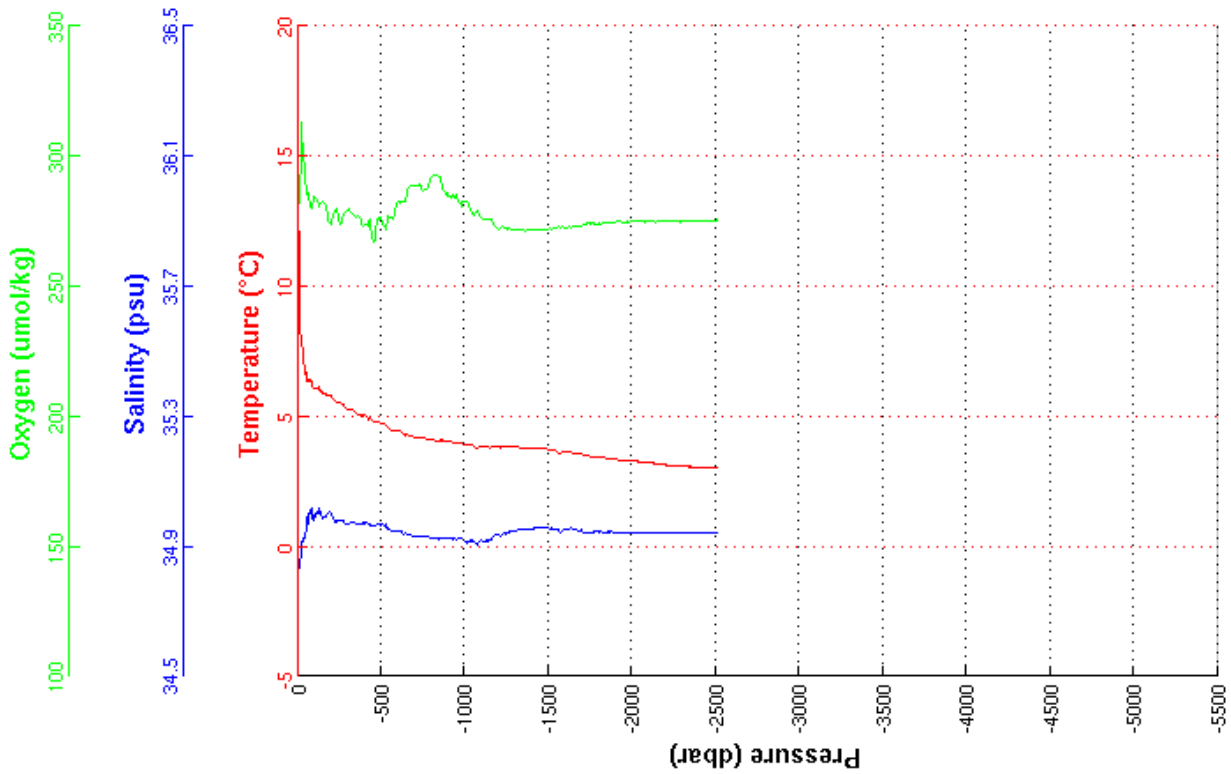
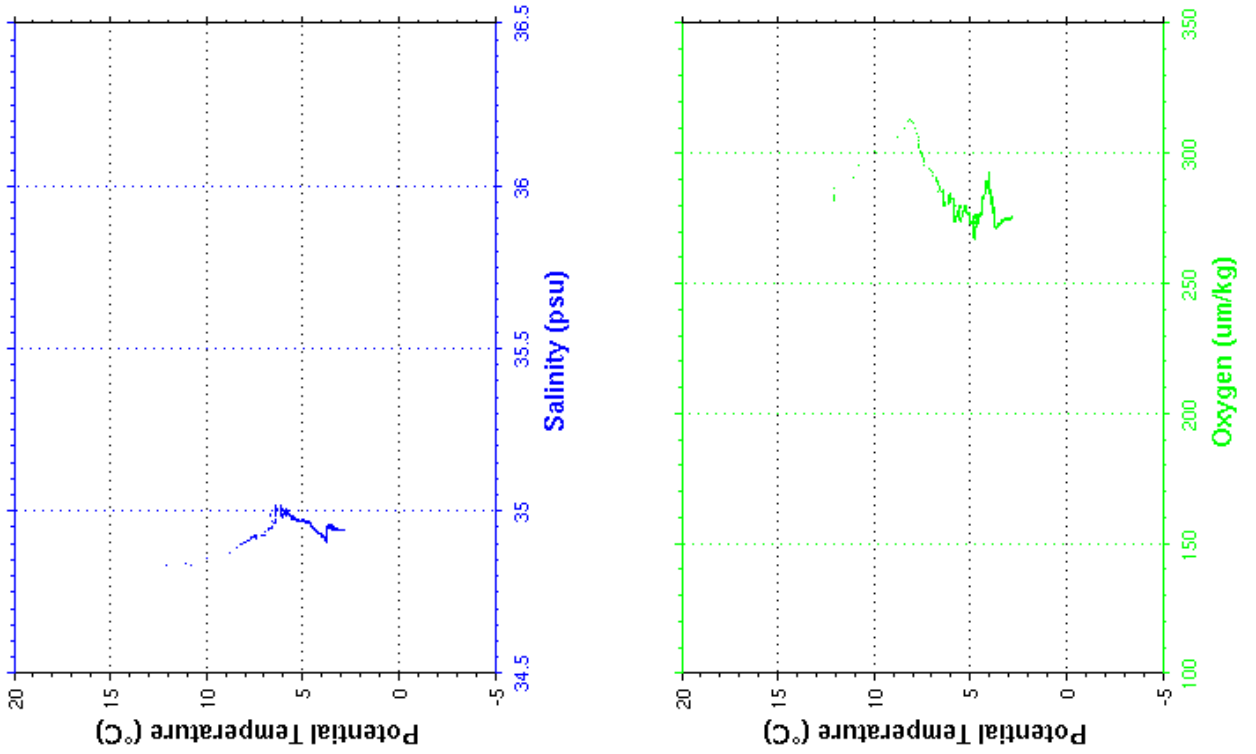
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Cast      : 71           Cruise   : CATARINA
Date     : 01/01/2012  Ship    : R/V Sarmiento de Gamboa
Depth    : 2488 m      Organism : CSIC/IIM VIGO
Position : N 59  9.86
          W 034 28.48
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	12.098	34.832	283.3	12.098
10.0	12.111	34.831	282.6	12.110
20.0	8.380	34.889	316.4	8.378
30.0	7.661	34.919	303.2	7.658
40.0	7.381	34.926	296.2	7.378
50.0	6.670	34.946	289.1	6.665
100.0	6.071	34.986	284.1	6.062
150.0	5.895	34.991	282.5	5.882
200.0	5.806	35.002	274.8	5.789
250.0	5.548	34.987	274.2	5.527
300.0	5.277	34.969	280.2	5.252
350.0	5.158	34.969	277.1	5.129
400.0	5.025	34.972	274.3	4.993
450.0	4.832	34.964	267.9	4.796
500.0	4.742	34.968	276.0	4.703
550.0	4.524	34.949	276.3	4.482
600.0	4.446	34.947	283.0	4.400
650.0	4.296	34.937	284.6	4.246
700.0	4.205	34.931	289.1	4.152
750.0	4.172	34.934	287.0	4.115
800.0	4.088	34.925	292.4	4.027
850.0	4.062	34.923	292.4	3.998
900.0	4.044	34.925	284.9	3.975
950.0	4.003	34.924	284.8	3.931
1000.0	3.905	34.914	283.6	3.830
1050.0	3.893	34.917	277.4	3.813
1100.0	3.842	34.916	276.7	3.758
1150.0	3.806	34.918	276.4	3.719
1200.0	3.862	34.938	272.2	3.770
1250.0	3.830	34.942	272.5	3.734
1300.0	3.820	34.947	272.1	3.719
1350.0	3.799	34.952	271.6	3.694
1400.0	3.780	34.954	271.8	3.671
1450.0	3.755	34.958	272.0	3.642
1500.0	3.688	34.951	272.4	3.571
1550.0	3.655	34.951	272.8	3.534
1600.0	3.629	34.954	273.0	3.504
1650.0	3.594	34.953	273.1	3.465
1700.0	3.541	34.949	273.5	3.409
1750.0	3.465	34.943	274.5	3.328
1800.0	3.441	34.945	274.1	3.301
1850.0	3.388	34.942	274.4	3.244
1900.0	3.340	34.940	275.0	3.192
1950.0	3.315	34.942	275.1	3.162
2000.0	3.289	34.942	275.1	3.132
2050.0	3.259	34.943	275.1	3.098
2100.0	3.219	34.943	275.2	3.053
2150.0	3.191	34.943	275.2	3.022
2200.0	3.145	34.942	275.2	2.971
2250.0	3.100	34.942	275.3	2.923
2300.0	3.071	34.942	275.3	2.889
2350.0	3.062	34.942	275.2	2.876
2400.0	3.057	34.942	275.4	2.866
2450.0	3.038	34.942	275.6	2.842
2500.0	3.023	34.941	275.6	2.822
2514.0	3.020	34.941	275.9	2.819





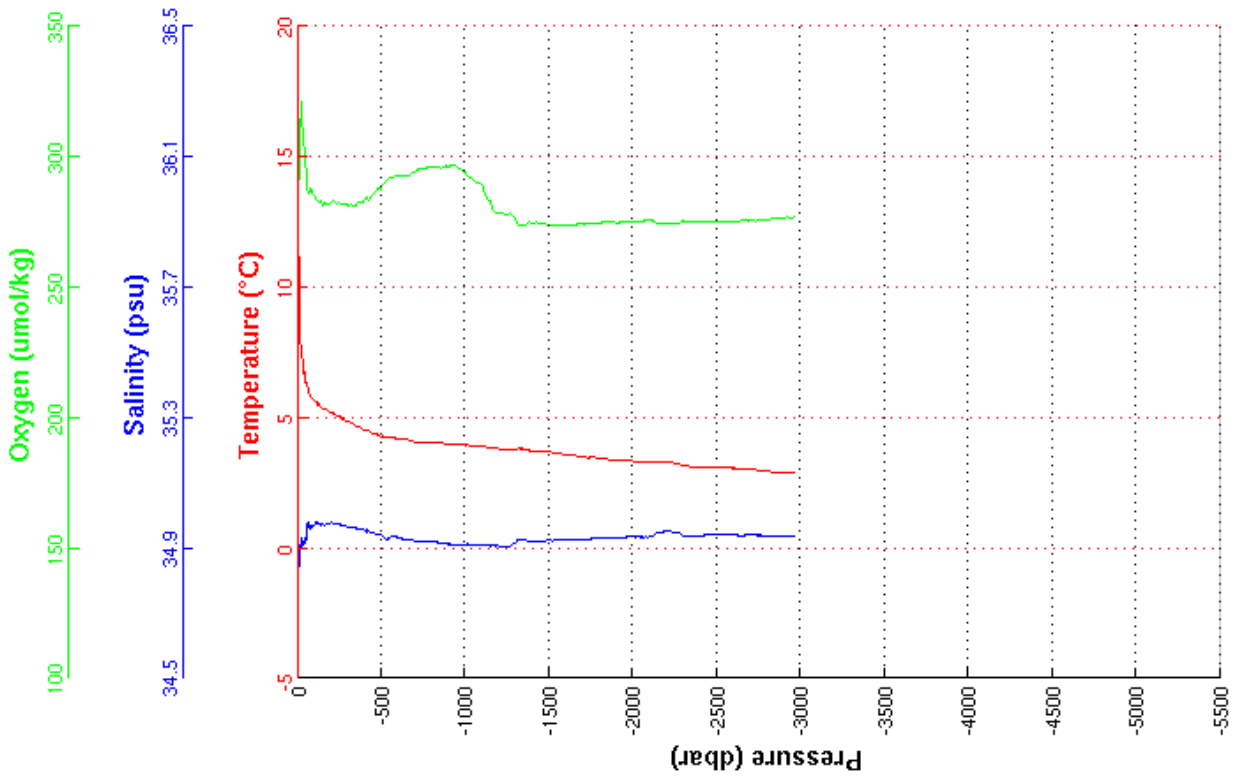
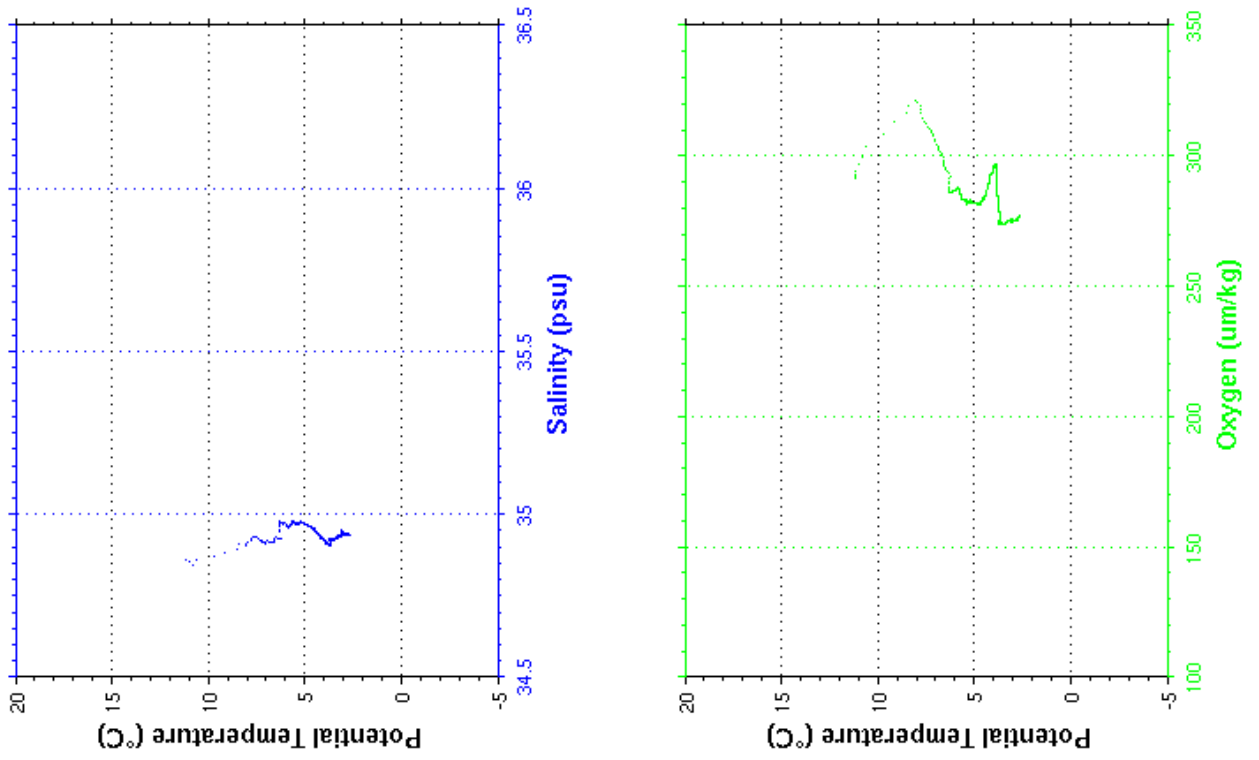
**Cast : 71**

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Cast       : 72           Cruise    : CATARINA
Date       : 14/07/2012  Ship      : R/V Sarmiento de Gamboa
Depth      : 2928 m      Organism  : CSIC/IIM VIGO
Position   : N 59 13.71
            W 035  2.44
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.186	34.860	291.7	11.185
10.0	11.170	34.860	291.7	11.168
20.0	8.009	34.910	323.2	8.007
30.0	7.258	34.918	310.2	7.255
40.0	6.838	34.915	302.5	6.834
50.0	6.515	34.932	295.3	6.510
100.0	5.682	34.974	285.1	5.673
150.0	5.397	34.973	281.8	5.385
200.0	5.217	34.975	283.0	5.201
250.0	5.068	34.974	282.7	5.049
300.0	4.846	34.964	281.8	4.823
350.0	4.705	34.961	282.1	4.678
400.0	4.529	34.951	284.7	4.498
450.0	4.407	34.946	286.3	4.373
500.0	4.297	34.936	289.0	4.259
550.0	4.223	34.931	292.0	4.182
600.0	4.197	34.932	293.2	4.152
650.0	4.149	34.928	292.8	4.100
700.0	4.061	34.919	295.1	4.009
750.0	4.063	34.921	295.7	4.007
800.0	4.042	34.919	296.3	3.982
850.0	4.026	34.918	296.1	3.962
900.0	3.985	34.913	296.8	3.917
950.0	3.961	34.911	296.6	3.889
1000.0	3.946	34.910	294.1	3.870
1050.0	3.911	34.908	290.9	3.832
1100.0	3.900	34.908	289.3	3.816
1150.0	3.850	34.906	282.8	3.762
1200.0	3.796	34.905	278.9	3.704
1250.0	3.781	34.908	278.1	3.686
1300.0	3.797	34.918	275.8	3.697
1350.0	3.801	34.926	273.9	3.696
1400.0	3.731	34.919	274.9	3.623
1450.0	3.712	34.922	274.8	3.599
1500.0	3.682	34.925	274.0	3.566
1550.0	3.616	34.922	274.1	3.496
1600.0	3.585	34.923	274.1	3.461
1650.0	3.549	34.926	274.1	3.420
1700.0	3.504	34.925	274.5	3.371
1750.0	3.471	34.928	274.8	3.335
1800.0	3.454	34.931	275.0	3.313
1850.0	3.400	34.929	275.3	3.256
1900.0	3.393	34.933	275.2	3.244
1950.0	3.358	34.933	275.4	3.205
2000.0	3.333	34.934	275.6	3.176
2050.0	3.302	34.934	275.9	3.140
2100.0	3.277	34.935	276.0	3.111
2150.0	3.298	34.949	274.6	3.127
2200.0	3.291	34.951	274.5	3.115
2250.0	3.246	34.947	274.7	3.066
2300.0	3.153	34.938	275.9	2.970
2350.0	3.129	34.938	275.7	2.941
2400.0	3.094	34.938	275.7	2.902
2450.0	3.103	34.943	275.1	2.906
2500.0	3.095	34.943	275.1	2.893
2550.0	3.085	34.943	275.3	2.879
2600.0	3.063	34.941	275.2	2.852
2650.0	3.027	34.938	276.1	2.811
2700.0	3.016	34.940	275.7	2.796
2750.0	2.982	34.939	275.9	2.757
2800.0	2.960	34.938	276.2	2.730
2850.0	2.902	34.936	276.9	2.669
2900.0	2.904	34.936	276.9	2.665
2950.0	2.906	34.936	277.1	2.662
2962.0	2.905	34.936	277.3	2.661



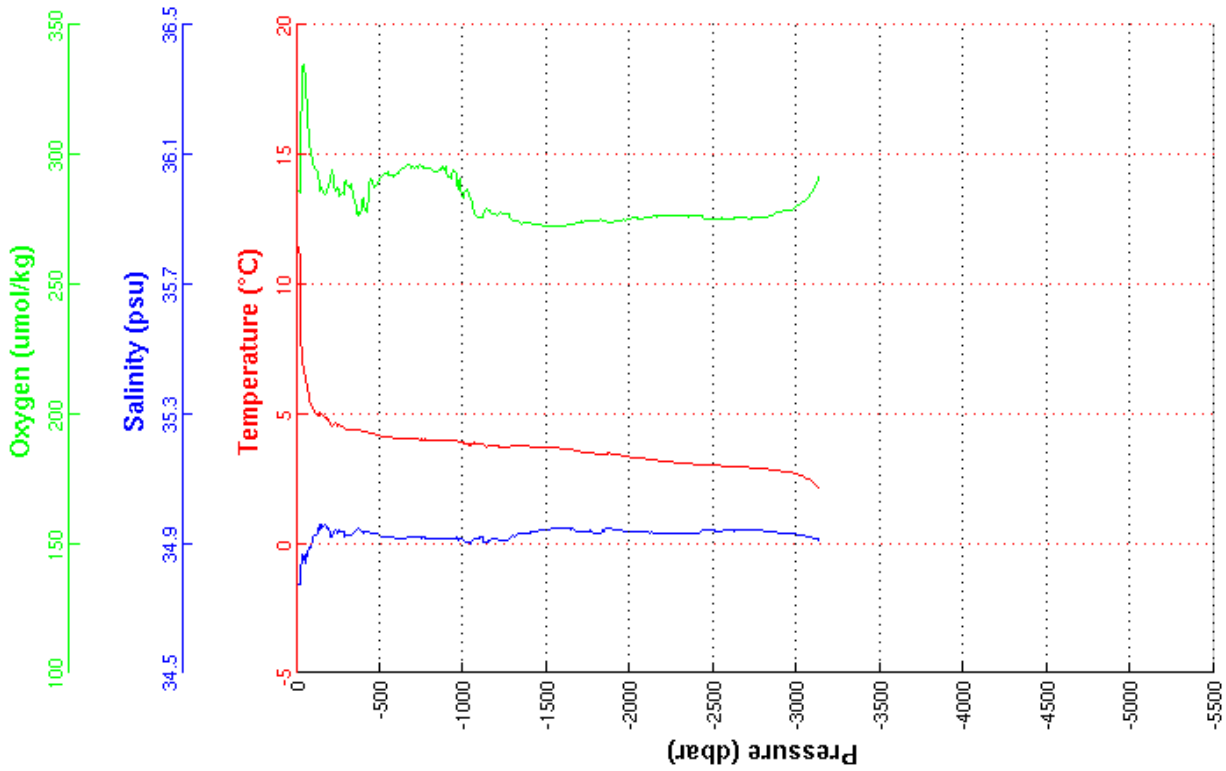
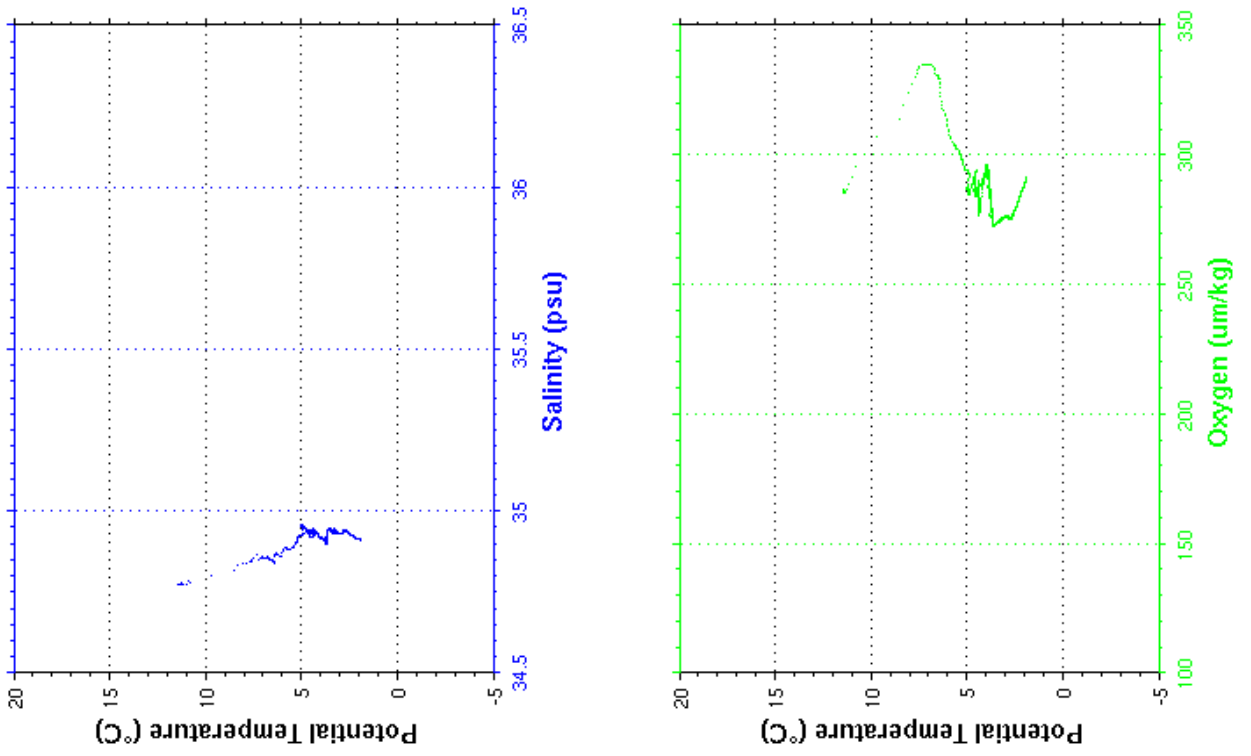
**Cast : 72**

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Cast       : 73           Cruise    : CATARINA
Date       : 14/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 3099 m      Organism  : CSIC/IIM VIGO
Position   : N 59 17.98
            W 035 45.72
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.407	34.775	286.7	11.407	3050.0	2.571	34.924	282.4	2.324
10.0	11.407	34.775	285.9	11.406	3100.0	2.344	34.916	286.8	2.097
20.0	11.289	34.777	286.3	11.286	3137.0	2.124	34.912	291.4	1.878
30.0	7.828	34.840	327.9	7.825					
40.0	7.009	34.858	335.9	7.006					
50.0	6.561	34.849	330.6	6.557					
100.0	5.169	34.919	295.7	5.161					
150.0	4.948	34.952	286.5	4.936					
200.0	4.670	34.933	290.6	4.655					
250.0	4.536	34.935	287.0	4.517					
300.0	4.381	34.928	289.3	4.359					
350.0	4.394	34.936	283.2	4.368					
400.0	4.299	34.933	283.1	4.269					
450.0	4.238	34.932	290.1	4.204					
500.0	4.148	34.924	291.3	4.111					
550.0	4.102	34.921	291.9	4.061					
600.0	4.044	34.915	293.0	4.000					
650.0	4.018	34.914	295.6	3.970					
700.0	4.036	34.919	294.9	3.984					
750.0	4.014	34.917	295.1	3.958					
800.0	3.994	34.915	294.8	3.934					
850.0	3.978	34.915	294.2	3.914					
900.0	3.961	34.915	293.8	3.893					
950.0	3.953	34.917	292.8	3.881					
1000.0	3.904	34.910	284.4	3.828					
1050.0	3.814	34.904	282.4	3.735					
1100.0	3.855	34.918	276.1	3.772					
1150.0	3.755	34.906	278.8	3.668					
1200.0	3.770	34.913	277.0	3.679					
1250.0	3.713	34.910	277.4	3.618					
1300.0	3.759	34.924	274.7	3.659					
1350.0	3.758	34.932	273.7	3.654					
1400.0	3.737	34.934	273.6	3.629					
1450.0	3.736	34.939	272.9	3.623					
1500.0	3.707	34.942	273.1	3.590					
1550.0	3.694	34.946	272.8	3.573					
1600.0	3.665	34.947	273.0	3.540					
1650.0	3.617	34.945	273.3	3.488					
1700.0	3.531	34.935	274.2	3.398					
1750.0	3.495	34.936	274.6	3.359					
1800.0	3.441	34.932	274.6	3.300					
1850.0	3.471	34.946	274.5	3.326					
1900.0	3.434	34.943	274.5	3.284					
1950.0	3.393	34.941	274.9	3.239					
2000.0	3.338	34.936	275.5	3.181					
2050.0	3.302	34.936	275.7	3.140					
2100.0	3.262	34.934	276.2	3.096					
2150.0	3.211	34.929	276.4	3.041					
2200.0	3.168	34.929	276.9	2.995					
2250.0	3.144	34.931	276.6	2.966					
2300.0	3.105	34.932	276.4	2.923					
2350.0	3.075	34.933	276.5	2.888					
2400.0	3.035	34.932	276.4	2.844					
2450.0	3.060	34.943	275.4	2.864					
2500.0	3.025	34.939	275.6	2.824					
2550.0	2.992	34.938	275.7	2.788					
2600.0	2.987	34.941	275.4	2.777					
2650.0	2.955	34.940	275.9	2.741					
2700.0	2.931	34.940	275.9	2.713					
2750.0	2.917	34.941	275.8	2.694					
2800.0	2.891	34.939	276.0	2.663					
2850.0	2.842	34.936	276.8	2.610					
2900.0	2.791	34.933	278.0	2.555					
2950.0	2.742	34.932	278.8	2.502					
3000.0	2.672	34.928	280.2	2.428					



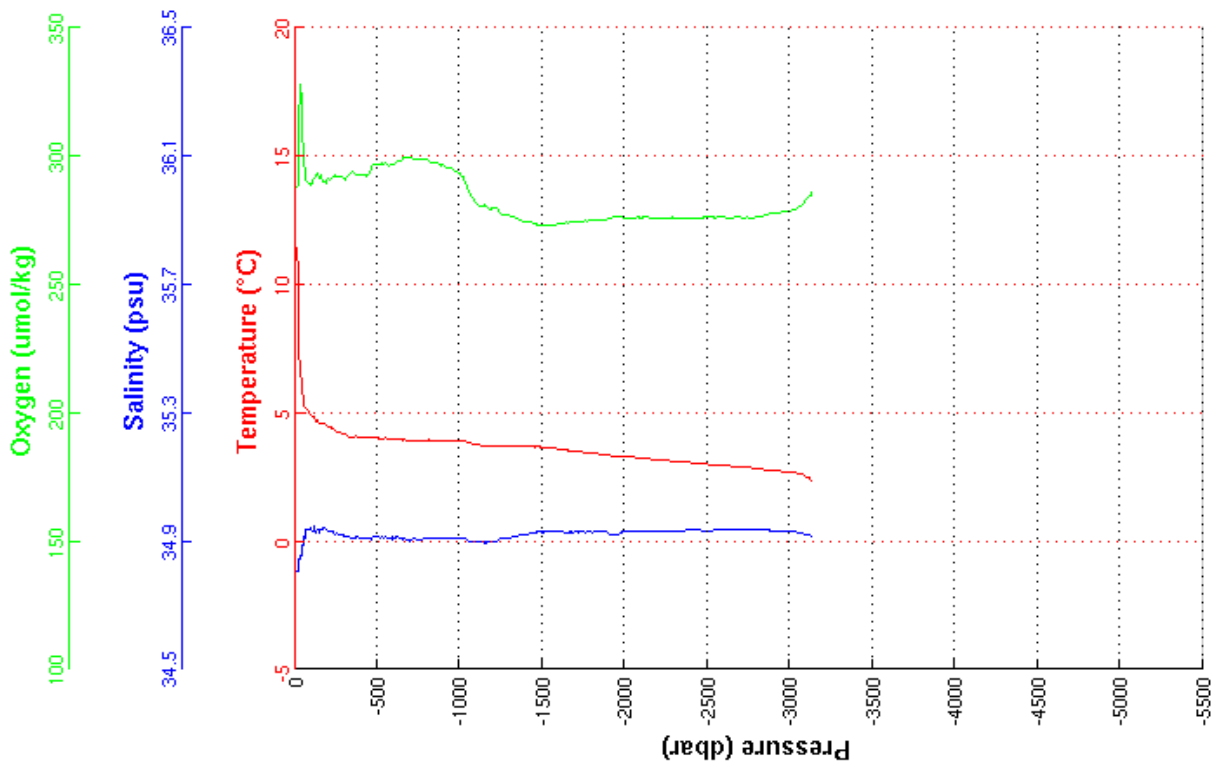
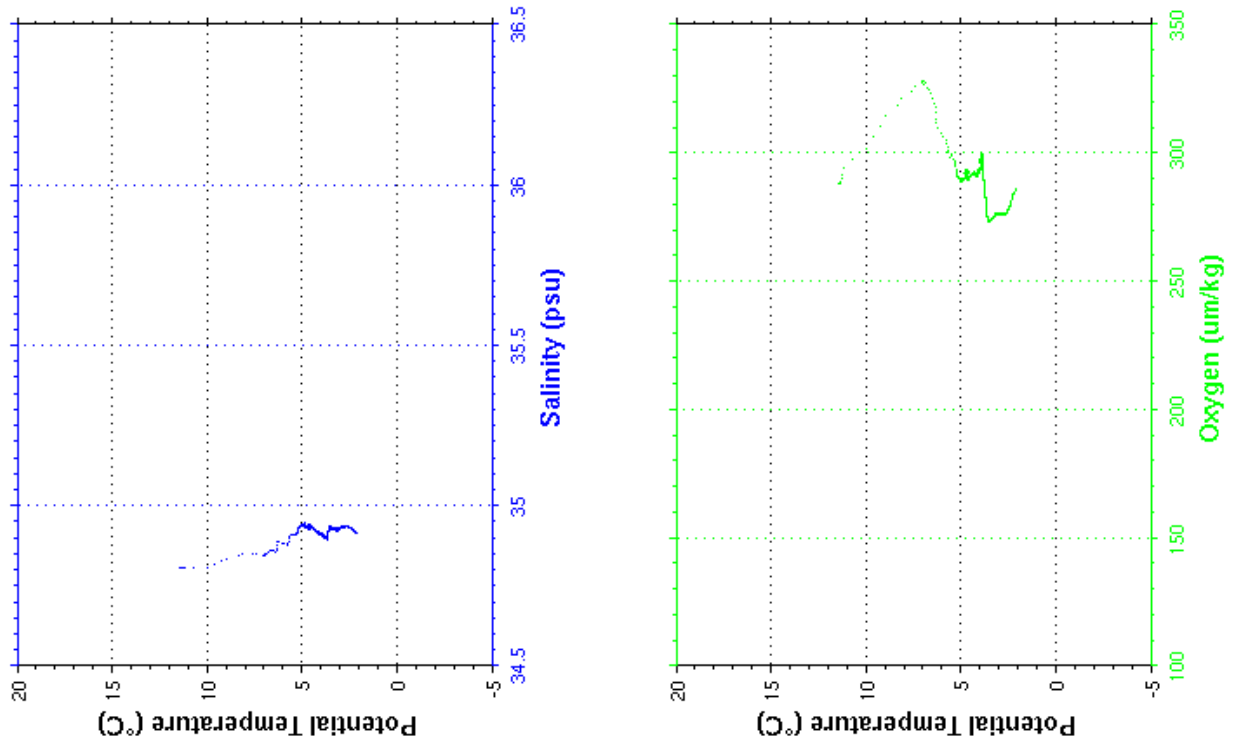
**Cast : 73**

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Cast      : 74           Cruise   : CATARINA
Date      : 14/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3094 m      Organism : CSIC/IIM VIGO
Position  : N 59 21.76
           W 036 23.80
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	11.402	34.805	288.0	11.402	3050.0	2.639	34.927	280.2	2.391
10.0	11.402	34.805	288.2	11.401	3100.0	2.514	34.920	283.5	2.263
20.0	11.250	34.806	289.8	11.247	3131.0	2.360	34.917	NaN	2.110
30.0	7.422	34.849	326.4	7.419					
40.0	6.510	34.860	322.3	6.506					
50.0	5.732	34.880	303.6	5.728					
100.0	4.929	34.938	290.3	4.922					
150.0	4.606	34.929	292.9	4.595					
200.0	4.501	34.932	292.1	4.486					
250.0	4.297	34.924	292.1	4.279					
300.0	4.170	34.918	291.3	4.148					
350.0	4.060	34.909	294.0	4.035					
400.0	4.050	34.910	292.8	4.021					
450.0	4.007	34.907	293.5	3.975					
500.0	4.035	34.915	297.1	3.998					
550.0	4.021	34.915	297.6	3.980					
600.0	3.983	34.911	297.5	3.939					
650.0	3.957	34.909	299.1	3.910					
700.0	3.906	34.902	299.8	3.854					
750.0	3.928	34.906	299.1	3.873					
800.0	3.936	34.908	299.1	3.877					
850.0	3.928	34.907	297.7	3.864					
900.0	3.934	34.910	296.7	3.866					
950.0	3.932	34.911	295.2	3.860					
1000.0	3.913	34.910	293.5	3.837					
1050.0	3.831	34.902	287.0	3.752					
1100.0	3.767	34.898	281.5	3.684					
1150.0	3.721	34.896	281.3	3.635					
1200.0	3.717	34.900	279.6	3.626					
1250.0	3.724	34.907	278.0	3.629					
1300.0	3.715	34.912	277.1	3.615					
1350.0	3.714	34.916	276.0	3.611					
1400.0	3.702	34.921	274.7	3.594					
1450.0	3.681	34.926	273.9	3.569					
1500.0	3.645	34.925	274.0	3.529					
1550.0	3.646	34.933	273.4	3.525					
1600.0	3.573	34.927	274.1	3.449					
1650.0	3.543	34.927	274.4	3.414					
1700.0	3.519	34.930	274.7	3.386					
1750.0	3.467	34.928	275.1	3.331					
1800.0	3.426	34.927	275.3	3.286					
1850.0	3.394	34.929	275.5	3.250					
1900.0	3.356	34.927	275.9	3.207					
1950.0	3.287	34.922	276.7	3.135					
2000.0	3.297	34.930	276.2	3.140					
2050.0	3.271	34.931	276.1	3.109					
2100.0	3.228	34.929	276.4	3.063					
2150.0	3.204	34.931	276.2	3.034					
2200.0	3.173	34.932	276.2	2.999					
2250.0	3.147	34.932	276.4	2.969					
2300.0	3.108	34.933	276.3	2.926					
2350.0	3.088	34.933	276.2	2.901					
2400.0	3.063	34.935	276.2	2.872					
2450.0	3.033	34.934	276.2	2.837					
2500.0	2.996	34.933	276.7	2.796					
2550.0	2.976	34.935	276.4	2.771					
2600.0	2.944	34.935	276.6	2.735					
2650.0	2.924	34.936	276.4	2.711					
2700.0	2.896	34.936	276.5	2.679					
2750.0	2.862	34.937	276.4	2.639					
2800.0	2.826	34.937	276.6	2.599					
2850.0	2.772	34.935	277.5	2.541					
2900.0	2.739	34.933	277.9	2.504					
2950.0	2.722	34.932	278.5	2.483					
3000.0	2.707	34.931	278.9	2.462					



**Cast : 74**

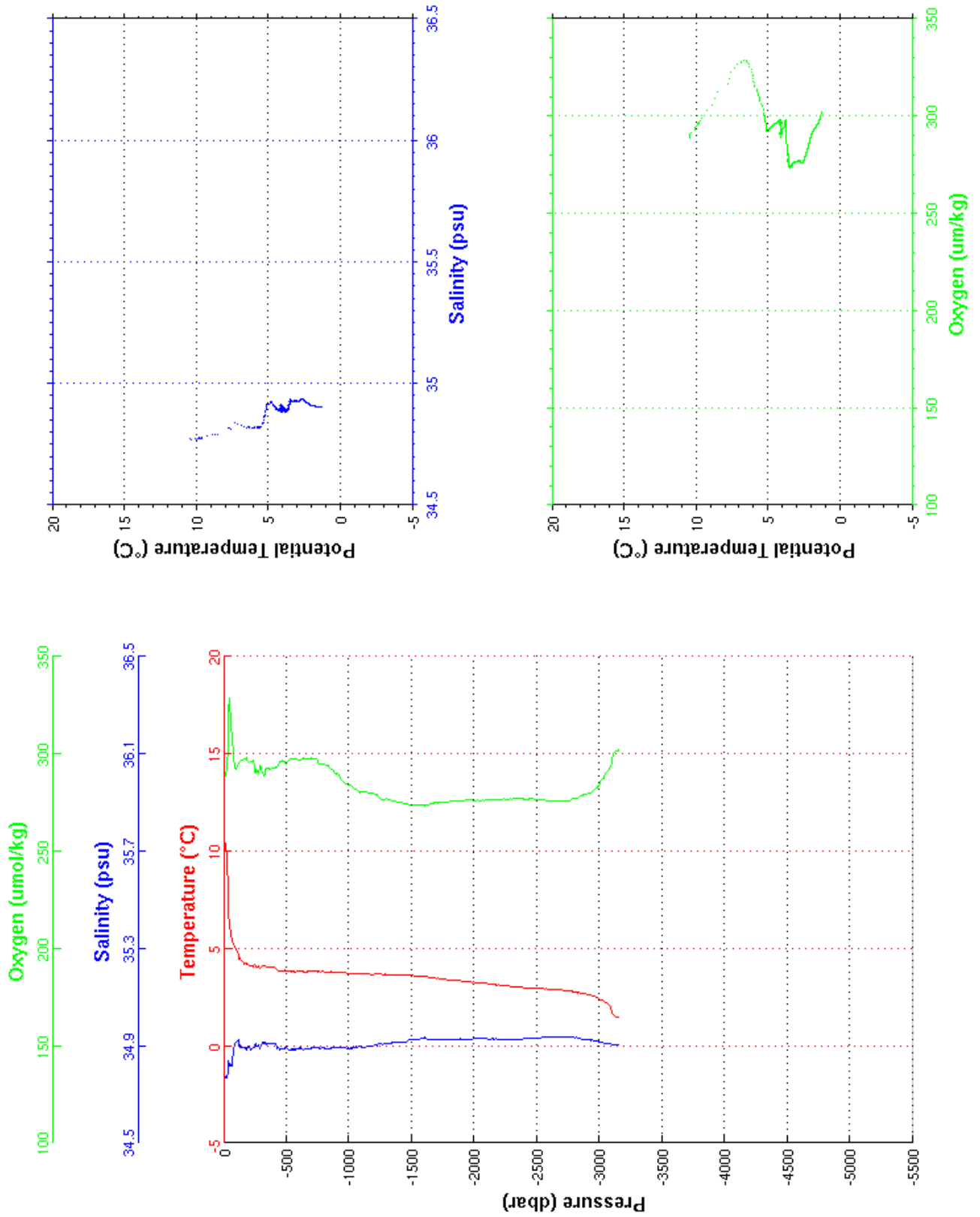
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Cast       : 75           Cruise    : CATARINA
Date       : 15/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3115 m      Organism  : CSIC/IIM VIGO
Position   : N 59 25.67
            W 037  2.37
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.418	34.773	289.0	10.418	3050.0	2.228	34.909	290.2	1.989
10.0	10.412	34.771	290.0	10.411	3100.0	1.780	34.905	296.0	1.546
20.0	10.024	34.774	294.3	10.022	3150.0	1.485	34.906	301.8	1.253
30.0	9.242	34.785	301.7	9.239	3155.0	1.480	34.906	302.3	1.248
40.0	6.844	34.827	329.4	6.840					
50.0	6.052	34.819	320.5	6.048					
100.0	4.905	34.917	293.5	4.897					
150.0	4.295	34.891	297.4	4.284					
200.0	4.187	34.897	295.3	4.173					
250.0	4.166	34.908	290.0	4.148					
300.0	4.072	34.905	291.6	4.050					
350.0	4.048	34.908	292.5	4.023					
400.0	4.022	34.908	293.2	3.993					
450.0	3.838	34.885	296.7	3.806					
500.0	3.844	34.888	296.2	3.809					
550.0	3.807	34.884	297.8	3.768					
600.0	3.837	34.890	297.2	3.794					
650.0	3.820	34.889	297.9	3.773					
700.0	3.823	34.891	297.8	3.772					
750.0	3.808	34.889	295.6	3.753					
800.0	3.808	34.890	295.0	3.749					
850.0	3.797	34.891	292.6	3.734					
900.0	3.784	34.892	290.1	3.718					
950.0	3.767	34.892	285.9	3.697					
1000.0	3.725	34.889	284.4	3.651					
1050.0	3.715	34.892	282.2	3.637					
1100.0	3.710	34.896	280.3	3.628					
1150.0	3.680	34.896	280.5	3.594					
1200.0	3.686	34.902	279.2	3.595					
1250.0	3.712	34.911	276.9	3.617					
1300.0	3.667	34.909	276.8	3.568					
1350.0	3.661	34.913	276.3	3.558					
1400.0	3.630	34.914	275.4	3.523					
1450.0	3.613	34.917	274.7	3.502					
1500.0	3.614	34.924	274.3	3.498					
1550.0	3.594	34.927	273.9	3.474					
1600.0	3.579	34.932	273.7	3.455					
1650.0	3.511	34.927	274.7	3.383					
1700.0	3.456	34.925	275.4	3.324					
1750.0	3.425	34.925	275.5	3.289					
1800.0	3.388	34.924	275.9	3.248					
1850.0	3.356	34.927	276.1	3.212					
1900.0	3.318	34.927	276.5	3.170					
1950.0	3.278	34.927	276.7	3.126					
2000.0	3.264	34.929	276.2	3.107					
2050.0	3.241	34.930	276.3	3.081					
2100.0	3.211	34.928	276.7	3.046					
2150.0	3.166	34.927	276.6	2.997					
2200.0	3.121	34.927	277.0	2.948					
2250.0	3.086	34.927	277.0	2.909					
2300.0	3.061	34.927	276.9	2.880					
2350.0	3.016	34.928	277.1	2.831					
2400.0	2.987	34.928	277.1	2.797					
2450.0	2.968	34.930	277.0	2.774					
2500.0	2.947	34.932	276.7	2.748					
2550.0	2.927	34.934	276.7	2.724					
2600.0	2.915	34.938	276.0	2.707					
2650.0	2.884	34.937	276.3	2.671					
2700.0	2.854	34.937	276.2	2.637					
2750.0	2.828	34.938	276.2	2.607					
2800.0	2.764	34.932	277.7	2.539					
2850.0	2.700	34.928	278.6	2.471					
2900.0	2.640	34.926	279.9	2.407					
2950.0	2.569	34.922	281.6	2.333					
3000.0	2.425	34.918	284.6	2.186					





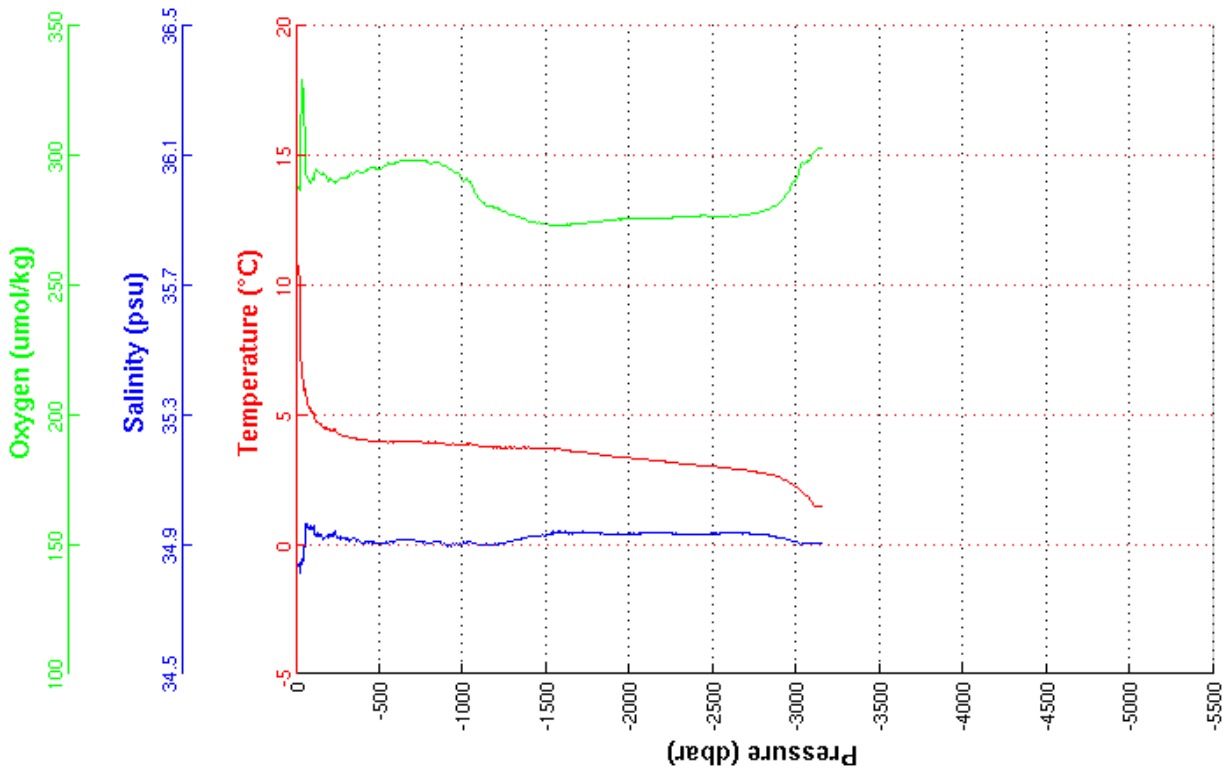
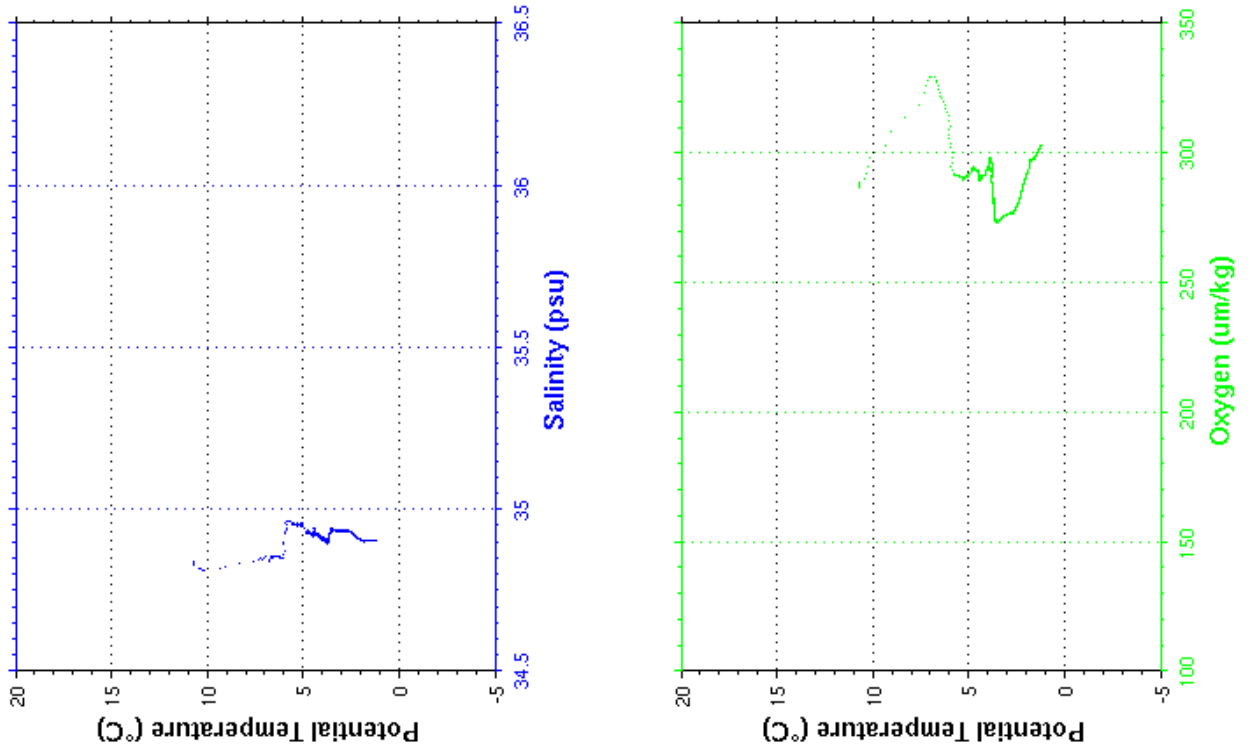
**Cast : 75**

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Cast      : 76           Cruise   : CATARINA
Date      : 15/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 3111 m      Organism : CSIC/IIM VIGO
Position  : N 59 29.48
           W 037 40.84
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.731	34.836	288.7	10.731	3050.0	1.949	34.904	297.0	1.716
10.0	10.733	34.836	287.9	10.732	3100.0	1.585	34.903	301.2	1.355
20.0	10.671	34.830	287.0	10.669	3150.0	1.449	34.905	303.1	1.218
30.0	7.225	34.852	329.4	7.223	3154.0	1.445	34.905	303.5	1.214
40.0	6.487	34.853	324.0	6.483					
50.0	5.994	34.899	307.9	5.989					
100.0	5.091	34.957	291.4	5.083					
150.0	4.624	34.927	293.3	4.613					
200.0	4.430	34.925	291.1	4.415					
250.0	4.289	34.923	291.5	4.271					
300.0	4.177	34.918	291.8	4.155					
350.0	4.124	34.918	293.8	4.099					
400.0	4.002	34.905	293.8	3.973					
450.0	3.978	34.905	295.8	3.946					
500.0	3.956	34.904	295.3	3.919					
550.0	3.934	34.903	297.7	3.894					
600.0	3.987	34.913	297.7	3.943					
650.0	3.994	34.914	298.4	3.946					
700.0	3.976	34.912	298.5	3.924					
750.0	3.948	34.909	298.3	3.893					
800.0	3.933	34.907	297.8	3.873					
850.0	3.937	34.909	297.7	3.874					
900.0	3.852	34.897	296.0	3.785					
950.0	3.856	34.899	293.7	3.785					
1000.0	3.869	34.904	290.3	3.793					
1050.0	3.871	34.907	289.2	3.791					
1100.0	3.788	34.898	283.2	3.705					
1150.0	3.773	34.900	280.5	3.686					
1200.0	3.739	34.901	279.5	3.648					
1250.0	3.734	34.906	278.8	3.639					
1300.0	3.736	34.910	277.5	3.636					
1350.0	3.739	34.917	275.9	3.635					
1400.0	3.734	34.924	275.1	3.626					
1450.0	3.720	34.927	274.5	3.607					
1500.0	3.703	34.931	273.8	3.587					
1550.0	3.694	34.936	272.9	3.573					
1600.0	3.647	34.934	273.6	3.522					
1650.0	3.588	34.931	273.8	3.459					
1700.0	3.574	34.936	274.1	3.441					
1750.0	3.527	34.936	274.5	3.389					
1800.0	3.490	34.936	274.7	3.349					
1850.0	3.433	34.932	275.2	3.288					
1900.0	3.401	34.933	275.6	3.252					
1950.0	3.367	34.932	275.8	3.214					
2000.0	3.335	34.933	276.0	3.178					
2050.0	3.299	34.933	276.0	3.137					
2100.0	3.274	34.936	276.1	3.108					
2150.0	3.240	34.936	276.1	3.070					
2200.0	3.202	34.935	276.1	3.028					
2250.0	3.168	34.936	276.3	2.989					
2300.0	3.123	34.933	276.7	2.940					
2350.0	3.093	34.933	276.7	2.906					
2400.0	3.064	34.933	276.7	2.873					
2450.0	3.027	34.931	277.2	2.831					
2500.0	3.006	34.934	276.8	2.806					
2550.0	2.971	34.934	277.0	2.766					
2600.0	2.931	34.934	277.2	2.722					
2650.0	2.893	34.935	277.2	2.680					
2700.0	2.861	34.934	277.3	2.643					
2750.0	2.810	34.932	278.2	2.589					
2800.0	2.748	34.930	279.0	2.523					
2850.0	2.684	34.927	280.1	2.456					
2900.0	2.581	34.922	282.4	2.350					
2950.0	2.437	34.913	286.7	2.204					
3000.0	2.228	34.907	291.5	1.994					



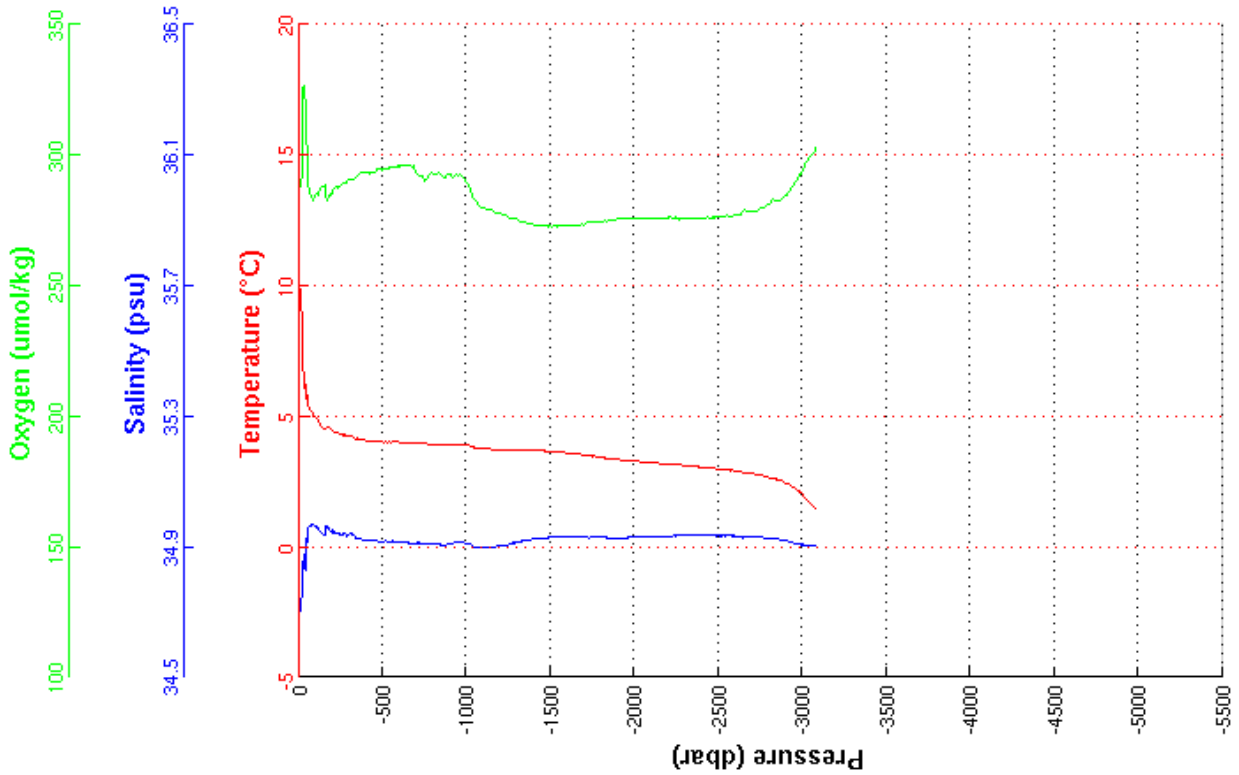
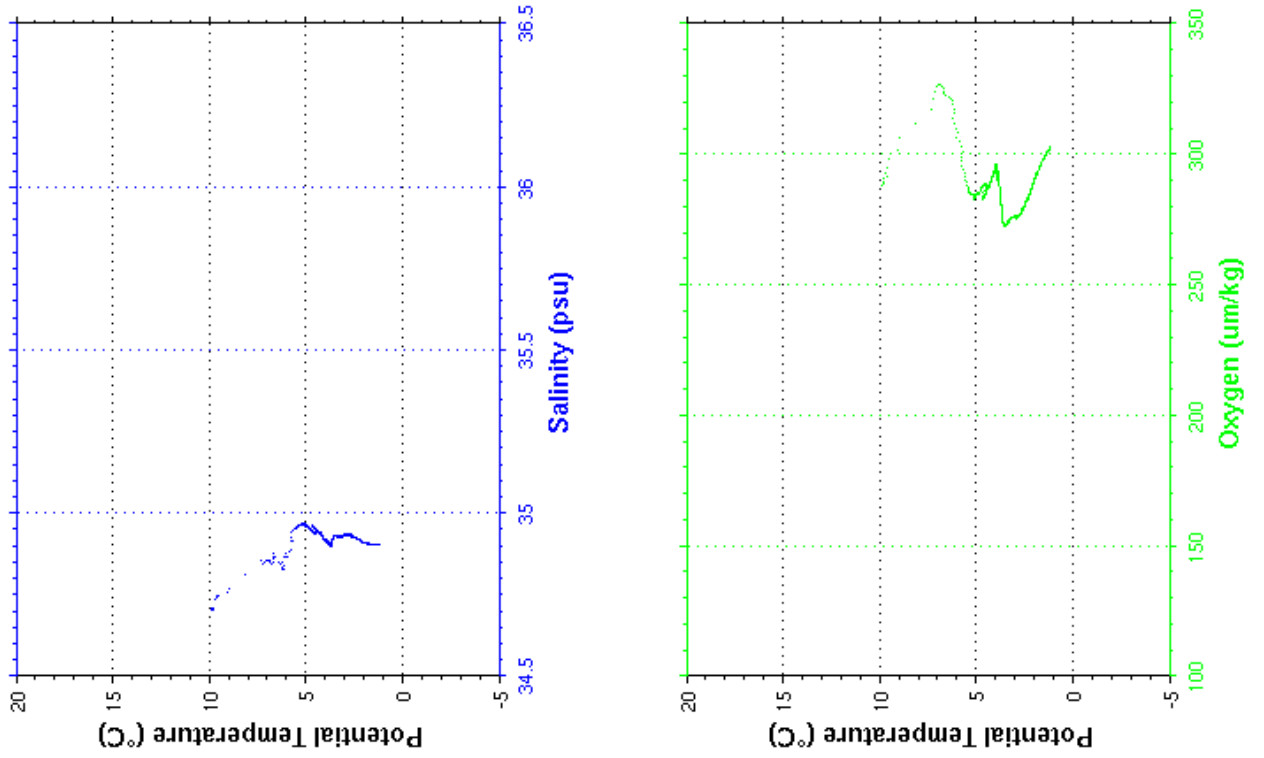
**Cast : 76**

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Cast       : 77           Cruise    : CATARINA
Date       : 01/01/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 3039 m      Organism  : CSIC/IIM VIGO
Position   : N 59 33.39
            W 038 19.00
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.849	34.706	288.3	9.849	3050.0	1.625	34.905	300.4	1.400
10.0	9.852	34.706	288.1	9.851	3078.0	1.446	34.905	NaN	1.222
20.0	9.506	34.745	294.7	9.504					
30.0	6.823	34.852	327.4	6.820					
40.0	6.205	34.829	318.6	6.201					
50.0	5.664	34.917	300.8	5.660					
100.0	4.948	34.959	285.8	4.940					
150.0	4.516	34.935	289.1	4.505					
200.0	4.474	34.950	286.2	4.459					
250.0	4.314	34.939	289.0	4.296					
300.0	4.263	34.940	290.2	4.241					
350.0	4.138	34.926	292.4	4.113					
400.0	4.079	34.921	293.7	4.050					
450.0	4.048	34.919	294.1	4.016					
500.0	4.010	34.915	294.6	3.974					
550.0	3.999	34.914	295.8	3.959					
600.0	4.009	34.916	296.0	3.965					
650.0	3.977	34.913	296.4	3.929					
700.0	3.969	34.912	293.0	3.917					
750.0	3.953	34.911	290.5	3.897					
800.0	3.923	34.908	293.0	3.864					
850.0	3.905	34.907	292.5	3.842					
900.0	3.920	34.910	293.0	3.852					
950.0	3.934	34.915	292.5	3.863					
1000.0	3.889	34.909	289.7	3.813					
1050.0	3.804	34.899	282.7	3.725					
1100.0	3.759	34.897	279.9	3.676					
1150.0	3.739	34.898	279.1	3.652					
1200.0	3.736	34.904	277.8	3.645					
1250.0	3.717	34.907	276.9	3.622					
1300.0	3.722	34.915	275.3	3.623					
1350.0	3.715	34.919	274.5	3.612					
1400.0	3.709	34.924	273.5	3.601					
1450.0	3.682	34.926	273.3	3.570					
1500.0	3.658	34.929	273.0	3.542					
1550.0	3.641	34.931	273.0	3.520					
1600.0	3.601	34.932	273.4	3.476					
1650.0	3.559	34.931	273.4	3.430					
1700.0	3.523	34.930	273.9	3.390					
1750.0	3.470	34.930	274.6	3.333					
1800.0	3.427	34.929	274.8	3.287					
1850.0	3.376	34.927	275.4	3.231					
1900.0	3.339	34.927	275.8	3.191					
1950.0	3.307	34.927	276.0	3.155					
2000.0	3.288	34.929	275.8	3.131					
2050.0	3.259	34.930	276.1	3.098					
2100.0	3.230	34.930	275.8	3.064					
2150.0	3.193	34.930	276.3	3.023					
2200.0	3.169	34.932	276.2	2.995					
2250.0	3.136	34.933	276.4	2.958					
2300.0	3.117	34.936	276.1	2.935					
2350.0	3.090	34.936	276.1	2.903					
2400.0	3.052	34.935	276.3	2.860					
2450.0	3.021	34.935	276.4	2.826					
2500.0	2.982	34.934	276.7	2.782					
2550.0	2.948	34.935	277.1	2.744					
2600.0	2.908	34.933	277.1	2.700					
2650.0	2.839	34.929	279.1	2.628					
2700.0	2.808	34.931	278.8	2.592					
2750.0	2.751	34.929	279.5	2.531					
2800.0	2.662	34.924	281.7	2.439					
2850.0	2.586	34.924	282.4	2.359					
2900.0	2.466	34.919	284.7	2.237					
2950.0	2.271	34.910	289.2	2.041					
3000.0	2.011	34.907	294.0	1.781					



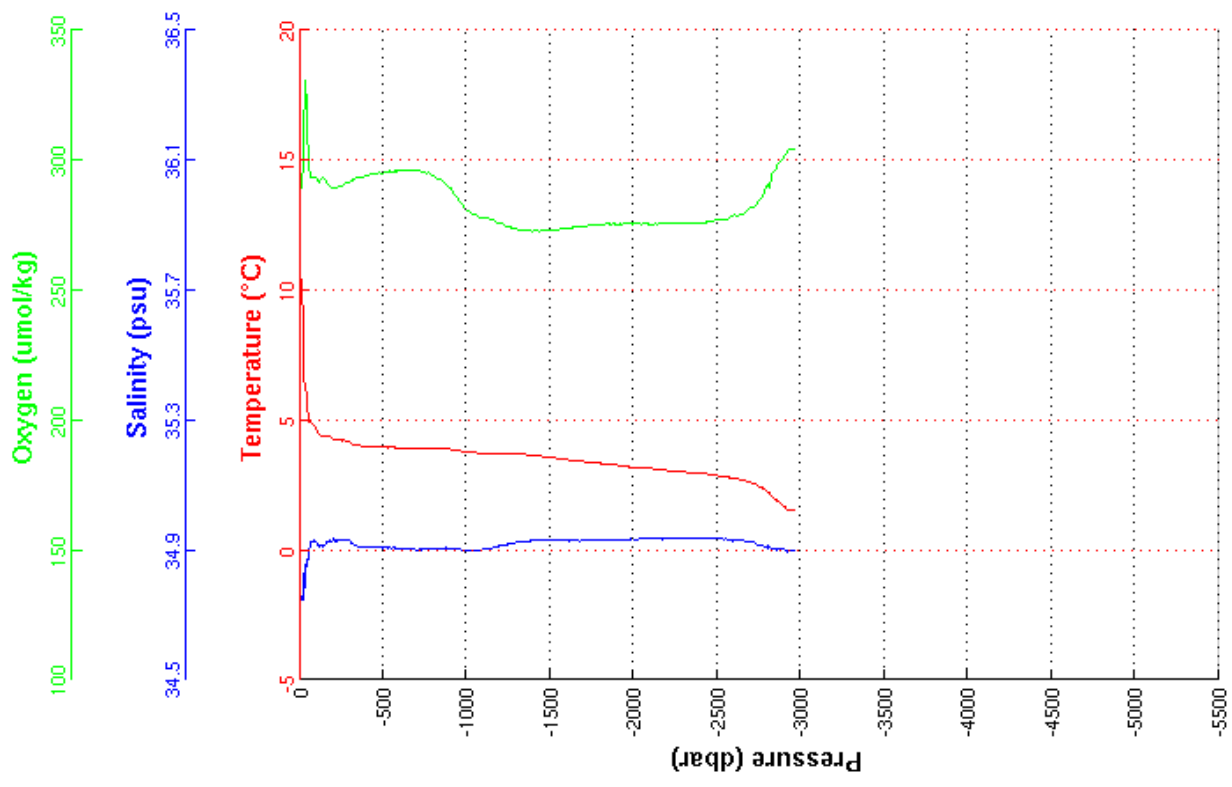
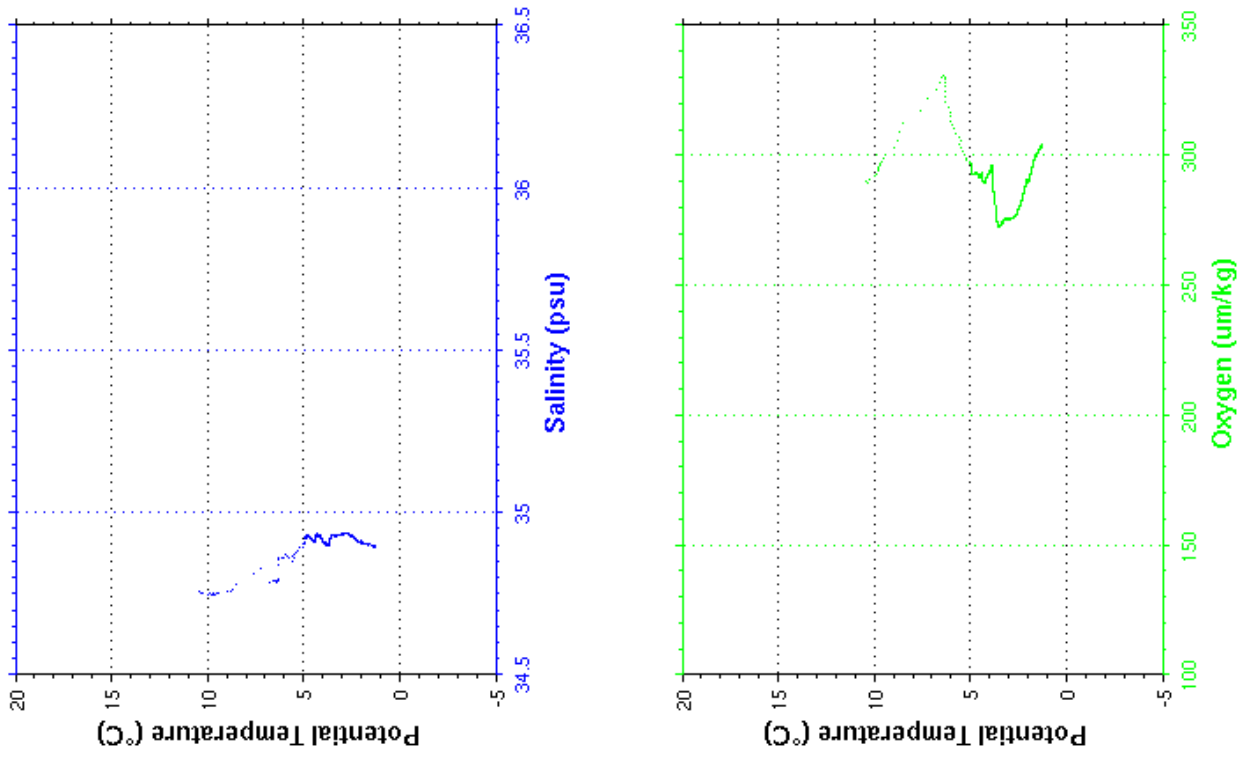
**Cast : 77**

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Cast       : 78           Cruise    : CATARINA
Date       : 01/01/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 2926 m      Organism  : CSIC/IIM VIGO
Position   : N 59 37.42
            W 038 57.49
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.383	34.755	289.6	10.383
10.0	10.366	34.754	289.4	10.365
20.0	9.574	34.749	297.7	9.571
30.0	6.599	34.792	331.3	6.596
40.0	6.281	34.862	321.6	6.277
50.0	5.543	34.866	305.1	5.539
100.0	4.672	34.924	293.0	4.665
150.0	4.371	34.916	293.3	4.361
200.0	4.323	34.931	289.9	4.309
250.0	4.220	34.930	290.4	4.202
300.0	4.151	34.926	292.4	4.130
350.0	4.018	34.910	293.6	3.992
400.0	4.002	34.911	294.3	3.973
450.0	3.976	34.909	295.1	3.943
500.0	3.966	34.909	295.7	3.930
550.0	3.942	34.907	295.9	3.902
600.0	3.922	34.905	296.3	3.879
650.0	3.900	34.902	296.7	3.853
700.0	3.880	34.900	296.5	3.829
750.0	3.904	34.904	295.4	3.849
800.0	3.892	34.904	294.4	3.832
850.0	3.884	34.904	292.5	3.821
900.0	3.877	34.906	289.8	3.810
950.0	3.833	34.903	285.1	3.762
1000.0	3.774	34.898	281.1	3.699
1050.0	3.747	34.899	279.2	3.668
1100.0	3.733	34.903	278.1	3.651
1150.0	3.720	34.906	277.3	3.633
1200.0	3.714	34.913	275.8	3.623
1250.0	3.706	34.918	274.7	3.611
1300.0	3.693	34.924	273.6	3.594
1350.0	3.672	34.927	273.2	3.569
1400.0	3.638	34.929	273.2	3.530
1450.0	3.604	34.930	273.1	3.492
1500.0	3.561	34.930	273.5	3.445
1550.0	3.514	34.929	273.7	3.395
1600.0	3.477	34.929	274.2	3.354
1650.0	3.429	34.929	274.6	3.302
1700.0	3.406	34.929	274.9	3.275
1750.0	3.357	34.929	275.5	3.222
1800.0	3.334	34.930	275.3	3.195
1850.0	3.295	34.930	275.8	3.152
1900.0	3.269	34.933	275.6	3.122
1950.0	3.215	34.929	276.3	3.064
2000.0	3.185	34.931	275.9	3.029
2050.0	3.169	34.935	275.9	3.010
2100.0	3.147	34.937	275.7	2.983
2150.0	3.099	34.935	276.1	2.931
2200.0	3.062	34.935	276.2	2.889
2250.0	3.034	34.935	276.2	2.857
2300.0	3.000	34.935	276.2	2.820
2350.0	2.983	34.937	275.9	2.797
2400.0	2.944	34.936	276.6	2.755
2450.0	2.896	34.934	276.9	2.703
2500.0	2.862	34.934	277.3	2.665
2550.0	2.824	34.934	277.2	2.623
2600.0	2.739	34.928	279.5	2.534
2650.0	2.683	34.928	279.5	2.475
2700.0	2.589	34.924	282.0	2.377
2750.0	2.454	34.912	285.6	2.240
2800.0	2.259	34.907	290.8	2.044
2850.0	1.934	34.903	296.7	1.721
2900.0	1.688	34.897	301.8	1.475
2950.0	1.514	34.897	304.7	1.300
2961.0	1.506	34.897	304.8	1.292



**Cast : 78**

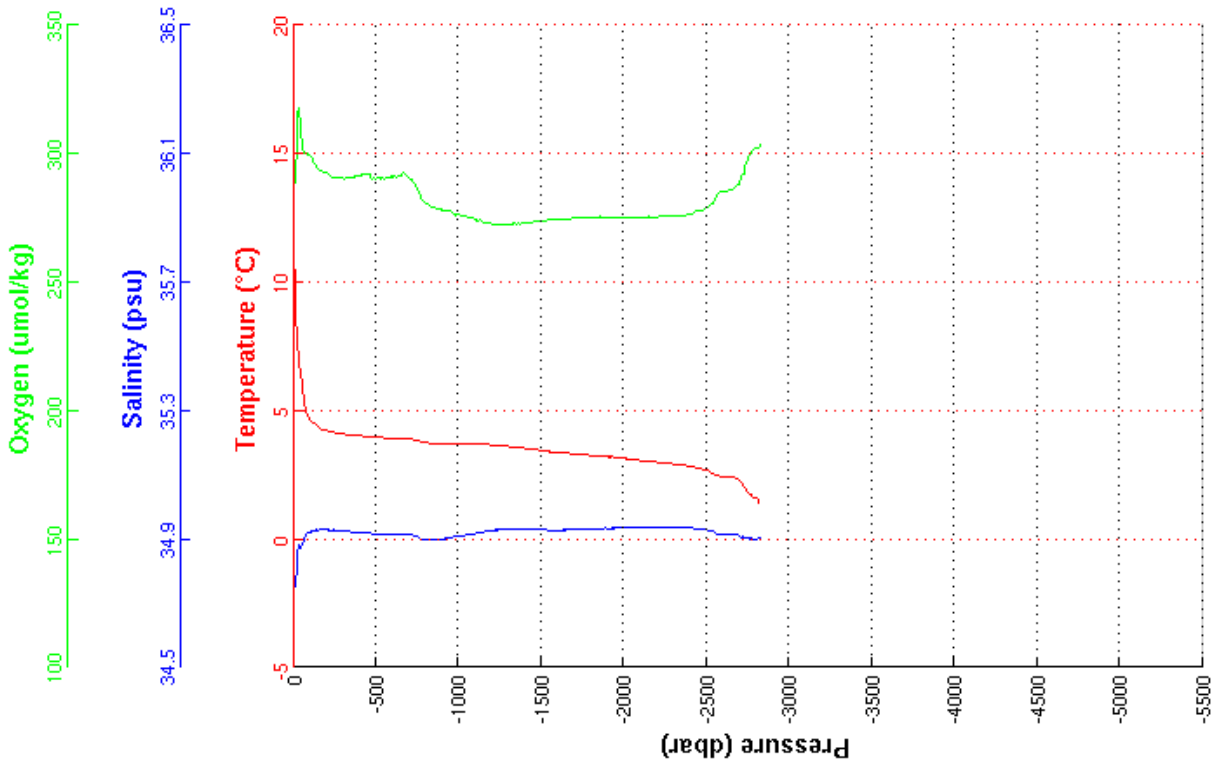
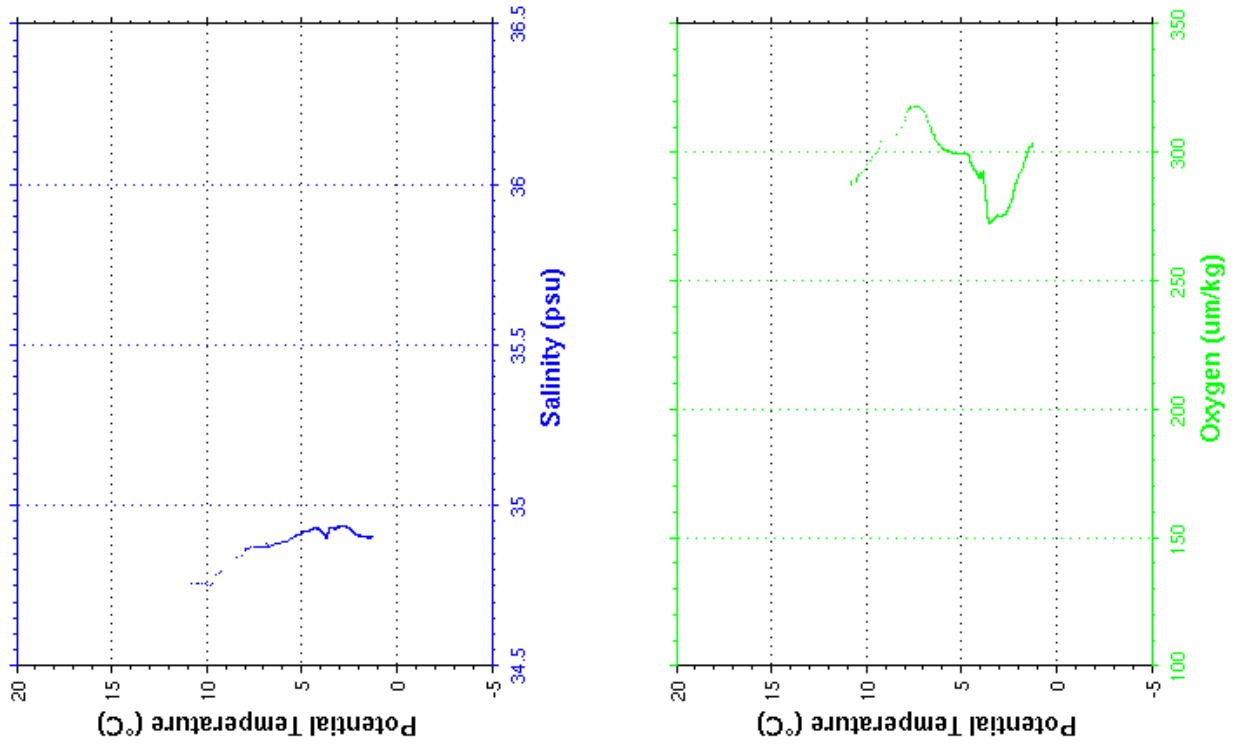
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Cast       : 79           Cruise    : CATARINA
Date       : 15/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth      : 2792 m      Organism  : CSIC/IIM VIGO
Position   : N 59 41.14
            W 039 35.94
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.760	34.760	287.8	10.760
10.0	10.517	34.758	290.0	10.515
20.0	9.230	34.793	299.1	9.228
30.0	7.519	34.869	318.1	7.516
40.0	6.762	34.873	311.5	6.758
50.0	6.370	34.881	305.5	6.365
100.0	4.642	34.921	298.9	4.634
150.0	4.402	34.929	294.5	4.391
200.0	4.222	34.928	292.8	4.207
250.0	4.146	34.928	290.9	4.128
300.0	4.089	34.925	290.6	4.068
350.0	4.044	34.922	291.0	4.019
400.0	4.018	34.921	292.1	3.989
450.0	3.989	34.919	292.5	3.957
500.0	3.956	34.915	290.6	3.920
550.0	3.941	34.915	290.7	3.901
600.0	3.929	34.915	291.5	3.885
650.0	3.924	34.916	291.9	3.877
700.0	3.895	34.913	290.8	3.843
750.0	3.830	34.906	286.8	3.775
800.0	3.752	34.899	280.9	3.693
850.0	3.724	34.899	279.4	3.662
900.0	3.711	34.901	278.3	3.645
950.0	3.704	34.904	277.9	3.634
1000.0	3.701	34.909	276.6	3.627
1050.0	3.700	34.914	275.6	3.621
1100.0	3.688	34.918	274.7	3.605
1150.0	3.677	34.923	273.6	3.591
1200.0	3.666	34.927	272.8	3.575
1250.0	3.632	34.929	272.9	3.538
1300.0	3.605	34.929	272.8	3.506
1350.0	3.571	34.930	273.1	3.469
1400.0	3.531	34.929	273.3	3.425
1450.0	3.486	34.929	273.9	3.376
1500.0	3.449	34.929	274.3	3.335
1550.0	3.400	34.927	274.5	3.283
1600.0	3.368	34.927	274.7	3.247
1650.0	3.339	34.928	275.1	3.214
1700.0	3.317	34.930	275.3	3.187
1750.0	3.289	34.930	275.5	3.155
1800.0	3.262	34.931	275.4	3.124
1850.0	3.217	34.930	275.8	3.075
1900.0	3.206	34.932	275.5	3.060
1950.0	3.178	34.935	275.5	3.028
2000.0	3.141	34.935	275.6	2.986
2050.0	3.106	34.936	275.4	2.947
2100.0	3.059	34.935	275.6	2.897
2150.0	3.022	34.936	275.8	2.855
2200.0	2.991	34.936	275.7	2.820
2250.0	2.964	34.937	276.0	2.789
2300.0	2.922	34.936	276.1	2.743
2350.0	2.889	34.937	275.8	2.706
2400.0	2.830	34.934	276.8	2.642
2450.0	2.761	34.932	278.0	2.570
2500.0	2.675	34.929	279.2	2.481
2550.0	2.520	34.920	282.3	2.324
2600.0	2.447	34.916	285.4	2.248
2650.0	2.405	34.914	286.5	2.201
2700.0	2.298	34.908	289.0	2.092
2750.0	1.836	34.903	297.9	1.635
2800.0	1.601	34.899	302.6	1.399
2823.0	1.436	34.902	303.7	1.236

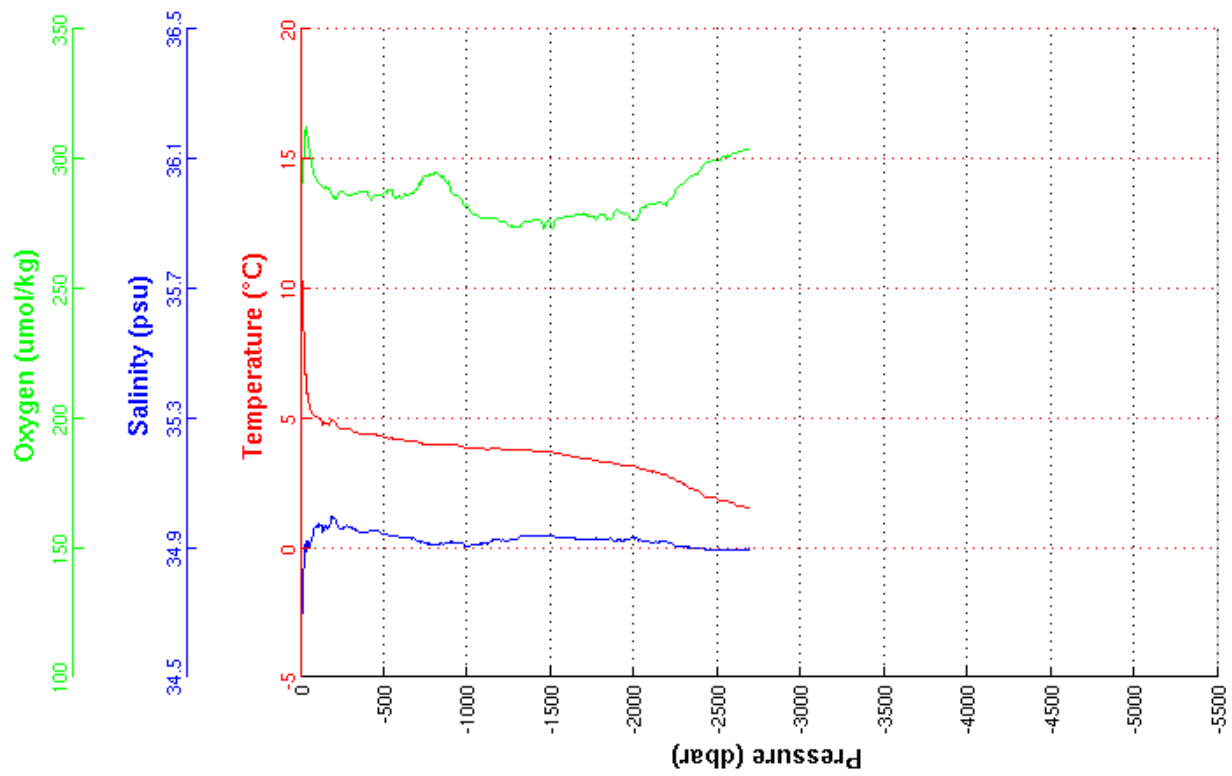
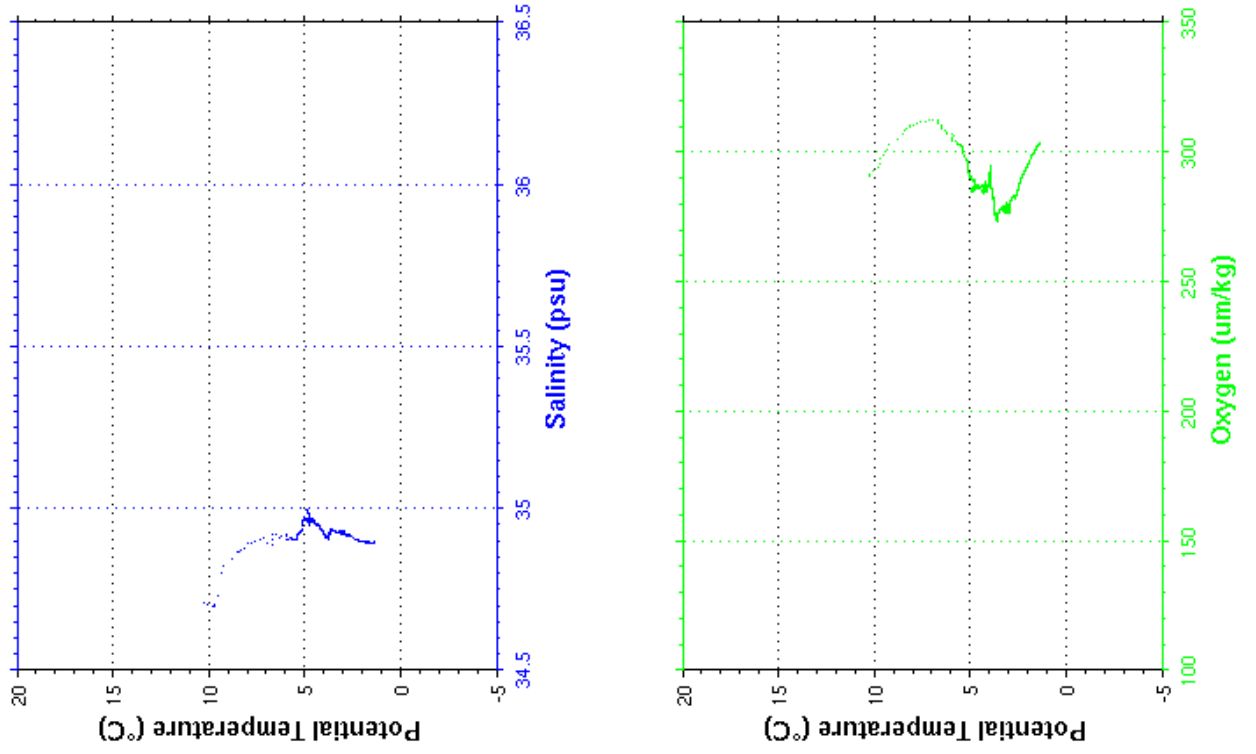




**Cast : 79**

Cast	: 80	Cruise	: CATARINA
Date	: 16/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2659 m	Organism	: CSIC/IIM VIGO
Position	: N 59 43.37 W 040 15.15		

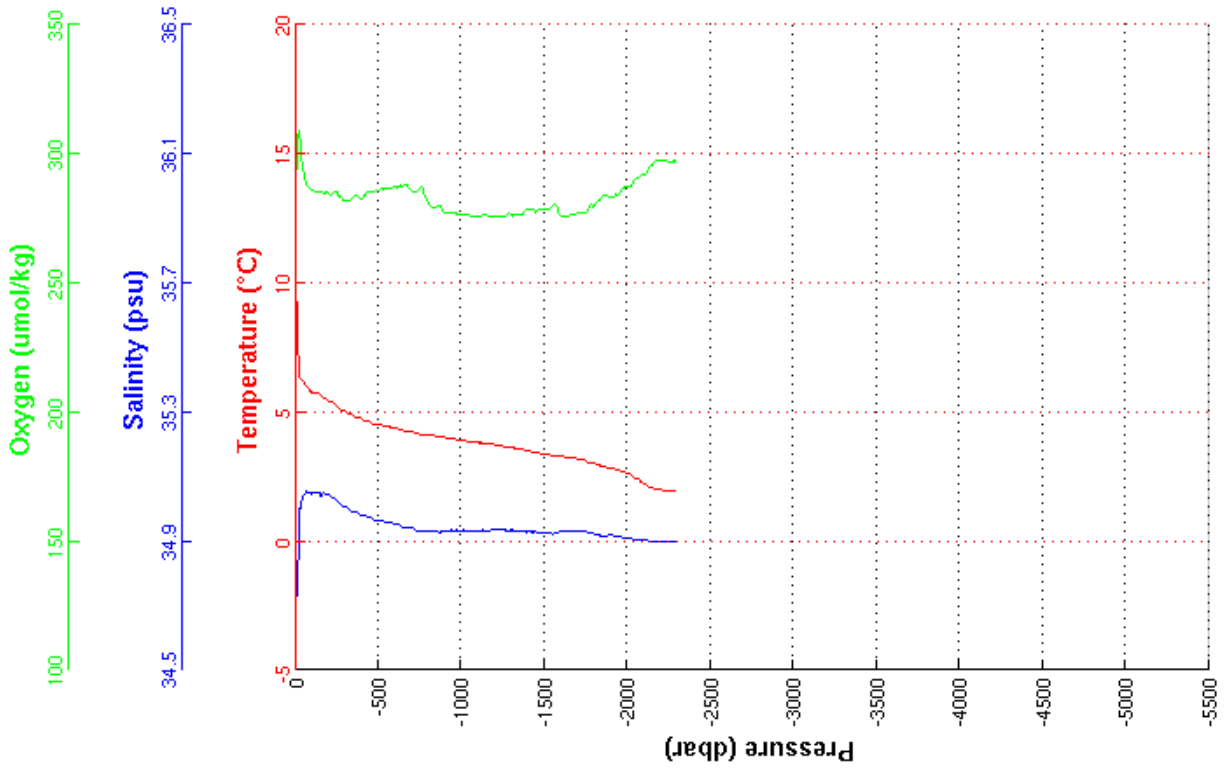
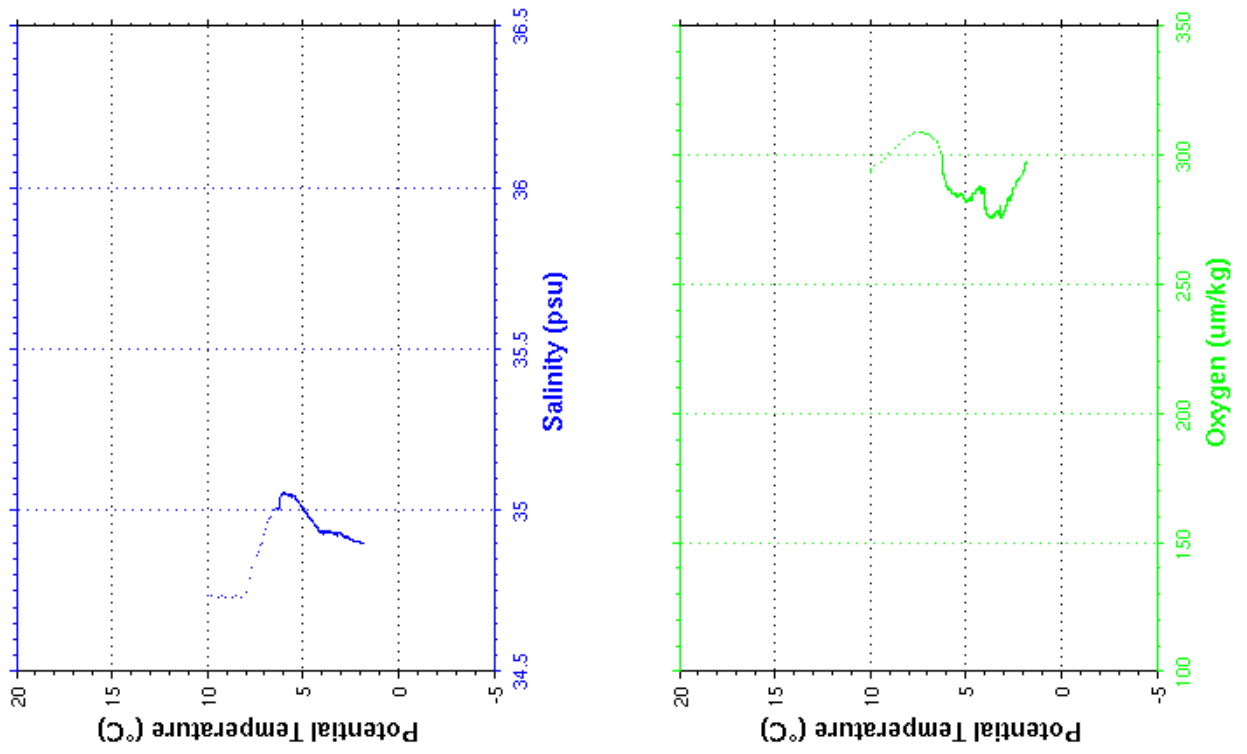
PRESSURE	TEMPERATURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.281	34.708	291.0	10.281
10.0	10.284	34.709	290.7	10.283
20.0	8.531	34.864	309.0	8.529
30.0	6.966	34.895	312.2	6.963
40.0	6.224	34.915	308.8	6.220
50.0	5.698	34.909	303.6	5.694
100.0	5.019	34.967	291.3	5.011
150.0	4.813	34.969	289.3	4.802
200.0	4.853	34.988	285.4	4.838
250.0	4.572	34.957	287.6	4.553
300.0	4.546	34.962	286.7	4.523
350.0	4.397	34.949	287.7	4.371
400.0	4.363	34.949	287.6	4.333
450.0	4.352	34.952	286.0	4.318
500.0	4.251	34.940	287.5	4.214
550.0	4.214	34.938	286.6	4.172
600.0	4.179	34.936	284.6	4.134
650.0	4.127	34.930	286.6	4.079
700.0	4.066	34.923	288.5	4.014
750.0	3.995	34.914	293.7	3.939
800.0	3.948	34.909	295.3	3.888
850.0	3.956	34.911	293.6	3.892
900.0	3.976	34.917	288.1	3.908
950.0	3.928	34.914	285.0	3.857
1000.0	3.862	34.909	281.5	3.786
1050.0	3.839	34.911	278.7	3.760
1100.0	3.792	34.909	277.7	3.709
1150.0	3.827	34.921	277.3	3.740
1200.0	3.795	34.922	276.4	3.703
1250.0	3.772	34.923	274.6	3.676
1300.0	3.769	34.929	274.1	3.669
1350.0	3.764	34.935	276.3	3.659
1400.0	3.729	34.935	276.6	3.621
1450.0	3.706	34.937	274.5	3.594
1500.0	3.672	34.937	274.7	3.555
1550.0	3.612	34.932	277.6	3.492
1600.0	3.550	34.930	277.9	3.426
1650.0	3.498	34.928	279.0	3.370
1700.0	3.445	34.927	278.5	3.313
1750.0	3.390	34.927	277.5	3.255
1800.0	3.309	34.923	279.8	3.170
1850.0	3.296	34.928	277.2	3.153
1900.0	3.218	34.923	280.0	3.071
1950.0	3.163	34.925	279.3	3.013
2000.0	3.140	34.928	276.7	2.985
2050.0	3.018	34.919	282.3	2.861
2100.0	2.939	34.917	283.5	2.778
2150.0	2.872	34.917	283.6	2.708
2200.0	2.756	34.915	284.3	2.589
2250.0	2.555	34.905	288.8	2.387
2300.0	2.446	34.903	291.3	2.275
2350.0	2.268	34.899	294.1	2.096
2400.0	2.073	34.898	296.7	1.899
2450.0	1.950	34.894	299.1	1.774
2500.0	1.895	34.894	299.8	1.716
2550.0	1.789	34.894	301.3	1.607
2600.0	1.696	34.893	302.6	1.511
2650.0	1.583	34.894	303.6	1.396
2688.0	1.536	34.895	304.0	1.347



**Cast : 80**

Cast	: 81	Cruise	: CATARINA
Date	: 16/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2271 m	Organism	: CSIC/IIM VIGO
Position	: N 59 45.46 W 040 54.28		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.948	34.738	293.9	9.947
10.0	9.392	34.728	297.8	9.391
20.0	7.305	34.873	309.8	7.303
30.0	6.407	35.007	304.2	6.404
40.0	6.211	35.027	295.7	6.208
50.0	6.168	35.044	292.6	6.163
100.0	5.772	35.049	286.6	5.763
150.0	5.643	35.048	285.6	5.630
200.0	5.455	35.042	284.8	5.439
250.0	5.197	35.021	285.3	5.177
300.0	5.020	35.006	283.4	4.997
350.0	4.841	34.991	283.9	4.813
400.0	4.734	34.982	282.9	4.703
450.0	4.625	34.973	285.7	4.590
500.0	4.496	34.962	286.0	4.458
550.0	4.447	34.959	287.1	4.405
600.0	4.372	34.954	287.2	4.326
650.0	4.266	34.942	288.4	4.216
700.0	4.235	34.941	285.7	4.182
750.0	4.128	34.931	287.7	4.071
800.0	4.112	34.933	281.1	4.052
850.0	4.048	34.930	280.4	3.983
900.0	4.016	34.932	277.5	3.948
950.0	3.969	34.933	277.3	3.897
1000.0	3.900	34.930	276.7	3.824
1050.0	3.839	34.930	276.4	3.760
1100.0	3.810	34.932	276.4	3.727
1150.0	3.779	34.933	276.5	3.692
1200.0	3.732	34.935	276.2	3.641
1250.0	3.677	34.934	276.2	3.582
1300.0	3.631	34.934	276.7	3.533
1350.0	3.576	34.932	277.0	3.474
1400.0	3.496	34.928	278.7	3.390
1450.0	3.429	34.928	277.9	3.319
1500.0	3.376	34.926	278.8	3.263
1550.0	3.306	34.923	280.5	3.190
1600.0	3.284	34.930	276.2	3.164
1650.0	3.248	34.930	276.4	3.124
1700.0	3.170	34.929	277.4	3.042
1750.0	3.126	34.929	277.5	2.994
1800.0	3.010	34.922	280.4	2.876
1850.0	2.898	34.917	283.6	2.761
1900.0	2.844	34.918	283.2	2.703
1950.0	2.741	34.914	285.0	2.597
2000.0	2.633	34.910	287.5	2.486
2050.0	2.451	34.904	290.7	2.302
2100.0	2.257	34.903	292.4	2.107
2150.0	2.071	34.898	296.3	1.920
2200.0	1.984	34.897	297.8	1.830
2250.0	1.964	34.900	297.4	1.806
2290.0	1.966	34.900	297.6	1.805



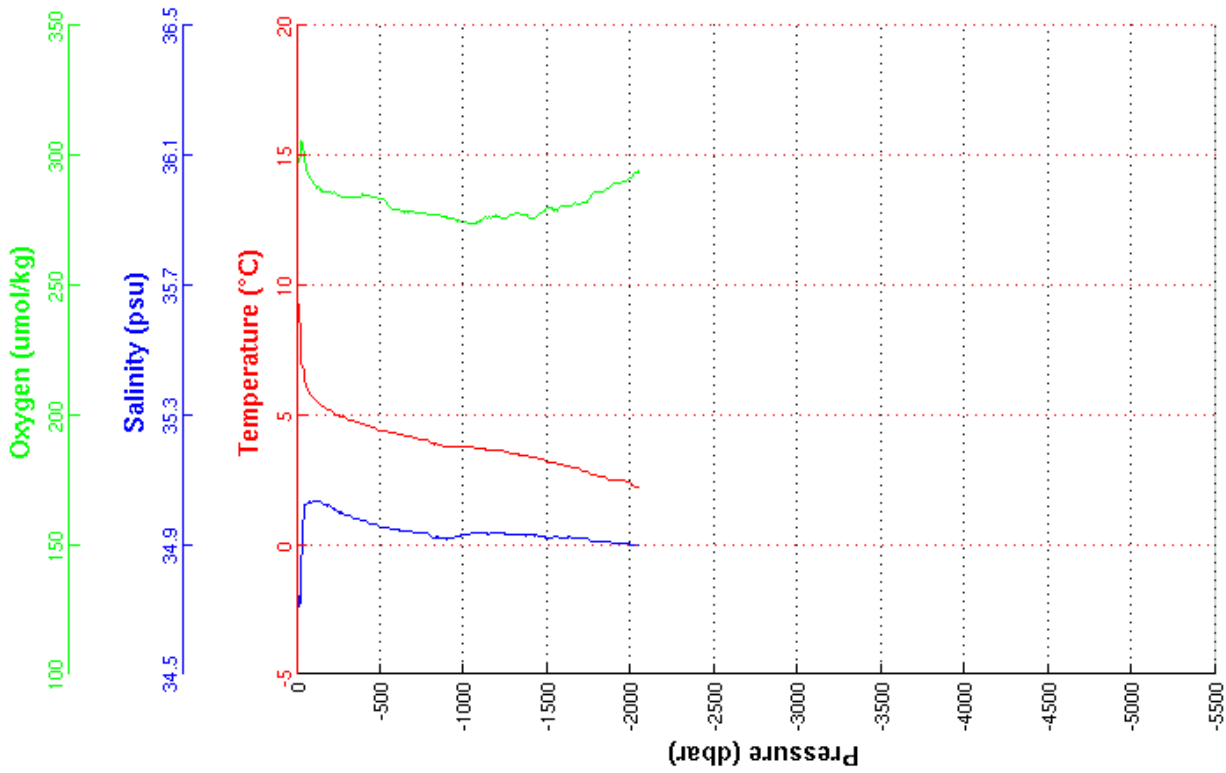
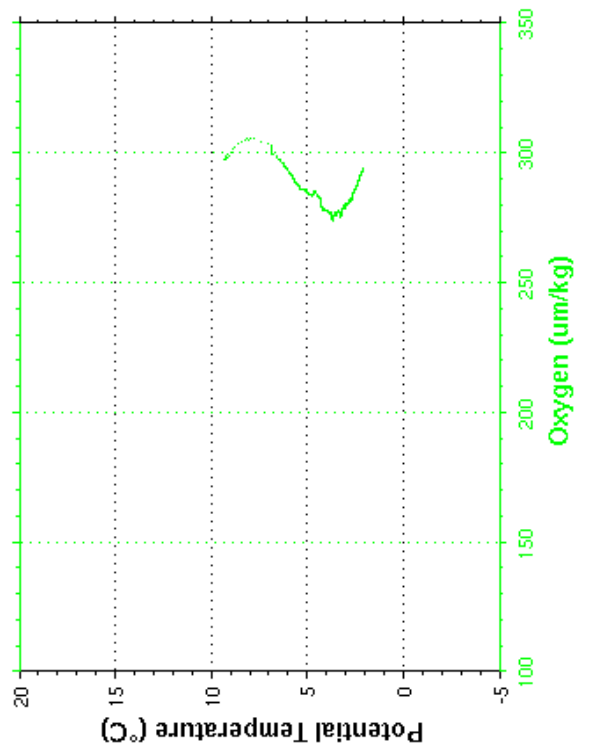
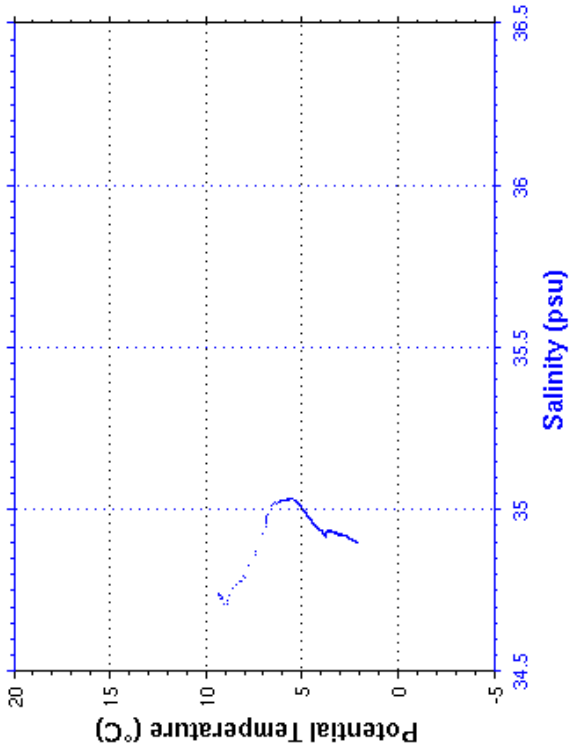
**Cast : 81**

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Cast      : 82           Cruise   : CATARINA
Date      : 16/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 2034 m     Organism : CSIC/IIM VIGO
Position  : N 59 46.39
           W 041 18.05
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.363	34.738	297.5	9.363
10.0	9.313	34.739	297.3	9.312
20.0	8.747	34.736	303.0	8.745
30.0	7.383	34.870	303.9	7.380
40.0	6.846	34.978	301.3	6.842
50.0	6.352	35.019	295.7	6.348
100.0	5.652	35.032	289.4	5.643
150.0	5.351	35.027	286.5	5.339
200.0	5.167	35.019	285.9	5.151
250.0	4.985	35.002	284.5	4.966
300.0	4.862	34.992	284.6	4.838
350.0	4.726	34.981	283.9	4.699
400.0	4.635	34.973	285.5	4.604
450.0	4.524	34.964	283.7	4.489
500.0	4.411	34.955	283.6	4.373
550.0	4.335	34.950	280.2	4.294
600.0	4.272	34.946	279.3	4.226
650.0	4.208	34.942	278.7	4.159
700.0	4.124	34.937	278.3	4.071
750.0	4.044	34.934	277.9	3.987
800.0	3.948	34.927	277.8	3.888
850.0	3.865	34.923	277.2	3.802
900.0	3.792	34.918	276.5	3.726
950.0	3.776	34.923	275.3	3.705
1000.0	3.776	34.929	274.6	3.702
1050.0	3.747	34.934	274.2	3.669
1100.0	3.710	34.936	275.1	3.627
1150.0	3.649	34.933	276.6	3.563
1200.0	3.619	34.934	277.0	3.529
1250.0	3.592	34.934	276.1	3.498
1300.0	3.498	34.930	277.7	3.401
1350.0	3.450	34.929	277.2	3.349
1400.0	3.378	34.929	275.6	3.274
1450.0	3.306	34.927	277.5	3.198
1500.0	3.192	34.922	280.3	3.082
1550.0	3.143	34.924	279.0	3.028
1600.0	3.060	34.921	281.1	2.942
1650.0	2.967	34.921	281.3	2.846
1700.0	2.886	34.920	281.9	2.762
1750.0	2.776	34.916	283.5	2.648
1800.0	2.653	34.912	286.1	2.523
1850.0	2.584	34.910	287.0	2.451
1900.0	2.485	34.906	289.6	2.349
1950.0	2.456	34.905	290.1	2.316
2000.0	2.342	34.901	291.7	2.199
2050.0	2.225	34.899	294.2	2.080



**Cast : 82**

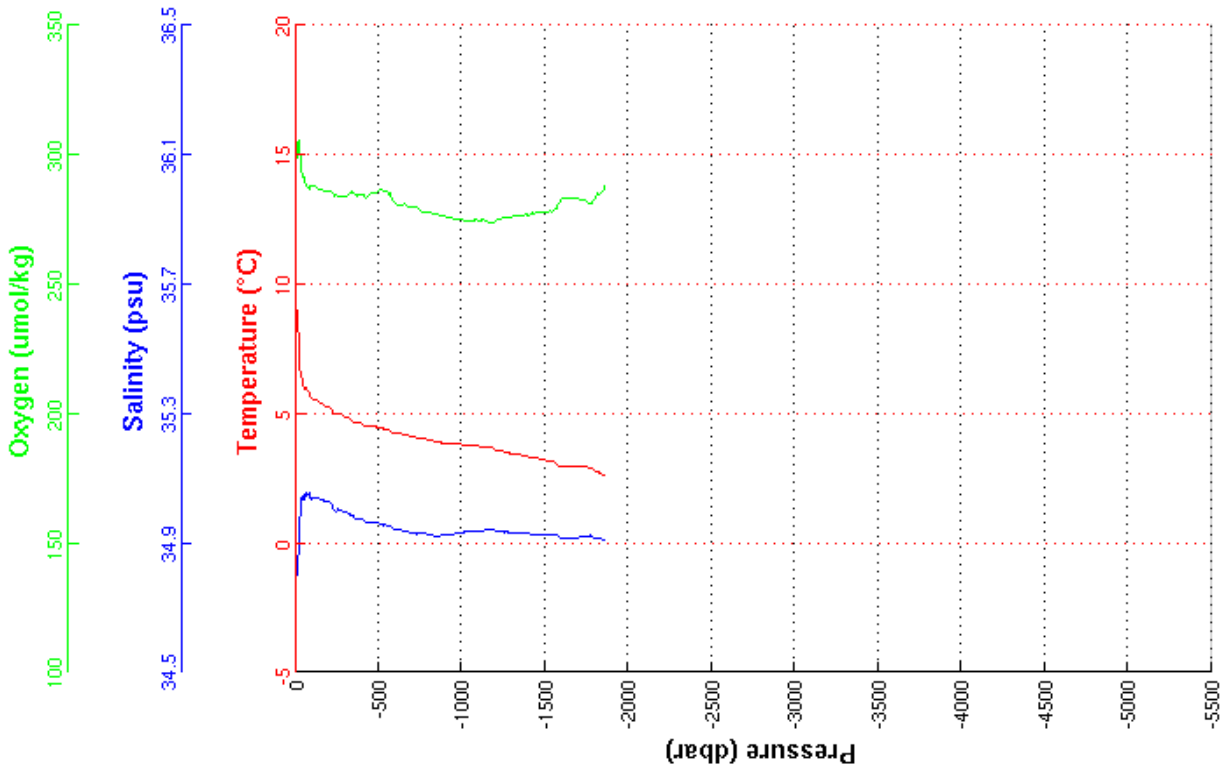
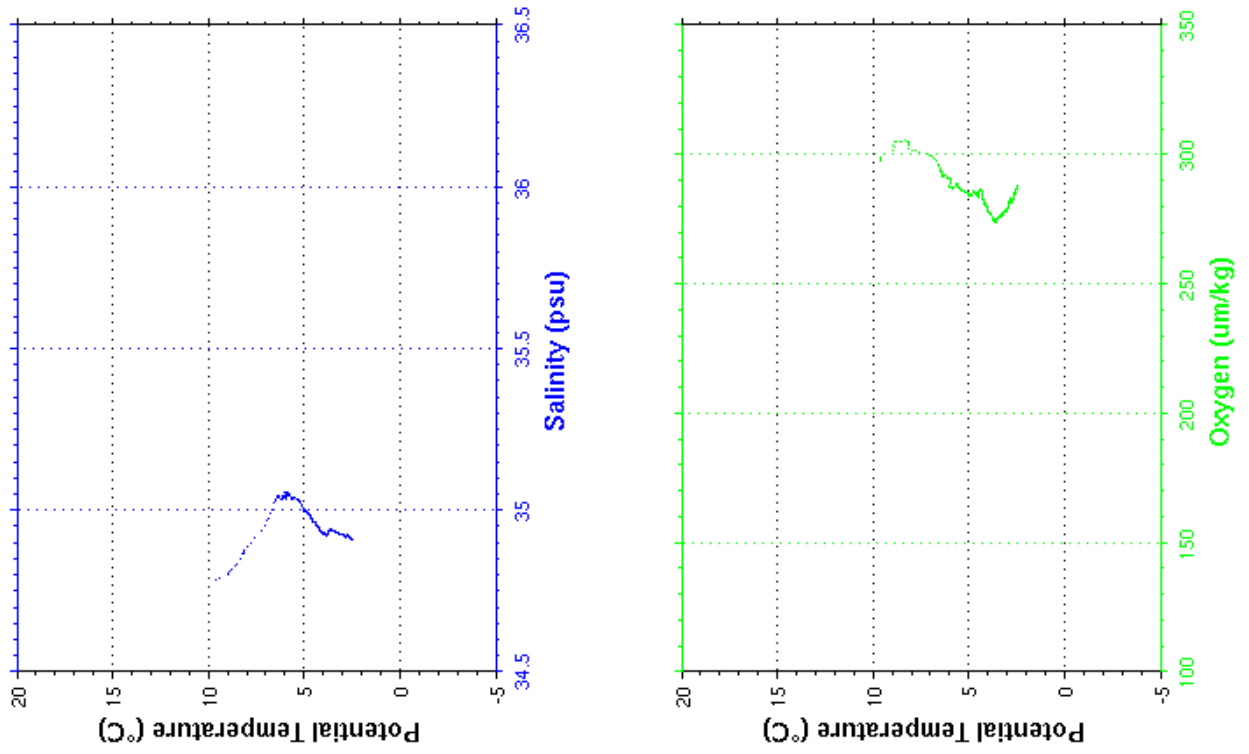
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Cast      : 83           Cruise   : CATARINA
Date     : 16/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth    : 1844 m      Organism : CSIC/IIM VIGO
Position : N 59 47.68
          W 041 43.86
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.619	34.785	297.5	9.619
10.0	8.887	34.810	304.8	8.886
20.0	8.125	34.872	305.9	8.123
30.0	6.743	34.991	297.7	6.740
40.0	6.352	35.045	292.3	6.349
50.0	6.096	35.044	290.5	6.091
100.0	5.597	35.036	288.7	5.589
150.0	5.431	35.036	287.4	5.419
200.0	5.273	35.028	286.4	5.257
250.0	5.004	35.001	284.5	4.984
300.0	4.882	34.994	284.5	4.859
350.0	4.726	34.982	285.4	4.699
400.0	4.613	34.973	285.5	4.582
450.0	4.518	34.965	284.7	4.483
500.0	4.458	34.960	286.6	4.420
550.0	4.376	34.953	286.4	4.334
600.0	4.258	34.942	281.2	4.213
650.0	4.199	34.937	281.4	4.150
700.0	4.111	34.931	280.2	4.059
750.0	4.060	34.931	278.5	4.004
800.0	3.981	34.926	278.0	3.921
850.0	3.906	34.922	277.0	3.843
900.0	3.860	34.924	276.5	3.793
950.0	3.829	34.928	275.8	3.758
1000.0	3.807	34.933	275.1	3.732
1050.0	3.778	34.936	274.8	3.699
1100.0	3.734	34.938	275.3	3.651
1150.0	3.715	34.940	274.6	3.628
1200.0	3.633	34.938	274.9	3.543
1250.0	3.530	34.934	275.9	3.437
1300.0	3.451	34.931	276.7	3.354
1350.0	3.406	34.931	276.5	3.306
1400.0	3.337	34.929	277.1	3.233
1450.0	3.268	34.926	278.3	3.160
1500.0	3.205	34.927	278.0	3.094
1550.0	3.132	34.927	278.6	3.018
1600.0	2.966	34.916	283.3	2.849
1650.0	2.957	34.916	283.7	2.836
1700.0	2.941	34.917	283.3	2.816
1750.0	2.932	34.920	282.0	2.803
1800.0	2.799	34.917	283.7	2.668
1850.0	2.646	34.911	286.7	2.512
1858.0	2.597	34.909	288.1	2.463

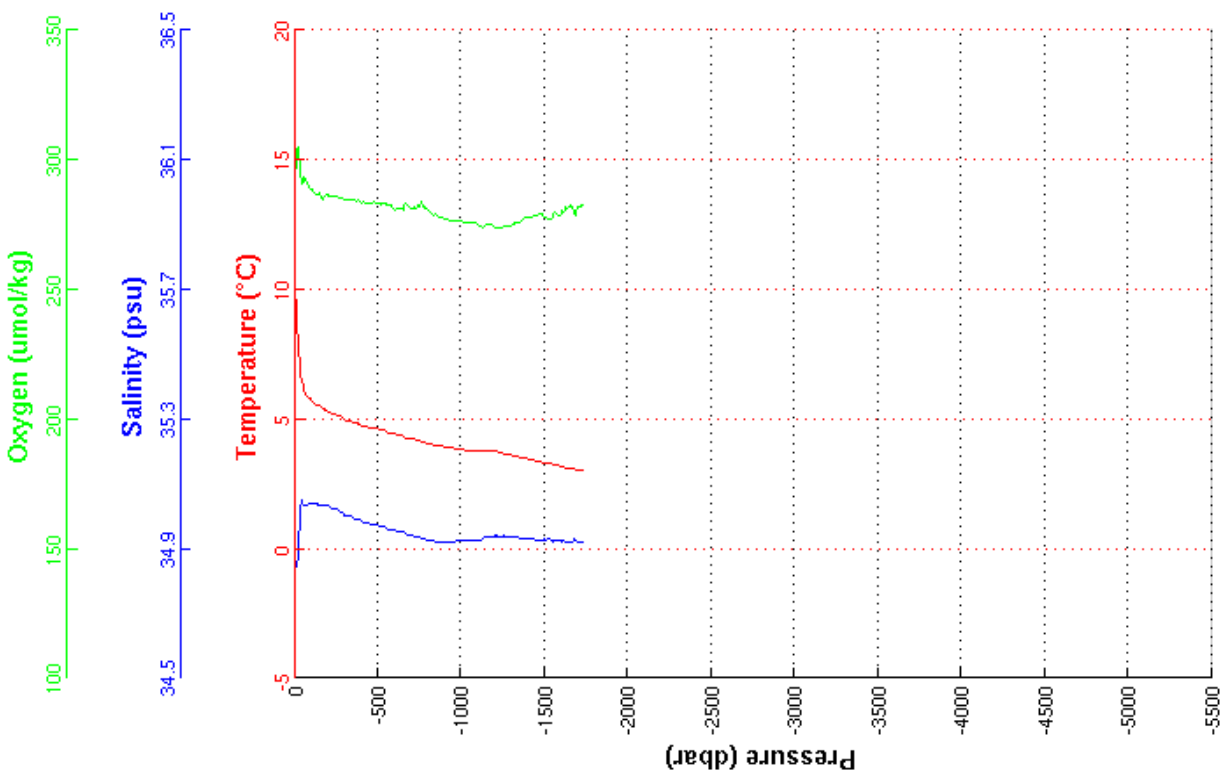
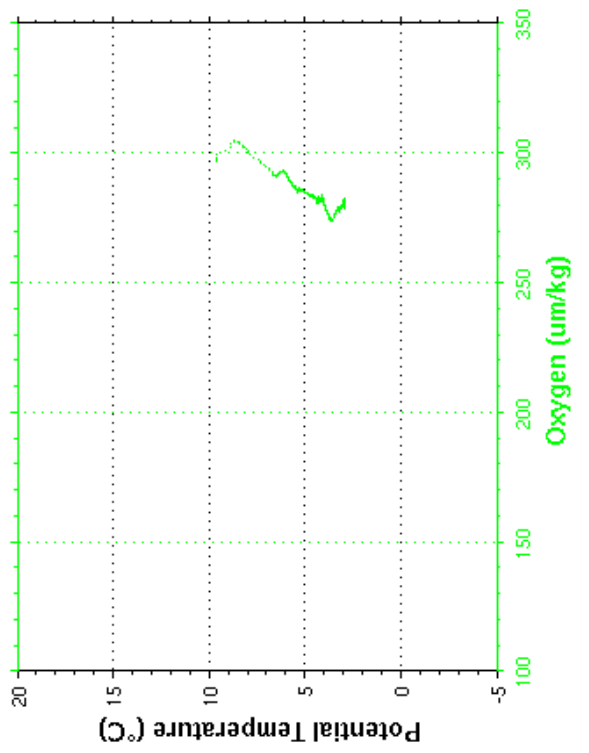
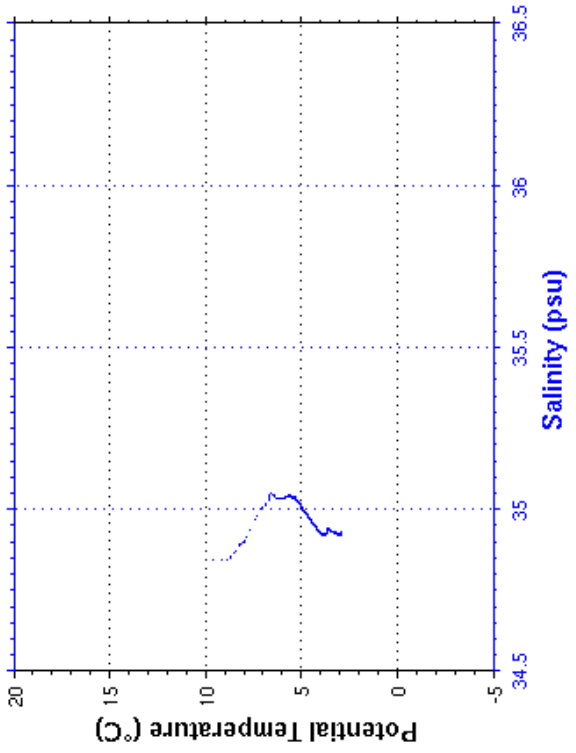




**Cast : 83**

Cast	: 84	Cruise	: CATARINA
Date	: 16/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 1724 m	Organism	: CSIC/IIM VIGO
Position	: N 59 47.95 W 042 0.17		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.637	34.844	297.3	9.637
10.0	9.649	34.844	297.1	9.648
20.0	8.443	34.869	305.0	8.441
30.0	7.417	34.970	298.2	7.414
40.0	6.661	35.039	292.2	6.658
50.0	6.387	35.039	292.2	6.382
100.0	5.750	35.041	288.6	5.742
150.0	5.506	35.038	286.6	5.493
200.0	5.317	35.034	286.4	5.301
250.0	5.175	35.022	286.1	5.155
300.0	4.987	35.004	285.0	4.964
350.0	4.873	34.995	284.6	4.845
400.0	4.766	34.985	284.0	4.735
450.0	4.653	34.975	283.2	4.619
500.0	4.612	34.971	283.4	4.574
550.0	4.539	34.964	283.3	4.496
600.0	4.432	34.956	280.8	4.386
650.0	4.357	34.951	281.0	4.308
700.0	4.240	34.940	281.7	4.187
750.0	4.155	34.933	282.0	4.098
800.0	4.050	34.926	280.9	3.990
850.0	3.984	34.923	279.0	3.920
900.0	3.931	34.922	277.5	3.863
950.0	3.878	34.923	276.8	3.806
1000.0	3.838	34.924	276.6	3.763
1050.0	3.804	34.923	275.9	3.725
1100.0	3.790	34.926	275.4	3.707
1150.0	3.774	34.935	275.2	3.687
1200.0	3.758	34.939	274.1	3.667
1250.0	3.674	34.939	274.6	3.580
1300.0	3.598	34.936	275.4	3.499
1350.0	3.526	34.933	276.5	3.424
1400.0	3.467	34.930	277.9	3.362
1450.0	3.371	34.927	279.0	3.263
1500.0	3.324	34.928	277.6	3.212
1550.0	3.246	34.925	278.9	3.130
1600.0	3.177	34.925	279.4	3.058
1650.0	3.069	34.919	282.5	2.947
1700.0	3.005	34.918	282.6	2.880
1731.0	3.016	34.919	282.7	2.888



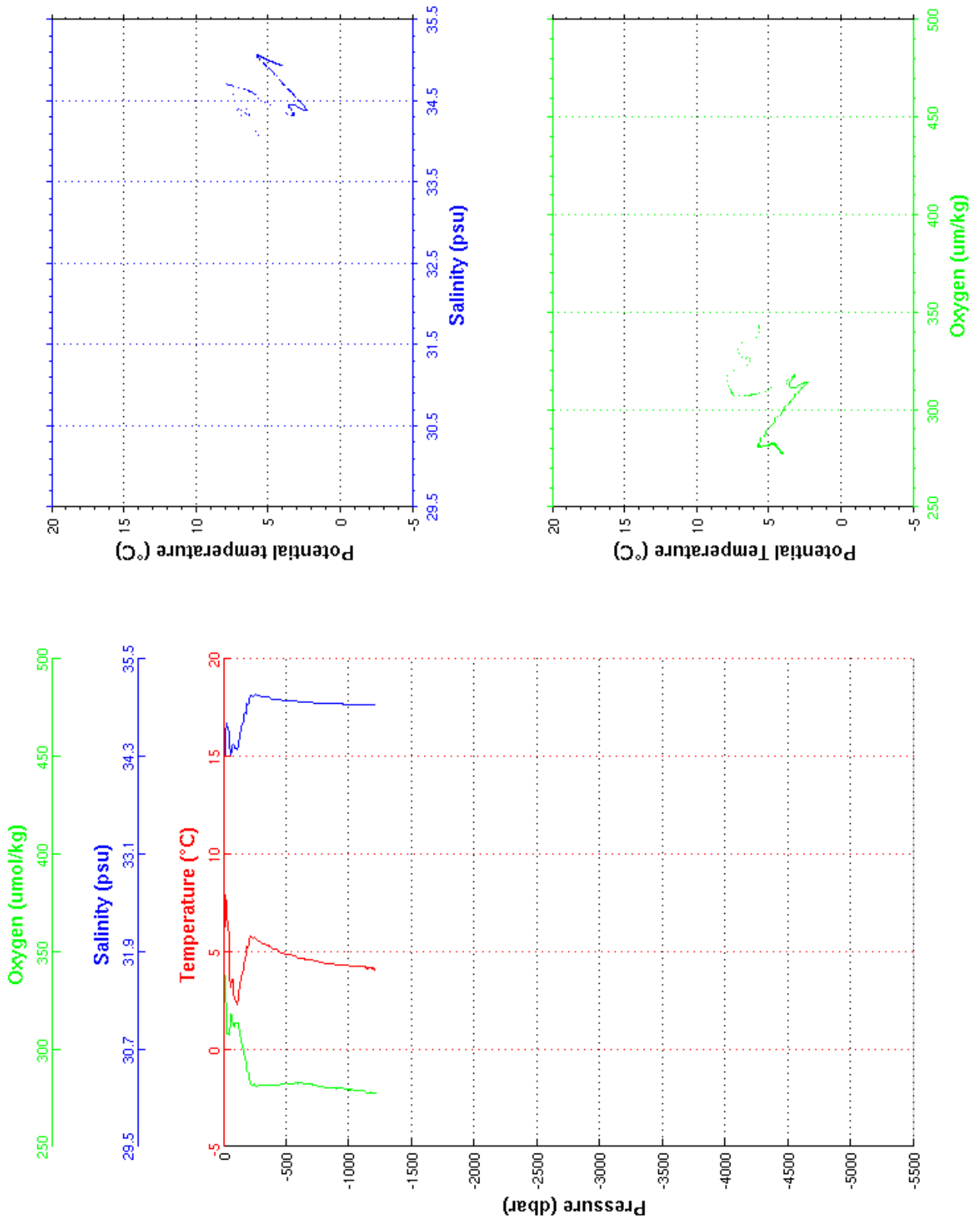
Cast : 84

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Cast      : 85           Cruise   : CATARINA
Date      : 16/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 1210 m     Organism : CSIC/IIM VIGO
Position  : N 59 48.51
           W 042 14.12
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	5.633	34.074	343.3	5.633
10.0	7.064	34.404	324.1	7.063
20.0	7.832	34.709	312.2	7.830
30.0	7.017	34.666	305.9	7.014
40.0	6.182	34.607	308.0	6.179
50.0	3.703	34.346	317.2	3.700
100.0	2.399	34.384	314.3	2.394
150.0	3.946	34.709	300.6	3.936
200.0	5.314	34.964	288.0	5.298
250.0	5.738	35.062	281.0	5.717
300.0	5.432	35.039	281.7	5.408
350.0	5.334	35.031	281.9	5.305
400.0	5.074	35.005	282.4	5.042
450.0	4.978	34.996	282.3	4.942
500.0	4.854	34.985	282.6	4.815
550.0	4.816	34.984	282.5	4.773
600.0	4.683	34.975	283.0	4.635
650.0	4.612	34.968	282.4	4.561
700.0	4.584	34.966	282.2	4.529
750.0	4.500	34.960	281.4	4.442
800.0	4.419	34.954	280.6	4.357
850.0	4.352	34.950	280.3	4.286
900.0	4.343	34.950	280.1	4.272
950.0	4.318	34.947	280.0	4.244
1000.0	4.277	34.946	279.3	4.198
1050.0	4.261	34.945	279.4	4.178
1100.0	4.257	34.945	279.0	4.169
1150.0	4.182	34.942	277.9	4.091
1200.0	4.130	34.939	277.8	4.035
1209.0	4.071	34.936	278.0	3.977



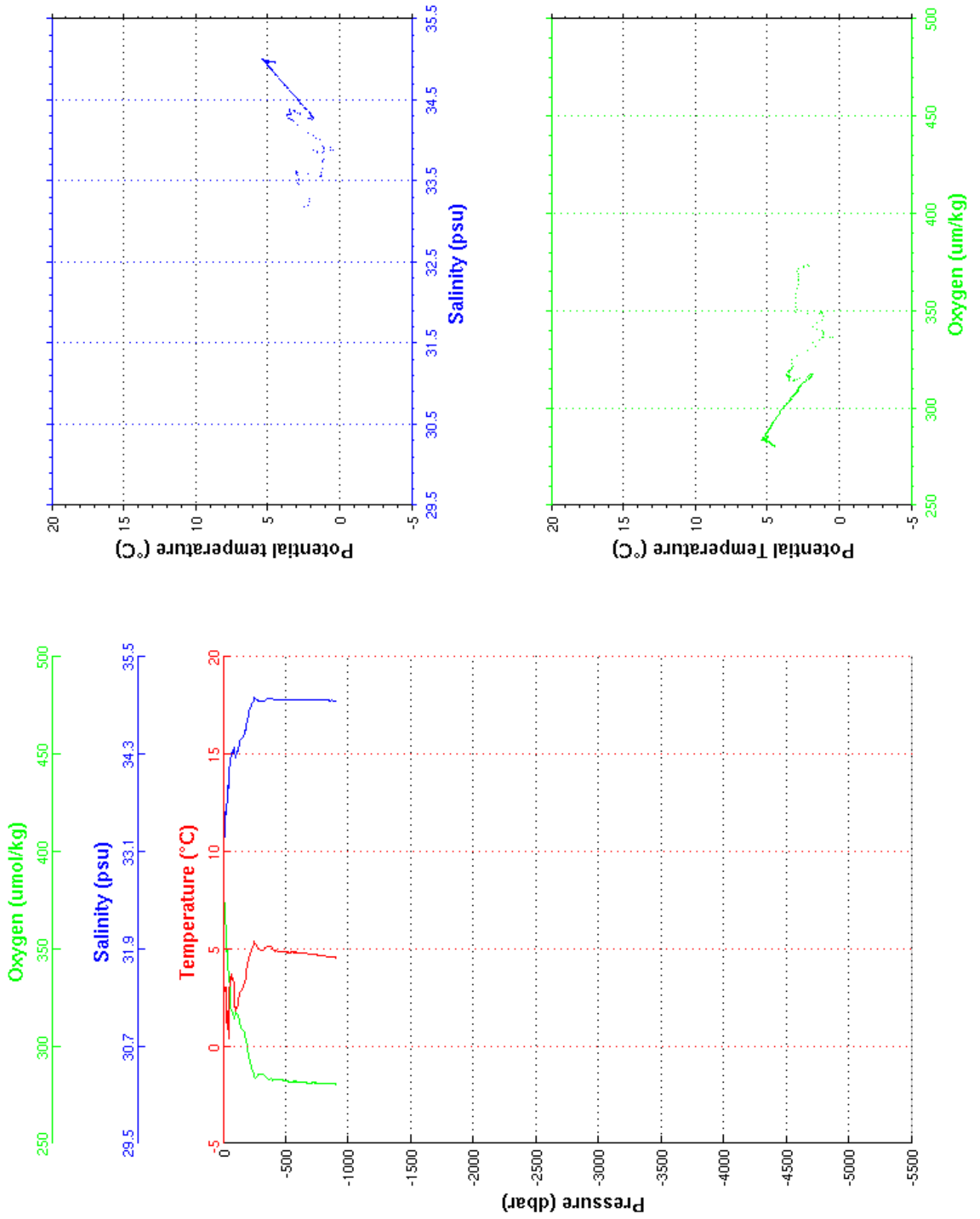
Cast : 85

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Cast      : 86           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 899 m      Organism : CSIC/IIM VIGO
Position  : N 59 48.93
           W 042 16.51
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	2.494	33.182	372.6	2.494
10.0	2.829	33.461	370.1	2.828
20.0	2.994	33.604	353.8	2.992
30.0	1.167	33.737	348.9	1.165
40.0	1.168	33.925	335.9	1.166
50.0	2.160	34.100	334.3	2.157
100.0	1.869	34.286	317.6	1.863
150.0	2.896	34.507	309.3	2.887
200.0	4.338	34.792	296.3	4.324
250.0	5.305	34.995	283.9	5.285
300.0	4.953	34.952	285.7	4.929
350.0	5.100	34.984	283.7	5.072
400.0	4.927	34.976	282.9	4.895
450.0	4.852	34.973	282.8	4.817
500.0	4.824	34.976	282.4	4.785
550.0	4.823	34.976	282.0	4.779
600.0	4.817	34.975	281.9	4.769
650.0	4.807	34.975	282.0	4.755
700.0	4.710	34.971	281.4	4.654
750.0	4.691	34.970	281.3	4.631
800.0	4.659	34.967	281.1	4.595
850.0	4.584	34.964	280.9	4.516
898.0	4.561	34.962	280.9	4.489



Cast : 86

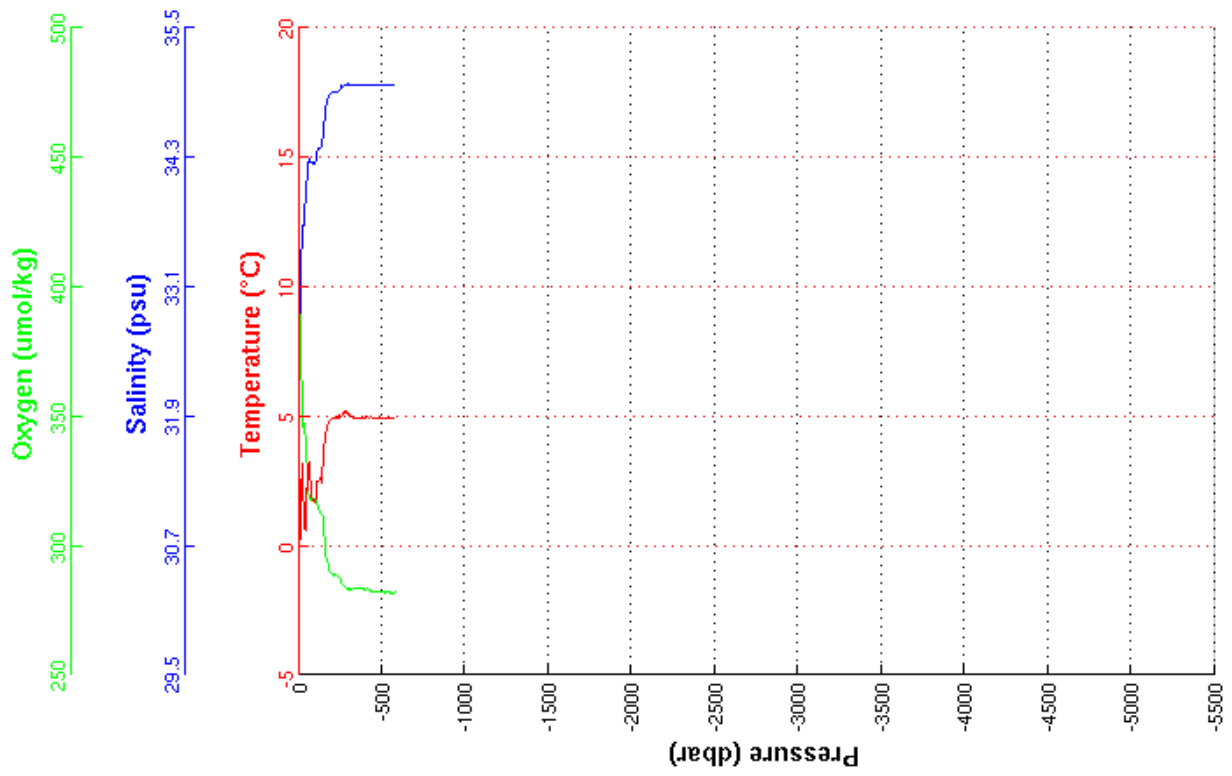
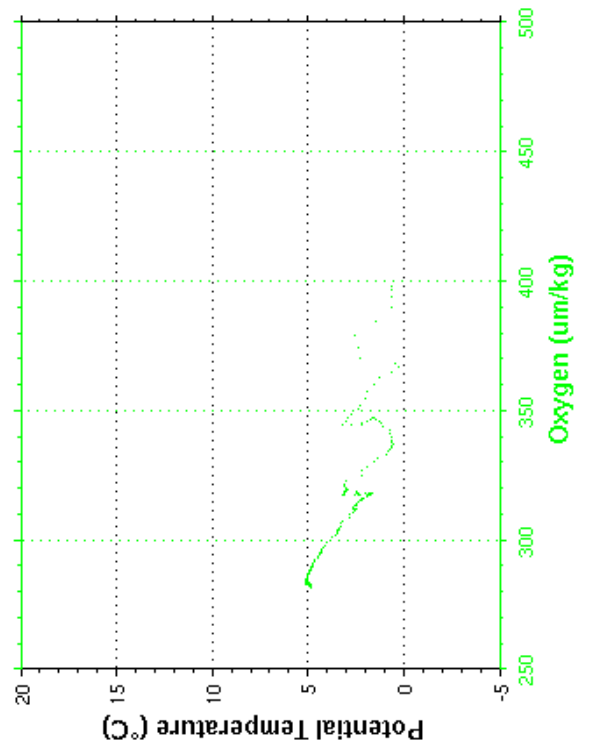
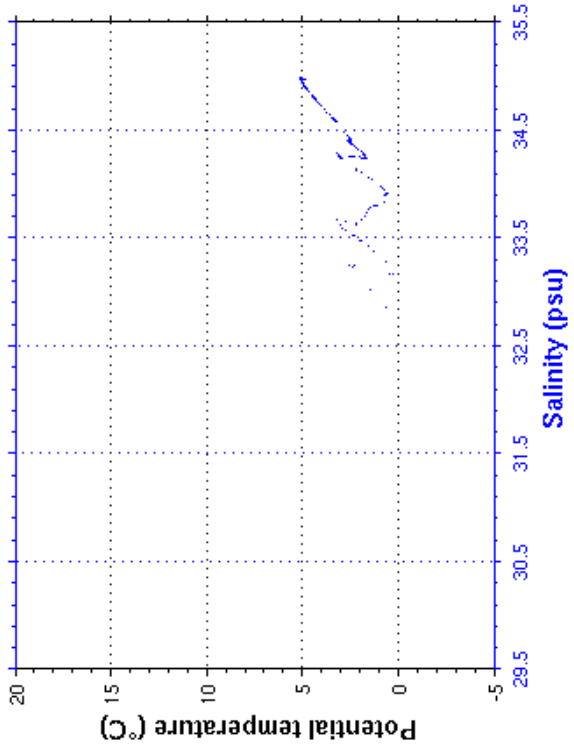
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Cast      : 87           Cruise   : CATARINA
Date     : 17/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth    : 581 m       Organism : CSIC/IIM VIGO
Position : N 59 49.06
          W 042 18.75
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	0.659	32.858	398.4	0.659
10.0	1.452	33.024	390.7	1.451
20.0	1.987	33.479	354.2	1.986
30.0	1.897	33.672	346.9	1.896
40.0	0.667	33.900	338.7	0.666
50.0	1.573	34.063	331.1	1.571
100.0	1.732	34.259	318.0	1.727
150.0	3.341	34.593	305.1	3.331
200.0	4.875	34.897	289.5	4.860
250.0	4.990	34.932	287.2	4.970
300.0	5.068	34.980	283.7	5.045
350.0	4.932	34.965	283.7	4.905
400.0	4.960	34.970	283.4	4.928
450.0	4.945	34.973	282.6	4.910
500.0	4.918	34.976	282.3	4.878
550.0	4.913	34.978	282.4	4.869
576.0	4.913	34.978	282.2	4.867





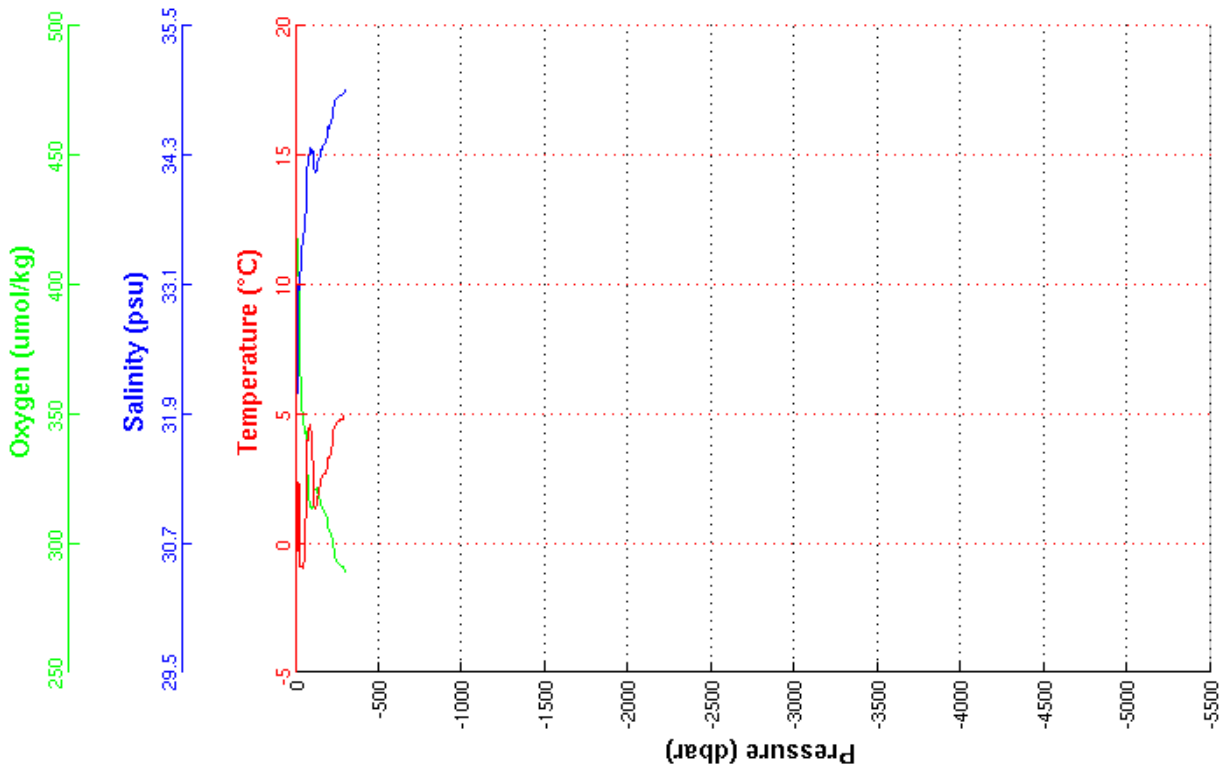
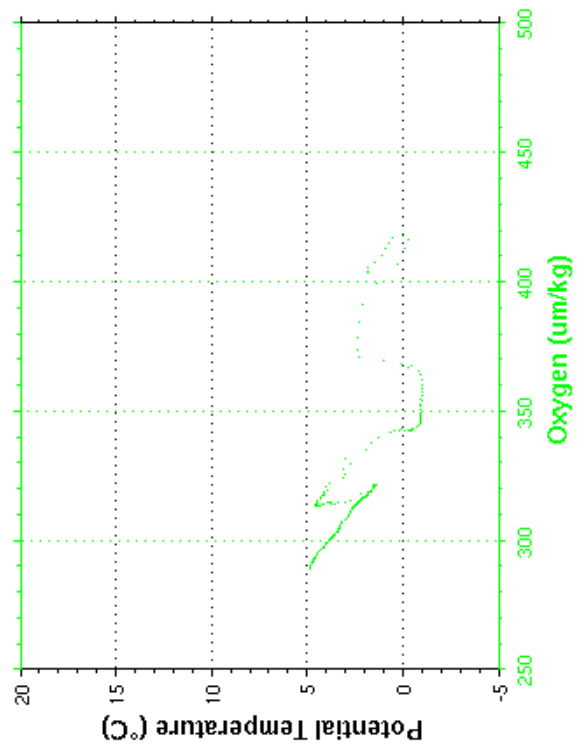
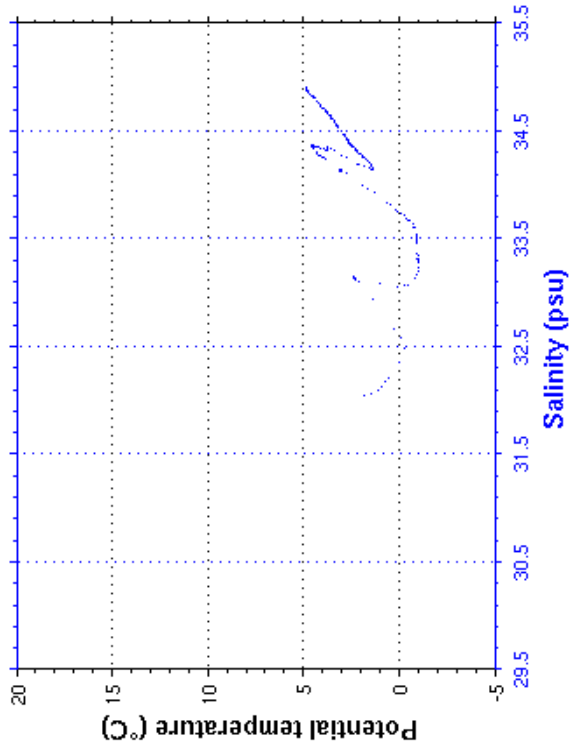
**Cast : 87**

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-----
Cast      : 88           Cruise   : CATARINA
Date      : 17/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 306 m       Organism : CSIC/IIM VIGO
Position  : N 59 49.37
           W 042 23.92
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.847	32.043	403.9	1.847
10.0	0.895	32.131	415.1	0.894
20.0	2.368	33.141	376.5	2.367
30.0	-0.971	33.236	360.2	-0.972
40.0	-0.957	33.468	348.4	-0.958
50.0	-0.888	33.544	345.9	-0.890
100.0	3.733	34.327	315.7	3.727
150.0	2.259	34.324	315.7	2.251
200.0	3.280	34.558	305.2	3.267
250.0	4.675	34.840	292.7	4.656
294.0	4.899	34.899	289.5	4.876



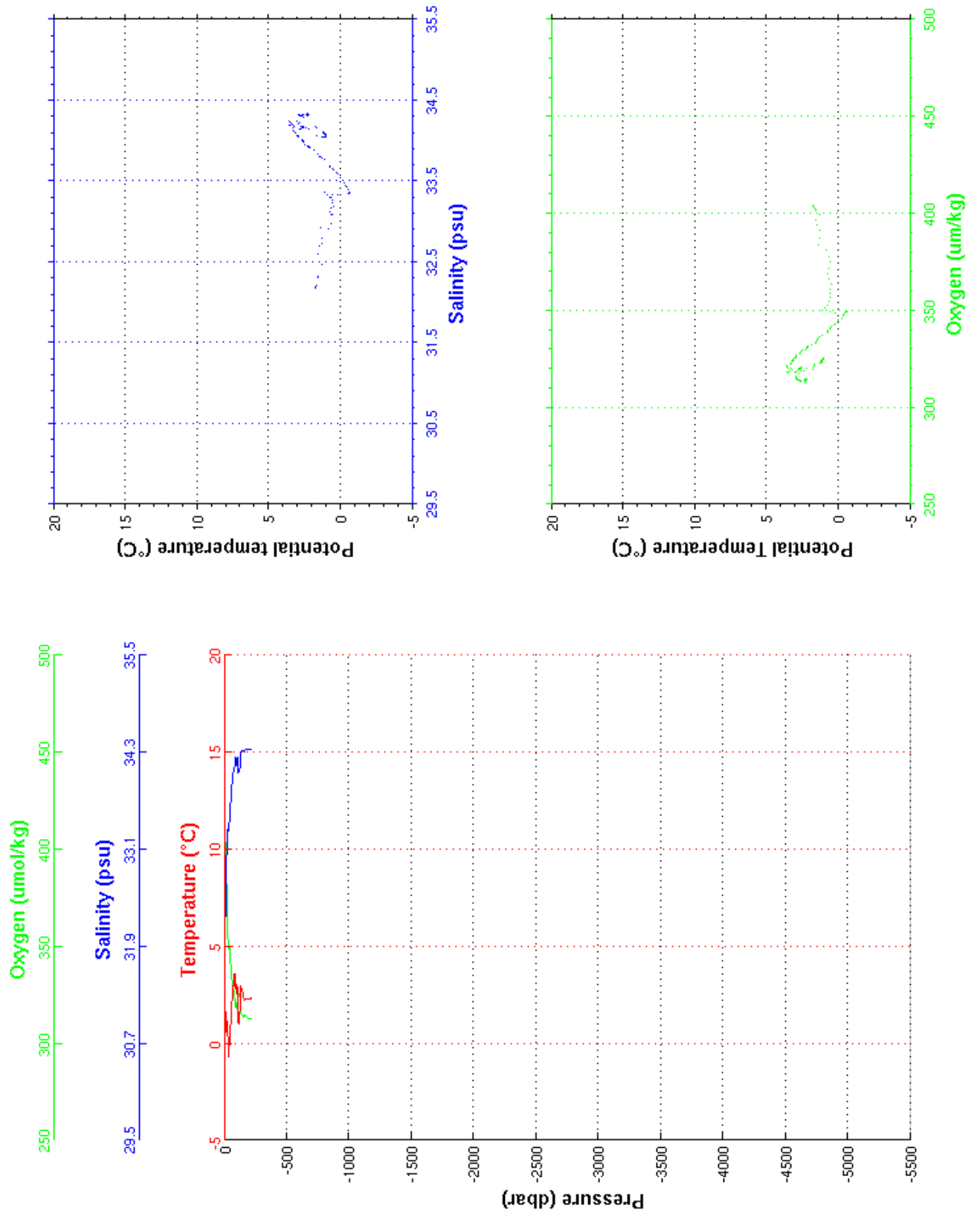
Cast : 88

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-----
Cast       : 89           Cruise    : CATARINA
Date       : 17/07/2012 Ship       : R/V Sarmiento de Gamboa
Depth      : 228 m       Organism  : CSIC/IIM VIGO
Position   : N 59 49.84
            W 042 31.18
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```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.736	32.184	404.3	1.736
10.0	1.507	32.317	403.4	1.507
20.0	0.603	33.091	372.3	0.602
30.0	1.117	33.367	344.7	1.116
40.0	-0.398	33.442	347.1	-0.399
50.0	0.707	33.677	339.5	0.705
100.0	2.571	34.166	321.0	2.565
150.0	2.590	34.326	313.5	2.581
200.0	2.294	34.340	313.4	2.283
217.0	2.316	34.344	313.1	2.304



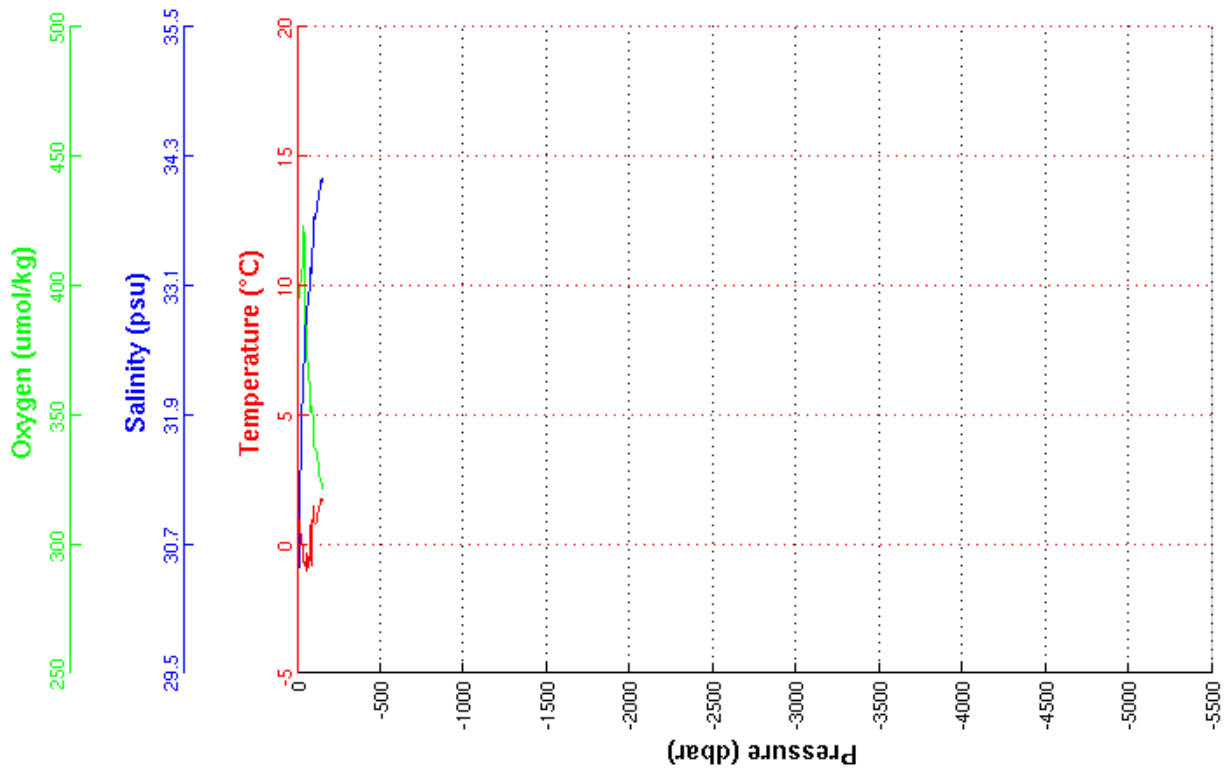
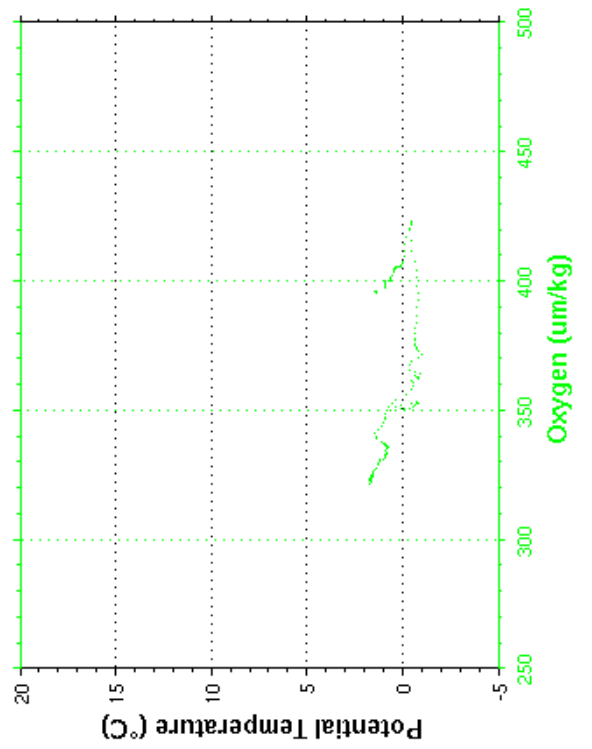
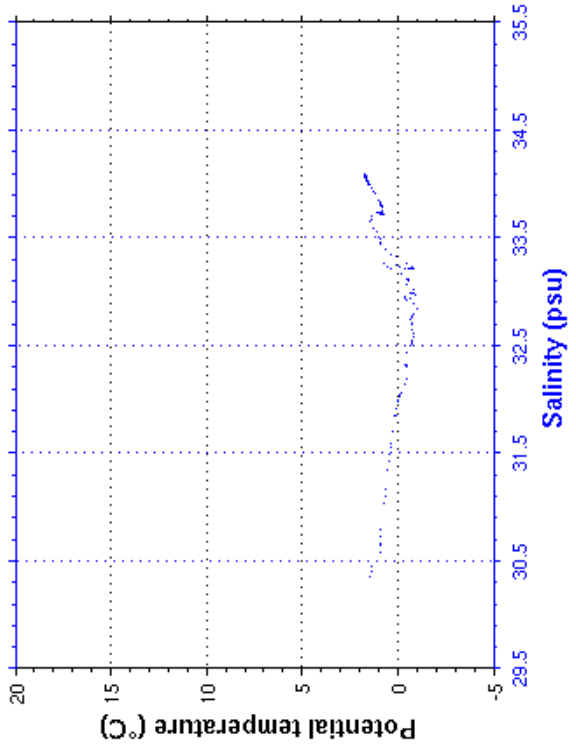
**Cast : 89**

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Cast      : 90           Cruise   : CATARINA
Date      : 17/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 167 m      Organism : CSIC/IIM VIGO
Position  : N 59 54.85
           W 043 4.62
-----

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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.352	30.444	396.2	1.352
10.0	0.879	30.650	401.0	0.879
20.0	0.478	31.433	405.7	0.477
30.0	-0.067	32.029	409.3	-0.068
40.0	-0.445	32.441	408.4	-0.447
50.0	-0.682	32.740	380.5	-0.683
100.0	1.363	33.666	338.4	1.359
150.0	1.670	34.073	322.4	1.663
153.0	1.697	34.085	321.8	1.690



**Cast : 90**

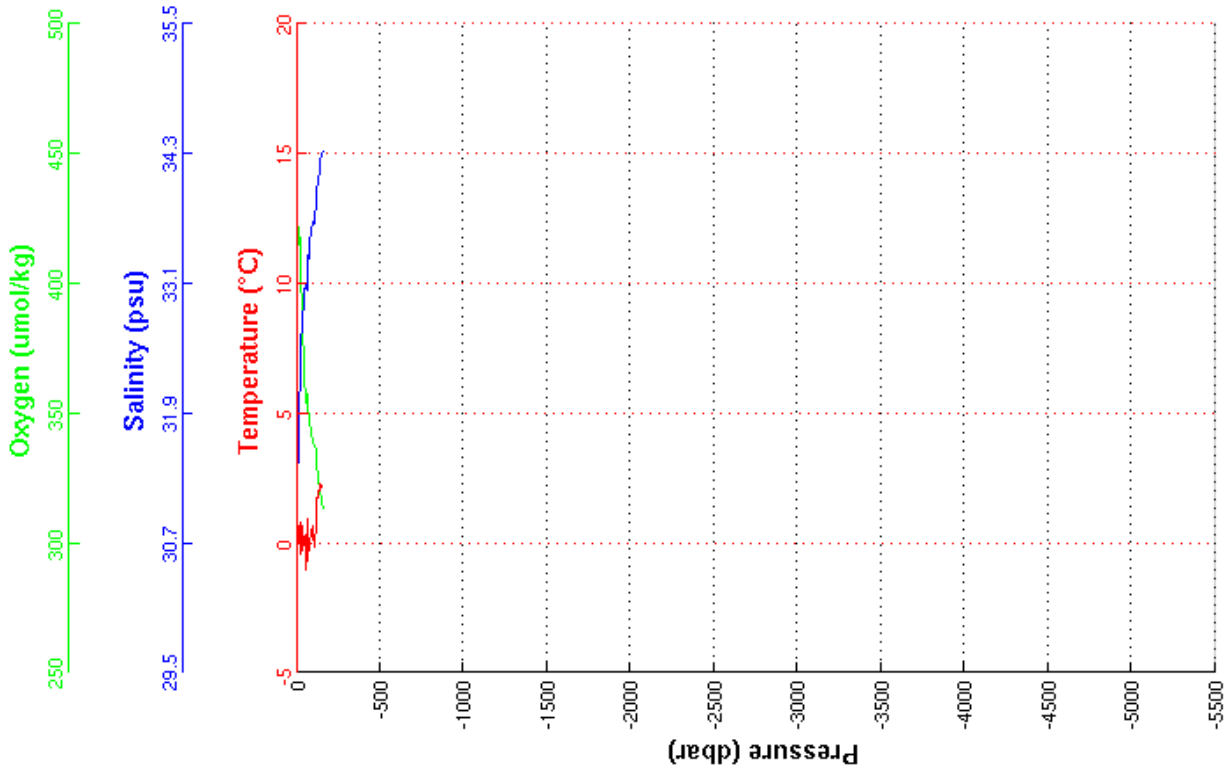
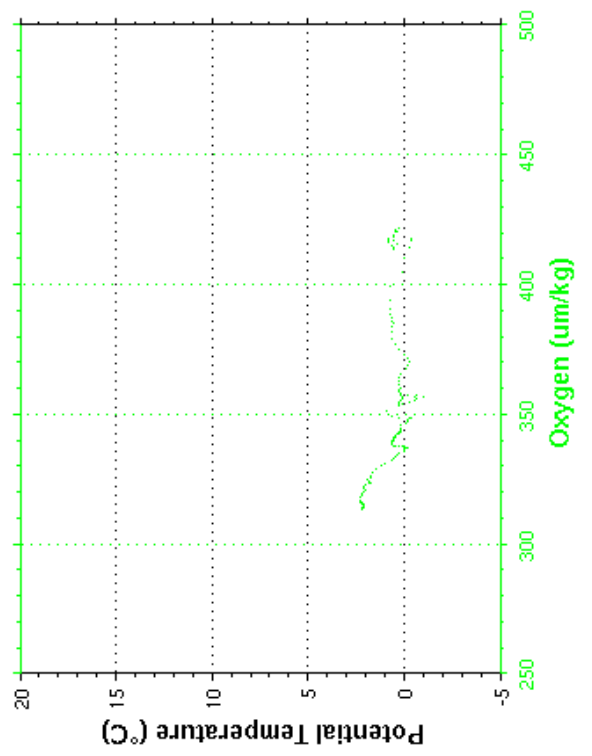
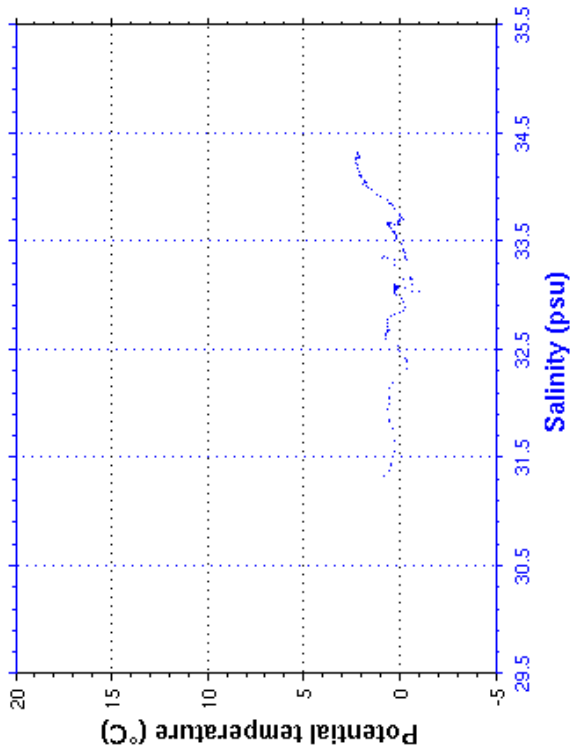
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-----
Cast      : 91           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 168 m       Organism : CSIC/IIM VIGO
Position  : N 59 54.26
           W 043 0.05
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	0.773	31.323	416.4	0.773
10.0	0.251	31.552	424.7	0.250
20.0	0.363	32.198	412.3	0.362
30.0	0.708	32.650	386.3	0.707
40.0	-0.219	32.864	372.2	-0.220
50.0	0.230	33.062	359.1	0.228
100.0	0.632	33.666	338.7	0.628
150.0	2.129	34.281	315.4	2.121
157.0	2.210	34.315	313.4	2.201





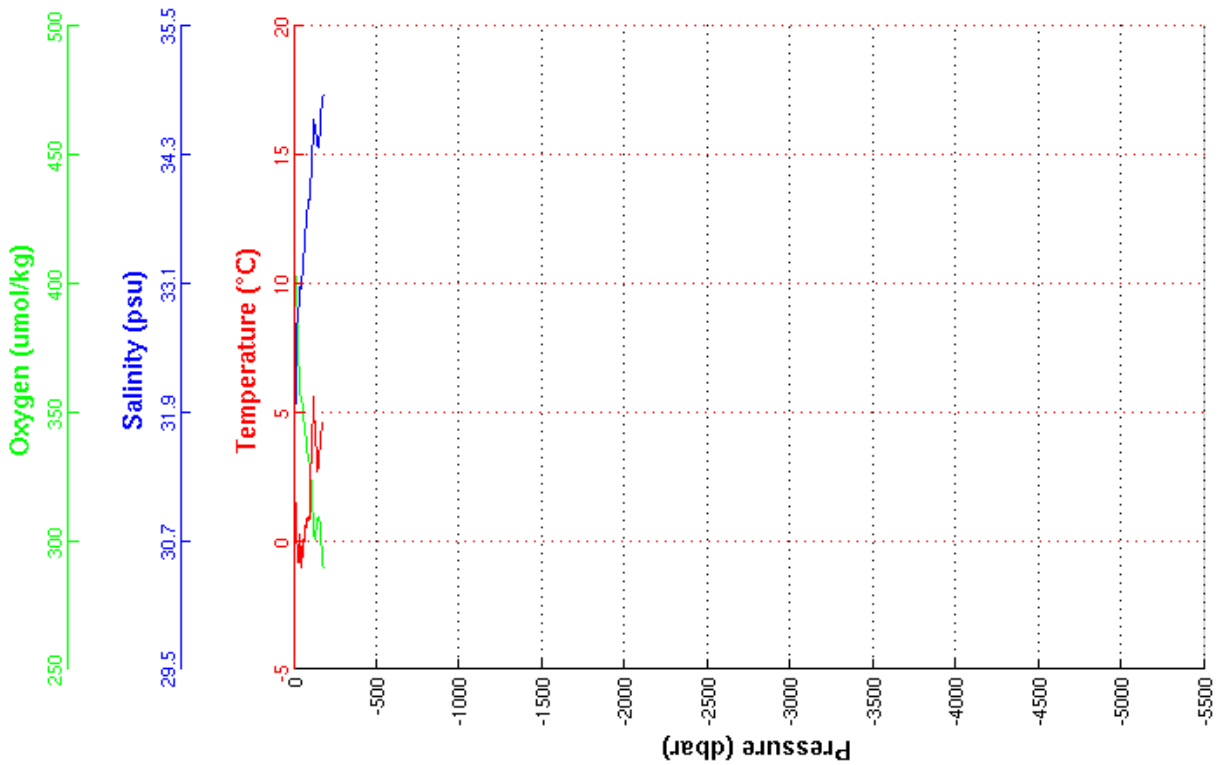
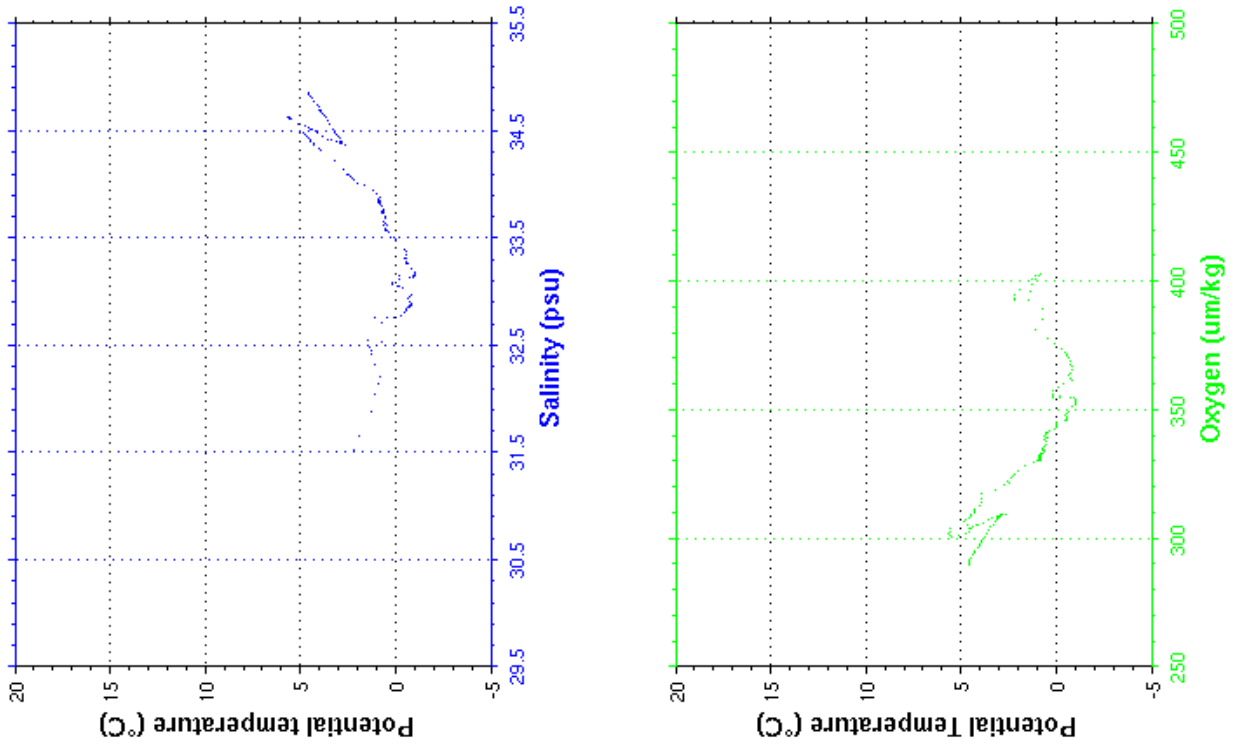
**Cast : 91**

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Cast      : 92           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 186 m      Organism : CSIC/IIM VIGO
Position  : N 59 53.41
           W 042 54.40
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	2.149	31.522	392.8	2.149
10.0	0.940	32.135	404.2	0.940
20.0	0.478	32.755	374.2	0.478
30.0	-0.810	32.898	366.3	-0.811
40.0	0.186	33.084	354.8	0.185
50.0	-1.040	33.179	353.2	-1.041
100.0	2.184	34.053	324.1	2.178
150.0	2.966	34.438	309.0	2.957
177.0	4.591	34.850	289.8	4.578



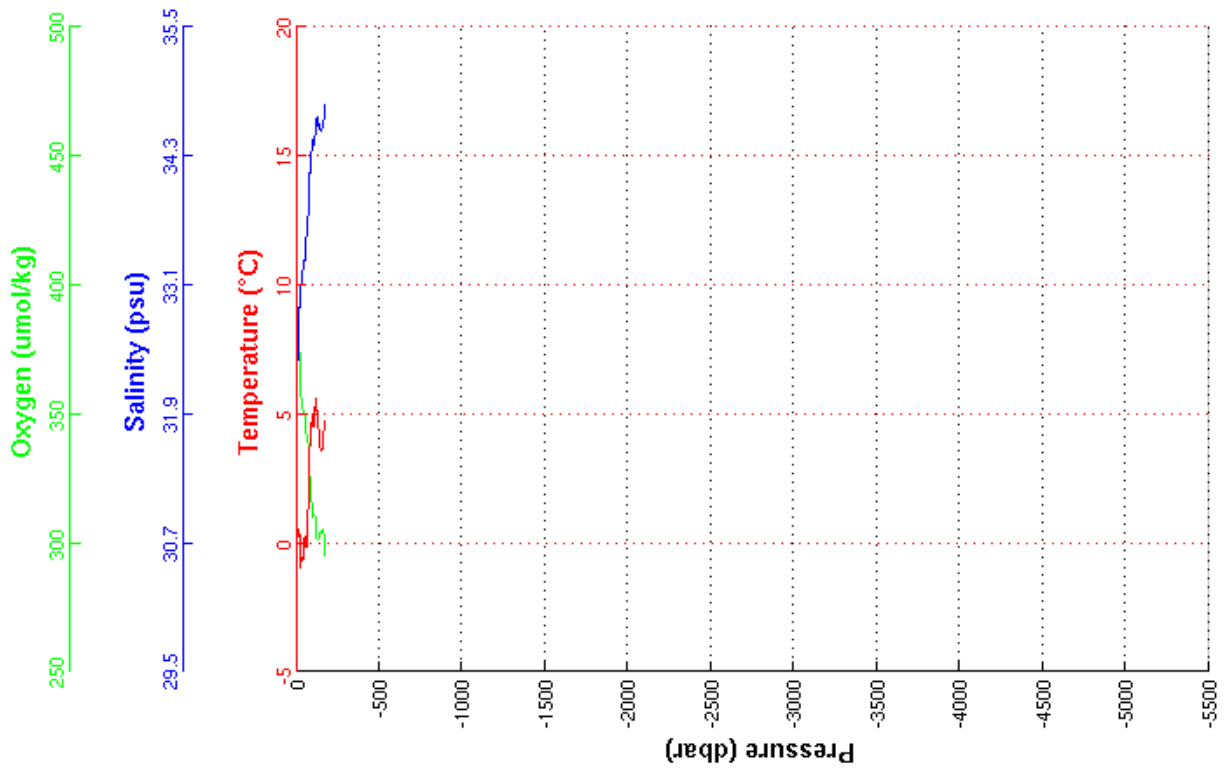
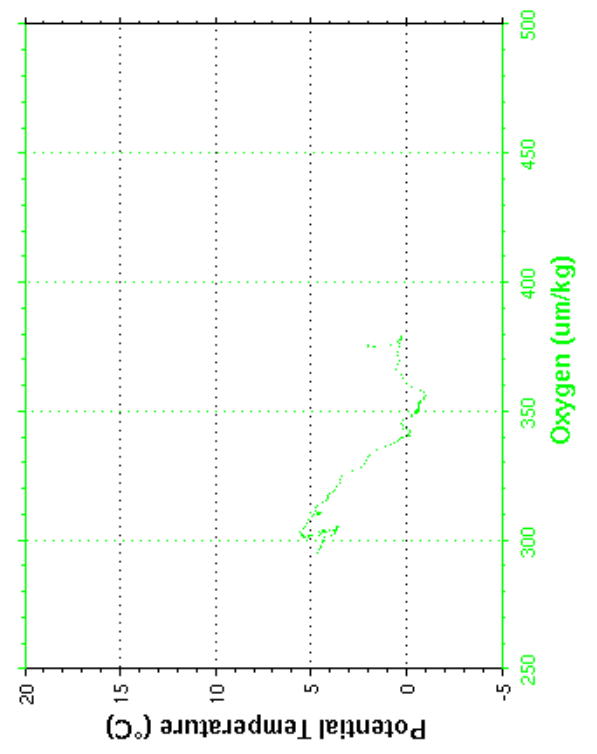
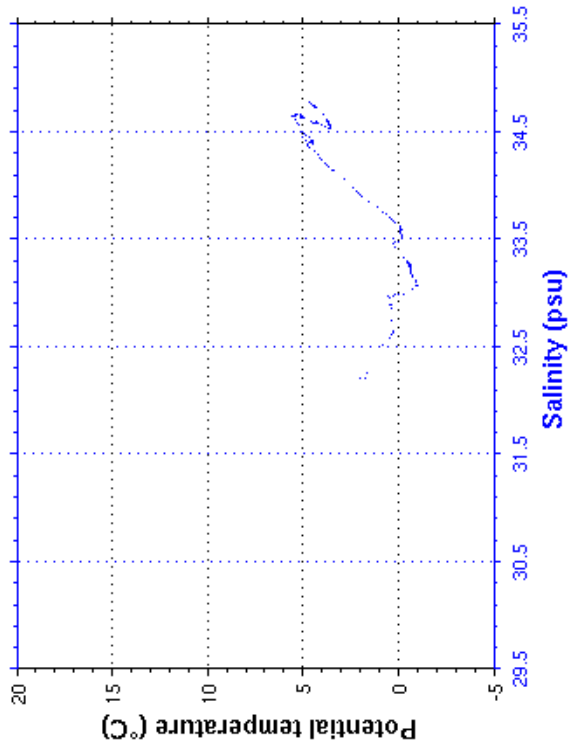
**Cast : 92**

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-----
Cast       : 93           Cruise    : CATARINA
Date       : 17/07/2012  Ship      : R/V Sarmiento de Gamboa
Depth     : 185 m        Organism  : CSIC/IIM VIGO
Position  : N 59 52.59
           W 042 47.73
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.974	32.209	375.9	1.974
10.0	0.422	32.589	378.9	0.422
20.0	0.450	32.950	369.2	0.449
30.0	-0.900	33.113	355.3	-0.901
40.0	-0.565	33.254	350.7	-0.566
50.0	-0.269	33.325	349.1	-0.271
100.0	4.513	34.391	311.6	4.506
150.0	3.561	34.543	305.9	3.551
174.0	4.698	34.769	295.6	4.685



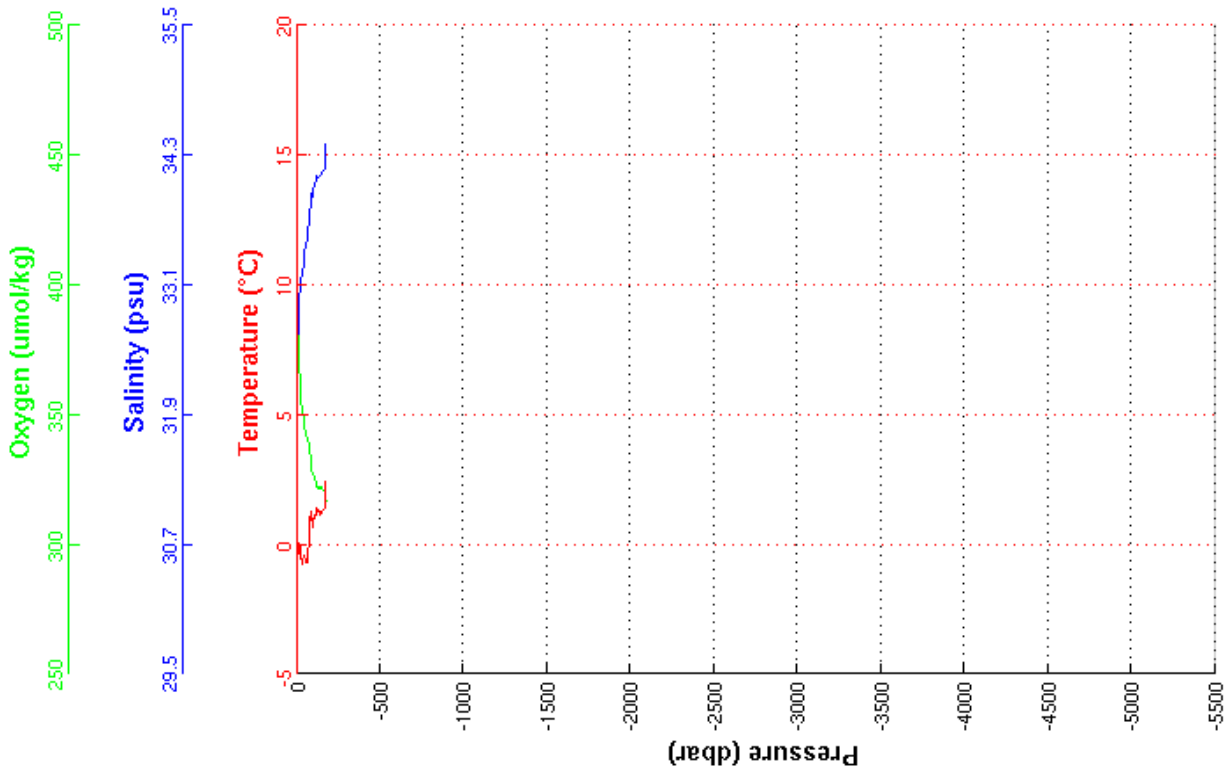
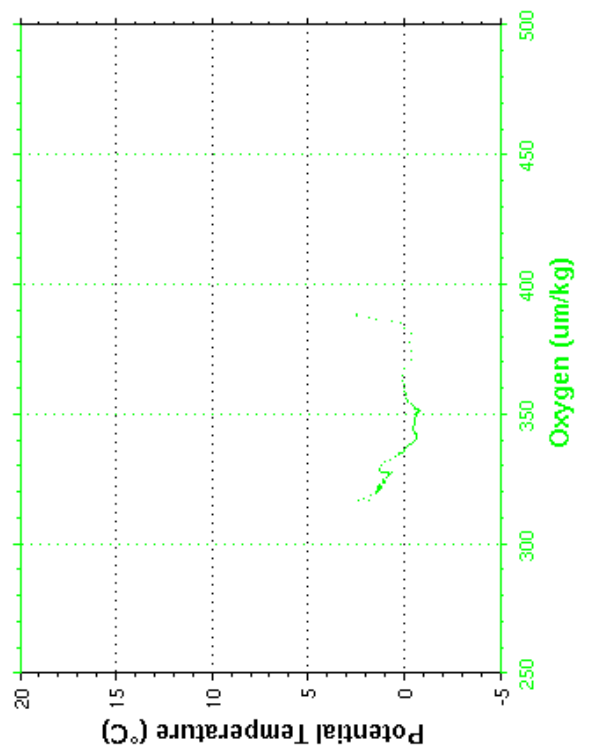
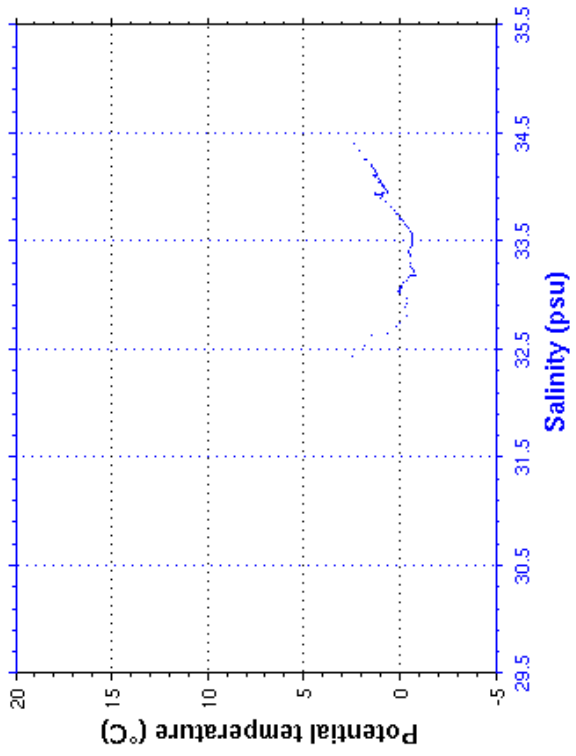
**Cast : 93**

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Cast      : 94           Cruise   : CATARINA
Date      : 01/01/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 187 m      Organism : CSIC/IIM VIGO
Position  : N 59 51.61
           W 042 42.12
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	2.429	32.434	388.9	2.429
10.0	0.171	32.709	388.3	0.170
20.0	-0.010	33.057	360.2	-0.010
30.0	-0.531	33.179	352.9	-0.531
40.0	-0.568	33.267	349.2	-0.569
50.0	-0.531	33.436	343.6	-0.532
100.0	0.724	33.979	328.0	0.720
150.0	1.275	34.148	321.7	1.268
176.0	1.796	34.263	316.8	1.787



**Cast : 94**

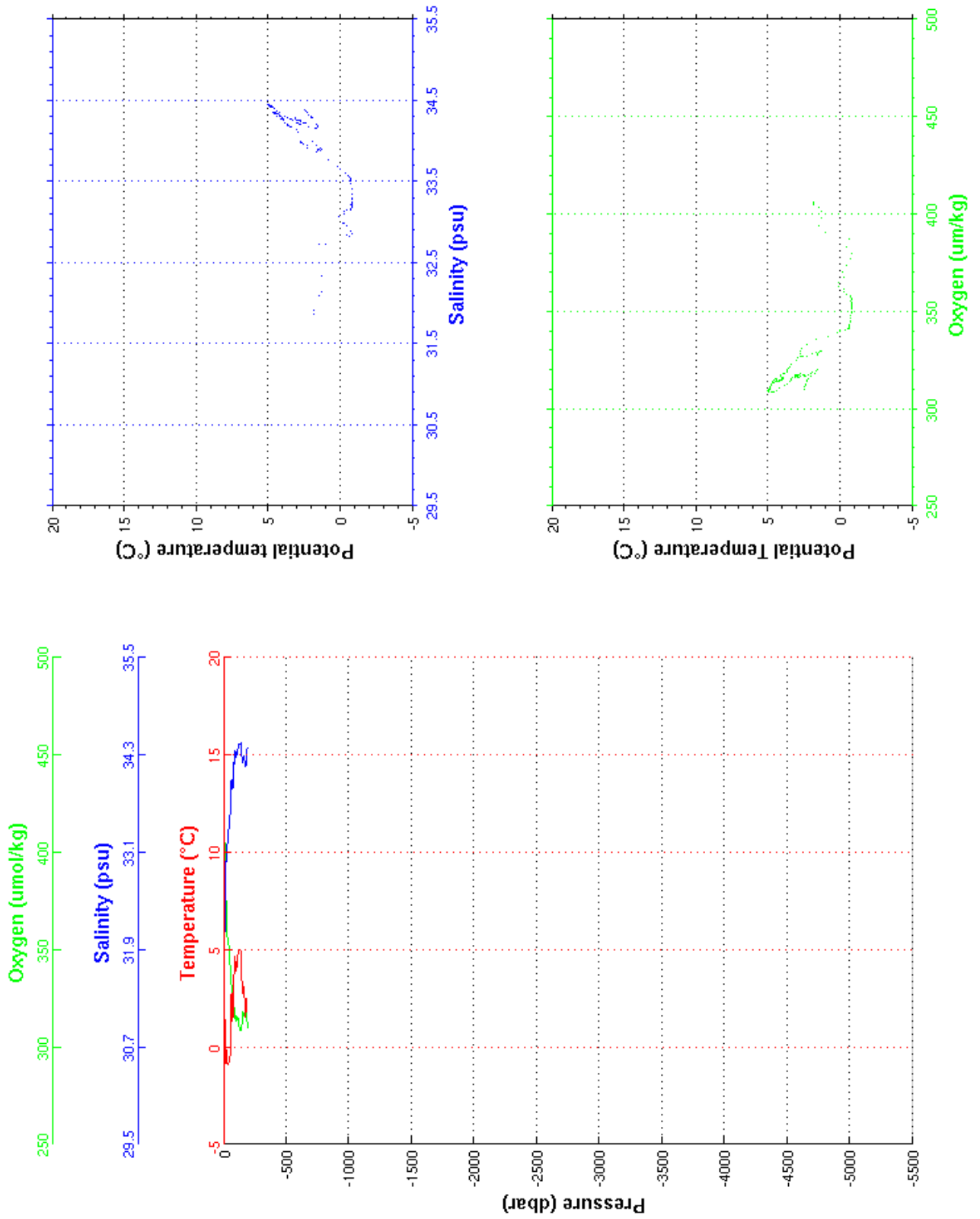
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-----
Cast      : 95           Cruise   : CATARINA
Date      : 17/07/2012 Ship      : R/V Sarmiento de Gamboa
Depth     : 201 m      Organism : CSIC/IIM VIGO
Position  : N 59 50.76
           W 042 36.93
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.857	31.858	406.3	1.857
10.0	1.311	32.334	403.9	1.311
20.0	0.040	33.075	363.6	0.039
30.0	-0.831	33.222	355.0	-0.832
40.0	-0.852	33.408	350.9	-0.853
50.0	-0.625	33.562	341.8	-0.626
100.0	4.025	34.286	315.7	4.019
150.0	3.000	34.216	317.1	2.991
189.0	2.508	34.394	310.6	2.497





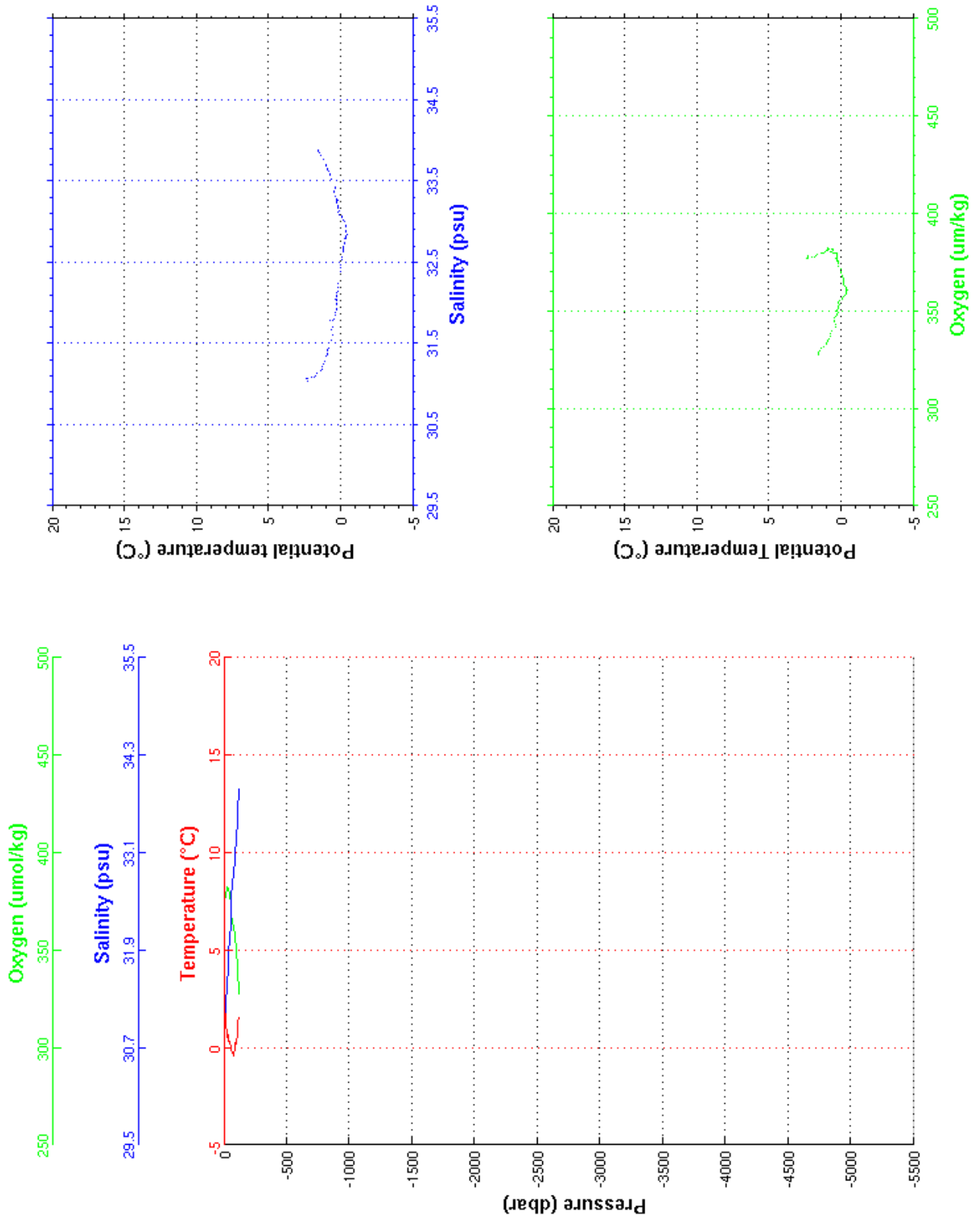
**Cast : 95**

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-----
Cast      : 101           Cruise   : CATARINA
Date     : 18/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth    : 137 m       Organism : CSIC/IIM VIGO
Position : N 59 47.84
          W 045 1.78
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	2.270	31.031	378.4	2.270
10.0	1.797	31.088	379.5	1.797
20.0	0.931	31.374	382.8	0.930
30.0	0.543	31.613	383.7	0.542
40.0	0.272	31.975	379.6	0.270
50.0	0.198	32.141	376.6	0.196
100.0	0.377	33.318	348.1	0.374
121.0	1.569	33.876	327.9	1.563



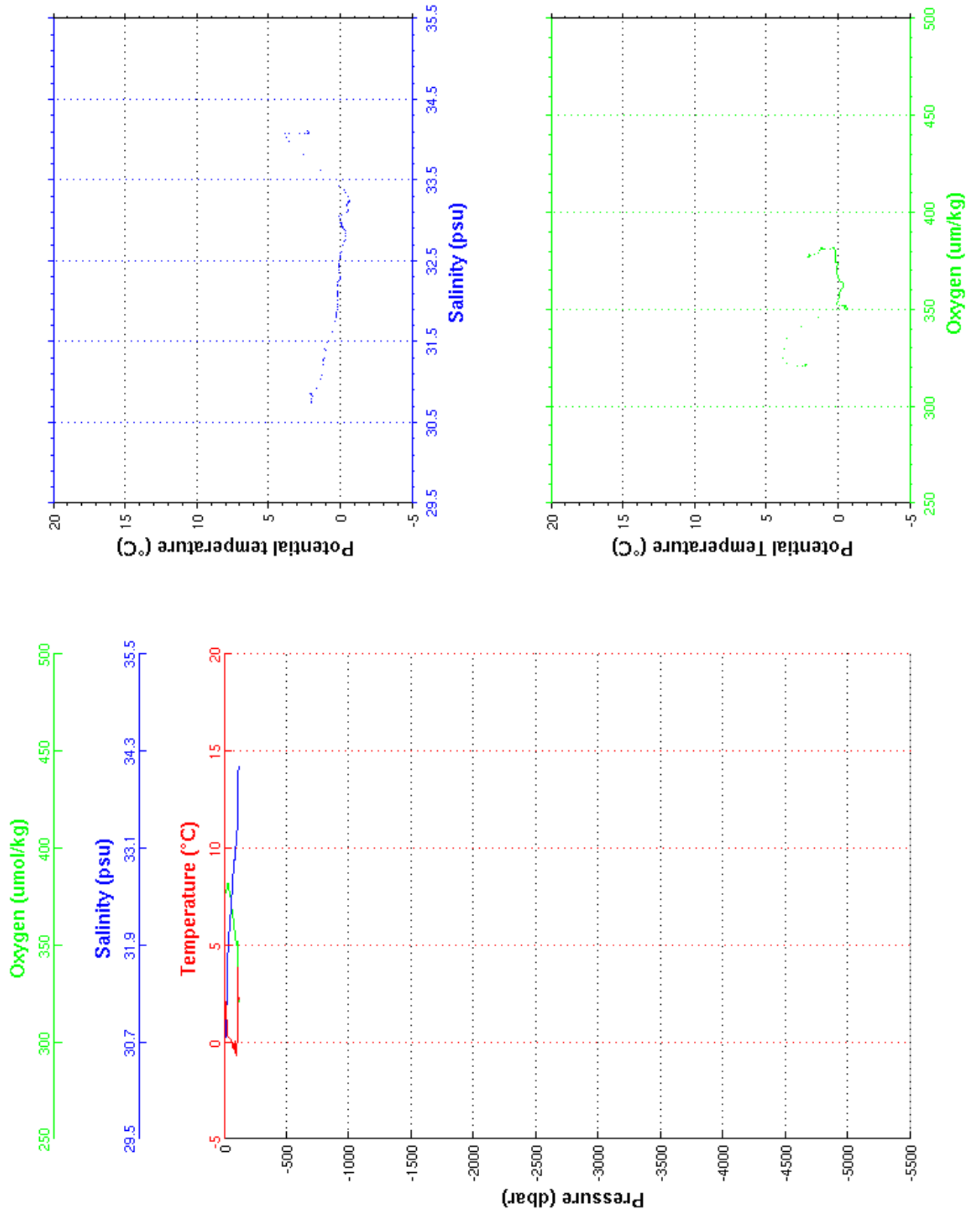
**Cast : 101**

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-----
Cast      : 102           Cruise   : CATARINA
Date      : 18/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 135 m       Organism : CSIC/IIM VIGO
Position  : N 59 44.40
           W 045  8.87
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	1.984	30.751	378.8	1.984
10.0	1.973	30.799	378.6	1.973
20.0	1.158	31.267	382.5	1.158
30.0	0.262	31.821	383.0	0.261
40.0	0.158	32.070	376.9	0.156
50.0	0.027	32.276	374.7	0.026
100.0	-0.691	33.231	350.1	-0.694
122.0	2.289	34.102	321.8	2.283



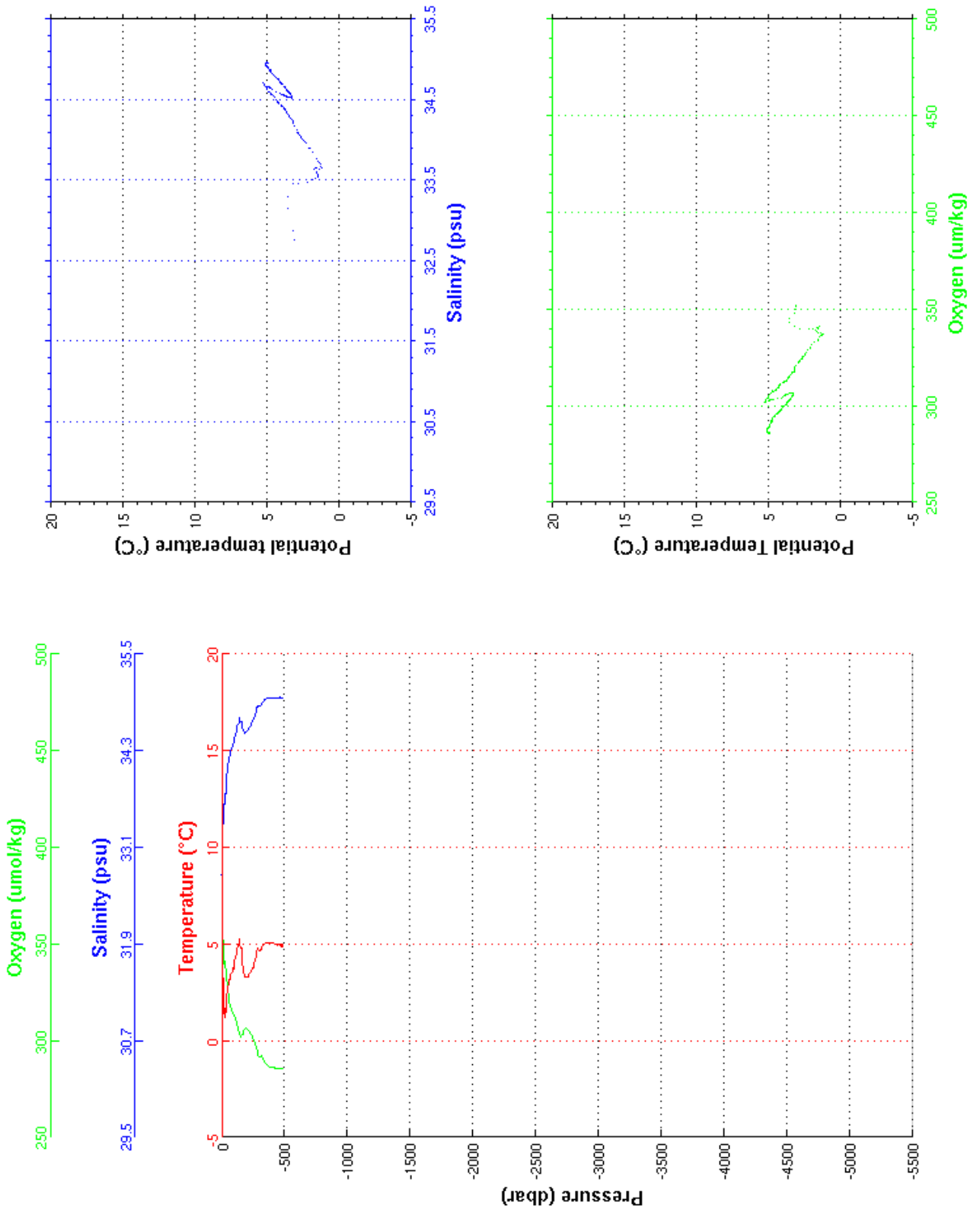
**Cast : 102**

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-----
Cast      : 103           Cruise   : CATARINA
Date      : 18/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 494 m       Organism : CSIC/IIM VIGO
Position  : N 59 30.11
           W 045 37.15
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	3.029	32.755	352.5	3.029
10.0	3.467	33.300	340.7	3.466
20.0	1.507	33.596	340.7	1.506
30.0	1.318	33.722	336.5	1.317
40.0	2.429	34.000	326.4	2.426
50.0	2.750	34.071	323.9	2.747
100.0	3.966	34.430	312.8	3.959
150.0	4.855	34.664	303.3	4.843
200.0	3.255	34.551	305.4	3.242
250.0	3.788	34.667	300.6	3.771
300.0	4.710	34.860	292.0	4.687
350.0	5.047	34.936	287.7	5.019
400.0	5.079	34.959	286.8	5.047
450.0	4.945	34.958	285.6	4.909
484.0	4.904	34.953	286.0	4.865



**Cast : 103**

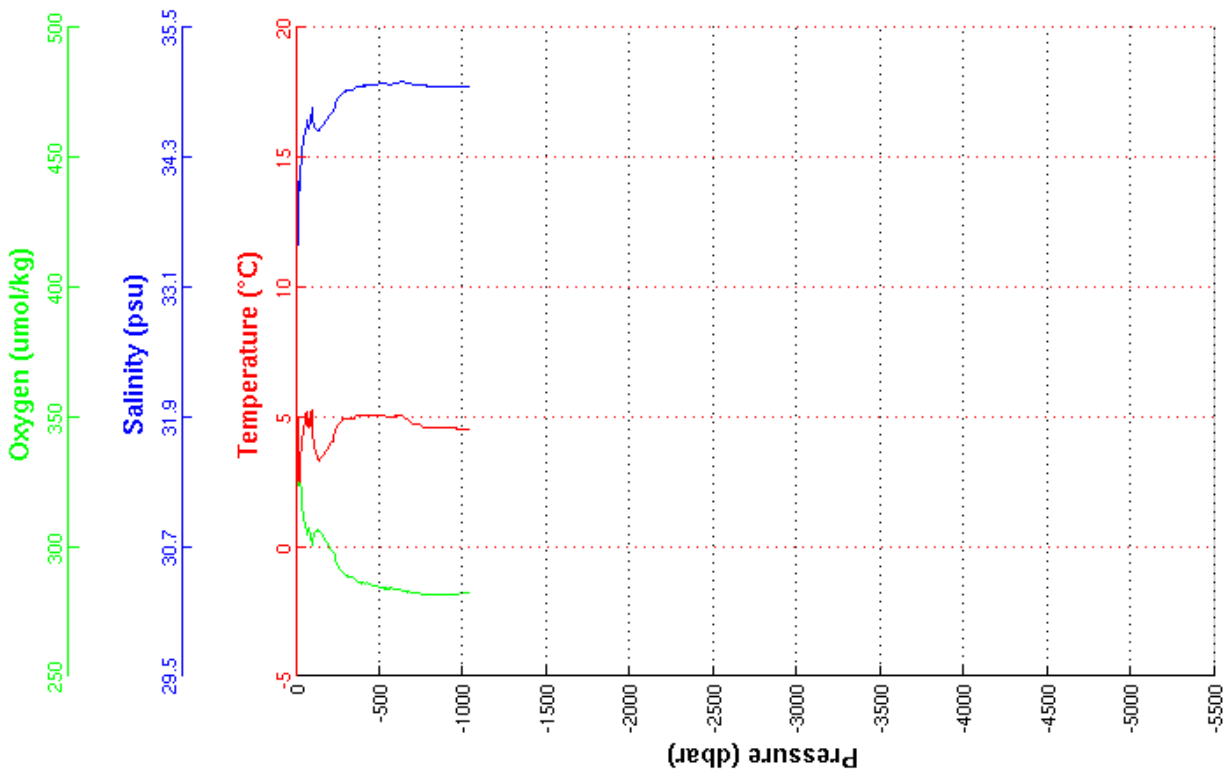
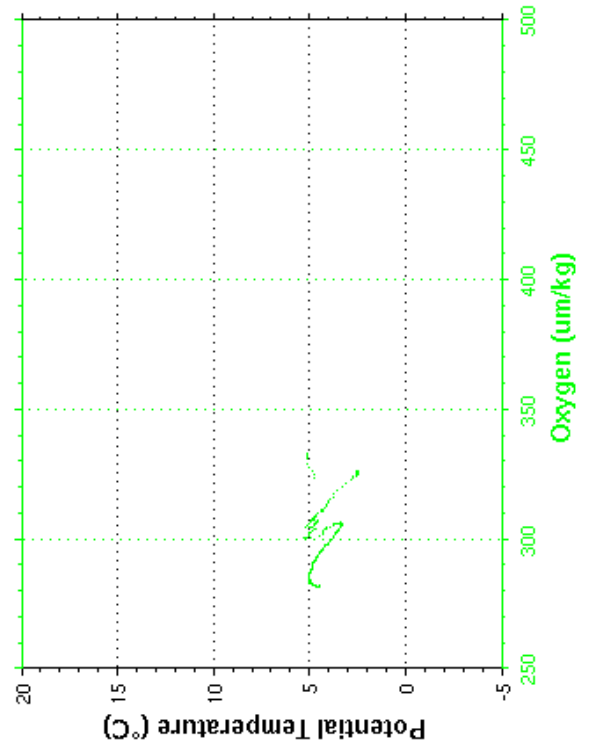
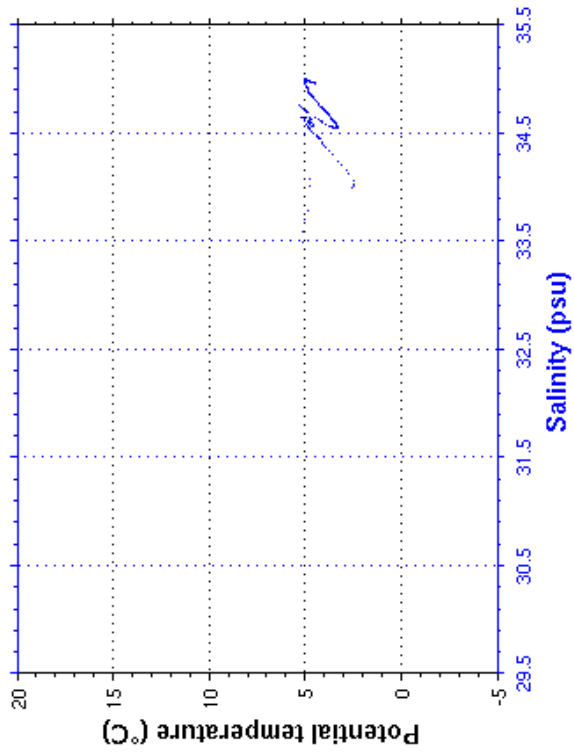
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-----
Cast      : 104           Cruise   : CATARINA
Date      : 18/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 1039 m      Organism : CSIC/IIM VIGO
Position  : N 59 27.81
           W 045 38.94
-----

```

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	5.093	33.490	333.1	5.093
10.0	5.097	33.586	330.3	5.097
20.0	2.486	34.004	326.7	2.485
30.0	3.262	34.236	321.2	3.260
40.0	4.157	34.422	313.4	4.154
50.0	4.644	34.515	309.1	4.641
100.0	4.267	34.624	304.4	4.260
150.0	3.411	34.585	304.9	3.402
200.0	3.939	34.699	299.7	3.925
250.0	4.704	34.854	292.4	4.685
300.0	4.910	34.915	289.3	4.886
350.0	4.962	34.938	287.6	4.935
400.0	5.067	34.963	286.4	5.035
450.0	5.060	34.969	285.5	5.024
500.0	5.071	34.983	284.3	5.030
550.0	4.986	34.979	284.2	4.942
600.0	5.024	34.988	283.8	4.975
650.0	4.962	34.993	282.9	4.909
700.0	4.772	34.976	282.5	4.715
750.0	4.673	34.969	282.2	4.614
800.0	4.583	34.963	281.8	4.519
850.0	4.575	34.963	281.7	4.507
900.0	4.570	34.962	281.9	4.498
950.0	4.566	34.961	281.9	4.489
1000.0	4.518	34.959	282.3	4.437
1037.0	4.526	34.959	282.6	4.442

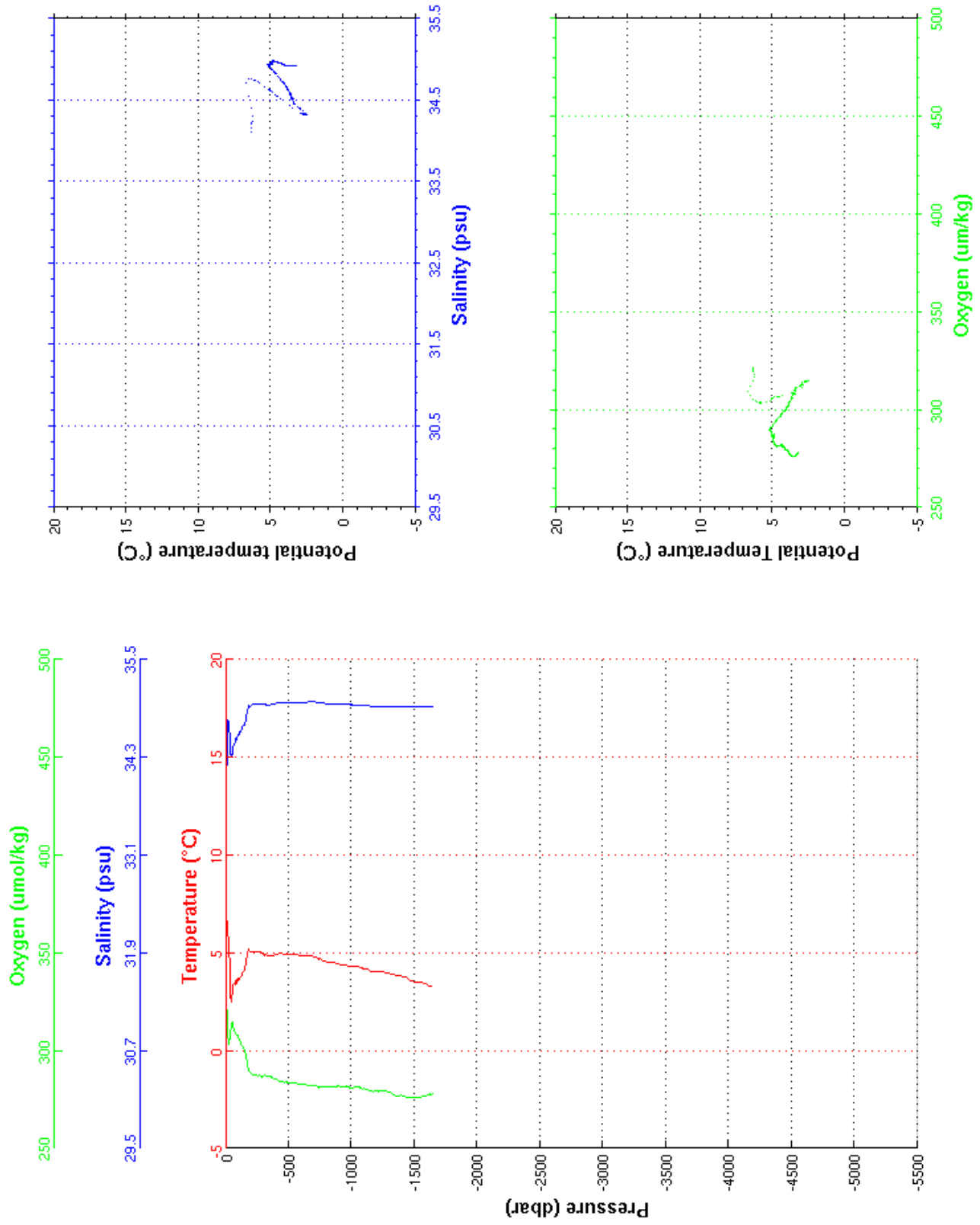




Cast : 104

Cast	: 105	Cruise	: CATARINA
Date	: 18/07/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 1632 m	Organism	: CSIC/IIM VIGO
Position	: N 59 26.09 W 045 39.94		

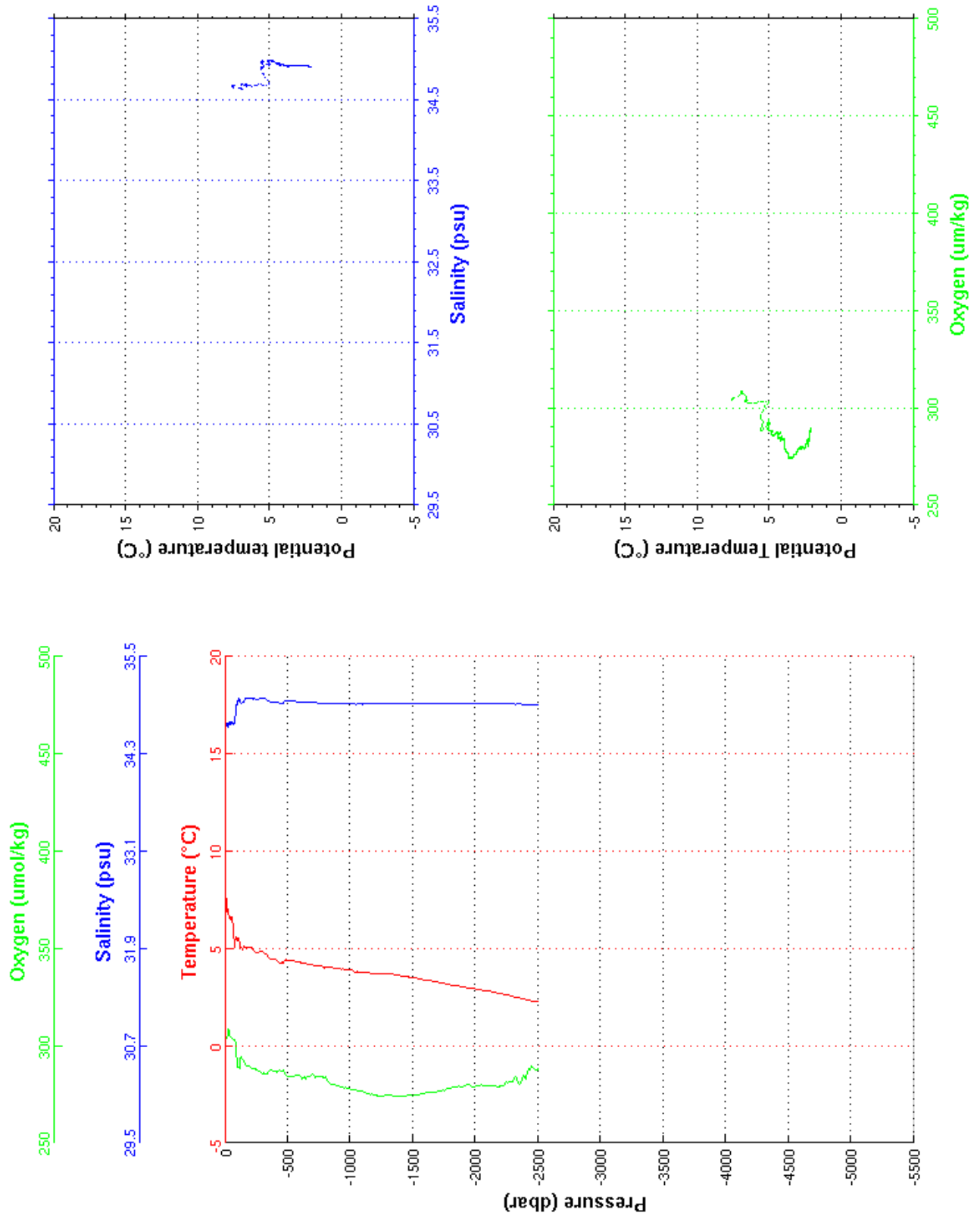
PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	6.295	34.108	322.1	6.295
10.0	6.272	34.219	320.2	6.271
20.0	5.876	34.723	304.3	5.874
30.0	4.890	34.599	306.8	4.888
40.0	2.679	34.320	315.7	2.676
50.0	2.479	34.322	316.0	2.476
100.0	3.585	34.572	305.9	3.579
150.0	4.153	34.725	300.1	4.142
200.0	5.068	34.940	288.9	5.052
250.0	5.055	34.950	287.7	5.035
300.0	4.961	34.948	287.3	4.938
350.0	4.861	34.947	286.5	4.834
400.0	4.943	34.969	285.1	4.911
450.0	4.960	34.976	284.4	4.924
500.0	4.920	34.976	284.0	4.880
550.0	4.911	34.977	283.9	4.867
600.0	4.880	34.978	283.2	4.832
650.0	4.857	34.981	282.5	4.805
700.0	4.816	34.982	282.4	4.760
750.0	4.690	34.971	281.8	4.630
800.0	4.552	34.962	281.7	4.489
850.0	4.506	34.959	281.8	4.439
900.0	4.422	34.953	282.0	4.351
950.0	4.377	34.950	281.4	4.303
1000.0	4.327	34.947	281.2	4.248
1050.0	4.289	34.945	281.4	4.206
1100.0	4.206	34.938	280.6	4.120
1150.0	4.074	34.928	280.0	3.984
1200.0	4.012	34.926	279.9	3.919
1250.0	4.012	34.930	279.9	3.914
1300.0	3.962	34.928	279.1	3.861
1350.0	3.851	34.927	277.0	3.746
1400.0	3.800	34.928	277.3	3.691
1450.0	3.676	34.930	276.1	3.564
1500.0	3.534	34.929	276.7	3.419
1550.0	3.492	34.929	276.5	3.374
1600.0	3.357	34.925	277.8	3.236
1643.0	3.304	34.925	278.4	3.179



**Cast : 105**

Cast	: 106	Cruise	: CATARINA
Date	: 01/01/2012	Ship	: R/V Sarmiento de Gamboa
Depth	: 2475 m	Organism	: CSIC/IIM VIGO
Position	: N 59 4.05 W 046 5.00		

PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	7.537	34.651	305.3	7.537
10.0	7.546	34.655	304.9	7.545
20.0	6.935	34.622	308.9	6.934
30.0	6.855	34.697	307.3	6.853
40.0	6.621	34.683	304.9	6.618
50.0	6.631	34.693	303.7	6.626
100.0	5.544	34.963	288.7	5.536
150.0	5.087	34.969	291.4	5.076
200.0	5.083	34.993	289.2	5.068
250.0	4.798	34.972	288.4	4.779
300.0	4.822	34.986	286.2	4.799
350.0	4.497	34.947	287.2	4.471
400.0	4.424	34.945	286.6	4.394
450.0	4.307	34.934	287.2	4.273
500.0	4.408	34.955	284.8	4.370
550.0	4.350	34.950	284.8	4.308
600.0	4.275	34.942	284.9	4.230
650.0	4.214	34.939	284.4	4.165
700.0	4.141	34.932	285.5	4.089
750.0	4.090	34.929	284.4	4.034
800.0	4.013	34.921	284.2	3.953
850.0	4.025	34.928	279.9	3.961
900.0	3.966	34.923	279.9	3.898
950.0	3.927	34.923	278.8	3.856
1000.0	3.862	34.918	278.2	3.787
1050.0	3.793	34.914	277.2	3.715
1100.0	3.769	34.915	276.6	3.686
1150.0	3.753	34.920	275.5	3.666
1200.0	3.709	34.919	274.6	3.619
1250.0	3.699	34.923	274.1	3.604
1300.0	3.703	34.929	274.8	3.604
1350.0	3.660	34.929	274.6	3.557
1400.0	3.598	34.928	274.4	3.492
1450.0	3.550	34.930	274.7	3.439
1500.0	3.510	34.931	274.6	3.396
1550.0	3.451	34.928	275.0	3.333
1600.0	3.380	34.926	276.1	3.258
1650.0	3.331	34.927	276.3	3.205
1700.0	3.260	34.924	276.9	3.131
1750.0	3.204	34.924	277.3	3.071
1800.0	3.127	34.922	278.5	2.990
1850.0	3.078	34.922	279.5	2.938
1900.0	3.036	34.922	279.4	2.892
1950.0	2.966	34.922	280.3	2.818
2000.0	2.918	34.922	279.7	2.767
2050.0	2.865	34.924	280.1	2.710
2100.0	2.803	34.923	280.0	2.644
2150.0	2.756	34.926	279.5	2.594
2200.0	2.684	34.926	279.4	2.519
2250.0	2.609	34.922	281.0	2.440
2300.0	2.528	34.917	282.5	2.355
2350.0	2.470	34.916	280.6	2.294
2400.0	2.385	34.911	282.9	2.206
2450.0	2.307	34.907	289.6	2.124
2500.0	2.284	34.908	288.4	2.097



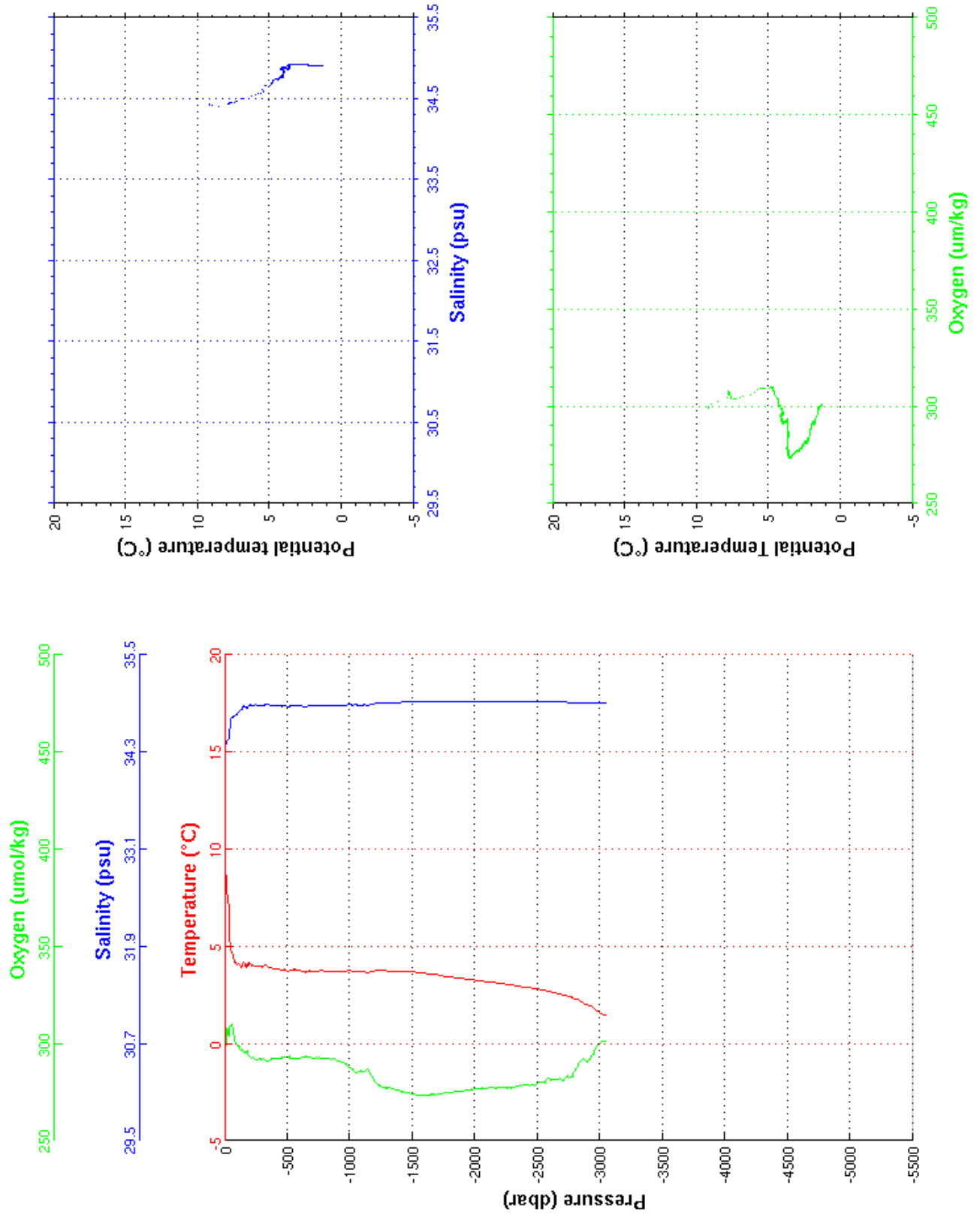
**Cast : 106**

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Cast      : 107           Cruise   : CATARINA
Date      : 19/07/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 3016 m      Organism : CSIC/IIM VIGO
Position  : N 57 27.32
           W 047 5.29
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	9.186	34.429	299.7	9.185	3050.0	1.498	34.905	301.7	1.276
10.0	8.945	34.421	300.1	8.944	3053.0	1.499	34.905	301.7	1.276
20.0	7.673	34.456	307.7	7.671					
30.0	7.315	34.462	304.3	7.313					
40.0	5.427	34.599	309.7	5.423					
50.0	4.719	34.724	310.4	4.715					
100.0	4.059	34.777	299.0	4.052					
150.0	4.177	34.865	295.1	4.166					
200.0	4.149	34.883	292.8	4.135					
250.0	4.038	34.882	292.0	4.020					
300.0	3.935	34.876	292.2	3.914					
350.0	3.972	34.885	291.3	3.947					
400.0	3.864	34.875	292.4	3.836					
450.0	3.789	34.868	293.2	3.757					
500.0	3.716	34.861	293.7	3.681					
550.0	3.783	34.873	292.7	3.744					
600.0	3.752	34.870	292.9	3.709					
650.0	3.670	34.860	293.7	3.624					
700.0	3.768	34.877	292.7	3.717					
750.0	3.707	34.869	292.9	3.653					
800.0	3.720	34.872	292.8	3.662					
850.0	3.710	34.872	292.3	3.648					
900.0	3.706	34.873	291.4	3.640					
950.0	3.717	34.877	290.3	3.647					
1000.0	3.746	34.883	287.6	3.671					
1050.0	3.723	34.883	285.2	3.645					
1100.0	3.714	34.884	285.8	3.632					
1150.0	3.670	34.881	286.3	3.584					
1200.0	3.768	34.902	280.3	3.677					
1250.0	3.796	34.911	278.0	3.700					
1300.0	3.722	34.905	277.6	3.623					
1350.0	3.702	34.908	276.8	3.598					
1400.0	3.717	34.914	275.6	3.609					
1450.0	3.713	34.919	275.0	3.601					
1500.0	3.695	34.922	274.2	3.578					
1550.0	3.660	34.922	274.0	3.539					
1600.0	3.614	34.923	273.6	3.489					
1650.0	3.582	34.924	274.0	3.453					
1700.0	3.534	34.923	274.4	3.401					
1750.0	3.465	34.920	274.9	3.329					
1800.0	3.425	34.920	275.2	3.285					
1850.0	3.383	34.920	275.6	3.239					
1900.0	3.355	34.920	276.0	3.207					
1950.0	3.310	34.920	276.4	3.158					
2000.0	3.257	34.920	277.0	3.101					
2050.0	3.211	34.921	277.2	3.051					
2100.0	3.180	34.924	277.5	3.016					
2150.0	3.139	34.924	277.6	2.971					
2200.0	3.099	34.923	278.0	2.926					
2250.0	3.056	34.925	277.6	2.879					
2300.0	3.019	34.926	277.7	2.838					
2350.0	2.960	34.924	278.1	2.775					
2400.0	2.907	34.923	279.2	2.719					
2450.0	2.855	34.923	279.2	2.662					
2500.0	2.808	34.923	280.4	2.612					
2550.0	2.755	34.926	279.8	2.555					
2600.0	2.673	34.923	282.0	2.470					
2650.0	2.594	34.919	281.9	2.387					
2700.0	2.504	34.917	281.6	2.294					
2750.0	2.434	34.914	282.0	2.220					
2800.0	2.315	34.908	286.6	2.100					
2850.0	2.167	34.905	291.5	1.949					
2900.0	1.999	34.903	291.1	1.780					
2950.0	1.842	34.902	294.8	1.622					
3000.0	1.600	34.903	300.9	1.380					



**Cast : 107**

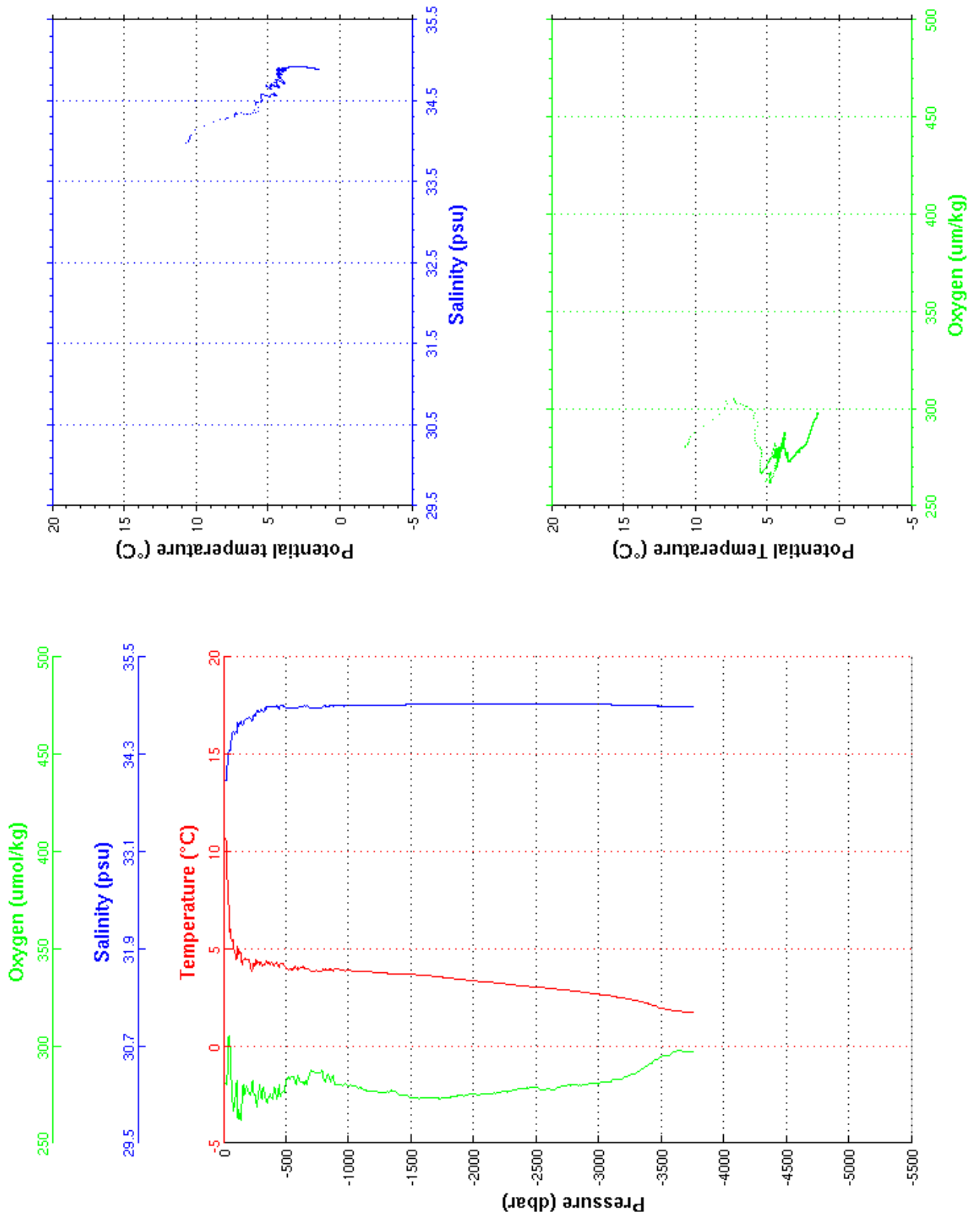
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Cast      : 108           Cruise   : CATARINA
Date      : 01/01/2012  Ship     : R/V Sarmiento de Gamboa
Depth     : 3712 m      Organism : CSIC/IIM VIGO
Position  : N 53 41.50
           W 049 26.03
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PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.	PRESSURE	TEMPERA- TURE	SALINITY	DISSOLV. OXYGEN	POTENT. TEMP.
dbar	deg.cels.	psu	umol/kg	deg.cels.	dbar	deg.cels.	psu	umol/kg	deg.cels.
1.0	10.708	33.979	280.8	10.707	3050.0	2.618	34.917	281.7	2.371
10.0	10.706	33.979	280.8	10.705	3100.0	2.570	34.914	282.4	2.319
20.0	10.675	33.981	280.7	10.673	3150.0	2.514	34.913	283.1	2.259
30.0	9.429	34.192	290.3	9.426	3200.0	2.462	34.910	284.2	2.203
40.0	7.289	34.331	305.1	7.285	3250.0	2.398	34.908	285.2	2.135
50.0	6.054	34.346	298.3	6.050	3300.0	2.333	34.906	286.5	2.066
100.0	4.571	34.567	280.1	4.563	3350.0	2.259	34.904	288.5	1.988
150.0	4.201	34.660	279.0	4.190	3400.0	2.170	34.902	290.9	1.896
200.0	4.446	34.763	274.5	4.431	3450.0	2.059	34.899	293.1	1.783
250.0	4.255	34.783	274.3	4.237	3500.0	1.948	34.898	294.9	1.670
300.0	4.308	34.850	272.9	4.286	3550.0	1.876	34.897	295.3	1.594
350.0	4.339	34.880	271.6	4.313	3600.0	1.810	34.897	297.4	1.524
400.0	4.145	34.870	278.6	4.116	3650.0	1.781	34.896	297.8	1.491
450.0	4.270	34.903	274.0	4.237	3700.0	1.763	34.897	297.4	1.468
500.0	3.966	34.866	282.8	3.930	3750.0	1.768	34.897	297.3	1.468
550.0	3.943	34.870	284.3	3.903	3753.0	1.768	34.897	297.5	1.468
600.0	4.008	34.886	283.2	3.964					
650.0	3.987	34.888	282.8	3.939					
700.0	3.859	34.873	287.6	3.808					
750.0	3.858	34.877	286.7	3.803					
800.0	3.940	34.893	283.1	3.880					
850.0	3.938	34.897	282.1	3.874					
900.0	3.963	34.906	279.7	3.895					
950.0	3.914	34.904	280.2	3.843					
1000.0	3.882	34.902	280.0	3.807					
1050.0	3.857	34.902	279.7	3.778					
1100.0	3.835	34.902	278.7	3.752					
1150.0	3.837	34.907	277.3	3.750					
1200.0	3.799	34.906	277.0	3.707					
1250.0	3.791	34.910	276.1	3.695					
1300.0	3.733	34.905	277.0	3.633					
1350.0	3.708	34.907	277.5	3.605					
1400.0	3.712	34.911	275.8	3.604					
1450.0	3.715	34.917	274.3	3.603					
1500.0	3.691	34.919	273.5	3.574					
1550.0	3.664	34.920	273.3	3.543					
1600.0	3.641	34.921	273.3	3.516					
1650.0	3.618	34.922	273.3	3.489					
1700.0	3.574	34.921	273.3	3.441					
1750.0	3.536	34.920	273.6	3.399					
1800.0	3.504	34.920	274.2	3.363					
1850.0	3.461	34.919	274.7	3.316					
1900.0	3.429	34.919	274.7	3.279					
1950.0	3.388	34.918	275.2	3.235					
2000.0	3.341	34.918	276.0	3.183					
2050.0	3.326	34.919	275.4	3.164					
2100.0	3.298	34.919	275.8	3.132					
2150.0	3.267	34.919	275.9	3.096					
2200.0	3.237	34.919	276.6	3.062					
2250.0	3.202	34.919	276.9	3.023					
2300.0	3.161	34.919	277.0	2.978					
2350.0	3.120	34.918	278.2	2.933					
2400.0	3.088	34.918	278.4	2.896					
2450.0	3.056	34.918	278.7	2.860					
2500.0	3.018	34.919	279.2	2.817					
2550.0	3.002	34.921	277.9	2.797					
2600.0	2.975	34.920	278.3	2.766					
2650.0	2.939	34.920	278.3	2.726					
2700.0	2.905	34.920	280.0	2.687					
2750.0	2.869	34.920	280.2	2.647					
2800.0	2.830	34.921	280.1	2.603					
2850.0	2.795	34.921	279.9	2.564					
2900.0	2.750	34.921	280.6	2.515					
2950.0	2.709	34.920	281.2	2.470					
3000.0	2.666	34.919	280.8	2.423					





Cast : 108

## 6. ANNEX

## Annex 1 : list of doubtful oxygen data

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| Cruise : CATARINA 2012 |
| List of Oxygen data with flag 4 |
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\*\*\*\* Oxygen data (downcast) \*\*\*\*

Cast	Pressure	Cast	Pressure	Cast	Pressure	Cast	Pressure
10	2112	21	2174	28	2418	77	3077
10	2113	21	2175	48	3643	77	3078
10	2114	21	2176	48	3644	107	2558
10	2115	21	2177	48	3645	107	2559
10	2116	28	2416	74	3131	107	2560
10	2117	28	2417	77	2654		

## Annex 2 : list of rejected levels due to wake effect

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 | Cruise : CATARINA 2012 |  
List of density anomalies corrections

\*\*\*\* Density anomalies (downcast) \*\*\*\*

Cast	Pressure	Cast	Pressure	Cast	Pressure	Cast	Pressure
1	33	31	1832	38	1057	66	87
1	36	31	1833	38	1058	66	92
1	48	32	201	38	1079	66	258
1	55	32	241	38	1085	67	27
1	67	32	258	38	1113	67	32
1	80	32	259	38	1124	67	37
1	83	32	320	38	1132	67	52
2	37	32	457	38	1138	67	67
2	44	32	477	38	1139	67	71
2	47	32	699	38	1165	67	74
2	57	32	715	38	1198	67	81
2	88	32	721	38	1260	67	92
2	94	32	755	38	1296	67	130
2	97	32	777	38	1302	67	151
2	106	32	778	38	1303	67	198
2	114	32	791	38	1313	67	312
3	34	32	792	38	1314	67	331
3	38	32	793	38	1320	67	342
3	770	32	814	39	90	67	343
3	771	32	820	39	445	67	348
4	39	32	832	39	600	67	638
4	43	32	833	39	645	67	639
4	46	32	905	39	677	68	29
4	56	32	958	39	730	68	45
4	76	32	976	39	742	68	49
4	98	32	1061	39	747	68	53
4	152	32	1096	39	798	68	168
5	1242	32	1178	39	851	68	172
6	52	32	1221	39	887	68	187
7	2013	32	1266	39	893	68	203
7	2014	32	1267	39	899	68	237
11	53	32	1287	39	915	68	271
11	1676	32	1332	39	936	68	349
12	128	32	1333	39	937	68	350
12	1382	32	1360	39	953	68	389
13	101	32	1370	39	977	68	390
14	48	32	1764	39	1084	68	395
14	51	32	1765	39	1185	68	400
14	52	33	54	40	50	69	15
14	64	33	55	40	54	69	23
14	68	33	57	40	58	69	26
14	73	33	58	40	60	69	30
14	160	33	61	40	78	69	35
14	169	33	310	40	98	69	40
14	185	33	312	40	99	69	50
17	25	33	348	40	114	69	55
17	43	33	349	40	186	69	62
17	80	33	360	40	191	69	88
17	85	33	383	40	219	69	98
17	99	33	392	40	223	69	167
17	100	33	395	40	232	69	256
17	326	33	396	40	235	69	311
17	327	33	399	40	238	69	470
17	590	33	409	40	239	70	17
17	849	33	418	40	249	70	33
17	850	33	435	40	253	70	43
17	891	33	438	40	282	70	60
17	1150	33	439	40	286	70	337
17	1151	33	449	40	304	70	353

Cast	Pressure	Cast	Pressure	Cast	Pressure	Cast	Pressure
17	1325	33	502	40	308	70	549
17	1454	33	534	40	309	71	25
18	33	33	544	40	323	71	35
18	42	33	545	40	324	71	65
18	46	33	550	40	328	71	355
18	159	33	556	40	352	71	422
18	696	33	582	40	353	71	482
18	697	33	596	40	362	71	532
18	776	33	600	40	368	71	550
18	1510	33	629	40	383	71	623
19	38	33	633	40	451	71	1054
20	19	33	637	40	457	72	28
20	24	33	643	40	463	72	47
20	83	33	662	40	467	72	67
20	102	33	663	40	505	72	79
20	934	33	674	40	511	73	29
20	959	33	704	40	514	73	45
20	1308	33	709	40	521	73	95
21	69	33	719	40	524	73	102
21	70	33	725	40	538	73	110
21	75	33	729	40	549	73	1001
21	122	33	736	40	560	73	3110
21	177	33	760	40	573	73	3122
21	234	33	769	40	584	74	32
21	250	33	798	40	606	74	40
21	268	33	810	40	618	74	47
21	836	33	815	40	623	74	48
21	1114	33	849	40	642	75	24
21	1240	33	864	40	648	75	30
21	1277	33	884	40	667	75	41
21	1304	33	889	40	671	75	93
21	1305	33	906	40	672	76	23
22	32	33	907	40	691	76	27
22	34	33	953	40	692	76	36
22	55	33	1009	40	716	76	55
22	65	33	1043	40	721	76	67
22	69	33	1058	40	722	76	71
22	92	33	1136	40	753	76	75
22	124	33	1142	40	760	76	76
22	125	33	1149	40	794	76	80
22	129	33	1153	40	801	76	84
22	130	33	1266	40	815	76	88
22	133	33	1306	40	829	76	109
22	134	33	1458	40	877	76	135
22	137	34	35	40	923	76	140
22	292	34	101	40	1085	76	144
22	578	34	146	41	114	76	241
22	599	34	160	41	130	76	267
22	642	34	207	41	165	76	268
22	643	34	287	41	168	76	2997
22	674	34	313	41	248	76	3024
22	699	34	537	41	268	76	3031
22	716	34	689	41	301	76	3078
22	1313	34	714	41	321	76	3106
22	1322	34	834	41	339	77	27
22	1451	34	866	41	340	77	38
22	1499	34	894	41	369	77	39
22	1525	34	908	41	372	77	48
22	1547	34	1002	41	406	77	57
22	1594	34	1009	41	427	77	78
22	1667	34	1010	41	431	77	88
22	1819	34	1113	41	440	77	97
22	1897	34	1191	41	458	77	128
23	68	35	269	41	515	77	201
23	88	35	327	41	516	77	237
23	241	35	334	41	541	77	293
23	605	35	379	41	546	77	329
23	624	35	383	41	551	77	2977
23	769	35	390	41	602	77	2992
23	781	35	393	41	625	77	3020
23	802	35	431	41	694	77	3027
23	829	35	480	41	709	77	3034
23	901	35	484	41	924	77	3040
23	902	35	563	41	945	78	24

Cast	Pressure	Cast	Pressure	Cast	Pressure	Cast	Pressure
23	926	35	571	41	951	78	41
23	1043	35	583	41	1059	78	58
23	1044	35	597	41	1069	78	81
23	1150	35	608	51	31	78	82
23	1334	35	630	55	18	78	85
23	1405	35	635	56	213	78	88
23	1698	35	673	56	227	78	103
24	40	35	776	57	54	78	104
24	62	35	921	57	59	78	107
24	66	35	922	57	103	78	2816
24	113	35	984	57	121	78	2823
24	135	35	1268	59	32	78	2830
24	182	36	48	59	36	78	2854
24	193	36	61	59	40	78	2917
24	215	36	64	59	44	78	2922
24	260	36	81	59	53	79	19
24	351	36	90	59	64	79	24
24	652	36	91	59	116	79	84
24	922	36	104	59	160	79	88
24	970	36	209	59	197	79	108
24	1089	36	213	60	16	79	112
24	1365	36	236	60	17	80	57
24	1409	36	330	60	36	80	95
25	52	36	387	60	120	80	135
25	1179	36	568	60	157	80	1138
25	1283	36	575	60	158	80	2352
26	42	36	583	60	165	81	29
26	53	36	584	60	168	81	49
26	137	36	635	60	176	81	76
26	148	36	885	60	183	81	79
26	204	36	901	60	193	81	96
26	568	36	937	60	203	81	151
26	768	36	962	60	252	82	49
26	995	36	994	60	257	82	53
26	1111	36	1086	60	278	83	54
26	1205	37	55	60	283	83	89
26	1355	37	328	60	531	83	96
26	1356	37	522	60	567	83	99
26	1416	37	523	60	575	83	112
27	7	37	531	60	616	83	125
27	71	37	564	60	638	83	170
27	75	37	591	60	644	84	1550
27	87	37	669	60	645	85	83
27	92	37	674	60	660	85	87
27	114	37	720	60	664	85	137
27	132	37	723	60	680	85	183
27	299	37	761	60	688	86	246
27	834	37	769	60	701	87	72
27	843	37	815	60	727	87	158
27	889	37	853	60	773	87	160
27	974	37	873	60	794	87	306
28	29	37	1030	61	30	88	19
28	75	37	1065	61	31	88	41
28	104	37	1066	61	34	88	153
28	121	37	1073	61	56	88	161
28	122	37	1094	61	77	89	62
28	126	37	1200	61	109	89	91
28	136	37	1207	61	110	89	111
28	137	37	1230	61	158	90	43
28	229	37	1244	61	164	90	78
28	253	37	1316	61	502	90	96
28	284	37	1331	61	604	90	126
28	298	37	1363	61	617	91	86
28	308	37	1441	61	643	91	96
28	317	37	1454	61	702	91	105
28	414	37	1462	61	709	92	48
28	459	37	1502	61	763	92	115
28	483	38	56	61	1065	92	138
28	493	38	63	61	1567	92	139
28	527	38	66	61	2014	92	163
28	647	38	78	62	66	92	166
28	663	38	80	62	69	94	46
28	837	38	83	62	82	94	52
28	899	38	93	62	158	94	157

Cast	Pressure	Cast	Pressure	Cast	Pressure	Cast	Pressure
28	925	38	96	62	241	95	44
28	926	38	103	62	242	101	37
28	1194	38	164	62	531	101	62
28	1202	38	169	62	544	101	88
28	1445	38	176	62	590	103	99
29	63	38	219	62	675	103	185
29	195	38	245	62	775	104	197
29	214	38	272	62	782	104	198
29	215	38	283	62	836	104	271
29	265	38	321	62	2016	106	32
29	606	38	334	63	42	106	45
29	621	38	439	63	103	106	63
29	804	38	451	63	112	106	73
29	805	38	526	63	463	106	89
29	899	38	558	63	471	106	98
30	633	38	573	63	537	106	343
30	764	38	675	63	563	106	344
30	992	38	683	63	614	106	2082
31	49	38	709	63	615	107	37
31	240	38	712	63	661	107	40
31	241	38	716	63	789	107	50
31	293	38	733	63	1554	107	56
31	800	38	737	64	20	107	68
31	849	38	759	64	33	107	92
31	850	38	762	64	52	107	181
31	860	38	772	64	62	107	182
31	870	38	775	64	67	107	2894
31	878	38	779	64	741	108	46
31	913	38	784	64	747	108	49
31	914	38	794	64	748	108	60
31	954	38	802	64	761	108	64
31	1037	38	844	64	768	108	69
31	1045	38	847	64	853	108	81
31	1114	38	856	64	1070	108	148
31	1115	38	866	64	1173	108	237
31	1155	38	872	65	35	108	240
31	1156	38	876	65	40	108	244
31	1238	38	895	65	44	108	292
31	1239	38	900	65	66	108	480
31	1342	38	932	65	126	108	644
31	1350	38	939	65	164	108	861
31	1351	38	969	65	653		
31	1515	38	987	65	1140		
31	1516	38	1032	66	32		

## Annex 3 : final chemical file

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
001	01	144.5	1	13.3207	1	35.9163	1	4.632	1	201.4	1	13.3004	1	27.0418	1	143.3	1	35.9188	1	4.620	1	200.9	1	13.6	1
001	02	144.5	1	13.3200	1	35.9161	1	4.632	1	201.4	1	13.2997	1	27.0418	1	143.3	1	35.9191	1	4.568	1	198.7	1	13.9	1
001	03	144.5	1	13.3206	1	35.9163	1	4.632	1	201.4	1	13.3003	1	27.0418	1	143.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	04	144.5	1	13.3211	1	35.9162	1	4.632	1	201.4	1	13.3008	1	27.0416	1	143.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	05	144.6	1	13.3207	1	35.9162	1	4.632	1	201.4	1	13.3003	1	27.0417	1	143.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	06	144.5	1	13.3203	1	35.9161	1	4.632	1	201.4	1	13.3000	1	27.0417	1	143.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	07	99.4	1	13.4866	1	35.9365	1	4.942	1	214.9	1	13.4725	1	27.0219	1	98.6	1	35.9393	1	4.915	1	213.7	1	13.7	1
001	08	99.4	1	13.4872	1	35.9365	1	4.942	1	214.9	1	13.4731	1	27.0217	1	98.6	1	35.9381	1	4.921	1	214.0	1	13.7	1
001	09	99.5	1	13.4880	1	35.9366	1	4.942	1	214.9	1	13.4739	1	27.0217	1	98.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	10	99.5	1	13.4884	1	35.9367	1	4.942	1	214.9	1	13.4743	1	27.0217	1	98.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	11	99.4	1	13.4887	1	35.9367	1	4.942	1	214.9	1	13.4746	1	27.0216	1	98.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	12	99.4	1	13.4885	1	35.9367	1	4.942	1	214.9	1	13.4744	1	27.0216	1	98.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	13	44.2	1	14.3075	1	35.9606	1	5.710	1	248.4	1	14.3010	1	26.8655	1	43.9	1	35.9615	1	5.517	4	240.0	4	14.5	1
001	14	44.1	1	14.3231	1	35.9612	1	5.715	1	248.6	1	14.3166	1	26.8626	1	43.8	1	35.9633	1	5.533	4	240.6	4	14.5	1
001	15	44.2	1	14.3465	1	35.9631	1	5.710	1	248.4	1	14.3400	1	26.8591	1	43.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	16	44.2	1	14.3580	1	35.9641	1	5.710	1	248.4	1	14.3515	1	26.8574	1	43.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	17	44.2	1	14.3533	1	35.9631	1	5.710	1	248.4	1	14.3468	1	26.8576	1	43.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	18	44.1	1	14.3505	1	35.9631	1	5.715	1	248.6	1	14.3440	1	26.8582	1	43.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	19	4.1	1	18.4173	1	35.6094	1	5.590	1	243.4	1	18.4166	1	25.6350	1	4.1	1	35.6123	1	5.530	1	240.8	1	18.2	1
001	20	4.1	1	18.4181	1	35.6096	1	5.590	1	243.4	1	18.4174	1	25.6350	1	4.1	1	35.6231	4	5.598	1	243.7	1	18.3	1
001	21	4.1	1	18.4178	1	35.6096	1	5.590	1	243.4	1	18.4171	1	25.6351	1	4.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	22	4.0	1	18.4167	1	35.6096	1	5.590	1	243.4	1	18.4160	1	25.6353	1	4.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	23	4.1	1	18.4131	1	35.6093	1	5.590	1	243.4	1	18.4124	1	25.6360	1	4.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
001	24	4.1	1	18.4046	1	35.6087	1	5.590	1	243.4	1	18.4039	1	25.6377	1	4.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	01	372.0	1	11.7874	1	35.7385	1	4.568	1	198.6	1	11.7387	1	27.2130	1	368.8	1	35.7411	1	-9.999	9	-9.9	9	12.2	1
002	02	372.0	1	11.7884	1	35.7386	1	4.568	1	198.6	1	11.7397	1	27.2129	1	368.8	1	35.7412	1	-9.999	9	-9.9	9	-9.9	9
002	03	372.0	1	11.7922	1	35.7391	1	4.568	1	198.6	1	11.7435	1	27.2126	1	368.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	04	295.8	1	12.0608	1	35.7359	1	4.686	1	203.7	1	12.0216	1	27.1568	1	293.3	1	35.7377	1	4.721	1	205.3	1	12.5	1
002	05	295.8	1	12.0622	1	35.7360	1	4.686	1	203.7	1	12.0230	1	27.1566	1	293.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	06	295.8	1	12.0612	1	35.7361	1	4.686	1	203.7	1	12.0220	1	27.1569	1	293.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	07	200.3	1	12.7458	1	35.8071	1	4.911	1	213.5	1	12.7184	1	27.0751	1	198.7	1	35.8097	1	4.960	1	215.7	1	13.1	1
002	08	200.3	1	12.7475	1	35.8075	1	4.911	1	213.5	1	12.7201	1	27.0751	1	198.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	09	200.3	1	12.7582	1	35.8088	1	4.911	1	213.5	1	12.7308	1	27.0740	1	198.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	10	150.2	1	13.3844	1	35.9175	1	4.843	1	210.6	1	13.3632	1	27.0298	1	149.0	1	35.9174	1	4.835	1	210.3	1	13.7	1
002	11	150.2	1	13.3844	1	35.9178	1	4.843	1	210.6	1	13.3632	1	27.0300	1	149.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	12	150.2	1	13.3805	1	35.9173	1	4.843	1	210.6	1	13.3593	1	27.0304	1	149.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	13	100.6	1	13.7607	1	35.9288	1	5.128	1	223.0	1	13.7463	1	26.9588	1	99.8	1	35.9283	1	4.987	4	216.9	4	13.9	1
002	14	100.6	1	13.7633	1	35.9289	1	5.128	1	223.0	1	13.7489	1	26.9583	1	99.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	15	100.5	1	13.7641	1	35.9290	1	5.130	1	223.1	1	13.7497	1	26.9582	1	99.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	16	60.3	1	15.1910	1	36.0424	1	5.834	1	253.8	1	15.1817	1	26.7356	1	59.8	1	-9.9999	9	5.867	1	255.2	1	15.2	1
002	17	60.3	1	15.1609	1	36.0457	1	5.834	1	253.8	1	15.1517	1	26.7448	1	59.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	18	60.3	1	15.1209	1	36.0446	1	5.834	1	253.8	1	15.1117	1	26.7529	1	59.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
002	19	5.2	1	18.4223	1	35.7342	1	5.568	1	242.4	1	18.4214	1	25.7294	1	5.2	1	35.7366	1	5.520	1	240.3	1	18.2	1
002	20	5.2	1	18.4209	1	35.7344	1	5.568	1	242.4	1	18.4200	1	25.7299	1	5.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	01	810.6	1	11.6260	1	36.1565	1	4.130	1	179.5	1	11.5184	1	27.5800	1	802.8	1	36.1594	1	4.154	1	180.5	1	11.9	1
003	02	810.5	1	11.6266	1	36.1566	1	4.130	1	179.5	1	11.5190	1	27.5800	1	802.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	03	700.9	1	11.6722	1	36.0822	1	4.135	1	179.7	1	11.5794	1	27.5106	1	694.3	1	36.0841	1	4.153	1	180.5	1	12.0	1
003	04	700.8	1	11.6828	1	36.0799	1	4.135	1	179.7	1	11.5900	1	27.5068	1	694.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	05	601.2	1	11.6501	1	35.9329	1	4.167	1	181.1	1	11.5711	1	27.3960	1	595.7	1	35.9353	1	4.180	1	181.7	1	12.1	1
003	06	601.3	1	11.6502	1	35.9329	1	4.167	1	181.1	1	11.5712	1	27.3960	1	595.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	07	500.4	1	11.6059	1	35.7767	1	4.355	1	189.3	1	11.5407	1	27.2802	1	496.0	1	35.7788	1	4.316	1	187.7	1	12.1	1
003	08	500.4	1	11.6044	1	35.7765	1	4.355	1	189.3	1	11.5392	1	27.2804	1	496.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	09	400.8	1	11.6280	1	35.6683	1	4.844	1	210.6	1	11.5760	1	27.1893	1	397.3	1	35.6714	1	4.894	1	212.8	1	12.1	1
003	10	400.9	1	11.6279	1	35.6683	1	4.844	1	210.6	1	11.5758	1	27.1893	1	397.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
003	11	302.5	1	12.1815	1	35.7192	1	4.928	1	214.3	1	12.1412	1	27.1207	1	300.0	1	35.7228	1	4.972	1	216.2	1	12.7	1
003	12	302.5	1	12.1836	1	35.7197	1	4.928	1	214.3	1														



Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
004	13	501.0	1	11.5241	1	35.7570	1	4.368	1	189.9	1	11.4591	1	27.2803	1	496.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
004	14	400.7	1	11.6780	1	35.6839	1	4.843	1	210.6	1	11.6258	1	27.1920	1	397.2	1	35.6848	1	4.704	4	204.5	4	12.4	1
004	15	400.8	1	11.6806	1	35.6836	1	4.843	1	210.6	1	11.6284	1	27.1913	1	397.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
004	16	301.2	1	12.1488	1	35.7179	1	4.968	1	216.0	1	12.1087	1	27.1259	1	298.7	1	35.7201	1	4.946	1	215.1	1	12.8	1
004	17	201.7	1	12.7775	1	35.8041	1	5.241	1	227.9	1	12.7499	1	27.0665	1	200.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
004	18	201.8	1	12.7753	1	35.8038	1	5.240	1	227.9	1	12.7476	1	27.0667	1	200.1	1	35.8062	1	5.214	1	226.8	1	13.5	1
004	19	150.6	1	13.2003	1	35.8740	1	5.374	1	233.7	1	13.1792	1	27.0338	1	149.4	1	35.8742	1	5.329	1	231.8	1	13.7	1
004	20	100.9	1	13.5990	1	35.9313	1	5.411	1	235.3	1	13.5846	1	26.9945	1	100.1	1	35.9347	1	5.387	1	234.3	1	14.1	1
004	21	60.6	1	14.1379	1	36.0039	1	5.877	1	255.6	1	14.1290	1	26.9358	1	60.1	1	-9.9999	9	5.502	4	239.2	4	13.6	1
004	22	60.6	1	14.1375	1	36.0038	1	5.877	1	255.6	1	14.1286	1	26.9359	1	60.1	1	36.0059	1	5.498	4	239.1	4	14.7	1
004	23	5.3	1	18.1126	1	35.8208	1	5.595	1	243.6	1	18.1117	1	25.8732	1	5.3	1	35.8231	1	5.572	1	242.5	1	17.4	1
004	24	5.4	1	18.1144	1	35.8208	1	5.595	1	243.6	1	18.1135	1	25.8727	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
005	01	2470.7	1	3.5414	1	35.0218	1	5.715	1	248.3	1	3.3342	1	27.8708	1	2437.3	1	35.0239	1	5.876	4	255.4	4	5.8	1
005	02	2470.6	1	3.5413	1	35.0218	1	5.715	1	248.3	1	3.3341	1	27.8708	1	2437.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
005	03	2369.1	1	3.6321	1	35.0324	1	5.717	1	248.4	1	3.4336	1	27.8696	1	2337.7	1	35.0343	1	5.713	1	248.3	1	6.1	1
005	04	2369.2	1	3.6330	1	35.0323	1	5.717	1	248.4	1	3.4344	1	27.8694	1	2337.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
005	05	2250.4	1	3.8165	1	35.0529	1	5.723	1	248.7	1	3.6267	1	27.8667	1	2221.2	1	35.0552	1	5.702	1	247.8	1	6.5	1
005	06	1997.4	1	4.5247	1	35.1409	1	5.646	1	245.3	1	4.3492	1	27.8608	1	1972.6	1	35.1550	1	5.629	1	244.7	1	7.1	1
005	07	1782.9	1	5.6172	1	35.3012	1	5.404	1	234.8	1	5.4485	1	27.8603	1	1761.7	1	35.3022	1	5.417	1	235.4	1	7.9	1
005	08	1593.7	1	7.7225	1	35.6733	1	4.839	1	210.2	1	7.5486	1	27.8704	1	1575.4	1	35.6806	1	4.878	1	212.0	1	9.4	1
005	09	1400.1	1	9.5779	1	36.0075	1	4.418	1	192.0	1	9.4078	1	27.8401	1	1384.7	1	36.0078	1	4.460	1	193.8	1	10.7	1
005	10	1157.9	1	11.1450	1	36.2157	1	4.110	1	178.6	1	10.9930	1	27.7241	1	1145.8	1	36.2197	1	4.145	1	180.1	1	11.9	1
005	11	1157.9	1	11.1515	1	36.2162	1	4.110	1	178.6	1	10.9994	1	27.7233	1	1145.8	1	-9.9999	9	4.141	1	180.0	1	12.0	1
005	12	998.4	1	11.3609	1	36.1730	1	4.105	1	178.4	1	11.2292	1	27.6471	1	988.3	1	36.1747	1	4.127	1	179.4	1	12.2	1
005	13	898.9	1	11.4880	1	36.1526	1	4.107	1	178.5	1	11.3692	1	27.6051	1	890.1	1	36.1572	1	4.130	1	179.5	1	12.4	1
005	14	799.4	1	11.6704	1	36.1157	1	4.121	1	179.1	1	11.5642	1	27.5396	1	791.7	1	36.1189	1	4.144	1	180.1	1	12.5	1
005	15	698.1	1	11.6516	1	36.0142	1	4.154	1	180.6	1	11.5594	1	27.4615	1	691.6	1	36.0251	1	4.175	1	181.5	1	12.5	1
005	16	599.7	1	11.5181	1	35.8705	1	4.232	1	184.0	1	11.4399	1	27.3722	1	594.2	1	35.8842	1	4.242	1	184.4	1	12.5	1
005	17	499.3	1	11.3809	1	35.6981	1	4.459	1	193.8	1	11.3167	1	27.2610	1	494.9	1	35.7160	1	4.507	1	196.0	1	12.6	1
005	18	401.2	1	11.8700	1	35.7030	1	4.668	1	202.9	1	11.8172	1	27.1705	1	397.7	1	35.7057	1	4.718	1	205.2	1	12.8	1
005	19	299.9	1	12.2035	1	35.7246	1	5.001	1	217.4	1	12.1635	1	27.1205	1	297.4	1	35.7259	1	4.995	1	217.2	1	13.2	1
005	20	201.0	1	12.8561	1	35.8209	1	5.247	1	228.1	1	12.8284	1	27.0638	1	199.4	1	35.8156	1	5.257	1	228.6	1	13.6	1
005	21	151.6	1	13.2991	1	35.9011	1	5.299	1	230.4	1	13.2778	1	27.0346	1	150.4	1	35.8950	1	5.262	1	228.9	1	14.1	1
005	22	100.7	1	13.7843	1	35.9710	1	5.421	1	235.7	1	13.7698	1	26.9865	1	99.9	1	35.9765	1	5.419	1	235.7	1	14.5	1
005	23	62.6	1	14.3753	1	35.9992	1	6.018	1	261.8	1	14.3660	1	26.8813	1	62.1	1	36.0016	1	5.645	4	245.5	4	15.0	1
005	24	5.7	1	18.0912	1	35.7750	1	5.528	1	240.7	1	18.0902	1	25.8434	1	5.7	1	35.7796	4	5.534	1	240.9	1	18.0	1
006	01	3458.0	1	2.5721	1	34.9212	1	5.607	1	243.6	1	2.2824	1	27.8855	1	3403.6	1	34.9221	1	5.581	1	242.6	1	6.7	1
006	02	3301.7	1	2.6151	1	34.9269	1	5.614	1	243.9	1	2.3411	1	27.8851	1	3250.9	1	34.9268	1	5.588	1	242.9	1	6.5	1
006	03	2999.9	1	2.8084	1	34.9486	1	5.645	1	245.3	1	2.5617	1	27.8835	1	2955.8	1	34.9463	1	5.609	1	243.8	1	7.2	1
006	04	2750.4	1	3.0475	1	34.9738	1	5.668	1	246.3	1	2.8214	1	27.8806	1	2711.5	1	34.9737	1	5.635	1	245.0	1	7.3	1
006	05	2500.7	1	3.3406	1	35.0030	1	5.706	1	247.9	1	3.1341	1	27.8750	1	2466.8	1	35.0127	1	5.658	1	245.9	1	7.3	1
006	06	2250.2	1	3.6678	1	35.0332	1	5.784	1	251.3	1	3.4806	1	27.8656	1	2221.0	1	35.0357	1	5.713	1	248.4	1	7.9	1
006	07	2000.8	1	4.0908	1	35.0674	1	5.814	1	252.6	1	3.9216	1	27.8481	1	1976.0	1	35.0676	1	5.793	1	251.8	1	8.0	1
006	08	1800.5	1	5.3668	1	35.2699	1	5.432	1	236.0	1	5.1996	1	27.8657	1	1779.0	1	35.2699	1	5.448	1	236.8	1	8.7	1
006	09	1600.5	1	7.4390	1	35.6230	1	4.930	1	214.2	1	7.2677	1	27.8717	1	1582.1	1	35.6220	1	4.933	1	214.4	1	10.1	1
006	10	1400.8	1	9.4000	1	35.9673	1	4.421	1	192.1	1	9.2316	1	27.8380	1	1385.4	1	35.9698	1	4.487	1	195.0	1	11.4	1
006	11	1199.9	1	11.1179	1	36.2305	1	4.111	1	178.7	1	10.9603	1	27.7416	1	1187.2	1	36.2308	1	4.154	1	180.6	1	12.4	1
006	12	1000.5	1	11.3629	1	36.1736	1	4.101	1	178.2	1	11.2309	1	27.6473	1	990.4	1	36.1740	1	4.115	1	178.9	1	12.8	1
006	13	900.8	1	11.4882	1	36.1565	1	4.113	1	178.8	1	11.3691	1	27.6081	1	891.9	1	36.1564	1	4.146	1	180.2	1	12.7	1
006	14	800.7	1	11.6584	1	36.1328	1	4.132	1	179.6	1	11.5520	1	27.5552	1	793.0	1	36.1308	1	4.150	1	180.4	1	12.7	1
006	15	701.0	1	11.6909	1	36.0300	1	4.144	1	180.1	1	11.5981	1	27.4665	1	694.4	1	36.0344	1	4.156	1	180.7	1	12.8	1
006	16	600.6	1	11.4060	1	35.8424	1	4.253	1	184.9	1	11.3282	1	27.3712	1	595.1	1	35.8473	1	4.246	1	184.6	1	12.8	1
006	17	500.5	1	11.8229	1	35.7138	1	4.476	1	194.6	1	11.3583	1	27.2655	1	496.1	1	35.7182	1	4.486	1	195.1	1	12.8	1
006	18	400.5	1	11.6782	1	35.6603	1	4.986	1	216.8	1	11.6261	1	27.1736	1	397.0	1	35.6604	1	4.971	1	216.2	1	13.0	1
006	19	300.8	1	12.1819	1	35.7186	1	5.015	1	218.1	1	12.1418	1	27.1201	1	298.3	1	35.7180	1	4.992	1	217.1	1	13.1	

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
008	04	3000.4	1	2.9201	1	34.9587	1	5.654	1	245.7	1	2.6709	1	27.8820	1	2956.3	1	34.9585	1	5.636	1	245.0	1	6.8	1
008	05	2500.6	1	3.4084	1	35.0040	1	5.720	1	248.5	1	3.2007	1	27.8695	1	2466.7	1	35.0050	1	5.717	1	248.5	1	7.3	1
008	06	2250.3	1	3.8744	1	35.0577	1	5.782	1	251.2	1	3.6837	1	27.8648	1	2221.1	1	35.0583	1	5.720	1	248.6	1	7.5	1
008	07	2000.1	1	4.7694	1	35.1873	1	5.574	1	242.2	1	4.5899	1	27.8710	1	1975.3	1	35.1868	1	5.549	1	241.2	1	8.1	1
008	08	1800.2	1	6.0295	1	35.3841	1	5.341	1	232.0	1	5.8534	1	27.8752	1	1778.7	1	35.3842	1	5.250	1	228.2	1	8.9	1
008	09	1601.0	1	7.8740	1	35.7015	1	4.762	1	206.9	1	7.6975	1	27.8706	1	1582.6	1	35.7013	1	4.832	1	210.0	1	9.9	1
008	10	1350.3	1	10.5527	1	36.1930	1	4.235	1	184.0	1	10.3796	1	27.8173	1	1335.6	1	36.1922	1	4.270	1	185.6	1	11.7	1
008	11	1200.7	1	11.1917	1	36.2648	1	4.109	1	178.5	1	11.0333	1	27.7549	1	1188.0	1	36.2640	1	4.140	1	179.9	1	12.1	1
008	12	1100.4	1	11.2781	1	36.2146	1	4.108	1	178.5	1	11.1330	1	27.6974	1	1089.1	1	36.2158	1	4.140	1	179.9	1	12.1	1
008	13	1000.2	1	11.4101	1	36.1675	1	4.099	1	178.1	1	11.2779	1	27.6338	1	990.1	1	36.1679	1	4.123	1	179.2	1	12.4	1
008	14	900.4	1	11.7117	1	36.1686	1	4.132	1	179.6	1	11.5912	1	27.5756	1	891.5	1	36.1689	1	4.146	1	180.2	1	12.6	1
008	15	800.7	1	11.8882	1	36.1288	1	4.164	1	181.0	1	11.7806	1	27.5086	1	793.0	1	36.1298	1	4.202	1	182.7	1	12.8	1
008	16	700.6	1	11.8710	1	36.0378	1	4.165	1	181.0	1	11.7774	1	27.4384	1	694.0	1	36.0433	4	4.205	1	182.8	1	12.8	1
008	17	600.4	1	11.6240	1	35.8204	1	4.239	1	184.3	1	11.5453	1	27.3134	1	594.9	1	35.8229	1	4.246	1	184.6	1	12.7	1
008	18	500.8	1	11.7832	1	35.7279	1	4.468	1	194.3	1	11.7173	1	27.2089	1	496.3	1	35.7305	1	4.511	1	196.2	1	12.9	1
008	19	400.6	1	11.9421	1	35.6839	1	5.104	1	221.9	1	11.8892	1	27.1418	1	397.1	1	35.6801	1	5.102	1	221.9	1	13.0	1
008	20	300.8	1	12.5412	1	35.7679	1	4.758	1	206.9	1	12.5003	1	27.0881	1	298.3	1	35.7643	1	5.114	4	222.4	4	13.5	1
008	21	200.2	1	13.3483	1	35.9080	1	4.866	1	211.6	1	13.3200	1	27.0313	1	198.6	1	35.9008	4	4.912	1	213.6	1	14.2	1
008	22	101.1	1	14.4154	1	36.1075	1	5.258	1	228.6	1	14.4004	1	26.9576	1	100.3	1	36.1095	1	5.246	1	228.2	1	15.1	1
008	23	45.4	1	15.3377	1	36.1691	1	5.791	1	251.9	1	15.3307	1	26.7999	1	45.0	1	36.1668	1	5.890	4	256.2	4	15.8	1
008	24	5.2	1	18.5853	1	36.1872	1	5.458	1	237.6	1	18.5844	1	26.0350	1	5.2	1	36.1907	1	5.487	1	238.8	1	18.2	1
009	01	4438.9	1	2.4673	1	34.9003	1	5.573	1	242.1	1	2.0684	1	27.8863	1	4359.3	1	34.9022	1	5.590	1	243.0	1	5.6	1
009	02	3997.8	1	2.4904	1	34.9082	1	5.581	1	242.5	1	2.1426	1	27.8866	1	3930.0	1	34.9080	1	5.569	1	242.1	1	5.8	1
009	03	3498.9	1	2.5641	1	34.9206	1	5.612	1	243.8	1	2.2702	1	27.8860	1	3443.5	1	34.9206	1	5.618	1	244.2	1	6.0	1
009	04	2999.1	1	2.8480	1	34.9524	1	5.652	1	245.6	1	2.6005	1	27.8832	1	2955.0	1	34.9522	1	5.638	1	245.1	1	6.2	1
009	05	2499.5	1	3.4162	1	35.0154	1	5.676	1	246.6	1	3.2084	1	27.8778	1	2465.6	1	35.0163	1	5.654	1	245.7	1	6.5	1
009	06	2250.0	1	3.5700	1	35.0078	1	5.863	1	254.7	1	3.3845	1	27.8548	1	2220.8	1	35.0078	1	5.825	1	253.2	1	6.7	1
009	07	1999.5	1	4.5193	1	35.1414	1	5.662	1	246.0	1	4.3437	1	27.8618	1	1974.7	1	35.1435	1	5.630	1	244.7	1	7.4	1
009	08	1799.9	1	5.3610	1	35.2552	1	5.528	1	240.2	1	5.1940	1	27.8547	1	1778.4	1	35.2567	1	5.492	1	238.7	1	8.1	1
009	09	1599.9	1	8.0453	1	35.7303	1	4.806	1	208.8	1	7.8669	1	27.8679	1	1581.5	1	35.7307	1	4.798	1	208.5	1	9.7	1
009	10	1348.6	1	11.0448	1	36.3098	1	4.149	1	180.3	1	10.8671	1	27.8205	1	1333.9	1	36.3105	1	4.209	1	182.9	1	11.7	1
009	11	1196.8	1	11.2651	1	36.2681	1	4.098	1	178.1	1	11.1066	1	27.7440	1	1184.2	1	36.2699	1	4.122	1	179.1	1	11.9	1
009	12	1100.5	1	11.3066	1	36.2086	1	4.094	1	177.9	1	11.1612	1	27.6875	1	1089.2	1	36.2091	1	4.132	1	179.6	1	12.0	1
009	13	1000.2	1	11.5520	1	36.2055	1	4.119	1	179.0	1	11.4187	1	27.6369	1	990.1	1	36.2027	1	4.154	1	180.6	1	12.3	1
009	14	900.8	1	11.7820	1	36.1878	1	4.142	1	180.0	1	11.6610	1	27.5773	1	891.9	1	36.1877	1	4.183	1	181.8	1	12.4	1
009	15	800.9	1	11.9342	1	36.1359	1	4.159	1	180.8	1	11.8263	1	27.5053	1	793.2	1	36.1326	1	4.198	1	182.5	1	12.5	1
009	16	701.2	1	11.8885	1	36.0314	1	4.168	1	181.2	1	11.7947	1	27.4301	1	694.6	1	36.0340	1	4.181	1	181.8	1	12.6	1
009	17	600.7	1	11.5938	1	35.8425	1	4.228	1	183.8	1	11.5152	1	27.3363	1	595.2	1	35.8466	1	4.245	1	184.6	1	12.4	1
009	18	500.9	1	11.4545	1	35.6571	1	4.838	1	210.3	1	11.3898	1	27.2155	1	496.4	1	35.6582	1	4.856	1	211.2	1	12.4	1
009	19	399.9	1	11.9254	1	35.6877	1	4.872	1	211.9	1	11.8726	1	27.1480	1	396.4	1	35.6865	1	4.897	1	213.0	1	12.8	1
009	20	300.2	1	12.5380	1	35.7613	1	4.895	1	212.9	1	12.4972	1	27.0836	1	297.7	1	35.7551	4	4.943	1	215.0	1	13.3	1
009	21	199.5	1	13.3753	1	35.9109	1	5.285	1	229.8	1	13.3471	1	27.0280	1	197.9	1	35.9093	1	5.225	1	227.2	1	14.1	1
009	22	98.5	1	14.2864	1	36.0621	1	5.383	1	234.1	1	14.2819	1	26.9481	1	97.7	1	-9.9999	9	5.334	1	232.0	1	14.8	1
009	23	57.0	1	14.8916	1	36.1250	1	5.842	1	254.1	1	14.8730	1	26.8679	1	56.6	1	36.0565	4	5.650	4	245.8	4	15.4	1
009	24	4.3	1	18.4781	1	36.1422	1	5.466	1	237.9	1	18.4773	1	26.0277	1	4.3	1	36.1231	4	5.486	1	238.8	1	18.1	1
010	01	4933.6	1	2.5085	1	34.8982	1	5.573	1	242.2	1	2.0472	1	27.8864	1	4839.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
010	02	4497.4	1	2.4807	1	34.9013	1	5.578	1	242.3	1	2.0743	1	27.8867	1	4416.2	1	34.9047	1	5.545	1	241.0	1	6.7	1
010	03	4001.3	1	2.5030	1	34.9096	1	5.589	1	242.8	1	2.1545	1	27.8868	1	3933.4	1	34.9091	1	5.571	1	242.2	1	7.0	1
010	04	3000.5	1	2.8479	1	34.9516	1	5.661	1	246.0	1	2.6003	1	27.8826	1	2956.4	1	34.9510	1	5.609	1	243.8	1	7.1	1
010	05	2504.1	1	3.4348	1	35.0177	1	5.658	1	245.8	1	3.2262	1	27.8780	1	2470.1	1	35.0167	1	5.626	1	244.6	1	7.6	1
010	06	2000.8	1	4.6482	1	35.1698	1	5.566	1	241.8	1	4.4704	1	27.8704	1	1976.0	1	35.1711	1	5.531	1	240.4	1	8.3	1
010	07	1800.8	1	5.6374	1	35.3199	1	5.369	1	233.3	1	5.4665	1	27.8729	1	1779.3	1	35.3230	1	5.324	1	231.4	1	9.0	1
010	08	1600.9	1	7.2450	1	35.5772	1	5.051	1	219.5	1	7.0760	1	27.8630	1	1582.5	1	35.6147	4	4.911	4	213.5	4	9.9	1
010	09	1500.8	1	8.2553	1	35.7484	1	4.736	1	205.8	1	8.0866	1	27.8487	1	1483.9	1	35.7497	1	4.711	1	204.8	1	10.4	1
010	10	1400.2	1	9.9604	1	36.0932	1	4.305	1	187.1	1	9.7864	1	27.8430	1	1384.8	1	36.0938	1	4.357	1	189.4</			

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
011	19	401.8	1	11.8528	1	35.6665	1	5.059	1	220.0	1	11.8000	1	27.1454	1	398.3	1	35.6675	1	4.993	1	217.1	1	12.8	1
011	20	300.2	1	12.2263	1	35.7085	1	5.124	1	222.8	1	12.1862	1	27.1036	1	297.7	1	35.7054	1	5.098	1	221.7	1	13.0	1
011	21	200.0	1	13.0219	1	35.8326	1	5.307	1	230.8	1	12.9941	1	27.0394	1	198.4	1	35.8197	4	5.306	1	230.8	1	13.7	1
011	22	99.1	1	13.9049	1	35.9517	1	5.436	1	236.4	1	13.8906	1	26.9461	1	98.3	1	35.9525	1	5.412	1	235.4	1	14.5	1
011	23	53.1	1	15.2202	1	36.0401	1	5.916	1	257.4	1	15.2120	1	26.7270	1	52.7	1	36.0507	4	5.795	4	252.1	4	15.5	1
011	24	5.3	1	18.4878	1	35.9916	1	5.510	1	239.9	1	18.4869	1	25.9100	1	5.3	1	35.9922	1	5.533	1	240.8	1	18.1	1
012	01	5304.8	1	2.5511	1	34.8976	1	5.568	1	241.9	1	2.0406	1	27.8864	1	5199.6	1	34.8970	1	5.555	1	241.4	1	5.8	1
012	02	5000.4	1	2.5126	1	34.8981	1	5.571	1	242.0	1	2.0427	1	27.8866	1	4904.6	1	34.8987	1	5.557	1	241.5	1	6.3	1
012	03	4500.9	1	2.4798	1	34.9016	1	5.571	1	242.0	1	2.0730	1	27.8870	1	4419.6	1	34.9004	1	5.553	1	241.4	1	6.4	1
012	04	4000.4	1	2.5110	1	34.9105	1	5.575	1	242.2	1	2.1623	1	27.8869	1	3932.6	1	34.9106	1	5.551	1	241.3	1	6.9	1
012	05	3500.7	1	2.6197	1	34.9261	1	5.616	1	244.0	1	2.3242	1	27.8859	1	3445.3	1	34.9250	1	5.590	1	243.0	1	6.7	1
012	06	3001.0	1	2.8273	1	34.9477	1	5.693	1	247.4	1	2.5801	1	27.8812	1	2956.9	1	-9.9999	9	-9.999	9	-9.9	9	12.8	1
012	07	2501.2	1	3.2745	1	34.9854	1	5.788	1	251.5	1	3.0692	1	27.8671	1	2467.3	1	34.9847	1	5.734	1	249.3	1	7.3	1
012	08	2250.8	1	3.5963	1	35.0044	1	5.894	1	256.1	1	3.4103	1	27.8496	1	2221.6	1	35.0042	1	5.834	1	253.6	1	7.3	1
012	09	2000.3	1	4.1208	1	35.0503	1	5.864	1	254.8	1	3.9512	1	27.8314	1	1975.5	1	35.0510	1	5.847	1	254.2	1	8.0	1
012	10	1800.1	1	4.8733	1	35.1548	1	5.597	1	243.2	1	4.7130	1	27.8313	1	1778.6	1	35.1540	1	5.628	1	244.7	1	8.5	1
012	11	1601.0	1	6.7719	1	35.4662	1	5.067	1	220.1	1	6.6086	1	27.8404	1	1582.6	1	35.4684	1	5.100	1	221.7	1	9.4	1
012	12	1401.0	1	9.2420	1	35.9124	1	4.453	1	193.5	1	9.0753	1	27.8207	1	1385.6	1	35.9141	1	4.488	1	195.1	1	11.2	1
012	13	1250.0	1	10.6368	1	36.1617	1	4.177	1	181.5	1	10.4765	1	27.7756	1	1236.7	1	36.1616	1	4.227	1	183.7	1	12.3	1
012	14	1001.2	1	11.3783	1	36.1320	1	4.068	1	176.8	1	11.2462	1	27.6120	1	991.1	1	36.1284	1	4.082	1	177.4	1	12.5	1
012	15	800.6	1	11.8144	1	36.0749	1	4.123	1	179.2	1	11.7072	1	27.4807	1	792.9	1	36.0767	1	4.130	1	179.5	1	12.8	1
012	16	700.8	1	11.5424	1	35.8853	1	4.156	1	180.7	1	11.4505	1	27.3817	1	694.2	1	35.8850	1	4.198	1	182.5	1	12.6	1
012	17	600.5	1	11.3674	1	35.7274	1	4.317	1	187.7	1	11.2898	1	27.2888	1	595.0	1	35.7304	1	4.408	1	191.7	1	12.6	1
012	18	501.1	1	11.4262	1	35.6343	1	4.864	1	211.5	1	11.3616	1	27.2030	1	496.6	1	35.6345	1	4.968	4	216.0	4	12.7	1
012	19	401.1	1	11.7179	1	35.6454	1	5.116	1	222.4	1	11.6656	1	27.1545	1	397.6	1	35.6459	1	5.029	1	218.7	1	12.9	1
012	20	300.5	1	12.2240	1	35.6994	1	5.013	1	218.0	1	12.1839	1	27.0970	1	298.0	1	35.6978	1	5.032	1	218.9	1	13.5	1
012	21	200.1	1	12.9151	1	35.7944	1	5.197	1	226.0	1	12.8875	1	27.0314	1	198.5	1	35.7970	1	5.135	1	223.3	1	14.0	1
012	22	100.7	1	14.2320	1	36.0455	1	5.305	1	230.7	1	14.2172	1	26.9491	1	99.9	1	36.0463	1	5.418	4	235.7	4	15.0	1
012	23	45.1	1	15.6082	1	36.0534	1	5.799	1	252.2	1	15.6012	1	26.6496	1	44.7	1	36.0551	1	5.940	4	258.4	4	16.0	1
012	24	5.4	1	18.5506	1	36.0804	1	5.516	1	240.1	1	18.5497	1	25.9621	1	5.4	1	36.0807	1	5.469	1	238.0	1	18.0	1
013	01	5352.1	1	2.5531	1	34.8972	1	5.573	1	242.1	1	2.0363	1	27.8864	1	5245.4	1	34.8965	1	5.574	1	242.3	1	5.1	1
013	02	4999.5	1	2.5097	1	34.8979	1	5.572	1	242.1	1	2.0400	1	27.8867	1	4903.7	1	34.8973	1	5.564	1	241.8	1	5.2	1
013	03	4498.9	1	2.4705	1	34.9007	1	5.570	1	242.0	1	2.0642	1	27.8870	1	4417.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
013	04	4000.7	1	2.4900	1	34.9086	1	5.578	1	242.4	1	2.1419	1	27.8870	1	3932.9	1	34.9073	1	5.590	1	243.0	1	5.4	1
013	05	3499.8	1	2.5968	1	34.9239	1	5.610	1	243.7	1	2.3019	1	27.8860	1	3444.4	1	34.9232	1	5.622	1	244.3	1	5.7	1
013	06	3000.0	1	2.8020	1	34.9460	1	5.682	1	246.9	1	2.5555	1	27.8820	1	2955.9	1	34.9446	1	5.668	1	246.4	1	5.9	1
013	07	2499.4	1	3.2869	1	34.9876	1	5.761	1	250.3	1	3.0816	1	27.8676	1	2465.5	1	34.9886	1	5.741	1	249.5	1	6.3	1
013	08	2249.9	1	3.7505	1	35.0343	1	5.748	1	249.8	1	3.5619	1	27.8584	1	2220.7	1	35.0330	1	5.759	1	250.3	1	6.7	1
013	09	2001.1	1	4.5516	1	35.1388	1	5.668	1	246.3	1	4.3753	1	27.8563	1	1976.3	1	35.1374	1	5.639	1	245.1	1	7.3	1
013	10	1797.3	1	5.4623	1	35.2711	1	5.328	1	231.5	1	5.2942	1	27.8553	1	1775.8	1	35.2782	4	5.433	1	236.1	1	7.9	1
013	11	1599.5	1	7.6006	1	35.6138	1	4.766	1	207.1	1	7.4276	1	27.8413	1	1581.1	1	35.6069	4	4.901	4	213.0	4	9.4	1
013	12	1349.9	1	11.0448	1	36.2520	1	4.142	1	180.0	1	10.8670	1	27.7755	1	1335.2	1	36.2522	1	4.161	1	180.8	1	11.8	1
013	13	1200.1	1	11.2741	1	36.2423	1	4.087	1	177.6	1	11.1152	1	27.7223	1	1187.4	1	36.2416	1	4.119	1	179.0	1	12.0	1
013	14	1000.2	1	11.4998	1	36.1713	1	4.074	1	177.1	1	11.3669	1	27.6201	1	990.1	1	36.1713	1	4.151	1	180.4	1	12.2	1
013	15	799.9	1	11.8919	1	36.1269	1	4.094	1	177.9	1	11.7844	1	27.5064	1	792.2	1	36.1267	1	4.112	1	178.7	1	12.5	1
013	16	699.5	1	12.0333	1	36.0816	1	4.148	1	180.3	1	11.9390	1	27.4414	1	692.9	1	36.0815	1	4.153	1	180.5	1	12.7	1
013	17	600.6	1	11.3378	1	35.7718	1	4.361	1	189.6	1	11.2603	1	27.3289	1	595.1	1	35.7757	1	4.290	1	186.5	1	12.3	1
013	18	499.8	1	11.3084	1	35.6452	1	4.937	1	214.7	1	11.2444	1	27.2332	1	495.4	1	35.6473	1	4.787	4	208.2	4	12.3	1
013	19	399.9	1	11.6627	1	35.6479	1	5.102	1	221.8	1	11.6107	1	27.1668	1	396.4	1	35.6456	1	5.168	1	224.7	1	12.6	1
013	20	300.0	1	12.1735	1	35.7103	1	5.198	1	226.0	1	12.1335	1	27.1152	1	297.5	1	35.7081	1	5.189	1	225.7	1	13.0	1
013	21	199.6	1	12.8449	1	35.7963	1	5.245	1	228.1	1	12.8174	1	27.0469	1	198.0	1	35.7856	4	5.247	1	228.2	1	13.6	1
013	22	98.9	1	14.1645	1	36.0351	1	5.386	1	234.2	1	14.1500	1	26.9555	1	98.1	1	36.0331	1	5.387	1	234.3	1	14.8	1
013	23	59.7	1	14.7390	1	36.0722	1	5.921	1	257.5	1	14.7300	1	26.8585	1	59.2	1	36.0820	4	5.580	4	242.7	4	15.3	1
013	24	4.8	1	18.6191	1	35.9987	1	5.469	1	238.1	1	18.6183	1	25.8822	1	4.8	1	35.9995	1	5.485	1	238.8	1	18.3	1
014	01	5398.8	1	2.5579	1	34.8971	1	5.571	1	242.0	1	2.0348	1	27.8865	1	5290.5	1	34.8955	1	5.580	1	242.5	1		

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
015	10	1802.3	1	4.3221	1	35.0655	1	5.856	1	254.4	1	4.1691	1	27.8204	1	1780.7	1	35.0686	1	5.811	1	252.6	1	6.8	1
015	11	1600.6	1	5.7923	1	35.2980	1	5.416	1	235.3	1	5.6408	1	27.8340	1	1582.2	1	35.3020	1	5.360	1	233.0	1	7.9	1
015	12	1399.5	1	7.6070	1	35.5971	1	4.821	1	209.5	1	7.4573	1	27.8238	1	1384.0	1	35.5926	1	4.897	1	212.8	1	9.3	1
015	13	1201.1	1	10.0844	1	36.0211	1	4.307	1	187.2	1	9.9356	1	27.7609	1	1188.4	1	36.0196	1	4.300	1	186.9	1	11.0	1
015	14	1000.0	1	10.7481	1	36.0477	1	4.119	1	179.0	1	10.6206	1	27.6608	1	989.9	1	36.0463	1	4.150	1	180.4	1	11.7	1
015	15	798.5	1	11.2934	1	35.9931	1	4.104	1	178.4	1	11.1895	1	27.5144	1	790.8	1	35.9956	1	4.110	1	178.7	1	12.1	1
015	16	699.6	1	11.3668	1	35.8750	1	4.149	1	180.3	1	11.2759	1	27.4063	1	693.0	1	35.8756	1	-9.999	9	-9.9	9	12.3	1
015	17	599.7	1	11.0461	1	35.6620	1	4.282	1	186.2	1	10.9701	1	27.2968	1	594.2	1	35.6649	1	4.293	1	186.7	1	12.1	1
015	18	499.2	1	11.4470	1	35.6560	1	4.718	1	205.1	1	11.3826	1	27.2160	1	494.7	1	35.6582	1	4.701	1	204.4	1	12.4	1
015	19	400.1	1	11.7299	1	35.6565	1	5.015	1	218.1	1	11.6777	1	27.1608	1	396.6	1	35.6565	1	4.998	1	217.3	1	12.7	1
015	20	299.7	1	12.2034	1	35.7142	1	4.992	1	217.0	1	12.1634	1	27.1124	1	297.2	1	35.7114	1	4.996	1	217.3	1	13.0	1
015	21	199.6	1	12.8937	1	35.8309	1	5.266	1	229.0	1	12.9061	1	27.0559	1	198.0	1	35.8258	4	5.353	1	232.8	1	13.7	1
015	22	99.7	1	13.8543	1	35.9835	1	5.394	1	234.6	1	13.8399	1	26.9814	1	98.9	1	35.9797	1	5.391	1	234.5	1	14.4	1
015	23	60.5	1	14.6628	1	36.0502	1	5.613	1	244.1	1	14.6537	1	26.8583	1	60.0	1	36.0479	1	5.762	4	250.6	4	15.3	1
015	24	4.5	1	18.8839	1	35.9641	1	5.514	1	240.1	1	18.8831	1	25.7882	1	4.5	1	35.9649	1	5.498	1	239.3	1	18.5	1
016	01	5443.8	1	2.5718	1	34.8979	1	5.548	1	241.0	1	2.0422	1	27.8865	1	5333.9	1	34.8984	1	5.576	1	242.4	1	6.4	1
016	02	4999.2	1	2.5202	1	34.8992	1	5.548	1	241.1	1	2.0502	1	27.8869	1	4903.1	1	34.8991	1	5.564	1	241.9	1	6.3	1
016	03	4499.2	1	2.4896	1	34.9028	1	5.548	1	241.1	1	2.0827	1	27.8872	1	4417.6	1	34.9023	1	5.579	1	242.5	1	6.3	1
016	04	3999.4	1	2.5339	1	34.9132	1	5.556	1	241.4	1	2.1847	1	27.8872	1	3931.3	1	34.9130	1	5.580	1	242.5	1	6.4	1
016	05	3501.0	1	2.6458	1	34.9285	1	5.598	1	243.2	1	2.3496	1	27.8857	1	3445.3	1	34.9325	1	5.628	1	244.6	1	6.5	1
016	06	3000.5	1	2.8973	1	34.9532	1	5.678	1	246.7	1	2.6486	1	27.8796	1	2956.2	1	34.9568	1	5.676	1	246.7	1	6.7	1
016	07	2500.3	1	3.3567	1	34.9895	1	5.780	1	251.1	1	3.1500	1	27.8627	1	2466.2	1	34.9898	1	5.776	1	251.1	1	7.2	1
016	08	2250.2	1	3.5915	1	34.9993	1	5.878	1	255.4	1	3.4056	1	27.8459	1	2220.8	1	34.9996	1	5.862	1	254.8	1	7.1	1
016	09	2001.0	1	3.9501	1	35.0185	1	5.921	1	257.3	1	3.7831	1	27.8235	1	1976.0	1	35.0199	1	5.930	1	257.8	1	7.8	1
016	10	1800.0	1	4.5823	1	35.1000	1	5.806	1	252.3	1	4.4260	1	27.8199	1	1778.4	1	35.0981	1	5.757	1	250.3	1	8.1	1
016	11	1600.1	1	5.7212	1	35.2729	1	5.468	1	237.6	1	5.5706	1	27.8228	1	1581.6	1	35.2740	1	5.417	1	235.5	1	8.7	1
016	12	1399.9	1	7.6383	1	35.5861	1	4.887	1	212.3	1	7.4883	1	27.8106	1	1384.4	1	35.5889	1	4.877	1	212.0	1	10.1	1
016	13	1200.3	1	9.7542	1	35.9367	1	4.346	1	188.8	1	9.6084	1	27.7509	1	1187.6	1	35.9336	1	4.377	1	190.3	1	11.5	1
016	14	1070.2	1	10.5027	1	36.0137	1	4.178	1	181.6	1	10.3678	1	27.6795	1	1059.2	1	36.0106	1	4.200	1	182.6	1	12.1	1
016	15	800.4	1	11.2023	1	35.9195	1	4.161	1	180.9	1	11.0988	1	27.4738	1	792.7	1	35.9245	4	4.145	1	180.2	1	12.6	1
016	16	699.4	1	11.3583	1	35.7986	1	4.240	1	184.3	1	11.2676	1	27.3484	1	692.8	1	35.8089	4	4.248	1	184.7	1	12.7	1
016	17	601.2	1	11.2726	1	35.6695	1	4.699	1	204.3	1	11.1954	1	27.2612	1	595.7	1	35.6706	1	4.535	4	197.2	4	12.7	1
016	18	500.5	1	11.4369	1	35.6246	1	5.102	1	221.8	1	11.3723	1	27.1934	1	496.0	1	35.6243	1	5.033	1	218.9	1	12.8	1
016	19	399.9	1	11.7724	1	35.6525	1	5.162	1	224.4	1	11.7201	1	27.1497	1	396.4	1	35.6515	1	5.168	1	224.8	1	13.1	1
016	20	300.5	1	12.2228	1	35.6994	1	5.085	1	221.1	1	12.1827	1	27.0972	1	298.0	1	35.6977	1	5.121	1	222.7	1	13.5	1
016	21	199.8	1	12.8094	1	35.7743	1	5.096	1	221.6	1	12.7820	1	27.0370	1	198.2	1	35.7695	4	5.088	1	221.3	1	14.0	1
016	22	98.8	1	13.8579	1	35.9401	1	5.412	1	235.4	1	13.8436	1	26.9471	1	98.0	1	35.9376	1	5.533	4	240.7	4	14.8	1
016	23	43.9	1	14.5792	1	35.9671	1	5.744	1	249.8	1	14.5727	1	26.8118	1	43.6	1	35.9500	4	5.734	1	249.4	1	15.3	1
016	24	5.5	1	18.6631	1	35.8751	1	5.590	1	243.3	1	18.6621	1	25.7764	1	5.5	1	35.8799	4	5.543	1	241.3	1	18.3	1
017	01	5439.3	1	2.5715	1	34.8979	1	5.567	1	241.9	1	2.0425	1	27.8865	1	5329.4	1	34.8999	1	-9.999	9	-9.9	9	4.9	1
017	02	5000.2	1	2.5212	1	34.8993	1	5.564	1	241.7	1	2.0510	1	27.8869	1	4903.9	1	34.9015	1	5.560	1	241.6	1	5.3	1
017	03	4500.7	1	2.4953	1	34.9034	1	5.564	1	241.8	1	2.0880	1	27.8872	1	4419.0	1	34.9030	1	5.572	1	242.2	1	5.3	1
017	04	4001.6	1	2.5349	1	34.9131	1	5.576	1	242.3	1	2.1854	1	27.8870	1	3933.4	1	34.9157	1	5.568	1	242.0	1	5.6	1
017	05	3499.9	1	2.6394	1	34.9281	1	5.620	1	244.2	1	2.3434	1	27.8859	1	3444.1	1	34.9287	1	5.619	1	244.2	1	5.8	1
017	06	2999.8	1	2.8616	1	34.9507	1	5.702	1	247.7	1	2.6138	1	27.8807	1	2955.4	1	34.9509	1	5.684	1	247.1	1	6.1	1
017	07	2501.1	1	3.3069	1	34.9853	1	5.819	1	252.8	1	3.1011	1	27.8640	1	2466.9	1	34.9865	1	5.774	1	251.0	1	6.5	1
017	08	2250.6	1	3.5426	1	34.9923	1	5.930	1	257.7	1	3.3575	1	27.8451	1	2221.1	1	34.9933	1	5.904	1	256.6	1	6.7	1
017	09	2000.1	1	3.8896	1	35.0133	1	5.968	1	259.3	1	3.7236	1	27.8254	1	1975.1	1	35.0158	1	5.951	1	258.7	1	7.1	1
017	10	1800.6	1	4.4973	1	35.0885	1	5.754	1	250.0	1	4.3421	1	27.8200	1	1778.9	1	35.0914	1	5.787	1	251.6	1	7.9	1
017	11	1599.7	1	5.8267	1	35.2945	1	5.363	1	233.0	1	5.6749	1	27.8269	1	1581.2	1	35.2920	1	5.388	1	234.2	1	8.5	1
017	12	1400.4	1	8.2003	1	35.7041	1	4.705	1	204.4	1	8.0444	1	27.8204	1	1384.8	1	35.7099	4	4.742	1	206.1	1	10.1	1
017	13	1200.4	1	10.2514	1	36.0507	1	4.246	1	184.5	1	10.1012	1	27.7553	1	1187.6	1	36.0526	1	4.272	1	185.7	1	11.5	1
017	14	1001.1	1	11.0502	1	36.0954	1	4.094	1	177.9	1	10.9204	1	27.6436	1	990.9	1	36.1018	4	4.119	1	179.0	1	12.1	1
017	15	800.3	1	11.2618	1	35.9309	1	4.106	1	178.5	1	11.1579	1	27.4718	1	792.5	1	35.9272	1	4.098	1	178.2	1	12.5	1
017	16	701.0	1	10.9747	1	35.7290	1	4.151	1	180.4	1	10.8857	1	27.3644	1	694.4	1	35.7349	4	4.158	1	180.8	1	1	

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
019	01	5427.5	1	2.5747	1	34.8988	1	5.557	1	241.4	1	2.0472	1	27.8869	1	5317.6	1	34.9002	1	5.552	1	241.3	1	4.8	1
019	02	5000.2	1	2.5251	1	34.9000	1	5.556	1	241.4	1	2.0548	1	27.8872	1	4903.6	1	34.9004	1	5.571	1	242.1	1	4.8	1
019	03	4500.7	1	2.4931	1	34.9035	1	5.556	1	241.4	1	2.0859	1	27.8875	1	4418.7	1	34.9039	1	5.558	1	241.5	1	4.9	1
019	04	4000.1	1	2.5322	1	34.9135	1	5.565	1	241.8	1	2.1830	1	27.8876	1	3931.7	1	34.9139	1	5.553	1	241.3	1	5.1	1
019	05	3500.7	1	2.6442	1	34.9288	1	5.612	1	243.8	1	2.3480	1	27.8860	1	3444.7	1	34.9284	1	5.601	1	243.4	1	5.3	1
019	06	3000.6	1	2.8801	1	34.9516	1	5.706	1	247.9	1	2.6318	1	27.8798	1	2956.0	1	34.9518	1	5.678	1	246.8	1	5.5	1
019	07	2500.7	1	3.2829	1	34.9803	1	5.824	1	253.1	1	3.0776	1	27.8622	1	2466.4	1	34.9832	1	5.802	1	252.2	1	5.9	1
019	08	2250.2	1	3.5540	1	34.9903	1	5.937	1	258.0	1	3.3688	1	27.8424	1	2220.6	1	34.9931	1	5.909	1	256.8	1	6.2	1
019	09	1999.9	1	3.9636	1	35.0242	1	5.934	1	257.8	1	3.7965	1	27.8266	1	1974.8	1	35.0263	1	5.924	1	257.5	1	6.6	1
019	10	1800.0	1	4.4101	1	35.0717	1	5.779	1	251.1	1	4.2562	1	27.8160	1	1778.2	1	35.0734	1	5.806	1	252.4	1	6.9	1
019	11	1600.6	1	5.1312	1	35.1605	1	5.506	1	239.2	1	4.9878	1	27.8040	1	1582.0	1	35.1614	1	5.627	4	244.6	4	7.9	1
019	12	1400.7	1	7.2967	1	35.5280	1	4.981	1	216.4	1	7.1502	1	27.8137	1	1385.1	1	35.5290	1	4.978	1	216.4	1	9.0	1
019	13	1201.0	1	9.1327	1	35.8102	1	4.496	1	195.3	1	8.9923	1	27.7542	1	1188.2	1	35.8128	1	4.501	1	195.6	1	10.3	1
019	14	1000.1	1	9.8772	1	35.7965	1	4.213	1	183.1	1	9.7562	1	27.6161	1	989.9	1	35.7982	1	4.285	1	186.3	1	10.9	1
019	15	800.4	1	10.4760	1	35.6963	1	4.148	1	180.3	1	10.3768	1	27.4301	1	792.6	1	35.6969	1	4.154	1	180.6	1	11.4	1
019	16	700.8	1	10.6856	1	35.5958	1	4.288	1	186.4	1	10.5982	1	27.3123	1	694.1	1	35.5962	1	4.306	1	187.2	1	11.7	1
019	17	600.2	1	11.0472	1	35.5650	1	4.697	1	204.2	1	10.9712	1	27.2210	1	594.6	1	35.5679	1	4.801	4	208.8	4	12.5	1
019	18	500.5	1	11.4344	1	35.5965	1	5.103	1	221.9	1	11.3699	1	27.1720	1	496.0	1	35.5935	1	5.125	1	222.9	1	12.5	1
019	19	400.5	1	11.7694	1	35.6296	1	5.174	1	225.0	1	11.7170	1	27.1325	1	397.0	1	35.6291	1	5.205	1	226.4	1	12.7	1
019	20	300.7	1	12.2595	1	35.6936	1	5.144	1	223.7	1	12.2193	1	27.0856	1	298.1	1	35.6863	4	5.209	1	226.5	1	13.2	1
019	21	200.4	1	12.7764	1	35.7567	1	5.440	1	236.5	1	12.7489	1	27.0299	1	198.7	1	35.7550	1	5.348	1	232.6	1	13.8	1
019	22	100.7	1	13.7733	1	35.9103	1	5.578	1	242.6	1	13.7588	1	26.9419	1	99.9	1	35.9038	4	5.554	1	241.6	1	14.5	1
019	23	45.8	1	15.5224	1	35.9487	1	5.814	1	252.9	1	15.5153	1	26.5884	1	45.4	1	35.9390	4	5.932	4	258.1	4	15.7	1
019	24	5.5	1	18.4195	1	35.9308	1	5.604	1	244.0	1	18.4185	1	25.8806	1	5.5	1	35.9322	1	5.583	1	243.0	1	18.1	1
020	01	5400.3	1	2.5688	1	34.8988	1	5.554	1	241.3	1	2.0451	1	27.8870	1	5291.2	1	34.9025	1	5.573	1	242.2	1	6.0	1
020	02	4999.9	1	2.5219	1	34.8998	1	5.552	1	241.2	1	2.0518	1	27.8873	1	4903.2	1	34.9014	1	5.558	1	241.6	1	6.0	1
020	03	4500.2	1	2.4955	1	34.9040	1	5.556	1	241.4	1	2.0883	1	27.8877	1	4418.1	1	34.9050	1	5.555	1	241.5	1	6.3	1
020	04	3999.9	1	2.5256	1	34.9130	1	5.561	1	241.6	1	2.1766	1	27.8877	1	3931.4	1	34.9130	1	5.575	1	242.3	1	6.3	1
020	05	3500.7	1	2.6352	1	34.9281	1	5.603	1	243.5	1	2.3393	1	27.8862	1	3444.6	1	34.9308	1	5.583	1	242.7	1	6.5	1
020	06	2998.9	1	2.8837	1	34.9519	1	5.698	1	247.6	1	2.6355	1	27.8797	1	2954.3	1	34.9505	1	5.699	1	247.7	1	6.6	1
020	07	2498.5	1	3.2480	1	34.9698	1	5.897	1	256.2	1	3.0436	1	27.8570	1	2464.2	1	34.9717	1	5.901	1	256.5	1	6.9	1
020	08	2241.8	1	3.5568	1	34.9839	1	5.977	1	259.7	1	3.3724	1	27.8369	1	2212.3	1	34.9859	1	5.944	1	258.4	1	6.9	1
020	09	1998.1	1	3.8478	1	34.9946	1	6.039	1	262.4	1	3.6826	1	27.8146	1	1973.0	1	34.9990	1	6.001	1	260.9	1	7.4	1
020	10	1798.4	1	4.4074	1	35.0613	1	5.884	1	255.7	1	4.2537	1	27.8080	1	1776.6	1	35.0658	1	5.860	1	254.7	1	7.8	1
020	11	1600.7	1	5.8009	1	35.2919	1	5.401	1	234.7	1	5.6493	1	27.8281	1	1582.0	1	35.2972	1	5.374	1	233.6	1	8.5	1
020	12	1400.7	1	6.7301	1	35.3790	1	5.151	1	223.8	1	6.5896	1	27.7742	1	1385.0	1	35.3788	1	5.125	1	222.8	1	9.3	1
020	13	1198.3	1	9.0937	1	35.7683	1	4.461	1	193.8	1	8.9540	1	27.7276	1	1185.5	1	35.7726	1	4.493	1	195.3	1	11.0	1
020	14	997.6	1	10.2796	1	35.8856	1	4.141	1	180.0	1	10.1560	1	27.6167	1	987.4	1	35.8843	1	4.166	1	181.1	1	11.5	1
020	15	800.1	1	10.7505	1	35.7731	1	4.134	1	179.7	1	10.6497	1	27.4414	1	792.3	1	35.7750	1	4.165	1	181.1	1	11.9	1
020	16	595.7	1	11.0296	1	35.5964	1	4.686	1	203.7	1	10.9542	1	27.2486	1	590.2	1	35.5968	1	4.628	1	201.2	1	12.0	1
020	17	498.5	1	11.2712	1	35.5707	1	5.144	1	223.7	1	11.2075	1	27.1820	1	494.0	1	35.5709	1	5.131	1	223.1	1	12.4	1
020	18	499.0	1	11.2730	1	35.5710	1	5.144	1	223.6	1	11.2093	1	27.1820	1	494.5	1	35.5725	1	-9.999	9	-9.9	9	-9.9	9
020	19	401.2	1	11.6533	1	35.6091	1	5.221	1	227.0	1	11.6012	1	27.1384	1	397.7	1	35.6109	1	5.208	1	226.5	1	12.6	1
020	20	299.3	1	12.1516	1	35.6749	1	5.260	1	228.7	1	12.1118	1	27.0919	1	296.7	1	35.6677	4	5.229	1	227.4	1	12.8	1
020	21	198.9	1	12.6661	1	35.7410	1	5.408	1	235.2	1	12.6390	1	27.0397	1	197.2	1	35.7430	1	5.491	1	238.8	1	13.4	1
020	22	98.2	1	13.6960	1	35.9115	1	5.465	1	237.7	1	13.6819	1	26.9589	1	97.4	1	35.9107	1	5.493	1	238.9	1	14.2	1
020	23	42.9	1	15.6964	1	35.9141	1	5.900	1	256.6	1	15.6897	1	26.5222	1	42.6	1	35.9156	1	5.934	1	258.2	1	15.9	1
020	24	5.4	1	17.9096	1	35.8944	1	5.565	1	242.2	1	17.9087	1	25.9799	1	5.4	1	35.8961	1	5.595	1	243.5	1	17.6	1
021	01	5068.7	1	2.5273	1	34.8993	1	5.553	1	241.3	1	2.0482	1	27.8872	1	4969.8	1	34.9005	1	-9.999	9	-9.9	9	4.8	1
021	02	4998.7	1	2.5200	1	34.8996	1	5.551	1	241.2	1	2.0501	1	27.8873	1	4901.9	1	34.9014	1	5.555	1	241.4	1	4.8	1
021	03	4501.6	1	2.4888	1	34.9032	1	5.552	1	241.2	1	2.0816	1	27.8876	1	4419.4	1	34.9029	1	5.570	1	242.1	1	4.9	1
021	04	3999.9	1	2.5220	1	34.9127	1	5.555	1	241.3	1	2.1731	1	27.8877	1	3931.3	1	34.9138	1	5.545	1	241.0	1	5.1	1
021	05	3497.9	1	2.6333	1	34.9281	1	5.592	1	243.0	1	2.3377	1	27.8864	1	3441.8	1	34.9272	1	5.594	1	243.1	1	5.3	1
021	06	3000.0	1	2.8485	1	34.9502	1	5.665	1	246.1	1	2.6010	1	27.8814	1	2955.3	1	34.9496	1	5.655	1	245.8	1	5.5	1
021	07	2498.5	1	3.2900	1	34.9830	1	5.790	1	251.6	1	3.0847	1	27.8637	1	2464.1	1	34.9827	1	-9.999	9	-9.9	9	5.8	1

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
022	16	700.7	1	11.0914	1	35.7239	1	4.220	1	183.5	1	11.0019	1	27.3392	1	694.0	1	35.7224	1	4.261	1	185.3	1	12.0	1
022	17	600.5	1	11.2180	1	35.6301	1	4.606	1	200.3	1	11.1411	1	27.2406	1	594.9	1	35.6287	1	4.611	1	200.5	1	12.1	1
022	18	500.6	1	11.5510	1	35.6278	1	5.067	1	220.3	1	11.4860	1	27.1747	1	496.0	1	35.6298	1	5.097	1	221.6	1	12.4	1
022	19	399.2	1	11.9407	1	35.6741	1	5.100	1	221.7	1	11.8880	1	27.1344	1	395.7	1	35.6741	1	5.115	1	222.4	1	12.7	1
022	20	300.9	1	12.2823	1	35.7099	1	5.115	1	222.4	1	12.2420	1	27.0938	1	298.3	1	35.7099	1	5.142	1	223.6	1	13.1	1
022	21	198.8	1	12.8594	1	35.7969	1	5.309	1	230.9	1	12.8320	1	27.0445	1	197.1	1	35.7973	1	5.325	1	231.6	1	13.5	1
022	22	99.6	1	13.5602	1	35.8933	1	5.437	1	236.5	1	13.5460	1	26.9732	1	98.8	1	35.8931	1	5.512	1	239.7	1	14.1	1
022	23	41.8	1	15.1967	1	35.9002	1	5.720	1	248.8	1	15.1903	1	26.6240	1	41.5	1	35.8993	1	5.795	1	252.1	1	15.5	1
022	24	5.0	1	17.5394	1	35.8291	1	5.634	1	245.2	1	17.5386	1	26.0208	1	5.0	1	35.8311	1	5.613	1	244.3	1	17.3	1
023	01	5218.2	1	2.5545	1	34.8999	1	5.567	1	241.9	1	2.0552	1	27.8871	1	5114.4	1	34.9010	1	5.548	1	241.1	1	5.0	1
023	02	5000.8	1	2.5285	1	34.9003	1	5.561	1	241.6	1	2.0580	1	27.8872	1	4903.7	1	34.8990	1	5.580	1	242.5	1	5.3	1
023	03	4499.7	1	2.4926	1	34.9035	1	5.558	1	241.5	1	2.0855	1	27.8875	1	4417.3	1	34.9037	1	5.573	1	242.2	1	5.1	1
023	04	4000.4	1	2.5252	1	34.9128	1	5.553	1	241.3	1	2.1761	1	27.8876	1	3931.5	1	34.9110	1	5.559	1	241.6	1	5.3	1
023	05	3500.6	1	2.6069	1	34.9254	1	5.600	1	243.3	1	2.3117	1	27.8864	1	3444.3	1	34.9251	1	5.581	1	242.6	1	5.4	1
023	06	3000.6	1	2.8149	1	34.9451	1	5.742	1	249.5	1	2.5680	1	27.8802	1	2955.7	1	34.9437	1	5.739	1	249.4	1	5.6	1
023	07	2499.3	1	3.1841	1	34.9639	1	5.909	1	256.7	1	2.9808	1	27.8581	1	2464.8	1	34.9636	1	5.884	1	255.7	1	5.8	1
023	08	2249.3	1	3.3904	1	34.9582	1	6.080	1	264.2	1	3.2081	1	27.8322	1	2219.5	1	34.9571	1	6.095	1	264.9	1	6.1	1
023	09	1999.3	1	3.5917	1	34.9485	1	6.176	1	268.3	1	3.4304	1	27.8030	1	1974.0	1	34.9471	1	6.147	1	267.2	1	6.3	1
023	10	1798.8	1	4.0304	1	34.9964	1	6.002	1	260.8	1	3.8819	1	27.7957	1	1776.8	1	35.0002	1	5.997	1	260.7	1	6.5	1
023	11	1598.8	1	4.7971	1	35.1051	1	5.698	1	247.6	1	4.6580	1	27.7980	1	1580.0	1	35.1056	1	5.757	1	250.2	1	7.1	1
023	12	1399.9	1	6.1004	1	35.9218	1	5.200	1	226.0	1	5.9666	1	27.7877	1	1384.1	1	35.2909	1	5.320	4	231.2	4	8.0	1
023	13	1200.6	1	7.9816	1	35.5714	1	4.730	1	205.5	1	7.8515	1	27.7453	1	1187.6	1	35.5666	1	4.759	1	206.8	1	9.3	1
023	14	998.1	1	9.2857	1	35.7034	1	4.356	1	189.3	1	9.1693	1	27.6416	1	987.8	1	35.7022	1	4.359	1	189.5	1	10.3	1
023	15	799.7	1	10.0139	1	35.6373	1	4.225	1	183.6	1	9.9175	1	27.4641	1	791.8	1	35.6345	1	4.224	1	183.6	1	10.9	1
023	16	701.0	1	10.3583	1	35.5653	1	4.342	1	188.8	1	10.2725	1	27.3462	1	694.3	1	35.5651	1	4.339	1	188.7	1	11.2	1
023	17	598.8	1	10.8706	1	35.5512	1	4.709	1	204.7	1	10.7955	1	27.2421	1	593.2	1	35.5653	4	4.745	1	206.3	1	11.7	1
023	18	499.0	1	11.2241	1	35.5588	1	5.110	1	222.2	1	11.1605	1	27.1815	1	494.4	1	35.5528	4	5.094	1	221.5	1	11.9	1
023	19	400.0	1	11.6825	1	35.6231	1	5.209	1	226.5	1	11.6304	1	27.1438	1	396.4	1	35.5575	4	5.182	1	225.4	1	12.4	1
023	20	302.1	1	12.0979	1	35.6702	1	5.421	1	235.7	1	12.0578	1	27.0987	1	299.5	1	35.6199	4	5.373	1	233.7	1	12.7	1
023	21	199.8	1	12.5530	1	35.7299	1	5.491	1	238.8	1	12.5259	1	27.0535	1	198.1	1	35.7397	4	-9.999	9	-9.9	9	-9.9	9
023	22	100.2	1	13.1490	1	35.8054	1	5.613	1	244.1	1	13.1351	1	26.9897	1	99.4	1	35.8028	1	5.578	1	242.6	1	13.6	1
023	23	39.5	1	14.7898	1	35.7522	1	5.715	1	248.6	1	14.7839	1	26.5997	1	39.2	1	35.7550	1	5.685	1	247.3	1	14.9	1
023	24	6.9	1	16.9899	1	35.7651	1	5.664	1	246.5	1	16.9888	1	26.1044	1	6.8	1	35.7657	1	5.642	1	245.5	1	16.7	1
024	01	4235.8	1	2.5305	1	34.9100	1	5.535	1	240.5	1	2.1538	1	27.8872	1	4160.6	1	34.9082	1	5.530	1	240.4	1	5.6	1
024	02	4000.6	1	2.5657	1	34.9161	1	5.543	1	240.8	1	2.2155	1	27.8870	1	3931.6	1	34.9160	1	5.538	1	240.7	1	5.6	1
024	03	3500.6	1	2.6214	1	34.9260	1	5.601	1	243.4	1	2.3258	1	27.8857	1	3444.2	1	34.9249	1	5.603	1	243.5	1	5.8	1
024	04	3000.9	1	2.8498	1	34.9462	1	5.776	1	251.0	1	2.6021	1	27.8781	1	2955.9	1	34.9461	1	5.769	1	250.7	1	6.1	1
024	05	2499.9	1	3.1807	1	34.9460	1	6.083	1	264.3	1	2.9774	1	27.8441	1	2465.3	1	34.9451	1	6.036	1	262.4	1	6.3	1
024	06	2249.6	1	3.4538	1	34.9578	1	6.092	1	264.7	1	3.2704	1	27.8259	1	2219.7	1	34.9582	1	6.054	1	263.1	1	6.4	1
024	07	1999.6	1	3.8054	1	34.9752	1	6.076	1	264.0	1	3.6408	1	27.8034	1	1974.2	1	34.9741	1	6.027	1	262.0	1	6.9	1
024	08	1800.5	1	4.2609	1	35.0279	1	5.941	1	258.1	1	4.1090	1	27.7969	1	1778.5	1	35.0289	1	5.893	1	256.2	1	7.2	1
024	09	1600.8	1	4.50985	1	35.1439	1	5.689	1	247.2	1	4.9555	1	27.7946	1	1582.0	1	35.1456	1	5.640	1	245.2	1	7.9	1
024	10	1400.1	1	4.8472	1	35.2232	1	5.409	1	235.1	1	5.7162	1	27.7653	1	1384.3	1	35.2225	1	5.392	1	234.4	1	8.3	1
024	11	1200.5	1	5.1644	1	35.5930	1	4.766	1	207.1	1	8.0327	1	27.7349	1	1187.5	1	35.5934	1	4.680	1	203.4	1	9.8	1
024	12	1099.3	1	5.8670	1	35.6475	1	4.462	1	193.9	1	8.7415	1	27.6671	1	1087.7	1	35.6477	1	4.455	1	193.7	1	10.3	1
024	13	1000.9	1	6.93820	1	35.6801	1	4.287	1	186.3	1	9.2646	1	27.6076	1	990.5	1	35.6812	1	4.326	1	188.1	1	10.7	1
024	14	900.9	1	8.9356	1	35.6807	1	4.207	1	182.8	1	9.8269	1	27.5135	1	891.8	1	35.6792	1	4.203	1	182.7	1	11.0	1
024	15	800.6	1	10.4672	1	35.6325	1	4.198	1	182.5	1	10.3681	1	27.3818	1	792.7	1	35.6311	1	4.210	1	183.0	1	11.5	1
024	16	699.9	1	10.8514	1	35.5733	1	4.428	1	192.5	1	10.7633	1	27.2652	1	693.1	1	35.5718	1	4.447	1	193.4	1	11.7	1
024	17	600.0	1	11.2576	1	35.5803	1	4.936	1	214.6	1	11.1807	1	27.1945	1	594.4	1	35.5784	1	4.914	1	213.7	1	12.1	1
024	18	500.5	1	11.6154	1	35.6169	1	5.115	1	222.4	1	11.5502	1	27.1541	1	495.9	1	35.6168	1	5.103	1	221.9	1	12.4	1
024	19	401.0	1	12.0047	1	35.6628	1	5.133	1	223.2	1	11.9516	1	27.1135	1	397.4	1	35.6610	1	5.145	1	223.7	1	12.7	1
024	20	301.0	1	12.3136	1	35.6832	1	5.214	1	226.7	1	12.2732	1	27.0670	1	298.4	1	35.6820	1	5.294	1	230.2	1	12.9	1
024	21	201.2	1	12.8555	1	35.7570	1	5.461	1	237.5	1	12.8278	1	27.0144	1	199.5	1	35.7551	1	5.512	1	239.7	1	13.4	1
024	22	99.9	1	13.4753	1	35.8451	1	5.543	1	241.1	1	13.4612	1	26.9534	1	99.1	1	35.8438	1	5.525	1	240.3	1	13.9	1</

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
026	07	2000.0	1	3.9536	1	34.9963	1	6.014	1	261.3	1	3.7867	1	27.8054	1	1974.5	1	34.9954	1	6.003	1	260.9	1	7.0	1
026	08	1800.8	1	4.5586	1	35.0676	1	5.831	1	253.4	1	4.4026	1	27.7967	1	1778.7	1	35.0672	1	5.869	1	255.1	1	7.2	1
026	09	1596.1	1	4.9147	1	35.0858	1	5.674	1	246.5	1	4.7745	1	27.7695	1	1577.2	1	35.0887	1	5.736	1	249.3	1	7.8	1
026	10	1398.0	1	6.2698	1	35.2819	1	5.224	1	227.0	1	6.1345	1	27.7581	1	1382.1	1	35.2838	1	5.243	1	227.9	1	8.6	1
026	11	1198.7	1	8.0511	1	35.5364	1	4.625	1	201.0	1	7.9207	1	27.7073	1	1185.7	1	35.5367	1	4.681	1	203.5	1	9.8	1
026	12	1100.7	1	9.0291	1	35.6741	1	4.388	1	190.7	1	8.9021	1	27.6622	1	1089.0	1	35.6715	1	4.445	1	193.2	1	10.4	1
026	13	999.4	1	9.9380	1	35.7491	1	4.237	1	184.1	1	9.8167	1	27.5687	1	989.0	1	35.7494	1	4.222	1	183.5	1	11.0	1
026	14	900.3	1	10.3761	1	35.7385	1	4.179	1	181.6	1	10.2646	1	27.4828	1	891.1	1	35.7356	1	4.182	1	181.8	1	11.4	1
026	15	800.7	1	10.3785	1	35.5896	1	4.286	1	186.3	1	10.2799	1	27.3639	1	792.7	1	35.5887	1	4.285	1	186.3	1	11.4	1
026	16	700.9	1	10.8680	1	35.5816	1	4.539	1	197.3	1	10.7797	1	27.2687	1	694.1	1	35.5807	1	4.455	1	193.7	1	11.8	1
026	17	597.9	1	11.2053	1	35.5793	1	5.002	1	217.5	1	11.1289	1	27.2032	1	592.2	1	35.5793	1	4.950	1	215.2	1	12.1	1
026	18	501.2	1	11.5885	1	35.6190	1	5.172	1	224.9	1	11.5233	1	27.1608	1	496.6	1	35.6180	1	5.190	1	225.7	1	12.4	1
026	19	400.2	1	11.9773	1	35.6596	1	5.140	1	223.5	1	11.9244	1	27.1162	1	396.6	1	35.6560	1	5.158	1	224.3	1	12.8	1
026	20	300.7	1	12.4631	1	35.7152	1	5.203	1	226.2	1	12.4224	1	27.0625	1	298.1	1	35.7143	1	5.179	1	225.2	1	13.3	1
026	21	197.9	1	12.9457	1	35.7633	1	5.542	1	241.0	1	12.9184	1	27.0010	1	196.2	1	35.7598	1	5.525	1	240.3	1	13.6	1
026	22	98.3	1	13.8115	1	35.9206	1	5.526	1	240.3	1	13.7974	1	26.9417	1	97.5	1	35.9211	1	5.541	1	241.0	1	14.4	1
026	23	38.1	1	16.6043	1	35.8408	1	5.513	1	239.9	1	16.5981	1	26.2553	1	37.8	1	35.8460	4	5.524	1	240.4	1	16.7	1
026	24	6.0	1	17.6248	1	35.8672	1	5.530	1	240.7	1	17.6238	1	26.0292	1	6.0	1	35.8670	1	5.557	1	241.9	1	17.4	1
027	01	5003.0	1	2.6591	1	34.9129	1	5.495	1	238.8	1	2.1839	1	27.8870	1	4905.3	1	34.9165	1	5.485	1	238.4	1	5.2	1
027	02	4502.3	1	2.5999	1	34.9137	1	5.492	1	238.6	1	2.1892	1	27.8872	1	4419.3	1	34.9138	1	5.492	1	238.7	1	5.2	1
027	03	3999.3	1	2.5753	1	34.9173	1	5.518	1	239.7	1	2.2249	1	27.8871	1	3930.0	1	34.9188	1	5.529	1	240.3	1	5.3	1
027	04	3498.7	1	2.6350	1	34.9275	1	5.621	1	244.2	1	2.3393	1	27.8857	1	3442.0	1	34.9274	1	5.625	1	244.5	1	5.4	1
027	05	3245.6	1	2.7491	1	34.9379	1	5.738	1	249.3	1	2.4779	1	27.8822	1	3194.9	1	34.9401	1	5.733	1	249.2	1	5.7	1
027	06	2997.2	1	2.9026	1	34.9493	1	5.784	1	251.3	1	2.6542	1	27.8760	1	2952.0	1	34.9475	1	5.777	1	251.1	1	5.7	1
027	07	2500.0	1	3.2207	1	34.9442	1	6.141	1	266.8	1	3.0167	1	27.8391	1	2465.2	1	34.9443	1	6.089	1	264.7	1	6.1	1
027	08	2244.6	1	3.3440	1	34.9218	1	6.270	1	272.4	1	3.1631	1	27.8075	1	2214.6	1	34.9217	1	6.239	1	271.2	1	6.2	1
027	09	1995.0	1	3.5983	1	34.9325	1	6.218	1	270.2	1	3.4373	1	27.7896	1	1969.5	1	34.9319	1	6.196	1	269.3	1	6.4	1
027	10	1799.0	1	3.9649	1	34.9746	1	6.088	1	264.5	1	3.8173	1	27.7850	1	1776.8	1	34.9780	1	6.050	1	263.0	1	6.6	1
027	11	1598.6	1	4.5052	1	35.0382	1	5.836	1	253.6	1	4.3697	1	27.7770	1	1579.7	1	35.0390	1	5.881	1	255.6	1	7.1	1
027	12	1399.9	1	6.5928	1	35.3867	1	5.160	1	224.2	1	6.4538	1	27.7986	1	1384.0	1	35.3867	1	5.153	1	224.0	1	8.4	1
027	13	1200.6	1	7.0155	1	35.3639	1	4.947	1	215.0	1	6.8942	1	27.7204	1	1187.5	1	35.3631	1	4.958	1	215.5	1	8.8	1
027	14	1030.1	1	8.6964	1	35.5834	1	4.443	1	193.1	1	8.5806	1	27.6424	1	1019.3	1	35.5861	1	4.482	1	194.8	1	10.0	1
027	15	799.7	1	9.7686	1	35.5257	1	4.211	1	183.0	1	9.6737	1	27.4184	1	791.7	1	35.5266	1	4.210	1	183.0	1	10.8	1
027	16	701.3	1	10.2234	1	35.4791	1	4.298	1	186.9	1	10.1383	1	27.3023	1	694.5	1	35.4727	4	4.276	1	185.9	1	11.1	1
027	17	601.6	1	10.6912	1	35.4864	1	4.638	1	201.6	1	10.6166	1	27.2237	1	595.9	1	35.4865	1	4.599	1	200.0	1	11.5	1
027	18	502.0	1	11.4013	1	35.5624	1	4.919	1	213.9	1	11.3367	1	27.1516	1	497.4	1	35.5601	1	4.879	1	212.2	1	12.1	1
027	19	401.1	1	11.9069	1	35.6133	1	5.074	1	220.6	1	11.8541	1	27.0937	1	397.5	1	35.6156	1	5.013	1	218.0	1	12.5	1
027	20	300.6	1	12.3898	1	35.6740	1	5.096	1	221.6	1	12.3493	1	27.0449	1	298.0	1	35.6743	1	5.069	1	220.4	1	12.8	1
027	21	201.3	1	13.0443	1	35.7484	1	5.357	1	232.9	1	13.0163	1	26.9697	1	199.6	1	35.7498	1	5.202	4	226.2	4	13.5	1
027	22	100.2	1	13.5498	1	35.7705	1	5.472	1	238.0	1	13.5356	1	26.8803	1	99.4	1	35.7705	1	5.386	1	234.3	1	13.9	1
027	23	36.2	1	15.1918	1	35.8968	1	5.649	1	245.7	1	15.1863	1	26.6223	1	35.9	1	35.8956	1	5.729	1	249.2	1	15.3	1
027	24	5.2	1	17.2157	1	35.7991	1	5.610	1	244.2	1	17.2148	1	26.0762	1	5.2	1	35.7998	1	5.606	1	244.0	1	16.8	1
028	01	4906.6	1	2.6437	1	34.9125	1	5.487	1	238.4	1	2.1813	1	27.8869	1	4811.7	1	-9.9999	9	5.488	1	238.5	1	5.4	1
028	02	4498.3	1	2.5941	1	34.9130	1	5.491	1	238.6	1	2.1840	1	27.8871	1	4415.3	1	34.9142	1	5.474	1	237.9	1	5.5	1
028	03	4000.7	1	2.5696	1	34.9168	1	5.517	1	239.7	1	2.2192	1	27.8872	1	3931.3	1	34.9166	1	5.519	1	239.9	1	5.6	1
028	04	3501.1	1	2.6382	1	34.9279	1	5.625	1	244.4	1	2.3421	1	27.8858	1	3444.3	1	34.9280	1	5.594	1	243.1	1	5.7	1
028	05	3248.6	1	2.7141	1	34.9359	1	5.723	1	248.7	1	2.4434	1	27.8836	1	3197.7	1	34.9348	1	5.674	1	246.6	1	5.6	1
028	06	2998.6	1	2.8392	1	34.9450	1	5.805	1	252.2	1	2.5920	1	27.8780	1	2953.3	1	34.9442	1	5.777	1	251.1	1	5.9	1
028	07	2501.1	1	3.2037	1	34.9480	1	6.108	1	265.4	1	2.9999	1	27.8436	1	2466.2	1	34.9470	1	6.039	1	262.5	1	6.2	1
028	08	2251.0	1	3.3077	1	34.9244	1	6.272	1	272.5	1	3.1267	1	27.8130	1	2220.9	1	34.9239	1	6.228	1	270.7	1	6.1	1
028	09	1999.9	1	3.5921	1	34.9350	1	6.208	1	269.7	1	3.4307	1	27.7922	1	1974.3	1	34.9367	1	6.175	1	268.4	1	6.5	1
028	10	1800.6	1	4.0012	1	34.9750	1	6.067	1	263.6	1	3.8529	1	27.7816	1	1778.4	1	34.9743	1	6.039	1	262.5	1	7.4	1
028	11	1597.4	1	4.4601	1	35.0260	1	5.986	1	260.1	1	4.3253	1	27.7721	1	1578.4	1	35.0258	1	5.888	4	255.9	4	7.0	1
028	12	1398.8	1	5.6064	1	35.1870	1	5.628	1	244.6	1	5.4781	1	27.7662	1	1382.8	1	35.1879	1	5.488	4	238.6	4	8.1	1
028	13	1198.1	1	6.5922	1	35.2860	1	5.245	1	227.9	1	6.4750	1	27.7163	1	1185.0	1	35.2827	1	5.094	4	221.4	4	8.7	1

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
029	22	99.8	1	12.9733	1	35.6857	1	5.638	1	245.2	1	12.9596	1	26.9325	1	99.0	1	35.6873	1	5.549	1	241.3	1	13.6	1
029	23	25.5	1	16.0150	1	35.6482	1	5.642	1	245.5	1	16.0110	1	26.2439	1	25.3	1	35.6492	1	5.652	1	246.0	1	16.0	1
029	24	5.3	1	16.1218	1	35.6512	1	5.748	1	250.2	1	16.1210	1	26.2208	1	5.3	1	35.6517	1	5.700	1	248.1	1	16.1	1
030	01	4642.1	1	2.5959	1	34.9114	1	5.484	1	238.3	1	2.1682	1	27.8871	1	4554.7	1	34.9105	1	5.505	1	239.3	1	5.7	1
030	02	4396.9	1	2.5856	1	34.9135	1	5.489	1	238.5	1	2.1881	1	27.8871	1	4316.5	1	34.9112	1	5.511	1	239.5	1	5.8	1
030	03	3998.5	1	2.5860	1	34.9182	1	5.527	1	240.1	1	2.2354	1	27.8870	1	3928.9	1	34.9194	1	5.556	1	241.5	1	5.9	1
030	04	3499.4	1	2.6928	1	34.9322	1	5.701	1	247.7	1	2.3956	1	27.8847	1	3442.4	1	34.9312	1	5.702	1	247.8	1	5.8	1
030	05	3248.1	1	2.8132	1	34.9418	1	5.829	1	253.3	1	2.5403	1	27.8800	1	3197.0	1	34.9430	1	5.812	1	252.6	1	5.8	1
030	06	2999.0	1	2.9566	1	34.9468	1	5.939	1	258.0	1	2.7068	1	27.8693	1	2953.5	1	34.9448	1	5.923	1	257.5	1	6.6	1
030	07	2501.1	1	3.2684	1	34.9334	1	6.202	1	269.5	1	3.0635	1	27.8261	1	2466.0	1	34.9338	1	6.201	1	269.5	1	6.4	1
030	08	2246.1	1	3.4918	1	34.9294	1	6.252	1	271.7	1	3.3082	1	27.7997	1	2215.9	1	34.9337	1	6.240	1	271.2	1	6.4	1
030	09	1999.3	1	3.7148	1	34.9327	1	6.219	1	270.2	1	3.5517	1	27.7785	1	1973.6	1	34.9333	1	6.175	1	268.4	1	6.7	1
030	10	1792.6	1	3.9876	1	34.9539	1	6.157	1	267.5	1	3.8403	1	27.7661	1	1770.4	1	34.9544	1	6.111	1	265.6	1	7.0	1
030	11	1596.2	1	4.2008	1	34.9564	1	6.062	1	263.4	1	4.0694	1	27.7442	1	1577.1	1	35.0014	4	-9.999	9	-9.9	9	7.7	1
030	12	1401.1	1	4.7319	1	35.0030	1	5.841	1	253.8	1	4.6128	1	27.7220	1	1385.0	1	35.0046	1	5.829	1	253.4	1	8.4	1
030	13	1198.7	1	6.4884	1	35.2451	1	5.093	1	221.3	1	6.3721	1	27.6978	1	1185.5	1	35.2445	1	5.134	1	223.2	1	9.7	1
030	14	999.5	1	8.2325	1	35.4047	1	4.392	1	190.9	1	8.1239	1	27.5730	1	989.0	1	35.4064	1	4.522	4	196.6	4	10.2	1
030	15	899.1	1	9.4979	1	35.5379	1	4.228	1	183.8	1	9.3924	1	27.4751	1	889.8	1	35.5333	1	4.254	1	185.0	1	11.0	1
030	16	799.8	1	10.0082	1	35.4896	1	4.316	1	187.6	1	9.9120	1	27.3496	1	791.7	1	35.4893	1	4.278	1	186.0	1	11.5	1
030	17	595.9	1	11.0716	1	35.5118	1	5.211	1	226.6	1	10.9961	1	27.1750	1	590.2	1	35.5099	1	5.075	4	220.7	4	12.2	1
030	18	500.2	1	11.6962	1	35.6072	1	5.273	1	229.3	1	11.6308	1	27.1314	1	495.5	1	35.6019	4	5.248	1	228.2	1	12.8	1
030	19	380.3	1	12.1286	1	35.6541	1	5.235	1	227.6	1	12.0779	1	27.0823	1	376.9	1	35.6567	1	5.222	1	227.1	1	13.0	1
030	20	302.0	1	12.5317	1	35.7045	1	5.363	1	233.2	1	12.4907	1	27.0408	1	299.3	1	35.7026	1	5.427	1	236.0	1	13.3	1
030	21	202.0	1	13.0409	1	35.7749	1	5.555	1	241.6	1	13.0128	1	26.9909	1	200.3	1	35.7740	1	5.603	1	243.7	1	13.8	1
030	22	102.0	1	13.3880	1	35.7483	1	5.481	1	238.3	1	13.3736	1	26.8966	1	101.1	1	35.7474	1	5.351	4	232.7	4	14.1	1
030	23	45.9	1	15.1178	1	35.7590	1	5.527	1	240.4	1	15.1108	1	26.5328	1	45.5	1	35.7527	4	5.525	1	240.4	1	15.5	1
030	24	5.3	1	16.1828	1	35.7009	1	5.708	1	248.4	1	16.1820	1	26.2449	1	5.3	1	35.7018	1	5.667	1	246.6	1	16.3	1
031	01	4592.6	1	2.6070	1	34.9130	1	5.494	1	238.7	1	2.1850	1	27.8870	1	4506.4	1	34.9112	1	5.486	1	238.4	1	5.3	1
031	02	3994.7	1	2.5981	1	34.9192	1	5.546	1	241.0	1	2.2476	1	27.8868	1	3925.0	1	34.9172	1	5.566	1	241.9	1	5.3	1
031	03	3501.0	1	2.7262	1	34.9348	1	5.711	1	248.1	1	2.4279	1	27.8841	1	3443.8	1	34.9330	1	5.697	1	247.6	1	5.4	1
031	04	3249.9	1	2.8509	1	34.9430	1	5.852	1	254.3	1	2.5769	1	27.8777	1	3198.7	1	34.9408	1	5.857	1	254.6	1	5.6	1
031	05	2999.8	1	3.0114	1	34.9442	1	5.978	1	259.7	1	2.7604	1	27.8625	1	2954.2	1	34.9444	1	6.031	1	262.1	1	5.8	1
031	06	2750.5	1	3.2053	1	34.9401	1	6.135	1	266.6	1	2.9762	1	27.8395	1	2710.3	1	34.9404	1	6.113	1	265.7	1	5.9	1
031	07	2498.6	1	3.3853	1	34.9333	1	6.192	1	269.1	1	3.1785	1	27.8152	1	2463.5	1	34.9333	1	6.178	1	268.5	1	6.1	1
031	08	2251.2	1	3.6729	1	34.9518	1	6.154	1	267.4	1	3.4858	1	27.8002	1	2220.8	1	34.9523	1	6.142	1	267.0	1	6.3	1
031	09	1998.6	1	3.7702	1	34.9274	1	6.207	1	269.7	1	3.6064	1	27.7688	1	1972.8	1	34.9275	1	6.188	1	269.0	1	6.4	1
031	10	1800.0	1	3.9749	1	34.9388	1	6.171	1	268.1	1	3.8272	1	27.7555	1	1777.6	1	34.9419	1	6.131	1	266.5	1	6.7	1
031	11	1599.7	1	4.3779	1	34.9824	1	5.975	1	259.6	1	4.2440	1	27.7463	1	1580.5	1	34.9824	1	5.986	1	260.2	1	7.0	1
031	12	1400.4	1	5.3168	1	35.0923	1	5.540	1	240.7	1	5.1915	1	27.7259	1	1384.3	1	35.0879	1	5.579	1	242.5	1	7.6	1
031	13	1200.8	1	6.8877	1	35.2830	1	4.856	1	211.0	1	6.7676	1	27.6741	1	1187.5	1	35.2843	1	4.960	4	215.6	4	8.8	1
031	14	999.0	1	9.2074	1	35.5285	1	4.289	1	186.4	1	9.0917	1	27.5173	1	988.4	1	35.5287	1	4.288	1	186.4	1	10.3	1
031	15	899.8	1	9.4896	1	35.4367	1	4.238	1	184.2	1	9.3842	1	27.3973	1	890.5	1	35.4365	1	4.247	1	184.6	1	10.6	1
031	16	799.4	1	10.4626	1	35.4914	1	4.429	1	192.5	1	10.3638	1	27.2725	1	791.3	1	35.4907	1	4.559	4	198.2	4	11.3	1
031	17	598.2	1	11.5157	1	35.6005	1	5.319	1	231.3	1	11.4379	1	27.1624	1	592.4	1	35.5996	1	5.290	1	230.0	1	12.1	1
031	18	500.4	1	11.8689	1	35.6377	1	5.288	1	229.9	1	11.8028	1	27.1224	1	495.7	1	35.6381	1	5.268	1	229.1	1	12.5	1
031	19	399.1	1	12.2341	1	35.6786	1	5.353	1	232.8	1	12.1806	1	27.0815	1	395.4	1	35.6789	1	5.400	1	234.8	1	12.8	1
031	20	301.4	1	12.3417	1	35.6633	1	5.378	1	233.9	1	12.3012	1	27.0460	1	298.7	1	35.6629	1	5.374	1	233.7	1	12.8	1
031	21	199.0	1	12.8141	1	35.7214	1	5.635	1	245.0	1	12.7868	1	26.9950	1	197.3	1	35.7206	1	5.650	1	245.7	1	13.3	1
031	22	102.0	1	12.9507	1	35.7015	1	5.650	1	245.7	1	12.9367	1	26.9494	1	101.1	1	35.7011	1	5.595	1	243.3	1	13.5	1
031	23	39.4	1	15.5278	1	35.7099	1	5.574	1	242.5	1	15.5217	1	26.4029	1	39.1	1	35.7116	1	5.551	1	241.5	1	15.5	1
031	24	5.9	1	16.1883	1	35.7211	1	5.674	1	246.9	1	16.1874	1	26.2592	1	5.9	1	35.7217	1	5.633	1	245.1	1	16.1	1
032	01	4682.8	1	2.6005	1	34.9114	1	5.485	1	238.3	1	2.1676	1	27.8871	1	4593.9	1	34.9101	1	5.539	1	240.7	1	5.8	1
032	02	3999.4	1	2.5888	1	34.9185	1	5.534	1	240.4	1	2.2380	1	27.8870	1	3929.5	1	34.9162	1	5.558	1	241.6	1	5.8	1
032	03	3500.4	1	2.7346	1	34.9355	1	5.716	1	248.4	1	2.4362	1	27.8839	1	3443.1	1	34.9334	1	5.723	1	248.7	1	6.1	1
032	04	3250.8	1	2.8713	1	34.9441	1	5.862	1	254.7	1	2.5967	1	27.8769	1	3199.4	1	34.9447	1	5.878	1	255.5	1	5.0	1
032</																									



Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
033	13	1201.1	1	5.4147	1	35.0825	1	5.476	1	237.9	1	5.3081	1	27.7042	1	1187.8	1	35.0778	1	5.556	1	241.5	1	7.2	1
033	14	999.2	1	7.5583	1	35.3375	1	4.588	1	199.4	1	7.4547	1	27.6199	1	988.6	1	35.3363	1	4.748	4	206.4	4	8.8	1
033	15	886.0	1	8.7249	1	35.4404	1	4.329	1	188.1	1	8.6260	1	27.5230	1	876.8	1	35.4409	1	4.376	1	190.2	1	9.7	1
033	16	802.2	1	9.0974	1	35.3832	1	4.233	1	184.0	1	9.0062	1	27.4174	1	794.0	1	35.3786	1	4.294	1	186.7	1	10.1	1
033	17	599.9	1	10.5486	1	35.3980	1	4.867	1	211.6	1	10.4749	1	27.1800	1	594.1	1	35.3925	4	4.618	4	200.8	4	11.2	1
033	18	501.3	1	11.6160	1	35.5843	1	5.242	1	227.9	1	11.5507	1	27.1286	1	496.6	1	35.5818	1	5.253	1	228.4	1	12.1	1
033	19	401.3	1	12.0318	1	35.6326	1	5.404	1	235.0	1	11.9786	1	27.0848	1	397.6	1	35.6298	1	5.380	1	234.0	1	12.4	1
033	20	300.9	1	12.3151	1	35.6464	1	5.367	1	233.4	1	12.2747	1	27.0381	1	298.2	1	35.6439	1	5.412	1	235.4	1	12.7	1
033	21	200.7	1	12.7967	1	35.7023	1	5.644	1	245.4	1	12.7692	1	26.9837	1	198.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
033	22	101.0	1	12.8511	1	35.6545	1	5.541	1	241.0	1	12.8373	1	26.9330	1	100.1	1	35.6538	1	5.559	1	241.8	1	13.2	1
033	23	33.5	1	15.5163	1	35.5949	1	5.754	1	250.4	1	15.5111	1	26.3167	1	33.2	1	35.5962	1	5.750	1	250.2	1	15.4	1
033	24	4.8	1	15.5975	1	35.6007	1	5.808	1	252.7	1	15.5968	1	26.3018	1	4.8	1	35.6002	1	5.812	1	252.9	1	15.5	1
034	01	4571.7	1	2.5793	1	34.9107	1	5.486	1	238.3	1	2.1607	1	27.8871	1	4485.7	1	34.9106	1	5.514	1	239.6	1	5.3	1
034	02	4001.1	1	2.5572	1	34.9155	1	5.510	1	239.4	1	2.2071	1	27.8872	1	3930.9	1	34.9144	1	5.505	1	239.2	1	5.0	1
034	03	3499.7	1	2.6367	1	34.9275	1	5.636	1	244.9	1	2.3408	1	27.8856	1	3442.2	1	34.9268	1	5.656	1	245.8	1	5.3	1
034	04	3250.1	1	2.7427	1	34.9377	1	5.751	1	249.9	1	2.4712	1	27.8827	1	3198.5	1	34.9365	1	5.738	1	249.4	1	5.2	1
034	05	2999.8	1	2.8903	1	34.9457	1	5.906	1	256.6	1	2.6419	1	27.8742	1	2953.9	1	34.9444	1	5.885	1	255.8	1	5.6	1
034	06	2750.7	1	3.0454	1	34.9435	1	6.059	1	263.3	1	2.8195	1	27.8566	1	2710.2	1	34.9424	1	6.063	1	263.5	1	5.8	1
034	07	2501.3	1	3.1754	1	34.9261	1	6.264	1	272.2	1	2.9722	1	27.8287	1	2465.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
034	08	2249.6	1	3.3359	1	34.9149	1	6.305	1	274.0	1	3.1546	1	27.8027	1	2219.0	1	34.9061	4	6.301	1	273.9	1	6.1	1
034	09	2000.8	1	3.5339	1	34.9157	1	6.277	1	272.7	1	3.3734	1	27.7824	1	1974.8	1	34.9152	1	6.258	1	272.0	1	6.1	1
034	10	1800.9	1	3.7116	1	34.9209	1	6.243	1	271.3	1	3.5674	1	27.7675	1	1778.3	1	34.9329	4	6.153	1	267.4	1	6.3	1
034	11	1601.2	1	3.9842	1	34.9406	1	6.204	1	269.6	1	3.8550	1	27.7540	1	1581.8	1	34.9425	1	6.126	1	266.3	1	6.6	1
034	12	1399.8	1	4.5685	1	35.0077	1	5.989	1	260.2	1	4.4513	1	27.7438	1	1383.5	1	35.0076	1	5.883	4	255.7	4	7.0	1
034	13	1201.1	1	5.3658	1	35.1000	1	5.641	1	245.1	1	5.2596	1	27.7239	1	1187.7	1	35.1012	1	5.526	4	240.2	4	7.7	1
034	14	999.9	1	7.1468	1	35.3456	1	4.929	1	214.2	1	7.0461	1	27.6847	1	989.2	1	35.3503	1	4.893	1	212.7	1	8.7	1
034	15	900.1	1	7.6964	1	35.3241	1	4.580	1	199.0	1	7.6028	1	27.5877	1	890.7	1	35.3204	1	4.622	1	200.9	1	9.3	1
034	16	800.3	1	8.6236	1	35.3777	1	4.361	1	189.5	1	8.5354	1	27.4881	1	792.1	1	35.3961	4	4.386	1	190.7	1	10.0	1
034	17	601.6	1	10.4596	1	35.4723	1	4.776	1	207.6	1	10.3860	1	27.2537	1	595.7	1	35.4713	1	4.893	4	212.8	4	11.4	1
034	18	501.2	1	10.9599	1	35.5069	1	5.247	1	228.1	1	10.8970	1	27.1892	1	496.4	1	35.5065	1	5.389	4	234.3	4	11.8	1
034	19	400.5	1	11.5004	1	35.5781	1	5.521	1	240.1	1	11.4488	1	27.1429	1	396.8	1	35.5748	1	5.162	4	224.5	4	12.2	1
034	20	301.0	1	11.9755	1	35.6256	1	5.237	1	227.7	1	11.9359	1	27.0876	1	298.3	1	35.6245	1	5.378	4	233.9	4	12.7	1
034	21	202.8	1	12.0252	1	35.5810	1	5.395	1	234.6	1	11.9985	1	27.0408	1	201.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
034	22	100.9	1	12.5904	1	35.6288	1	5.502	1	239.3	1	12.5768	1	26.9650	1	100.0	1	35.6261	1	5.572	1	242.3	1	13.2	1
034	23	37.5	1	15.3456	1	35.5412	1	5.574	1	242.5	1	15.3398	1	26.3138	1	37.2	1	35.5407	1	5.791	4	252.0	4	15.4	1
034	24	6.2	1	15.5208	1	35.5401	1	5.788	1	251.9	1	15.5198	1	26.2725	1	6.1	1	35.5386	1	5.784	1	251.7	1	15.5	1
035	01	4585.1	1	2.5525	1	34.9080	1	5.526	1	240.1	1	2.1331	1	27.8872	1	4498.5	1	34.9086	1	5.549	1	241.1	1	4.6	1
035	02	4002.4	1	2.5473	1	34.9145	1	5.537	1	240.6	1	2.1974	1	27.8872	1	3932.0	1	34.9144	1	5.538	1	240.7	1	4.8	1
035	03	3502.2	1	2.6289	1	34.9269	1	5.655	1	245.7	1	2.3330	1	27.8858	1	3444.5	1	34.9279	1	5.662	1	246.1	1	4.8	1
035	04	3247.5	1	2.7374	1	34.9374	1	5.778	1	251.1	1	2.4663	1	27.8828	1	3195.9	1	34.9415	1	5.779	1	251.1	1	4.9	1
035	05	3000.6	1	2.8650	1	34.9445	1	5.928	1	257.6	1	2.6171	1	27.8754	1	2954.6	1	34.9456	1	-9.999	9	-9.9	9	5.1	1
035	06	2751.2	1	2.9864	1	34.9411	1	6.081	1	264.2	1	2.7616	1	27.8599	1	2710.6	1	34.9404	1	6.089	1	264.6	1	5.3	1
035	07	2499.7	1	3.1461	1	34.9329	1	6.220	1	270.3	1	2.9435	1	27.8368	1	2464.2	1	34.9334	1	6.218	1	270.2	1	5.5	1
035	08	2250.5	1	3.2627	1	34.9189	1	6.323	1	274.8	1	3.0826	1	27.8127	1	2219.8	1	34.9198	1	6.280	1	272.9	1	5.6	1
035	09	2001.9	1	3.4416	1	34.9151	1	6.301	1	273.8	1	3.2824	1	27.7907	1	1975.8	1	34.9188	1	6.285	1	273.2	1	5.7	1
035	10	1799.4	1	3.6368	1	34.9190	1	6.263	1	272.2	1	3.4937	1	27.7733	1	1776.8	1	34.9204	1	6.266	1	272.4	1	6.1	1
035	11	1600.8	1	3.8919	1	34.9366	1	6.201	1	269.5	1	3.7638	1	27.7602	1	1581.4	1	34.9428	4	6.154	1	267.5	1	6.2	1
035	12	1399.9	1	4.2978	1	34.9772	1	6.031	1	262.1	1	4.1835	1	27.7486	1	1383.6	1	34.9789	1	-9.999	9	-9.9	9	6.5	1
035	13	1201.7	1	5.0781	1	35.0696	1	5.679	1	246.8	1	4.9744	1	27.7335	1	1188.3	1	35.0713	1	5.663	1	246.1	1	7.1	1
035	14	1001.4	1	5.9652	1	35.1520	1	5.321	1	231.2	1	5.8734	1	27.6891	1	990.7	1	35.1536	1	5.306	1	230.6	1	7.6	1
035	15	900.1	1	6.6822	1	35.2104	1	4.976	1	216.2	1	6.5955	1	27.6404	1	890.7	1	35.2107	1	5.003	1	217.5	1	8.2	1
035	16	799.5	1	7.1790	1	35.2089	1	4.724	1	205.3	1	7.0995	1	27.5695	1	791.3	1	35.2066	1	4.736	1	205.9	1	8.5	1
035	17	599.7	1	9.2839	1	35.3126	1	4.294	1	186.7	1	9.2157	1	27.3279	1	593.8	1	35.3117	1	4.340	1	188.7	1	10.1	1
035	18	500.1	1	9.8865	1	35.3198	1	4.741	1	206.1	1	9.8278	1	27.2313	1	495.3	1	35.3191	1	4.535	4	197.2	4	10.7	1
035	19	401.9	1	10.9227	1	35.4432	1	4.911	1	213.5	1	10.8727	1	27.1440	1	398.2	1	35.4419	1	4.981	1	216.6	1	11.5	1
035	20	300																							

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
037	04	3501.8	1	2.6365	1	34.9277	1	5.656	1	245.8	1	2.3404	1	27.8858	1	3443.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
037	05	3001.0	1	2.8626	1	34.9447	1	5.920	1	257.2	1	2.6147	1	27.8758	1	2954.8	1	34.9482	1	5.878	1	255.4	1	4.9	1
037	06	2750.1	1	3.0264	1	34.9442	1	6.028	1	261.9	1	2.8009	1	27.8588	1	2709.3	1	34.9450	1	5.986	1	260.1	1	5.0	1
037	07	2500.7	1	3.1797	1	34.9327	1	6.186	1	268.8	1	2.9764	1	27.8336	1	2465.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
037	08	2249.8	1	3.3738	1	34.9230	1	6.279	1	272.8	1	3.1919	1	27.8057	1	2219.0	1	34.9250	1	6.224	1	270.5	1	5.3	1
037	09	2000.6	1	3.6254	1	34.9265	1	6.235	1	270.9	1	3.4635	1	27.7822	1	1974.4	1	34.9283	1	6.191	1	269.1	1	5.5	1
037	10	1801.3	1	3.9745	1	34.9534	1	6.118	1	265.9	1	3.8266	1	27.7672	1	1778.5	1	34.9595	4	6.086	1	264.5	1	5.8	1
037	11	1599.5	1	4.4021	1	34.9824	1	6.029	1	262.0	1	4.2679	1	27.7437	1	1580.0	1	34.9855	1	5.950	1	258.6	1	6.2	1
037	12	1400.2	1	5.1252	1	35.0721	1	5.630	1	244.6	1	5.0020	1	27.7323	1	1383.8	1	35.0734	1	5.643	1	245.3	1	6.7	1
037	13	1201.1	1	6.7861	1	35.2867	1	5.027	1	218.5	1	6.6669	1	27.6909	1	1187.6	1	35.2903	1	5.017	1	218.1	1	8.1	1
037	14	1000.6	1	7.9738	1	35.3376	1	4.512	1	196.1	1	7.8670	1	27.5591	1	989.8	1	35.3376	1	4.548	1	197.7	1	8.9	1
037	15	900.5	1	9.0566	1	35.4431	1	4.343	1	188.8	1	8.9539	1	27.4728	1	891.0	1	35.4440	1	4.384	1	190.6	1	9.7	1
037	16	800.8	1	9.7969	1	35.4382	1	4.441	1	193.1	1	9.7018	1	27.3452	1	792.5	1	35.4399	1	-9.999	9	-9.9	9	10.3	1
037	17	600.5	1	11.0209	1	35.5145	1	5.254	1	228.4	1	10.9450	1	27.1864	1	594.6	1	35.5150	1	5.306	1	230.7	1	11.3	1
037	18	500.0	1	11.3143	1	35.5412	1	5.670	1	246.5	1	11.2503	1	27.1512	1	495.2	1	35.5455	1	5.675	1	246.8	1	11.6	1
037	19	400.8	1	11.5554	1	35.5547	1	5.495	1	238.9	1	11.5036	1	27.1145	1	397.1	1	35.5567	1	5.551	1	241.4	1	11.8	1
037	20	301.2	1	11.7751	1	35.5511	1	5.411	1	235.3	1	11.7359	1	27.0678	1	298.5	1	35.5536	1	5.415	1	235.5	1	12.1	1
037	21	201.0	1	12.3554	1	35.5940	1	5.454	1	237.2	1	12.3285	1	26.9869	1	199.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
037	22	99.8	1	12.7554	1	35.6236	1	5.694	1	247.6	1	12.7418	1	26.9281	1	98.9	1	35.6260	1	5.623	1	244.5	1	13.0	1
037	23	31.7	1	15.2229	1	35.5715	1	5.657	1	246.1	1	15.2181	1	26.3644	1	31.4	1	35.5782	4	5.719	1	248.8	1	15.0	1
037	24	6.2	1	15.2775	1	35.5706	1	5.755	1	250.4	1	15.2766	1	26.3506	1	6.1	1	35.5757	4	5.734	1	249.5	1	15.0	1
038	01	4405.0	1	2.5717	1	34.9122	1	5.490	1	238.5	1	2.1736	1	27.8873	1	4323.1	1	34.9106	1	5.498	1	239.0	1	5.8	1
038	02	3999.7	1	2.5970	1	34.9194	1	5.534	1	240.4	1	2.2460	1	27.8871	1	3929.0	1	34.9164	1	5.549	1	241.2	1	5.9	1
038	03	3750.2	1	2.6365	1	34.9254	1	5.602	1	243.4	1	2.3128	1	27.8863	1	3686.0	1	34.9232	1	5.626	1	244.5	1	6.4	1
038	04	3501.1	1	2.7370	1	34.9358	1	5.722	1	248.6	1	2.4385	1	27.8840	1	3443.1	1	34.9356	1	5.757	1	250.2	1	6.3	1
038	05	3000.5	1	3.0141	1	34.9424	1	6.057	1	263.2	1	2.7630	1	27.8608	1	2954.2	1	34.9387	1	6.071	1	263.9	1	6.4	1
038	06	2750.5	1	3.1336	1	34.9293	1	6.200	1	269.4	1	2.9060	1	27.8374	1	2709.6	1	34.9279	1	6.241	1	271.3	1	6.3	1
038	07	2501.6	1	3.2637	1	34.9181	1	6.242	1	271.2	1	3.0589	1	27.8143	1	2465.8	1	34.9144	1	6.288	1	273.3	1	6.5	1
038	08	2250.3	1	3.4431	1	34.9137	1	6.227	1	270.6	1	3.2600	1	27.7918	1	2219.4	1	34.9143	1	6.311	1	274.3	1	6.5	1
038	09	2000.8	1	3.7010	1	34.9195	1	6.172	1	268.2	1	3.5380	1	27.7693	1	1974.5	1	34.9194	1	6.221	1	270.4	1	6.9	1
038	10	1801.8	1	3.9698	1	34.9374	1	6.080	1	264.2	1	3.8220	1	27.7549	1	1778.9	1	34.9356	1	6.144	1	267.1	1	7.2	1
038	11	1600.5	1	4.2230	1	34.9493	1	5.996	1	260.5	1	4.0909	1	27.7363	1	1580.9	1	34.9481	1	6.062	1	263.5	1	7.1	1
038	12	1401.4	1	4.9350	1	35.0301	1	5.650	1	245.5	1	4.8137	1	27.7208	1	1384.9	1	35.0297	1	5.736	1	249.4	1	7.8	1
038	13	1201.7	1	6.1477	1	35.1801	1	4.921	1	213.9	1	6.0343	1	27.6907	1	1188.1	1	35.1793	1	5.225	4	227.1	4	8.5	1
038	14	1001.3	1	8.0445	1	35.3301	1	4.382	1	190.5	1	7.9372	1	27.5427	1	990.5	1	35.3278	1	4.485	4	195.0	4	9.7	1
038	15	900.2	1	9.1130	1	35.3801	1	4.222	1	183.5	1	9.0100	1	27.4143	1	890.7	1	35.3773	1	4.333	4	188.4	4	10.3	1
038	16	801.3	1	9.6459	1	35.3570	1	4.186	1	182.0	1	9.5517	1	27.3070	1	793.0	1	35.3535	1	4.314	4	187.6	4	10.8	1
038	17	601.0	1	11.1417	1	35.5289	1	5.276	1	229.4	1	11.0652	1	27.1757	1	595.1	1	35.5297	1	5.639	4	245.2	4	11.8	1
038	18	502.1	1	11.2626	1	35.5298	1	5.765	1	250.7	1	11.1985	1	27.1519	1	497.3	1	35.5045	4	5.754	1	250.2	1	11.9	1
038	19	402.4	1	11.5752	1	35.5868	1	5.861	1	254.8	1	11.5231	1	27.1358	1	398.6	1	35.5846	1	5.860	1	254.8	1	12.1	1
038	20	300.5	1	11.5558	1	35.5496	1	5.568	1	242.1	1	11.5171	1	27.1080	1	297.8	1	35.5475	1	5.665	1	246.3	1	12.1	1
038	21	201.6	1	11.8711	1	35.5689	1	5.657	1	246.0	1	11.8448	1	27.0609	1	199.8	1	35.5668	1	5.553	4	241.5	4	12.5	1
038	22	101.5	1	12.4929	1	35.6137	1	5.636	1	245.1	1	12.4793	1	26.9726	1	100.6	1	35.6106	1	5.643	1	245.4	1	13.0	1
038	23	33.7	1	14.9874	1	35.5624	1	5.763	1	250.7	1	14.9823	1	26.4096	1	33.4	1	35.5673	4	5.747	1	250.1	1	15.0	1
038	24	10.0	1	15.1077	1	35.5560	1	5.782	1	251.6	1	15.1062	1	26.3773	1	9.9	1	35.5562	1	5.761	1	250.7	1	15.0	1
039	01	4131.5	1	2.6079	1	34.9185	1	5.547	1	241.0	1	2.2412	1	27.8867	1	4057.1	1	34.9169	1	5.550	1	241.2	1	4.7	1
039	02	3747.1	1	2.6546	1	34.9269	1	5.651	1	245.5	1	2.3308	1	27.8860	1	3682.8	1	34.9260	1	5.647	1	245.4	1	4.8	1
039	03	3503.4	1	2.7356	1	34.9363	1	5.795	1	251.8	1	2.4368	1	27.8845	1	3445.2	1	34.9367	1	5.809	1	252.5	1	4.9	1
039	04	3249.3	1	2.8035	1	34.9417	1	5.899	1	256.3	1	2.5307	1	27.8807	1	3197.2	1	34.9420	1	5.899	1	256.4	1	5.0	1
039	05	3000.7	1	2.9364	1	34.9442	1	6.073	1	263.9	1	2.6869	1	27.8690	1	2954.3	1	34.9444	1	6.101	1	265.1	1	5.2	1
039	06	2752.3	1	3.0525	1	34.9360	1	6.202	1	269.5	1	2.8263	1	27.8500	1	2711.3	1	34.9369	1	6.205	1	269.7	1	5.3	1
039	07	2499.8	1	3.1753	1	34.9236	1	6.268	1	272.4	1	2.9722	1	27.8267	1	2464.0	1	34.9222	1	6.299	1	273.8	1	5.5	1
039	08	2251.7	1	3.3208	1	34.9155	1	6.298	1	273.7	1	3.1396	1	27.8046	1	2220.7	1	34.9164	1	6.299	1	273.8	1	5.6	1
039	09	1997.6	1	3.5543	1	34.9190	1	6.243	1	271.3	1	3.3938	1	27.7831	1	1971.3	1	34.9230	1	6.260	1	272.1	1	5.8	1
039	10	1801.6	1	3.7644	1	34.9260	1	6.195	1	269.2	1	3.6194	1	27.7664	1	1778.7	1	34.9277	1	6.203	1	269.6	1	6.1	1
039																									

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
040	19	399.1	1	10.5841	1	35.3850	1	5.013	1	218.0	1	10.5354	1	27.1591	1	395.3	1	35.3894	1	5.021	1	218.3	1	11.3	1
040	20	299.2	1	11.3357	1	35.4887	1	5.272	1	229.2	1	11.2977	1	27.1015	1	296.4	1	35.4881	1	5.326	1	231.6	1	11.9	1
040	21	199.4	1	11.7833	1	35.5317	1	5.538	1	240.8	1	11.7574	1	27.0486	1	197.6	1	35.5314	1	5.481	1	238.4	1	12.4	1
040	22	98.3	1	11.8820	1	35.4569	1	5.736	1	249.4	1	11.8692	1	26.9692	1	97.4	1	35.4585	1	5.724	1	248.9	1	12.5	1
040	23	39.4	1	14.8060	1	35.4836	1	5.738	1	249.7	1	14.8001	1	26.3889	1	39.1	1	35.4852	1	5.811	1	252.8	1	14.8	1
040	24	9.9	1	14.8211	1	35.4850	1	5.800	1	252.4	1	14.8196	1	26.3857	1	9.8	1	35.4845	1	5.812	1	252.9	1	14.8	1
041	01	4267.6	1	2.5710	1	34.9134	1	5.510	1	239.4	1	2.1894	1	27.8870	1	4189.2	1	34.9162	1	5.497	1	238.9	1	4.2	1
041	02	4000.8	1	2.5612	1	34.9157	1	5.526	1	240.1	1	2.2111	1	27.8870	1	3929.6	1	34.9173	1	5.515	1	239.7	1	4.3	1
041	03	3752.2	1	2.5797	1	34.9202	1	5.575	1	242.2	1	2.2573	1	27.8868	1	3687.5	1	34.9238	1	5.549	1	241.1	1	4.4	1
041	04	3500.9	1	2.6324	1	34.9276	1	5.677	1	246.7	1	2.3365	1	27.8861	1	3442.5	1	34.9325	1	5.628	1	244.6	1	4.5	1
041	05	3000.1	1	2.8511	1	34.9450	1	5.956	1	258.8	1	2.6035	1	27.8770	1	2953.5	1	34.9438	1	5.952	1	258.7	1	4.8	1
041	06	2749.4	1	3.0175	1	34.9411	1	6.110	1	265.5	1	2.7923	1	27.8571	1	2708.2	1	34.9411	1	6.126	1	266.2	1	4.9	1
041	07	2501.0	1	3.1612	1	34.9280	1	6.220	1	270.3	1	2.9583	1	27.8315	1	2465.0	1	34.9252	1	6.233	1	270.9	1	5.0	1
041	08	2252.4	1	3.3325	1	34.9187	1	6.273	1	272.6	1	3.1510	1	27.8061	1	2221.2	1	34.9199	1	6.251	1	271.7	1	5.2	1
041	09	2001.0	1	3.5341	1	34.9164	1	6.252	1	271.7	1	3.3736	1	27.7830	1	1974.5	1	34.9162	1	6.245	1	271.4	1	5.5	1
041	10	1801.3	1	3.6738	1	34.9184	1	6.234	1	270.9	1	3.5300	1	27.7692	1	1778.3	1	34.9175	1	6.213	1	270.0	1	5.6	1
041	11	1600.8	1	3.8432	1	34.9248	1	6.207	1	269.7	1	3.7157	1	27.7557	1	1581.1	1	34.9253	1	6.172	1	268.3	1	5.8	1
041	12	1400.8	1	4.1192	1	34.9398	1	6.095	1	264.9	1	4.0068	1	27.7376	1	1384.2	1	34.9403	1	6.099	1	265.1	1	6.0	1
041	13	1200.5	1	4.7421	1	35.0052	1	5.821	1	253.0	1	4.6417	1	27.7205	1	1186.8	1	35.0055	1	5.791	1	251.7	1	6.5	1
041	14	1000.8	1	6.1271	1	35.1853	1	5.204	1	226.1	1	6.0341	1	27.6948	1	989.9	1	35.1865	1	5.223	1	227.0	1	7.5	1
041	15	901.3	1	6.6884	1	35.2243	1	4.889	1	212.5	1	6.6015	1	27.6505	1	891.7	1	35.2230	1	4.997	4	217.2	4	8.1	1
041	16	799.7	1	7.4305	1	35.3008	1	4.580	1	199.0	1	7.3494	1	27.6062	1	791.4	1	35.2991	1	4.706	4	204.6	4	8.6	1
041	17	599.9	1	8.9410	1	35.3042	1	4.323	1	187.9	1	8.8743	1	27.3767	1	593.9	1	35.3020	1	4.348	1	189.0	1	9.8	1
041	18	502.9	1	9.8154	1	35.3379	1	4.711	1	204.8	1	9.7566	1	27.2575	1	498.0	1	35.3398	1	4.689	1	203.9	1	10.5	1
041	19	401.7	1	10.4815	1	35.3857	1	5.023	1	218.4	1	10.4328	1	27.1778	1	397.9	1	35.3836	1	5.016	1	218.1	1	11.0	1
041	20	300.5	1	11.1090	1	35.4529	1	5.354	1	232.8	1	11.0713	1	27.1154	1	297.7	1	35.4534	1	5.356	1	232.9	1	11.6	1
041	21	200.8	1	11.3960	1	35.4540	1	5.568	1	242.1	1	11.3705	1	27.0610	1	199.0	1	35.4522	1	5.605	1	243.7	1	11.9	1
041	22	99.6	1	12.0705	1	35.5203	1	5.512	1	239.7	1	12.0574	1	26.9823	1	98.7	1	35.5191	1	5.607	1	243.8	1	12.5	1
041	23	27.7	1	14.7655	1	35.4698	1	5.725	1	249.1	1	14.7614	1	26.3867	1	27.5	1	35.4708	1	5.797	1	252.2	1	14.7	1
041	24	6.4	1	14.7693	1	35.4723	1	5.784	1	251.7	1	14.7683	1	26.3871	1	6.3	1	35.4777	4	5.824	1	253.4	1	14.8	1
042	01	4053.2	1	2.5546	1	34.9142	1	5.513	1	239.5	1	2.1986	1	27.8868	1	3980.5	1	34.9134	1	5.555	1	241.4	1	5.1	1
042	02	3749.9	1	2.5907	1	34.9209	1	5.579	1	242.4	1	2.2683	1	27.8864	1	3685.2	1	34.9197	1	5.595	1	243.2	1	5.0	1
042	03	3501.2	1	2.6258	1	34.9270	1	5.674	1	246.5	1	2.3300	1	27.8861	1	3442.7	1	34.9267	1	5.665	1	246.2	1	4.9	1
042	04	3250.0	1	2.7009	1	34.9364	1	5.804	1	252.2	1	2.4304	1	27.8851	1	3197.5	1	34.9353	1	5.767	1	250.6	1	5.0	1
042	05	3001.5	1	2.8171	1	34.9445	1	5.943	1	258.2	1	2.5701	1	27.8795	1	2954.7	1	34.9439	1	5.953	1	258.7	1	5.2	1
042	06	2753.3	1	2.9116	1	34.9453	1	6.045	1	262.7	1	2.6881	1	27.8698	1	2712.0	1	34.9438	1	6.049	1	262.9	1	5.8	1
042	07	2502.3	1	3.0741	1	34.9364	1	6.200	1	269.4	1	2.8726	1	27.8461	1	2466.2	1	34.9374	1	6.240	1	271.2	1	5.4	1
042	08	2250.9	1	3.1940	1	34.9251	1	6.265	1	272.2	1	3.0149	1	27.8240	1	2219.7	1	34.9265	1	6.258	1	272.0	1	6.1	1
042	09	1999.2	1	3.3639	1	34.9176	1	6.266	1	272.3	1	3.2061	1	27.8000	1	1972.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
042	10	1798.1	1	3.5676	1	34.9215	1	6.221	1	270.3	1	3.4256	1	27.7820	1	1775.1	1	34.9248	1	6.245	1	271.4	1	6.0	1
042	11	1601.3	1	3.8336	1	34.9351	1	6.164	1	267.8	1	3.7062	1	27.7649	1	1581.5	1	34.9361	1	6.161	1	267.8	1	6.5	1
042	12	1401.6	1	4.2022	1	34.9617	1	6.043	1	262.6	1	4.0888	1	27.7464	1	1384.9	1	34.9615	1	6.054	1	263.1	1	6.6	1
042	13	1197.2	1	4.7854	1	35.0163	1	5.726	1	248.8	1	4.6849	1	27.7245	1	1183.5	1	35.0163	1	5.792	1	251.8	1	7.1	1
042	14	1001.1	1	6.1782	1	35.2028	1	5.143	1	223.5	1	6.0848	1	27.7021	1	990.1	1	35.2028	1	5.237	1	227.6	1	7.8	1
042	15	893.1	1	6.8011	1	35.2570	1	4.946	1	214.9	1	6.7142	1	27.6610	1	883.5	1	35.2600	1	4.999	1	217.3	1	8.6	1
042	16	802.5	1	7.2954	1	35.2813	1	4.748	1	206.3	1	7.2148	1	27.6102	1	794.1	1	35.2787	1	4.771	1	207.4	1	8.7	1
042	17	601.5	1	8.6046	1	35.2520	1	4.340	1	188.7	1	8.5392	1	27.3889	1	595.5	1	35.2505	1	4.323	1	188.0	1	9.9	1
042	18	502.0	1	9.1929	1	35.2241	1	4.396	1	191.1	1	9.1365	1	27.2716	1	497.1	1	35.2424	4	4.485	1	195.0	1	10.3	1
042	19	400.4	1	10.5049	1	35.4026	1	4.855	1	211.1	1	10.4563	1	27.1869	1	396.6	1	35.3906	4	4.999	4	217.4	4	11.2	1
042	20	300.1	1	11.0758	1	35.4491	1	5.144	1	223.7	1	11.0383	1	27.1184	1	297.3	1	35.4476	1	5.099	1	221.7	1	11.8	1
042	21	201.9	1	11.5096	1	35.4987	1	5.476	1	238.1	1	11.4838	1	27.0746	1	200.1	1	35.4966	1	5.515	1	239.8	1	12.1	1
042	22	100.0	1	11.8513	1	35.4894	1	5.647	1	245.6	1	11.8383	1	27.0004	1	99.1	1	35.4887	1	5.674	1	246.8	1	12.4	1
042	23	50.3	1	12.3117	1	35.5015	1	5.806	1	252.5	1	12.3050	1	26.9197	1	49.9	1	35.5013	1	5.780	1	251.4	1	12.8	1
042	24	5.3	1	14.8327	1	35.4640	1	5.746	1	250.0	1	14.8319	1	26.3668	1	5.3	1	35.4636	1	5.810	1	252.8	1	14.8	1
043	01	3503.9	1	2.6286	1	34.9271	1	5.662	1	246.0	1	2.3325	1	27.8860	1	3445.2	1	34.9260	1	5.652	1	245.6	1	5.2	1
043	02	3250.3</																							

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
044	10	1800.8	1	3.8427	1	34.9136	1	6.274	1	272.6	1	3.6967	1	27.7487	1	1777.6	1	34.9200	4	6.275	1	272.7	1	6.1	1
044	11	1600.9	1	3.9900	1	34.9148	1	6.266	1	272.3	1	3.8608	1	27.7329	1	1581.0	1	34.9175	1	6.283	1	273.1	1	6.4	1
044	12	1400.8	1	4.2324	1	34.9260	1	6.208	1	269.8	1	4.1188	1	27.7148	1	1384.0	1	34.9260	1	6.255	1	271.9	1	6.7	1
044	13	1201.3	1	5.1643	1	35.0288	1	5.585	1	242.7	1	5.0600	1	27.6911	1	1187.5	1	35.0313	1	5.639	1	245.1	1	7.3	1
044	14	1000.5	1	6.8022	1	35.1951	1	4.763	1	207.0	1	6.7042	1	27.6135	1	989.5	1	35.1968	1	4.914	4	213.6	4	8.3	1
044	15	900.5	1	7.9909	1	35.2758	1	4.450	1	193.4	1	7.8954	1	27.5063	1	890.8	1	35.2761	1	4.519	1	196.5	1	9.2	1
044	16	801.4	1	8.6645	1	35.2610	1	4.357	1	189.4	1	8.5761	1	27.3902	1	792.9	1	35.2609	1	4.401	1	191.3	1	9.6	1
044	17	600.0	1	10.8821	1	35.4808	1	5.241	1	227.9	1	10.8069	1	27.1852	1	593.9	1	35.4804	1	5.354	4	232.8	4	11.3	1
044	18	500.3	1	11.1994	1	35.5064	1	5.556	1	241.6	1	11.1358	1	27.1452	1	495.4	1	35.5057	1	5.657	4	246.0	4	11.5	1
044	19	401.7	1	11.3515	1	35.5263	1	5.787	1	251.6	1	11.3002	1	27.1303	1	397.8	1	35.5271	1	5.864	1	255.0	1	11.7	1
044	20	300.7	1	11.3399	1	35.5136	1	5.880	1	255.7	1	11.3017	1	27.1202	1	297.9	1	35.5131	1	5.918	1	257.3	1	11.7	1
044	21	201.1	1	11.3878	1	35.5069	1	5.778	1	251.2	1	11.3526	1	27.1055	1	199.3	1	35.5058	1	5.832	1	253.6	1	11.8	1
044	22	100.9	1	11.4641	1	35.4854	1	5.638	1	245.1	1	11.4513	1	27.0703	1	100.0	1	35.4861	1	5.798	4	252.1	4	11.8	1
044	23	40.2	1	11.8519	1	35.4721	1	5.787	1	251.7	1	11.8467	1	26.9853	1	39.8	1	35.4731	1	5.725	1	249.0	1	12.1	1
044	24	6.2	1	14.0960	1	35.4352	1	5.912	1	257.2	1	14.0951	1	26.5034	1	6.1	1	35.4374	1	5.957	1	259.2	1	13.9	1
045	01	3310.3	1	2.7533	1	34.9426	1	5.904	1	256.5	1	2.4751	1	27.8862	1	3256.0	1	34.9396	1	5.881	1	255.6	1	4.5	1
045	02	3001.3	1	2.9453	1	34.9492	1	6.110	1	265.5	1	2.6955	1	27.8722	1	2954.2	1	34.9430	1	6.093	1	264.8	1	4.7	1
045	03	2750.9	1	3.0839	1	34.9381	1	6.181	1	268.6	1	2.8572	1	27.8488	1	2709.3	1	34.9484	4	6.170	1	268.1	1	4.9	1
045	04	2750.9	1	3.0856	1	34.9379	1	6.181	1	268.6	1	2.8589	1	27.8485	1	2709.3	1	34.9363	1	6.184	1	268.7	1	4.9	1
045	05	2501.2	1	3.2191	1	34.9250	1	6.283	1	273.0	1	3.0151	1	27.8239	1	2464.8	1	34.9257	1	6.269	1	272.5	1	5.1	1
045	06	2251.4	1	3.3843	1	34.9166	1	6.290	1	273.3	1	3.2021	1	27.7996	1	2219.9	1	34.9143	1	6.296	1	273.6	1	5.3	1
045	07	2000.3	1	3.5682	1	34.9163	1	6.257	1	271.9	1	3.4072	1	27.7796	1	1973.5	1	34.9153	1	6.245	1	271.4	1	5.5	1
045	08	1798.3	1	3.7238	1	34.9168	1	6.249	1	271.5	1	3.5796	1	27.7630	1	1775.0	1	34.9155	1	6.249	1	271.6	1	5.6	1
045	09	1598.4	1	3.8643	1	34.9148	1	6.243	1	271.3	1	3.7368	1	27.7456	1	1578.4	1	34.9143	1	6.258	1	272.0	1	5.7	1
045	10	1400.3	1	4.0448	1	34.9220	1	6.181	1	268.6	1	3.9332	1	27.7311	1	1383.5	1	34.9261	1	6.210	1	269.9	1	6.1	1
045	11	1198.8	1	4.5024	1	34.9574	1	5.994	1	260.5	1	4.4044	1	27.7090	1	1185.0	1	34.9574	1	5.983	1	260.1	1	6.3	1
045	12	1099.4	1	4.8373	1	34.9838	1	5.846	1	254.0	1	4.7454	1	27.6918	1	1087.0	1	34.9840	1	5.785	1	251.4	1	6.5	1
045	13	999.5	1	5.4119	1	35.0351	1	5.523	1	240.0	1	5.3247	1	27.6646	1	988.4	1	35.0335	1	5.508	1	239.4	1	7.0	1
045	14	898.7	1	6.0939	1	35.0830	1	5.250	1	228.2	1	6.0114	1	27.6169	1	889.0	1	35.0847	1	5.131	4	223.0	4	7.5	1
045	15	799.9	1	7.5358	1	35.2211	1	4.616	1	200.6	1	7.4542	1	27.5284	1	791.4	1	35.2188	1	4.631	1	201.3	1	8.6	1
045	16	600.8	1	9.7341	1	35.3285	1	4.474	1	194.5	1	9.6638	1	27.2659	1	594.7	1	35.3256	1	4.612	4	200.5	4	10.3	1
045	17	501.1	1	10.4152	1	35.3873	1	4.996	1	217.2	1	10.3544	1	27.1929	1	496.1	1	35.3878	1	5.302	4	230.5	4	10.9	1
045	18	400.6	1	11.1396	1	35.4892	1	5.466	1	237.7	1	11.0891	1	27.1404	1	396.7	1	35.4855	1	5.477	1	238.2	1	11.5	1
045	19	299.4	1	11.4180	1	35.5094	1	5.550	1	241.3	1	11.3798	1	27.1024	1	296.6	1	35.5082	1	5.696	4	247.7	4	11.7	1
045	20	200.0	1	11.6379	1	35.5213	1	5.547	1	241.2	1	11.6122	1	27.0681	1	198.2	1	35.5194	1	5.711	4	248.3	4	11.9	1
045	21	149.9	1	11.4864	1	35.4499	1	5.591	1	243.1	1	11.4673	1	27.0397	1	148.5	1	35.4482	1	5.538	1	240.8	1	11.8	1
045	22	99.8	1	11.2072	1	35.3231	1	5.667	1	246.4	1	11.1948	1	26.9916	1	98.9	1	35.3201	1	5.731	1	249.2	1	11.6	1
045	23	30.2	1	14.2929	1	35.4395	1	5.783	1	251.6	1	14.2885	1	26.4655	1	29.9	1	35.4420	1	5.838	1	254.0	1	14.1	1
045	24	8.4	1	14.4637	1	35.4439	1	5.915	1	257.4	1	14.4625	1	26.4316	1	8.3	1	35.4416	1	5.945	1	258.7	1	14.4	1
046	01	3911.7	1	2.7366	1	34.9374	1	5.779	1	251.1	1	2.3918	1	27.8892	1	3842.1	1	34.9358	1	5.795	1	251.8	1	4.3	1
046	02	3501.3	1	2.8323	1	34.9502	1	5.994	1	260.4	1	2.5313	1	27.8875	1	3442.2	1	34.9490	1	5.995	1	260.5	1	4.5	1
046	03	3250.5	1	2.9251	1	34.9591	1	6.144	1	266.9	1	2.6492	1	27.8843	1	3197.5	1	34.9585	1	6.161	1	267.7	1	4.5	1
046	04	3000.4	1	3.0325	1	34.9568	1	6.224	1	270.4	1	2.7809	1	27.8707	1	2953.2	1	34.9579	1	6.230	1	270.7	1	4.7	1
046	05	2750.1	1	3.1397	1	34.9485	1	6.280	1	272.8	1	2.9119	1	27.8522	1	2708.4	1	34.9465	1	6.306	1	274.0	1	4.9	1
046	06	2496.3	1	3.2310	1	34.9324	1	6.292	1	273.4	1	3.0272	1	27.8287	1	2459.9	1	34.9318	1	6.305	1	274.0	1	4.8	1
046	07	2247.8	1	3.3769	1	34.9237	1	6.294	1	273.5	1	3.1951	1	27.8059	1	2216.3	1	34.9239	1	6.309	1	274.2	1	5.1	1
046	08	1992.4	1	3.5351	1	34.9212	1	6.267	1	272.3	1	3.3753	1	27.7866	1	1965.6	1	34.9284	4	6.289	1	273.3	1	5.3	1
046	09	1797.2	1	3.6693	1	34.9210	1	6.246	1	271.4	1	3.5260	1	27.7717	1	1773.9	1	34.9227	1	6.284	1	273.1	1	5.3	1
046	10	1606.4	1	3.7613	1	34.9159	1	6.281	1	272.9	1	3.6343	1	27.7568	1	1586.3	1	34.9155	1	6.268	1	272.4	1	5.6	1
046	11	1400.6	1	3.8778	1	34.9137	1	6.282	1	273.0	1	3.7680	1	27.7415	1	1383.7	1	34.9133	1	6.289	1	273.3	1	5.7	1
046	12	1200.7	1	4.0649	1	34.9194	1	6.255	1	271.8	1	3.9708	1	27.7252	1	1186.8	1	34.9188	1	6.269	1	272.5	1	5.9	1
046	13	1097.0	1	4.4353	1	34.9495	1	6.087	1	264.5	1	4.2659	1	27.7178	1	1084.6	1	34.9530	1	6.041	1	262.6	1	6.1	1
046	14	997.2	1	4.4821	1	34.9429	1	6.048	1	262.8	1	4.4023	1	27.6977	1	986.1	1	34.9409	1	6.034	1	262.3	1	6.1	1
046	15	901.4	1	4.7094	1	34.9538	1	5.907	1	256.7	1	4.6363	1	27.6804	1	891.6	1	34.9536	1	5.874	1	255.3	1	6.5	1
046	16	801.4	1	5.4653	1	35.0232	1	5.485	1	238.4	1	5.3962	1	27.6465	1	792.9	1	35.0234	1	5.437	1	236.3	1	6.9	1
046	17																								

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
048	01	3642.4	1	2.6736	1	34.9329	1	5.773	1	250.8	1	2.3610	1	27.8882	1	3579.6	1	34.9308	1	5.742	1	249.5	1	4.1	1
048	02	3501.5	1	2.7635	1	34.9448	1	5.901	1	256.4	1	2.4642	1	27.8889	1	3442.2	1	34.9457	1	5.896	1	256.2	1	4.2	1
048	03	3245.5	1	2.8757	1	34.9545	1	6.072	1	263.8	1	2.6015	1	27.8848	1	3192.4	1	34.9528	1	6.097	1	264.9	1	4.1	1
048	04	3000.1	1	2.9660	1	34.9560	1	6.173	1	268.2	1	2.7159	1	27.8759	1	2952.7	1	34.9538	1	6.194	1	269.2	1	4.3	1
048	05	2751.3	1	3.0820	1	34.9500	1	6.265	1	272.2	1	2.8553	1	27.8585	1	2709.4	1	34.9488	1	6.287	1	273.2	1	4.5	1
048	06	2502.1	1	3.1407	1	34.9354	1	6.284	1	273.0	1	2.9380	1	27.8393	1	2465.4	1	34.9334	1	6.284	1	273.1	1	4.4	1
048	07	2252.2	1	3.2483	1	34.9251	1	6.296	1	273.6	1	3.0682	1	27.8190	1	2220.5	1	34.9235	1	6.303	1	273.9	1	4.7	1
048	08	2000.4	1	3.4017	1	34.9201	1	6.283	1	273.0	1	3.2432	1	27.7985	1	1973.4	1	34.9178	1	6.306	1	274.1	1	4.9	1
048	09	1802.4	1	3.5375	1	34.9179	1	6.261	1	272.1	1	3.3955	1	27.7820	1	1778.9	1	34.9168	1	6.267	1	272.4	1	4.9	1
048	10	1602.0	1	3.6814	1	34.9172	1	6.246	1	271.4	1	3.5558	1	27.7657	1	1581.8	1	34.9194	1	6.251	1	271.7	1	5.3	1
048	11	1400.2	1	3.7793	1	34.9135	1	6.263	1	272.1	1	3.6706	1	27.7513	1	1383.2	1	34.9133	1	6.283	1	273.1	1	5.4	1
048	12	1200.3	1	3.9163	1	34.9163	1	6.260	1	272.0	1	3.8236	1	27.7379	1	1186.3	1	34.9152	1	6.269	1	272.5	1	5.6	1
048	13	1093.2	1	4.0236	1	34.9197	1	6.250	1	271.6	1	3.9392	1	27.7287	1	1080.7	1	34.9200	1	6.249	1	271.6	1	5.5	1
048	14	1001.3	1	4.1801	1	34.9317	1	6.207	1	269.7	1	4.1022	1	27.7211	1	990.1	1	34.9297	1	6.158	1	267.6	1	5.6	1
048	15	900.4	1	4.3284	1	34.9376	1	6.148	1	267.2	1	4.2580	1	27.7091	1	890.5	1	34.9371	1	6.108	1	265.5	1	5.8	1
048	16	801.7	1	4.4883	1	34.9427	1	6.044	1	262.7	1	4.4252	1	27.6950	1	793.1	1	34.9418	1	6.048	1	262.9	1	5.9	1
048	17	602.5	1	5.1278	1	34.9579	1	5.536	1	240.6	1	5.0783	1	27.6328	1	596.3	1	34.9566	1	5.603	1	243.6	1	7.2	1
048	18	501.3	1	6.0409	1	35.0038	1	5.209	1	226.4	1	5.9965	1	27.5562	1	496.3	1	35.0090	1	5.084	4	221.0	4	7.3	1
048	19	401.9	1	6.9171	1	34.9990	1	4.840	1	210.4	1	6.8791	1	27.4348	1	398.0	1	34.9693	4	5.003	4	217.5	4	7.9	1
048	20	301.4	1	8.3948	1	35.1010	1	4.827	1	209.9	1	8.3631	1	27.2978	1	298.5	1	35.0960	4	4.751	1	206.6	1	9.2	1
048	21	201.3	1	9.4019	1	35.1044	1	5.064	1	220.2	1	9.3794	1	27.1381	1	199.4	1	35.0930	4	5.104	1	221.9	1	10.0	1
048	22	100.9	1	9.9770	1	35.0590	1	5.677	1	246.9	1	9.9654	1	27.0040	1	100.0	1	35.0514	4	5.808	4	252.6	4	10.6	1
048	23	51.1	1	12.7795	1	35.1463	1	5.643	1	245.4	1	12.7726	1	26.5518	1	50.6	1	35.1371	4	5.825	4	253.4	4	12.7	1
048	24	5.0	1	14.0495	1	35.1393	1	5.980	1	260.2	1	14.0488	1	26.2845	1	5.0	1	35.1397	1	6.043	1	263.0	1	13.9	1
049	01	3663.7	1	2.7334	1	34.9415	1	5.821	1	252.9	1	2.4169	1	27.8904	1	3600.2	1	34.9397	1	5.841	1	253.8	1	3.7	1
049	02	3250.0	1	2.9074	1	34.9567	1	6.098	1	264.9	1	2.6320	1	27.8839	1	3196.7	1	34.9549	1	6.091	1	264.7	1	3.9	1
049	03	3000.1	1	3.0304	1	34.9594	1	6.241	1	271.2	1	2.7789	1	27.8729	1	2952.6	1	34.9592	1	6.228	1	270.6	1	4.0	1
049	04	2750.0	1	3.1203	1	34.9495	1	6.276	1	272.7	1	2.8929	1	27.8547	1	2708.0	1	34.9470	1	6.276	1	272.7	1	4.1	1
049	05	2499.8	1	3.2064	1	34.9335	1	6.289	1	273.3	1	3.0027	1	27.8318	1	2463.1	1	34.9356	1	6.286	1	273.2	1	4.2	1
049	06	2250.0	1	3.3351	1	34.9283	1	6.297	1	273.6	1	3.1538	1	27.8135	1	2218.2	1	34.9278	1	6.282	1	273.0	1	4.3	1
049	07	2001.6	1	3.4886	1	34.9247	1	6.275	1	272.6	1	3.3287	1	27.7939	1	1974.5	1	34.9242	1	6.278	1	272.8	1	4.5	1
049	08	1800.7	1	3.5807	1	34.9198	1	6.249	1	271.5	1	3.4382	1	27.7794	1	1777.1	1	34.9185	1	6.240	1	271.2	1	4.6	1
049	09	1600.8	1	3.7170	1	34.9185	1	6.252	1	271.7	1	3.5911	1	27.7632	1	1580.6	1	34.9169	1	6.227	1	270.6	1	4.7	1
049	10	1400.4	1	3.8327	1	34.9159	1	6.280	1	272.9	1	3.7234	1	27.7478	1	1383.4	1	34.9177	1	6.248	1	271.5	1	4.8	1
049	11	1200.5	1	3.9900	1	34.9193	1	6.255	1	271.8	1	3.8966	1	27.7328	1	1186.5	1	34.9185	1	6.227	1	270.6	1	5.0	1
049	12	1099.9	1	4.0999	1	34.9255	1	6.239	1	271.1	1	4.0142	1	27.7255	1	1087.3	1	-9.9999	9	-9.9999	9	-9.9999	9	-9.9999	9
049	13	999.7	1	4.2277	1	34.9307	1	6.188	1	268.9	1	4.1496	1	27.7153	1	988.5	1	34.9291	1	6.192	1	269.1	1	5.3	1
049	14	900.2	1	4.4213	1	34.9427	1	6.090	1	264.6	1	4.3503	1	27.7032	1	890.3	1	34.9409	1	6.063	1	263.5	1	5.5	1
049	15	799.8	1	4.7259	1	34.9635	1	5.907	1	256.7	1	4.6615	1	27.6852	1	791.2	1	34.9632	1	5.897	1	256.3	1	5.7	1
049	16	699.5	1	4.9924	1	34.9638	1	5.714	1	248.3	1	4.9352	1	27.6542	1	692.2	1	34.9629	1	5.701	1	247.8	1	6.0	1
049	17	599.5	1	5.6374	1	35.0077	1	5.253	1	228.3	1	5.5858	1	27.6110	1	593.3	1	35.0044	1	5.301	1	230.4	1	6.8	1
049	18	499.7	1	6.0447	1	34.9720	1	5.094	1	221.4	1	6.0005	1	27.5306	1	494.7	1	34.9683	1	5.110	1	222.1	1	6.9	1
049	19	400.5	1	6.4514	1	34.8770	1	5.082	1	220.9	1	6.4151	1	27.4014	1	396.6	1	34.8846	1	5.186	4	225.5	4	7.3	1
049	20	300.3	1	8.4545	1	35.0649	1	4.736	1	205.9	1	8.4228	1	27.2603	1	297.4	1	35.0609	1	4.482	4	194.9	4	9.0	1
049	21	200.0	1	9.3463	1	35.0939	1	5.447	1	236.8	1	9.3240	1	27.1390	1	198.1	1	35.0854	4	5.151	4	224.0	4	9.7	1
049	22	100.1	1	10.2143	1	35.1419	1	5.628	1	244.7	1	10.2026	1	27.0279	1	99.2	1	35.1257	4	5.472	4	238.0	4	10.5	1
049	23	31.0	1	12.6003	1	35.2268	1	5.671	1	246.7	1	12.5961	1	26.6493	1	30.7	1	35.2188	4	5.701	1	248.0	1	12.4	1
049	24	5.7	1	13.8721	1	35.1180	1	5.942	1	258.6	1	13.8713	1	26.3054	1	5.6	1	35.1180	1	6.084	4	264.7	4	13.6	1
050	01	3569.3	1	2.7236	1	34.9434	1	5.841	1	253.8	1	2.4178	1	27.8918	1	3508.1	1	34.9433	1	5.838	1	253.7	1	4.3	1
050	02	3252.6	1	2.8586	1	34.9582	1	6.066	1	263.5	1	2.5841	1	27.8893	1	3199.1	1	34.9620	1	6.102	1	265.2	1	4.2	1
050	03	3002.1	1	2.9602	1	34.9557	1	6.162	1	267.7	1	2.7100	1	27.8761	1	2954.4	1	34.9553	1	6.188	1	268.9	1	4.5	1
050	04	2749.7	1	3.1006	1	34.9506	1	6.257	1	271.9	1	2.8736	1	27.8573	1	2707.6	1	34.9516	1	6.286	1	273.2	1	4.6	1
050	05	2502.1	1	3.1931	1	34.9334	1	6.293	1	273.4	1	2.9894	1	27.8330	1	2465.2	1	34.9324	1	6.324	1	274.8	1	4.6	1
050	06	2250.7	1	3.3385	1	34.9245	1	6.306	1	274.0	1	3.1571	1	27.8102	1	2218.8	1	34.9241	1	6.292	1	273.4	1	4.8	1
050	07	2000.6	1	3.4658	1	34.9205	1	6.276	1	272.7	1	3.3063	1	27.7927	1	1973.4	1	34.9202	1	6.293	1	273.5	1	4.9	1
050	08	1800.4	1	3.6																					

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
051	16	798.4	1	5.4378	1	34.9853	1	5.428	1	235.9	1	5.3692	1	27.6198	1	789.8	1	34.9880	1	5.392	1	234.4	1	6.7	1
051	17	595.1	1	7.5234	1	35.1134	1	4.548	1	197.7	1	7.7436	1	27.4422	1	589.0	1	35.1118	1	4.593	1	199.7	1	8.3	1
051	18	500.0	1	7.9986	1	35.0307	1	4.579	1	199.1	1	7.9470	1	27.3060	1	495.0	1	35.0384	4	4.720	4	205.2	4	8.8	1
051	19	398.7	1	9.5313	1	35.1965	1	5.426	1	235.9	1	9.4858	1	27.1925	1	394.8	1	35.2003	1	5.827	4	253.4	4	10.0	1
051	20	301.9	1	10.1108	1	35.2587	1	5.517	1	239.9	1	10.0752	1	27.1411	1	299.0	1	35.2589	1	5.770	4	250.9	4	10.5	1
051	21	203.0	1	11.1045	1	35.4116	1	5.737	1	249.5	1	11.0792	1	27.0817	1	201.1	1	35.4101	1	5.769	1	250.9	1	11.3	1
051	22	105.0	1	10.8767	1	35.2808	1	5.795	1	252.0	1	10.8639	1	27.0190	1	104.0	1	35.2760	1	5.792	1	251.9	1	11.2	1
051	23	51.9	1	11.2628	1	35.3178	1	5.646	1	245.5	1	11.2563	1	26.9761	1	51.4	1	35.3217	1	5.703	1	248.0	1	11.5	1
051	24	9.1	1	13.9234	1	35.3225	1	6.031	1	262.4	1	13.9221	1	26.4529	1	9.0	1	35.3213	1	6.119	1	266.2	1	13.6	1
052	01	2471.7	1	2.9530	1	34.9440	1	6.126	1	266.2	1	2.7567	1	27.8626	1	2435.2	1	34.9419	1	6.151	1	267.3	1	4.3	1
052	02	2471.7	1	2.9532	1	34.9439	1	6.126	1	266.2	1	2.7569	1	27.8625	1	2435.2	1	34.9421	1	6.123	1	266.1	1	4.1	1
052	03	2250.3	1	3.0769	1	34.9381	1	6.240	1	271.1	1	2.8998	1	27.8450	1	2218.2	1	34.9362	1	6.265	1	272.3	1	4.4	1
052	04	1998.9	1	3.4062	1	34.9200	1	6.285	1	273.1	1	3.2477	1	27.7980	1	1971.6	1	34.9171	1	6.288	1	273.3	1	4.7	1
052	05	1801.2	1	3.5517	1	34.9190	1	6.249	1	271.5	1	3.4096	1	27.7815	1	1777.4	1	34.9171	1	6.256	1	271.9	1	4.7	1
052	06	1600.7	1	3.7233	1	34.9216	1	6.219	1	270.2	1	3.5973	1	27.7651	1	1580.3	1	34.9206	1	6.213	1	270.0	1	4.9	1
052	07	1402.3	1	3.8061	1	34.9142	1	6.265	1	272.3	1	3.6969	1	27.7492	1	1385.1	1	34.9132	1	6.248	1	271.5	1	5.1	1
052	08	1200.8	1	4.0278	1	34.9234	1	6.206	1	269.7	1	3.9341	1	27.7322	1	1186.6	1	34.9225	1	6.185	1	268.8	1	5.3	1
052	09	1100.7	1	4.2175	1	34.9401	1	6.093	1	264.8	1	4.1308	1	27.7248	1	1088.0	1	34.9382	1	6.104	1	265.3	1	5.3	1
052	10	999.9	1	4.2078	1	34.9228	1	6.233	1	270.9	1	4.1299	1	27.7111	1	988.6	1	34.9243	1	6.256	1	271.9	1	5.6	1
052	11	898.5	1	4.4453	1	34.9384	1	6.081	1	264.2	1	4.3743	1	27.6972	1	888.5	1	34.9762	4	-9.999	9	-9.9	9	-9.9	9
052	12	797.7	1	4.7493	1	34.9643	1	5.799	1	252.0	1	4.6849	1	27.6832	1	789.0	1	34.9638	1	5.823	1	253.1	1	5.9	1
052	13	701.1	1	5.3121	1	35.0143	1	5.491	1	238.6	1	5.2529	1	27.6567	1	693.7	1	35.0169	1	5.512	1	239.6	1	6.4	1
052	14	596.8	1	5.8033	1	35.0296	1	5.204	1	226.2	1	5.7511	1	27.6077	1	590.6	1	35.0271	1	5.237	1	227.6	1	7.0	1
052	15	498.7	1	6.5431	1	35.0609	1	4.908	1	213.3	1	6.4970	1	27.5357	1	493.6	1	35.0599	1	4.908	1	213.3	1	7.4	1
052	16	401.1	1	7.1193	1	35.0196	1	5.000	1	217.3	1	7.0808	1	27.4230	1	397.1	1	35.0206	1	5.081	1	220.9	1	7.9	1
052	17	300.6	1	7.3141	1	34.8898	1	4.986	1	216.8	1	7.2851	1	27.2919	1	297.7	1	34.8837	4	4.974	1	216.3	1	8.4	1
052	18	200.6	1	8.1021	1	34.8887	1	5.353	1	232.7	1	8.0817	1	27.1742	1	198.7	1	34.8985	4	5.389	1	234.3	1	8.8	1
052	19	150.5	1	8.9448	1	34.9591	1	5.382	1	234.0	1	8.9286	1	27.0976	1	149.1	1	34.9506	4	5.386	1	234.2	1	9.5	1
052	20	101.0	1	9.7005	1	35.0246	1	5.521	1	240.1	1	9.6891	1	27.0240	1	100.1	1	34.9848	4	5.468	1	237.8	1	10.0	1
052	21	50.6	1	11.0518	1	35.0770	1	5.694	1	247.7	1	11.0456	1	26.8273	1	50.1	1	35.1033	4	5.490	4	238.8	4	11.4	1
052	22	4.4	1	13.9109	1	35.0806	1	6.177	1	268.8	1	13.9103	1	26.2683	1	4.4	1	35.0804	1	6.218	1	270.6	1	13.9	1
052	23	4.4	1	13.9096	1	35.0803	1	6.177	1	268.8	1	13.9103	1	26.2683	1	4.4	1	35.0806	1	6.221	1	270.7	1	13.9	1
052	24	4.4	1	13.9169	1	35.0802	1	6.177	1	268.8	1	13.9163	1	26.2667	1	4.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
053	01	3652.3	1	2.8509	1	34.9714	1	6.090	1	264.6	1	2.5324	1	27.9043	1	3588.5	1	34.9693	1	6.084	1	264.4	1	3.8	1
053	02	3249.6	1	2.8731	1	34.9590	1	6.111	1	265.5	1	2.5985	1	27.8886	1	3195.8	1	34.9568	1	6.088	1	264.5	1	3.9	1
053	03	3249.6	1	2.8725	1	34.9591	1	6.111	1	265.5	1	2.5979	1	27.8888	1	3195.8	1	34.9562	1	6.088	1	264.5	1	3.9	1
053	04	2999.8	1	2.9806	1	34.9617	1	6.211	1	269.9	1	2.7302	1	27.8791	1	2951.8	1	34.9597	1	6.207	1	269.7	1	4.0	1
053	05	2749.6	1	3.0581	1	34.9556	1	6.263	1	272.1	1	2.8320	1	27.8651	1	2707.2	1	34.9518	1	6.276	1	272.7	1	4.1	1
053	06	2500.1	1	3.1700	1	34.9462	1	6.303	1	273.9	1	2.9669	1	27.8453	1	2462.9	1	34.9469	1	6.309	1	274.2	1	4.3	1
053	07	2249.1	1	3.2863	1	34.9326	1	6.310	1	274.2	1	3.1058	1	27.8215	1	2217.0	1	34.9340	1	6.312	1	274.3	1	4.4	1
053	08	1998.1	1	3.4011	1	34.9201	1	6.297	1	273.6	1	3.2428	1	27.7985	1	1970.7	1	34.9193	1	6.278	1	272.8	1	4.5	1
053	09	1799.4	1	3.5312	1	34.9198	1	6.272	1	272.5	1	3.3895	1	27.7841	1	1775.6	1	34.9205	1	6.278	1	272.8	1	4.6	1
053	10	1599.3	1	3.6603	1	34.9183	1	6.256	1	271.8	1	3.5352	1	27.7686	1	1578.9	1	34.9159	1	6.231	1	270.8	1	4.7	1
053	11	1399.8	1	3.7824	1	34.9142	1	6.274	1	272.6	1	3.6737	1	27.7515	1	1382.6	1	34.9123	1	6.233	1	270.9	1	4.8	1
053	12	1199.2	1	3.9033	1	34.9105	1	6.324	1	274.8	1	3.8109	1	27.7346	1	1185.0	1	34.9098	1	6.296	1	273.6	1	5.0	1
053	13	999.0	1	4.1553	1	34.9244	1	6.201	1	269.5	1	4.0778	1	27.7179	1	987.6	1	34.9248	1	6.201	1	269.5	1	5.3	1
053	14	899.2	1	4.3606	1	34.9373	1	6.102	1	265.1	1	4.2901	1	27.7054	1	889.2	1	34.9355	1	6.051	1	263.0	1	5.5	1
053	15	799.6	1	4.7302	1	34.9697	1	5.965	1	259.2	1	4.6658	1	27.6897	1	790.9	1	34.9645	1	5.844	4	254.0	4	5.8	1
053	16	599.1	1	5.7696	1	35.0407	1	5.256	1	228.4	1	5.7174	1	27.6208	1	592.9	1	35.0374	1	5.248	1	228.1	1	6.6	1
053	17	499.3	1	6.6122	1	35.0878	1	4.876	1	211.9	1	6.5658	1	27.5476	1	494.2	1	35.0889	1	4.896	1	212.8	1	7.4	1
053	18	399.7	1	6.9482	1	35.0125	1	5.192	1	225.7	1	6.9104	1	27.4412	1	395.7	1	35.0674	4	4.841	4	210.4	4	7.8	1
053	19	299.0	1	7.4393	1	34.9130	1	5.345	1	232.4	1	7.7410	1	27.2923	1	296.1	1	34.9198	4	5.351	1	232.6	1	8.1	1
053	20	199.6	1	8.9066	1	35.0843	1	5.889	1	256.1	1	8.8850	1	27.2027	1	197.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
053	21	100.4	1	9.9577	1	35.1749	1	5.914	1	257.1	1	9.9461	1	27.0979	1	99.5	1	35.1544	4	5.873	1	255.4	1	10.2	1
053	22	40.1	1	10.2400	1	35.0485	1	5.817	1	253.0	1	10.2353	1	26.9493	1	39.7	1	35.0752	4	5.804	1	252.4	1	10.6	1
053	23	7.4	1	13.6826	1	34.9874	1																		

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
055	07	1599.0	1	3.6521	1	34.9178	1	6.259	1	272.0	1	3.5271	1	27.7690	1	1578.4	1	34.9166	1	6.243	1	271.3	1	4.5	1
055	08	1398.2	1	3.7543	1	34.9124	1	6.281	1	272.9	1	3.6460	1	27.7529	1	1380.9	1	34.9124	1	6.246	1	271.4	1	4.7	1
055	09	1199.4	1	3.8800	1	34.9108	1	6.278	1	272.8	1	3.7878	1	27.7372	1	1185.1	1	34.9110	1	6.269	1	272.4	1	4.8	1
055	10	999.5	1	4.1260	1	34.9228	1	6.193	1	269.1	1	4.0487	1	27.7197	1	988.0	1	34.9223	1	6.159	1	267.7	1	5.0	1
055	11	899.7	1	4.2879	1	34.9311	1	6.106	1	265.3	1	4.2179	1	27.7083	1	889.6	1	34.9293	1	6.059	1	263.3	1	5.3	1
055	12	799.7	1	4.4926	1	34.9427	1	5.978	1	259.8	1	4.4297	1	27.6945	1	790.9	1	34.9415	1	5.938	1	258.1	1	5.4	1
055	13	699.4	1	4.8757	1	34.9661	1	5.760	1	250.3	1	4.8191	1	27.6694	1	691.9	1	34.9653	1	5.651	4	245.6	4	5.8	1
055	14	599.6	1	5.3282	1	34.9867	1	5.495	1	238.8	1	5.2780	1	27.6319	1	593.3	1	34.9829	1	5.445	1	236.7	1	6.1	1
055	15	499.8	1	6.1265	1	35.0314	1	5.282	1	229.6	1	6.0819	1	27.5670	1	494.7	1	35.0255	4	5.265	1	228.8	1	6.7	1
055	16	399.6	1	6.8177	1	35.0670	1	5.958	1	258.9	1	6.7802	1	27.5021	1	395.6	1	35.0648	1	5.986	1	260.2	1	7.4	1
055	17	299.5	1	6.5746	1	34.9666	1	6.293	1	273.5	1	6.5473	1	27.4545	1	296.6	1	34.9674	1	6.116	4	265.9	4	7.2	1
055	18	200.3	1	6.8827	1	34.9425	1	6.130	1	266.5	1	6.8641	1	27.3924	1	198.4	1	34.9420	1	6.180	1	268.7	1	7.5	1
055	19	150.0	1	7.1610	1	34.9038	1	6.085	1	264.5	1	7.1468	1	27.3225	1	148.6	1	34.9157	4	6.030	1	262.2	1	7.8	1
055	20	99.8	1	7.5485	1	34.8606	1	6.067	1	263.8	1	7.5388	1	27.2324	1	98.9	1	34.8586	1	6.069	1	263.9	1	8.2	1
055	21	30.2	1	11.8683	1	34.8427	1	6.474	1	281.6	1	11.8644	1	26.4927	1	29.9	1	34.8440	1	6.443	1	280.3	1	11.8	1
055	22	6.4	1	13.6196	1	34.8711	1	6.369	1	277.2	1	13.6187	1	26.1670	1	6.3	1	34.8655	4	6.324	1	275.2	1	13.6	1
055	23	6.3	1	13.6245	1	34.8716	1	6.368	1	277.1	1	13.6236	1	26.1663	1	6.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
056	01	2769.7	1	2.8085	1	34.9853	1	6.234	1	270.9	1	2.5852	1	27.9108	1	2726.5	1	34.9874	1	6.229	1	270.7	1	4.2	1
056	02	2497.3	1	2.9277	1	34.9692	1	6.192	1	269.0	1	2.7292	1	27.8852	1	2459.9	1	34.9714	1	6.190	1	269.0	1	4.3	1
056	03	2214.8	1	3.1707	1	34.9546	1	6.282	1	272.9	1	2.9954	1	27.8493	1	2183.1	1	34.9546	1	6.266	1	272.3	1	4.6	1
056	04	2002.6	1	3.3079	1	34.9350	1	6.310	1	274.2	1	3.1505	1	27.8192	1	1974.9	1	34.9371	1	6.303	1	273.9	1	4.7	1
056	05	1801.1	1	3.4963	1	34.9363	1	6.287	1	273.2	1	3.3549	1	27.8006	1	1777.0	1	34.9381	1	6.273	1	272.6	1	4.8	1
056	06	1801.1	1	3.4967	1	34.9363	1	6.287	1	273.2	1	3.3553	1	27.8006	1	1777.0	1	34.9354	1	6.283	1	273.1	1	4.9	1
056	07	1602.1	1	3.6035	1	34.9221	1	6.259	1	272.0	1	3.4788	1	27.7772	1	1581.4	1	34.9232	1	6.253	1	271.8	1	5.3	1
056	08	1399.9	1	3.7199	1	34.9135	1	6.280	1	272.9	1	3.6118	1	27.7572	1	1382.5	1	34.9174	1	6.243	1	271.3	1	5.4	1
056	09	1201.4	1	3.8107	1	34.9072	1	6.305	1	274.0	1	3.7189	1	27.7414	1	1187.0	1	34.9141	4	6.276	1	272.8	1	5.7	1
056	10	1000.6	1	3.9904	1	34.9132	1	6.271	1	272.5	1	3.9141	1	27.7261	1	989.1	1	34.9176	1	6.222	1	270.4	1	5.8	1
056	11	899.8	1	4.1135	1	34.9186	1	6.246	1	271.4	1	4.0447	1	27.7168	1	889.7	1	34.9184	1	6.205	1	269.7	1	6.3	1
056	12	800.3	1	4.2601	1	34.9257	1	6.122	1	266.0	1	4.1986	1	27.7061	1	791.5	1	34.9277	1	6.122	1	266.1	1	6.1	1
056	13	700.5	1	4.4745	1	34.9353	1	5.988	1	260.2	1	4.4200	1	27.6897	1	692.9	1	34.9355	1	5.991	1	260.4	1	6.4	1
056	14	600.2	1	4.7954	1	34.9507	1	5.733	1	249.2	1	4.7476	1	27.6653	1	593.9	1	34.9341	4	5.746	1	249.8	1	6.6	1
056	15	500.0	1	5.3231	1	34.9597	1	5.484	1	238.3	1	5.2816	1	27.6100	1	494.8	1	34.9603	1	5.465	1	237.6	1	6.9	1
056	16	403.6	1	6.1672	1	35.0092	1	5.834	1	253.6	1	6.1314	1	27.5431	1	399.5	1	35.0111	1	5.884	1	255.8	1	7.5	1
056	17	301.0	1	6.2449	1	34.9398	1	6.180	1	268.6	1	6.2182	1	27.4769	1	298.0	1	34.9474	4	6.114	1	265.8	1	7.8	1
056	18	200.6	1	6.4787	1	34.8946	1	6.344	1	275.8	1	6.4607	1	27.4093	1	198.7	1	34.8946	1	6.369	1	276.9	1	7.8	1
056	19	121.1	1	6.8939	1	34.8696	1	6.367	1	276.8	1	6.8827	1	27.3323	1	120.0	1	34.8717	1	6.268	4	272.5	4	8.2	1
056	20	101.2	1	7.4823	1	34.9292	1	6.148	1	267.3	1	7.4725	1	27.2960	1	100.3	1	34.9418	4	6.179	1	268.7	1	8.7	1
056	21	50.6	1	9.1883	1	34.9086	1	6.537	1	284.2	1	9.1828	1	27.0170	1	50.1	1	34.9034	4	6.519	1	283.5	1	10.0	1
056	22	5.4	1	13.3754	1	34.8262	1	6.289	1	273.7	1	13.3746	1	26.1824	1	5.4	1	-9.9999	9	6.318	1	275.0	1	13.5	1
056	23	5.5	1	13.3767	1	34.8262	1	6.289	1	273.7	1	13.3759	1	26.1821	1	5.4	1	-9.9999	9	6.318	1	275.0	1	13.6	1
056	24	5.5	1	13.3743	1	34.8263	1	6.289	1	273.7	1	13.3735	1	26.1827	1	5.4	1	34.8271	1	6.298	1	274.1	1	13.5	1
057	01	2743.7	1	2.7958	1	34.9839	1	6.214	1	270.0	1	2.5754	1	27.9106	1	2701.0	1	34.9801	1	6.195	1	269.2	1	3.5	1
057	02	2500.1	1	2.9190	1	34.9712	1	6.207	1	269.7	1	2.7204	1	27.8876	1	2462.6	1	34.9678	1	6.181	1	268.6	1	3.6	1
057	03	2250.2	1	3.1066	1	34.9588	1	6.277	1	272.7	1	2.9289	1	27.8588	1	2217.7	1	34.9576	1	6.256	1	271.8	1	3.8	1
057	04	2000.2	1	3.2632	1	34.9380	1	6.316	1	274.4	1	3.1067	1	27.8257	1	1972.5	1	34.9360	1	6.309	1	274.2	1	3.9	1
057	05	1800.5	1	3.4106	1	34.9324	1	6.307	1	274.0	1	3.2704	1	27.8057	1	1776.4	1	34.9318	1	6.274	1	272.6	1	4.0	1
057	06	1599.0	1	3.5543	1	34.9247	1	6.278	1	272.8	1	3.4305	1	27.7840	1	1578.3	1	34.9227	1	6.239	1	271.1	1	4.2	1
057	07	1599.0	1	3.5543	1	34.9248	1	6.278	1	272.8	1	3.4305	1	27.7841	1	1578.3	1	34.9239	1	6.251	1	271.6	1	4.2	1
057	08	1400.1	1	3.6661	1	34.9166	1	6.270	1	272.4	1	3.5586	1	27.7649	1	1382.6	1	34.9157	1	6.246	1	271.4	1	4.3	1
057	09	1199.7	1	3.7736	1	34.9088	1	6.308	1	274.1	1	3.6823	1	27.7463	1	1185.3	1	34.9013	4	6.251	1	271.7	1	4.5	1
057	10	998.9	1	3.9346	1	34.9107	1	6.295	1	273.6	1	3.8589	1	27.7298	1	987.4	1	34.9138	1	6.252	1	271.7	1	4.7	1
057	11	899.6	1	4.0243	1	34.9142	1	6.273	1	272.6	1	3.9561	1	27.7226	1	889.4	1	34.9130	1	6.258	1	272.0	1	4.9	1
057	12	798.9	1	4.1961	1	34.9251	1	6.145	1	267.0	1	4.1351	1	27.7124	1	790.1	1	34.9246	1	6.138	1	266.8	1	4.9	1
057	13	700.0	1	4.3627	1	34.9330	1	6.046	1	262.7	1	4.3088	1	27.7000	1	692.4	1	34.9336	1	6.033	1	262.2	1	5.2	1
057	14	599.4	1	4.7325	1	34.9563	1	5.843	1	253.9	1	4.6851	1	27.6768	1	593.1	1	34.9541	1	5.794	1	251.8	1	5.5	1
057	15	500.1	1	5.1618	1	34.9763	1	5.619	1</																

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
058	23	6.2	1	13.2454	1	34.8624	1	6.398	1	278.5	1	13.2445	1	26.2369	1	6.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
058	24	6.1	1	13.2521	1	34.8621	1	6.399	1	278.5	1	13.2513	1	26.2353	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
059	01	2636.5	1	2.7944	1	34.9884	1	6.261	1	272.0	1	2.5847	1	27.9134	1	2595.9	1	34.9874	1	6.229	1	270.7	1	3.8	1
059	02	2500.3	1	2.8806	1	34.9878	1	6.270	1	272.4	1	2.6826	1	27.9042	1	2462.6	1	34.9868	1	6.239	1	271.1	1	3.8	1
059	03	2250.0	1	3.1332	1	34.9758	1	6.270	1	272.4	1	2.9550	1	27.8700	1	2217.4	1	34.9756	1	6.249	1	271.5	1	4.1	1
059	04	1999.8	1	3.4361	1	34.9566	1	6.298	1	273.7	1	3.2770	1	27.8244	1	1971.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
059	05	1799.9	1	3.5553	1	34.9369	1	6.278	1	272.8	1	3.4132	1	27.7955	1	1775.7	1	34.9369	1	6.280	1	272.9	1	4.4	1
059	06	1600.0	1	3.6705	1	34.9243	1	6.254	1	271.8	1	3.5452	1	27.7724	1	1579.2	1	34.9243	1	6.240	1	271.2	1	4.6	1
059	07	1400.7	1	3.7798	1	34.9177	1	6.262	1	272.1	1	3.6710	1	27.7546	1	1383.1	1	34.9179	1	6.237	1	271.0	1	4.7	1
059	08	1200.8	1	3.9928	1	34.9299	1	6.245	1	271.4	1	3.8994	1	27.7409	1	1186.3	1	34.9321	1	6.174	1	268.3	1	4.9	1
059	09	1200.9	1	3.9933	1	34.9299	1	6.245	1	271.4	1	3.8999	1	27.7409	1	1186.4	1	34.9326	1	6.175	1	268.4	1	4.9	1
059	10	999.8	1	4.1602	1	34.9307	1	6.163	1	267.8	1	4.0826	1	27.7224	1	988.2	1	34.9297	1	6.099	1	265.1	1	5.1	1
059	11	900.6	1	4.3391	1	34.9420	1	6.048	1	262.8	1	4.2686	1	27.7115	1	890.4	1	34.9423	1	6.036	1	262.3	1	5.3	1
059	12	800.1	1	4.5658	1	34.9566	1	5.897	1	256.3	1	4.5024	1	27.6975	1	791.2	1	34.9607	1	5.900	1	256.4	1	5.5	1
059	13	699.4	1	4.9484	1	34.9830	1	5.670	1	246.4	1	4.8914	1	27.6745	1	691.8	1	34.9830	1	5.671	1	246.5	1	5.8	1
059	14	600.6	1	5.4938	1	35.0228	1	5.403	1	234.8	1	5.4427	1	27.6405	1	594.2	1	35.0234	1	5.375	1	233.6	1	6.3	1
059	15	500.7	1	6.1623	1	35.0404	1	5.177	1	225.0	1	6.1175	1	27.5695	1	495.5	1	35.0403	1	5.138	1	223.3	1	6.8	1
059	16	400.5	1	7.0539	1	35.1287	1	5.789	1	251.6	1	7.0156	1	27.5181	1	396.4	1	35.1279	1	5.867	1	255.0	1	7.6	1
059	17	300.1	1	6.9954	1	35.0510	1	5.557	1	241.5	1	6.9671	1	27.4636	1	297.1	1	35.0561	1	5.496	1	238.9	1	7.6	1
059	18	199.5	1	7.1042	1	34.9771	1	5.966	1	259.3	1	7.0854	1	27.3889	1	197.6	1	34.9772	1	5.950	1	258.7	1	7.7	1
059	19	150.2	1	7.8412	1	35.0426	1	5.945	1	258.4	1	7.8262	1	27.3334	1	148.8	1	35.0437	1	5.906	1	256.8	1	8.3	1
059	20	100.2	1	8.2506	1	35.0470	1	6.010	1	261.3	1	8.2403	1	27.2743	1	99.3	1	35.0466	1	5.978	1	259.9	1	8.8	1
059	21	35.3	1	10.7741	1	34.9904	1	6.568	1	285.6	1	10.7698	1	26.8096	1	35.0	1	34.9983	4	6.460	4	281.0	4	10.9	1
059	22	6.5	1	13.2914	1	34.9184	1	6.340	1	275.9	1	13.2905	1	26.2709	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
059	23	6.5	1	13.2918	1	34.9183	1	6.340	1	275.9	1	13.2909	1	26.2708	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
059	24	6.6	1	13.2922	1	34.9184	1	6.340	1	275.9	1	13.2913	1	26.2708	1	6.5	1	34.9200	1	6.295	1	273.9	1	13.2	1
060	01	2485.1	1	2.9235	1	34.9919	1	6.290	1	273.3	1	2.7262	1	27.9036	1	2447.6	1	34.9893	1	6.314	1	274.4	1	4.8	1
060	02	2247.7	1	3.1114	1	34.9879	1	6.296	1	273.5	1	2.9338	1	27.8816	1	2215.1	1	34.9850	1	6.317	1	274.5	1	4.6	1
060	03	1998.7	1	3.4645	1	34.9629	1	6.296	1	273.6	1	3.3051	1	27.8267	1	1970.8	1	34.9636	1	6.281	1	273.0	1	4.9	1
060	04	1803.2	1	3.5097	1	34.9312	1	6.292	1	273.4	1	3.3679	1	27.7953	1	1778.9	1	34.9301	1	6.287	1	273.2	1	5.1	1
060	05	1601.8	1	3.6455	1	34.9213	1	6.260	1	272.0	1	3.5203	1	27.7725	1	1580.9	1	34.9200	1	6.257	1	271.9	1	5.2	1
060	06	1402.6	1	3.8006	1	34.9186	1	6.267	1	272.3	1	3.6914	1	27.7532	1	1385.0	1	34.9164	1	6.287	1	273.2	1	5.5	1
060	07	1200.8	1	3.9717	1	34.9190	1	6.265	1	272.2	1	3.8785	1	27.7344	1	1186.3	1	34.9175	1	6.240	1	271.2	1	5.6	1
060	08	1000.0	1	4.3314	1	34.9389	1	6.077	1	264.1	1	4.2525	1	27.7108	1	988.4	1	34.9413	1	6.089	1	264.7	1	6.1	1
060	09	900.0	1	4.5984	1	34.9577	1	5.947	1	258.4	1	4.5262	1	27.6958	1	889.8	1	34.9554	1	5.914	1	257.0	1	6.1	1
060	10	899.7	1	4.5997	1	34.9577	1	5.947	1	258.4	1	4.5275	1	27.6956	1	889.5	1	34.9577	1	5.890	1	256.0	1	6.3	1
060	11	799.5	1	4.8915	1	34.9749	1	5.744	1	249.6	1	4.8261	1	27.6755	1	790.6	1	34.9728	1	5.745	1	249.7	1	6.5	1
060	12	700.1	1	5.4523	1	35.0102	1	5.443	1	236.5	1	5.3925	1	27.6367	1	692.5	1	35.0095	1	5.417	1	235.5	1	6.8	1
060	13	602.0	1	6.0920	1	35.0271	1	5.230	1	227.3	1	6.0380	1	27.5693	1	595.6	1	35.0246	1	5.226	1	227.2	1	7.4	1
060	14	500.5	1	7.3354	1	35.1595	1	6.059	1	263.3	1	7.2861	1	27.5041	1	495.3	1	35.1580	1	6.113	1	265.7	1	8.2	1
060	15	402.1	1	7.4497	1	35.1530	1	6.233	1	270.9	1	7.4100	1	27.4812	1	398.0	1	35.1543	1	6.224	1	270.6	1	8.3	1
060	16	303.5	1	7.4526	1	35.1154	1	6.154	1	267.5	1	7.4229	1	27.4497	1	300.5	1	35.1139	1	6.111	1	265.7	1	8.4	1
060	17	199.6	1	7.5641	1	35.0368	1	5.953	1	258.8	1	7.5445	1	27.3702	1	197.7	1	35.0336	1	5.945	1	258.5	1	8.8	1
060	18	150.7	1	8.3126	1	35.0993	1	5.859	1	254.7	1	8.2970	1	27.3067	1	149.3	1	35.0963	1	5.866	1	255.0	1	9.1	1
060	19	101.2	1	8.7386	1	35.1080	1	5.989	1	260.4	1	8.7278	1	27.2463	1	100.2	1	35.1046	1	5.976	1	259.8	1	9.4	1
060	20	50.3	1	8.9308	1	35.0686	1	6.175	1	268.5	1	8.9254	1	27.1839	1	49.8	1	35.0618	4	6.089	1	264.8	1	9.8	1
060	21	5.4	1	12.5023	1	34.9385	1	6.383	1	277.7	1	12.5016	1	26.4442	1	5.4	1	34.9355	1	6.388	1	277.9	1	12.5	1
060	22	5.4	1	12.5022	1	34.9387	1	6.383	1	277.7	1	12.5015	1	26.4444	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
060	23	5.4	1	12.5018	1	34.9391	1	6.383	1	277.7	1	12.5011	1	26.4448	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
060	24	5.3	1	12.5020	1	34.9391	1	6.383	1	277.7	1	12.5013	1	26.4447	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
061	01	2151.1	1	2.9491	1	34.9934	1	6.302	1	273.8	1	2.7832	1	27.8997	1	2120.3	1	34.9930	1	6.296	1	273.6	1	3.9	1
061	02	2000.5	1	3.1437	1	34.9895	1	6.306	1	274.0	1	2.9888	1	27.8778	1	1972.5	1	34.9889	1	6.310	1	274.2	1	4.0	1
061	03	1800.9	1	3.4577	1	34.9647	1	6.291	1	273.4	1	3.3167	1	27.8270	1	1776.6	1	34.9631	1	6.287	1	273.2	1	4.3	1
061	04	1600.0	1	3.7867	1	34.9653	1	6.235	1	270.9	1	3.6599	1	27.7936	1	1579.1	1	34.9628	1	6.250	1	271.6	1	4.6	1
061	05	1401.8	1	3.8676	1	34.9310	1	6.235	1	270.9	1	3.7578	1	27.7564	1	1384.2	1	34.9303	1	6.245	1	271.4	1	4.6	1
061	06	1201.8	1	4.0374	1	34.9250	1	6.201	1	269.5	1	3.9435													



Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
062	14	499.6	1	6.9942	1	35.1342	1	6.054	1	263.1	1	6.9463	1	27.5321	1	494.4	1	35.1319	1	6.033	1	262.2	1	7.4	1
062	15	398.7	1	7.3037	1	35.1569	1	6.162	1	267.8	1	7.2648	1	27.5051	1	394.6	1	35.1537	1	6.220	1	270.4	1	7.7	1
062	16	298.4	1	7.2126	1	35.1111	1	6.119	1	266.0	1	7.1839	1	27.4805	1	295.4	1	35.1075	1	6.165	1	268.0	1	7.6	1
062	17	199.6	1	7.2090	1	35.0510	1	6.073	1	264.0	1	7.1900	1	27.4323	1	197.7	1	35.0503	1	6.114	1	265.8	1	7.6	1
062	18	150.3	1	7.4366	1	35.0417	1	6.211	1	270.0	1	7.4221	1	27.3918	1	148.9	1	35.0402	1	6.183	1	268.8	1	7.9	1
062	19	98.3	1	7.7382	1	35.0330	1	6.182	1	268.7	1	7.7285	1	27.3403	1	97.4	1	35.0313	1	6.145	1	267.1	1	8.2	1
062	20	49.0	1	8.7686	1	34.9913	1	6.570	1	285.7	1	8.7634	1	27.1492	1	48.5	1	34.9890	1	6.510	1	283.1	1	9.1	1
062	21	49.1	1	8.7712	1	34.9913	1	6.568	1	285.6	1	8.7660	1	27.1488	1	48.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
062	22	48.8	1	8.7751	1	34.9916	1	6.573	1	285.8	1	8.7699	1	27.1484	1	48.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
062	23	11.2	1	12.5670	1	34.8997	1	6.322	1	275.1	1	12.5655	1	26.4015	1	11.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
062	24	11.1	1	12.5688	1	34.8998	1	6.322	1	275.1	1	12.5673	1	26.4013	1	11.0	1	34.8999	1	6.380	1	277.6	1	12.3	1
063	01	2194.4	1	3.3438	1	34.9927	1	6.325	1	274.8	1	3.1675	1	27.8636	1	2162.7	1	34.9862	4	6.313	1	274.3	1	4.3	1
063	02	2000.9	1	3.3965	1	34.9913	1	6.316	1	274.4	1	3.2378	1	27.8558	1	1972.9	1	34.9922	1	6.353	1	276.1	1	4.0	1
063	03	1802.7	1	3.4730	1	34.9878	1	6.309	1	274.1	1	3.3316	1	27.8440	1	1778.3	1	34.9855	1	6.348	1	275.8	1	4.2	1
063	04	1601.9	1	3.6334	1	34.9730	1	6.275	1	272.7	1	3.5082	1	27.8149	1	1580.9	1	34.9729	1	6.283	1	273.0	1	4.4	1
063	05	1403.1	1	3.9530	1	34.9653	1	6.215	1	270.1	1	3.8421	1	27.7750	1	1385.4	1	34.9636	1	6.217	1	270.2	1	4.6	1
063	06	1202.6	1	4.0086	1	34.9345	1	6.195	1	269.2	1	3.9149	1	27.7430	1	1188.0	1	34.9337	1	6.222	1	270.4	1	4.7	1
063	07	1000.4	1	4.3540	1	34.9464	1	6.033	1	262.2	1	4.2749	1	27.7143	1	988.7	1	34.9454	1	6.066	1	263.6	1	5.0	1
063	08	899.7	1	4.6665	1	34.9672	1	5.873	1	255.2	1	4.5938	1	27.6958	1	889.4	1	34.9658	1	5.921	1	257.3	1	5.3	1
063	09	800.7	1	5.2117	1	35.0148	1	5.643	1	245.2	1	5.1442	1	27.6701	1	791.7	1	35.0137	1	5.684	1	247.0	1	5.7	1
063	10	697.8	1	5.8983	1	35.0591	1	5.571	1	242.1	1	5.8363	1	27.6203	1	690.1	1	35.0379	4	-9.999	9	-9.9	9	-9.9	9
063	11	600.9	1	6.3329	1	35.0724	1	5.521	1	240.0	1	6.2779	1	27.5738	1	594.4	1	35.0696	1	5.578	1	242.4	1	6.7	1
063	12	500.6	1	6.9903	1	35.1348	1	6.097	1	265.0	1	6.9423	1	27.5331	1	495.3	1	35.1330	1	6.158	1	267.7	1	7.3	1
063	13	500.0	1	6.9906	1	35.1348	1	6.097	1	265.0	1	6.9427	1	27.5331	1	494.8	1	35.1374	1	6.129	1	266.4	1	7.3	1
063	14	401.9	1	7.3467	1	35.1676	1	6.241	1	271.3	1	7.3073	1	27.5074	1	397.8	1	35.1742	4	6.294	1	273.6	1	7.6	1
063	15	302.6	1	7.3358	1	35.1369	1	6.209	1	269.9	1	7.3064	1	27.4834	1	299.6	1	35.1398	1	6.216	1	270.2	1	7.6	1
063	16	200.5	1	7.2622	1	35.0755	1	6.036	1	262.4	1	7.2430	1	27.4441	1	198.5	1	35.0748	1	6.081	1	264.3	1	7.6	1
063	17	152.2	1	7.4352	1	35.0569	1	5.987	1	260.2	1	7.4205	1	27.4040	1	150.7	1	35.0541	1	6.038	1	262.5	1	7.8	1
063	18	100.3	1	7.8400	1	35.0359	1	6.069	1	263.8	1	7.8300	1	27.3275	1	99.3	1	35.0343	1	6.097	1	265.1	1	8.1	1
063	19	50.9	1	8.5187	1	35.0405	1	6.069	1	263.8	1	8.5134	1	27.2271	1	50.4	1	35.0387	1	6.104	1	265.4	1	8.8	1
063	20	5.6	1	12.0940	1	34.8770	1	6.352	1	276.4	1	12.0933	1	26.4757	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
063	21	5.7	1	12.0945	1	34.8769	1	6.352	1	276.4	1	12.0938	1	26.4755	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
063	22	5.5	1	12.0943	1	34.8769	1	6.353	1	276.4	1	12.0936	1	26.4756	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
063	23	5.5	1	12.0946	1	34.8770	1	6.353	1	276.4	1	12.0939	1	26.4756	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
063	24	5.7	1	12.0956	1	34.8770	1	6.352	1	276.4	1	12.0949	1	26.4754	1	5.6	1	34.8760	1	6.372	1	277.2	1	11.9	1
064	01	1589.7	1	3.8332	1	34.9850	1	6.241	1	271.2	1	3.7067	1	27.8046	1	1568.9	1	34.9844	1	6.273	1	272.6	1	4.7	1
064	02	1500.3	1	3.8463	1	34.9833	1	6.232	1	270.8	1	3.7278	1	27.8011	1	1481.0	1	34.9831	1	6.226	1	270.6	1	4.7	1
064	03	1399.9	1	3.8764	1	34.9829	1	6.222	1	270.4	1	3.7665	1	27.7968	1	1382.2	1	34.9820	1	6.233	1	270.9	1	4.9	1
064	04	1200.2	1	4.0720	1	34.9738	1	6.170	1	268.1	1	3.9778	1	27.7677	1	1185.6	1	34.9751	1	6.163	1	267.8	1	5.0	1
064	05	1000.1	1	4.6749	1	34.9961	1	5.923	1	257.4	1	4.5932	1	27.7188	1	988.4	1	34.9944	1	5.933	1	257.8	1	5.5	1
064	06	901.6	1	5.0753	1	35.0177	1	5.760	1	250.3	1	4.9996	1	27.6894	1	891.3	1	35.0173	1	5.759	1	250.3	1	5.8	1
064	07	800.7	1	5.5385	1	35.0424	1	5.519	1	239.8	1	5.4690	1	27.6529	1	791.7	1	35.0394	1	5.606	1	243.7	1	6.3	1
064	08	700.0	1	6.1431	1	35.0641	1	5.652	1	245.6	1	6.0796	1	27.5932	1	692.3	1	35.0709	4	5.671	1	246.5	1	6.7	1
064	09	600.2	1	6.7708	1	35.1084	1	6.106	1	265.4	1	6.7139	1	27.5438	1	593.8	1	35.1128	1	6.105	1	265.4	1	7.2	1
064	10	500.1	1	7.2507	1	35.1609	1	6.183	1	268.8	1	7.2018	1	27.5172	1	494.8	1	35.1618	1	6.208	1	269.8	1	7.6	1
064	11	401.0	1	7.3653	1	35.1608	1	6.278	1	272.9	1	7.3260	1	27.4994	1	396.9	1	35.1593	1	6.286	1	273.2	1	7.8	1
064	12	299.9	1	7.3401	1	35.1379	1	6.313	1	274.4	1	7.3110	1	27.4835	1	296.9	1	35.1368	1	6.321	1	274.8	1	7.7	1
064	13	201.5	1	7.3809	1	35.1235	1	6.288	1	273.3	1	7.3614	1	27.4649	1	199.5	1	35.1265	1	6.298	1	273.8	1	7.9	1
064	14	201.5	1	7.3807	1	35.1231	1	6.288	1	273.3	1	7.3612	1	27.4646	1	199.5	1	35.1250	1	6.265	1	272.3	1	7.8	1
064	15	150.5	1	7.2906	1	35.0744	1	6.256	1	271.9	1	7.2762	1	27.4385	1	149.0	1	35.0783	1	6.260	1	272.1	1	7.8	1
064	16	100.0	1	7.2564	1	35.0251	1	6.256	1	271.9	1	7.2469	1	27.4038	1	99.0	1	35.0233	1	6.232	1	270.9	1	7.8	1
064	17	30.2	1	9.4513	1	35.0011	1	6.479	1	281.7	1	9.4479	1	27.0459	1	29.9	1	35.0035	1	6.501	1	282.7	1	9.8	1
064	18	6.3	1	11.8197	1	34.9475	1	6.403	1	278.6	1	11.8189	1	26.5828	1	6.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
064	19	6.6	1	11.8207	1	34.9475	1	6.405	1	278.6	1	11.8199	1	26.5826	1	6.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
064	20	6.5	1	11.8217	1	34.9475	1	6.404	1	278.6	1	11.8209	1	26.5824	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
064	21	6.5	1	11.8215	1	34.9476	1	6.404	1	278.6	1	11.8207	1	26.5826	1	6.4	1								

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
066	05	900.4	1	4.1276	1	34.9369	1	6.264	1	272.2	1	4.0586	1	27.7299	1	890.1	1	34.9370	1	6.274	1	272.7	1	4.8	1
066	06	801.4	1	4.2411	1	34.9361	1	6.329	1	275.0	1	4.1796	1	27.7164	1	792.4	1	34.9348	1	6.325	1	274.9	1	5.0	1
066	07	700.1	1	4.6020	1	34.9694	1	5.939	1	258.1	1	4.5468	1	27.7028	1	692.4	1	34.9681	1	5.997	1	260.6	1	5.3	1
066	08	600.9	1	4.9861	1	34.9802	1	5.898	1	256.3	1	4.9374	1	27.6669	1	594.4	1	34.9788	1	5.906	1	256.7	1	5.7	1
066	09	500.8	1	5.4664	1	34.9992	1	5.895	1	256.2	1	5.4243	1	27.6241	1	495.5	1	34.9987	1	5.903	1	256.6	1	6.1	1
066	10	400.6	1	6.2098	1	35.0590	1	6.069	1	263.8	1	6.1741	1	27.5769	1	396.5	1	35.0563	1	6.089	1	264.7	1	6.7	1
066	11	301.9	1	6.6035	1	35.0887	1	6.228	1	270.7	1	6.5759	1	27.5470	1	298.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	12	200.5	1	6.3254	1	34.9973	1	6.435	1	279.7	1	6.3076	1	27.5106	1	198.5	1	34.9948	1	6.417	1	278.9	1	6.9	1
066	13	151.0	1	6.4233	1	34.9793	1	6.438	1	279.8	1	6.4099	1	27.4829	1	149.5	1	34.9768	1	6.475	1	281.5	1	7.0	1
066	14	100.2	1	6.4413	1	34.9187	1	6.555	1	284.9	1	6.4324	1	27.4320	1	99.2	1	34.9190	1	6.550	1	284.7	1	7.0	1
066	15	50.9	1	7.7375	1	34.8770	1	6.804	1	295.8	1	7.7325	1	27.2170	1	50.4	1	34.8759	1	6.760	1	293.9	1	8.2	1
066	16	5.4	1	12.3142	1	34.8562	1	6.496	1	282.6	1	12.3135	1	26.4170	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	17	5.4	1	12.3135	1	34.8561	1	6.496	1	282.6	1	12.3128	1	26.4171	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	18	5.3	1	12.3134	1	34.8561	1	6.496	1	282.6	1	12.3127	1	26.4171	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	19	5.5	1	12.3135	1	34.8559	1	6.496	1	282.6	1	12.3128	1	26.4169	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	20	5.3	1	12.3129	1	34.8560	1	6.496	1	282.6	1	12.3122	1	26.4171	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	21	5.3	1	12.3129	1	34.8560	1	6.496	1	282.6	1	12.3122	1	26.4171	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	22	5.4	1	12.3137	1	34.8559	1	6.496	1	282.6	1	12.3130	1	26.4169	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	23	5.4	1	12.3147	1	34.8558	1	6.496	1	282.6	1	12.3140	1	26.4166	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
066	24	5.4	1	12.3160	1	34.8560	1	6.496	1	282.6	1	12.3153	1	26.4165	1	5.3	1	34.8557	1	6.468	1	281.4	1	12.3	1
067	01	1676.2	1	3.8196	1	34.9674	1	6.235	1	270.9	1	3.6854	1	27.7927	1	1653.9	1	34.9656	1	6.228	1	270.6	1	4.2	1
067	02	1598.8	1	3.8249	1	34.9676	1	6.231	1	270.7	1	3.6977	1	27.7916	1	1577.8	1	34.9671	1	6.246	1	271.4	1	4.2	1
067	03	1598.9	1	3.8254	1	34.9675	1	6.231	1	270.7	1	3.6982	1	27.7915	1	1577.9	1	34.9661	1	6.225	1	270.5	1	4.3	1
067	04	1399.4	1	3.8483	1	34.9629	1	6.234	1	270.9	1	3.7388	1	27.7837	1	1381.7	1	34.9611	1	6.209	1	269.8	1	4.3	1
067	05	1199.6	1	3.9257	1	34.9551	1	6.227	1	270.6	1	3.8329	1	27.7679	1	1185.0	1	34.9547	1	6.215	1	270.1	1	4.5	1
067	06	1000.2	1	3.9772	1	34.9256	1	6.376	1	277.1	1	3.9010	1	27.7374	1	988.5	1	34.9254	1	6.349	1	275.9	1	4.6	1
067	07	900.5	1	4.1248	1	34.9315	1	6.439	1	279.8	1	4.0558	1	27.7259	1	890.2	1	34.9312	1	6.423	1	279.1	1	4.8	1
067	08	799.8	1	4.2784	1	34.9381	1	6.486	1	281.9	1	4.2168	1	27.7140	1	790.8	1	34.9416	1	6.477	1	281.5	1	4.9	1
067	09	700.4	1	4.5916	1	34.9587	1	6.133	1	266.5	1	4.5364	1	27.6954	1	692.7	1	34.9570	1	6.092	1	264.8	1	5.2	1
067	10	600.4	1	4.9236	1	34.9740	1	6.155	1	267.5	1	4.8752	1	27.6692	1	593.9	1	34.9761	1	6.147	1	267.2	1	5.6	1
067	11	500.0	1	5.2320	1	34.9899	1	6.249	1	271.6	1	5.1909	1	27.6448	1	494.7	1	34.9908	1	6.225	1	270.5	1	5.8	1
067	12	499.7	1	5.2392	1	34.9903	1	6.247	1	271.5	1	5.1981	1	27.6443	1	494.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	13	400.0	1	6.0034	1	35.0606	1	5.633	1	244.8	1	5.9684	1	27.6047	1	395.9	1	35.0602	1	5.496	4	238.9	4	6.4	1
067	14	300.1	1	6.5135	1	35.0815	1	6.227	1	270.7	1	6.4862	1	27.5534	1	297.1	1	35.0801	1	6.178	1	268.5	1	6.9	1
067	15	200.7	1	6.4450	1	35.0292	1	6.337	1	275.4	1	6.4270	1	27.5200	1	198.7	1	35.0272	1	6.306	1	274.1	1	6.9	1
067	16	149.7	1	6.4783	1	35.0014	1	6.458	1	280.7	1	6.4649	1	27.4930	1	148.2	1	35.0034	1	6.339	4	275.5	4	7.0	1
067	17	99.9	1	6.4216	1	34.9344	1	6.445	1	280.1	1	6.4128	1	27.4471	1	98.9	1	34.9322	1	6.402	1	278.3	1	7.0	1
067	18	25.7	1	9.6101	1	34.8591	1	6.676	1	290.3	1	9.6072	1	26.9083	1	25.5	1	34.8634	1	6.757	1	293.9	1	10.0	1
067	19	6.0	1	12.1804	1	34.8186	1	6.494	1	282.5	1	12.1796	1	26.4137	1	5.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	20	6.0	1	12.1812	1	34.8187	1	6.494	1	282.5	1	12.1804	1	26.4137	1	5.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	21	6.1	1	12.1813	1	34.8187	1	6.494	1	282.6	1	12.1805	1	26.4136	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	22	6.0	1	12.1826	1	34.8187	1	6.494	1	282.5	1	12.1818	1	26.4134	1	5.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	23	5.9	1	12.1828	1	34.8186	1	6.494	1	282.5	1	12.1820	1	26.4133	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
067	24	5.9	1	12.1839	1	34.8186	1	6.494	1	282.5	1	12.1831	1	26.4131	1	5.8	1	34.8236	4	6.458	1	281.0	1	12.2	1
068	01	1894.6	1	3.4916	1	34.9597	1	6.290	1	273.3	1	3.3415	1	27.8206	1	1868.4	1	34.9577	1	6.304	1	273.9	1	4.2	1
068	02	1843.4	1	3.5610	1	34.9605	1	6.282	1	272.9	1	3.4147	1	27.8141	1	1818.2	1	34.9592	1	6.280	1	272.9	1	4.2	1
068	03	1794.3	1	3.5771	1	34.9603	1	6.284	1	273.0	1	3.4352	1	27.8120	1	1769.9	1	34.9601	1	6.287	1	273.2	1	4.2	1
068	04	1600.0	1	3.6637	1	34.9512	1	6.274	1	272.6	1	3.5384	1	27.7945	1	1579.0	1	34.9487	1	6.269	1	272.4	1	4.4	1
068	05	1401.1	1	3.7776	1	34.9375	1	6.284	1	273.0	1	3.6688	1	27.7706	1	1383.4	1	34.9385	1	6.293	1	273.5	1	4.5	1
068	06	1199.1	1	3.8982	1	34.9296	1	6.281	1	272.9	1	3.8058	1	27.7503	1	1184.5	1	34.9286	1	6.256	1	271.9	1	4.7	1
068	07	1199.1	1	3.8982	1	34.9296	1	6.281	1	272.9	1	3.8058	1	27.7503	1	1184.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
068	08	999.7	1	3.9833	1	34.9144	1	6.810	1	295.9	1	3.9071	1	27.7278	1	988.0	1	34.9134	1	6.794	1	295.3	1	4.8	1
068	09	899.0	1	4.0066	1	34.9143	1	6.858	1	298.0	1	3.9386	1	27.7245	1	888.7	1	34.9127	1	6.832	1	296.9	1	4.7	1
068	10	898.9	1	4.0067	1	34.9142	1	6.858	1	298.0	1	3.9387	1	27.7244	1	888.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
068	11	799.5	1	4.0682	1	34.9198	1	6.770	1	294.2	1	4.0079	1	27.7216	1	790.5	1	34.9197	1	6.780	1	294.7	1	4.9	1
068	12	698.5	1	4.2361	1	34.9351	1	6.489	1	282.0	1	4.1831	1	27.7152	1	690.8	1	-9.9999	9						

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
069	20	150.5	1	6.4290	1	35.0543	1	6.270	1	272.5	1	6.4156	1	27.5413	1	149.0	1	35.0620	4	6.352	1	276.1	1	7.0	1
069	21	100.9	1	6.5709	1	35.0373	1	6.479	1	281.6	1	6.5618	1	27.5083	1	99.9	1	35.0381	1	6.388	1	277.7	1	7.2	1
069	22	20.8	1	8.6417	1	34.9179	1	7.158	1	311.2	1	8.6395	1	27.1112	1	20.6	1	34.9147	1	7.274	4	316.3	4	9.1	1
069	23	5.4	1	11.9562	1	34.8261	1	6.581	1	286.3	1	11.9555	1	26.4625	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
069	24	5.4	1	11.9405	1	34.8261	1	6.581	1	286.3	1	11.9398	1	26.4655	1	5.3	1	34.8262	1	6.680	4	290.6	4	11.9	1
070	01	2296.4	1	3.1378	1	34.9489	1	6.325	1	274.8	1	2.9552	1	27.8485	1	2262.5	1	34.9475	1	6.323	1	274.8	1	3.8	1
070	02	2250.5	1	3.1338	1	34.9489	1	6.323	1	274.7	1	2.9557	1	27.8485	1	2217.5	1	34.9473	1	6.303	1	273.9	1	3.8	1
070	03	2200.7	1	3.1320	1	34.9491	1	6.320	1	274.6	1	2.9587	1	27.8483	1	2168.7	1	34.9483	1	6.330	1	275.1	1	3.9	1
070	04	1999.9	1	3.3555	1	34.9647	1	6.302	1	273.8	1	3.1976	1	27.8384	1	1971.8	1	34.9492	4	6.300	1	273.8	1	4.0	1
070	05	1801.2	1	3.4603	1	34.9652	1	6.294	1	273.5	1	3.3193	1	27.8271	1	1776.7	1	34.9650	1	6.295	1	273.5	1	4.1	1
070	06	1600.0	1	3.5637	1	34.9564	1	6.292	1	273.4	1	3.4396	1	27.8084	1	1579.0	1	34.9531	1	6.271	1	272.5	1	4.3	1
070	07	1399.7	1	3.6378	1	34.9470	1	6.274	1	272.6	1	3.5306	1	27.7920	1	1382.0	1	34.9453	1	6.279	1	272.9	1	4.4	1
070	08	1399.7	1	3.6379	1	34.9470	1	6.274	1	272.6	1	3.5307	1	27.7919	1	1382.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
070	09	1200.6	1	3.7904	1	34.9384	1	6.284	1	273.1	1	3.6988	1	27.7682	1	1185.9	1	34.9398	1	6.279	1	272.9	1	4.6	1
070	10	1000.1	1	3.8180	1	34.9148	1	6.358	1	276.3	1	3.7430	1	27.7450	1	988.4	1	34.9132	1	6.332	1	275.2	1	4.5	1
070	11	900.2	1	3.9205	1	34.9162	1	6.420	1	279.0	1	3.8530	1	27.7348	1	889.8	1	34.9152	1	6.365	1	276.6	1	4.7	1
070	12	900.2	1	3.9205	1	34.9162	1	6.420	1	279.0	1	3.8530	1	27.7348	1	889.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
070	13	801.3	1	4.0304	1	34.9194	1	6.540	1	284.2	1	3.9702	1	27.7252	1	792.3	1	34.9183	1	6.533	1	283.9	1	4.8	1
070	14	700.6	1	4.2845	1	34.9409	1	6.146	1	267.1	1	4.2310	1	27.7147	1	692.9	1	34.9376	1	6.187	1	268.9	1	4.9	1
070	15	600.9	1	4.4403	1	34.9477	1	6.142	1	266.9	1	4.3941	1	27.7024	1	594.4	1	34.9470	1	6.132	1	266.5	1	5.2	1
070	16	501.3	1	4.6961	1	34.9573	1	6.243	1	271.3	1	4.6570	1	27.6808	1	496.0	1	34.9555	1	6.288	1	273.3	1	5.4	1
070	17	401.4	1	5.0301	1	34.9711	1	6.138	1	266.7	1	4.9980	1	27.6526	1	397.3	1	34.9689	1	6.214	1	270.1	1	5.6	1
070	18	300.5	1	5.3463	1	34.9801	1	6.382	1	277.4	1	5.3218	1	27.6214	1	297.5	1	34.9783	1	6.438	1	279.8	1	6.0	1
070	19	200.5	1	5.7272	1	34.9887	1	6.437	1	279.8	1	5.7104	1	27.5805	1	198.5	1	34.9881	1	6.399	1	278.1	1	6.3	1
070	20	150.3	1	6.0693	1	35.0190	1	6.473	1	281.3	1	6.0563	1	27.5605	1	148.8	1	35.0168	1	6.373	4	277.0	4	6.6	1
070	21	100.7	1	6.1839	1	34.9871	1	6.491	1	282.1	1	6.1752	1	27.5199	1	99.7	1	34.9848	1	6.482	1	281.8	1	6.8	1
070	22	33.3	1	7.6511	1	34.8705	1	7.078	1	307.7	1	7.6479	1	27.2243	1	33.0	1	34.8706	1	6.945	4	302.0	4	8.1	1
070	23	5.9	1	12.1708	1	34.8327	1	6.557	1	285.3	1	12.1700	1	26.4265	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
070	24	5.8	1	12.1772	1	34.8331	1	6.558	1	285.3	1	12.1764	1	26.4256	1	5.7	1	34.8379	4	6.496	1	282.6	1	12.0	1
071	01	2512.6	1	3.0217	1	34.9411	1	6.343	1	275.6	1	2.8201	1	27.8546	1	2474.3	1	34.9412	1	6.328	1	275.0	1	3.5	1
071	02	2463.3	1	3.0322	1	34.9413	1	6.341	1	275.5	1	2.8353	1	27.8534	1	2426.0	1	34.9439	1	-9.999	9	-9.9	9	-9.9	9
071	03	2411.2	1	3.0490	1	34.9418	1	6.338	1	275.4	1	2.8569	1	27.8518	1	2375.0	1	34.9422	1	6.325	1	274.8	1	3.6	1
071	04	2249.7	1	3.0922	1	34.9424	1	6.337	1	275.3	1	2.9149	1	27.8470	1	2216.7	1	-9.9999	9	6.340	1	275.5	1	3.6	1
071	05	2000.8	1	3.2833	1	34.9423	1	6.333	1	275.2	1	3.1264	1	27.8273	1	1972.6	1	34.9435	1	6.311	1	274.2	1	3.8	1
071	06	1798.4	1	3.4375	1	34.9454	1	6.313	1	274.3	1	3.2971	1	27.8135	1	1773.9	1	34.9456	1	6.321	1	274.7	1	3.9	1
071	07	1599.0	1	3.6210	1	34.9547	1	6.281	1	272.9	1	3.4963	1	27.8015	1	1578.0	1	34.9563	1	6.284	1	273.1	1	4.0	1
071	08	1399.3	1	3.7668	1	34.9551	1	6.256	1	271.8	1	3.6582	1	27.7856	1	1381.6	1	34.9564	1	6.241	1	271.2	1	4.2	1
071	09	1199.7	1	3.8464	1	34.9370	1	6.265	1	272.2	1	3.7544	1	27.7615	1	1185.1	1	34.9360	1	6.257	1	271.9	1	4.3	1
071	10	999.4	1	3.8874	1	34.9122	1	6.523	1	283.4	1	3.8120	1	27.7359	1	987.7	1	34.9117	1	6.509	1	282.9	1	4.4	1
071	11	897.9	1	4.0124	1	34.9206	1	6.569	1	285.4	1	3.9444	1	27.7289	1	887.6	1	34.9175	1	6.634	1	288.3	1	4.5	1
071	12	799.8	1	4.1372	1	34.9309	1	6.727	1	292.3	1	4.0765	1	27.7232	1	790.8	1	34.9300	1	6.596	4	286.6	4	4.6	1
071	13	698.8	1	4.2303	1	34.9330	1	6.656	1	289.3	1	4.1773	1	27.7142	1	691.1	1	34.9308	1	6.599	1	286.8	1	4.8	1
071	14	599.5	1	4.4380	1	34.9480	1	6.510	1	282.9	1	4.3920	1	27.7029	1	593.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
071	15	499.9	1	4.7485	1	34.9685	1	6.348	1	275.9	1	4.7093	1	27.6838	1	494.6	1	34.9673	1	6.298	1	273.7	1	5.2	1
071	16	399.4	1	5.0039	1	34.9699	1	6.307	1	274.1	1	4.9721	1	27.6547	1	395.3	1	34.9715	1	6.334	1	275.3	1	5.4	1
071	17	299.3	1	5.2873	1	34.9742	1	6.444	1	280.0	1	5.2630	1	27.6238	1	296.3	1	34.9731	1	6.386	1	277.5	1	5.7	1
071	18	198.8	1	5.7158	1	34.9926	1	6.326	1	275.0	1	5.6991	1	27.5850	1	196.8	1	34.9929	1	6.331	1	275.2	1	6.1	1
071	19	148.9	1	5.8436	1	34.9889	1	6.501	1	282.6	1	5.8310	1	27.5655	1	147.5	1	34.9896	1	6.424	1	279.2	1	6.3	1
071	20	99.0	1	6.1067	1	34.9950	1	6.541	1	284.3	1	6.0982	1	27.5362	1	98.0	1	34.9924	1	6.481	1	281.7	1	6.5	1
071	21	39.2	1	7.0779	1	34.9250	1	6.813	1	296.2	1	7.0743	1	27.3494	1	38.8	1	34.9242	1	6.724	1	292.3	1	7.4	1
071	22	6.5	1	11.9209	1	34.8460	1	6.500	1	282.8	1	11.9201	1	26.4847	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
071	23	6.5	1	11.9219	1	34.8461	1	6.500	1	282.8	1	11.9211	1	26.4846	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
071	24	6.5	1	11.9198	1	34.8462	1	6.500	1	282.8	1	11.9190	1	26.4851	1	6.4	1	34.8475	1	6.724	4	292.5	4	11.8	1
072	01	2960.9	1	2.9047	1	34.9359	1	6.379	1	277.2	1	2.6601	1	27.8647	1	2912.7	1	34.9337	1	6.402	1	278.2	1	3.7	1
072	02	2909.8	1	2.9039	1	34.9360	1	6.376	1	277.0	1	2.6646	1	27.8644	1	2862.8	1	34.9342	1	6.411	1	278.6	1	3.8	1
072	03	2860.9	1	2.9023	1	34.9362	1	6.376	1	277.0	1	2.6681													

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
073	11	1199.4	1	3.7419	1	34.9109	1	6.373	1	276.9	1	3.6509	1	27.7512	1	1184.7	1	34.9104	1	6.365	1	276.6	1	4.3	1
073	12	999.8	1	3.9077	1	34.9126	1	6.545	1	284.4	1	3.8321	1	27.7341	1	988.1	1	34.9110	1	6.557	1	284.9	1	4.4	1
073	13	899.4	1	3.9684	1	34.9156	1	6.765	1	294.0	1	3.9006	1	27.7294	1	889.0	1	34.9117	1	6.805	1	295.7	1	4.5	1
073	14	799.9	1	4.0072	1	34.9183	1	6.784	1	294.8	1	3.9473	1	27.7267	1	790.9	1	34.9160	1	6.816	1	296.2	1	4.6	1
073	15	698.3	1	4.0117	1	34.9167	1	6.794	1	295.2	1	3.9599	1	27.7241	1	690.6	1	34.9143	1	6.803	1	295.6	1	4.6	1
073	16	599.6	1	4.0199	1	34.9142	1	6.740	1	292.9	1	3.9758	1	27.7205	1	593.1	1	34.9128	1	6.720	1	292.0	1	4.6	1
073	17	499.8	1	4.1590	1	34.9267	1	6.700	1	291.1	1	4.1221	1	27.7150	1	494.5	1	34.9252	1	6.617	1	287.6	1	4.8	1
073	18	400.3	1	4.3311	1	34.9377	1	6.487	1	281.9	1	4.3013	1	27.7045	1	396.2	1	34.9396	1	6.414	1	278.7	1	4.9	1
073	19	300.3	1	4.3806	1	34.9205	1	6.650	1	289.0	1	4.3584	1	27.6847	1	297.3	1	34.9206	1	6.628	1	288.1	1	5.1	1
073	20	200.4	1	4.8776	1	34.9546	1	6.688	1	290.6	1	4.8621	1	27.6553	1	198.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
073	21	149.7	1	4.9946	1	34.9515	1	6.606	1	287.1	1	4.9830	1	27.6388	1	148.2	1	34.9517	1	6.513	1	283.1	1	5.6	1
073	22	100.2	1	5.3459	1	34.9540	1	6.812	1	296.1	1	5.3379	1	27.5988	1	99.2	1	34.9552	1	6.500	4	282.5	4	6.0	1
073	23	49.9	1	6.1190	1	34.8458	1	7.632	1	331.8	1	6.1147	1	27.4161	1	49.4	1	34.8549	4	7.201	4	313.0	4	6.7	1
073	24	8.6	1	11.4260	1	34.7751	1	6.574	1	286.0	1	11.4249	1	26.5226	1	8.5	1	34.7798	1	6.593	1	286.8	1	11.4	1
074	01	3130.4	1	2.3651	1	34.9165	1	6.561	1	285.1	1	2.1149	1	27.8955	1	3078.2	1	34.9166	1	6.605	1	287.0	1	3.5	1
074	02	3080.4	1	2.5669	1	34.9237	1	6.485	1	281.8	1	2.3173	1	27.8846	1	3029.4	1	34.9234	1	6.523	1	283.4	1	3.3	1
074	03	3030.9	1	2.6644	1	34.9285	1	6.433	1	279.5	1	2.4178	1	27.8799	1	2981.0	1	34.9300	1	6.466	1	281.0	1	3.4	1
074	04	2748.6	1	2.8604	1	34.9368	1	6.361	1	276.4	1	2.6384	1	27.8674	1	2705.1	1	34.9349	1	6.397	1	278.0	1	3.6	1
074	05	2499.9	1	2.9963	1	34.9330	1	6.367	1	276.6	1	2.7965	1	27.8503	1	2461.8	1	34.9350	1	6.368	1	276.7	1	3.8	1
074	06	2249.2	1	3.1460	1	34.9326	1	6.358	1	276.3	1	2.9679	1	27.8343	1	2216.2	1	34.9301	1	6.402	1	278.2	1	4.0	1
074	07	2001.1	1	3.2820	1	34.9279	1	6.350	1	275.9	1	3.1252	1	27.8159	1	1972.9	1	34.9284	1	6.356	1	276.2	1	4.2	1
074	08	1801.3	1	3.4303	1	34.9295	1	6.336	1	275.3	1	3.2898	1	27.8015	1	1776.7	1	34.9291	1	6.352	1	276.0	1	4.2	1
074	09	1600.0	1	3.5903	1	34.9309	1	6.309	1	274.1	1	3.4659	1	27.7855	1	1578.9	1	34.9299	1	6.333	1	275.2	1	4.4	1
074	10	1401.2	1	3.7099	1	34.9201	1	6.323	1	274.8	1	3.6018	1	27.7634	1	1383.4	1	34.9220	1	6.345	1	275.7	1	4.5	1
074	11	1198.3	1	3.7244	1	34.8996	1	6.439	1	279.8	1	3.6337	1	27.7439	1	1183.7	1	34.8995	1	6.432	1	279.5	1	4.6	1
074	12	1000.7	1	3.9023	1	34.9095	1	6.751	1	293.4	1	3.8267	1	27.7322	1	988.9	1	34.9092	1	6.722	1	292.1	1	4.7	1
074	13	900.9	1	3.9334	1	34.9111	1	6.826	1	296.6	1	3.8658	1	27.7295	1	890.5	1	34.9095	1	6.818	1	296.3	1	4.8	1
074	14	799.4	1	3.9282	1	34.9070	1	6.882	1	299.1	1	3.8688	1	27.7259	1	790.4	1	34.9076	1	6.854	1	297.9	1	4.7	1
074	15	700.8	1	3.9088	1	34.9017	1	6.896	1	299.7	1	3.8574	1	27.7228	1	693.1	1	34.9073	1	6.674	4	290.0	4	4.7	1
074	16	602.1	1	3.9340	1	34.9031	1	6.850	1	297.7	1	3.8902	1	27.7206	1	595.6	1	34.9019	1	6.803	1	295.7	1	4.9	1
074	17	502.3	1	3.9715	1	34.9056	1	6.837	1	297.1	1	3.9352	1	27.7179	1	497.0	1	34.9051	1	6.746	1	293.2	1	4.9	1
074	18	399.6	1	4.0446	1	34.9092	1	6.741	1	292.9	1	4.0158	1	27.7123	1	395.5	1	34.9090	1	6.761	1	293.8	1	5.0	1
074	19	298.2	1	4.1838	1	34.9169	1	6.699	1	291.1	1	4.1622	1	27.7030	1	295.2	1	34.9144	1	6.673	1	290.0	1	5.3	1
074	20	200.4	1	4.4565	1	34.9304	1	6.709	1	291.6	1	4.4417	1	27.6834	1	198.4	1	34.9294	1	6.663	1	289.6	1	5.5	1
074	21	149.1	1	4.5615	1	34.9233	1	6.730	1	292.5	1	4.45504	1	27.6657	1	147.6	1	34.9221	1	6.706	1	291.5	1	5.6	1
074	22	95.5	1	4.8830	1	34.9343	1	6.664	1	289.6	1	4.8757	1	27.6376	1	94.6	1	34.9346	1	6.632	1	288.3	1	5.9	1
074	23	37.5	1	6.1617	1	34.8672	1	7.451	1	323.9	1	6.1585	1	27.4274	1	37.1	1	34.8716	1	7.111	4	309.1	4	7.0	1
074	24	4.7	1	11.3302	1	34.7990	1	6.625	1	288.2	1	11.3296	1	26.5588	1	4.7	1	34.8005	1	6.654	1	289.5	1	11.2	1
075	01	3154.1	1	1.4775	1	34.9059	1	6.952	1	302.0	1	1.2452	1	27.9531	1	3101.3	1	34.9068	1	6.969	1	302.8	1	2.5	1
075	02	3104.9	1	1.6463	1	34.9052	1	6.860	1	298.0	1	1.4150	1	27.9404	1	3053.3	1	34.9084	1	6.850	1	297.6	1	2.7	1
075	03	3054.9	1	2.2315	1	34.9091	1	6.692	1	290.8	1	1.9920	1	27.8995	1	3004.5	1	34.9106	1	6.686	1	290.5	1	3.0	1
075	04	3000.4	1	2.4206	1	34.9158	1	6.555	1	284.8	1	2.1824	1	27.8894	1	2951.2	1	34.9160	1	6.562	1	285.1	1	3.2	1
075	05	2751.0	1	2.8120	1	34.9350	1	6.359	1	276.3	1	2.5908	1	27.8701	1	2707.5	1	34.9355	1	6.371	1	276.8	1	3.4	1
075	06	2500.0	1	2.9609	1	34.9351	1	6.371	1	276.8	1	2.7617	1	27.8551	1	2461.9	1	34.9341	1	6.327	1	274.9	1	3.5	1
075	07	2250.1	1	3.0933	1	34.9270	1	6.374	1	276.9	1	2.9160	1	27.8346	1	2217.1	1	34.9263	1	6.378	1	277.1	1	3.6	1
075	08	2000.4	1	3.2585	1	34.9278	1	6.356	1	276.2	1	3.1021	1	27.8180	1	1972.2	1	34.9324	1	6.339	1	275.4	1	3.7	1
075	09	1799.9	1	3.3931	1	34.9255	1	6.348	1	275.8	1	3.2532	1	27.8018	1	1775.4	1	34.9275	1	6.341	1	275.5	1	3.9	1
075	10	1600.5	1	3.5777	1	34.9300	1	6.298	1	273.7	1	3.4535	1	27.7860	1	1579.4	1	34.9300	1	6.288	1	273.2	1	4.0	1
075	11	1400.2	1	3.6341	1	34.9156	1	6.339	1	275.4	1	3.5269	1	27.7673	1	1382.4	1	34.9158	1	6.300	1	273.8	1	4.1	1
075	12	1200.1	1	3.6669	1	34.9025	1	6.428	1	279.3	1	3.5766	1	27.7519	1	1185.4	1	34.9032	1	6.461	1	280.8	1	4.2	1
075	13	1000.7	1	3.7284	1	34.8910	1	6.545	1	284.4	1	3.6541	1	27.7350	1	988.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
075	14	900.2	1	3.7903	1	34.8942	1	6.674	1	290.0	1	3.7237	1	27.7305	1	889.8	1	34.8935	1	6.620	1	287.7	1	4.3	1
075	15	800.2	1	3.7922	1	34.8896	1	6.790	1	295.1	1	3.7336	1	27.7258	1	791.2	1	34.8898	1	6.762	1	293.9	1	4.4	1
075	16	700.3	1	3.8389	1	34.8935	1	6.850	1	297.7	1	3.7879	1	27.7234	1	692.6	1	34.8940	1	6.785	1	294.9	1	4.4	1
075	17	599.9	1	3.8625	1	34.8958	1	6.837	1	297.1	1	3.8192	1	27.7221	1	593.4	1	34.8961	1	6.833	1	297.0	1	4.6	1
075	18	500.6	1	3.8406	1	34.8898	1																		

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
077	02	3024.9	1	1.7757	1	34.9044	1	6.856	1	297.9	1	1.5493	1	27.9299	1	2975.1	1	34.9024	1	6.823	1	296.5	1	3.2	1
077	03	2975.5	1	2.1485	1	34.9084	1	6.708	1	291.5	1	1.9188	1	27.9048	1	2926.9	1	34.9091	1	6.665	1	289.6	1	3.5	1
077	04	2750.8	1	2.7594	1	34.9291	1	6.436	1	279.6	1	2.5393	1	27.8699	1	2707.3	1	34.9246	1	6.427	1	279.3	1	3.8	1
077	05	2499.9	1	2.9858	1	34.9337	1	6.369	1	276.7	1	2.7862	1	27.8517	1	2461.8	1	34.9376	1	6.364	1	276.5	1	3.9	1
077	06	2250.5	1	3.1440	1	34.9340	1	6.357	1	276.2	1	2.9658	1	27.8356	1	2217.5	1	34.9328	1	6.334	1	275.2	1	4.0	1
077	07	1999.8	1	3.2910	1	34.9292	1	6.351	1	276.0	1	3.1341	1	27.8161	1	1971.6	1	34.9287	1	6.355	1	276.2	1	4.2	1
077	08	1800.7	1	3.4447	1	34.9311	1	6.326	1	274.9	1	3.3040	1	27.8014	1	1776.1	1	34.9305	1	6.328	1	275.0	1	4.3	1
077	09	1600.4	1	3.6075	1	34.9317	1	6.294	1	273.5	1	3.4829	1	27.7845	1	1579.3	1	34.9307	1	6.307	1	274.1	1	4.7	1
077	10	1400.2	1	3.7095	1	34.9242	1	6.295	1	273.5	1	3.6015	1	27.7667	1	1382.4	1	34.9268	1	6.310	1	274.2	1	4.7	1
077	11	1200.4	1	3.7381	1	34.9041	1	6.392	1	277.7	1	3.6471	1	27.7461	1	1185.7	1	34.9034	1	6.385	1	277.5	1	4.6	1
077	12	999.9	1	3.9272	1	34.9139	1	6.669	1	289.8	1	3.8514	1	27.7332	1	988.1	1	34.9137	1	6.726	1	292.3	1	4.8	1
077	13	900.6	1	3.9452	1	34.9131	1	6.741	1	292.9	1	3.8775	1	27.7298	1	890.2	1	34.9139	1	6.761	1	293.8	1	4.8	1
077	14	801.5	1	3.9386	1	34.9093	1	6.746	1	293.1	1	3.8790	1	27.7267	1	792.4	1	34.9078	1	6.765	1	294.0	1	4.8	1
077	15	699.9	1	3.9565	1	34.9105	1	6.755	1	293.5	1	3.9049	1	27.7249	1	692.2	1	34.9102	1	6.827	1	296.7	1	4.9	1
077	16	600.8	1	4.0165	1	34.9181	1	6.814	1	296.1	1	3.9724	1	27.7240	1	594.3	1	34.9181	1	6.815	1	296.2	1	5.0	1
077	17	501.4	1	4.0138	1	34.9153	1	6.784	1	294.8	1	3.9774	1	27.7212	1	496.1	1	34.9146	1	6.785	1	294.9	1	5.1	1
077	18	400.7	1	4.0829	1	34.9202	1	6.761	1	293.8	1	4.0539	1	27.7171	1	396.6	1	34.9200	1	6.769	1	294.2	1	5.2	1
077	19	300.1	1	4.2258	1	34.9327	1	6.683	1	290.4	1	4.2039	1	27.7111	1	297.1	1	34.9321	1	6.675	1	290.1	1	5.3	1
077	20	200.8	1	4.5117	1	34.9514	1	6.592	1	286.4	1	4.4968	1	27.6940	1	198.8	1	34.9523	1	6.562	1	285.2	1	5.6	1
077	21	149.9	1	4.6093	1	34.9428	1	6.646	1	288.8	1	4.5981	1	27.6759	1	148.4	1	34.9428	1	6.590	1	286.4	1	5.7	1
077	22	100.0	1	4.9410	1	34.9573	1	6.569	1	285.5	1	4.9333	1	27.6492	1	99.0	1	34.9569	1	6.581	1	286.0	1	6.1	1
077	23	40.1	1	5.8649	1	34.8368	1	7.283	1	316.6	1	5.8615	1	27.4414	1	39.7	1	34.8354	1	7.138	4	310.3	4	6.9	1
077	24	5.6	1	10.0540	1	34.7320	1	6.627	1	288.2	1	10.0534	1	26.7336	1	5.5	1	34.7322	1	6.712	1	292.0	1	10.2	1
078	01	2959.8	1	1.5081	1	34.8972	1	7.016	1	304.8	1	1.2939	1	27.9426	1	2911.5	1	34.8973	1	6.991	1	303.8	1	3.1	1
078	02	2908.2	1	1.6317	1	34.8973	1	6.966	1	302.7	1	1.4197	1	27.9337	1	2861.1	1	34.8963	1	6.938	1	301.5	1	3.0	1
078	03	2860.7	1	1.8675	1	34.9015	1	6.867	1	298.3	1	1.6550	1	27.9196	1	2814.7	1	34.8998	1	6.887	1	299.3	1	3.2	1
078	04	2749.6	1	2.4454	1	34.9158	1	6.563	1	285.2	1	2.2317	1	27.8854	1	2706.1	1	34.9157	1	6.568	1	285.4	1	3.5	1
078	05	2499.7	1	2.8584	1	34.9336	1	6.384	1	277.4	1	2.6611	1	27.8628	1	2461.6	1	34.9315	1	6.372	1	276.9	1	3.6	1
078	06	2250.0	1	3.0380	1	34.9343	1	6.356	1	276.2	1	2.8616	1	27.8454	1	2217.0	1	34.9346	1	6.348	1	275.8	1	3.8	1
078	07	1999.7	1	3.1905	1	34.9311	1	6.349	1	275.9	1	3.0352	1	27.8269	1	1971.5	1	34.9324	1	6.339	1	275.5	1	4.0	1
078	08	1799.9	1	3.3283	1	34.9306	1	6.339	1	275.4	1	3.1893	1	27.8120	1	1775.3	1	34.9304	1	6.351	1	276.0	1	4.0	1
078	09	1599.4	1	3.4833	1	34.9296	1	6.309	1	274.1	1	3.3603	1	27.7948	1	1578.3	1	34.9298	1	6.325	1	274.9	1	4.2	1
078	10	1398.9	1	3.6475	1	34.9287	1	6.287	1	273.2	1	3.5403	1	27.7764	1	1381.1	1	34.9279	1	6.302	1	273.9	1	4.4	1
078	11	1200.1	1	3.7140	1	34.9132	1	6.350	1	275.9	1	3.6232	1	27.7558	1	1185.4	1	34.9115	1	6.375	1	277.0	1	4.5	1
078	12	999.8	1	3.7629	1	34.8982	1	6.470	1	281.1	1	3.6884	1	27.7373	1	988.0	1	34.8970	1	6.425	1	279.2	1	4.5	1
078	13	900.1	1	3.8541	1	34.9034	1	6.668	1	289.8	1	3.7871	1	27.7314	1	889.7	1	34.9040	1	6.672	1	290.0	1	4.6	1
078	14	799.9	1	3.9024	1	34.9062	1	6.772	1	294.3	1	3.8432	1	27.7279	1	790.9	1	34.9060	1	6.755	1	293.6	1	4.6	1
078	15	700.2	1	3.8790	1	34.9000	1	6.823	1	296.5	1	3.8278	1	27.7245	1	692.4	1	34.8984	1	6.854	1	297.9	1	4.7	1
078	16	600.1	1	3.9053	1	34.9030	1	6.822	1	296.4	1	3.8618	1	27.7234	1	593.6	1	34.9020	1	6.804	1	295.7	1	4.8	1
078	17	499.9	1	3.9575	1	34.9087	1	6.802	1	295.6	1	3.9214	1	27.7218	1	494.6	1	34.9087	1	6.798	1	295.4	1	4.8	1
078	18	400.2	1	3.9719	1	34.9073	1	6.774	1	294.4	1	3.9433	1	27.7184	1	396.1	1	34.9082	1	6.787	1	295.0	1	4.8	1
078	19	299.6	1	4.1061	1	34.9207	1	6.726	1	292.3	1	4.0846	1	27.7142	1	296.6	1	-9.9999	9	6.722	1	292.1	1	5.0	1
078	20	199.5	1	4.3229	1	34.9343	1	6.669	1	289.8	1	4.3084	1	27.7011	1	197.5	1	34.9340	1	6.633	1	288.3	1	5.2	1
078	21	149.6	1	4.3593	1	34.9174	1	6.741	1	292.9	1	4.3484	1	27.6833	1	148.1	1	34.9162	1	6.698	1	291.1	1	5.3	1
078	22	100.5	1	4.6163	1	34.9234	1	6.752	1	293.4	1	4.6088	1	27.6593	1	99.5	1	34.9222	1	6.699	1	291.2	1	5.6	1
078	23	49.8	1	5.7352	1	34.8661	1	7.049	1	306.4	1	5.7311	1	27.4809	1	49.3	1	34.8689	1	7.048	1	306.4	1	6.5	1
078	24	6.7	1	10.1980	1	34.7537	1	6.663	1	289.8	1	10.1972	1	26.7257	1	6.6	1	34.7570	1	6.761	1	294.1	1	10.3	1
079	01	2822.4	1	1.4412	1	34.9020	1	6.978	1	303.1	1	1.2412	1	27.9502	1	2777.2	1	34.9024	1	6.969	1	302.8	1	2.5	1
079	02	2771.0	1	1.6750	1	34.9012	1	6.922	1	300.8	1	1.4750	1	27.9328	1	2727.0	1	34.9042	1	6.906	1	300.1	1	2.7	1
079	03	2749.1	1	1.8064	1	34.9022	1	6.856	1	297.9	1	1.6058	1	27.9239	1	2705.6	1	34.9034	1	6.852	1	297.7	1	2.8	1
079	04	2500.4	1	2.6814	1	34.9292	1	6.426	1	279.2	1	2.4873	1	27.8745	1	2462.2	1	34.9298	1	6.408	1	278.4	1	3.3	1
079	05	2251.7	1	2.9576	1	34.9359	1	6.352	1	276.0	1	2.7824	1	27.8538	1	2218.6	1	34.9365	1	6.349	1	275.9	1	3.5	1
079	06	1960.9	1	3.1700	1	34.9338	1	6.343	1	275.6	1	3.0185	1	27.8306	1	1933.4	1	34.9343	1	6.329	1	275.0	1	3.7	1
079	07	1800.6	1	3.2596	1	34.9300	1	6.341	1	275.5	1	3.1215	1	27.8179	1	1776.0	1	34.9313	1	6.347	1	275.8	1	3.7	1
079	08	1601.0	1	3.3733	1	34.9277	1	6.325	1	274.8	1	3.2515	1	27.8038	1	1579.9	1	34.9133	4	6.338	1	275.4	1	3.9	1
079	09	1403.8	1	3.5308	1	34.																			

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
080	17	400.4	1	4.4468	1	34.9585	1	6.610	1	287.3	1	4.4166	1	27.7085	1	396.2	1	34.9579	1	6.559	1	285.0	1	5.1	1
080	18	299.5	1	4.6183	1	34.9717	1	6.592	1	286.4	1	4.5955	1	27.6991	1	296.5	1	34.9704	1	6.582	1	286.0	1	5.3	1
080	19	200.0	1	5.0019	1	35.0041	1	6.561	1	285.1	1	4.9862	1	27.6802	1	198.0	1	35.0017	1	6.538	1	284.1	1	5.6	1
080	20	149.8	1	5.2479	1	35.0256	1	6.657	1	289.3	1	5.2359	1	27.6677	1	148.3	1	35.0230	1	6.552	1	284.8	1	5.8	1
080	21	100.6	1	5.5588	1	35.0432	1	6.705	1	291.4	1	5.5506	1	27.6435	1	99.6	1	35.0404	1	6.597	1	286.7	1	6.3	1
080	22	30.2	1	6.8163	1	34.8692	1	7.160	1	311.2	1	6.8136	1	27.3415	1	29.9	1	34.8765	4	7.357	4	319.8	4	7.3	1
080	23	7.2	1	10.0598	1	34.6470	1	6.700	1	291.4	1	10.0590	1	26.6662	1	7.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
080	24	7.0	1	10.0647	1	34.6463	1	6.698	1	291.4	1	10.0639	1	26.6648	1	6.9	1	34.6542	4	6.771	1	294.5	1	10.1	1
081	01	2289.4	1	1.9660	1	34.8999	1	6.846	1	297.4	1	1.8042	1	27.9069	1	2255.5	1	34.9004	1	6.862	1	298.2	1	2.8	1
081	02	2239.7	1	1.9637	1	34.9000	1	6.844	1	297.4	1	1.8063	1	27.9069	1	2206.8	1	34.8986	1	6.855	1	297.9	1	2.7	1
081	03	2190.4	1	1.9906	1	34.8960	1	6.856	1	297.9	1	1.8371	1	27.9013	1	2158.5	1	34.8960	1	6.876	1	298.8	1	2.8	1
081	04	2000.6	1	2.6344	1	34.9096	1	6.616	1	287.5	1	2.4874	1	27.8588	1	1972.3	1	34.9108	1	6.645	1	288.7	1	3.2	1
081	05	1799.8	1	3.0486	1	34.9235	1	6.453	1	280.4	1	2.9134	1	27.8320	1	1775.2	1	34.9256	1	6.459	1	280.7	1	3.5	1
081	06	1600.9	1	3.2916	1	34.9293	1	6.355	1	276.1	1	3.1708	1	27.8127	1	1579.8	1	34.9293	1	6.383	1	277.4	1	3.7	1
081	07	1400.8	1	3.4817	1	34.9280	1	6.415	1	278.7	1	3.3761	1	27.7920	1	1383.0	1	34.9282	1	6.473	1	281.3	1	3.9	1
081	08	1201.2	1	3.7376	1	34.9350	1	6.358	1	276.3	1	3.6465	1	27.7708	1	1186.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
081	09	1000.1	1	3.9017	1	34.9322	1	6.375	1	277.0	1	3.8261	1	27.7503	1	988.3	1	34.9323	1	6.393	1	277.8	1	4.3	1
081	10	897.6	1	4.0019	1	34.9321	1	6.388	1	277.6	1	3.9340	1	27.7391	1	887.2	1	34.9332	1	6.449	1	280.2	1	4.3	1
081	11	801.1	1	4.0983	1	34.9337	1	6.465	1	280.9	1	4.0377	1	27.7295	1	792.0	1	34.9329	1	6.453	1	280.4	1	4.5	1
081	12	700.5	1	4.2058	1	34.9382	1	6.580	1	285.9	1	4.1528	1	27.7209	1	692.7	1	34.9374	1	6.611	1	287.3	1	4.6	1
081	13	599.7	1	4.3337	1	34.9503	1	6.613	1	287.4	1	4.2881	1	27.7160	1	593.2	1	34.9493	1	6.654	1	289.2	1	4.7	1
081	14	500.3	1	4.4892	1	34.9620	1	6.582	1	286.0	1	4.4509	1	27.7075	1	495.0	1	34.9619	1	6.599	1	286.8	1	4.8	1
081	15	399.2	1	4.7185	1	34.9798	1	6.512	1	283.0	1	4.6875	1	27.6952	1	395.1	1	34.9628	4	6.593	1	286.5	1	4.9	1
081	16	301.4	1	4.9746	1	35.0022	1	6.512	1	283.0	1	4.9508	1	27.6828	1	298.3	1	35.0026	1	6.532	1	283.9	1	5.4	1
081	17	200.0	1	5.3965	1	35.0370	1	6.551	1	284.7	1	5.3802	1	27.6594	1	198.0	1	35.0352	1	6.608	1	287.2	1	5.8	1
081	18	149.6	1	5.5959	1	35.0481	1	6.572	1	285.6	1	5.5835	1	27.6433	1	148.1	1	35.0476	1	6.597	1	286.7	1	6.0	1
081	19	98.2	1	5.7767	1	35.0503	1	6.594	1	286.6	1	5.7685	1	27.6219	1	97.3	1	35.0508	1	6.635	1	288.4	1	6.2	1
081	20	37.0	1	6.1954	1	35.0291	1	6.857	1	298.0	1	6.1922	1	27.5509	1	36.6	1	35.0269	1	6.863	1	298.3	1	6.6	1
081	21	4.9	1	10.2122	1	34.7311	1	6.805	1	296.0	1	10.2116	1	26.7056	1	4.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
081	22	4.9	1	10.2325	1	34.7308	1	6.805	1	296.0	1	10.2319	1	26.7019	1	4.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
081	23	4.9	1	10.2505	1	34.7310	1	6.805	1	296.0	1	10.2499	1	26.6989	1	4.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
081	24	4.8	1	10.2605	1	34.7311	1	6.805	1	296.0	1	10.2599	1	26.6972	1	4.8	1	34.9204	4	6.675	4	290.1	4	6.3	1
082	01	2049.1	1	2.2256	1	34.8995	1	6.768	1	294.1	1	2.2086	1	27.8847	1	2019.9	1	34.8988	1	6.771	1	294.2	1	3.0	1
082	02	2000.4	1	2.3102	1	34.9003	1	6.715	1	291.8	1	2.1681	1	27.8782	1	1972.1	1	34.8997	1	6.723	1	292.1	1	3.0	1
082	03	1950.3	1	2.4549	1	34.9047	1	6.676	1	290.1	1	2.3150	1	27.8695	1	1923.0	1	34.9041	1	6.658	1	289.3	1	3.1	1
082	04	1800.6	1	2.6423	1	34.9111	1	6.586	1	286.1	1	2.5126	1	27.8578	1	1776.0	1	34.9105	1	6.591	1	286.4	1	3.3	1
082	05	1600.2	1	3.0681	1	34.9206	1	6.470	1	281.1	1	2.9501	1	27.8264	1	1579.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	06	1400.9	1	3.3890	1	34.9297	1	6.344	1	275.6	1	3.2843	1	27.8022	1	1383.1	1	34.9294	1	6.333	1	275.2	1	3.8	1
082	07	1199.5	1	3.6210	1	34.9338	1	6.373	1	276.9	1	3.5311	1	27.7814	1	1184.8	1	34.9343	1	6.380	1	277.2	1	4.0	1
082	08	1199.6	1	3.6215	1	34.9338	1	6.373	1	276.9	1	3.5316	1	27.7813	1	1184.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	09	1000.8	1	3.7725	1	34.9293	1	6.316	1	274.4	1	3.6978	1	27.7611	1	989.0	1	34.9295	1	6.333	1	275.2	1	4.2	1
082	10	1000.8	1	3.7724	1	34.9294	1	6.316	1	274.4	1	3.6977	1	27.7612	1	989.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	11	800.4	1	3.9797	1	34.9304	1	6.390	1	277.7	1	3.9199	1	27.7392	1	791.3	1	34.9295	1	6.413	1	278.7	1	4.4	1
082	12	800.4	1	3.9800	1	34.9305	1	6.390	1	277.7	1	3.9202	1	27.7393	1	791.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	13	700.7	1	4.1319	1	34.9384	1	6.406	1	278.4	1	4.0792	1	27.7289	1	692.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	14	700.7	1	4.1319	1	34.9384	1	6.406	1	278.4	1	4.0792	1	27.7289	1	692.9	1	34.9378	1	6.385	1	277.5	1	4.5	1
082	15	700.6	1	4.1323	1	34.9385	1	6.406	1	278.3	1	4.0796	1	27.7289	1	692.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
082	16	600.2	1	4.2465	1	34.9445	1	6.430	1	279.4	1	4.2013	1	27.7207	1	593.7	1	34.9431	1	6.438	1	279.8	1	4.7	1
082	17	500.0	1	4.4164	1	34.9561	1	6.526	1	283.6	1	4.3785	1	27.7108	1	494.7	1	34.9572	1	6.526	1	283.6	1	4.8	1
082	18	399.7	1	4.6074	1	34.9713	1	6.567	1	285.4	1	4.5768	1	27.7009	1	395.6	1	34.9699	1	6.547	1	284.5	1	4.9	1
082	19	299.8	1	4.8429	1	34.9905	1	6.547	1	284.5	1	4.8196	1	27.6887	1	296.8	1	34.9896	1	6.566	1	285.4	1	5.3	1
082	20	200.5	1	5.1236	1	35.0154	1	6.578	1	285.8	1	5.1077	1	27.6749	1	198.5	1	35.0115	1	6.583	1	286.1	1	5.5	1
082	21	150.2	1	5.3462	1	35.0277	1	6.595	1	286.6	1	5.3341	1	27.6576	1	148.7	1	35.0270	1	6.629	1	288.1	1	5.7	1
082	22	100.4	1	5.5626	1	35.0331	1	6.660	1	289.4	1	5.5544	1	27.6350	1	99.4	1	35.0332	1	6.653	1	289.1	1	6.0	1
082	23	21.1	1	7.4281	1	34.8684	1	6.971	1	303.1	1	7.4261	1	27.2549	1	20.9	1	34.9006	4	7.038	1	306.0	1	7.5	1
082	24	5.4	1	9.9984	1	34.7609	1	6.845	1	297.7	1	9.9978	1	26.7656											

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
084	08	1001.3	1	3.8496	1	34.9275	1	6.363	1	276.5	1	3.7743	1	27.7519	1	989.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
084	09	900.3	1	3.9502	1	34.9235	1	6.387	1	277.6	1	3.8825	1	27.7376	1	889.9	1	34.9230	1	6.415	1	278.8	1	4.4	1
084	10	900.4	1	3.9508	1	34.9237	1	6.387	1	277.6	1	3.8831	1	27.7377	1	890.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
084	11	800.6	1	4.0638	1	34.9272	1	6.460	1	280.7	1	4.0035	1	27.7279	1	791.5	1	34.9252	1	6.487	1	281.9	1	4.6	1
084	12	800.8	1	4.0630	1	34.9271	1	6.459	1	280.7	1	4.0027	1	27.7280	1	791.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
084	13	701.6	1	4.2157	1	34.9392	1	6.483	1	281.7	1	4.1625	1	27.7207	1	693.8	1	34.9379	1	6.512	1	283.0	1	4.7	1
084	14	701.7	1	4.2157	1	34.9393	1	6.483	1	281.7	1	4.1625	1	27.7207	1	693.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
084	15	602.0	1	4.4161	1	34.9554	1	6.464	1	280.9	1	4.3700	1	27.7111	1	595.5	1	34.9535	1	6.529	1	283.7	1	4.9	1
084	16	602.1	1	4.4156	1	34.9553	1	6.464	1	280.9	1	4.3695	1	27.7111	1	595.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
084	17	501.6	1	4.5740	1	34.9674	1	6.522	1	283.4	1	4.5353	1	27.7024	1	496.3	1	34.9676	1	6.516	1	283.2	1	5.2	1
084	18	401.7	1	4.7518	1	34.9842	1	6.531	1	283.8	1	4.7205	1	27.6950	1	397.5	1	34.9818	1	6.575	1	285.7	1	5.3	1
084	19	301.1	1	4.9820	1	35.0043	1	6.557	1	284.9	1	4.9582	1	27.6836	1	298.0	1	35.0049	1	6.573	1	285.7	1	5.5	1
084	20	201.0	1	5.2430	1	35.0278	1	6.586	1	286.2	1	5.2269	1	27.6706	1	199.0	1	35.0262	1	6.599	1	286.8	1	5.8	1
084	21	150.7	1	5.4840	1	35.0387	1	6.599	1	286.8	1	5.4717	1	27.6496	1	149.2	1	35.0450	4	6.615	1	287.5	1	6.0	1
084	22	101.3	1	5.7060	1	35.0346	1	6.646	1	288.8	1	5.6976	1	27.6184	1	100.3	1	35.0347	1	6.658	1	289.4	1	6.2	1
084	23	31.2	1	6.8574	1	35.0170	1	6.835	1	297.1	1	6.8545	1	27.4524	1	30.9	1	35.0191	1	6.808	1	295.9	1	7.2	1
084	24	4.9	1	9.6111	1	34.8375	1	6.830	1	297.0	1	9.6106	1	26.8909	1	4.9	1	34.8387	1	6.900	1	300.1	1	9.6	1
085	04	1208.2	1	4.0740	1	34.9359	1	6.395	1	277.9	1	3.9792	1	27.7374	1	1193.4	1	34.9358	1	6.389	1	277.6	1	4.0	1
085	02	1151.0	1	4.2203	1	34.9436	1	6.395	1	277.9	1	4.1291	1	27.7277	1	1137.0	1	34.9438	1	6.363	1	276.5	1	4.2	1
085	03	1100.7	1	4.2591	1	34.9447	1	6.419	1	278.9	1	4.1720	1	27.7240	1	1087.5	1	34.9455	1	6.383	1	277.4	1	4.2	1
085	04	1000.1	1	4.2825	1	34.9465	1	6.431	1	279.4	1	4.2039	1	27.7220	1	988.3	1	34.9485	1	6.413	1	278.7	1	4.3	1
085	05	899.4	1	4.3486	1	34.9502	1	6.445	1	280.1	1	4.2781	1	27.7170	1	889.0	1	34.9511	1	6.409	1	278.5	1	4.3	1
085	06	899.4	1	4.3486	1	34.9502	1	6.445	1	280.1	1	4.2781	1	27.7170	1	889.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	07	800.9	1	4.4443	1	34.9560	1	6.459	1	280.7	1	4.3815	1	27.7104	1	791.8	1	34.9583	1	6.441	1	279.9	1	4.4	1
085	08	801.0	1	4.4454	1	34.9561	1	6.458	1	280.7	1	4.3826	1	27.7103	1	791.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	09	700.5	1	4.5628	1	34.9644	1	6.493	1	282.1	1	4.5078	1	27.7031	1	692.7	1	34.9640	1	6.447	1	280.2	1	4.5	1
085	10	700.5	1	4.5630	1	34.9645	1	6.493	1	282.1	1	4.5080	1	27.7032	1	692.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	11	600.9	1	4.7794	1	34.9842	1	6.514	1	283.1	1	4.7316	1	27.6937	1	594.4	1	34.9836	1	6.482	1	281.7	1	4.7	1
085	12	600.9	1	4.7794	1	34.9842	1	6.514	1	283.1	1	4.7316	1	27.6937	1	594.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	13	501.3	1	4.8571	1	34.9835	1	6.505	1	282.7	1	4.8173	1	27.6834	1	496.0	1	34.9821	1	6.473	1	281.3	1	4.8	1
085	14	501.3	1	4.8560	1	34.9835	1	6.505	1	282.7	1	4.8162	1	27.6835	1	496.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	15	401.0	1	5.1240	1	35.0132	1	6.494	1	282.2	1	5.0916	1	27.6750	1	396.8	1	35.0134	1	6.475	1	281.4	1	5.0	1
085	16	400.9	1	5.1241	1	35.0134	1	6.495	1	282.2	1	5.0917	1	27.6752	1	396.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	17	301.4	1	5.4158	1	35.0377	1	6.481	1	281.6	1	5.3910	1	27.6586	1	298.3	1	35.0376	1	6.452	1	280.4	1	5.3	1
085	18	201.5	1	5.0614	1	34.9408	1	6.581	1	286.0	1	5.0455	1	27.6231	1	199.5	1	34.9447	1	6.580	1	286.0	1	5.0	1
085	19	201.6	1	5.0622	1	34.9408	1	6.581	1	286.0	1	5.0463	1	27.6230	1	199.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	20	150.1	1	4.5851	1	34.8321	1	6.921	1	300.8	1	4.5739	1	27.5907	1	148.6	1	34.8321	1	6.708	4	291.5	4	4.6	1
085	21	100.6	1	3.1805	1	34.5634	1	7.230	1	314.2	1	3.1742	1	27.5204	1	99.6	1	34.5692	1	7.001	4	304.3	4	3.4	1
085	22	21.8	1	5.6989	1	34.4110	1	7.230	1	314.4	1	5.6971	1	27.1251	1	21.6	1	34.4033	4	7.283	1	316.7	1	5.5	1
085	23	6.6	1	4.9542	1	33.7519	1	7.651	1	332.7	1	4.9537	1	26.6910	1	6.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
085	24	6.7	1	4.9835	1	33.7547	1	7.649	1	332.6	1	4.9830	1	26.6899	1	6.6	1	33.7738	4	7.964	4	346.4	4	5.1	1
086	01	897.0	1	4.5597	1	34.9616	1	6.458	1	280.6	1	4.4880	1	27.7031	1	886.6	1	34.9616	1	6.444	1	280.0	1	4.1	1
086	02	897.1	1	4.5596	1	34.9615	1	6.458	1	280.6	1	4.4879	1	27.7030	1	886.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	03	800.5	1	4.6566	1	34.9673	1	6.469	1	281.1	1	4.5926	1	27.6960	1	791.4	1	34.9676	1	6.439	1	279.8	1	4.2	1
086	04	800.6	1	4.6572	1	34.9675	1	6.469	1	281.1	1	4.5931	1	27.6961	1	791.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	05	700.2	1	4.7076	1	34.9705	1	6.475	1	281.4	1	4.6518	1	27.6919	1	692.4	1	34.9707	1	6.450	1	280.3	1	4.2	1
086	06	700.2	1	4.7075	1	34.9704	1	6.475	1	281.4	1	4.6517	1	27.6918	1	692.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	07	600.8	1	4.8164	1	34.9755	1	6.487	1	281.9	1	4.7685	1	27.6826	1	594.3	1	34.9739	1	6.470	1	281.2	1	4.3	1
086	08	600.7	1	4.8160	1	34.9756	1	6.487	1	281.9	1	4.7681	1	27.6827	1	594.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	09	500.5	1	4.8211	1	34.9756	1	6.499	1	282.4	1	4.7815	1	27.6812	1	495.2	1	34.9767	1	6.488	1	281.9	1	4.4	1
086	10	500.5	1	4.8211	1	34.9756	1	6.499	1	282.4	1	4.7815	1	27.6812	1	495.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	11	400.7	1	4.9053	1	34.9758	1	6.514	1	283.1	1	4.8736	1	27.6708	1	396.5	1	34.9754	1	6.502	1	282.5	1	4.4	1
086	12	400.6	1	4.9053	1	34.9758	1	6.514	1	283.1	1	4.8737	1	27.6708	1	396.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	13	300.6	1	4.9739	1	34.9558	1	6.575	1	285.7	1	4.9502	1	27.6461	1	297.6	1	34.9595	1	6.539	1	284.2	1	4.5	1
086	14	300.6	1	4.9761	1	34.9561	1	6.575	1	285.7	1	4.9524	1	27.6460	1	297.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
086	15	201.4	1	4.7599	1	34.8786	1	6.794	1	295.3	1	4.7446	1	27.6084	1	199.4	1	34.8792	1	6.648					

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
087	23	6.7	1	0.8389	1	32.6920	1	8.776	1	381.8	1	0.8386	1	26.1993	1	6.6	1	32.6842	4	8.976	4	390.6	4	0.7	1
087	24	6.7	1	0.7051	1	32.6968	1	8.776	1	381.8	1	0.7048	1	26.2108	1	6.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	01	293.9	1	4.9097	1	34.9029	1	6.669	1	289.8	1	4.8867	1	27.6114	1	290.9	1	34.8963	4	6.702	1	291.2	1	4.1	1
088	02	200.3	1	3.4732	1	34.6064	1	7.015	1	304.9	1	3.4601	1	27.5274	1	198.3	1	34.6019	1	6.980	1	303.4	1	3.2	1
088	03	150.0	1	2.3072	1	34.3382	1	7.259	1	315.5	1	2.2989	1	27.4175	1	148.5	1	34.3407	1	7.251	1	315.2	1	2.3	1
088	04	100.2	1	1.9670	1	34.2010	1	7.230	1	314.3	1	1.9618	1	27.3345	1	99.2	1	34.2208	4	7.333	1	318.8	1	2.1	1
088	05	51.1	1	0.0311	1	33.7483	1	7.927	1	344.7	1	0.0294	1	27.0943	1	50.6	1	33.7225	4	7.828	1	340.4	1	0.0	1
088	06	5.5	1	2.1245	1	32.1646	1	9.421	1	410.2	1	2.1242	1	25.6915	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	07	5.6	1	2.1381	1	32.1650	1	9.423	1	410.3	1	2.1378	1	25.6908	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	08	5.6	1	2.1179	1	32.1663	1	9.423	1	410.3	1	2.1176	1	25.6933	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	09	5.7	1	2.1151	1	32.1667	1	9.426	1	410.4	1	2.1148	1	25.6939	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	10	5.6	1	2.1486	1	32.1654	1	9.423	1	410.3	1	2.1483	1	25.6904	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	11	5.6	1	2.1509	1	32.1658	1	9.423	1	410.3	1	2.1506	1	25.6905	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	12	5.6	1	2.1437	1	32.1667	1	9.423	1	410.3	1	2.1434	1	25.6918	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	13	5.6	1	2.1327	1	32.1672	1	9.423	1	410.3	1	2.1324	1	25.6930	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	14	5.7	1	2.1378	1	32.1673	1	9.426	1	410.4	1	2.1375	1	25.6927	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	15	5.6	1	2.1343	1	32.1680	1	9.423	1	410.3	1	2.1340	1	25.6935	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	16	5.6	1	2.1433	1	32.1678	1	9.423	1	410.3	1	2.1430	1	25.6927	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	17	5.6	1	2.1538	1	32.1678	1	9.423	1	410.3	1	2.1535	1	25.6919	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	18	5.6	1	2.1698	1	32.1673	1	9.423	1	410.3	1	2.1695	1	25.6903	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	19	5.6	1	2.1763	1	32.1674	1	9.423	1	410.3	1	2.1760	1	25.6899	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	20	5.6	1	2.1905	1	32.1671	1	9.423	1	410.3	1	2.1902	1	25.6886	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	21	5.7	1	2.2059	1	32.1669	1	9.426	1	410.4	1	2.2056	1	25.6873	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	22	5.7	1	2.1634	1	32.1683	1	9.426	1	410.4	1	2.1631	1	25.6916	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	23	5.7	1	2.1351	1	32.1691	1	9.426	1	410.4	1	2.1348	1	25.6943	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
088	24	5.7	1	2.1271	1	32.1690	1	9.426	1	410.4	1	2.1268	1	25.6948	1	5.6	1	32.1720	1	9.136	4	397.8	4	2.3	1
089	01	216.7	1	2.3149	1	34.3443	1	7.200	1	313.0	1	2.3028	1	27.4220	1	214.5	1	34.3443	1	7.184	1	312.3	1	2.1	1
089	02	150.4	1	2.5561	1	34.3276	1	7.227	1	314.1	1	2.5475	1	27.3882	1	148.9	1	34.3272	1	7.229	1	314.2	1	2.3	1
089	03	100.0	1	2.4547	1	34.1564	1	7.359	1	319.9	1	2.4491	1	27.2596	1	99.0	1	34.1617	1	7.352	1	319.6	1	2.3	1
089	04	40.8	1	-0.2342	1	33.4888	1	7.979	1	347.0	1	-0.2355	1	26.8975	1	40.4	1	33.4821	4	7.913	1	344.1	1	-0.2	9
089	05	6.4	1	1.4455	1	31.8044	1	9.234	1	402.0	1	1.4452	1	25.4494	1	6.3	1	31.8164	4	9.482	4	412.9	4	1.4	1
089	06	6.5	1	1.4537	1	31.8057	1	9.232	1	401.9	1	1.4534	1	25.4499	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	07	6.5	1	1.4508	1	31.8057	1	9.232	1	401.9	1	1.4505	1	25.4501	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	08	6.5	1	1.4501	1	31.8063	1	9.232	1	401.9	1	1.4498	1	25.4506	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	09	6.5	1	1.4676	1	31.8091	1	9.232	1	401.9	1	1.4673	1	25.4517	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	10	6.5	1	1.4707	1	31.8103	1	9.232	1	401.9	1	1.4704	1	25.4525	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	11	6.5	1	1.4775	1	31.8121	1	9.232	1	401.9	1	1.4772	1	25.4535	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	12	6.5	1	1.4782	1	31.8125	1	9.232	1	401.9	1	1.4779	1	25.4538	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	13	6.4	1	1.4652	1	31.8120	1	9.234	1	402.0	1	1.4649	1	25.4542	1	6.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	14	6.5	1	1.5011	1	31.8184	1	9.232	1	401.9	1	1.5008	1	25.4571	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	15	6.6	1	1.5288	1	31.8235	1	9.230	1	401.8	1	1.5285	1	25.4594	1	6.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	16	6.5	1	1.5356	1	31.8253	1	9.232	1	401.9	1	1.5353	1	25.4604	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	17	6.5	1	1.5608	1	31.8292	1	9.232	1	401.9	1	1.5605	1	25.4619	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	18	6.5	1	1.5657	1	31.8302	1	9.232	1	401.9	1	1.5654	1	25.4623	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	19	6.5	1	1.5825	1	31.8339	1	9.232	1	401.9	1	1.5822	1	25.4642	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	20	6.5	1	1.5918	1	31.8349	1	9.232	1	401.9	1	1.5915	1	25.4644	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	21	6.5	1	1.5794	1	31.8326	1	9.232	1	401.9	1	1.5791	1	25.4634	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	22	6.5	1	1.5484	1	31.8276	1	9.232	1	401.9	1	1.5481	1	25.4614	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	23	6.5	1	1.5372	1	31.8258	1	9.232	1	401.9	1	1.5369	1	25.4607	1	6.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
089	24	6.6	1	1.5284	1	31.8241	1	9.230	1	401.8	1	1.5281	1	25.4599	1	6.5	1	-9.9999	9	9.506	4	414.0	4	1.4	1
090	01	152.8	1	1.7167	1	34.0847	1	7.418	1	322.5	1	1.7091	1	27.2604	1	151.3	1	34.0779	4	7.434	1	323.2	1	1.7	1
090	02	152.8	1	1.7186	1	34.0852	1	7.418	1	322.5	1	1.7110	1	27.2606	1	151.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
090	03	100.7	1	0.9020	1	33.7312	1	7.817	1	339.9	1	0.8978	1	27.0316	1	99.7	1	33.7331	1	7.746	1	336.8	1	1.1	1
090	04	100.7	1	0.9023	1	33.7314	1	7.817	1	339.9	1	0.8981	1	27.0317	1	99.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
090	05	39.1	1	-0.4193	1	32.3363	1	9.490	1	413.1	1	-0.4204	1	25.9741	1	38.7	1	32.3178	4	9.640	4	419.6	4	0.1	1
090	06	39.0	1	-0.4175	1	32.3390	1	9.493	1	413.2	1	-0.4186	1	25.9762	1	38.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
090	07	5.3	1	1.4332	1	30.4654	1	9.092	1	396.4	1	1.4330	1	24.3761	1	5.2	1	-9.9999	9	-9.999	9	-9.			



Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
091	14	5.3	1	3.0084	1	30.5304	1	9.664	1	421.0	1	3.0081	1	24.3182	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	15	5.3	1	3.0732	1	30.5146	1	9.664	1	421.0	1	3.0729	1	24.3004	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	16	5.3	1	3.1124	1	30.5414	1	9.664	1	421.0	1	3.1121	1	24.3185	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	17	5.3	1	2.8887	1	30.6385	1	9.664	1	421.0	1	2.8884	1	24.4139	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	18	5.3	1	2.8041	1	30.6681	1	9.664	1	421.0	1	2.8038	1	24.4441	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	19	5.3	1	2.7470	1	30.6893	1	9.664	1	421.0	1	2.7467	1	24.4655	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	20	5.3	1	3.1557	1	30.5219	1	9.664	1	421.0	1	3.1554	1	24.2995	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	21	5.3	1	3.1840	1	30.5142	1	9.664	1	421.0	1	3.1837	1	24.2910	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	22	5.3	1	3.2530	1	30.4777	1	9.664	1	421.0	1	3.2527	1	24.2562	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	23	5.3	1	3.2657	1	30.4631	1	9.664	1	421.0	1	3.2654	1	24.2435	1	5.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
091	24	5.3	1	3.1889	1	30.4885	1	9.664	1	421.0	1	3.1886	1	24.2701	1	5.3	1	30.6654	4	8.927	4	389.2	4	2.8	1
092	01	177.0	1	4.6102	1	34.8547	1	6.686	1	290.6	1	4.5970	1	27.6061	1	175.3	1	34.8495	1	6.702	1	291.2	1	3.8	1
092	02	177.0	1	4.6093	1	34.8544	1	6.686	1	290.6	1	4.5961	1	27.6059	1	175.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	03	100.3	1	1.6518	1	33.9853	1	7.492	1	325.7	1	1.6469	1	27.1852	1	99.3	1	33.9883	1	7.452	1	324.0	1	1.8	1
092	04	100.3	1	1.6447	1	33.9836	1	7.492	1	325.7	1	1.6398	1	27.1843	1	99.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	05	30.2	1	-0.6948	1	32.8992	1	8.412	1	366.0	1	-0.6956	1	26.4400	1	29.9	1	32.8960	1	8.299	4	361.1	4	-0.6	9
092	06	30.2	1	-0.6980	1	32.8975	1	8.412	1	366.0	1	-0.6988	1	26.4387	1	29.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	07	5.8	1	1.8586	1	31.7420	1	9.216	1	401.3	1	1.8583	1	25.3720	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	08	5.9	1	1.8630	1	31.7316	1	9.216	1	401.3	1	1.8627	1	25.3634	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	09	5.8	1	1.8853	1	31.7140	1	9.216	1	401.3	1	1.8850	1	25.3478	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	10	5.8	1	1.8867	1	31.7113	1	9.216	1	401.3	1	1.8864	1	25.3455	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	11	5.9	1	1.9076	1	31.6986	1	9.216	1	401.3	1	1.9073	1	25.3339	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	12	5.9	1	1.9427	1	31.6748	1	9.216	1	401.3	1	1.9424	1	25.3124	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	13	5.8	1	1.9642	1	31.6584	1	9.216	1	401.3	1	1.9639	1	25.2978	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	14	5.8	1	2.0034	1	31.6323	1	9.216	1	401.3	1	2.0031	1	25.2741	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	15	5.9	1	2.0529	1	31.6000	1	9.216	1	401.3	1	2.0526	1	25.2448	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	16	5.9	1	2.0724	1	31.5874	1	9.216	1	401.3	1	2.0721	1	25.2333	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	17	5.8	1	2.0912	1	31.5759	1	9.216	1	401.3	1	2.0909	1	25.2228	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	18	5.9	1	2.1241	1	31.5572	1	9.216	1	401.3	1	2.1238	1	25.2055	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	19	5.9	1	2.1383	1	31.5500	1	9.216	1	401.3	1	2.1380	1	25.1987	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	20	5.8	1	2.1394	1	31.5492	1	9.216	1	401.3	1	2.1391	1	25.1980	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	21	5.9	1	2.1461	1	31.5444	1	9.216	1	401.3	1	2.1458	1	25.1936	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	22	5.9	1	2.1508	1	31.5394	1	9.216	1	401.3	1	2.1505	1	25.1893	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	23	5.9	1	2.1462	1	31.5373	1	9.216	1	401.3	1	2.1459	1	25.1879	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
092	24	5.9	1	2.1403	1	31.5367	1	9.216	1	401.3	1	2.1400	1	25.1879	1	5.8	1	31.6159	4	9.092	4	396.0	4	2.0	1
093	01	173.3	1	4.5831	1	34.7578	1	6.877	1	298.9	1	4.5702	1	27.5321	1	171.6	1	34.7341	1	6.897	1	299.7	1	3.8	1
093	02	173.3	1	4.5772	1	34.7556	1	6.877	1	298.9	1	4.5643	1	27.5310	1	171.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	03	150.6	1	3.5662	1	34.5460	1	7.031	1	305.6	1	3.5563	1	27.4699	1	149.1	1	34.5744	4	7.045	1	306.2	1	3.3	1
093	04	150.5	1	3.5654	1	34.5457	1	7.030	1	305.6	1	3.5555	1	27.4697	1	149.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	05	100.5	1	4.5757	1	34.4080	1	7.156	1	311.1	1	4.5683	1	27.2545	1	99.5	1	34.4149	4	7.173	1	311.8	1	4.0	1
093	06	100.5	1	4.5751	1	34.4079	1	7.156	1	311.1	1	4.5677	1	27.2545	1	99.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	07	21.7	1	-0.3456	1	33.0172	1	8.407	1	365.8	1	-0.3462	1	26.5213	1	21.5	1	33.0385	4	8.199	4	356.7	4	-0.3	9
093	08	21.8	1	-0.3406	1	33.0163	1	8.403	1	365.6	1	-0.3412	1	26.5204	1	21.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	09	5.9	1	1.7071	1	32.2745	1	8.651	1	376.6	1	1.7068	1	25.8091	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	10	5.7	1	1.7605	1	32.2584	1	8.650	1	376.5	1	1.7602	1	25.7925	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	11	5.8	1	1.7683	1	32.2567	1	8.651	1	376.6	1	1.7680	1	25.7906	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	12	5.8	1	1.7880	1	32.2515	1	8.651	1	376.6	1	1.7877	1	25.7851	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	13	5.8	1	1.8173	1	32.2436	1	8.651	1	376.6	1	1.8170	1	25.7767	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	14	5.8	1	1.8323	1	32.2385	1	8.651	1	376.6	1	1.8320	1	25.7716	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	15	5.8	1	1.8180	1	32.2422	1	8.651	1	376.6	1	1.8177	1	25.7756	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	16	5.9	1	1.8084	1	32.2461	1	8.651	1	376.6	1	1.8081	1	25.7794	1	5.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	17	5.8	1	1.8290	1	32.2400	1	8.651	1	376.6	1	1.8287	1	25.7730	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	18	5.7	1	1.8489	1	32.2337	1	8.650	1	376.5	1	1.8486	1	25.7666	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	19	5.7	1	1.8665	1	32.2278	1	8.650	1	376.5	1	1.8662	1	25.7606	1	5.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	20	5.8	1	1.8772	1	32.2242	1	8.651	1	376.6	1	1.8769	1	25.7570	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	21	5.8	1	1.8930	1	32.2201	1	8.651	1	376.6	1	1.8927	1	25.7526	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
093	22	5.8	1	1.9136	1	32.2136	1	8.651	1	376.6	1	1.9133	1	25.7459	1	5.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
095	05	100.0	1	3.7737	1	34.2520	1	7.242	1	314.8	1	3.7670	1	27.2148	1	99.0	1	34.2555	1	7.298	1	317.3	1	3.4	1
095	06	100.0	1	3.7825	1	34.2532	1	7.242	1	314.8	1	3.7758	1	27.2148	1	99.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	07	50.1	1	-0.6557	1	33.5500	1	7.871	1	342.3	1	-0.6571	1	26.9652	1	49.6	1	33.5526	1	7.767	1	337.8	1	-0.6	9
095	08	50.0	1	-0.6555	1	33.5495	1	7.872	1	342.3	1	-0.6569	1	26.9648	1	49.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	09	5.6	1	1.9158	1	31.8208	1	9.188	1	400.0	1	1.9155	1	25.4312	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	10	5.5	1	1.9333	1	31.8159	1	9.190	1	400.1	1	1.9330	1	25.4260	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	11	5.6	1	1.9359	1	31.8102	1	9.188	1	400.0	1	1.9356	1	25.4213	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	12	5.5	1	1.9581	1	31.8069	1	9.190	1	400.1	1	1.9578	1	25.4171	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	13	5.6	1	1.9556	1	31.8017	1	9.188	1	400.0	1	1.9553	1	25.4131	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	14	5.6	1	1.9688	1	31.8039	1	9.188	1	400.0	1	1.9685	1	25.4139	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	15	5.5	1	1.9840	1	31.8013	1	9.190	1	400.1	1	1.9837	1	25.4108	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	16	5.5	1	1.9970	1	31.8029	1	9.190	1	400.1	1	1.9967	1	25.4112	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	17	5.5	1	2.0014	1	31.8013	1	9.190	1	400.1	1	2.0011	1	25.4096	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	18	5.6	1	1.9923	1	31.8034	1	9.188	1	400.0	1	1.9920	1	25.4119	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	19	5.5	1	2.0075	1	31.8015	1	9.190	1	400.1	1	2.0072	1	25.4093	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	20	5.6	1	1.9982	1	31.8045	1	9.188	1	400.0	1	1.9979	1	25.4124	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	21	5.5	1	2.0087	1	31.8045	1	9.190	1	400.1	1	2.0084	1	25.4116	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	22	5.5	1	1.9991	1	31.8038	1	9.190	1	400.1	1	1.9988	1	25.4117	1	5.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	23	5.6	1	1.9900	1	31.8046	1	9.188	1	400.0	1	1.9897	1	25.4130	1	5.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
095	24	5.5	1	2.0057	1	31.8004	1	9.190	1	400.1	1	2.0054	1	25.4085	1	5.4	1	31.7938	4	9.415	4	410.1	4	2.1	1
101	01	120.9	1	1.5625	1	33.8743	1	7.557	1	328.6	1	1.5567	1	27.1026	1	119.7	1	33.8584	4	7.499	1	326.1	1	1.7	1
101	02	120.9	1	1.5594	1	33.8738	1	7.557	1	328.6	1	1.5536	1	27.1024	1	119.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	03	99.7	1	0.3999	1	33.3225	1	7.926	1	344.7	1	0.3962	1	26.7317	1	98.7	1	33.3192	1	7.885	1	343.0	1	0.5	1
101	04	99.7	1	0.3990	1	33.3212	1	7.926	1	344.7	1	0.3953	1	26.7307	1	98.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	05	80.5	1	-0.3161	1	32.9571	1	8.278	1	360.2	1	-0.3185	1	26.4716	1	79.7	1	32.9474	4	8.161	4	355.1	4	-0.2	9
101	06	80.5	1	-0.3167	1	32.9569	1	8.278	1	360.2	1	-0.3191	1	26.4714	1	79.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	07	6.1	1	2.4236	1	31.0532	1	8.674	1	378.0	1	2.4233	1	24.7806	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	08	6.1	1	2.4199	1	31.0538	1	8.674	1	378.0	1	2.4196	1	24.7813	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	09	6.1	1	2.4190	1	31.0538	1	8.674	1	378.0	1	2.4187	1	24.7814	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	10	6.1	1	2.4193	1	31.0543	1	8.674	1	378.0	1	2.4190	1	24.7818	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	11	6.1	1	2.4223	1	31.0543	1	8.674	1	378.0	1	2.4220	1	24.7816	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	12	6.1	1	2.4317	1	31.0544	1	8.674	1	378.0	1	2.4314	1	24.7810	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	13	6.0	1	2.4439	1	31.0540	1	8.673	1	377.9	1	2.4436	1	24.7797	1	5.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	14	6.0	1	2.4486	1	31.0538	1	8.673	1	377.9	1	2.4483	1	24.7792	1	5.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	15	6.1	1	2.4513	1	31.0538	1	8.674	1	378.0	1	2.4510	1	24.7790	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	16	6.1	1	2.4557	1	31.0535	1	8.674	1	378.0	1	2.4554	1	24.7784	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	17	6.1	1	2.4600	1	31.0525	1	8.674	1	378.0	1	2.4597	1	24.7773	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	18	6.1	1	2.4611	1	31.0521	1	8.674	1	378.0	1	2.4608	1	24.7769	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	19	6.1	1	2.4622	1	31.0518	1	8.674	1	378.0	1	2.4619	1	24.7766	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	20	6.1	1	2.4628	1	31.0511	1	8.674	1	378.0	1	2.4625	1	24.7760	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	21	6.1	1	2.4642	1	31.0503	1	8.674	1	378.0	1	2.4639	1	24.7753	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	22	6.1	1	2.4632	1	31.0500	1	8.674	1	378.0	1	2.4629	1	24.7751	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	23	6.1	1	2.4596	1	31.0506	1	8.674	1	378.0	1	2.4593	1	24.7758	1	6.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
101	24	6.1	1	2.4583	1	31.0506	1	8.674	1	378.0	1	2.4580	1	24.7759	1	6.0	1	-9.9999	9	8.612	1	375.3	1	2.4	1
102	01	121.4	1	2.3007	1	34.0750	1	7.406	1	322.0	1	2.2941	1	27.2072	1	120.2	1	34.0813	4	7.380	1	320.9	1	2.1	1
102	02	99.8	1	-0.6787	1	33.2432	1	8.089	1	351.8	1	-0.6814	1	26.7178	1	98.8	1	33.3163	4	7.905	4	343.8	4	0.0	1
102	03	49.7	1	0.0973	1	32.2572	1	8.595	1	374.2	1	0.0957	1	25.8880	1	49.2	1	32.2595	1	8.511	1	370.5	1	0.2	1
102	04	6.4	1	1.8944	1	30.8391	1	8.685	1	378.6	1	1.8941	1	24.6465	1	6.3	1	30.7811	4	8.641	1	376.6	1	2.0	1
103	01	484.3	1	4.9017	1	34.9523	1	6.581	1	286.0	1	4.8632	1	27.6534	1	479.2	1	34.9526	1	6.624	1	287.9	1	4.6	1
103	02	400.3	1	5.0760	1	34.9580	1	6.595	1	286.6	1	5.0439	1	27.6369	1	396.2	1	34.9586	1	6.603	1	286.9	1	4.7	1
103	03	300.8	1	4.7399	1	34.8646	1	6.723	1	292.2	1	4.7168	1	27.6005	1	297.8	1	34.8630	1	6.737	1	292.8	1	4.5	1
103	04	300.8	1	4.7389	1	34.8646	1	6.723	1	292.2	1	4.7158	1	27.6006	1	297.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
103	05	200.5	1	3.3277	1	34.5676	1	7.027	1	305.4	1	3.3148	1	27.5105	1	198.5	1	34.5653	1	7.001	1	304.3	1	3.4	1
103	06	200.5	1	3.3294	1	34.5681	1	7.027	1	305.4	1	3.3165	1	27.5107	1	198.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
103	07	151.6	1	4.7347	1	34.6479	1	6.978	1	303.3	1	4.7233	1	27.4277	1	150.1	1	34.6545	4	6.992	1	303.9	1	4.6	1
103	08	151.6	1	4.7321	1	34.6477	1	6.978	1	303.3	1	4.7207	1	27.4279	1	150.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
103	09	101.2	1	4.2925	1	34.4879	1	7.171	1	311.7	1	4.2853	1	27.3488	1	100.2	1	34.4897	1						

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
104	16	201.5	1	3.9521	1	34.7068	1	6.893	1	299.6	1	3.9381	1	27.5594	1	199.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
104	17	150.5	1	3.4791	1	34.6068	1	7.017	1	305.0	1	3.4693	1	27.5268	1	149.0	1	34.6121	1	7.045	1	306.2	1	3.7	1
104	18	150.6	1	3.4782	1	34.6066	1	7.016	1	304.9	1	3.4684	1	27.5268	1	149.1	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
104	19	101.1	1	4.5990	1	34.6697	1	6.965	1	302.7	1	4.5915	1	27.4598	1	100.1	1	34.6561	4	7.023	1	305.3	1	4.6	1
104	20	101.0	1	4.6037	1	34.6703	1	6.965	1	302.7	1	4.5962	1	27.4597	1	100.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
104	21	51.8	1	4.4284	1	34.4178	1	7.110	1	309.1	1	4.4107	1	27.3124	1	51.3	1	34.4366	4	7.221	4	313.9	4	4.4	1
104	22	51.9	1	4.4130	1	34.4184	1	7.109	1	309.0	1	4.4109	1	27.3121	1	51.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
104	23	4.9	1	5.4981	1	33.7266	1	7.629	1	331.9	1	5.4977	1	26.6078	1	4.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
104	24	4.9	1	5.4951	1	33.7273	1	7.629	1	331.9	1	5.4947	1	26.6087	1	4.9	1	33.7347	4	7.572	1	329.4	1	5.6	1
105	01	1642.3	1	3.2907	1	34.9251	1	6.401	1	278.1	1	3.1663	1	27.8098	1	1620.5	1	34.9270	1	6.408	1	278.5	1	3.8	1
105	02	1400.3	1	3.7739	1	34.9289	1	6.379	1	277.2	1	3.6652	1	27.7641	1	1382.5	1	34.9346	1	6.386	1	277.5	1	4.0	1
105	03	1201.1	1	4.0110	1	34.9267	1	6.435	1	279.6	1	3.9174	1	27.7365	1	1186.4	1	34.9278	1	6.467	1	281.0	1	4.2	1
105	04	1001.1	1	4.3335	1	34.9476	1	6.474	1	281.3	1	4.2544	1	27.7175	1	989.3	1	34.9480	1	6.514	1	283.1	1	4.5	1
105	05	1001.1	1	4.3336	1	34.9475	1	6.474	1	281.3	1	4.2545	1	27.7174	1	989.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	06	900.2	1	4.4284	1	34.9539	1	6.488	1	281.9	1	4.3573	1	27.7113	1	889.8	1	34.9566	1	6.531	1	283.8	1	4.6	1
105	07	900.2	1	4.4321	1	34.9539	1	6.488	1	281.9	1	4.3610	1	27.7109	1	889.8	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	08	800.4	1	4.6285	1	34.9673	1	6.482	1	281.7	1	4.5646	1	27.6991	1	791.4	1	34.9681	1	6.534	1	283.9	1	4.8	1
105	09	800.5	1	4.6321	1	34.9673	1	6.482	1	281.7	1	4.5682	1	27.6987	1	791.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	10	700.4	1	4.8377	1	34.9823	1	6.499	1	282.4	1	4.7812	1	27.6866	1	692.7	1	34.9833	1	6.556	1	284.9	1	4.9	1
105	11	700.3	1	4.8380	1	34.9823	1	6.499	1	282.4	1	4.7815	1	27.6865	1	692.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	12	600.4	1	4.8605	1	34.9763	1	6.515	1	283.1	1	4.8124	1	27.6782	1	593.9	1	34.9774	1	6.544	1	284.4	1	4.9	1
105	13	600.4	1	4.8597	1	34.9763	1	6.515	1	283.1	1	4.8116	1	27.6783	1	593.9	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	14	400.1	1	4.8730	1	34.9540	1	6.564	1	285.3	1	4.8415	1	27.6572	1	396.0	1	34.9553	1	6.600	1	286.8	1	5.1	1
105	15	400.1	1	4.8731	1	34.9539	1	6.564	1	285.3	1	4.8416	1	27.6571	1	396.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	16	300.0	1	5.0015	1	34.9593	1	6.614	1	287.4	1	4.9778	1	27.6456	1	297.0	1	34.9577	1	6.632	1	288.2	1	5.2	1
105	17	300.0	1	5.0032	1	34.9593	1	6.614	1	287.4	1	4.9795	1	27.6454	1	297.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	18	200.6	1	5.0762	1	34.9401	1	6.642	1	288.7	1	5.0604	1	27.6208	1	198.6	1	34.9412	1	6.658	1	289.4	1	5.3	1
105	19	150.7	1	4.4435	1	34.7794	1	6.889	1	299.4	1	4.4325	1	27.5645	1	149.2	1	34.8010	4	6.809	1	295.9	1	4.8	1
105	20	100.4	1	3.3251	1	34.5178	1	7.041	1	306.0	1	3.3187	1	27.4704	1	99.4	1	34.5614	4	7.052	1	306.5	1	3.9	1
105	21	100.5	1	3.3286	1	34.5183	1	7.041	1	306.0	1	3.3222	1	27.4705	1	99.5	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	22	25.8	1	6.8239	1	34.8435	1	7.019	1	305.1	1	6.8216	1	27.3202	1	25.6	1	34.8281	4	6.933	1	301.4	1	6.7	1
105	23	25.8	1	6.8284	1	34.8441	1	7.019	1	305.1	1	6.8261	1	27.3200	1	25.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
105	24	5.5	1	6.5504	1	34.2443	1	7.378	1	320.9	1	6.5499	1	26.8843	1	5.4	1	34.2453	1	7.315	1	318.1	1	6.7	1
106	01	2498.9	1	2.2843	1	34.9082	1	6.633	1	288.2	1	2.0978	1	27.8903	1	2460.9	1	34.9083	1	6.626	1	287.9	1	3.2	1
106	02	2250.3	1	2.6119	1	34.9219	1	6.473	1	281.3	1	2.4426	1	27.8725	1	2217.3	1	34.9237	1	6.443	1	280.0	1	3.4	1
106	03	2000.3	1	2.9246	1	34.9217	1	6.435	1	279.6	1	2.7732	1	27.8433	1	1972.2	1	34.9211	1	6.428	1	279.3	1	3.7	1
106	04	1799.9	1	3.1449	1	34.9232	1	6.413	1	278.6	1	3.0084	1	27.8231	1	1775.4	1	34.9223	1	6.436	1	279.7	1	3.8	1
106	05	1799.7	1	3.1454	1	34.9232	1	6.413	1	278.6	1	3.0089	1	27.8230	1	1775.2	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
106	06	1598.3	1	3.3776	1	34.9256	1	6.352	1	276.0	1	3.2560	1	27.8016	1	1577.3	1	34.9242	1	6.362	1	276.5	1	3.9	1
106	07	1598.3	1	3.3777	1	34.9256	1	6.352	1	276.0	1	3.2561	1	27.8016	1	1577.3	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
106	08	1397.3	1	3.6265	1	34.9302	1	6.309	1	274.2	1	3.5196	1	27.7796	1	1379.6	1	34.9329	1	6.351	1	276.0	1	4.1	1
106	09	1397.3	1	3.6265	1	34.9302	1	6.309	1	274.2	1	3.5196	1	27.7796	1	1379.6	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
106	10	1199.8	1	3.7334	1	34.9216	1	6.323	1	274.7	1	3.6424	1	27.7605	1	1185.2	1	34.9202	1	6.336	1	275.3	1	4.3	1
106	11	1200.0	1	3.7338	1	34.9216	1	6.322	1	274.7	1	3.6428	1	27.7605	1	1185.4	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
106	12	1000.1	1	3.9077	1	34.9216	1	6.398	1	278.0	1	3.8320	1	27.7413	1	988.4	1	34.9189	1	6.426	1	279.3	1	4.4	1
106	13	900.0	1	3.9970	1	34.9250	1	6.439	1	279.8	1	3.9290	1	27.7340	1	889.7	1	34.9257	1	6.463	1	280.9	1	4.4	1
106	14	799.4	1	4.0729	1	34.9283	1	6.543	1	284.3	1	4.0126	1	27.7279	1	790.4	1	34.9265	1	6.570	1	285.5	1	4.5	1
106	15	699.5	1	4.2044	1	34.9384	1	6.567	1	285.4	1	4.1514	1	27.7212	1	691.8	1	34.9360	1	6.563	1	285.2	1	4.6	1
106	16	599.8	1	4.3475	1	34.9511	1	6.546	1	284.5	1	4.3019	1	27.7151	1	593.3	1	34.9538	1	6.566	1	285.3	1	4.8	1
106	17	500.0	1	4.3255	1	34.9368	1	6.552	1	284.7	1	4.2879	1	27.7053	1	494.7	1	34.9379	1	6.594	1	286.6	1	4.8	1
106	18	399.7	1	4.5305	1	34.9587	1	6.594	1	286.5	1	4.5001	1	27.6994	1	395.6	1	34.9571	1	6.593	1	286.5	1	5.0	1
106	19	299.9	1	4.8572	1	34.9892	1	6.589	1	286.3	1	4.8338	1	27.6860	1	296.9	1	34.9862	1	6.607	1	287.1	1	5.3	1
106	20	200.4	1	5.1175	1	34.9965	1	6.660	1	289.4	1	5.1016	1	27.6606	1	198.4	1	34.9940	1	6.594	1	286.6	1	5.5	1
106	21	149.9	1	5.1498	1	34.9716	1	6.710	1	291.6	1	5.1380	1	27.6366	1	148.4	1	34.9707	1	6.630	1	288.1	1	5.5	1
106	22	100.7	1	5.5826	1	34.8874	1	6.670	1	289.9	1	5.5744	1	27.5172	1	99.7	1	34.8902	1	6.726	1	292.3	1	5.9	1
106	23	29.9	1	6.4375	1	34.5779	1	7.076	1	307.7	1	6.4349	1	27.1627	1	29.6	1	34.5791							

Cast	Bottle	P	FP	T	FT	S	FS	O2ml	FO2	O2um	FO2u	Tpot	FTpot	SI0	FSI0	Imm	Fimm	Salc	Fsalc	oxyc	Foxyc	oxykc	Foxykc	tmpo	Ftmpo
108	07	2250.3	1	3.1940	1	34.9189	1	6.372	1	276.9	1	3.0150	1	27.8190	1	2218.4	1	34.9261	4	6.360	1	276.4	1	3.9	1
108	08	2000.5	1	3.3439	1	34.9181	1	6.348	1	275.8	1	3.1862	1	27.8023	1	1973.3	1	34.9189	1	6.347	1	275.8	1	4.1	1
108	09	1800.8	1	3.4930	1	34.9202	1	6.310	1	274.2	1	3.3517	1	27.7881	1	1777.1	1	34.9222	1	6.287	1	273.2	1	4.2	1
108	10	1598.5	1	3.6258	1	34.9218	1	6.290	1	273.3	1	3.5012	1	27.7748	1	1578.2	1	34.9191	1	6.297	1	273.6	1	4.3	1
108	11	1401.8	1	3.7194	1	34.9153	1	6.339	1	275.5	1	3.6112	1	27.7587	1	1384.7	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
108	12	1200.7	1	3.7970	1	34.9079	1	6.376	1	277.1	1	3.7054	1	27.7433	1	1186.6	1	34.9060	1	-9.999	9	-9.9	9	-9.9	9
108	13	1001.0	1	3.8594	1	34.9005	1	6.442	1	279.9	1	3.7841	1	27.7294	1	989.7	1	34.8995	1	6.441	1	279.9	1	4.5	1
108	14	901.0	1	3.9219	1	34.9025	1	6.441	1	279.9	1	3.8543	1	27.7238	1	891.0	1	-9.9999	9	-9.999	9	-9.9	9	-9.9	9
108	15	800.9	1	3.8522	1	34.8819	1	6.510	1	282.9	1	3.7932	1	27.7137	1	792.2	1	34.8813	1	6.566	1	285.4	1	4.6	1
108	16	699.5	1	3.8450	1	34.8719	1	6.617	1	287.5	1	3.7941	1	27.7056	1	692.1	1	34.8719	1	6.613	1	287.4	1	4.6	1
108	17	600.6	1	3.9198	1	34.8752	1	6.516	1	283.2	1	3.8762	1	27.6998	1	594.4	1	34.8756	1	6.559	1	285.1	1	4.7	1
108	18	500.4	1	3.9729	1	34.8695	1	6.500	1	282.5	1	3.9367	1	27.6890	1	495.3	1	34.8756	4	6.517	1	283.2	1	4.7	1
108	19	401.0	1	4.2054	1	34.8813	1	6.392	1	277.8	1	4.1760	1	27.6732	1	397.0	1	34.8808	1	6.374	1	277.0	1	4.9	1
108	20	300.6	1	4.2428	1	34.8494	1	6.300	1	273.8	1	4.2209	1	27.6430	1	297.7	1	34.8541	1	6.273	1	272.6	1	5.0	1
108	21	201.3	1	4.3639	1	34.7729	1	6.336	1	275.4	1	4.3492	1	27.5684	1	199.4	1	34.7716	1	6.291	1	273.4	1	5.2	1
108	22	100.1	1	5.1586	1	34.7042	1	6.422	1	279.1	1	5.1508	1	27.4231	1	99.2	1	34.7003	1	5.938	4	258.1	4	5.8	1
108	23	50.4	1	5.4162	1	34.5092	1	6.841	1	297.5	1	5.4122	1	27.2375	1	49.9	1	34.5091	1	6.375	4	277.2	4	6.1	1
108	24	5.1	1	10.6913	1	33.9879	1	6.453	1	280.9	1	10.6907	1	26.0424	1	5.1	1	33.9894	1	6.498	1	282.8	1	10.7	1