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CTDO station data from the north east Atlantic from RRS *Discovery* Cruise 189

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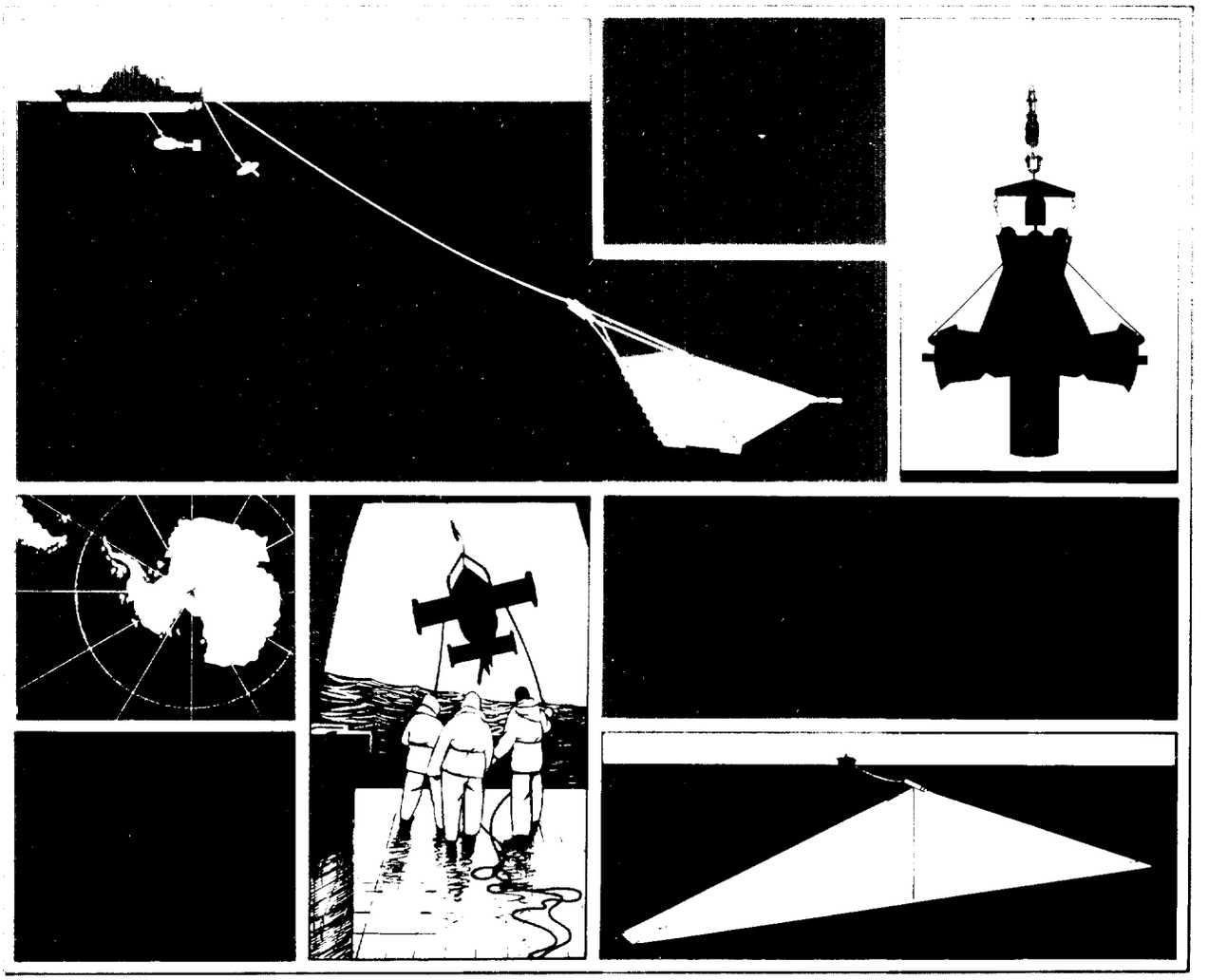
R Paylor J F Read & J C Swallow**

Report No 287 1991



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ABSTRACT

RRS Discovery Cruise 189 sailed from Cardiff on 9 March 1990 and docked in Barry on 8 April. CTD station data and SeaSoar data were collected in the Atlantic Ocean, north and east of 40°N 20°W; this report describes CTD station data only.

Initially, three sections of full-depth CTD stations were occupied, along approximately 41.5°N (Iberian coast to 20°W), 20°W (41°N to 52°N) and 52°N (20°W to 15°W). Later, three north-south sections were occupied across the Bay of Biscay, along 8°25'W, 9°10'W and 9°55'W.

Calibration and processing of CTD station data are described, and the data from 59 stations are presented as profile plots of temperature, salinity, oxygen, fluorescence and transmittance, with listings of CTD measurements and derived variables at standard levels. Selected variables are presented as contoured section plots. Salinity and oxygen measurements from water sample analysis are also listed.

KEYWORDS

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CONTENTS

	PAGE
CONTENTS	5
INTRODUCTION	7
COLLECTION AND ANALYSIS OF SAMPLE DATA	7
Introduction	7
Salinity	8
Temperature	8
Oxygen	8
Chlorophyll	10
Nutrients	10
COLLECTION AND PROCESSING OF CTD DATA	11
Introduction	11
Pressure	11
Temperature	12
Salinity	12
Oxygen	14
Chlorophyll	15
Transmittance	16
Procesing path for CTD data	18
CTD data processing in program 'recal2'	20
LISTINGS AND PLOTS OF CTD AND SAMPLE DATA	22
Listings and profile plots	22
Section plots	23
ACKNOWLEDGEMENTS	23
REFERENCES	24
FIGURE 1 Cruise track for RRS Discovery Cruise 189	25
RRS DISCOVERY CRUISE 189 CTD STATION LIST	26
TABLES 1-10	27
FIGURES 2-5	36
PROFILE PLOTS AND DATA LISTINGS	40
SECTION PLOTS	158

1. INTRODUCTION

Cruise 189 of RRS Discovery Sailed from Cardiff on Friday 9 March 1990, and docked in Barry on Sunday 8 April. Individual project reports may be found in the Cruise Report (King et al., 1991). This report contains plots and tabulated listings of CTD and sample data collected during the cruise. A Cruise track is shown in Figure 1.

Cruise 189 was the second of a pair of cruises undertaken as part of a study of the circulation of the north-east Atlantic. Twelve months previously, Discovery Cruise 181 had covered a very similar cruise track (Pollard et al., 1989) with most Cruise 181 stations being reoccupied on Cruise 189. Departures from the Cruise 181 station positions in the northern part of the work area were occasioned by poor weather. One of the main purposes of undertaking a repeat cruise was to discover what could be learnt about the interannual variability of the characteristics of the upper ocean in the region. In addition to the CTD station data, approximately eight days of SeaSoar data were collected. These will be reported elsewhere.

Cruise 189 was scheduled immediately prior to a series of cruises forming part of the 1990 BOFS campaign, which were concentrated on the 20°W meridian. Chlorophyll measurements made during the cruise indicated that the spring phytoplankton bloom was already underway on the southern part of the 20°W section worked between 42°N and 53°N.

Towards the end of Cruise 189, a series of stations, amounting to three sections, was worked in the Bay of Biscay. The station positions were dictated by the requirements of the GASTOM experiment, coordinated by the EPSHOM, Brest, and by limitations imposed by the British and French authorities.

2. COLLECTION AND ANALYSIS OF SAMPLE DATA

Introduction

Water samples were collected using Niskin bottles mounted on a General Oceanics 12 bottle rossette. For stations 11965 and later, the multisampler system in use was a brand new 2.5 litre system. Difficulties on earlier stations with a 1.7 litre system are described in the Cruise Report (King et al., 1991). In general, duplicate samples were drawn for oxygen, salinity and nutrient analysis from all 12 bottles. Exceptions to this were some shallow stations where only six bottles were used, and stations 12018 and later, when only single oxygen samples were drawn.

Salinity

Salinity samples were analysed on either of two Guildline Autosals. One was a brand new model 8400A, the other an older model 8400. From time to time during the cruise, one or other salinometer showed signs of instability. Suggestions for the cause of this instability included noisy power supply, electromagnetic interference from the ship's engine/generator system, poor temperature control of the laboratory and disturbance from the ship's motion. However, no single explanation was found, and salinity analyses were performed on whichever salinometer was most stable at the time. The salinometers were standardised using P111 and P112 standard seawater.

Most of the samples were analysed by one of two operators, although two other operators analysed a number of samples to help clear backlogs. All operators had recently attended a training course on high quality salinometry and use of the Guildline Autosal given at IOSDL by the IAPSO Standard Seawater Service. This enabled standard practice to be adopted in such matters as frequency and quality of standardisation of the salinometers.

Approximately 1450 samples were analysed, including 617 duplicate pairs. Table 1 summarizes the differences between duplicates, indicating the quality of the sample measurements.

Temperature

Seven SIS Digital Reversing Thermometers (DRT) were used during the cruise. They were deployed as two pairs and one group of three.

The seven thermometers (two belonging to IOSDL and five to RVS) were calibrated at IOSDL before the cruise, and the following calibrations used

T204: T=0.999750 Traw + 0.0055

T238: T=0.999459 Traw + 0.0017

T207: T=0.999584 Traw + 0.0025

T183: T=0.999977 Traw + 0.0040

T179: T=0.999341 Traw + 0.0038

T215: T=0.999467 Traw + 0.0034

T156: T=0.999817 Traw - 0.0017

Table 2 contains a comparison between pairs of thermometers mounted in the same reversing frame, and between thermometers and CTD values. On recovery during station 11993, during heavy seas, the frame containing the multisampler package struck the hydrographic platform. The CTD/thermometer comparison is split into data before and after the impact. Apparently only T179 suffered any significant change in calibration. This is illustrated by the partitioning of comparison pairs into early (ie before station 11993) and late (after 11993) pairs.

Two groups of thermometers have been split into measurements when the temperature was higher or lower than 3°C. This is to identify comparisons in the region where vertical temperature gradients are weakest and the best agreement may be expected.

Careful study of Table 2 shows that there are fewer CTD-DRT comparisons than DRT-DRT comparisons. This is because pairs differing by more than 0.015°C have been excluded from the analysis, and there are more such pairs in the CTD-DRT comparison, than DRT-DRT comparison. There were in fact, 25 instances of CTD-DRT differences greater than 15 millidegrees. Of these, 24 instances had DRT temperature corresponding to a shallower depth than CTD temperature, including three near-bottom instances when the CTD temperature was higher than the DRT temperature, but the in-situ temperature gradient was positive downwards (stations 11970, 11973, 11974). The conclusion was that on some occasions, the thermometer frames were reversing at significantly shallower depths than those at which the bottles were fired. Mid way through the cruise (after 31 out of 60 stations), the manner in which the thermometer lanyards were secured when loading Niskin bottles was modified. All but three of the CTD-DRT pairs worse than 15 millidegrees occurred in the first half, which demonstrates that the revised loading procedure considerably improved the performance of the reversing frames.

It is interesting to note that the means of the CTD-DRT comparisons are all negative, despite the fact that the CTD and all DRT's were calibrated at IOSDL before the cruise, and it is tempting to infer that, in addition to the obvious cases noted above, the thermometers were frequently making a measurement at a depth shallower than the CTD. However, splitting data before and after the change of loading procedure, which brings about such a reduction in the number pairs worse than 15 millidegrees, makes no discernible change to the bias of the remaining CTD-DRT data.

Oxygen

Oxygen samples were drawn into clear glass reagent bottles, and analysed according to the Winkler procedure. Apart from a couple of early stations, the titrations were performed using a semi-automatic endpoint determination system, borrowed from

UCNW, Bangor. The titration was performed manually, but the endpoint was determined from the output of a photoelectric system. Further details are given in the Cruise Report.

Three watchkeepers were involved in the drawing and fixing of approximately 1300 samples, and the comparison of duplicate pairs (Table 3) indicates that all three were achieving a high level of reproducibility on the sampling process. The agreement between duplicates also indicates that the analysis procedure was being performed with a good degree of consistency. The only query remaining at the end of the cruise was over the absolute standardisation of the dissolved oxygen concentrations. There is the possibility that although the collection and analysis of samples was performed with a high degree of consistency, there remains a bias in the absolute values. Figure 2 shows a comparison of oxygen sample data from Cruise 189 with data from nearby stations occupied during the TTO experiment (TTO, 1986). It appears that Cruise 189 data are a little higher than TTO data, by perhaps one or two percent. The handling of standard solutions used in the analysis procedure is presently under review at IOSDL, and it is hoped that this issue will be resolved in the near future.

Chlorophyll

Although some samples were drawn for chlorophyll analysis from a small number of stations, a fluorometer calibration was arrived at by comparing samples drawn from the ship's non-toxic supply in the Biology Laboratory with near-surface measurements made while the fluorometer was being towed in the SeaSoar. 113 near-surface samples were analysed, including 44 duplicate pairs. The mean difference between duplicates was 0.08 mg/m^3 and the rms difference was 0.11 mg/m^3. 73% of duplicates differed by 0.1 mg/m^3 or less, and 91% differed by no more than 0.2 mg/m^3. The CTD fluorometer calibration was calculated using 22 night-time samples, daytime samples being subsequently used to infer a correction to SeaSoar CTD data for suppression of fluorescence due to daylight. 200ml of water sample were filtered through a 2.5 cm diameter filter (Whatman GFF, nominal size 0.7 µm), and the chlorophyll extracted into 10 ml of 90% Acetone. This was then analysed in a Turner 113 Fluorometer, which was standardised at the start and the end of the cruise. Since the later standardisation provided the more consistent linear calibration, this was used to calibrate all the sample values collected during the cruise. Sample values were then compared with CTD fluorescence values, to provide a calibration for the CTD fluorometer. The differences between CTD and sample values are summarised in Table 4.

Nutrients

Duplicate samples were drawn into plastic bottles, from all Niskin bottles, for nutrient analysis. Since there was no autoanalyser on board, the samples were frozen for

analysis at IOSDL after the cruise. It had been intended that that the samples should be analysed very soon after their return to IOSDL, on a new autoanalyser that had been purchased. Unfortunately, there were teething troubles with the new equipment, and the analyses were not carried out before the new equipment was itself taken to sea on Charles Darwin Cruise 50. A period of approximately six months eventually elapsed before the samples could be analysed, which brings into doubt the likely quality of the measurements. No nutrient data are therefore presented in this report. If subsequent analysis of the sample data suggests that they contain useful information, they may be published at a later date.

3. COLLECTION AND PROCESSING OF CTD DATA

Introduction

CTD data are passed from the Neill Brown CTD Deck Unit to a small dedicated microcomputer ('Level A') where one-second averages of all the raw values are assembled. This process includes checking for pressure jumps exceeding 100 raw units (10db for the pressure transducer on the CTD) and discarding of spikes detected by a median-sorting routine. A fuller account of this procedure is given by Pollard et al. (1987). The rate of change of temperature is also estimated. The one-second data are passed to a SUN workstation and archived. Calibration algorithms are then applied (as will be described) along with further editing procedures. Partially processed data are archived after various stages of processing. CTD salinity, dissolved oxygen concentrations and chlorophylls are reconciled with sample values, and any necessary adjustments made. CTD temperatures were compared with reversing thermometer measurements; there were no reversing pressure measurements made on the cruise. The downcast data are extracted, sorted on pressure and averaged to 2db intervals; any gaps in the averaged data are filled by linear interpolation. Derived oceanographic variables are computed, and data are extracted for gridding into sections or for producing the station listings included in this report.

Pressure

Pressure was calibrated using data from a laboratory calibration carried out on 06/02/90. The following quadratic correction was applied:

$$p = 5.159 \times 10^{-7}\, p_{in}^{2} + 0.9958\, p_{in} - 5.49$$

The coefficients for this calibration were computed using a standard value for the acceleration due to Earth's gravity, rather than the local value for IOSDL, so the pressure was then adjusted according to

$$p_{new} = p_{old} \times \frac{981.126}{980.665}.$$

A further correction was made for the effect of temperature on the CTD pressure offset:

$$p_{new} = p_{old} - 0.039 \, (Tlag - 9) \, .$$

Here Tlag is a lagged temperature, in degrees C, constructed from the CTD temperatures by the program 'recal2'. The time constant for the lagged temperature was 400 seconds. The values of 400 seconds and the sensitivity of 0.39 db/°C are based on laboratory tests.

A final adjustment to pressure is to make a correction to upcast pressures for hysteresis in the sensor. This correction is made using 'recal2' (qv).

Temperature

The CTD temperature was calibrated in the laboratory at IOSDL on 06/02/90. The following calibration was used:

$$T = 0.9985949 \, T_{in} - 0.0118$$

This calibration was in °C in the ITS-90 scale, which is used for all temperature data given in this report. For the purpose of computing derived oceanographic variables, temperatures were converted to the 1968 scale, using

$$T_{68} = 1.00024 \, T_{90}$$

as suggested by Saunders (1990).

In order to allow for the mismatch between the time constants of the temperature and conductivity sensors, the temperatures were corrected according to the procedure described in the SCOR WG 51 report (Crease et al., 1988). The time constant used was 0.15 seconds.

Salinity

Salinity was calculated by converting temperatures measured in the ITS-90 scale to the IPTS-68 scale, and then using the usual algorithm for computing Salinity from pressure, temperature and conductivity. The known effect of temperature and pressure on the conductivity cell was allowed for according to SCOR WG 51, using the program 'recal2' (qv).

In order to achieve satisfactory reconciliation of CTD salinities with sample salinities, a number of further procedures were required, which are not normally adopted at IOSDL.

Firstly, it was found that there was a hysteresis between θ-S relations on the downcast and upcast of a station. Within a few hundred metres of the upcast commencing, the CTD

salinity was found to be lower than the downcast by typically 0.004 and at worst 0.01 (at a given potential temperature). This effect could not be removed by adjusting the temperature time constant. Note in passing that this would be equivalent to the pressure sensor reading 10 db too high on the upcast. It was clear that comparing bottle sample values with upcast CTD salinities corresponding to Niskin Bottle closures would not provide an adequate calibration of downcast CTD salinities. It was therefore decided that downcast CTD salinities would be extracted at potential temperatures that matched the upcast potential temperature at which a Niskin bottle was fired. This procedure is analogous to the one used for calibration of downcast CTD oxygens.

For most bottle samples, there was no difficulty in extracting downcast CTD data cycles that matched upcast CTD values exactly in potential temperature, and closely in pressure. This downcast CTD salinity was required to be a good fit to the sample salinity. Difficulty was experienced, however, with Niskin bottles closed in the oxygen minimum corresponding to the Mediterranean water. For many stations, the water at this depth had several inversions in potential temperature, and it was sometimes not possible to identify a unique data cycle in the downcast that could be compared with the bottle salinity. Such points were not used in the salinity calibration.

After extracting CTD downcast data cycles that were considered to be 'good' for the purposes of salinity calibration, an attempt was made to reconcile the CTD data with the sample data. As successive stations were examined, it became apparent that stations could not be fitted by choosing a single value for the cell conductivity ratio, or, equivalently, by applying a single salinity offset. Examination of groups of stations revealed that residuals between CTD and bottle salinities could be fitted by a linear combination of temperature and pressure. The required corrections, although similar in effect to the corrections made in 'recal2' (described in step (8) of that program), were of much larger magnitude. For each station, the salinity was offset by an amount

$$S_{new} = S_{old} + 0.001\ (a + b\ p + c\ T)\ .$$

Initially, coefficients a, b, and c were computed for each station, there being between 10 and 12 sample-CTD pairs for the fit. It was then found that values of b and c could be chosen for groups of stations (with the group of deepest stations requiring slightly different coefficients), but that the offset, a, needed to be determined station by station. After b and c had been chosen, the offset was determined by performing a best fit between the CTD and sample values for samples collected at depths deeper than 2500m. The resulting coefficients are given in Table 5. The remaining sample-CTD differences are summarized in Table 6.

We note in passing that the difficulties experienced in calibrating the CTD salinity may have arisen from a failing conductivity cell. The cell failed totally on the first station of the next cruise on which the CTD was deployed. Having noted this, however, we believe that the CTD salinity values eventually accepted on the cruise and reported here, are of a satisfactory standard. Figures 3a and 3b show the deep θ-S relation for the sample and CTD data respectively. A linear least squares regression of S on θ for 153 samples below 2.5°C gives

$$S = 34.6979 + 0.0978\ \theta \ .$$

In the range $2°C < \theta < 3°C$, this differs by less than 0.001 from Saunders (1986), who gives

$$S = 34.698 + 0.098\ \theta \ .$$

Oxygen

CTD dissolved oxygen concentrations were computed from measured CTD variables according to the formula

$$\text{Oxygen} = \text{Oxsat}(T,S) \times \text{rho} \times \text{Oxyc} \times \exp(\alpha\ \text{Oxtemp} + \beta\ p)$$

where rho, α and β are to be determined from the sample data, and Oxtemp is a combination of temperature from the Oxyt sensor and unlagged CTD temperature, thus

$$\text{Oxtemp} = 0.6\ \text{Oxyt} + 0.4\ T_{CTD}$$

In order to calculate the unknown fitting parameters, a linear least squares regression is performed of $\ln\left(\frac{\text{sample oxygen}}{\text{Oxsat.Oxyc}}\right)$ on Oxtemp and pressure, with α, β and ln(rho) as the unknown coefficients. Since between 10 and 12 sample oxygen determinations were available for nearly every station, it was decided to fit the CTD values to sample values for each station. The resulting coefficients are shown in Table 7.

For a variety of reasons, the most significant of which is that upcast Oxyc values are unusable because the CTD power supply is interrupted each time a Niskin bottle is fired, it is necessary to use downcast CTD oxygen parameters when calibrating the CTD oxygens. These were extracted from data cycles that had potential temperatures which matched the upcast potential temperature at the time that the sample was collected. There was in general no difficulty in matching potential temperatures, except where there was influence of Mediterranean water, resulting in potential temperature inversions. This meant that a fully automatic procedure could not be used to extract suitable downcast data, and subjective decisions were sometimes made about which data cycle to choose. Downcast values of

pressure, temperature, salinity, Oxyc and Oxyt were thus extracted and used in the oxygen fitting process.

The goodness of fit of oxygen CTD data to sample data may be judged from Tables 7 and 8. In addition to the coefficients used to calibrate the CTD data, Table 7 gives the standard deviation of the (sample-CTD) difference for each station. Furthermore, the sample data are overplotted on the CTD profile plots given at the end of the report. In general, the best fit is achieved to the deeper bottles (usually no worse than 0.03 ml/l) and the worst fit is achieved in the oxygen minimum.

Conversion from ml/l to µmol/kg

Dissolved oxygen data listed in this report are given in units of ml/l, as computed by the analysts on board the cruise. In order to convert this quantity to µmol/kg, Saunders (1986) multiplies by 43.57, which involves a factor of 44.660 to convert ml to µmol and 1.025 for the density of seawater. In fact, the appropriate density of seawater is the density at the time that the oxygen content of the samples is 'fixed' in the reagent bottles, when the sample is drawn. For conversion of values collected in deep bottles, collected at temperatures of approximately 2.5°C with samples drawn at about the same temperature, a density of 1.028 kg/l should be used. Thus dissolved oxygen concentrations at deep levels reported here should be converted from ml/l to µmol/kg by multiplying by a factor of 43.45. This factor is 0.3% smaller than the one used by Saunders.

Chlorophyll

Fluorescence was measured using Aquatracker fluorometers, numbers SA240 and SA228, with 6000m pressure cases (supplied by RVS). SA240 was used for all stations except 12000 to 12002. SA228 was used for stations 12001 and 12002, because SA240 had been installed in the SeaSoar. At the start of the cruise, to provide working data, a calibration was used that had been derived on a previous cruise. After the end of the cruise, all chlorophyll sample data were inspected and a new calibration deduced. This single calibration was then applied to the entire cruise dataset and was as follows:

$$\text{Chlorophyll} = \exp(3.67\ \text{Fluor} - 3.16)$$

where Fluor is the raw fluorometer value and chlorophyll is calibrated in mg/m^3. With the small number of chlorophyll samples available to calibrate SA228, it was not possible to deduce a calibration significantly different from the one deduced for SA240.

Note that in the data reported here, no attempt has been made to account for the reduction in near-surface measured fluorescence during daylight hours.

The goodness of fit between sample and CTD data is summarized in Table 4. For the 22 points used in the calibration, the regression of ln(Chla) on Fluor has a correlation coefficent of 0.97.

Transmittance

Transmittance was measured using a one-metre path Sea-Tech transmissometer, number SN35, which has a peak of emission at a wavelength of 660 nm. At the start of the cruise, after careful cleaning of the optical surfaces, an air calibration value of 4.33 volts was achieved, with a reading of 0.017 volts when the path was blocked. Subsequent air calibration values achieved were 4.32 (prior to station 11975), 4.33(11977), 4.24(11996), 4.31(12001), 4.28(12015), 4.31(12020).

The manufacturer's laboratory calibration for the instrument indicated that a water calibration factor of 1.0032 was required when the air calibration was 4.355 volts. Thus the initial calibration used, to give transmittance in percent, was

$$\text{Trans} = \frac{4.355}{4.33}\ 1.0032\ (0.001\ \text{Transraw} - 0.017) \times 20$$

where 0.001 is the scaling factor to convert CTD deck unit values into volts. Full scale is 5 volts, corresponding to 100 percent. The above calibration is equivalent to

$$\text{Trans} = 1.00899\ (0.02\ \text{Transraw}) - 0.343.$$

Subsequent processing of the data corrected for variation of the refractive index of seawater, and the compressibility of seawater, to produce potential transmittance. The corrections applied were derived by P. M. Saunders (private communication) from formulae supplied by the manufacturer. Thus

$$\text{Trans}_{new} = \frac{\text{Trans}_{old}}{[1.001055 + 2.12\text{x}10^{-7}\text{p} - 1.1\text{x}10^{-5}(\text{T}-9) + 2.9\text{x}10^{-5}(\text{S}-35)]}$$

and,

$$\text{Potrans} = \text{Trans}\left(1 - \frac{\text{p}}{2.158\text{x}10^{5}} \ln \frac{\text{Trans}}{100}\right)$$

At 5000 db, these two corrections contribute approximately -0.2 percent and +0.8 percent respectively. Finally, attenuation is computed as

$$\text{Atten} = -\ln\left(\frac{\text{Potrans}}{100}\right)$$

Hysteresis Some stations exhibited hysteresis between upcast and downcast transmittances, with upcast values being slightly higher (ie lower attenuation). Downcast

transmittances are published in this report. The hysteresis was 0.5 percent at worst, over the range 1000 to 3000 db, but more usually about 0.2 percent. This is slightly more hysteresis than reported by Bishop (1986), who suggests that such up/down offsets may be related to temperature effects. It does not appear, however, that temperature is the controlling factor in our data. The hysteresis was most noticeable in stations deeper than 2500db, when the instrument spends most of the time in water whose temperature varies by no more than about 1°C, and was very much reduced, indeed hardly noticeable, on stations for which the maximum pressure was less than 2500 db. Brief inspection of (unpublished) CTD data collected on Charles Darwin Cruise 42 reveals a similar pattern, namely, significant hysteresis on deep stations, with less on stations to less than 2500db.

Fine tuning of offset It is commonly the case with transmittance data that maximum values at mid-depth (say 3000 db) suffer offsets between adjacent stations because of variations in the extent to which the optical surfaces were cleaned before deployment, and the possible contamination of the optical surfaces as the instrument passes through the surface layer. An initial attempt to plot sections of transmittance data, after calibration according to the above procedure, revealed a signal significantly degraded by the offsets described above.

A typical station consists of transmittances in the range 40 to 65 percent in the surface layer, where the attenuation is well correlated with fluorescence (Figure 4). Below the surface layer, the transmittance increases to something near the clear water value, and any attenuation in this region is principally due to detritus. As depth increases, the potential transmittance generally increases slowly towards a maximum value found about 500m above the seabed. The transmittance falls off as the seabed is approached, which is attributed to resuspension of sediment. This pattern may be seen in most of the profile plots, and can be clearly seen in the section plots. However, local maxima and minima can arise from the slightly different scattering associated with different water masses. For example, the 20°W section shows a slight transmittance minimum at about 1500m associated with Labrador Sea Water (relatively murky) underlying Mediterranean Water (relatively clear). Figure 5 shows the individual potential transmittance profiles (suitably offset) for the 20°W section.

In order to construct useful vertical sections, it was necessary to remove the station to station offsets discussed earlier. Assuming that such offsets arise from dirty optical surfaces, which biases the transmittance to a lower value, it was decided to correct station values upwards by comparison with a chosen station (11973) which showed a relatively high value of maximum transmittance. The procedure for correction was as follows.

For each station, a table was produced, at 50db intervals, of the quantity

$$\frac{\text{transmittance at station N}}{\text{transmittance at station 11973}}$$

Based on these listings, a section of the profile was chosen over which this ratio was reasonably uniform. For example, on station 11970 between 2500m and 4500m the ratio varied between 0.9983 to 0.9994 with a mean of 0.9988 and a standard deviation of 0.0002. The reciprocal of this factor was then used to correct the potential transmittance data for the entire station. For some stations, particularly some shallower stations and stations in the Bay of Biscay (12001 and later), it was not possible to deduce a correction factor by comparison with station 11973. In such cases, correction factors were taken from other nearby stations. A list of correction factors used is given in Table 9.

The resulting section plots show that while some stations still suffer offsets, the intercalibration between stations is generally satisfactory.

Processing path for CTD data

This section is a fairly detailed summary of the processing path for CTD data presented in this report.

1) Read raw data from RVS data file using program 'datapup'.

2) Run 'pcopya' and 'pheadr' to establish upper and lower limits of variables and fix up PSTAR data header, including dataname, ship and instrument details, station position, water depth.

3) Run 'ctdcal' to apply preliminary calibrations to certain variables, as follows.

P = (0.1 * Praw)

T = 0.9985949 * (0.005 * Traw) - 0.0118

C = 0.9937 * (0.001 * Craw)

Fluor = exp (4.14 * (0.001 * Fraw) - 3.7)

Trans = 1.00899 * (0.02 * Transraw) - 0.343

Oxyt = (0.128 * Oxytraw)

Oxyc = 1.494 * (0.001 * Oxycraw)

Oxygen = Oxsat(T,S) * Oxyc * exp (-0.046 * Oxyt + 0.000157 * p)

'ctdcal' also computes salinity.

In fact, subsequent adjustments were made to the calibration of all the variables except temperature. These adjustments are described in full in the sections relating to particular sensors.

4) Run 'recal2'. This program applies a number of calibration corrections, to pressure, temperature, conductivity and salinity, as described in the next section.

5) Run 'ptran2' to compute potential transmittance. Note that in its present form, this program applies a correction for air calibration value, which is set up within the programme code.

6) Run 'peos83' to compute potential temperature, salinity and potential density.

7) Run 'getcal' to extract upcast potemps corresponding to firing of Niskin bottles and to establish conditions of firing.

8) Run 'plistd' to identify the portion of the data file corresponding to the down cast. Run 'pcopya' to copy the downcast portion to a new file.

9) From a listing of the downcast file, extract the oxygen and salinity parameters at downcast potemps that match the upcast potemps of Niskin bottle firings. Data are unlikely to be useful for calibration if upcast and downcast pressures differ substantially.

10) Run 'oxyca2' to obtain oxygen fitting parameters from downcast CTD values and sample oxygen values.

11) Run 'oxygn2' to compute new CTD oxygens using the new fitting parameters.

12) Apply any necessary salinity correction, after reconciling CTD values with sample values.

13) Run 'peos83' to compute potemp after salinity correction.

14) Run 'pmdian' and 'pintrp' to remove salinity spikes.

15) Run 'psort' on pressure, followed by 'pavrge' to reduce data to values at 2db intervals.

16) Run 'pintrp' on all variables to fill any empty bins left by pavrge.

17) Run 'peos83' to compute sound velocity, and other derived variables.

18) Make adjustments to transmittance (post cruise processing).

19) Make adjustments to chlorophyll (post cruise processing).

20) Run 'pgridp' to construct gridded files of CTD sections.

CTD data processing in program 'recal2'

The purpose of the program 'recal2' is to apply corrections to approximately calibrated CTD data. The input data are pressure, temperature, salinity and a time variable. The program performs the following operations.

1) Compute conductivity from pressure, temperature, salinity.

2) Apply linear calibration to temperature if required. On Cruise 189, $T_{new} = T_{old}$.

3) Calculate lagged temperature for use in correction of pressure sensor. This is done as follows.

First, compute the average of the first 20 temperatures, as an initial lagged temperature. Next, for each data cycle, update the lagged temperature using

$$Tlag_i = W * Tlag_{i-1} + (1-W) * Tgood.$$

Here, Tgood is the most recent good temperature, usually the CTD temperature for data cycle i, and

$$W = \exp -\left(\frac{tint}{tconst} * \Delta t\right)$$

where tint is specified at the start of the program and is the number of seconds per unit of the time variable (usually equal to unity since time is usually measured in seconds for CTD data), tconst is the time constant in seconds for the rate of change of the lagged temperature, and Δt is the time interval over which the lagged temperature is to be updated (usually one second for CTD data, but more when there are gaps in the time base). For Cruise 189, tint = 1, tconst = 400.

4) Apply quadratic correction to pressure based on laboratory calibration.

$$p_{new} = A * p_{old}^2 + B * p_{old} + C$$

On Cruise 189, $A = 5.159*10^{-7}$, B = 0.9958, C = -5.49.

5) Apply correction to account for difference between acceleration due to Earth's gravity at Wormley and the standard value used in laboratory calibration.

$$p_{new} = p_{old} * \frac{981.126}{980.665}.$$

Note that in future this may already have been accounted for in the pressure calibration (4), in which case this adjustment should be removed from the program.

6) Apply correction to pressure for the effect of temperature on deck offset. Use lagged temperature calculated in section (3) above.

$$p_{new} = p_{old} - ptslope * (Tlag - Tzero)$$

Here, ptslope is the rate of change of deck offset with temperature. Tzero is the temperature at which the calibration applied in (4) gives the correct deck offset. For Cruise 189, ptslope = 0.39 db/°C, Tzero = 9 °C.

7) Apply a correction to the upcast pressures for hysteresis arising from the loading and unloading of the sensor. This is calculated on the basis of laboratory measurements of the hysteresis.

The amount of hysteresis after a cast to 5500m (denoted by $\Delta p_{5500}(p)$) is given in Table 10 for pressures at 500db intervals. Intermediate values are found by linear interpolation. If the observed pressure lies outside the range defined by the table, $\Delta p_{5500}(p)$ is set to zero.

For a cast in which the maximum pressure reached is pmax decibars, the correction applied to the upcast CTD pressure is

$$p_{new} = p_{old} - \left(\Delta p_{5500}(p_{old}) - \left(\frac{p_{old}}{pmax} * \Delta p_{5500}(pmax) \right) \right)$$

8) Correct the conductivity using a cell ratio. Also, apply a correction for the effect of pressure and temperature on the cell ratio.

$$C_{new} = C_{old} * cfac * (1 + (cpslope * p) + ctslope * (T - Torg))$$

where p and T are instantaneous pressure and temperature, cpslope is the rate of change of cell ratio with pressure, ctslope is the rate of change of cell ratio with temperature, and cfac is the cell ratio at pressure zero and temperature Torg. Crease et al. (1988) give cpslope = 1.5E-8, ctslope = -6.5E-6. For Cruise 189, Torg was taken to be 15 °C.

9) Finally, salinity is calculated from corrected temperature, pressure and conductivity.

4. LISTINGS AND PLOTS OF CTD AND SAMPLE DATA

Listings and profile plots

CTD listings

Downcast CTD data were processed into 2db averages, as described elsewhere. Data were extracted at chosen pressures from the 2db files for all variables except Brunt-Vaisala frequency. This quantity was then computed using the data (at varying pressure intervals) extracted for the listings.

Data listed as 'fluor' are CTD fluorescence data converted to chlorophyll content in mg/m^3 by reconciliation with sample data.

Sigma0, sigma2, sigma4 are potential density referenced to 0, 2000, 4000 db respectively.

Sample data

Niskin bottle sample values are listed for salinity and dissolved oxygen concentration. Most Niskin bottles had duplicate samples drawn for analysis, as described elsewhere in the text. Usually, duplicates were in such good agreement that taking the average of the two values (if they differed) was sufficient to provide a good estimate of the sample salinity or oxygen. If duplicate values differed significantly, one or other was rejected on the basis of comparison with CTD data or with data from nearby stations. In order to provide extra duplication to enable checks to be made of various new equipment, it was usual to close two Niskin bottles at the bottom of each cast. Only one sample value is reported here, arising from (usually) four analysed samples.

The temperature, potemp and pressure data are taken from the CTD. The procedure by which downcast CTD salinity and oxygen data were extracted for reconciliation with sample values is described elsewhere; the pressure and temperature listed here are from the downcast CTD data cycle used in the reconciliation.

Profile plots

Two profile plots are included for each station. The first covers the range 0-300 db, and has profiles of potential temperature, potential transmittance, salinity and chlorophyll (labelled as fluor). The second plot is over 0-6000 db and contains potential temperature, potential transmittance, salinity and dissolved oxygen; oxygen sample values are overplotted with symbols..

Section plots

CTD station data have been subsampled at 50 db intervals, for plotting as vertical sections. Data have been extracted from the 2 db averaged profiles, with the shallowest level at 25 db. Six sections have been defined from station numbers, as follows:

42N	11962-11977
20W	11977-11994
53N	11994-12000
08W	12007, 12006, 12005, 12004, 12003, 12001, 12002
09W	12007, 12008, 12010, 12012, 12014, 12016, 12018
10W	12009, 12011, 12013, 12015, 12017, 12019, 12020

For each section, plots of the following variables are included, with the indicated contour intervals:

potemp	CI = 0.5
salin	CI = 0.1, extra dashed contour 34.95
sigma0	solid CI = 0.05, dashed contours 0.025
oxygen	CI = 0.2
potran	CI = 0.1, minimum contour 68.0

The variable contoured in each plot is identified as the 'Z var' below and towards the right of each plot. In narrow plots, the text 'Z var' has been omitted. The section number is given above each plot.

Additionally, plots of sigma2 are included for the 42°N and 20°W sections. The CI is 0.1 for solid contours, with dotted contours at 0.05. Also, a plot of geostrophic velocity relative to 3000 db is included for the 20°W section; darker shading denotes eastward flow.

The bottom depths have been marked on each plot, using corrected water depths at CTD stations.

5. ACKNOWLEDGEMENTS

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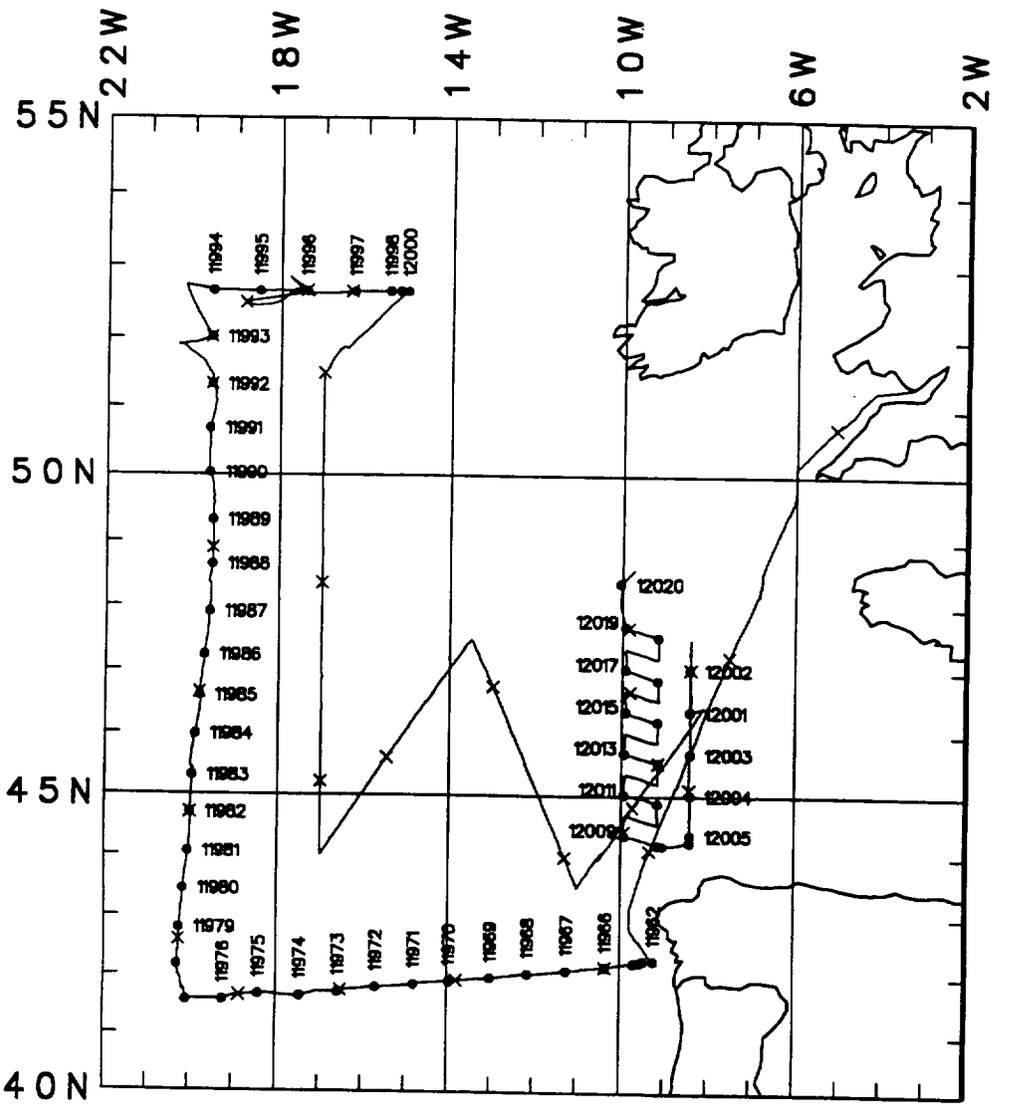


Figure 1 Cruise track for RRS Discovery Cruise 189, 09 Mar-08 Apr 1990. CTD station positions are indicated.

RRS Discovery Cruise 189 CTD station list

Station number	March day	Year day	start time	down time	end time	max press (db)	corrected depth (m)	latitude degrees (N) minutes	longitude degrees (W) minutes
11962	12	71	1022	1026	1047	0161	0177	42 15.75	09 13.63
11963	12	71	1215	1231	1259	0659	0659	42 15.87	09 28.12
11964	12	71	1434	1455	1535	1281	1293	42 14.27	09 32.36
11965	12	71	1703	1739	1830	2139	2144	42 13.10	09 41.00
11966	12	71	2159	2245	2354	2783	2773	42 09.14	10 19.80
11967	13	72	0422	0459	0550	2443	2454	42 05.70	11 13.40
11968	13	72	1043	1141	1302	4057	4100	42 02.24	12 07.70
11969	13	72	1711	1841	2022	5395	5339	41 57.80	12 59.60
11970	14	73	0112	0234	0414	5327	5340	41 54.10	13 57.50
11971	14	73	0824	0938	1137	5265	5336	41 51.00	14 47.00
11972	14	73	1725	1847	2030	5275	5231	41 47.82	15 40.47
11973	15	74	0044	0213	0353	5131	5154	41 43.24	16 33.42
11974	15	74	0821	0956	1155	5515	5573	41 38.97	17 26.51
11975	15	74	1824	1937	2125	5075	5148	41 40.49	18 23.60
11976	16	75	0232	0356	0532	4515	4531	41 34.56	19 13.38
11977	16	75	1019	1052	1150	2137	2200	41 34.04	20 03.82
11978	16	75	1853	1952	2113	4133	4126	42 10.10	20 17.43
11979	17	76	0152	0325	0515	5309	5339	42 47.83	20 14.37
11980	17	76	0957	1053	1204	3959	3989	43 26.52	20 09.26
11981	17	76	1619	1713	1823	3865	3856	44 03.84	20 02.58
11982	17	76	2252	2351	0110	4079	4086	44 42.72	20 00.23
11983	18	77	0511	0620	0744	4461	4459	45 18.96	19 57.52
11984	18	77	1411	1515	1640	4367	4380	45 58.98	19 53.42
11985	18	77	2034	2147	2347	4853	4804	46 35.88	19 47.40
11986	19	78	0337	0448	0615	4567	4556	47 14.50	19 41.95
11987	19	78	1039	1151	1320	4519	4566	47 54.76	19 34.85
11988	19	78	2000	2100	2219	4011	4034	48 38.67	19 31.78
11989	20	79	0247	0354	0501	3849	3846	49 19.46	19 31.39
11990	20	79	1004	1106	1230	3989	4005	50 01.81	19 35.92
11991	20	79	1630	1725	1833	3781	3775	50 41.23	19 36.45
11992	21	80	0000	0104	0216	3711	3683	51 20.01	19 33.71
11993	21	80	2223	2328	0050	3821	3807	52 00.91	19 34.32
11994	22	81	1116	1201	1305	2643	2675	52 40.18	19 33.10
11995	22	81	1709	1812	1936	3987	4022	52 39.75	18 29.22
11996	24	83	1728	1830	1953	3745	3744	52 39.96	17 24.23
11997	25	84	0033	0130	0236	3443	3461	52 39.76	16 17.50
11998	25	84	0615	0703	0753	2879	3017	52 39.90	15 27.58
11999	25	84	0918	0946	1015	1567	1570	52 39.91	15 13.17
12000	25	84	1144	1200	1222	0993	1109	52 39.72	15 02.24
12001	32	91	1652	1804	1937	4851	4788	46 22.11	08 25.65
12002	33	92	2342	0050	0202	4197	4164	47 02.36	08 25.53
12003	33	92	1745	1859	2040	4929	4868	45 41.52	08 24.92
12004	34	93	0040	0159	0320	4969	4901	45 01.41	08 24.75
12005	34	93	0724	0829	0942	4495	4475	44 22.08	08 24.56
12006	34	93	1039	1106	1145	1791	2003	44 14.96	08 25.06
12007	34	93	1432	1454	1520	1205	1243	44 11.28	09 02.60
12008	34	93	1614	1649	1723	2307	2314	44 12.41	09 10.31
12009	34	93	2051	2204	2338	5003	4954	44 21.62	09 55.45
12010	35	94	0643	0743	0910	4989	4916	44 53.42	09 09.84
12011	35	94	1228	1355	1525	4987	4922	45 01.95	09 55.94
12012	35	94	2240	2355	0121	4911	4891	45 32.45	09 09.29
12013	36	95	0449	0548	0654	4803	4834	45 42.34	09 55.82
12014	36	95	1350	1504	1618	4889	4824	46 12.35	09 10.43
12015	36	95	1952	2047	2155	4805	4743	46 22.07	09 54.38
12016	37	96	0424	0512	0608	4209	4196	46 51.66	09 10.68
12017	37	96	1020	1124	1238	4539	4497	47 02.25	09 54.76
12018	37	96	1958	2036	2120	2883	2875	47 32.32	09 10.14
12019	38	97	0030	0137	0238	4075	4009	47 42.39	09 55.48
12020	38	97	0716	0800	0851	2991	3188	48 22.26	10 02.61

Day numbers of stations are the day numbers corresponding to the time at which the CTD was at the bottom of the cast. Positions are given in degrees, minutes and decimal minutes.

Table 1 Distribution of differences between duplicate sample salinities.

Salinity difference	0.000	0.001	0.002	0.003	>0.003	total
Number	150	224	101	63	79	617

Table 2 Differences between CTD (C) and SIS Digital Reversing Thermometers. Thermometer numbers omit letter T.

Pair	mean mdegC	std.dev. mdegC	n	n within 2 mdegC of mean
C-204 (<3)[1]	-1	3	36	
C-238 (<3)	-4	2	36	
204-238 (<3)	-3	1	40	
C-204 (>3)	-3	6	7	
C-238 (>3)	-4	4	6	
204-238 (>3)	-2	5	8	
C-204 (all)	-1	3	43	34
C-238 (all)	-4	3	42	35
204-238 (all)	-3	2	48	44
C-207 (early)[2]	-5	1	13	
C-183 (early)	-4	2	13	
C-179 (early)	-4	2	14	
207-183 (early)	1	2	21	
207-179 (early)	1	3	21	
183-179 (early)	0	4	21	
C-207 (late)	-5	5	17	
C-183 (late)	-4	4	22	
C-179 (late)	0	6	23	
207-183 (late)	1	1	18	
207-179 (late)	5	5	19	
183-179 (late)	5	3	24	
C-207 (all)	-5	4	30	22
C-183 (all)	-4	4	35	26
C-179 (all)	-2	5	37	bimodal[3]
207-183 (all)	1	2	39	35
207-179 (all)	3	4	40	bimodal
183-179 (all)	3	4	45	bimodal
C-215 (<3)	-3[4]	3	10	
C-156 (<3)	-4	1	9	
215-156 (<3)	-3	3	17	
C-215 (>3)	-2	5	33	
C-156 (>3)	-4	6	31	
215-156 (>3)	-2	2	33	
C-215 (all)	-2	5	43	26
C-156 (all)	-4	5	40	25
215-156 (all)	-2	3	50	38

Note 1 : Temperature values less than 3°C, see p. 11.

2 : Early and late refer to before and after CTD frame accident, see p. 11.

3 : Due to the calibration offset on T179, the distribution of differences is bimodal. The number of differences within 2 mdegC of the mean is therefore a poor indicator of performance.

4 : The modal value is -1.

Table 3 Distribution of differences between duplicate sample oxygens.

Oxygen difference $x10^{-3}$ ml/l	0-5	6-10	11-20	>20	station numbers
Number in range	68	41	27	21	11966-11982
	99	33	32	11	11983-12000
	128	28	9	6	12001-12017

Note that for the last group of stations, 75% of duplicate pairs agree to within 0.005 ml/l, and 91% to within 0.01 ml/l.

Table 4 Distribution of differences between CTD and sample chlorophylls.

Chlorophyll difference mg/m^3	0.0-0.10	0.10-0.25	>0.25	Total number	mean mg/m^3	std.dev. mg/m^3
Number in range	12	7	3	22	-0.01	0.17

Table 5 Coefficients used in CTD salinity correction.

Station number	a	b	c
11962	-037	0.00454	3.303
11963	-034	0.00454	3.303
11964	-034	0.00454	3.303
11965	-028	0.00454	3.303
11966	-040	0.00454	3.303
11967	-036	0.00454	3.303
11968	-039	0.00454	3.303
11969	-042	0.00624	3.462
11970	-043	0.00624	3.462
11971	-035	0.00624	3.462
11972	-034	0.00624	3.462
11973	-034	0.00624	3.462
11974	-034	0.00624	3.462
11975	-031	0.00454	3.303
11976	-030	0.00454	3.303
11977	-032	0.00454	3.303
11978	-041	0.00454	3.303
11979	-049	0.00624	3.462
11980	-041	0.00454	3.303
11981	-042	0.00454	3.303
11982	-041	0.00454	3.303
11983	-041	0.00454	3.303
11984	-042	0.00454	3.303
11985	-041	0.00454	3.303
11986	-040	0.00454	3.303
11987	-038	0.00454	3.303
11988	-042	0.00454	3.303
11989	-041	0.00454	3.303
11990	-044	0.00454	3.303
11991	-045	0.00454	3.303
11992	-044	0.00454	3.303
11993	-048	0.00454	3.303
11994	-082	0.00454	3.303
11995	-072	0.00454	3.303
11996	-108	0.00454	3.303
11997	-110	0.00454	3.303
11998	-111	0.00454	3.303
11999	-106	0.00454	3.303
12000	-106	0.00454	3.303
12001	-122	0.00537	3.605
12002	-116	0.00537	3.605
12003	-121	0.00537	3.605
12004	-113	0.00537	3.605
12005	-113	0.00537	3.605
12006	-109	0.00537	3.605
12007	-108	0.00537	3.605
12008	-107	0.00537	3.605
12009	-107	0.00537	3.605
12010	-106	0.00537	3.605
12011	-107	0.00537	3.605
12012	-106	0.00537	3.605
12013	-107	0.00537	3.605
12014	-105	0.00537	3.605
12015	-105	0.00537	3.605
12016	-108	0.00537	3.605
12017	-295	0.00537	3.605
12018	-336	0.00991	7.254
12019	-331	0.00991	7.254
12020	-333	0.00991	7.254

Table 6 Distribution of differences between CTD and sample salinities.

Salinity difference	0.000-0.002	0.002-0.004	>0.004	Total number	mean	std.dev.
All	356	133	123	612	0.000	0.004
>2000db	223	39	5	267	0.000	0.002

The table shows the distribution of differences less than 0.020. There were 24 comparisons where the salinity difference was more than 0.020, all shallower than 2000 db.

Table 7 Coefficients used in CTD oxygen calibration.

Station number	rho	α	β	std.dev. ml/l	number in fit
11962	0.838	-0.0310	0.000159	-	0
11963	0.838	-0.0310	0.000159	0.07	6
11964	0.814	-0.0263	0.000190	0.07	6
11965	1.024	-0.0418	0.000163	0.07	9
11966	1.026	-0.0405	0.000169	0.05	12
11967	1.279	-0.0639	0.000071	0.10	12
11968	1.045	-0.0441	0.000159	0.04	11
11969	0.993	-0.0453	0.000157	0.04	12
11970	0.973	-0.0458	0.000162	0.06	12
11971	0.951	-0.0450	0.000159	0.05	12
11972	0.989	-0.0541	0.000156	0.06	12
11973	1.035	-0.0515	0.000157	0.03	12
11974	1.012	-0.0479	0.000158	0.04	12
11975	1.078	-0.0639	0.000151	0.05	7
11976	1.034	-0.0420	0.000165	0.05	12
11977	0.966	-0.0405	0.000184	0.02	10
11978	0.964	-0.0440	0.000164	0.06	12
11979	1.001	-0.0467	0.000159	0.12	12
11980	0.998	-0.0400	0.000172	0.03	12
11981	1.026	-0.0430	0.000171	0.04	12
11982	1.020	-0.0515	0.000154	0.03	10
11983	0.963	-0.0457	0.000161	0.06	11
11984	0.980	-0.0480	0.000149	0.05	12
11985	0.967	-0.0439	0.000163	0.09	12
11986	0.994	-0.0465	0.000158	0.07	12
11987	0.966	-0.0471	0.000160	0.08	12
11988	0.912	-0.0411	0.000161	0.11	12
11989	0.867	-0.0376	0.000182	0.12	9
11990	0.937	-0.0435	0.000166	0.07	12
11991	0.917	-0.0431	0.000163	0.10	12
11992	0.948	-0.0446	0.000159	0.09	9
11993	0.970	-0.0473	0.000150	0.04	9
11994	0.935	-0.0461	0.000159	0.07	12
11995	0.976	-0.0482	0.000147	0.10	7
11996	0.970	-0.0454	0.000143	0.06	11
11997	0.016	-0.0510	0.000138	0.03	12
11998	1.026	-0.0512	0.000136	0.08	12
11999	1.042	-0.0504	0.000125	0.04	6
12000	0.685	-0.0126	0.000173	0.07	6
12001	0.963	-0.0446	0.000148	0.08	12
12002	0.943	-0.0451	0.000149	0.06	8
12003	0.937	-0.0475	0.000149	0.07	11
12004	0.939	-0.0470	0.000150	0.04	7
12005	0.989	-0.0481	0.000152	0.07	12
12006	1.140	-0.0567	0.000120	0.05	11
12007	0.517	0.0020	0.000244	0.02	5
12008	1.050	-0.0521	0.000139	0.03	12
12009	1.005	-0.0490	0.000159	0.05	11
12010	0.943	-0.0468	0.000153	0.07	12
12011	0.940	-0.0449	0.000164	0.07	11
12012	0.932	-0.0474	0.000155	0.08	12
12013	0.947	-0.0461	0.000159	0.03	11
12014	0.901	-0.0446	0.000162	0.07	11
12015	0.939	-0.0454	0.000162	0.04	12
12016	0.963	-0.0504	0.000146	0.08	11
12017	0.976	-0.0452	0.000164	0.05	12
12018	1.048	-0.0561	0.000120	0.05	12
12019	0.931	-0.0466	0.000162	0.07	11
12020	1.010	-0.0502	0.000142	0.05	11

Table 8 Distribution of differences between CTD and sample oxygens.

Oxygen difference ml/l	0.00-0.02	0.02-0.04	0.04-0.06	>0.06	Total number	mean	std.dev
All	223	156	69	158	606	0.004	0.06
>2000db	146	84	22	13	265	0.008	0.03

The table shows the distribution of differences less than 0.20 ml/l. There were 12 comparisons where the oxygen difference was more than 0.20 ml/l, all shallower than 2000 db.

Table 9 Correction factors applied to CTD transmittance data.

Station number	Transmittance correction factor
11962	1.0171
11963	1.0171
11964	1.0171
11965	1.0171
11966	1.0014
11967	1.0043
11968	1.0021
11969	1.0016
11970	1.0012
11971	1.0010
11972	1.0027
11973	1.0000
11974	1.0036
11975	1.0000
11976	1.0293
11977	1.0000
11978	1.0009
11979	0.9997
11980	1.0004
11981	1.0033
11982	1.0025
11983	1.0014
11984	1.0015
11985	1.0013
11986	1.0006
11987	1.0009
11988	1.0001
11989	0.9999
11990	1.0005
11991	1.0010
11992	1.0003
11993	1.0082
11994	1.0089
11995	1.0074
11996	1.0004
11997	1.0006
11998	1.0006
11999	1.0006
12000	1.0006
12001	1.0033
12002	1.0045
12003	1.0051
12004	1.0050
12005	1.0069
12006	1.0069
12007	1.0069
12008	1.0057
12009	1.0057
12010	1.0061
12011	1.0046
12012	1.0035
12013	1.0040
12014	1.0030
12015	1.0043
12016	1.0037
12017	1.0037
12018	1.0037
12019	1.0037
12020	1.0037

Table 10 Laboratory measurements of hysteresis in pressure sensor. $\Delta p_{5500}(p)$ = (upcast - downcast) pressure at various pressures, p, in a simulated 5500m cast.

p (db)	$\Delta p_{5500}(p)$ (db)
5500	0.0
5000	1.0
4500	1.2
4000	1.8
3500	2.4
3000	3.0
2500	3.4
2000	4.8
1500	5.6
1000	6.0
500	6.3
0	0.0

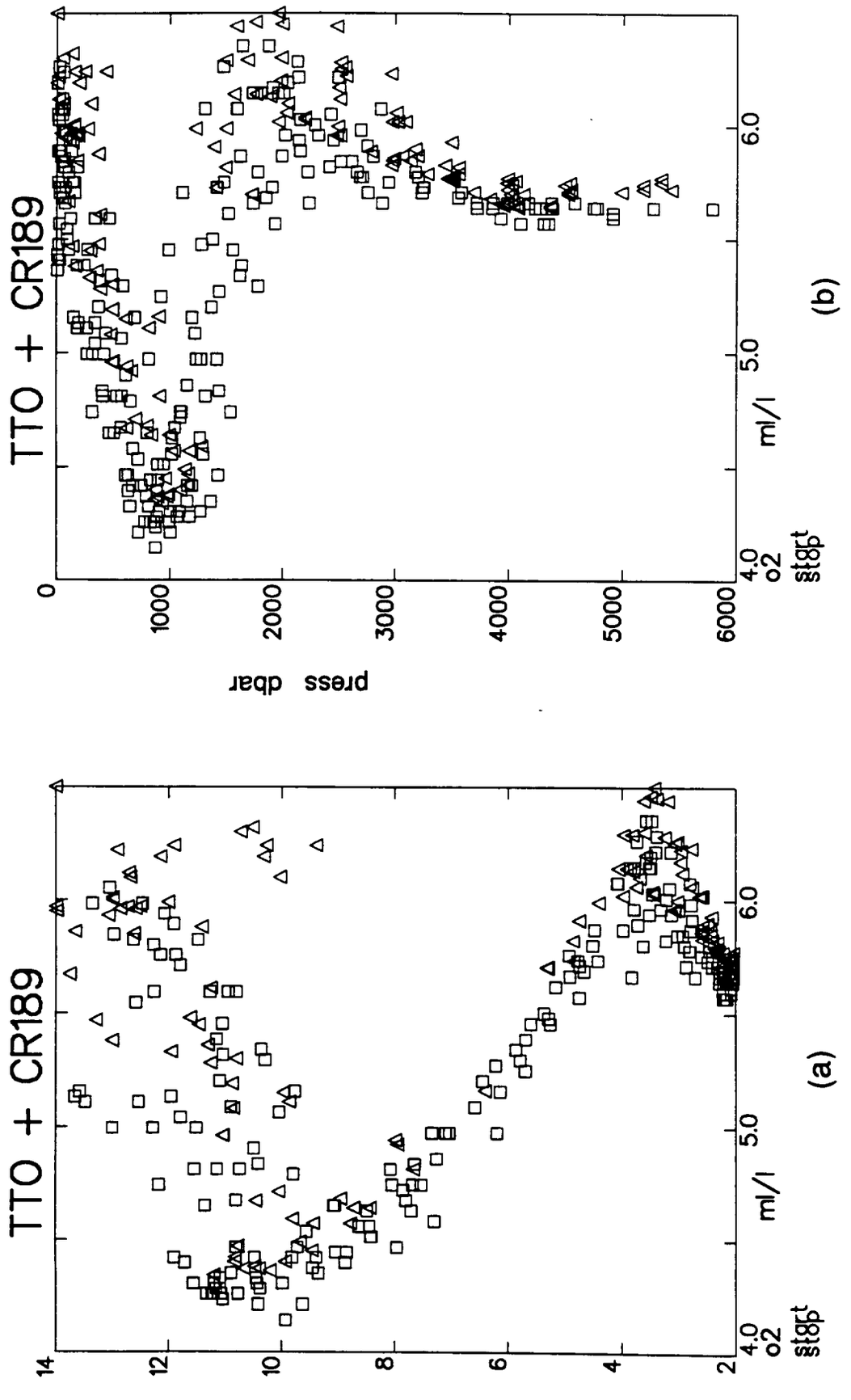


Figure 2 Theta-Oxygen (a) and Pressure-Oxygen (b) plots for Cruise 189 sample data (triangles) and TTO sample data (squares). TTO data are for stations 110-118 from leg 4, Cruise 189 data are stations 11962-11990, even numbered stations.

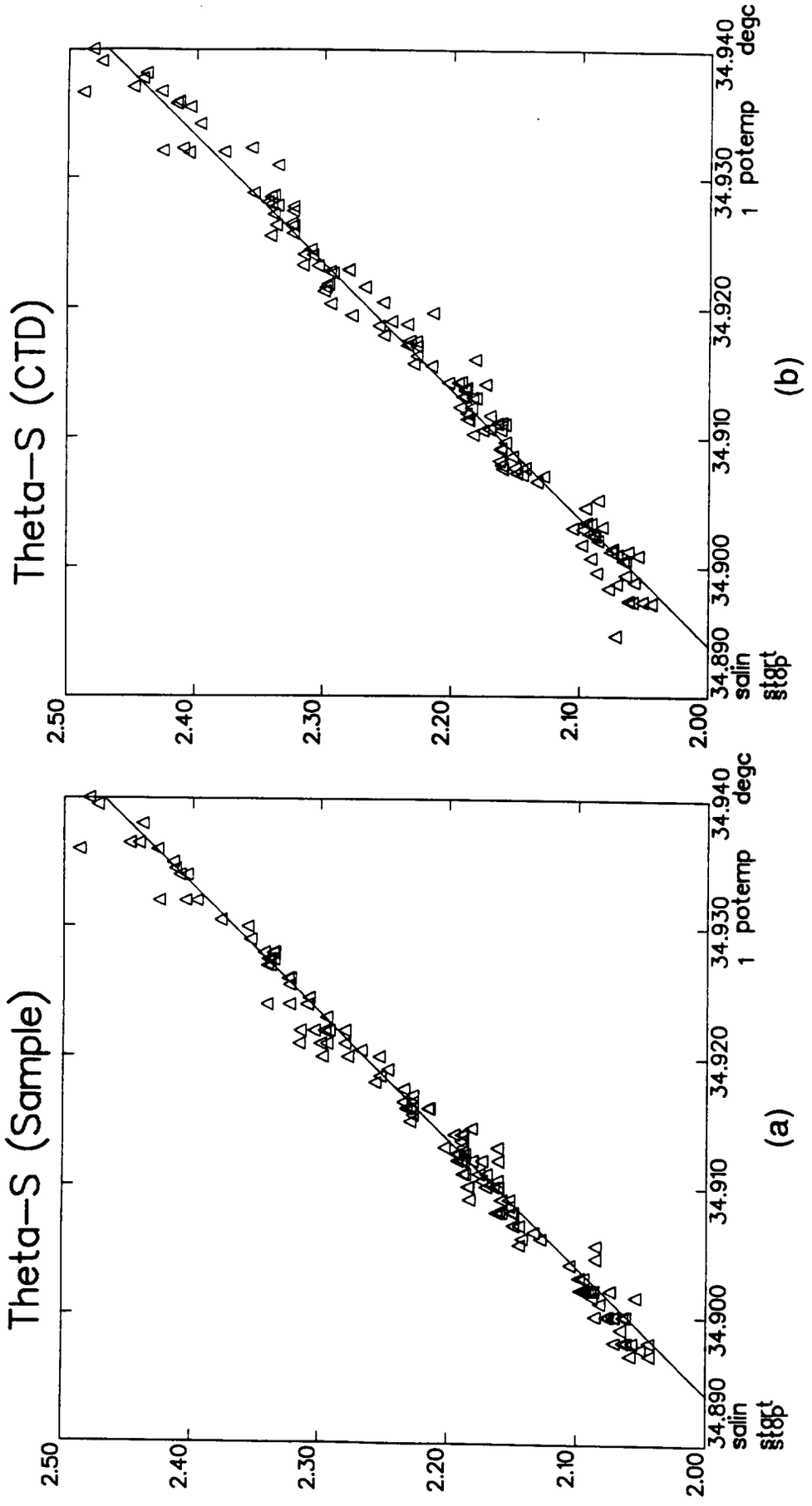


Figure 3 Theta-S plots for Cruise 189 sample data (a), and CTD data (b). CTD data are CTD salinities corresponding to closure of Niskin bottles. The straight lines show the Saunders (1986) relation.

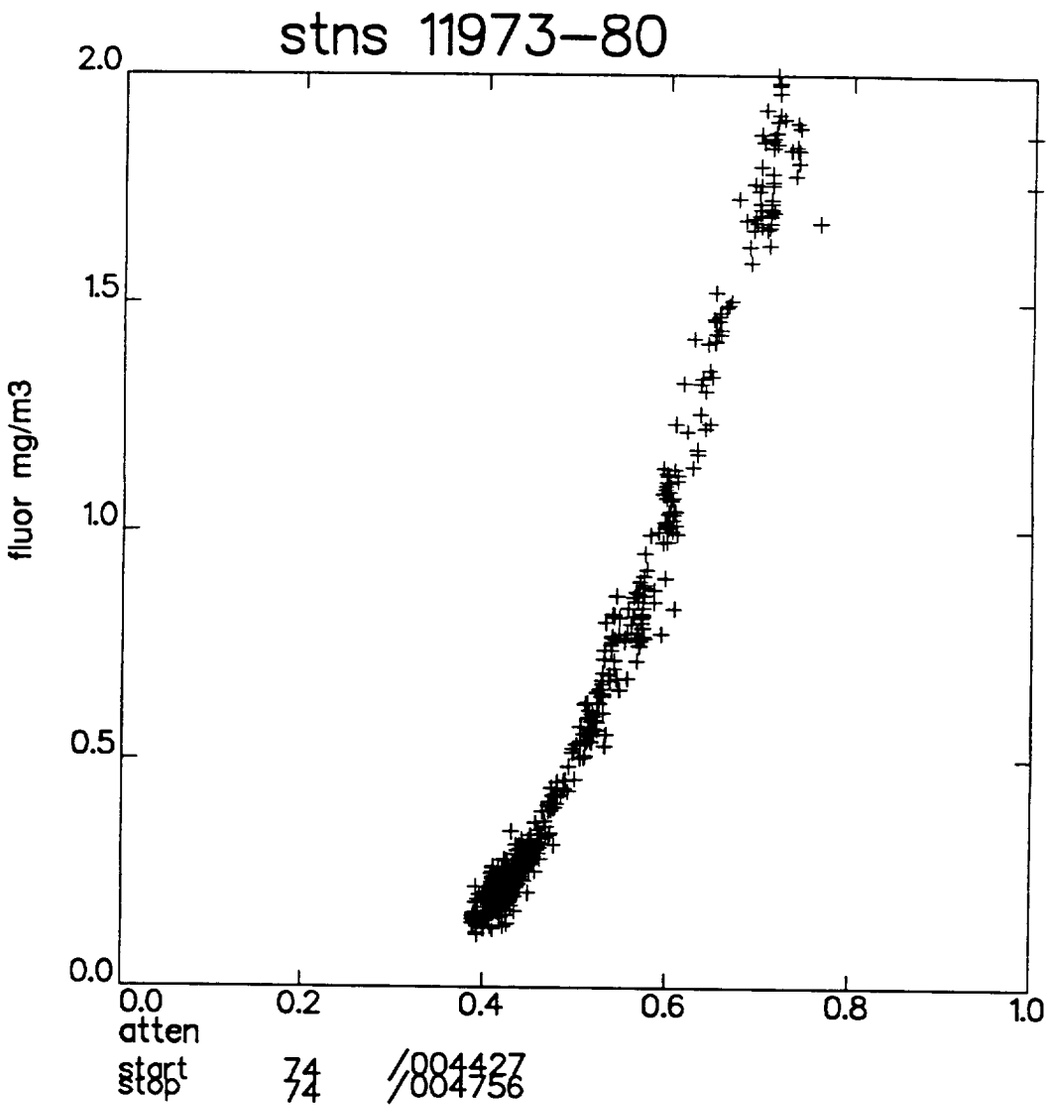


Figure 4 Fluorescence (calibrated into mg/m3 of chlorophyll) v Attenuation, for stations 11973 - 11980.

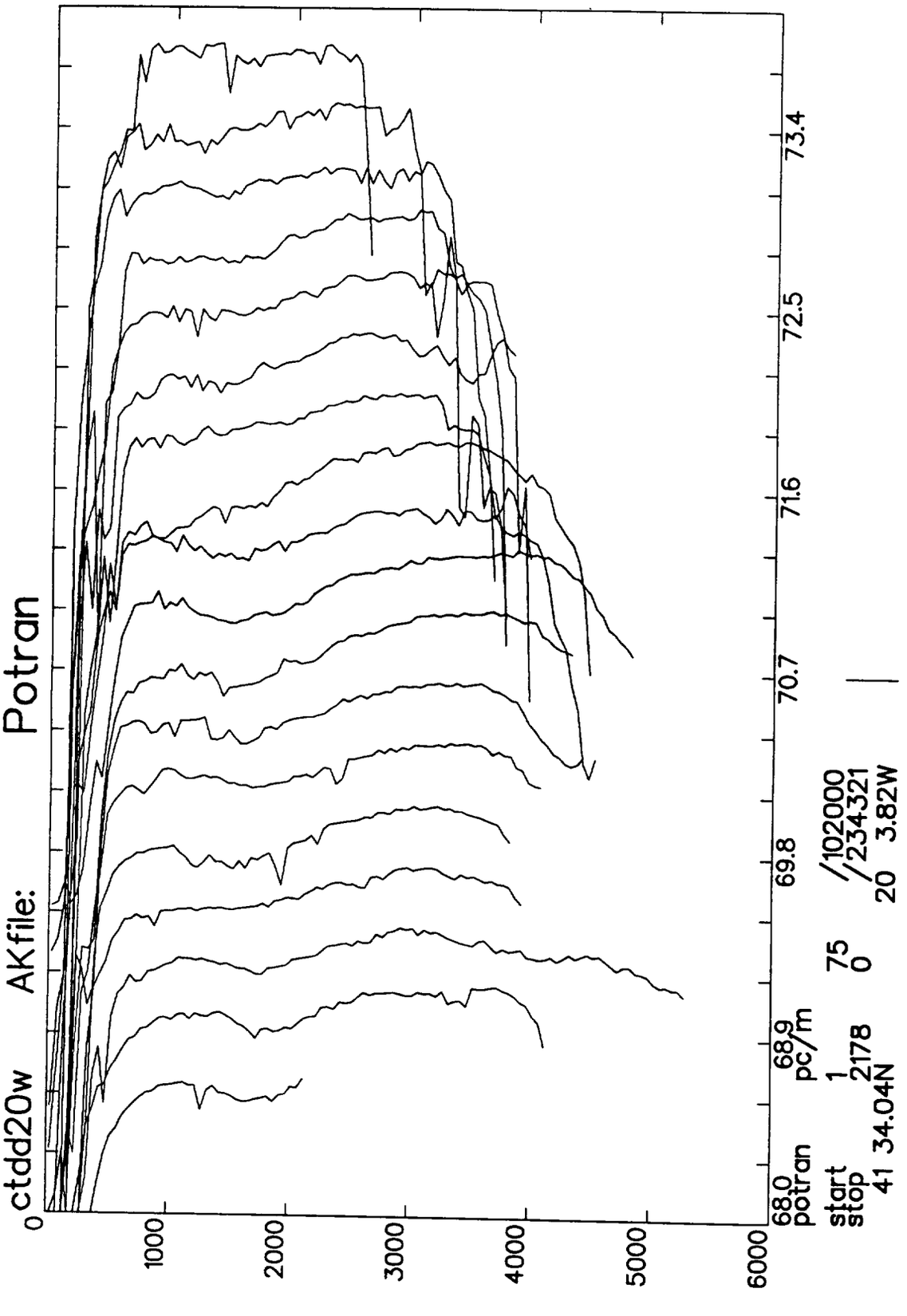
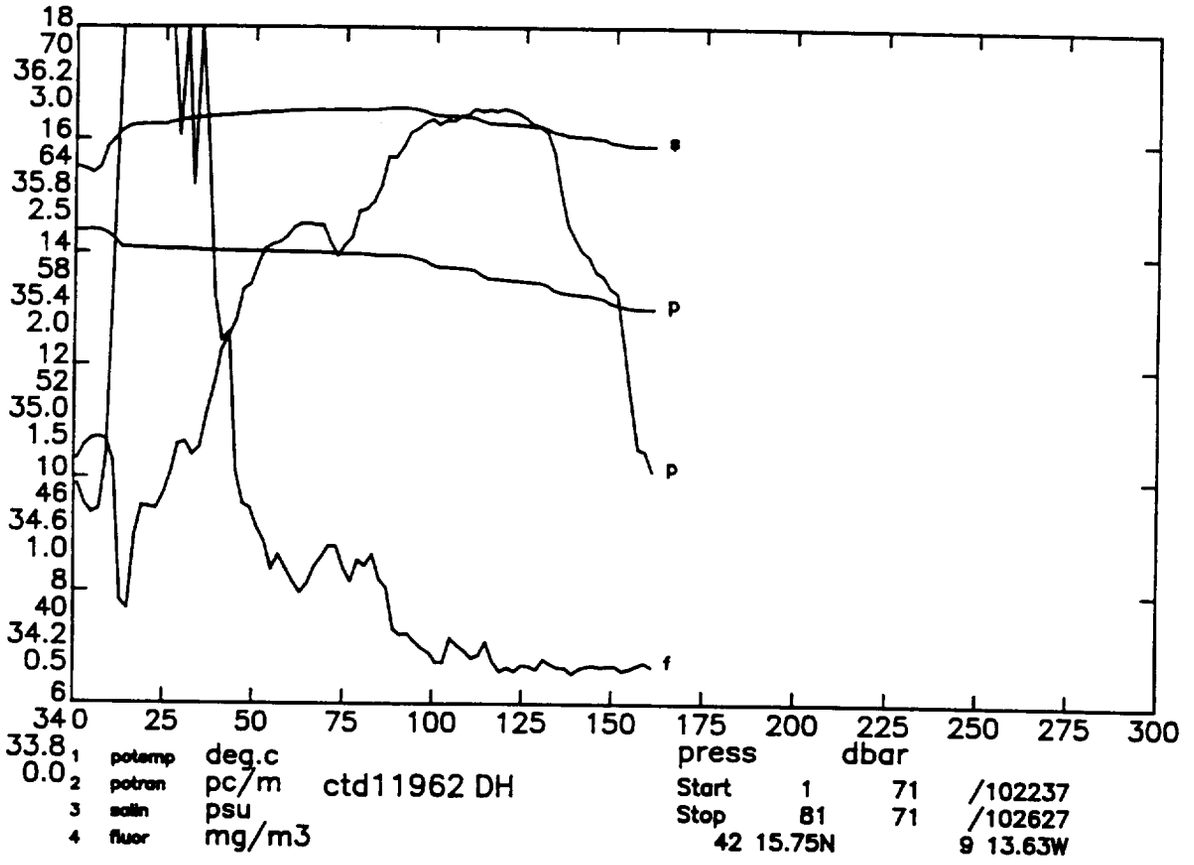


Figure 5 Offset profiles of potential transmittance, for stations on 20°W.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34.6
1.0
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34.2
0.5
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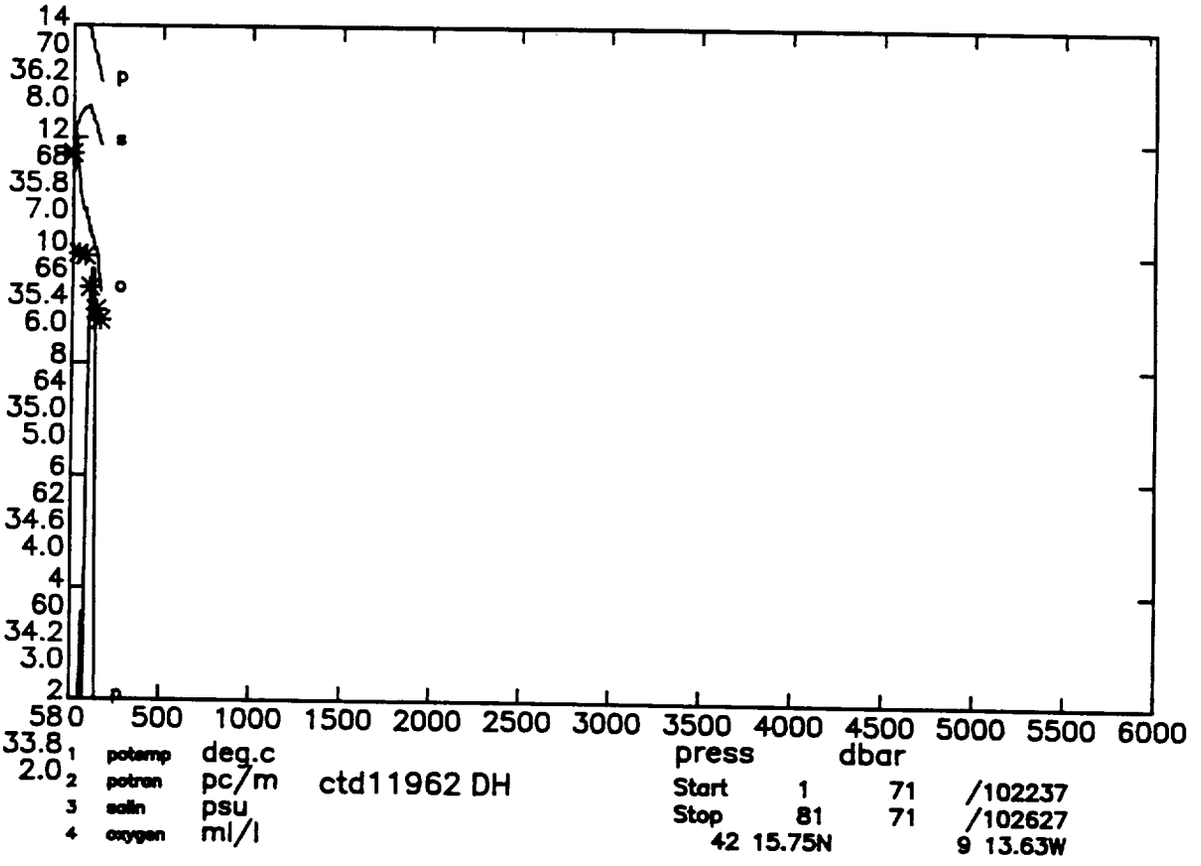
33.8
0.0
s
p
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11962 DH
Start 1 71 /102237
Stop 81 71 /102627
42 15.75N 9 13.63W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5.0
6
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34.6
4.0
4
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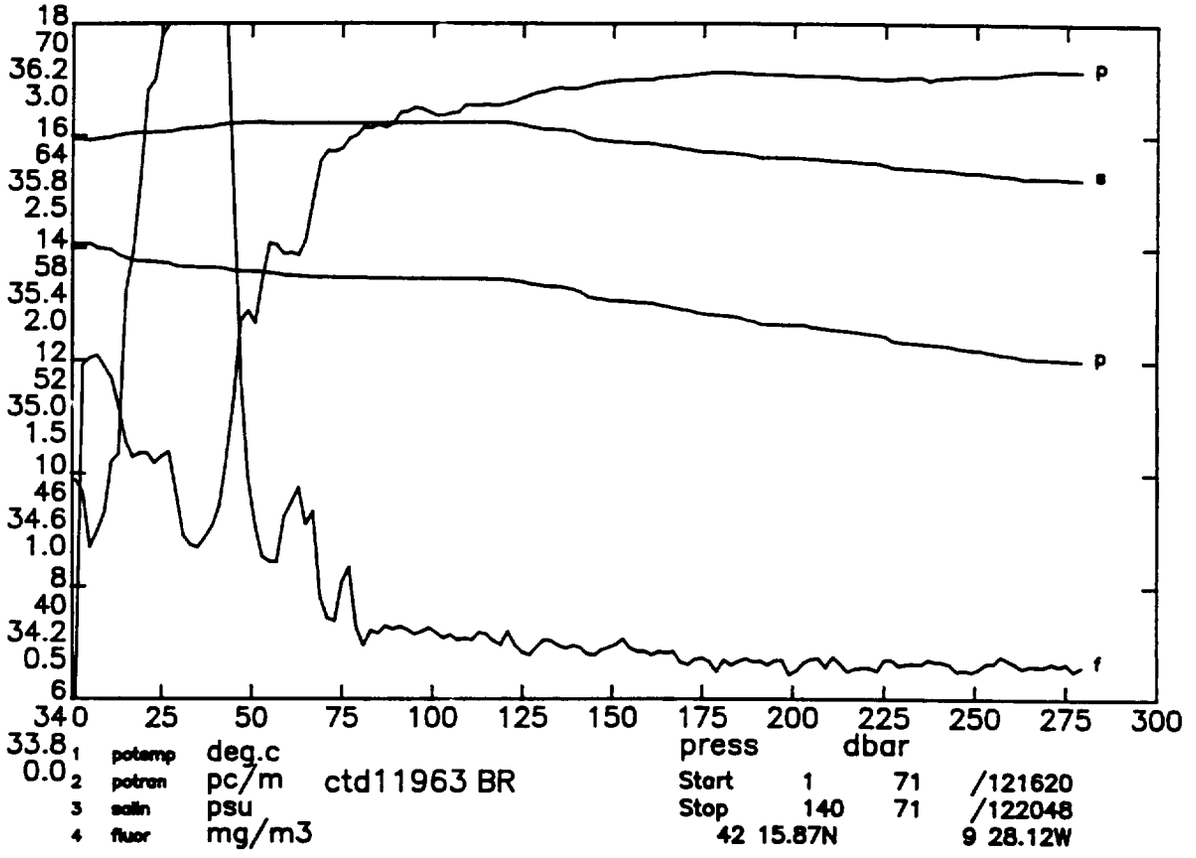
34.2
3.0
2
58
33.8
2.0
p
s
o
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11962 DH
Start 1 71 /102237
Stop 81 71 /102627
42 15.75N 9 13.63W

DISCOVERY CRUISE 189 STATION 11962

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	14.285	35.785	7.00	14.283	47.45	1.57	26.734	35.365	43.621	0.014	1505.5	10.	130.35	-9.999
20.	14.082	35.852	7.01	14.079	44.45	3.22	26.829	35.467	43.729	0.026	1505.1	20.	121.66	5.480
30.	14.067	35.868	6.73	14.062	47.83	2.83	26.845	35.483	43.746	0.038	1505.2	30.	120.44	2.262
40.	14.040	35.883	6.54	14.034	51.87	1.71	26.862	35.501	43.765	0.050	1505.3	40.	119.10	2.347
50.	14.034	35.893	6.44	14.027	56.83	0.82	26.872	35.511	43.775	0.062	1505.5	50.	118.48	1.772
60.	14.024	35.902	6.36	14.016	59.10	0.57	26.881	35.521	43.784	0.074	1505.6	60.	117.93	1.694
70.	14.014	35.905	6.34	14.004	59.01	0.67	26.886	35.526	43.790	0.086	1505.7	69.	117.80	1.225
80.	13.991	35.906	6.27	13.979	60.27	0.62	26.892	35.533	43.798	0.097	1505.8	79.	117.55	1.378
90.	13.967	35.915	6.22	13.954	63.35	0.32	26.905	35.546	43.812	0.109	1505.9	89.	116.67	1.998
100.	13.793	35.889	6.20	13.779	64.98	0.21	26.921	35.570	43.842	0.121	1505.5	99.	115.37	2.320
120.	13.546	35.855	6.06	13.529	65.61	0.15	26.947	35.605	43.886	0.144	1505.0	119.	113.53	2.025
140.	13.282	35.811	5.96	13.263	58.40	0.15	26.968	35.637	43.928	0.166	1504.4	139.	112.04	1.872
160.	13.028	35.777	5.67	13.006	46.88	0.18	26.994	35.673	43.973	0.188	1503.9	159.	110.15	2.038

Sample data

160.	13.029	35.778	5.38	13.007
135.	13.312	35.822	5.47	13.293
101.	13.776	35.885	5.67	13.762
72.	14.003	35.902	5.95	13.992
36.	14.045	35.874	5.97	14.040
5.	14.384	35.692	6.86	14.384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34.6
1.0
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34.2
0.5
6
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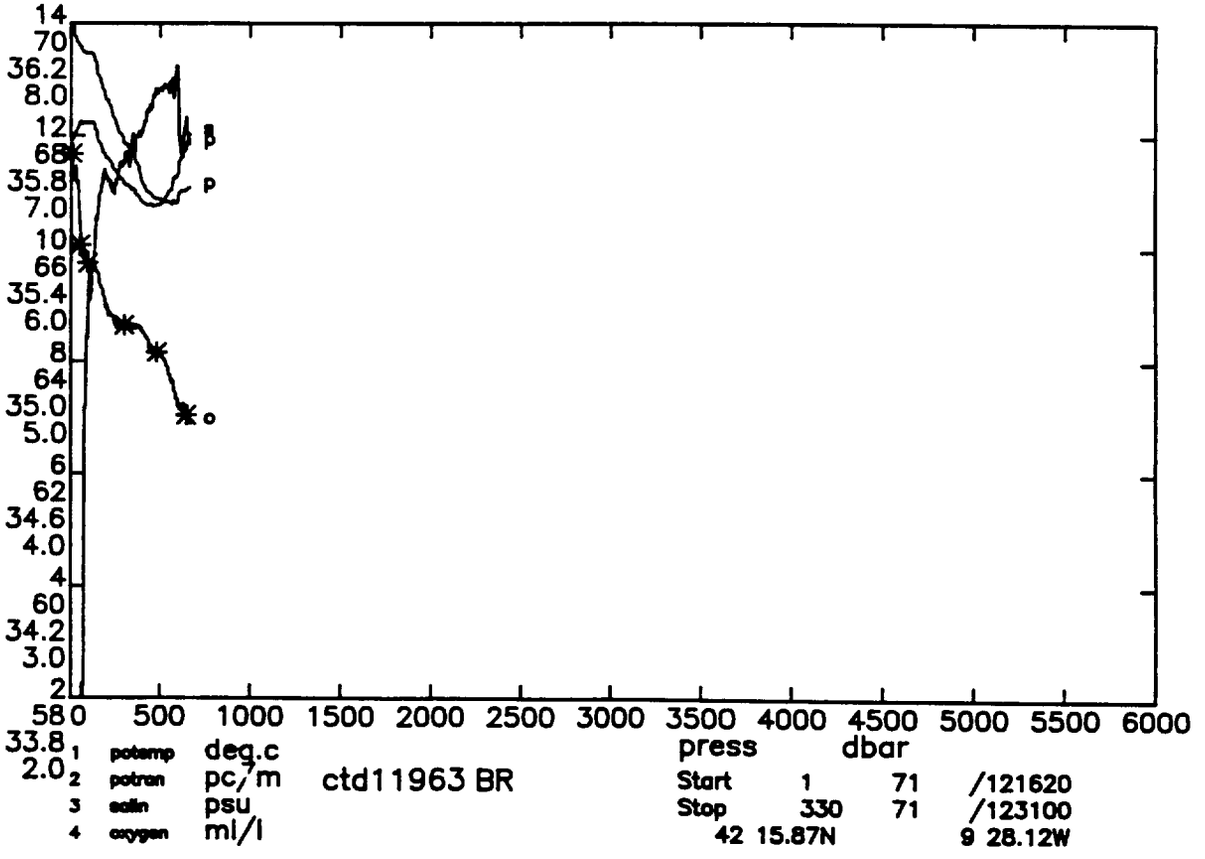
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 fluor mg/m3
ctd11963 BR
Start 1 71 /121620
Stop 140 71 /122048
42 15.87N 9 28.12W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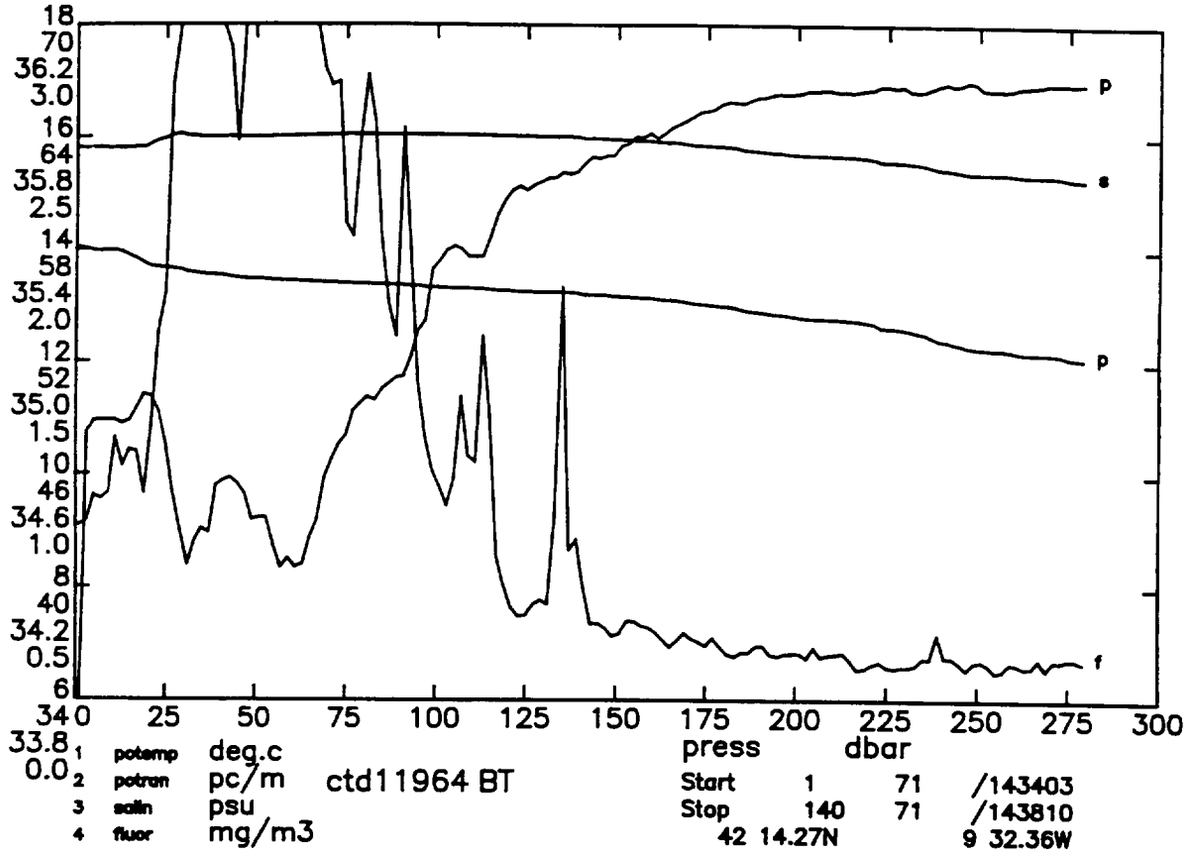
6
62
34.6
4.0
4
60
34.2
3.0
2
58
33.8
2.0
β
p
o
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 oxygen ml/l
ctd11963 BR
Start 1 71 /121620
Stop 330 71 /123100
42 15.87N 9 28.12W

DISCOVERY CRUISE 189 STATION 11963

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	snav	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.984	35.793	6.67	13.982	51.39	0.94	26.804	35.446	43.712	0.013	1504.5	10.	123.67	-9.999
20.	13.773	35.813	6.62	13.770	47.09	2.50	26.864	35.514	43.787	0.025	1504.0	20.	118.30	4.349
30.	13.685	35.823	6.56	13.680	43.88	5.85	26.891	35.544	43.820	0.036	1503.9	30.	116.09	2.902
40.	13.663	35.837	6.19	13.658	43.76	4.65	26.906	35.560	43.837	0.048	1504.0	40.	114.93	2.212
50.	13.601	35.848	6.03	13.594	54.36	0.88	26.928	35.584	43.863	0.059	1504.0	50.	113.13	2.651
60.	13.531	35.843	5.94	13.522	57.74	0.84	26.939	35.598	43.880	0.070	1503.9	60.	112.37	1.886
70.	13.501	35.845	5.87	13.491	62.92	0.41	26.947	35.607	43.890	0.082	1504.0	69.	111.94	1.568
80.	13.492	35.845	5.85	13.480	64.25	0.28	26.950	35.610	43.893	0.093	1504.1	79.	112.02	0.875
90.	13.482	35.847	5.86	13.469	64.95	0.32	26.953	35.614	43.897	0.104	1504.3	89.	111.96	1.105
100.	13.478	35.847	5.84	13.464	65.17	0.31	26.954	35.615	43.899	0.115	1504.4	99.	112.18	0.559
120.	13.463	35.846	5.84	13.446	65.70	0.27	26.957	35.619	43.903	0.138	1504.7	119.	112.53	0.657
140.	13.263	35.808	5.78	13.244	66.54	0.23	26.969	35.639	43.931	0.160	1504.3	139.	111.94	1.417
160.	13.048	35.771	5.65	13.026	67.00	0.20	26.985	35.663	43.963	0.182	1503.9	159.	111.00	1.599
180.	12.830	35.739	5.53	12.805	67.39	0.15	27.005	35.692	44.000	0.205	1503.5	179.	109.62	1.817
200.	12.667	35.720	5.41	12.639	67.20	0.12	27.023	35.717	44.032	0.226	1503.2	198.	108.39	1.739
220.	12.515	35.702	5.41	12.486	67.06	0.14	27.040	35.740	44.060	0.248	1503.0	218.	107.34	1.649
240.	12.325	35.678	5.36	12.292	67.12	0.17	27.059	35.767	44.095	0.269	1502.7	238.	105.99	1.792
260.	12.147	35.657	5.30	12.113	67.37	0.17	27.078	35.793	44.127	0.290	1502.4	258.	104.73	1.744
280.	12.045	35.644	5.30	12.008	67.46	0.14	27.088	35.808	44.147	0.311	1502.4	278.	104.22	1.338
300.	11.886	35.625	5.31	11.847	67.69	0.16	27.104	35.830	44.175	0.332	1502.1	297.	103.20	1.621
350.	11.706	35.605	5.29	11.660	67.67	0.15	27.124	35.858	44.210	0.383	1502.3	347.	102.51	1.171
400.	11.179	35.561	5.24	11.129	68.15	0.20	27.189	35.945	44.318	0.433	1501.3	396.	97.31	2.089
450.	10.984	35.550	5.11	10.927	68.64	0.16	27.217	35.981	44.362	0.481	1501.4	446.	95.80	1.369
500.	10.915	35.564	5.05	10.852	68.85	0.15	27.242	36.009	44.392	0.529	1502.0	495.	94.69	1.264
550.	10.879	35.607	4.81	10.810	68.92	0.21	27.283	36.051	44.435	0.576	1502.8	545.	92.04	1.622
600.	11.063	35.710	4.59	10.987	67.97	0.17	27.331	36.091	44.467	0.621	1504.4	594.	89.02	1.698
650.	11.158	35.801	4.49	11.074	67.97	0.15	27.386	36.141	44.512	0.665	1505.6	644.	85.28	1.837

Sample data

637.	11.113	35.757	4.52	11.032
470.	10.941	35.552	5.08	10.882
289.	11.943	35.632	5.32	11.905
86.	13.484	35.846	5.87	13.472
42.	13.640	35.837	6.03	13.634
5.	14.087	35.785	6.84	14.087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p
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press dbar
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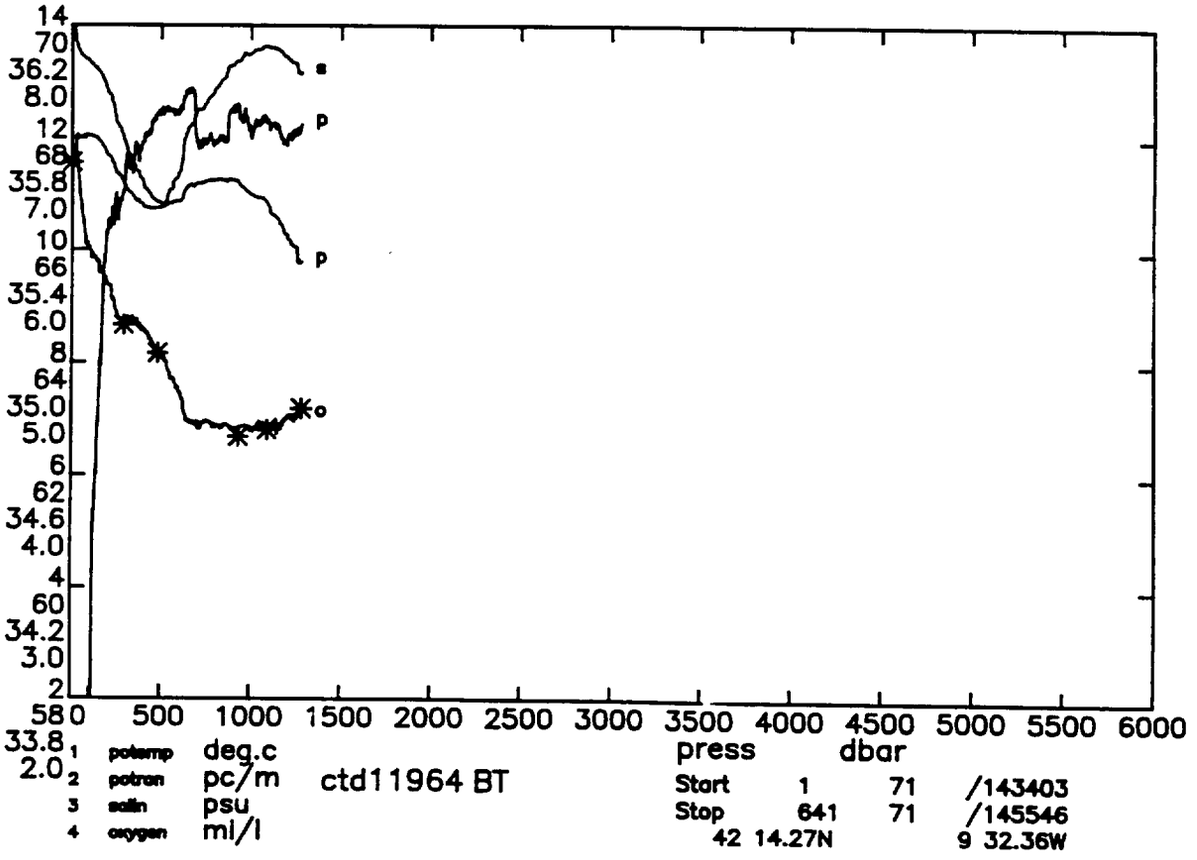
2 potrem pc/m
3 salin psu
4 fluor mg/m3
ctd11964 BT
Start 1 71 /143403
Stop 140 71 /143810
42 14.27N 9 32.36W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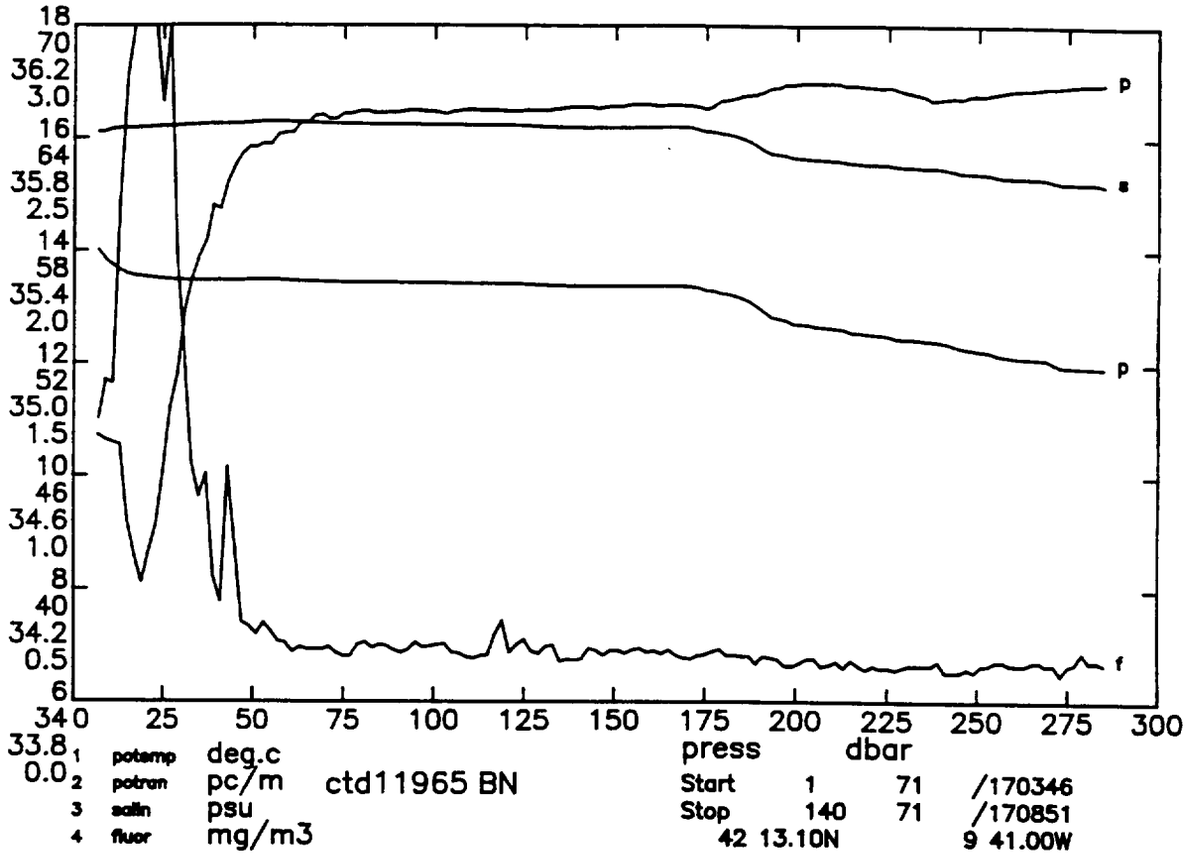
press dbar
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11964 BT
Start 1 71 /143403
Stop 641 71 /145546
42 14.27N 9 32.36W

DISCOVERY CRUISE 189 STATION 11964

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.984	35.760	6.87	13.983	48.87	1.04	26.779	35.421	43.688	0.013	1504.5	10.	126.08	-9.999
20.	13.736	35.769	6.92	13.734	50.22	1.06	26.838	35.490	43.765	0.025	1503.9	20.	120.78	4.324
30.	13.633	35.807	6.82	13.629	42.11	4.71	26.889	35.544	43.822	0.037	1503.7	30.	116.22	4.028
40.	13.555	35.799	6.60	13.549	45.55	4.16	26.899	35.558	43.839	0.048	1503.6	40.	115.56	1.797
50.	13.490	35.800	6.44	13.483	43.67	5.98	26.914	35.574	43.858	0.060	1503.6	50.	114.49	2.143
60.	13.461	35.804	6.30	13.453	41.29	6.05	26.923	35.585	43.870	0.071	1503.7	60.	113.89	1.741
70.	13.433	35.808	6.19	13.424	46.28	2.77	26.932	35.595	43.880	0.083	1503.7	69.	113.35	1.680
80.	13.410	35.809	6.04	13.399	49.98	2.64	26.938	35.602	43.888	0.094	1503.8	79.	113.10	1.356
90.	13.396	35.810	6.04	13.383	51.22	2.08	26.942	35.606	43.893	0.105	1503.9	89.	113.02	1.138
100.	13.354	35.809	6.02	13.340	57.22	0.98	26.951	35.617	43.905	0.117	1504.0	99.	112.49	1.666
120.	13.293	35.804	5.95	13.276	60.89	0.46	26.960	35.628	43.919	0.139	1504.1	119.	112.21	1.216
140.	13.236	35.797	5.90	13.217	62.38	0.61	26.966	35.637	43.930	0.161	1504.2	139.	112.21	1.004
160.	13.159	35.783	5.82	13.136	64.07	0.31	26.972	35.646	43.942	0.184	1504.3	159.	112.21	1.007
180.	13.021	35.765	5.72	12.996	65.82	0.22	26.986	35.666	43.967	0.206	1504.1	179.	111.43	1.513
200.	12.838	35.737	5.69	12.811	66.36	0.21	27.002	35.689	43.997	0.228	1503.8	198.	110.46	1.615
220.	12.741	35.723	5.65	12.711	66.55	0.15	27.012	35.703	44.015	0.251	1503.8	218.	110.11	1.248
240.	12.432	35.686	5.49	12.399	66.85	0.24	27.045	35.748	44.072	0.272	1503.1	238.	107.41	2.339
260.	12.248	35.667	5.38	12.213	66.64	0.16	27.066	35.777	44.108	0.294	1502.8	258.	105.87	1.879
280.	12.108	35.649	5.37	12.071	66.94	0.17	27.080	35.797	44.133	0.315	1502.6	278.	105.08	1.498
300.	11.905	35.624	5.40	11.866	67.56	0.16	27.100	35.825	44.169	0.336	1502.2	297.	103.63	1.830
350.	11.541	35.582	5.34	11.496	67.84	0.14	27.137	35.878	44.237	0.387	1501.7	347.	101.17	1.598
400.	11.184	35.555	5.28	11.133	67.90	0.14	27.183	35.939	44.312	0.437	1501.3	396.	97.88	1.756
450.	10.979	35.548	5.16	10.922	68.30	0.19	27.217	35.981	44.362	0.485	1501.4	446.	95.83	1.495
500.	10.887	35.552	5.07	10.825	68.47	0.15	27.238	36.006	44.390	0.533	1501.9	495.	95.06	1.171
550.	10.897	35.614	4.86	10.828	68.49	0.19	27.285	36.053	44.436	0.580	1502.8	545.	91.85	1.732
600.	10.939	35.676	4.73	10.863	68.42	0.19	27.327	36.092	44.473	0.625	1503.9	594.	89.25	1.612
650.	11.216	35.833	4.49	11.133	68.83	0.15	27.400	36.152	44.521	0.668	1505.9	644.	84.03	2.091
700.	11.272	35.899	4.47	11.182	67.92	0.14	27.442	36.191	44.557	0.710	1507.0	693.	81.50	1.606
750.	11.313	35.924	4.47	11.215	67.89	0.19	27.456	36.203	44.567	0.751	1508.0	743.	81.63	0.893
800.	11.346	35.972	4.43	11.242	67.90	0.16	27.488	36.234	44.597	0.791	1509.0	792.	79.93	1.425
850.	11.353	36.011	4.45	11.242	67.92	0.17	27.519	36.264	44.626	0.831	1509.9	842.	78.40	1.384
900.	11.374	36.058	4.41	11.256	68.54	0.17	27.553	36.297	44.658	0.869	1510.8	891.	76.58	1.453
950.	11.250	36.085	4.43	11.126	68.28	0.17	27.598	36.347	44.712	0.907	1511.3	940.	73.45	1.730
1000.	11.121	36.101	4.40	10.991	68.02	0.15	27.635	36.389	44.760	0.943	1511.7	990.	71.03	1.585
1100.	10.913	36.124	4.43	10.771	68.27	0.15	27.693	36.456	44.834	1.012	1512.6	1088.	67.74	1.406
1200.	10.413	36.086	4.51	10.261	67.86	0.13	27.755	36.539	44.938	1.078	1512.5	1187.	63.27	1.534

Sample data

1279.	9.963	36.041	4.59	9.805
1091.	10.975	36.126	4.40	10.834
930.	11.323	36.045	4.34	11.201
481.	10.916	35.553	5.08	10.856
289.	12.004	35.640	5.33	11.966
5.	14.038	35.765	6.78	14.038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press dbar
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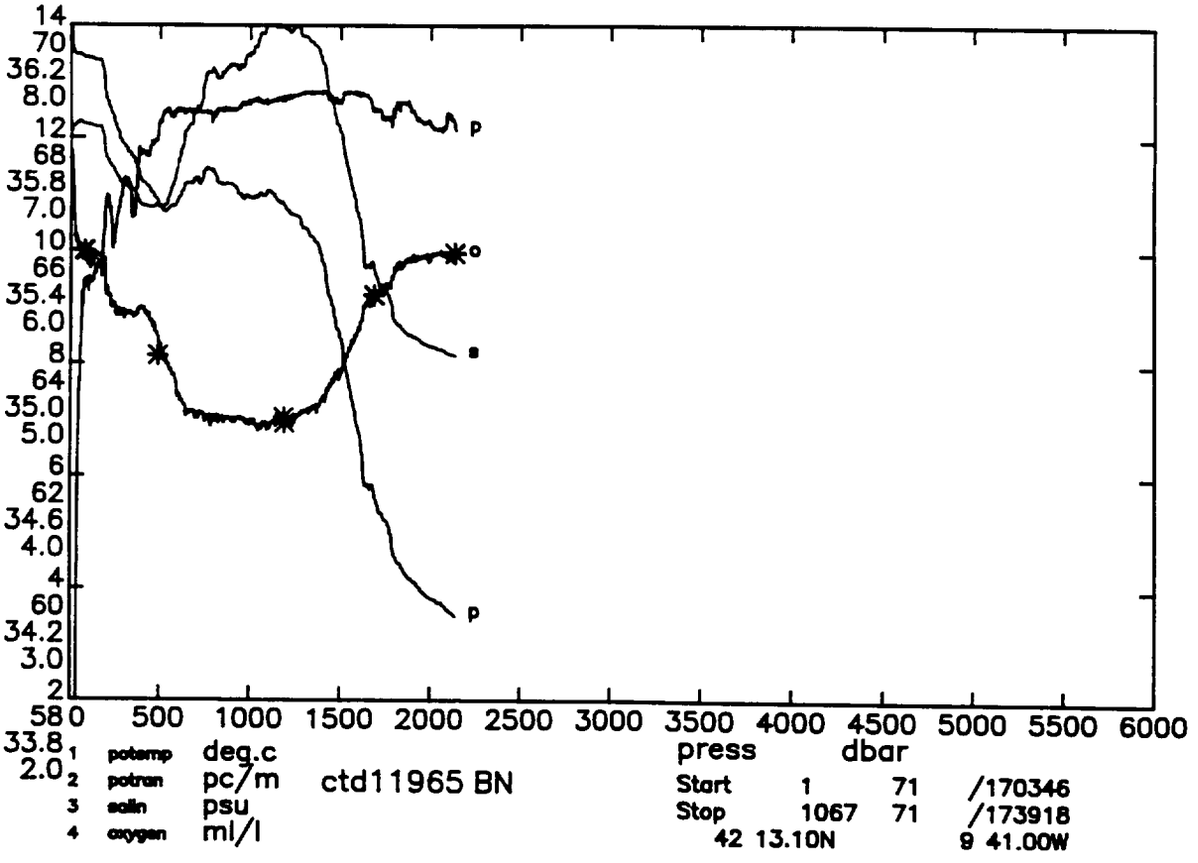
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11965 BN
Start 1 71 /170346
Stop 140 71 /170851
42 13.10N 9 41.00W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press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11965 BN
Start 1 71 /170346
Stop 1067 71 /173918
42 13.10N 9 41.00W

DISCOVERY CRUISE 189 STATION 11965

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.789	35.828	6.77	13.788	47.85	1.42	26.872	35.521	43.793	0.012	1503.9	10.	117.25	-9.999
20.	13.542	35.838	6.33	13.539	41.15	4.95	26.932	35.590	43.871	0.023	1503.3	20.	111.83	4.367
30.	13.489	35.845	6.10	13.485	53.12	1.74	26.949	35.609	43.891	0.035	1503.3	30.	110.57	2.285
40.	13.482	35.851	6.11	13.476	60.33	0.50	26.955	35.615	43.898	0.046	1503.5	40.	110.28	1.414
50.	13.493	35.857	6.06	13.486	63.52	0.32	26.957	35.617	43.900	0.057	1503.7	50.	110.36	0.879
60.	13.484	35.857	6.04	13.476	64.30	0.24	26.960	35.620	43.903	0.068	1503.8	60.	110.43	0.889
70.	13.463	35.852	5.92	13.453	65.14	0.24	26.960	35.621	43.905	0.079	1503.9	69.	110.71	0.325
80.	13.450	35.850	5.94	13.439	65.47	0.26	26.962	35.623	43.908	0.090	1504.0	79.	110.86	0.719
90.	13.446	35.848	6.00	13.434	65.41	0.22	26.962	35.624	43.908	0.101	1504.2	89.	111.17	-0.189
100.	13.444	35.847	5.92	13.430	65.40	0.25	26.961	35.623	43.908	0.112	1504.3	99.	111.50	-0.277
120.	13.432	35.845	5.98	13.415	65.44	0.29	26.963	35.626	43.911	0.134	1504.6	119.	111.97	0.501
140.	13.404	35.839	5.92	13.385	65.71	0.19	26.964	35.628	43.915	0.157	1504.8	139.	112.43	0.490
160.	13.399	35.837	5.95	13.376	65.75	0.22	26.965	35.629	43.916	0.179	1505.1	159.	112.98	0.330
180.	13.266	35.814	5.98	13.241	66.01	0.22	26.975	35.644	43.936	0.202	1505.0	179.	112.62	1.271
200.	12.726	35.730	5.61	12.699	66.92	0.17	27.020	35.711	44.023	0.224	1503.5	198.	108.78	2.719
220.	12.556	35.707	5.60	12.526	66.72	0.15	27.035	35.734	44.053	0.246	1503.2	218.	107.78	1.625
240.	12.413	35.693	5.52	12.381	66.13	0.16	27.054	35.758	44.082	0.267	1503.0	238.	106.58	1.720
260.	12.169	35.661	5.44	12.134	66.61	0.16	27.077	35.791	44.125	0.288	1502.5	258.	104.79	1.984
280.	12.001	35.642	5.47	11.964	66.92	0.20	27.095	35.816	44.157	0.309	1502.2	278.	103.56	1.731
300.	11.913	35.630	5.40	11.873	67.27	0.15	27.103	35.828	44.172	0.330	1502.2	297.	103.31	1.155
350.	11.695	35.612	5.42	11.650	66.67	0.15	27.132	35.866	44.218	0.381	1502.3	347.	101.84	1.377
400.	11.273	35.559	5.49	11.222	67.76	0.15	27.170	35.922	44.291	0.431	1501.6	396.	99.21	1.629
450.	11.088	35.551	5.37	11.031	67.85	0.15	27.199	35.959	44.336	0.481	1501.8	446.	97.58	1.398
500.	10.828	35.555	5.17	10.766	68.29	0.15	27.251	36.021	44.408	0.529	1501.7	495.	93.76	1.847
550.	10.804	35.592	4.97	10.736	68.50	0.12	27.285	36.056	44.444	0.575	1502.5	545.	91.79	1.474
600.	10.967	35.700	4.72	10.891	68.47	0.16	27.341	36.105	44.484	0.620	1504.0	594.	87.98	1.845
650.	11.270	35.827	4.55	11.186	68.46	0.15	27.386	36.136	44.503	0.663	1506.0	644.	85.47	1.598
700.	11.372	35.903	4.53	11.281	68.45	0.16	27.427	36.172	44.534	0.705	1507.3	693.	83.08	1.576
750.	11.517	35.999	4.49	11.419	68.47	0.15	27.477	36.215	44.571	0.746	1508.8	743.	79.98	1.726
800.	11.485	36.038	4.52	11.380	68.40	0.12	27.514	36.253	44.610	0.786	1509.5	792.	77.80	1.538
850.	11.288	36.034	4.51	11.177	68.52	0.11	27.548	36.296	44.660	0.824	1509.7	842.	75.54	1.553
900.	11.279	36.060	4.48	11.162	68.49	0.13	27.572	36.319	44.684	0.862	1510.5	891.	74.65	1.219
950.	11.088	36.056	4.51	10.965	68.56	0.15	27.605	36.361	44.733	0.899	1510.7	940.	72.48	1.528
1000.	11.056	36.096	4.49	10.926	68.62	0.12	27.643	36.400	44.773	0.934	1511.4	990.	70.15	1.564
1100.	11.200	36.209	4.45	11.056	68.63	0.17	27.707	36.457	44.824	1.003	1513.7	1088.	67.09	1.381
1200.	10.888	36.188	4.52	10.732	68.71	0.16	27.750	36.514	44.893	1.069	1514.3	1187.	64.88	1.271
1300.	10.561	36.162	4.58	10.394	68.80	0.15	27.790	36.568	44.961	1.133	1514.7	1286.	62.81	1.245
1400.	9.974	36.069	4.67	9.800	68.83	0.13	27.822	36.625	45.043	1.195	1514.2	1384.	60.66	1.244
1500.	8.620	35.820	4.88	8.447	68.67	0.13	27.849	36.715	45.190	1.253	1510.6	1483.	56.07	1.517
1600.	6.967	35.519	5.31	6.801	68.79	0.13	27.855	36.801	45.350	1.307	1505.6	1581.	51.58	1.469
1700.	5.700	35.308	5.57	5.539	68.51	0.17	27.854	36.863	45.472	1.357	1502.1	1680.	48.35	1.276
1800.	4.739	35.152	5.82	4.581	68.45	0.16	27.844	36.903	45.559	1.404	1499.7	1778.	46.50	1.034
1900.	4.295	35.097	5.91	4.132	68.49	0.13	27.850	36.932	45.610	1.450	1499.4	1877.	45.10	0.929
2000.	3.998	35.062	5.92	3.830	68.22	0.13	27.853	36.952	45.645	1.495	1499.8	1975.	44.36	0.782
2100.	3.784	35.037	5.95	3.610	68.36	0.14	27.856	36.966	45.670	1.539	1500.6	2073.	44.02	0.675

Sample data

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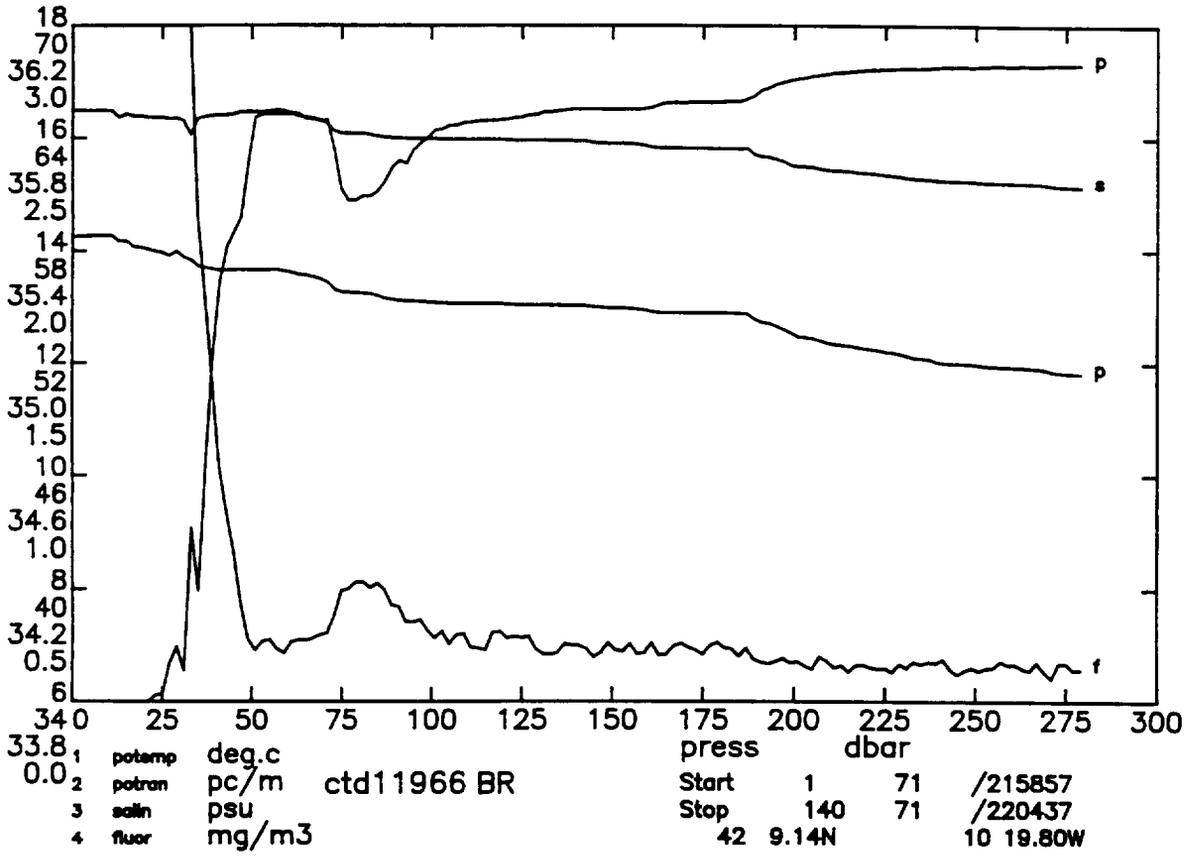
1688.	5.822	35.332	5.61	5.661
1195.	10.924	36.188	4.47	10.769
779.	11.543	36.025	-9.99	11.441
491.	10.857	35.568	5.07	10.795
80.	13.448	35.846	6.00	13.437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press dbar
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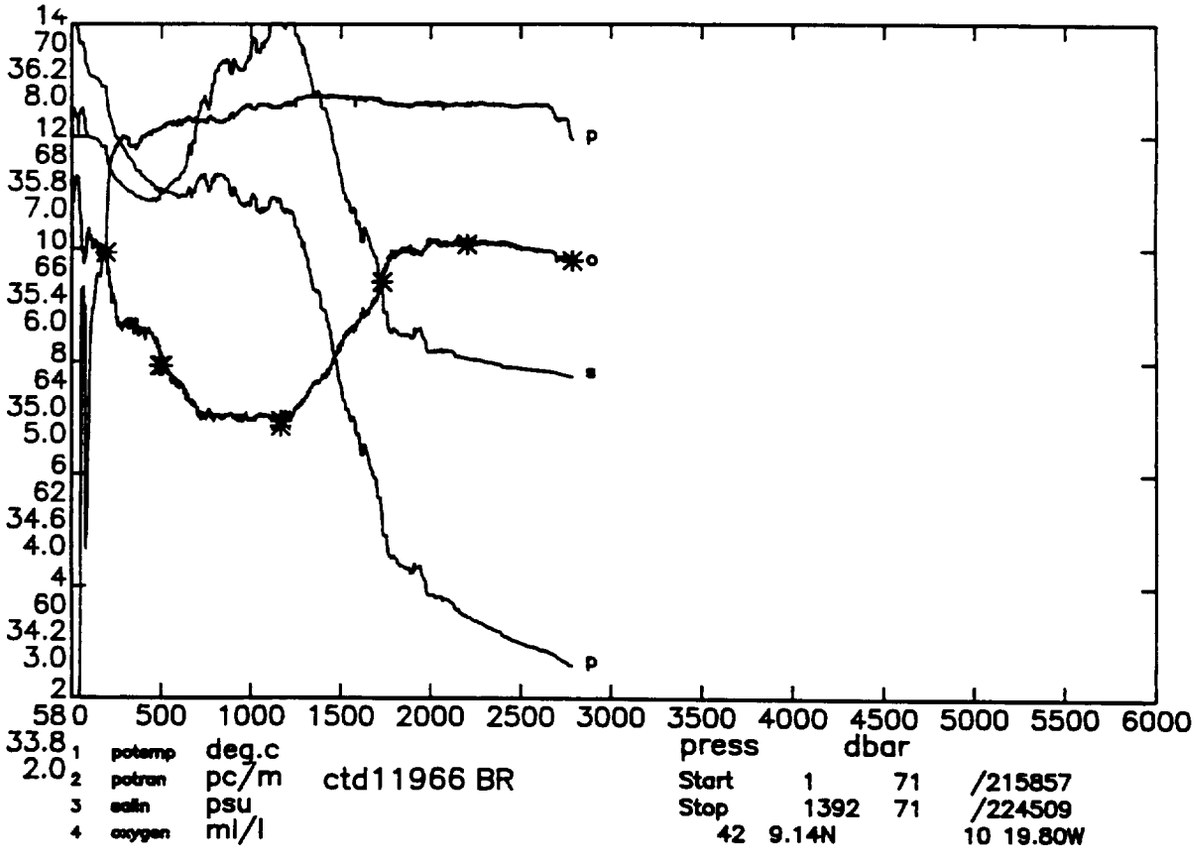
3 salin psu
4 fluor mg/m3
ctd11966 BR
Start 1 71 /215857
Stop 140 71 /220437
42 9.14N 10 19.80W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3 salin psu
4 oxygen ml/l
ctd11966 BR
Start 1 71 /215857
Stop 1392 71 /224509
42 9.14N 10 19.80W

DISCOVERY CRUISE 189 STATION 11966

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	14.269	35.896	6.53	14.268	29.34	4.86	26.823	35.453	43.708	0.012	1505.6	10.	121.89	-9.999
20.	14.046	35.875	6.63	14.043	33.18	4.32	26.854	35.493	43.756	0.024	1505.0	20.	119.24	3.146
30.	13.942	35.865	6.59	13.938	36.30	3.76	26.869	35.512	43.778	0.036	1504.8	30.	118.17	2.150
40.	13.674	35.880	6.33	13.668	54.42	1.22	26.937	35.590	43.866	0.048	1504.1	40.	111.98	4.655
50.	13.666	35.893	6.04	13.659	63.86	0.25	26.949	35.602	43.878	0.059	1504.3	50.	111.15	1.955
60.	13.642	35.891	5.92	13.634	65.30	0.24	26.953	35.607	43.884	0.070	1504.4	60.	111.09	1.101
70.	13.487	35.857	5.97	13.477	64.95	0.30	26.960	35.620	43.903	0.081	1504.0	69.	110.77	1.458
80.	13.268	35.814	6.11	13.257	60.82	0.53	26.972	35.641	43.932	0.092	1503.4	79.	109.89	1.984
90.	13.140	35.798	6.18	13.128	62.61	0.43	26.986	35.660	43.956	0.103	1503.1	89.	108.86	2.107
100.	13.100	35.796	6.09	13.086	64.22	0.30	26.992	35.668	43.966	0.114	1503.1	99.	108.50	1.485
120.	13.070	35.792	6.01	13.054	65.00	0.30	26.996	35.673	43.972	0.136	1503.3	119.	108.75	0.758
140.	13.041	35.788	6.00	13.022	65.54	0.25	26.999	35.678	43.977	0.157	1503.6	139.	109.04	0.725
160.	12.944	35.768	6.01	12.921	65.60	0.24	27.004	35.686	43.990	0.179	1503.6	159.	109.15	0.898
180.	12.905	35.761	6.00	12.881	65.92	0.25	27.007	35.691	43.996	0.201	1503.8	179.	109.45	0.690
200.	12.521	35.700	5.82	12.494	67.13	0.18	27.037	35.737	44.057	0.223	1502.7	198.	107.07	2.227
220.	12.278	35.673	5.53	12.249	67.64	0.16	27.064	35.773	44.103	0.244	1502.2	218.	105.00	2.097
240.	12.041	35.648	5.51	12.009	67.81	0.18	27.091	35.810	44.149	0.265	1501.7	238.	102.87	2.120
260.	11.962	35.639	5.33	11.928	67.88	0.16	27.099	35.822	44.164	0.285	1501.8	258.	102.60	1.175
280.	11.846	35.624	5.32	11.810	67.97	0.15	27.110	35.838	44.184	0.306	1501.7	278.	102.04	1.364
300.	11.745	35.612	5.35	11.706	67.97	0.12	27.121	35.853	44.203	0.326	1501.6	297.	101.50	1.345
350.	11.474	35.588	5.33	11.429	67.84	0.16	27.154	35.898	44.258	0.376	1501.5	347.	99.54	1.487
400.	11.319	35.575	5.29	11.268	68.00	0.15	27.174	35.924	44.291	0.426	1501.8	396.	98.88	1.153
450.	11.200	35.575	5.21	11.143	68.11	0.18	27.197	35.952	44.324	0.475	1502.2	446.	97.88	1.244
500.	11.113	35.598	4.99	11.050	68.17	0.13	27.232	35.991	44.366	0.524	1502.7	495.	95.80	1.502
550.	11.061	35.634	4.85	10.991	68.25	0.15	27.271	36.031	44.408	0.571	1503.4	545.	93.40	1.573
600.	10.997	35.657	4.81	10.921	68.26	0.15	27.302	36.065	44.444	0.617	1504.1	594.	91.66	1.424
650.	11.169	35.765	4.65	11.086	68.31	0.12	27.356	36.111	44.482	0.662	1505.6	644.	88.15	1.795
700.	11.301	35.869	4.55	11.211	68.27	0.15	27.414	36.162	44.528	0.706	1507.0	693.	84.18	1.880
750.	11.243	35.914	4.52	11.146	68.25	0.14	27.461	36.211	44.578	0.747	1507.7	743.	81.05	1.727
800.	11.420	36.029	4.51	11.315	68.26	0.15	27.519	36.261	44.621	0.786	1509.3	792.	77.16	1.873
850.	11.356	36.062	4.51	11.244	68.26	0.13	27.557	36.302	44.663	0.824	1509.9	842.	74.81	1.571
900.	11.206	36.074	4.50	11.089	68.33	0.15	27.596	36.346	44.713	0.861	1510.3	891.	72.29	1.607
950.	10.902	36.035	4.47	10.780	68.50	0.15	27.622	36.386	44.765	0.897	1510.0	940.	70.49	1.443
1000.	11.065	36.136	4.47	10.935	68.50	0.16	27.673	36.429	44.801	0.931	1511.5	990.	67.40	1.717
1200.	10.840	36.209	4.48	10.684	68.60	0.15	27.775	36.540	44.921	1.060	1514.1	1187.	62.46	1.304
1300.	10.051	36.070	4.68	9.889	68.71	0.17	27.807	36.607	45.021	1.122	1512.8	1286.	59.87	1.306
1400.	9.069	35.897	4.86	8.904	68.71	0.16	27.837	36.681	45.137	1.180	1510.7	1384.	56.54	1.377
1500.	7.711	35.644	5.16	7.549	68.70	0.15	27.847	36.756	45.272	1.234	1507.0	1483.	53.19	1.348
1600.	6.827	35.485	5.35	6.663	68.68	0.17	27.848	36.800	45.356	1.287	1505.1	1581.	51.79	1.037
1700.	5.921	35.343	5.56	5.757	68.65	0.15	27.855	36.852	45.451	1.337	1503.0	1680.	49.18	1.191
1800.	4.651	35.112	5.92	4.494	68.56	0.14	27.822	36.885	45.546	1.386	1499.2	1778.	48.19	0.887
1900.	4.400	35.084	5.99	4.236	68.55	0.18	27.828	36.905	45.579	1.434	1499.8	1877.	47.56	0.776
2000.	4.006	35.034	6.06	3.838	68.56	0.12	27.830	36.929	45.622	1.481	1499.8	1975.	46.49	0.852
2100.	3.908	35.037	6.03	3.731	68.54	0.14	27.844	36.948	45.646	1.527	1501.1	2073.	45.75	0.771
2200.	3.627	35.009	6.05	3.445	68.58	0.17	27.850	36.969	45.682	1.572	1501.6	2171.	44.61	0.845
2300.	3.478	34.999	6.06	3.289	68.58	0.14	27.857	36.984	45.705	1.616	1502.6	2269.	44.02	0.717
2400.	3.303	34.980	6.04	3.107	68.57	0.14	27.860	36.997	45.727	1.660	1503.5	2368.	43.55	0.677
2500.	3.170	34.974	6.00	2.967	68.54	0.12	27.867	37.012	45.750	1.703	1504.7	2466.	42.81	0.733
2600.	3.074	34.966	5.97	2.863	68.54	0.14	27.871	37.022	45.764	1.746	1505.9	2564.	42.64	0.581
2700.	2.952	34.958	5.90	2.733	68.28	0.12	27.876	37.034	45.783	1.788	1507.1	2662.	42.09	0.676

Sample data

2782.	2.807	34.946	5.89	2.583
2199.	3.628	35.009	6.03	3.446
1727.	5.465	35.256	5.70	5.304
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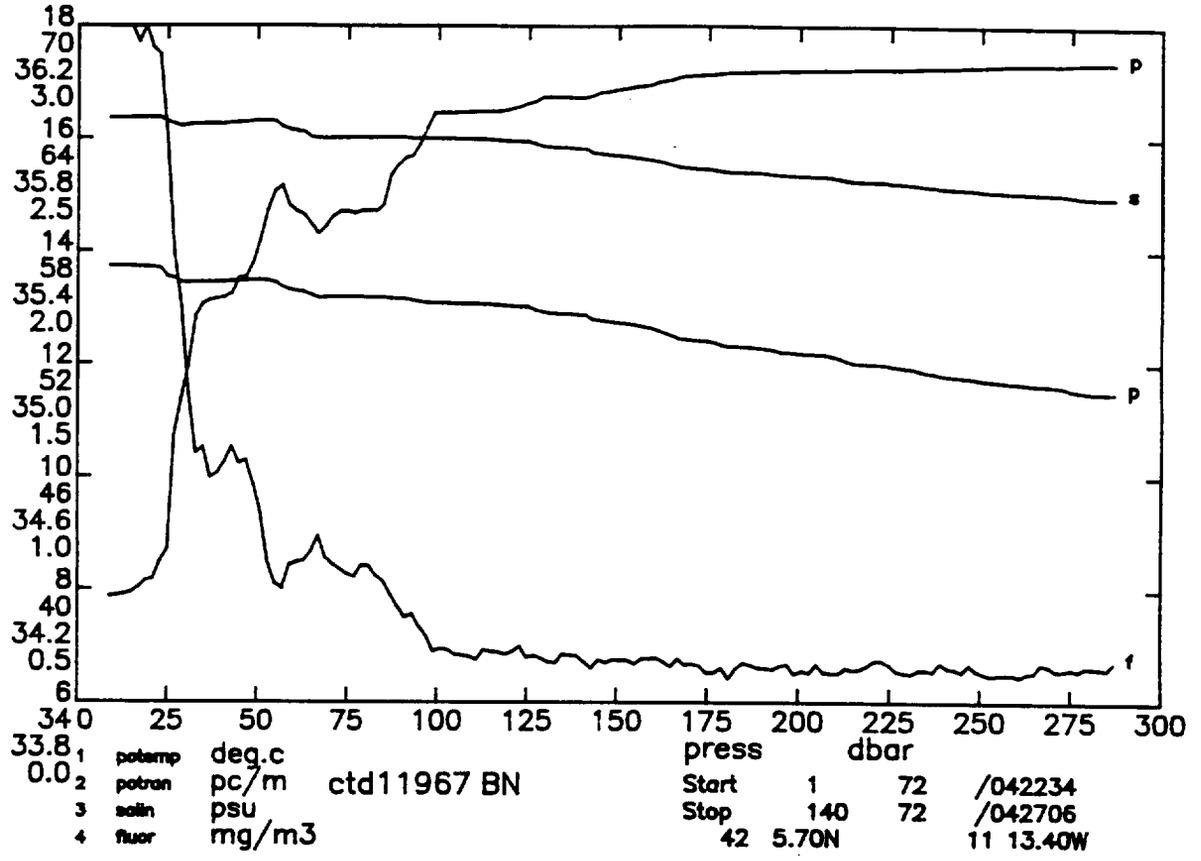
187.	12.892	35.758	5.96	12.866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2 potran pc/m
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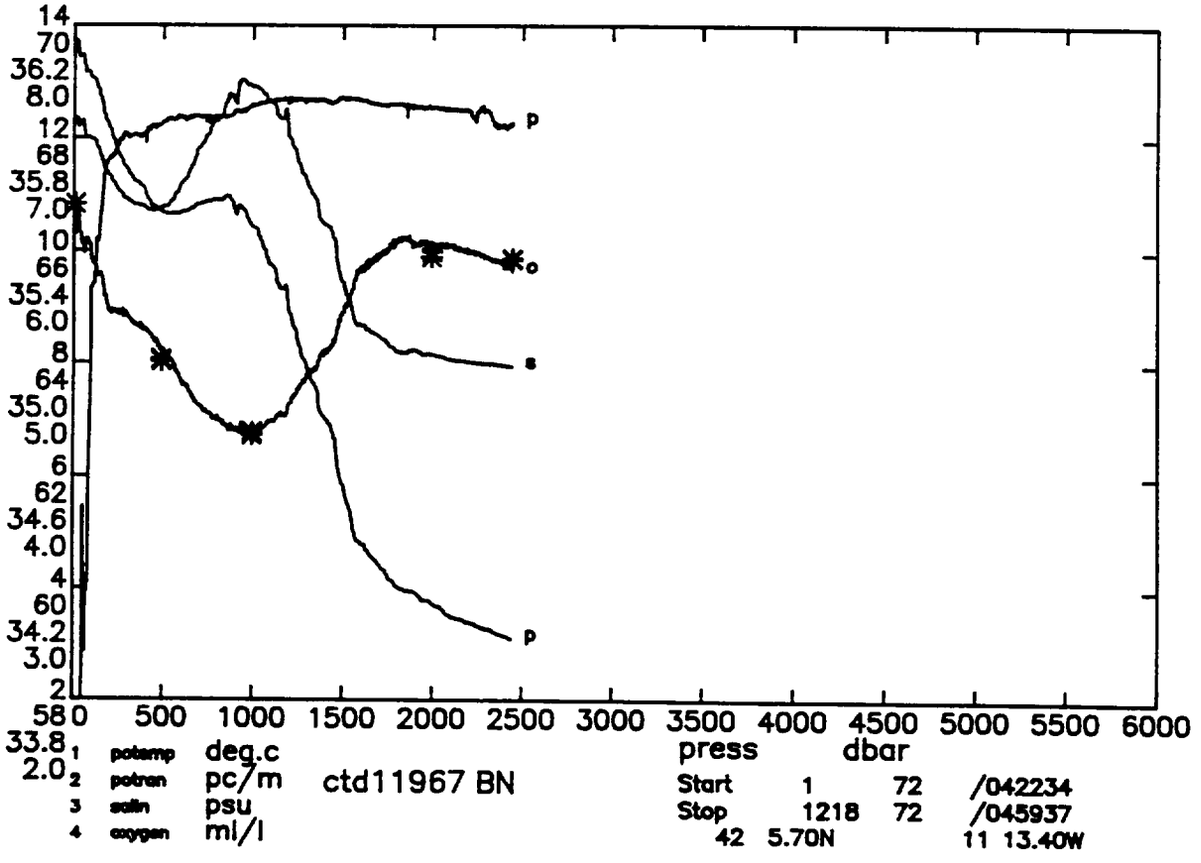
4 fluor mg/m3
ctd11967 BN
press dbar
Start 1 72 /042234
Stop 140 72 /042706
42 5.70N 11 13.40W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p
o
s
p
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11967 BN
press dbar
Start 1 72 /042234
Stop 1218 72 /045937
42 5.70N 11 13.40W

DISCOVERY CRUISE 189 STATION 11967

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.741	35.872	6.25	13.739	39.64	3.16	26.916	35.566	43.840	0.011	1503.8	10.	113.04	-9.999
20.	13.725	35.871	6.27	13.722	40.50	3.00	26.920	35.570	43.845	0.023	1503.9	20.	113.03	1.026
30.	13.446	35.842	6.31	13.442	51.04	1.56	26.955	35.617	43.901	0.034	1503.2	30.	109.96	3.360
40.	13.453	35.849	6.15	13.448	55.47	1.04	26.959	35.621	43.905	0.045	1503.4	40.	109.86	1.160
50.	13.489	35.862	6.06	13.482	58.00	0.91	26.962	35.622	43.905	0.056	1503.7	50.	109.90	0.947
60.	13.312	35.828	5.99	13.304	60.21	0.61	26.973	35.640	43.929	0.067	1503.2	60.	109.20	1.832
70.	13.181	35.800	6.11	13.171	59.54	0.62	26.978	35.651	43.945	0.078	1502.9	69.	108.97	1.327
80.	13.189	35.801	6.09	13.178	60.12	0.60	26.978	35.650	43.944	0.089	1503.1	79.	109.29	-0.265
90.	13.163	35.803	6.05	13.150	62.74	0.40	26.985	35.658	43.953	0.099	1503.2	89.	108.96	1.454
100.	13.088	35.797	5.93	13.074	65.33	0.23	26.996	35.672	43.970	0.110	1503.1	99.	108.19	1.896
120.	13.039	35.788	5.88	13.023	65.54	0.22	26.999	35.678	43.977	0.132	1503.2	119.	108.44	0.758
140.	12.884	35.761	5.79	12.865	66.16	0.19	27.010	35.695	44.001	0.154	1503.0	139.	107.96	1.337
160.	12.634	35.719	5.76	12.612	66.92	0.20	27.028	35.723	44.038	0.175	1502.5	159.	106.79	1.712
180.	12.341	35.680	5.59	12.317	67.51	0.13	27.056	35.763	44.090	0.196	1501.8	179.	104.59	2.152
200.	12.209	35.665	5.47	12.183	67.63	0.13	27.071	35.783	44.115	0.217	1501.6	198.	103.72	1.548
220.	12.020	35.644	5.47	11.991	67.69	0.17	27.091	35.811	44.150	0.238	1501.3	218.	102.30	1.819
240.	11.826	35.621	5.45	11.795	67.78	0.17	27.111	35.840	44.186	0.258	1500.9	238.	100.84	1.833
260.	11.701	35.607	5.45	11.667	67.97	0.12	27.124	35.858	44.209	0.278	1500.8	258.	100.10	1.467
280.	11.542	35.589	5.42	11.506	68.07	0.16	27.140	35.881	44.239	0.298	1500.6	278.	99.01	1.649
300.	11.473	35.583	5.43	11.435	68.06	0.10	27.149	35.892	44.253	0.318	1500.7	297.	98.69	1.194
350.	11.267	35.565	5.33	11.222	68.06	0.14	27.175	35.927	44.296	0.367	1500.8	347.	97.45	1.309
400.	11.098	35.553	5.30	11.048	68.09	0.18	27.198	35.957	44.333	0.415	1501.0	396.	96.45	1.241
450.	10.843	35.543	5.19	10.787	68.20	0.16	27.237	36.007	44.393	0.463	1500.9	446.	93.79	1.625
500.	10.738	35.555	5.12	10.676	68.28	0.16	27.266	36.041	44.431	0.509	1501.4	495.	92.19	1.384
550.	10.719	35.579	5.01	10.651	68.33	0.11	27.290	36.065	44.456	0.555	1502.2	545.	91.19	1.231
600.	10.743	35.636	4.83	10.668	68.36	0.14	27.331	36.105	44.494	0.600	1503.1	594.	88.65	1.596
650.	10.804	35.687	4.73	10.723	68.39	0.16	27.361	36.131	44.518	0.644	1504.2	644.	87.19	1.351
700.	10.901	35.763	4.62	10.812	68.38	0.14	27.404	36.170	44.552	0.687	1505.5	693.	84.52	1.626
750.	10.962	35.810	4.56	10.866	68.38	0.13	27.431	36.194	44.574	0.729	1506.6	743.	83.34	1.283
800.	11.008	35.861	4.50	10.905	68.37	0.13	27.464	36.224	44.602	0.770	1507.7	792.	81.66	1.410
850.	11.066	35.925	4.45	10.956	68.37	0.14	27.504	36.262	44.636	0.811	1508.8	842.	79.26	1.576
900.	10.839	35.929	4.40	10.725	68.46	0.17	27.549	36.317	44.700	0.849	1508.8	891.	75.91	1.765
950.	10.834	36.003	4.39	10.713	68.50	0.13	27.609	36.376	44.759	0.886	1509.7	940.	71.57	1.942
1000.	10.555	35.982	4.40	10.429	68.56	0.14	27.644	36.423	44.816	0.921	1509.5	990.	69.03	1.600
1100.	9.887	35.929	4.48	9.753	68.66	0.14	27.720	36.528	44.949	0.987	1508.7	1088.	62.84	1.702
1200.	9.046	35.804	4.64	8.907	68.71	0.17	27.763	36.609	45.066	1.048	1507.2	1187.	59.00	1.435
1300.	8.038	35.642	4.88	7.895	68.69	0.15	27.794	36.687	45.188	1.105	1504.9	1286.	55.40	1.383
1400.	7.159	35.494	5.11	7.014	68.68	0.18	27.806	36.742	45.283	1.160	1503.0	1384.	53.38	1.143
1500.	5.987	35.289	5.45	5.844	68.72	0.16	27.801	36.796	45.391	1.212	1499.8	1483.	51.46	1.095
1600.	4.925	35.132	5.85	4.784	68.69	0.18	27.805	36.854	45.501	1.262	1497.0	1581.	48.51	1.208
1700.	4.567	35.093	5.94	4.421	68.59	0.19	27.815	36.883	45.548	1.310	1497.2	1680.	47.30	0.903
1800.	4.180	35.041	6.07	4.029	68.61	0.18	27.816	36.904	45.589	1.357	1497.2	1778.	46.64	0.775
1900.	4.076	35.046	6.04	3.917	68.55	0.14	27.831	36.926	45.615	1.403	1498.5	1877.	45.76	0.809
2000.	3.889	35.029	6.03	3.723	68.54	0.13	27.838	36.943	45.642	1.449	1499.3	1975.	45.22	0.727
2100.	3.661	35.011	6.04	3.489	68.52	0.13	27.847	36.964	45.675	1.494	1500.0	2073.	44.15	0.832
2200.	3.576	35.003	6.01	3.395	68.50	0.13	27.850	36.972	45.688	1.538	1501.4	2171.	44.30	0.515
2300.	3.466	34.996	5.94	3.277	68.49	0.13	27.856	36.984	45.706	1.582	1502.6	2269.	44.00	0.640
2400.	3.358	34.990	5.86	3.162	68.21	0.16	27.862	36.997	45.724	1.626	1503.8	2368.	43.63	0.652

Sample data

2442.	3.305	34.988	5.92	3.105
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492.	10.751	35.550	5.01	10.690
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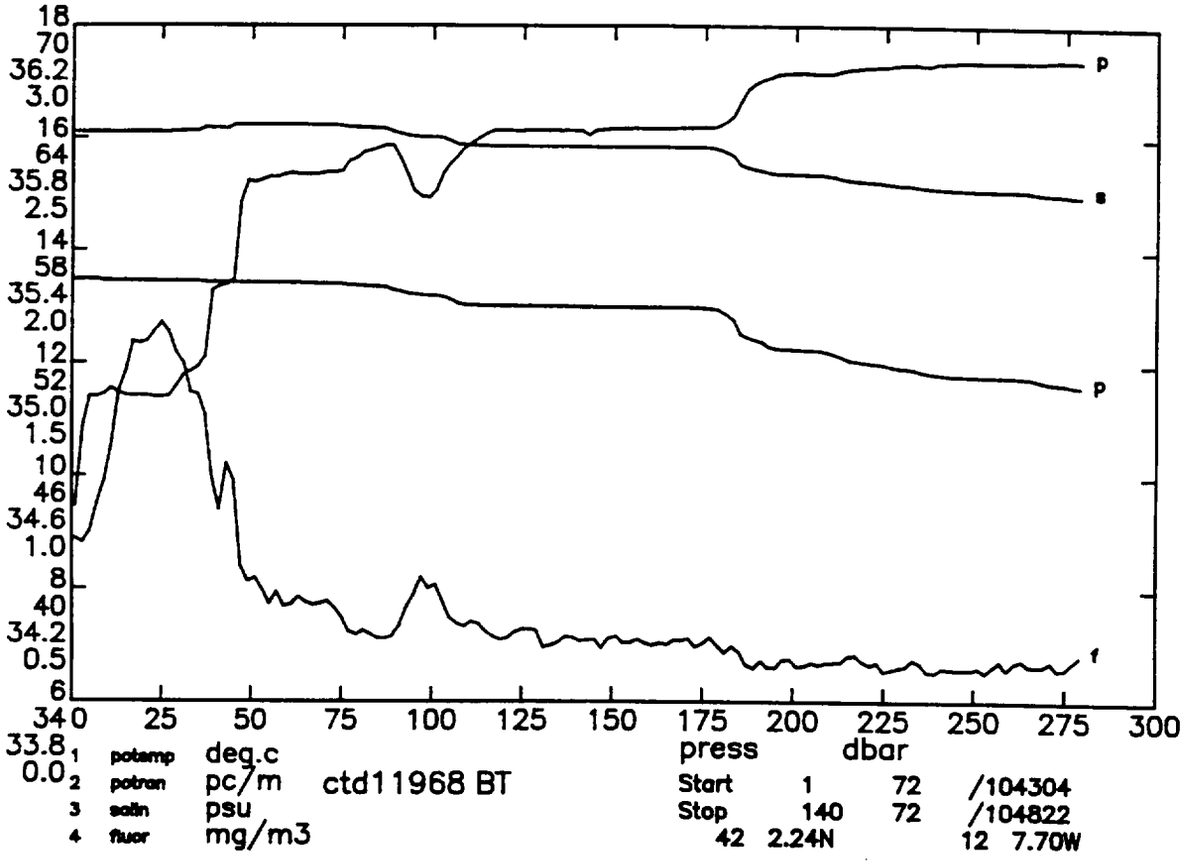
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press dbar
1 potemp deg.c
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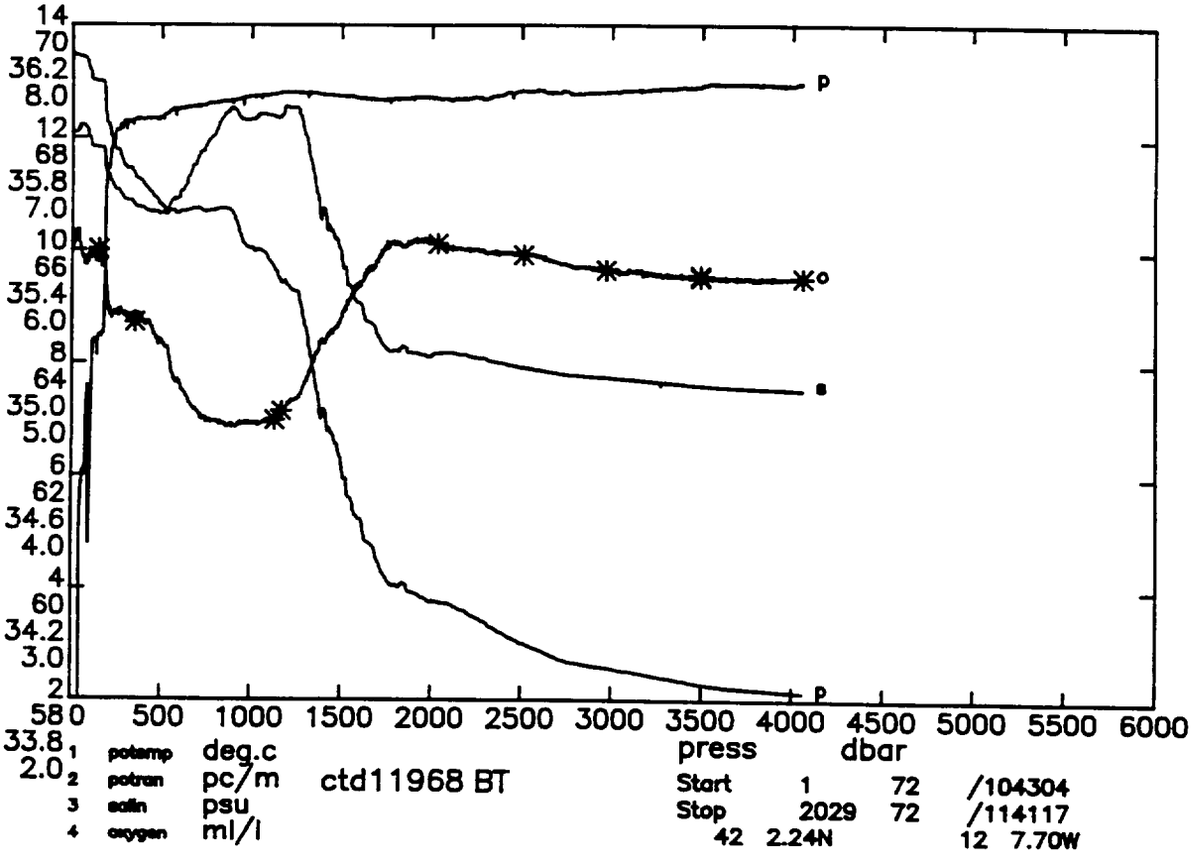
ctd11968 BT
Start 1 72 /104304
Stop 140 72 /104822
42 2.24N 12 7.70W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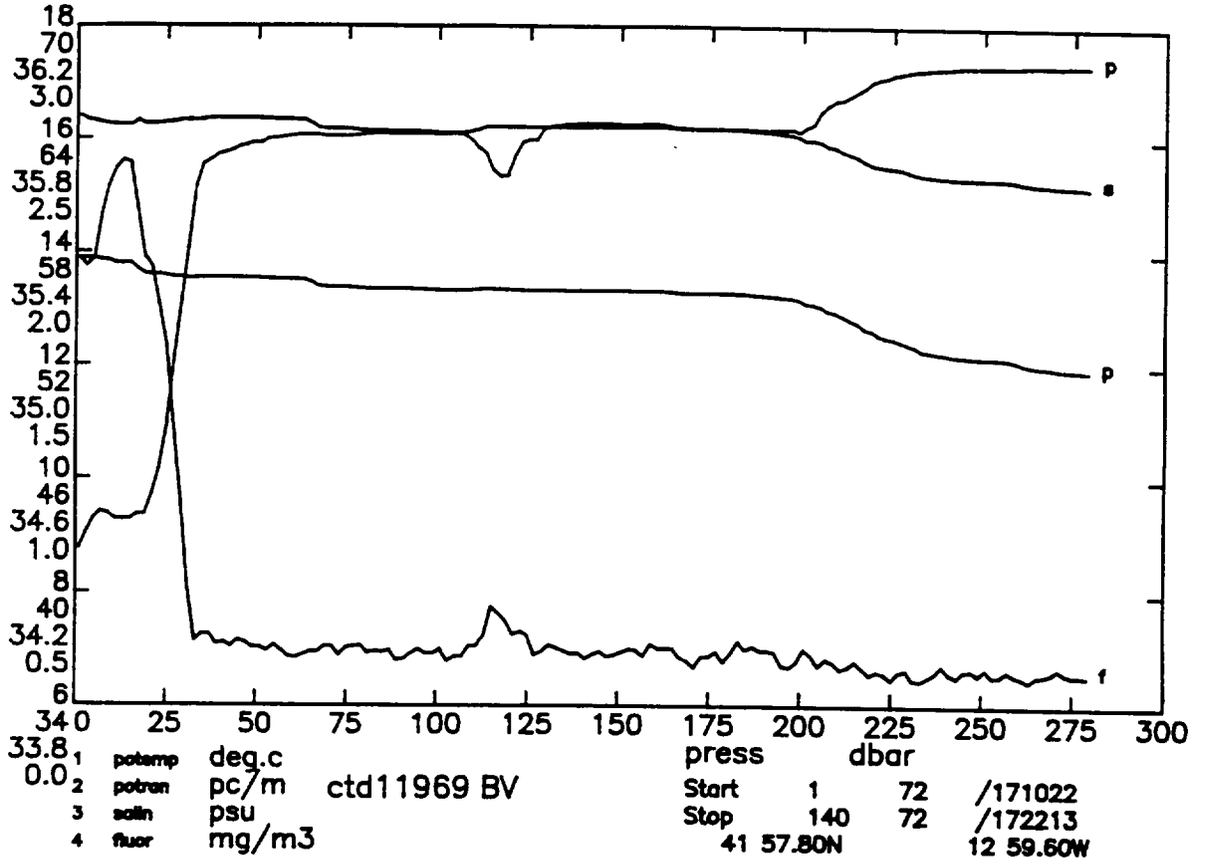
3 salin psu
4 oxygen ml/l
ctd11968 BT
Start 1 72 /104304
Stop 2029 72 /114117
42 2.24N 12 7.70W

DISCOVERY CRUISE 189 STATION 11968

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.461	35.820	6.03	13.460	50.50	1.05	26.934	35.596	43.880	0.011	1502.9	10.	111.30	-9.999
20.	13.460	35.820	6.12	13.458	50.29	1.59	26.934	35.596	43.880	0.022	1503.0	20.	111.61	0.074
30.	13.457	35.822	6.18	13.453	51.06	1.53	26.938	35.599	43.883	0.033	1503.2	30.	111.62	0.992
40.	13.443	35.833	6.14	13.437	55.96	0.92	26.949	35.611	43.896	0.045	1503.3	40.	110.82	1.914
50.	13.439	35.846	6.01	13.432	61.63	0.54	26.960	35.622	43.907	0.056	1503.5	50.	110.11	1.841
60.	13.435	35.845	5.94	13.427	62.05	0.43	26.961	35.623	43.908	0.067	1503.6	60.	110.35	0.486
70.	13.425	35.843	5.93	13.415	62.09	0.44	26.961	35.624	43.909	0.078	1503.8	69.	110.60	0.424
80.	13.389	35.835	5.90	13.378	63.06	0.31	26.963	35.627	43.914	0.089	1503.8	79.	110.77	0.690
90.	13.304	35.817	5.90	13.291	63.26	0.31	26.967	35.634	43.924	0.100	1503.7	89.	110.69	1.123
100.	13.217	35.800	6.00	13.203	60.98	0.51	26.972	35.643	43.936	0.111	1503.5	99.	110.48	1.313
120.	13.035	35.768	5.99	13.018	64.40	0.28	26.984	35.663	43.963	0.133	1503.2	119.	109.85	1.434
140.	13.026	35.766	5.98	13.006	64.37	0.28	26.986	35.665	43.966	0.155	1503.5	139.	110.31	0.459
160.	13.014	35.764	5.92	12.992	64.47	0.25	26.987	35.667	43.968	0.177	1503.8	159.	110.80	0.422
180.	12.934	35.752	5.92	12.909	64.76	0.23	26.994	35.677	43.981	0.199	1503.8	179.	110.69	1.083
200.	12.279	35.669	5.55	12.252	67.50	0.17	27.060	35.770	44.099	0.221	1501.9	198.	104.74	3.302
220.	12.051	35.643	5.43	12.022	67.80	0.17	27.085	35.804	44.142	0.241	1501.4	218.	102.91	1.997
240.	11.857	35.619	5.46	11.826	68.06	0.14	27.103	35.830	44.176	0.262	1501.0	238.	101.60	1.764
260.	11.815	35.614	5.45	11.781	68.14	0.16	27.108	35.837	44.184	0.282	1501.2	258.	101.69	0.872
280.	11.639	35.593	5.44	11.603	68.19	0.21	27.126	35.862	44.216	0.302	1500.9	278.	100.46	1.723
300.	11.528	35.579	5.43	11.489	68.30	0.16	27.136	35.877	44.236	0.322	1500.9	297.	99.92	1.342
350.	11.388	35.562	5.43	11.343	68.32	0.17	27.150	35.897	44.261	0.372	1501.2	347.	99.89	0.954
400.	11.224	35.549	5.37	11.173	68.32	0.16	27.171	35.926	44.297	0.422	1501.4	396.	99.05	1.202
450.	11.049	35.538	5.29	10.992	68.34	0.13	27.196	35.958	44.336	0.471	1501.6	446.	97.85	1.290
500.	10.857	35.531	5.19	10.794	68.37	0.16	27.227	35.996	44.382	0.520	1501.8	495.	96.06	1.433
550.	10.782	35.567	4.96	10.713	68.49	0.14	27.269	36.042	44.430	0.567	1502.4	545.	93.25	1.652
600.	10.732	35.590	4.83	10.657	68.52	0.16	27.298	36.072	44.463	0.614	1503.0	594.	91.76	1.357
650.	10.793	35.660	4.65	10.712	68.54	0.15	27.342	36.113	44.501	0.659	1504.2	644.	88.93	1.655
700.	10.839	35.725	4.57	10.751	68.55	0.16	27.386	36.155	44.540	0.703	1505.2	693.	86.15	1.647
750.	10.780	35.774	4.47	10.685	68.60	0.14	27.436	36.207	44.594	0.745	1505.9	743.	82.61	1.797
800.	10.813	35.818	4.48	10.712	68.62	0.15	27.465	36.235	44.620	0.786	1506.9	792.	81.19	1.342
850.	10.856	35.883	4.46	10.748	68.65	0.13	27.509	36.276	44.659	0.826	1508.0	842.	78.41	1.649
900.	10.745	35.902	4.43	10.631	68.66	0.16	27.546	36.317	44.704	0.864	1508.4	891.	76.08	1.556
950.	10.286	35.865	4.46	10.169	68.70	0.21	27.598	36.389	44.795	0.901	1507.6	940.	71.50	1.978
1000.	10.162	35.866	4.46	10.039	68.73	0.16	27.622	36.419	44.829	0.937	1508.0	990.	70.23	1.290
1200.	9.527	35.911	4.63	9.384	68.81	0.17	27.768	36.592	45.028	1.070	1509.1	1187.	59.75	1.598
1400.	7.317	35.550	5.18	7.170	68.77	0.15	27.829	36.756	45.289	1.182	1503.7	1384.	51.83	1.423
1600.	5.386	35.215	5.68	5.240	68.71	0.15	27.817	36.842	45.467	1.283	1499.0	1581.	49.15	0.992
1800.	4.205	35.045	6.07	4.053	68.70	0.14	27.817	36.904	45.587	1.378	1497.3	1778.	46.67	0.911
2000.	3.930	35.025	6.09	3.764	68.71	0.17	27.831	36.933	45.631	1.471	1499.5	1975.	46.06	0.674
2200.	3.747	35.027	6.01	3.563	68.69	0.11	27.853	36.965	45.673	1.562	1502.1	2171.	45.00	0.717
2400.	3.390	34.997	5.97	3.193	68.78	0.11	27.865	36.998	45.723	1.651	1503.9	2368.	43.58	0.744
2600.	3.107	34.973	5.95	2.895	68.85	0.10	27.874	37.023	45.764	1.737	1506.1	2564.	42.60	0.674
2700.	2.975	34.963	5.89	2.756	68.79	0.13	27.878	37.035	45.783	1.779	1507.2	2662.	42.07	0.675
2800.	2.905	34.956	5.85	2.677	68.79	0.10	27.879	37.040	45.793	1.821	1508.6	2760.	42.15	0.485
2900.	2.852	34.950	5.85	2.615	68.79	0.12	27.880	37.045	45.800	1.863	1510.1	2858.	42.40	0.417
3000.	2.822	34.947	5.83	2.575	68.82	0.11	27.881	37.048	45.805	1.906	1511.6	2955.	42.77	0.360
3100.	2.781	34.943	5.83	2.525	68.84	0.10	27.882	37.051	45.812	1.949	1513.2	3053.	43.03	0.407
3200.	2.729	34.937	5.79	2.463	68.86	0.13	27.883	37.056	45.819	1.992	1514.6	3151.	43.19	0.440
3300.	2.683	34.932	5.78	2.408	68.89	0.09	27.884	37.059	45.826	2.035	1516.1	3249.	43.40	0.421
3400.	2.643	34.927	5.77	2.357	68.90	0.10	27.884	37.063	45.831	2.079	1517.7	3346.	43.66	0.393
3500.	2.586	34.921	5.76	2.291	68.92	0.11	27.885	37.067	45.839	2.123	1519.1	3444.	43.71	0.471
3600.	2.558	34.917	5.76	2.253	68.97	0.10	27.885	37.069	45.844	2.166	1520.7	3542.	44.05	0.349
3700.	2.538	34.914	5.76	2.222	68.95	0.14	27.885	37.071	45.847	2.211	1522.3	3639.	44.48	0.299
3800.	2.525	34.912	5.75	2.199	68.96	0.08	27.885	37.072	45.849	2.255	1524.0	3737.	44.94	0.277
3900.	2.515	34.909	5.75	2.178	68.93	0.12	27.885	37.073	45.852	2.301	1525.7	3834.	45.41	0.266
4000.	2.500	34.906	5.76	2.152	68.93	0.06	27.884	37.075	45.854	2.346	1527.3	3932.	45.86	0.285

Sample data

4058.	2.496	34.906	5.76	2.141
3492.	2.590	34.922	5.76	2.296
2969.	2.834	34.948	5.83	2.590
2511.	3.223	34.982	5.96	3.017
2035.	3.920	35.022	6.06	3.750
1130.	9.805	35.874	4.49	9.668
353.	11.355	35.556	5.36	11.310
150.	13.016	35.759	6.00	12.995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33.8 0.0
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s
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f
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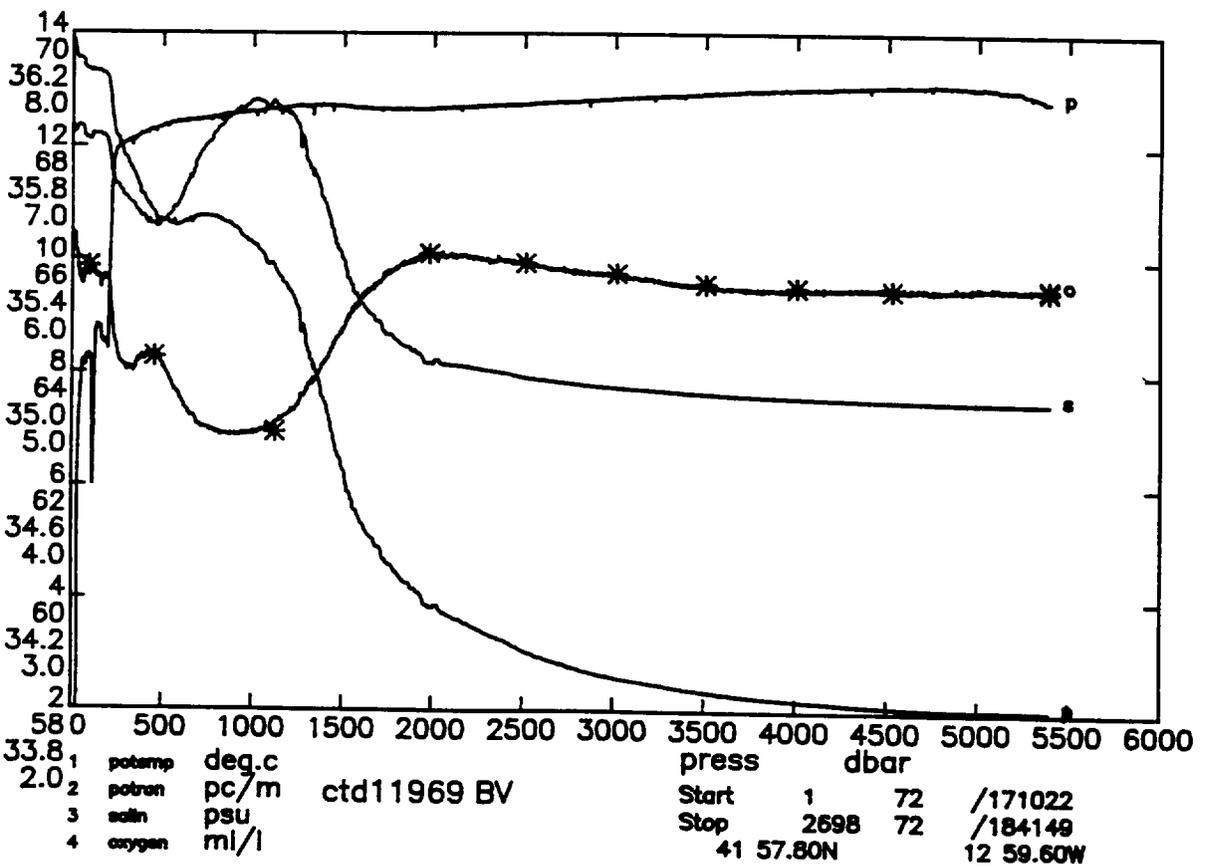
2 potrun pc/m
3 salin psu
4 fluor mg/m3
ctd11969 BV
press dbar
Start 1 72 /171022
Stop 140 72 /172213
41 57.80N
12 59.60W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58 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
33.8 2.0
p
o
s
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 oxygen ml/l
ctd11969 BV
press dbar
Start 1 72 /171022
Stop 2698 72 /184149
41 57.80N
12 59.60W

DISCOVERY CRUISE 189 STATION 11969

pres db	temp degc90	salin	oxygen ml/l	potemp degc90	potran %/m	fluor mg/m^3	sigma0 kg/m^3	sigma2 kg/m^3	sigma4 kg/m^3	dynht dyn.m	sndv m/s	depth m	svanom 10^{-8}m^3/kg	bvfr cy/hr
10.	13.827	35.850	6.12	13.825	43.98	2.33	26.881	35.528	43.799	0.012	1504.1	10.	116.38	-9.999
20.	13.617	35.852	6.17	13.614	44.63	1.96	26.927	35.582	43.860	0.023	1503.6	20.	112.32	3.816
30.	13.557	35.866	6.05	13.553	56.77	0.71	26.951	35.608	43.888	0.034	1503.6	30.	110.39	2.735
40.	13.564	35.873	5.87	13.558	63.21	0.28	26.955	35.612	43.892	0.045	1503.7	40.	110.28	1.187
50.	13.554	35.871	5.85	13.547	63.78	0.26	26.956	35.613	43.894	0.056	1503.9	50.	110.49	0.564
60.	13.535	35.867	5.79	13.527	64.17	0.21	26.957	35.615	43.896	0.067	1504.0	60.	110.75	0.410
70.	13.403	35.835	5.83	13.393	64.13	0.26	26.960	35.623	43.909	0.078	1503.7	69.	110.76	0.988
80.	13.376	35.828	5.89	13.364	64.24	0.25	26.960	35.625	43.912	0.090	1503.7	79.	111.01	0.429
90.	13.373	35.827	5.89	13.361	64.28	0.20	26.961	35.625	43.913	0.101	1503.9	89.	111.26	0.421
100.	13.347	35.821	5.89	13.333	64.25	0.24	26.961	35.627	43.916	0.112	1504.0	99.	111.49	0.531
120.	13.354	35.843	5.90	13.337	62.59	0.34	26.977	35.643	43.931	0.134	1504.3	119.	110.59	1.581
140.	13.341	35.842	5.84	13.322	64.84	0.22	26.980	35.646	43.934	0.156	1504.6	139.	110.97	0.618
160.	13.339	35.842	5.74	13.317	64.79	0.26	26.981	35.648	43.936	0.178	1505.0	159.	111.44	0.490
180.	13.306	35.836	5.85	13.281	64.53	0.22	26.984	35.651	43.942	0.201	1505.2	179.	111.81	0.633
200.	13.165	35.803	5.84	13.137	64.54	0.23	26.988	35.661	43.957	0.223	1505.0	198.	111.95	0.871
220.	12.616	35.709	5.52	12.586	67.19	0.15	27.025	35.722	44.038	0.245	1503.4	218.	108.76	2.514
240.	12.242	35.666	5.27	12.210	67.86	0.16	27.066	35.777	44.108	0.267	1502.4	238.	105.33	2.584
260.	12.118	35.653	5.14	12.083	67.98	0.14	27.081	35.797	44.133	0.288	1502.3	258.	104.42	1.568
280.	11.943	35.632	5.07	11.906	68.02	0.13	27.099	35.822	44.165	0.308	1502.0	278.	103.19	1.723
300.	11.835	35.620	5.03	11.796	68.06	0.12	27.110	35.838	44.185	0.329	1502.0	297.	102.62	1.371
350.	11.470	35.578	5.03	11.425	68.13	0.14	27.147	35.891	44.252	0.379	1501.5	347.	100.20	1.587
400.	11.137	35.547	5.12	11.086	68.21	0.13	27.186	35.944	44.318	0.429	1501.1	396.	97.59	1.621
450.	10.886	35.523	5.15	10.830	68.29	0.15	27.214	35.983	44.367	0.477	1501.0	446.	95.99	1.389
500.	10.742	35.534	5.05	10.680	68.35	0.14	27.249	36.024	44.414	0.525	1501.4	495.	93.79	1.522
550.	10.680	35.563	4.89	10.612	68.40	0.13	27.284	36.061	44.453	0.571	1502.0	545.	91.72	1.492
600.	10.680	35.613	4.76	10.606	68.43	0.16	27.324	36.101	44.493	0.616	1502.9	594.	89.20	1.589
650.	10.775	35.690	4.63	10.694	68.45	0.12	27.369	36.141	44.528	0.660	1504.2	644.	86.37	1.657
700.	10.821	35.761	4.54	10.733	68.46	0.12	27.417	36.186	44.571	0.703	1505.2	693.	83.19	1.726
750.	10.851	35.810	4.51	10.756	68.48	0.15	27.451	36.219	44.602	0.744	1506.2	743.	81.32	1.452
800.	10.830	35.855	4.48	10.729	68.49	0.14	27.491	36.259	44.643	0.784	1507.0	792.	78.82	1.593
850.	10.756	35.891	4.46	10.648	68.56	0.12	27.534	36.305	44.691	0.823	1507.6	842.	75.94	1.668
900.	10.670	35.920	4.45	10.557	68.56	0.15	27.572	36.347	44.736	0.860	1508.2	891.	73.44	1.590
950.	10.512	35.935	4.46	10.393	68.59	0.12	27.613	36.394	44.790	0.896	1508.5	940.	70.55	1.670
1000.	10.402	35.960	4.48	10.277	68.60	0.13	27.654	36.439	44.839	0.931	1509.0	990.	67.78	-1.642
1200.	9.604	35.913	4.65	9.460	68.67	0.16	27.757	36.578	45.011	1.060	1509.4	1187.	60.97	1.395
1400.	7.612	35.598	5.10	7.462	68.71	0.16	27.824	36.737	45.258	1.173	1504.9	1384.	53.19	1.419
1600.	5.481	35.244	5.65	5.333	68.67	0.16	27.829	36.849	45.469	1.274	1499.4	1581.	48.43	1.163
1800.	4.597	35.113	5.93	4.440	68.66	0.16	27.829	36.895	45.559	1.369	1499.0	1778.	47.29	0.789
2000.	3.994	35.032	6.04	3.827	68.66	0.14	27.830	36.929	45.623	1.463	1499.8	1975.	46.48	0.712
2200.	3.712	35.018	6.02	3.529	68.70	0.13	27.849	36.963	45.672	1.555	1501.9	2171.	45.17	0.746
2400.	3.434	34.997	5.98	3.236	68.74	0.12	27.861	36.991	45.715	1.644	1504.1	2368.	44.22	0.689
2600.	3.162	34.975	5.94	2.948	68.76	0.11	27.870	37.016	45.755	1.731	1506.3	2564.	43.25	0.676
2800.	2.983	34.961	5.88	2.753	68.80	0.13	27.877	37.033	45.782	1.817	1508.9	2760.	42.94	0.571
3000.	2.848	34.948	5.86	2.600	68.86	0.08	27.880	37.045	45.801	1.903	1511.7	2955.	43.05	0.494
3200.	2.759	34.940	5.84	2.493	68.88	0.09	27.883	37.054	45.816	1.989	1514.8	3151.	43.45	0.430
3400.	2.670	34.932	5.78	2.384	68.92	0.12	27.885	37.062	45.830	2.076	1517.8	3346.	43.77	0.439
3600.	2.614	34.925	5.75	2.307	68.97	0.09	27.886	37.068	45.839	2.165	1521.0	3542.	44.42	0.363
3800.	2.571	34.918	5.74	2.243	68.99	0.08	27.887	37.072	45.846	2.254	1524.2	3737.	45.18	0.329
3900.	2.562	34.917	5.74	2.224	69.00	0.11	27.887	37.073	45.849	2.300	1525.9	3834.	45.66	0.275
4000.	2.548	34.914	5.74	2.198	69.02	0.06	27.887	37.074	45.852	2.346	1527.5	3932.	46.10	0.294
4100.	2.536	34.912	5.74	2.175	69.02	0.07	27.887	37.076	45.854	2.392	1529.2	4029.	46.54	0.293
4200.	2.528	34.910	5.74	2.155	69.04	0.09	27.887	37.077	45.856	2.439	1530.9	4126.	47.03	0.261
4300.	2.516	34.908	5.74	2.132	69.05	0.08	27.887	37.079	45.859	2.486	1532.6	4224.	47.44	0.310
4400.	2.511	34.906	5.75	2.115	69.07	0.07	27.887	37.080	45.861	2.534	1534.3	4321.	47.94	0.247
4500.	2.507	34.905	5.73	2.100	69.08	0.06	27.887	37.080	45.863	2.582	1536.0	4418.	48.45	0.247
4600.	2.507	34.903	5.74	2.087	69.08	0.16	27.887	37.081	45.864	2.630	1537.7	4515.	49.00	0.218
4700.	2.507	34.902	5.75	2.075	69.07	0.21	27.887	37.081	45.865	2.680	1539.5	4612.	49.58	0.191
4800.	2.512	34.900	5.73	2.068	69.09	0.21	27.886	37.081	45.865	2.730	1541.2	4709.	50.24	0.108
4900.	2.519	34.899	5.75	2.061	69.07	0.25	27.886	37.081	45.866	2.780	1543.0	4806.	50.89	0.123
5000.	2.527	34.900	5.75	2.057	69.04	0.20	27.887	37.082	45.867	2.831	1544.8	4903.	51.46	0.202
5100.	2.536	34.899	5.75	2.053	69.05	0.23	27.887	37.082	45.867	2.883	1546.5	5000.	52.12	0.117
5200.	2.547	34.899	5.75	2.050	69.01	0.24	27.886	37.082	45.867	2.936	1548.3	5097.	52.79	0.093
5300.	2.557	34.898	5.75	2.047	68.92	0.22	27.886	37.082	45.867	2.989	1550.1	5194.	53.49	0.062

Sample data

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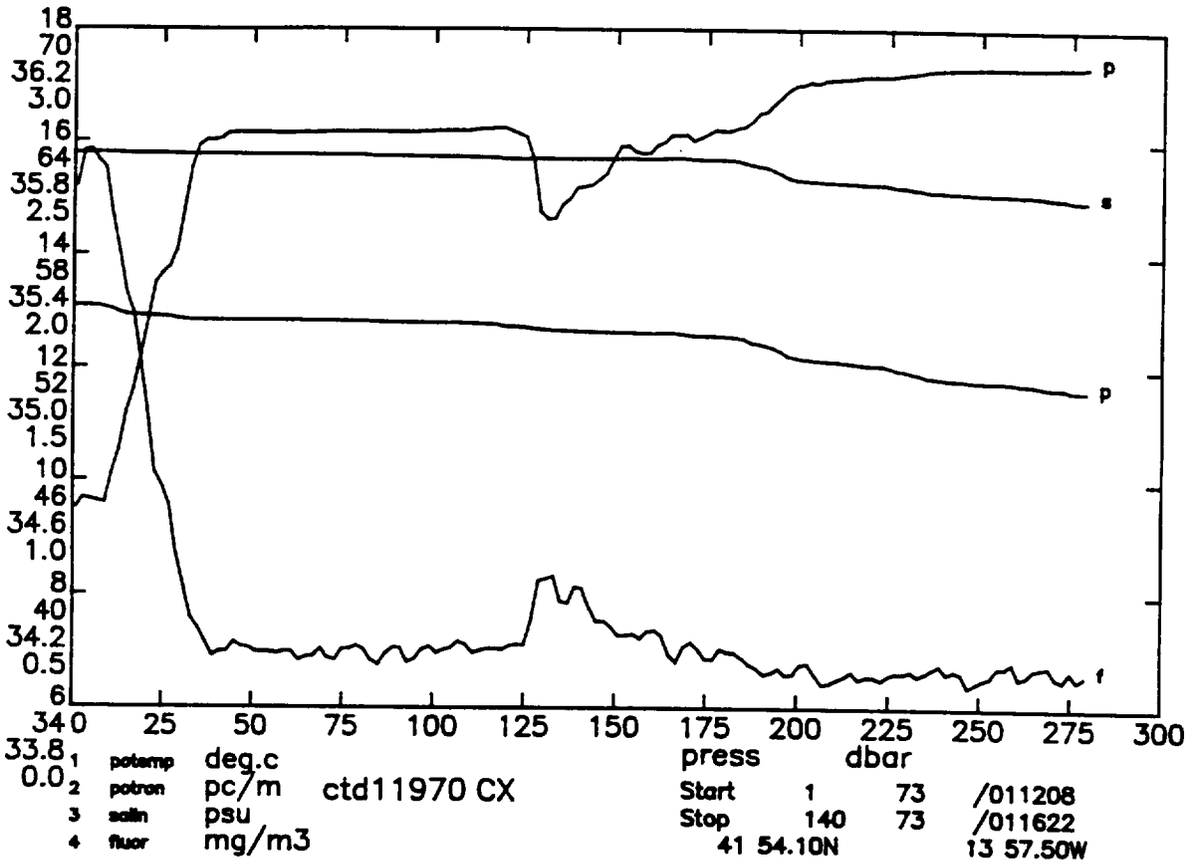
4004.	2.546	34.914	5.76	2.195
3503.	2.640	34.928	5.79	2.344
3015.	2.837	34.948	5.88	2.588
2510.	3.253	34.984	5.97	3.047
1979.	4.007	35.036	6.05	3.841
1125.	9.964	35.954	4.48	9.826
456.	10.852	35.519	5.14	10.796
94.	13.367	35.824	5.94	13.354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press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 fluor mg/m3
ctd11970 CX
Start 1 73 /011208
Stop 140 73 /011622
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13 57.50W
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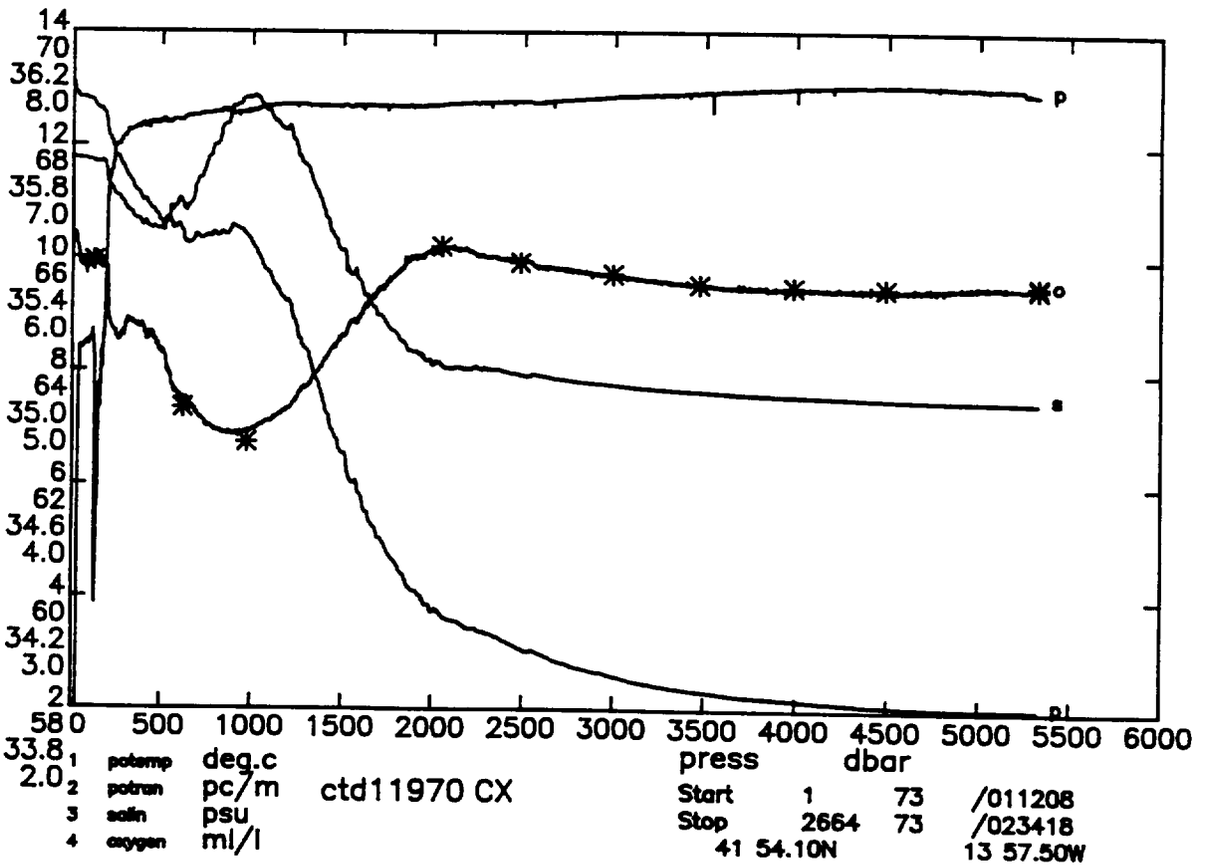
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press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 oxygen ml/l
ctd11970 CX
Start 1 73 /011208
Stop 2664 73 /023418
41 54.10N
13 57.50W
p
o
s

DISCOVERY CRUISE 189 STATION 11993

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.138	35.383	6.25	10.137	64.73	0.35	27.228	36.027	44.440	0.008	1491.0	10.	83.46	-9.999
20.	10.147	35.385	6.24	10.144	64.71	0.35	27.228	36.027	44.440	0.017	1491.2	20.	83.68	0.221
30.	10.156	35.385	6.28	10.152	64.71	0.34	27.226	36.025	44.437	0.025	1491.3	30.	84.08	-0.712
40.	10.157	35.384	6.26	10.152	64.66	0.33	27.225	36.024	44.437	0.034	1491.5	40.	84.39	-0.483
50.	10.157	35.384	6.25	10.151	64.69	0.33	27.226	36.025	44.438	0.042	1491.7	50.	84.55	0.519
60.	10.159	35.383	6.35	10.152	64.70	0.36	27.225	36.024	44.437	0.050	1491.9	59.	84.89	-0.548
70.	10.157	35.383	6.34	10.149	64.70	0.34	27.225	36.024	44.437	0.059	1492.0	69.	85.12	0.189
80.	10.151	35.383	6.31	10.142	64.80	0.35	27.226	36.026	44.439	0.067	1492.2	79.	85.26	0.569
90.	10.155	35.383	6.27	10.145	64.79	0.38	27.226	36.025	44.438	0.076	1492.3	89.	85.54	-0.342
100.	10.154	35.380	6.29	10.143	64.74	0.35	27.224	36.023	44.436	0.085	1492.5	99.	85.97	-0.786
120.	10.161	35.383	6.21	10.147	64.80	0.30	27.226	36.025	44.437	0.102	1492.9	119.	86.30	0.504
140.	10.166	35.383	6.23	10.150	64.89	0.32	27.225	36.024	44.437	0.119	1493.2	139.	86.81	-0.198
160.	10.163	35.383	6.15	10.144	64.85	0.33	27.226	36.025	44.438	0.137	1493.5	159.	87.21	0.372
180.	10.161	35.383	6.21	10.140	64.76	0.34	27.227	36.026	44.439	0.154	1493.8	178.	87.61	0.358
200.	10.161	35.382	6.20	10.138	64.73	0.35	27.227	36.026	44.439	0.172	1494.2	198.	88.14	-0.281
220.	10.145	35.378	6.20	10.120	65.06	0.32	27.227	36.027	44.441	0.189	1494.4	218.	88.62	0.106
240.	9.915	35.341	6.06	9.888	67.28	0.18	27.238	36.048	44.472	0.207	1493.9	238.	87.90	1.411
260.	9.875	35.337	6.02	9.845	67.51	0.17	27.242	36.054	44.480	0.224	1494.1	258.	87.95	0.838
280.	9.826	35.333	5.96	9.793	67.70	0.18	27.247	36.062	44.490	0.242	1494.2	277.	87.89	0.940
300.	9.793	35.329	5.89	9.759	67.75	0.16	27.250	36.066	44.495	0.260	1494.4	297.	88.10	0.662
350.	9.527	35.289	5.88	9.488	67.82	0.17	27.264	36.093	44.533	0.304	1494.2	347.	87.69	1.021
400.	8.857	35.192	5.41	8.814	68.36	0.13	27.299	36.158	44.627	0.347	1492.5	396.	84.98	1.594
450.	8.393	35.135	5.24	8.346	68.46	0.14	27.327	36.208	44.697	0.389	1491.5	446.	82.90	1.444
500.	8.155	35.143	5.16	8.103	68.48	0.15	27.371	36.262	44.761	0.429	1491.5	495.	79.55	1.705
550.	7.831	35.129	5.17	7.774	68.50	0.15	27.409	36.315	44.829	0.468	1491.0	544.	76.50	1.642
600.	7.933	35.211	5.06	7.871	68.51	0.15	27.459	36.360	44.868	0.506	1492.4	594.	72.89	1.749
650.	7.258	35.138	5.15	7.194	68.45	0.14	27.501	36.433	44.971	0.542	1490.5	643.	68.96	1.805
700.	6.962	35.135	5.12	6.894	68.57	0.15	27.540	36.487	45.038	0.575	1490.2	693.	65.66	1.673
750.	7.346	35.266	5.05	7.271	68.53	0.16	27.590	36.518	45.051	0.607	1492.7	742.	62.47	1.652
800.	6.759	35.195	5.21	6.682	68.55	0.15	27.617	36.572	45.132	0.638	1491.1	791.	59.83	1.536
850.	6.554	35.192	5.24	6.473	68.54	0.14	27.642	36.608	45.177	0.667	1491.2	841.	57.85	1.372
900.	5.983	35.130	5.43	5.901	68.58	0.16	27.668	36.662	45.258	0.695	1489.7	890.	55.02	1.559
950.	5.303	35.030	5.64	5.221	68.54	0.15	27.673	36.702	45.330	0.723	1487.6	940.	53.72	1.161
1000.	5.006	35.003	5.86	4.921	68.54	0.14	27.687	36.731	45.374	0.749	1487.2	989.	52.34	1.169
1200.	4.213	34.941	6.26	4.117	68.51	0.17	27.727	36.813	45.494	0.849	1487.2	1186.	48.73	1.000
1400.	3.870	34.918	6.41	3.760	68.59	0.16	27.746	36.850	45.549	0.945	1489.1	1383.	47.89	0.699
1600.	3.636	34.904	6.55	3.511	68.59	0.15	27.759	36.877	45.589	1.041	1491.4	1580.	47.60	0.610
1800.	3.581	34.915	6.49	3.438	68.64	0.17	27.776	36.897	45.612	1.136	1494.5	1777.	47.64	0.552
2000.	3.524	34.933	6.42	3.364	68.66	0.16	27.797	36.922	45.641	1.231	1497.7	1973.	47.10	0.632
2200.	3.428	34.945	6.35	3.250	68.68	0.11	27.818	36.948	45.672	1.325	1500.7	2169.	46.43	0.646
2400.	3.257	34.954	6.29	3.062	68.72	0.14	27.842	36.983	45.716	1.416	1503.3	2365.	44.83	0.752
2500.	3.172	34.955	6.25	2.969	68.73	0.13	27.852	36.998	45.735	1.461	1504.6	2463.	44.18	0.711
2600.	3.108	34.957	6.20	2.896	68.67	0.14	27.860	37.009	45.750	1.505	1506.1	2561.	43.83	0.629
2700.	3.042	34.956	6.15	2.822	68.71	0.12	27.867	37.020	45.765	1.549	1507.5	2659.	43.54	0.610
2800.	2.958	34.954	6.13	2.728	68.60	0.12	27.873	37.032	45.781	1.592	1508.8	2757.	43.06	0.658
2900.	2.882	34.950	6.05	2.644	68.70	0.11	27.878	37.040	45.794	1.635	1510.2	2855.	42.84	0.582
3000.	2.827	34.947	6.02	2.580	68.61	0.11	27.881	37.047	45.805	1.678	1511.7	2953.	42.81	0.517
3100.	2.758	34.942	5.99	2.502	67.66	0.11	27.884	37.054	45.816	1.720	1513.1	3050.	42.71	0.538
3200.	2.696	34.938	5.91	2.431	67.56	0.09	27.886	37.061	45.826	1.763	1514.5	3148.	42.62	0.529
3300.	2.639	34.930	5.90	2.365	67.33	0.10	27.886	37.064	45.832	1.806	1515.9	3246.	42.86	0.401
3400.	2.608	34.926	5.82	2.323	66.89	0.10	27.886	37.066	45.837	1.849	1517.5	3343.	43.19	0.358
3500.	2.582	34.923	5.80	2.287	67.19	0.12	27.887	37.069	45.842	1.892	1519.1	3441.	43.48	0.372
3600.	2.548	34.920	5.76	2.244	66.94	0.10	27.887	37.072	45.847	1.936	1520.7	3538.	43.74	0.387
3700.	2.521	34.915	5.75	2.206	66.76	0.06	27.887	37.074	45.851	1.980	1522.3	3636.	44.14	0.313
3800.	2.492	34.911	5.71	2.167	65.84	0.07	27.887	37.077	45.855	2.024	1523.9	3733.	44.40	0.379

Sample data

3818.	2.492	34.910	5.69	2.165
3399.	2.608	34.926	5.81	2.323
3100.	2.758	34.942	5.98	2.502
2581.	3.122	34.956	6.26	2.911
1579.	3.669	34.908	6.50	3.545
1257.	4.054	34.927	6.29	3.955
691.	7.091	35.228	5.04	7.024
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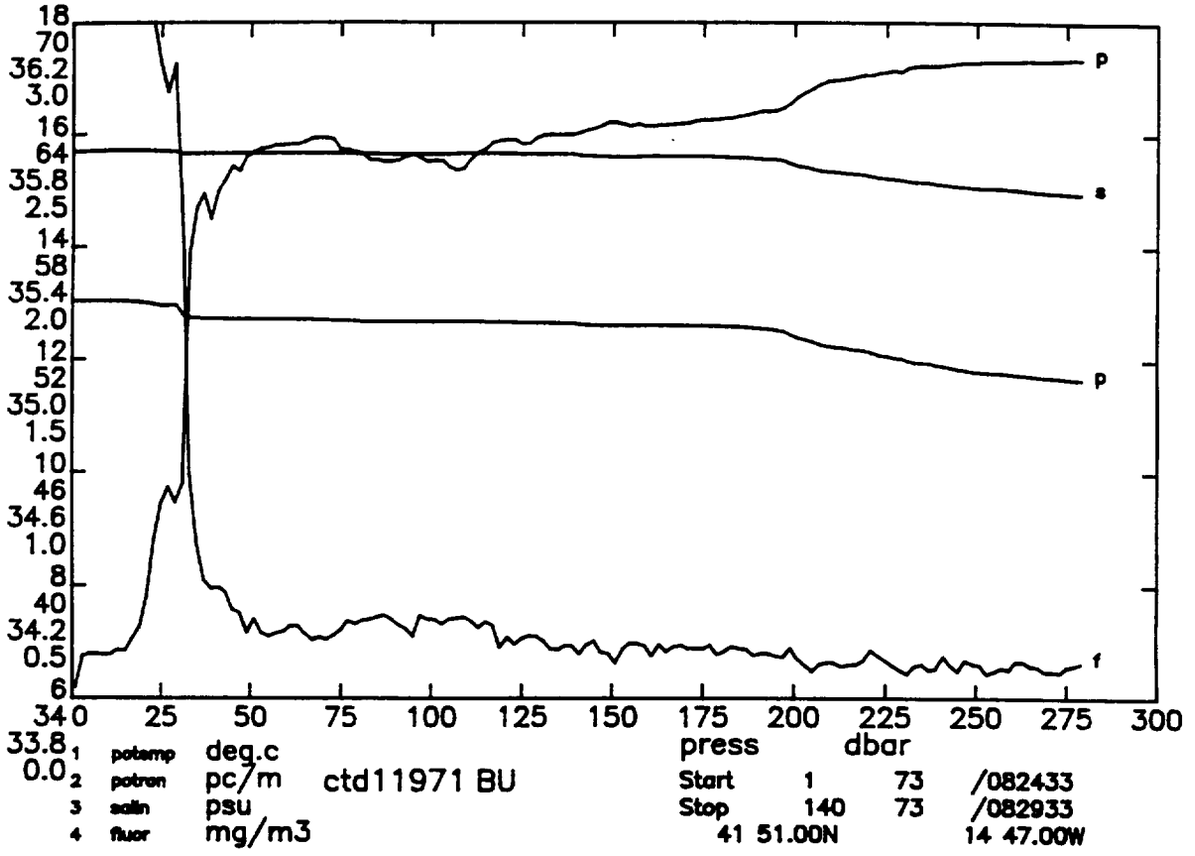
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press dbar
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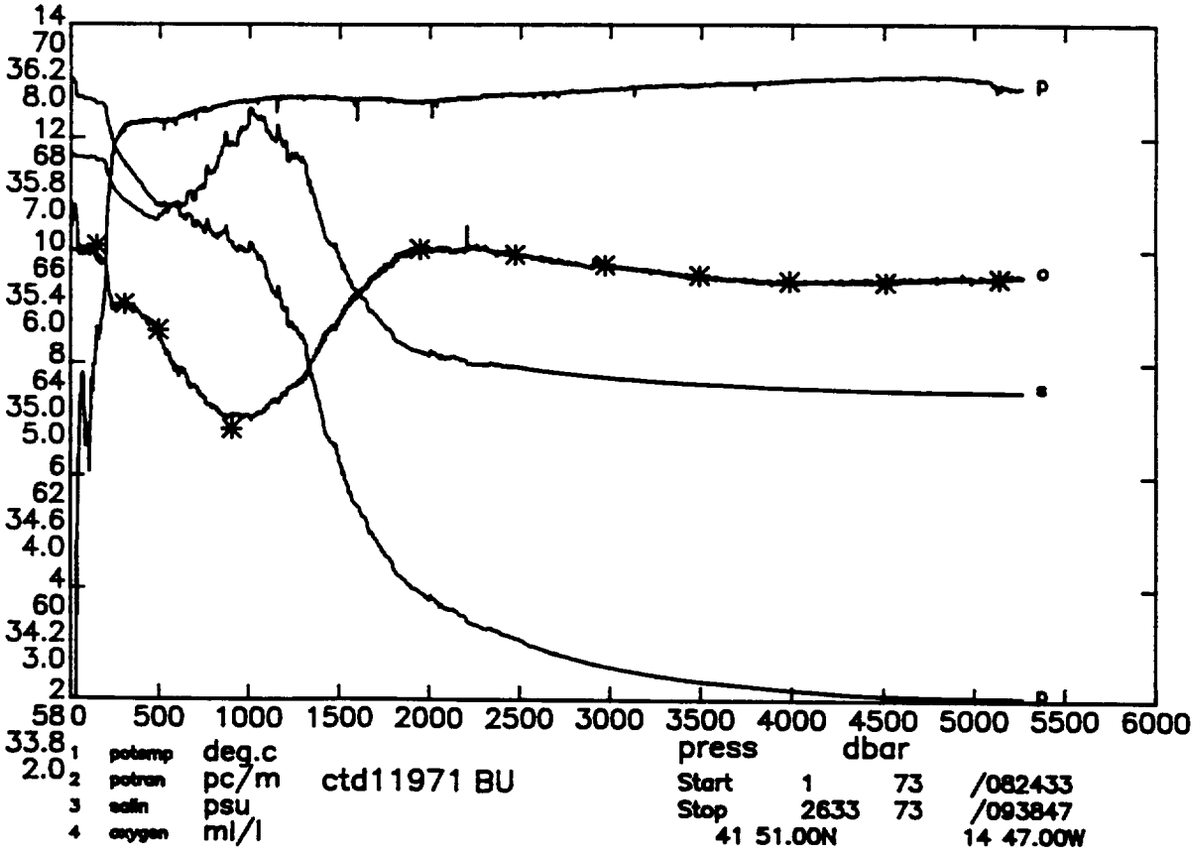
2 potrcn pc/m
3 salin psu
4 fluor mg/m3
ctd11971 BU
Start 1 73 /082433
Stop 140 73 /082933
41 51.00N 14 47.00W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p
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press dbar
1 potemp deg.c
2 potrcn pc/m
3 salin psu
4 oxygen ml/l
ctd11971 BU
Start 1 73 /082433
Stop 2633 73 /093847
41 51.00N 14 47.00W

DISCOVERY CRUISE 189 STATION 11971

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	13.044	35.738	6.26	13.043	36.33	4.62	26.957	35.635	43.934	0.011	1501.4	10.	109.20	-9.999
20.	13.017	35.738	6.38	13.014	38.62	3.71	26.962	35.641	43.942	0.022	1501.5	20.	108.96	1.345
30.	12.885	35.732	6.33	12.881	44.89	2.49	26.984	35.668	43.974	0.033	1501.2	30.	107.18	2.632
40.	12.739	35.732	6.07	12.733	60.22	0.49	27.014	35.704	44.015	0.043	1500.9	40.	104.66	3.063
50.	12.733	35.732	5.97	12.726	62.92	0.32	27.016	35.706	44.017	0.054	1501.0	50.	104.77	0.765
60.	12.732	35.732	6.00	12.724	63.44	0.31	27.016	35.706	44.018	0.064	1501.2	60.	105.03	0.359
70.	12.729	35.732	5.98	12.719	63.82	0.27	27.017	35.708	44.019	0.075	1501.3	69.	105.21	0.601
80.	12.705	35.729	6.02	12.694	63.00	0.34	27.019	35.711	44.023	0.085	1501.4	79.	105.30	0.823
90.	12.695	35.728	6.02	12.682	62.57	0.34	27.021	35.713	44.026	0.096	1501.5	89.	105.46	0.685
100.	12.697	35.728	6.00	12.683	62.56	0.35	27.021	35.713	44.026	0.106	1501.7	99.	105.75	0.071
120.	12.693	35.731	5.98	12.677	63.69	0.25	27.024	35.717	44.030	0.127	1502.0	119.	105.99	0.758
140.	12.663	35.725	5.94	12.644	64.03	0.21	27.027	35.720	44.034	0.149	1502.2	139.	106.35	0.609
160.	12.637	35.720	5.93	12.615	64.42	0.21	27.028	35.723	44.039	0.170	1502.5	159.	106.74	0.560
180.	12.621	35.717	5.90	12.596	64.83	0.20	27.030	35.725	44.041	0.191	1502.8	179.	107.21	0.437
200.	12.435	35.690	5.85	12.408	65.84	0.20	27.046	35.749	44.072	0.213	1502.4	198.	106.18	1.638
220.	12.175	35.652	5.60	12.146	67.18	0.19	27.068	35.782	44.115	0.234	1501.8	218.	104.57	1.906
240.	11.938	35.622	5.47	11.906	67.72	0.16	27.091	35.814	44.157	0.255	1501.3	238.	102.85	1.947
260.	11.795	35.605	5.50	11.761	67.96	0.14	27.105	35.835	44.183	0.275	1501.1	258.	101.98	1.540
280.	11.685	35.590	5.51	11.648	68.05	0.15	27.115	35.849	44.202	0.295	1501.1	278.	101.52	1.295
300.	11.596	35.577	5.52	11.558	68.13	0.14	27.122	35.860	44.216	0.316	1501.1	297.	101.36	1.083
350.	11.391	35.552	5.51	11.346	68.25	0.13	27.142	35.889	44.254	0.366	1501.2	347.	100.64	1.173
400.	11.192	35.532	5.40	11.142	68.28	0.13	27.164	35.920	44.293	0.416	1501.3	396.	99.68	1.231
450.	10.985	35.514	5.35	10.929	68.30	0.13	27.189	35.953	44.334	0.466	1501.4	446.	98.48	1.290
500.	10.857	35.521	5.20	10.794	68.28	0.16	27.219	35.989	44.375	0.515	1501.8	495.	96.79	1.410
550.	10.863	35.547	5.07	10.794	68.30	0.13	27.239	36.009	44.395	0.563	1502.6	545.	96.13	1.134
600.	10.818	35.570	4.93	10.743	68.35	0.13	27.266	36.037	44.425	0.611	1503.3	594.	94.84	1.310
650.	10.683	35.578	4.87	10.603	68.41	0.11	27.297	36.075	44.467	0.658	1503.7	644.	92.94	1.453
700.	10.536	35.587	4.78	10.450	68.46	0.12	27.332	36.115	44.514	0.703	1504.0	693.	90.72	1.523
750.	10.403	35.625	4.68	10.311	68.51	0.14	27.386	36.175	44.578	0.748	1504.4	743.	86.69	1.879
800.	10.344	35.675	4.60	10.245	68.52	0.13	27.436	36.227	44.632	0.790	1505.1	792.	83.09	1.798
850.	10.413	35.762	4.53	10.308	68.57	0.14	27.494	36.281	44.682	0.831	1506.3	842.	79.07	1.877
900.	10.242	35.776	4.52	10.131	68.62	0.12	27.535	36.329	44.738	0.869	1506.5	891.	76.07	1.685
950.	10.140	35.818	4.52	10.024	68.64	0.16	27.587	36.385	44.797	0.906	1507.0	940.	72.26	1.836
1000.	10.207	35.887	4.51	10.084	68.65	0.16	27.630	36.425	44.833	0.942	1508.2	990.	69.55	1.622
1200.	9.098	35.782	4.71	8.958	68.70	0.14	27.738	36.582	45.037	1.073	1507.3	1187.	61.50	1.460
1400.	7.213	35.494	5.19	7.068	68.71	0.15	27.798	36.731	45.270	1.190	1503.2	1384.	54.29	1.373
1600.	5.596	35.253	5.61	5.447	68.66	0.15	27.822	36.836	45.451	1.293	1499.9	1581.	49.50	1.160
1800.	4.482	35.089	5.92	4.327	68.67	0.16	27.822	36.894	45.564	1.389	1498.5	1778.	47.43	0.883
2000.	3.978	35.030	6.00	3.811	68.63	0.12	27.830	36.930	45.625	1.483	1499.7	1975.	46.40	0.734
2200.	3.641	35.005	6.01	3.459	68.72	0.15	27.845	36.964	45.676	1.575	1501.6	2171.	45.11	0.742
2400.	3.379	34.989	5.97	3.182	68.76	0.14	27.859	36.993	45.719	1.664	1503.9	2368.	44.02	0.702
2600.	3.151	34.974	5.94	2.939	68.78	0.15	27.870	37.017	45.756	1.751	1506.3	2564.	43.19	0.657
2800.	2.976	34.960	5.88	2.747	68.83	0.09	27.876	37.033	45.782	1.837	1508.9	2760.	42.93	0.564
3000.	2.842	34.948	5.86	2.594	68.86	0.09	27.880	37.046	45.802	1.923	1511.7	2955.	42.98	0.503
3200.	2.743	34.939	5.83	2.477	68.92	0.08	27.883	37.055	45.818	2.009	1514.7	3151.	43.28	0.448
3400.	2.662	34.930	5.78	2.376	68.93	0.10	27.885	37.062	45.830	2.096	1517.8	3346.	43.75	0.408
3600.	2.615	34.925	5.75	2.309	68.97	0.08	27.886	37.067	45.839	2.184	1521.0	3542.	44.45	0.350
3800.	2.574	34.919	5.72	2.246	68.97	0.12	27.887	37.071	45.846	2.274	1524.2	3737.	45.22	0.330
3900.	2.552	34.915	5.72	2.214	68.98	0.06	27.886	37.073	45.849	2.319	1525.8	3834.	45.64	0.305
4000.	2.537	34.912	5.73	2.188	69.01	0.05	27.886	37.074	45.852	2.365	1527.5	3932.	46.07	0.297
4100.	2.524	34.910	5.72	2.164	69.03	0.05	27.887	37.076	45.855	2.411	1529.2	4029.	46.46	0.319
4200.	2.508	34.908	5.73	2.136	69.03	0.06	27.887	37.078	45.858	2.458	1530.8	4126.	46.85	0.320
4300.	2.500	34.906	5.72	2.116	69.05	0.08	27.887	37.079	45.860	2.505	1532.5	4224.	47.33	0.262
4400.	2.496	34.903	5.72	2.101	69.05	0.06	27.886	37.079	45.862	2.553	1534.2	4321.	47.90	0.203
4500.	2.497	34.902	5.72	2.090	69.06	0.08	27.886	37.080	45.863	2.601	1536.0	4418.	48.44	0.217
4600.	2.499	34.901	5.75	2.080	69.07	0.07	27.886	37.080	45.864	2.650	1537.7	4515.	49.02	0.190
4700.	2.504	34.900	5.74	2.072	69.08	0.06	27.886	37.081	45.865	2.699	1539.4	4612.	49.63	0.163
4800.	2.510	34.900	5.73	2.065	69.05	0.06	27.886	37.081	45.865	2.749	1541.2	4709.	50.24	0.168
4900.	2.518	34.899	5.75	2.061	69.09	0.05	27.886	37.081	45.865	2.800	1543.0	4807.	50.92	0.062
5000.	2.528	34.898	5.74	2.057	69.03	0.11	27.885	37.081	45.866	2.851	1544.8	4904.	51.58	0.104
5100.	2.537	34.897	5.75	2.054	68.94	0.16	27.885	37.081	45.866	2.903	1546.5	5000.	52.25	0.098
5200.	2.547	34.897	5.76	2.050	68.88	0.24	27.886	37.081	45.867	2.955	1548.3	5097.	52.87	0.163

Sample data

5135.	2.540	34.897	5.75	2.052
4508.	2.497	34.901	5.72	2.089
3982.	2.539	34.912	5.73	2.192
3487.	2.633	34.927	5.78	2.339
2966.	2.859	34.951	5.87	2.615
2468.	3.307	34.988	5.96	3.105
1941.	4.096	35.044	6.01	3.933
896.	10.246	35.910	4.41	10.136
487.	10.864	35.508	5.29	10.803
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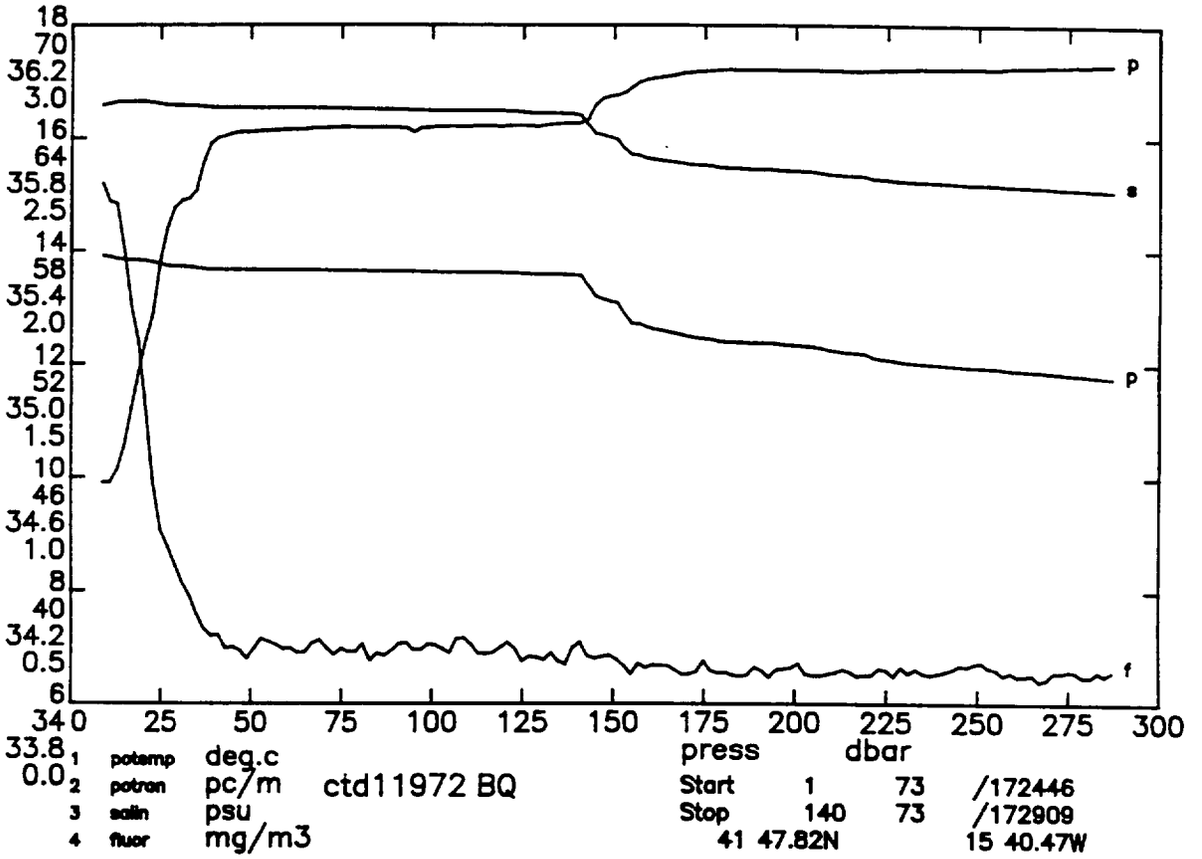
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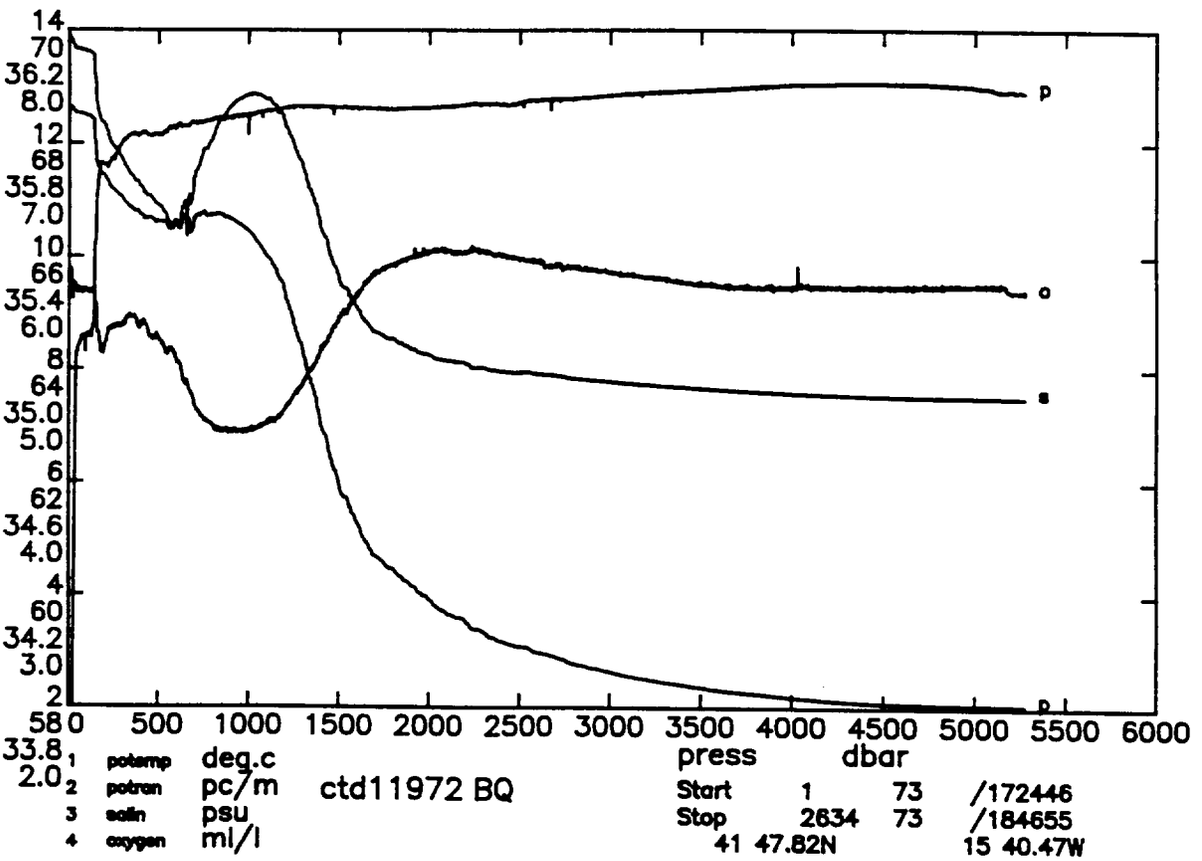
Stop 140 73 /172909
41 47.82N 15 40.47W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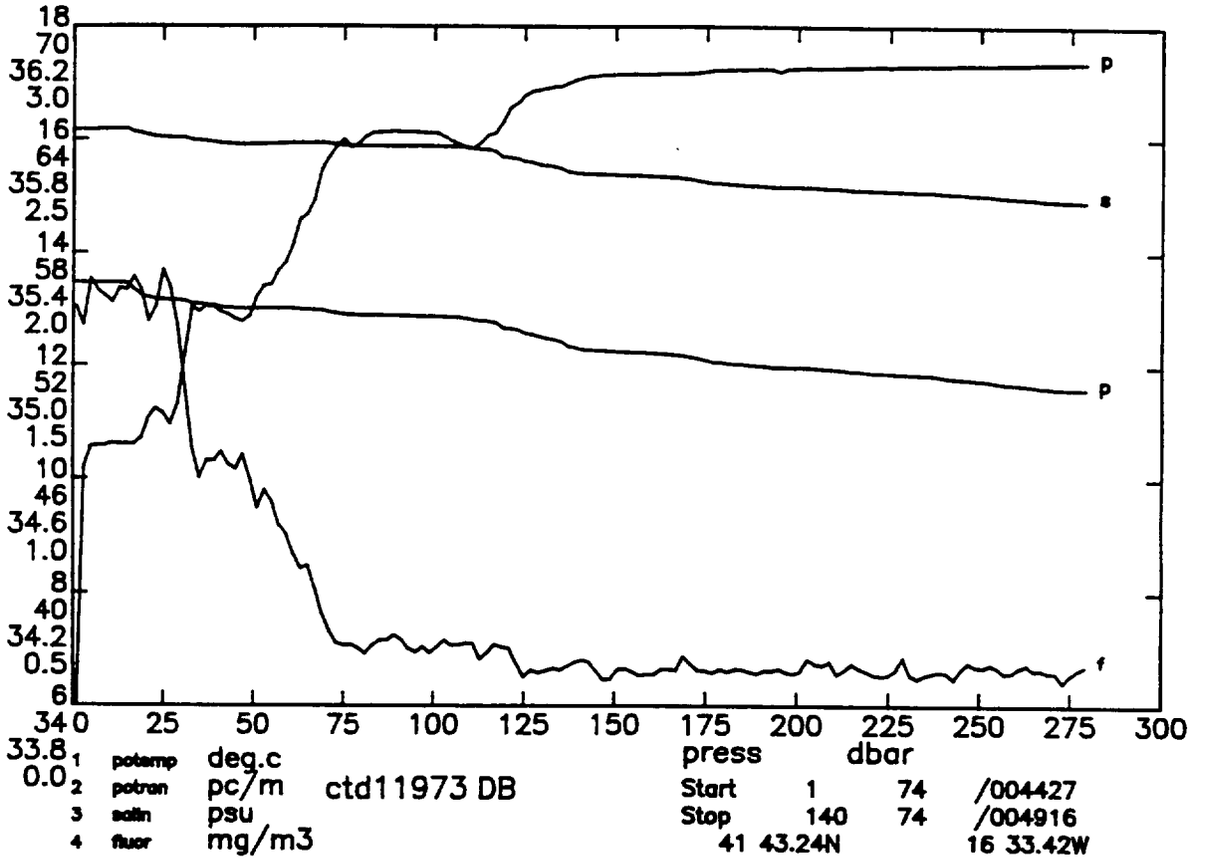
ctd11972 BQ
Start 1 73 /172446
Stop 2634 73 /184655
41 47.82N 15 40.47W

DISCOVERY CRUISE 189 STATION 11972

pres db	temp degc90	salin	oxygen ml/l	potemp degc90	potran %/m	fluor mg/m^3	sigma0 kg/m^3	sigma2 kg/m^3	sigma4 kg/m^3	dynht dyn.m	sndv m/s	depth m	svanom $10^{-8}m^3/kg$	bvfr cy/hr
10.	13.904	35.919	5.83	13.902	45.72	2.26	26.919	35.562	43.829	0.011	1504.4	10.	112.81	-9.999
20.	13.834	35.927	5.78	13.831	52.43	1.44	26.940	35.586	43.855	0.022	1504.4	20.	111.13	2.576
30.	13.738	35.914	5.74	13.734	60.48	0.58	26.950	35.600	43.873	0.034	1504.2	30.	110.47	1.799
40.	13.683	35.907	5.75	13.678	63.85	0.30	26.957	35.609	43.884	0.045	1504.2	40.	110.13	1.473
50.	13.679	35.907	5.69	13.672	64.33	0.22	26.957	35.609	43.885	0.056	1504.3	50.	110.40	0.390
60.	13.677	35.906	5.71	13.669	64.44	0.24	26.958	35.610	43.885	0.067	1504.5	60.	110.68	0.334
70.	13.672	35.905	5.70	13.662	64.52	0.27	26.958	35.610	43.886	0.078	1504.6	69.	110.96	0.297
80.	13.662	35.903	5.68	13.651	64.57	0.25	26.959	35.612	43.888	0.089	1504.8	79.	111.20	0.485
90.	13.658	35.902	5.70	13.645	64.57	0.25	26.959	35.612	43.889	0.100	1504.9	89.	111.47	0.364
100.	13.643	35.897	5.71	13.629	64.58	0.26	26.959	35.613	43.890	0.111	1505.0	99.	111.78	0.119
120.	13.632	35.894	5.70	13.615	64.60	0.26	26.959	35.614	43.891	0.134	1505.3	119.	112.37	0.221
140.	13.582	35.882	5.69	13.562	64.78	0.26	26.961	35.618	43.897	0.156	1505.5	139.	112.81	0.541
160.	12.650	35.725	5.35	12.629	67.14	0.17	27.029	35.723	44.038	0.178	1502.5	159.	106.69	3.349
180.	12.416	35.692	5.16	12.392	67.65	0.14	27.051	35.755	44.079	0.199	1502.0	179.	105.13	1.890
200.	12.355	35.682	5.21	12.328	67.61	0.17	27.056	35.762	44.088	0.220	1502.1	198.	105.22	0.893
220.	12.180	35.658	5.35	12.150	67.60	0.13	27.071	35.785	44.118	0.241	1501.9	218.	104.22	1.617
240.	12.022	35.639	5.37	11.990	67.71	0.14	27.088	35.808	44.147	0.262	1501.6	238.	103.17	1.641
260.	11.928	35.627	5.37	11.894	67.80	0.13	27.097	35.821	44.164	0.282	1501.6	258.	102.78	1.250
280.	11.837	35.617	5.38	11.801	67.89	0.12	27.106	35.835	44.181	0.303	1501.6	278.	102.40	1.250
300.	11.724	35.602	5.39	11.685	68.03	0.14	27.117	35.850	44.201	0.323	1501.6	297.	101.84	1.356
350.	11.462	35.568	5.47	11.417	68.15	0.14	27.141	35.885	44.247	0.374	1501.4	347.	100.79	1.265
400.	11.281	35.547	5.40	11.230	68.17	0.14	27.159	35.911	44.280	0.424	1501.6	396.	100.21	1.129
450.	11.118	35.536	5.29	11.061	68.14	0.14	27.182	35.941	44.317	0.474	1501.9	446.	99.23	1.236
500.	10.952	35.523	5.27	10.889	68.15	0.11	27.203	35.969	44.351	0.523	1502.1	495.	98.37	1.196
550.	10.709	35.505	5.13	10.641	68.23	0.12	27.234	36.011	44.403	0.572	1502.0	545.	96.44	1.464
600.	10.658	35.522	5.07	10.583	68.29	0.14	27.257	36.036	44.430	0.620	1502.7	594.	95.44	1.225
650.	10.760	35.593	4.86	10.679	68.29	0.17	27.296	36.069	44.459	0.668	1504.0	644.	93.23	1.523
700.	10.734	35.677	4.68	10.647	68.35	0.13	27.367	36.141	44.531	0.713	1504.8	693.	87.75	2.127
750.	10.874	35.776	4.56	10.779	68.38	0.13	27.421	36.188	44.571	0.756	1506.3	743.	84.20	1.796
800.	10.815	35.817	4.50	10.714	68.43	0.16	27.464	36.234	44.619	0.797	1506.9	792.	81.28	1.678
850.	10.847	35.888	4.45	10.739	68.44	0.15	27.515	36.282	44.665	0.837	1508.0	842.	77.87	1.773
900.	10.772	35.929	4.44	10.658	68.43	0.17	27.562	36.332	44.717	0.875	1508.6	891.	74.65	1.738
950.	10.677	35.957	4.45	10.557	68.48	0.15	27.601	36.375	44.764	0.912	1509.1	940.	72.01	1.618
1000.	10.564	35.971	4.46	10.438	68.34	0.17	27.634	36.412	44.806	0.947	1509.5	990.	69.97	1.490
1200.	9.514	35.877	4.64	9.371	68.63	0.17	27.744	36.569	45.006	1.079	1509.0	1187.	61.98	1.465
1400.	7.138	35.495	5.19	6.993	68.65	0.19	27.810	36.746	45.288	1.194	1502.9	1384.	53.00	1.481
1600.	5.435	35.219	5.66	5.288	68.63	0.16	27.815	36.837	45.459	1.296	1499.2	1581.	49.57	1.052
1800.	4.608	35.108	5.92	4.451	68.59	0.14	27.824	36.890	45.553	1.392	1499.1	1778.	47.81	0.852
2000.	4.082	35.050	6.04	3.913	68.63	0.18	27.835	36.929	45.619	1.487	1500.2	1975.	46.44	0.779
2200.	3.727	35.021	6.03	3.543	68.68	0.17	27.849	36.963	45.672	1.578	1502.0	2171.	45.18	0.743
2400.	3.376	34.991	6.00	3.179	68.67	0.15	27.862	36.995	45.722	1.666	1503.9	2368.	43.79	0.740
2600.	3.198	34.984	5.96	2.984	68.77	0.15	27.874	37.018	45.754	1.754	1506.5	2564.	43.19	0.628
2800.	3.018	34.967	5.91	2.787	68.80	0.09	27.878	37.033	45.780	1.840	1509.1	2760.	43.02	0.552
3000.	2.891	34.956	5.86	2.643	68.84	0.13	27.883	37.045	45.799	1.926	1511.9	2955.	43.15	0.493
3200.	2.780	34.946	5.82	2.513	68.88	0.12	27.885	37.055	45.816	2.013	1514.9	3151.	43.37	0.468
3400.	2.700	34.937	5.78	2.413	68.92	0.10	27.887	37.062	45.828	2.100	1517.9	3346.	43.87	0.406
3600.	2.625	34.929	5.75	2.319	68.96	0.06	27.889	37.070	45.840	2.188	1521.0	3542.	44.29	0.414
3800.	2.585	34.923	5.73	2.257	68.98	0.13	27.889	37.073	45.847	2.277	1524.3	3737.	45.14	0.309
3900.	2.561	34.920	5.72	2.222	69.01	0.09	27.890	37.076	45.852	2.323	1525.9	3834.	45.41	0.380
4000.	2.537	34.916	5.73	2.187	69.04	0.10	27.889	37.078	45.855	2.368	1527.5	3932.	45.76	0.343
4100.	2.527	34.914	5.72	2.166	69.05	0.10	27.890	37.079	45.858	2.414	1529.2	4029.	46.22	0.280
4200.	2.511	34.911	5.73	2.139	69.05	0.08	27.889	37.080	45.860	2.461	1530.8	4126.	46.66	0.292
4300.	2.505	34.909	5.73	2.121	69.06	0.09	27.889	37.081	45.862	2.508	1532.5	4224.	47.15	0.262
4400.	2.496	34.907	5.73	2.101	69.06	0.09	27.889	37.082	45.865	2.555	1534.2	4321.	47.61	0.273
4500.	2.495	34.906	5.73	2.087	69.06	0.10	27.889	37.083	45.866	2.603	1535.9	4418.	48.18	0.202
4600.	2.499	34.905	5.74	2.080	69.07	0.09	27.889	37.083	45.867	2.651	1537.7	4515.	48.78	0.168
4700.	2.505	34.904	5.73	2.073	69.06	0.06	27.889	37.083	45.867	2.700	1539.5	4612.	49.40	0.153
4800.	2.511	34.903	5.73	2.066	69.04	0.06	27.889	37.084	45.868	2.750	1541.2	4709.	50.02	0.153
4900.	2.521	34.903	5.75	2.064	69.01	0.06	27.889	37.084	45.868	2.800	1543.0	4807.	50.68	0.112
5000.	2.531	34.902	5.75	2.060	68.99	0.05	27.889	37.084	45.868	2.851	1544.8	4904.	51.34	0.100
5100.	2.540	34.902	5.76	2.056	68.95	0.15	27.888	37.084	45.868	2.903	1546.5	5000.	52.02	0.086
5200.	2.552	34.901	5.69	2.055	68.93	0.20	27.888	37.083	45.868	2.955	1548.3	5097.	52.76	-0.111

Sample data

5171.	2.548	34.901	5.72	2.055
4529.	2.497	34.904	5.75	2.086
4025.	2.534	34.914	5.74	2.182
3551.	2.637	34.928	5.79	2.336
3062.	2.846	34.953	5.87	2.592
2478.	3.299	34.990	5.96	3.096
1960.	4.156	35.055	6.02	3.989
983.	10.603	35.965	4.38	10.479
891.	10.788	35.911	4.37	10.675
59.	13.677	35.903	5.86	13.669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3.0
16
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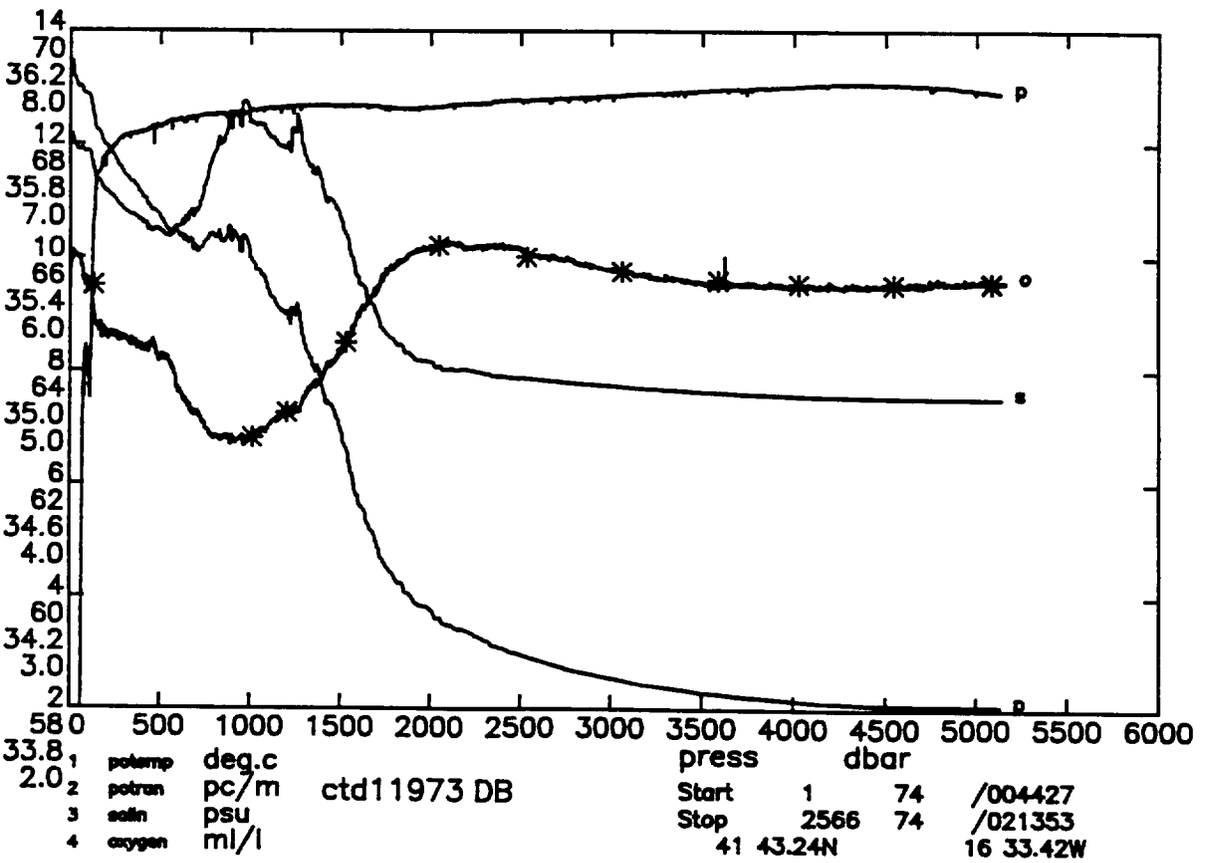
35.8
2.5
14
58
35.4
2.0
12
52
35.0
1.5
10
46
34.6
1.0
8
40
34.2
0.5
6
34
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11973 DB
Start 1 74 /004427
Stop 140 74 /004916
41 43.24N 16 33.42W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6
62
34.6
4.0
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60
34.2
3.0
2
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11973 DB
Start 1 74 /004427
Stop 2566 74 /021353
41 43.24N 16 33.42W

DISCOVERY CRUISE 189 STATION 11973

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.466	35.834	6.00	13.465	47.81	1.79	26.944	35.605	43.889	0.011	1502.9	10.	110.39	-9.999
20.	13.230	35.816	6.05	13.227	48.68	1.77	26.979	35.649	43.941	0.022	1502.3	20.	107.39	3.318
30.	13.157	35.803	6.01	13.153	51.29	1.54	26.984	35.657	43.952	0.033	1502.2	30.	107.19	1.300
40.	13.057	35.786	6.01	13.051	54.99	1.10	26.991	35.669	43.968	0.043	1502.0	40.	106.79	1.526
50.	13.010	35.780	6.00	13.004	55.15	0.94	26.996	35.676	43.976	0.054	1502.0	50.	106.61	1.265
60.	13.020	35.784	5.94	13.012	57.94	0.72	26.998	35.677	43.977	0.065	1502.2	60.	106.77	0.692
70.	12.974	35.783	5.90	12.964	62.70	0.37	27.007	35.688	43.990	0.075	1502.2	69.	106.19	1.703
80.	12.905	35.773	5.81	12.894	63.92	0.24	27.014	35.697	44.002	0.086	1502.1	79.	105.84	1.473
90.	12.897	35.773	5.77	12.885	64.40	0.30	27.016	35.699	44.004	0.097	1502.3	89.	105.97	0.738
100.	12.883	35.773	5.74	12.869	64.31	0.25	27.018	35.703	44.008	0.107	1502.4	99.	106.00	0.949
120.	12.679	35.735	5.77	12.663	65.25	0.26	27.030	35.723	44.037	0.128	1502.0	119.	105.40	1.406
140.	12.323	35.677	5.40	12.304	67.21	0.20	27.056	35.764	44.091	0.149	1501.0	139.	103.43	2.064
160.	12.244	35.668	5.37	12.223	67.48	0.14	27.065	35.775	44.106	0.170	1501.1	159.	103.19	1.160
180.	12.079	35.643	5.34	12.055	67.72	0.16	27.078	35.796	44.132	0.190	1500.8	179.	102.45	1.471
200.	11.996	35.631	5.31	11.970	67.81	0.15	27.085	35.806	44.147	0.211	1500.9	198.	102.27	1.108
220.	11.909	35.619	5.32	11.880	67.88	0.15	27.093	35.818	44.162	0.231	1500.9	218.	102.04	1.146
240.	11.835	35.608	5.30	11.803	67.92	0.15	27.100	35.828	44.174	0.252	1501.0	238.	101.95	1.036
260.	11.713	35.591	5.27	11.679	68.00	0.16	27.110	35.843	44.195	0.272	1500.8	258.	101.46	1.313
280.	11.622	35.579	5.28	11.586	68.09	0.17	27.118	35.856	44.211	0.292	1500.8	278.	101.15	1.197
300.	11.497	35.563	5.27	11.458	68.12	0.14	27.130	35.872	44.232	0.313	1500.7	297.	100.55	1.379
350.	11.356	35.547	5.23	11.312	68.18	0.16	27.144	35.893	44.259	0.363	1501.0	347.	100.40	0.992
400.	11.135	35.523	5.19	11.085	68.18	0.15	27.167	35.926	44.300	0.413	1501.1	396.	99.34	1.259
450.	10.899	35.489	5.24	10.843	68.27	0.16	27.185	35.954	44.338	0.462	1501.0	446.	98.71	1.132
500.	10.749	35.489	5.10	10.687	68.29	0.12	27.213	35.988	44.378	0.511	1501.3	495.	97.23	1.354
550.	10.526	35.472	5.04	10.458	68.39	0.15	27.241	36.025	44.425	0.559	1501.4	545.	95.60	1.389
600.	10.494	35.505	4.80	10.420	68.42	0.15	27.273	36.059	44.459	0.607	1502.1	594.	93.75	1.435
650.	10.350	35.528	4.68	10.270	68.45	0.15	27.318	36.109	44.515	0.653	1502.4	644.	90.59	1.714
700.	10.230	35.564	4.61	10.145	68.41	0.16	27.368	36.164	44.575	0.697	1502.9	693.	86.94	1.806
750.	10.361	35.655	4.48	10.269	68.50	0.17	27.417	36.207	44.611	0.740	1504.3	743.	83.76	1.716
800.	10.475	35.766	4.41	10.376	68.50	0.13	27.485	36.269	44.667	0.781	1505.7	792.	78.81	2.037
850.	10.382	35.803	4.41	10.277	68.51	0.13	27.531	36.319	44.721	0.819	1506.2	842.	75.54	1.739
900.	10.473	35.885	4.37	10.360	68.53	0.14	27.580	36.363	44.761	0.856	1507.5	891.	72.36	1.721
950.	10.197	35.862	4.40	10.080	68.58	0.14	27.611	36.406	44.815	0.892	1507.3	940.	70.11	1.528
1000.	10.103	35.879	4.40	9.980	68.58	0.15	27.642	36.441	44.853	0.926	1507.8	990.	68.26	1.433
1200.	9.140	35.786	4.59	8.999	68.63	0.18	27.734	36.576	45.029	1.055	1507.5	1187.	61.95	1.355
1400.	7.826	35.638	4.95	7.674	68.67	0.17	27.824	36.727	45.238	1.169	1505.8	1384.	53.84	1.435
1600.	5.830	35.317	5.49	5.678	68.67	0.17	27.844	36.846	45.449	1.271	1500.9	1581.	48.40	1.220
1800.	4.465	35.101	5.91	4.310	68.63	0.15	27.834	36.907	45.577	1.366	1498.5	1778.	46.28	0.894
2000.	3.912	35.029	6.09	3.745	68.63	0.14	27.836	36.939	45.637	1.458	1499.4	1975.	45.52	0.700
2200.	3.559	35.001	6.07	3.378	68.70	0.13	27.850	36.973	45.689	1.547	1501.3	2171.	44.22	0.739
2400.	3.268	34.978	6.08	3.073	68.75	0.11	27.860	37.000	45.732	1.635	1503.4	2368.	43.26	0.682
2600.	3.065	34.966	5.99	2.853	68.79	0.15	27.872	37.023	45.766	1.720	1505.9	2564.	42.50	0.640
2800.	2.903	34.954	5.94	2.674	68.81	0.10	27.878	37.039	45.791	1.805	1508.6	2760.	42.27	0.553
3000.	2.797	34.946	5.88	2.551	68.85	0.12	27.882	37.050	45.809	1.890	1511.5	2956.	42.49	0.469
3200.	2.689	34.935	5.82	2.425	68.89	0.09	27.884	37.059	45.825	1.975	1514.5	3151.	42.76	0.450
3400.	2.627	34.928	5.78	2.343	68.88	0.09	27.886	37.065	45.835	2.061	1517.6	3346.	43.34	0.378
3600.	2.575	34.922	5.73	2.270	68.97	0.08	27.887	37.071	45.844	2.148	1520.8	3542.	43.97	0.364
3700.	2.548	34.918	5.75	2.232	68.97	0.09	27.887	37.073	45.848	2.192	1522.4	3639.	44.33	0.337
3800.	2.535	34.916	5.74	2.208	69.00	0.09	27.887	37.074	45.851	2.237	1524.1	3737.	44.78	0.286
3900.	2.524	34.914	5.73	2.187	69.01	0.07	27.888	37.076	45.854	2.282	1525.7	3834.	45.23	0.287
4000.	2.507	34.911	5.73	2.158	69.02	0.12	27.888	37.077	45.857	2.327	1527.4	3932.	45.65	0.301
4100.	2.495	34.909	5.73	2.135	69.03	0.11	27.888	37.079	45.859	2.373	1529.0	4029.	46.09	0.284
4200.	2.490	34.908	5.73	2.119	69.06	0.06	27.888	37.080	45.862	2.420	1530.7	4126.	46.54	0.284
4300.	2.490	34.906	5.73	2.107	69.07	0.10	27.888	37.081	45.863	2.467	1532.5	4224.	47.13	0.175
4400.	2.488	34.905	5.73	2.093	69.05	0.08	27.888	37.081	45.864	2.514	1534.2	4321.	47.67	0.223
4500.	2.492	34.903	5.73	2.085	69.04	0.07	27.887	37.081	45.865	2.562	1535.9	4418.	48.29	0.142
4600.	2.496	34.902	5.74	2.077	69.05	0.05	27.887	37.082	45.865	2.610	1537.7	4515.	48.89	0.170
4700.	2.504	34.902	5.74	2.072	69.04	0.06	27.887	37.082	45.866	2.660	1539.4	4612.	49.51	0.147
4800.	2.512	34.901	5.76	2.068	69.01	0.07	27.887	37.082	45.866	2.710	1541.2	4710.	50.19	0.056
4900.	2.523	34.901	5.77	2.066	68.98	0.06	27.887	37.082	45.866	2.760	1543.0	4807.	50.83	0.132
5000.	2.534	34.901	5.77	2.064	68.94	0.09	27.887	37.082	45.867	2.811	1544.8	4904.	51.51	0.082
5100.	2.547	34.900	5.76	2.063	68.91	0.07	27.887	37.082	45.866	2.863	1546.6	5001.	52.22	-0.075

Sample data

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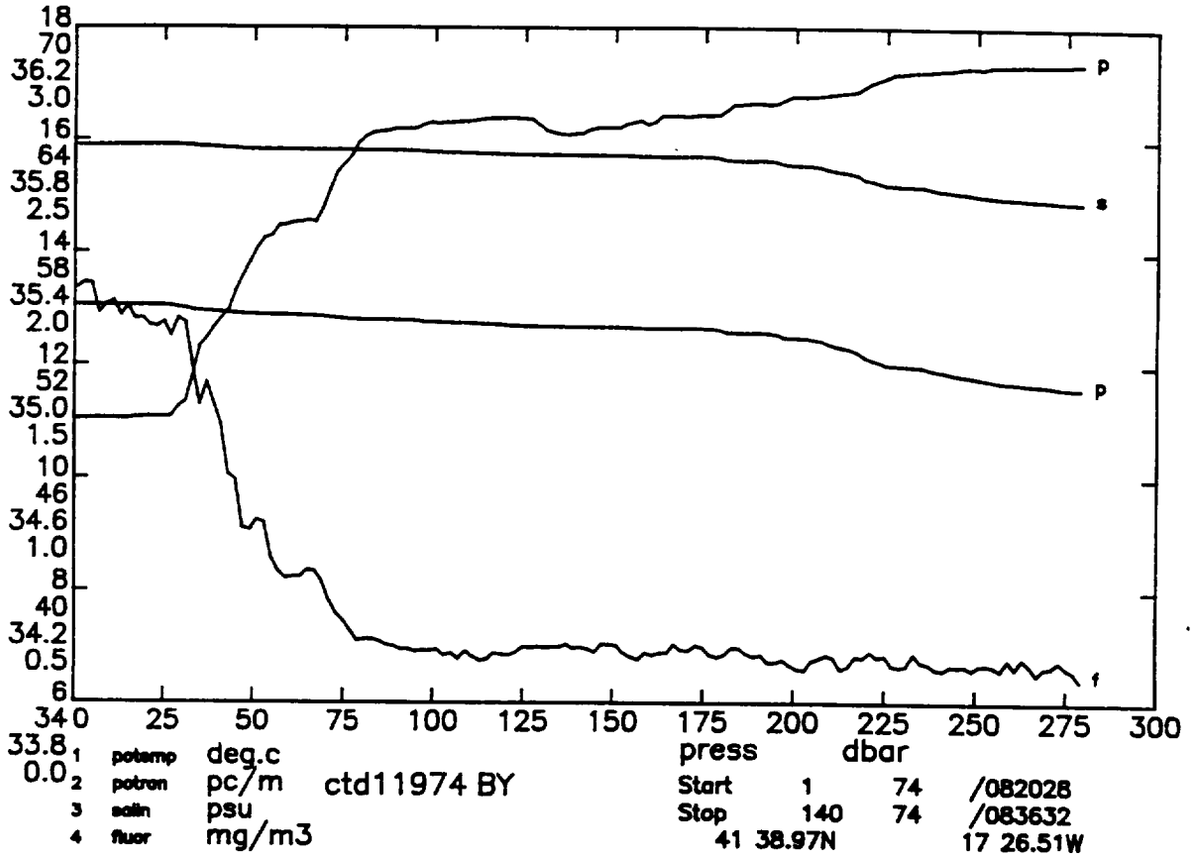
4518.	2.492	34.901	5.74	2.083
4000.	2.507	34.909	5.75	2.159
3559.	2.582	34.922	5.78	2.281
3035.	2.779	34.950	5.86	2.529
2509.	3.148	34.971	5.99	2.944
2023.	3.794	35.010	6.09	3.627
1509.	7.009	35.515	5.24	6.854
1181.	9.170	35.796	4.62	9.032
990.	10.322	35.911	4.40	10.199
121.	12.671	35.735	5.74	12.655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f
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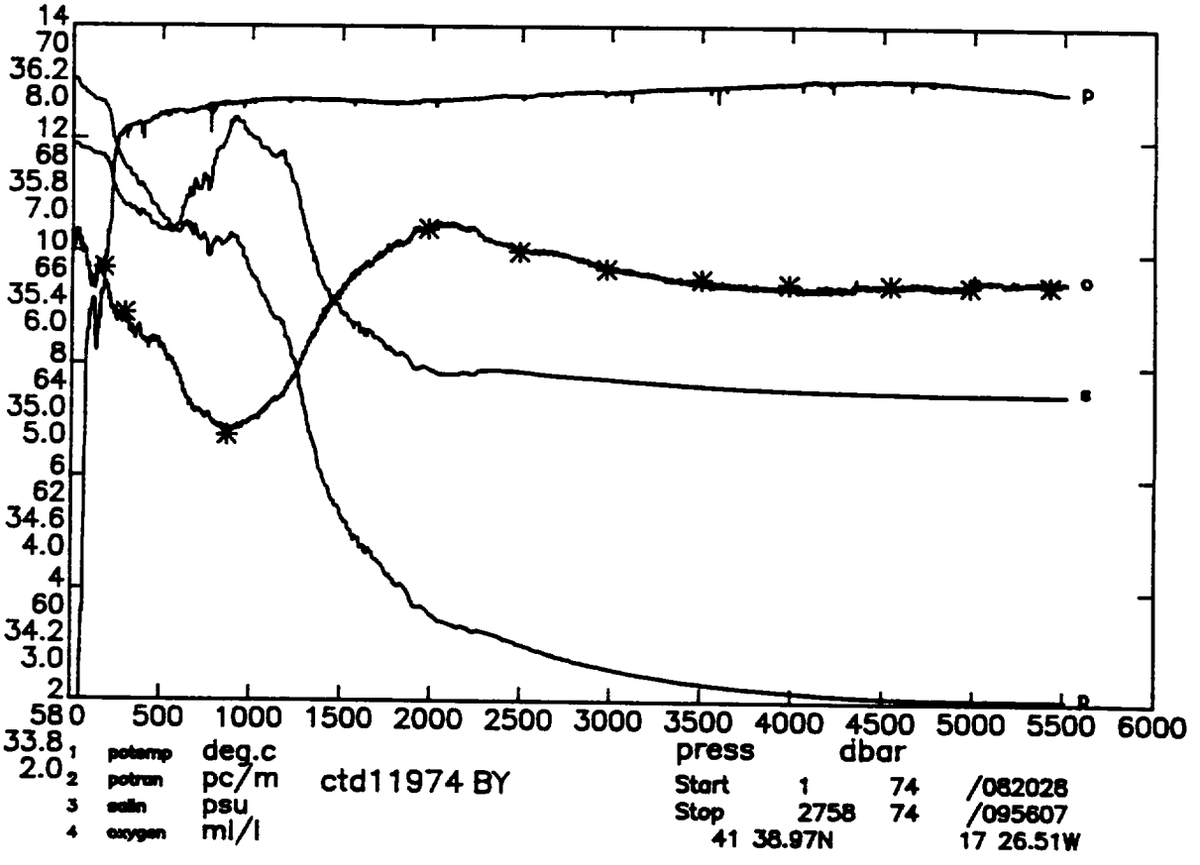
press dbar
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 fluor mg/m3
ctd11974 BY
Start 1 74 /082028
Stop 140 74 /083632
41 38.97N 17 26.51W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s
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press dbar
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11974 BY
Start 1 74 /082028
Stop 2758 74 /095607
41 38.97N 17 26.51W

DISCOVERY CRUISE 189 STATION 11974

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.059	35.778	6.07	13.058	49.13	1.78	26.985	35.662	43.960	0.011	1501.5	10.	106.55	-9.999
20.	13.059	35.778	6.14	13.057	49.20	1.69	26.985	35.662	43.961	0.021	1501.6	20.	106.83	0.262
30.	13.019	35.778	6.17	13.015	49.89	1.70	26.993	35.672	43.972	0.032	1501.7	30.	106.32	1.640
40.	12.944	35.771	6.18	12.938	54.24	1.28	27.003	35.684	43.988	0.043	1501.6	40.	105.71	1.736
50.	12.902	35.763	6.09	12.896	57.82	0.79	27.005	35.689	43.993	0.053	1501.6	50.	105.78	0.872
60.	12.890	35.762	5.98	12.882	59.51	0.56	27.007	35.691	43.997	0.064	1501.7	60.	105.87	0.844
70.	12.864	35.762	6.01	12.854	60.78	0.50	27.013	35.698	44.004	0.074	1501.8	69.	105.60	1.363
80.	12.816	35.760	5.91	12.805	64.00	0.28	27.021	35.708	44.016	0.085	1501.8	79.	105.13	1.598
90.	12.808	35.759	5.88	12.796	64.58	0.25	27.022	35.709	44.018	0.095	1501.9	89.	105.34	0.533
100.	12.772	35.753	5.77	12.758	64.88	0.24	27.025	35.714	44.024	0.106	1502.0	99.	105.33	1.009
120.	12.720	35.745	5.72	12.703	65.15	0.21	27.030	35.721	44.033	0.127	1502.1	119.	105.47	0.862
140.	12.695	35.743	5.80	12.675	64.33	0.25	27.034	35.726	44.039	0.148	1502.4	139.	105.64	0.836
160.	12.668	35.738	5.87	12.646	64.86	0.22	27.036	35.730	44.044	0.169	1502.6	159.	106.02	0.576
180.	12.625	35.730	5.80	12.601	65.46	0.21	27.039	35.734	44.050	0.191	1502.8	179.	106.36	0.637
200.	12.502	35.708	5.67	12.475	66.33	0.16	27.047	35.747	44.068	0.212	1502.7	198.	106.13	1.164
220.	12.148	35.655	5.49	12.119	66.96	0.22	27.075	35.790	44.124	0.233	1501.7	218.	103.88	2.167
240.	11.923	35.618	5.48	11.892	67.77	0.15	27.090	35.815	44.158	0.253	1501.3	238.	102.88	1.616
260.	11.734	35.592	5.44	11.701	68.04	0.17	27.106	35.839	44.189	0.274	1500.9	258.	101.82	1.638
280.	11.620	35.574	5.37	11.584	68.10	0.11	27.115	35.852	44.207	0.294	1500.8	278.	101.49	1.203
300.	11.509	35.560	5.41	11.471	68.17	0.16	27.125	35.867	44.227	0.315	1500.8	297.	100.97	1.331
350.	11.349	35.551	5.28	11.304	68.23	0.15	27.148	35.897	44.263	0.365	1501.0	347.	99.99	1.242
400.	11.152	35.531	5.20	11.101	68.25	0.19	27.171	35.928	44.302	0.415	1501.1	396.	99.04	1.229
450.	10.884	35.496	5.23	10.828	68.34	0.13	27.193	35.962	44.347	0.464	1501.0	446.	97.94	1.262
500.	10.680	35.477	5.17	10.619	68.43	0.12	27.216	35.994	44.388	0.513	1501.1	495.	96.83	1.260
550.	10.497	35.471	5.03	10.430	68.46	0.15	27.245	36.031	44.432	0.560	1501.3	545.	95.16	1.395
600.	10.408	35.499	4.89	10.334	68.48	0.18	27.284	36.073	44.477	0.607	1501.8	594.	92.63	1.586
650.	10.491	35.589	4.68	10.411	68.47	0.13	27.340	36.125	44.525	0.653	1503.0	644.	88.68	1.864
700.	10.337	35.619	4.58	10.251	68.52	0.18	27.392	36.183	44.589	0.696	1503.3	693.	84.82	1.846
750.	10.266	35.660	4.53	10.174	68.51	0.15	27.438	36.231	44.639	0.738	1504.0	743.	81.65	1.715
800.	10.285	35.736	4.46	10.187	68.59	0.16	27.495	36.287	44.693	0.777	1505.0	792.	77.55	1.889
850.	10.239	35.783	4.43	10.134	68.62	0.14	27.540	36.334	44.742	0.815	1505.7	842.	74.43	1.706
900.	10.386	35.870	4.41	10.274	68.61	0.13	27.584	36.371	44.772	0.852	1507.1	891.	71.82	1.605
950.	10.169	35.856	4.45	10.053	68.61	0.17	27.612	36.408	44.818	0.887	1507.2	940.	70.02	1.425
1000.	9.712	35.807	4.51	9.592	68.67	0.14	27.652	36.469	44.898	0.921	1506.3	990.	66.44	1.790
1200.	8.600	35.704	4.78	8.464	68.68	0.17	27.755	36.622	45.099	1.046	1505.4	1187.	58.52	1.440
1400.	6.052	35.280	5.46	5.919	68.69	0.16	27.785	36.775	45.368	1.156	1498.4	1384.	51.75	1.322
1600.	4.992	35.135	5.82	4.850	68.68	0.16	27.800	36.845	45.489	1.257	1497.3	1581.	49.25	0.943
1800.	4.239	35.036	6.06	4.087	68.63	0.14	27.806	36.892	45.573	1.354	1497.4	1778.	47.80	0.800
2000.	3.692	34.976	6.21	3.529	68.68	0.11	27.815	36.930	45.640	1.448	1498.4	1975.	46.34	0.769
2200.	3.479	34.968	6.19	3.300	68.71	0.13	27.832	36.959	45.680	1.540	1500.9	2171.	45.46	0.680
2400.	3.318	34.977	6.06	3.123	68.77	0.12	27.855	36.992	45.722	1.630	1503.6	2368.	44.04	0.735
2600.	3.111	34.965	6.00	2.899	68.81	0.13	27.867	37.016	45.757	1.717	1506.1	2564.	43.23	0.650
2800.	2.940	34.954	5.94	2.711	68.84	0.10	27.875	37.034	45.785	1.803	1508.7	2760.	42.81	0.585
3000.	2.827	34.946	5.87	2.580	68.84	0.11	27.880	37.047	45.804	1.889	1511.7	2956.	42.88	0.496
3200.	2.727	34.937	5.81	2.461	68.89	0.10	27.883	37.056	45.819	1.975	1514.6	3151.	43.18	0.449
3400.	2.645	34.929	5.74	2.360	68.90	0.05	27.885	37.064	45.832	2.062	1517.7	3347.	43.57	0.422
3600.	2.591	34.922	5.72	2.285	68.94	0.10	27.886	37.068	45.841	2.150	1520.9	3542.	44.26	0.349
3800.	2.551	34.915	5.70	2.224	68.97	0.07	27.886	37.072	45.848	2.239	1524.1	3737.	45.07	0.315
4000.	2.522	34.911	5.67	2.173	69.00	0.12	27.887	37.076	45.854	2.330	1527.4	3932.	45.87	0.313
4100.	2.512	34.909	5.66	2.151	69.04	0.06	27.887	37.077	45.857	2.376	1529.1	4029.	46.32	0.287
4200.	2.505	34.908	5.67	2.133	69.03	0.08	27.887	37.078	45.859	2.422	1530.8	4126.	46.80	0.265
4300.	2.501	34.906	5.68	2.117	69.06	0.05	27.887	37.079	45.861	2.470	1532.5	4224.	47.32	0.239
4400.	2.500	34.904	5.73	2.104	69.05	0.07	27.886	37.079	45.861	2.517	1534.2	4321.	47.91	0.174
4500.	2.504	34.904	5.70	2.097	69.07	0.10	27.887	37.080	45.863	2.565	1536.0	4418.	48.46	0.214
4600.	2.506	34.903	5.70	2.086	69.06	0.06	27.887	37.081	45.864	2.614	1537.7	4515.	49.03	0.201
4700.	2.508	34.902	5.73	2.076	69.04	0.05	27.887	37.081	45.865	2.664	1539.5	4612.	49.62	0.188
4800.	2.516	34.900	5.71	2.072	69.03	0.08	27.886	37.080	45.864	2.713	1541.2	4710.	50.33	-0.098
4900.	2.525	34.900	5.70	2.067	69.00	0.06	27.886	37.081	45.865	2.764	1543.0	4807.	50.92	0.191
5000.	2.535	34.900	5.70	2.065	68.99	0.07	27.887	37.082	45.866	2.815	1544.8	4904.	51.56	0.141
5100.	2.548	34.900	5.75	2.064	68.96	0.09	27.887	37.082	45.866	2.867	1546.6	5001.	52.26	-0.022
5200.	2.560	34.900	5.73	2.063	68.94	0.20	27.886	37.081	45.866	2.920	1548.4	5097.	52.97	-0.064
5300.	2.572	34.900	5.74	2.061	68.93	0.23	27.886	37.082	45.866	2.973	1550.2	5194.	53.65	0.102
5400.	2.583	34.899	5.75	2.059	68.89	0.22	27.886	37.081	45.866	3.027	1551.9	5291.	54.36	-0.044
5500.	2.596	34.898	5.75	2.058	68.85	0.22	27.886	37.081	45.866	3.082	1553.7	5388.	55.08	-0.046

Sample data

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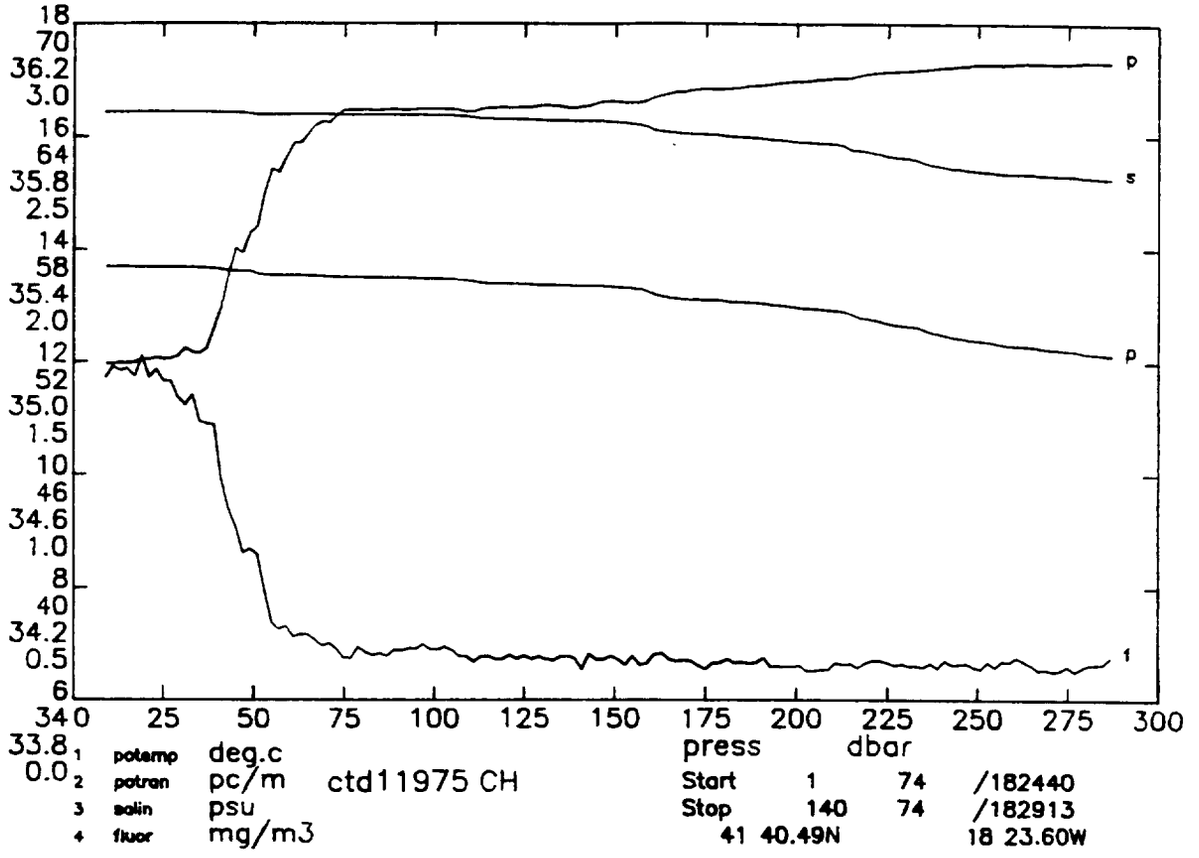
4979.	2.533	34.898	5.71	2.065
4541.	2.504	34.902	5.72	2.092
3985.	2.524	34.911	5.72	2.176
3504.	2.620	34.924	5.76	2.324
2977.	2.839	34.948	5.85	2.594
2490.	3.228	34.976	6.00	3.024
1983.	3.747	34.980	6.20	3.585
868.	10.312	35.860	4.36	10.205
298.	11.513	35.565	5.45	11.475
179.	12.647	35.738	5.85	12.623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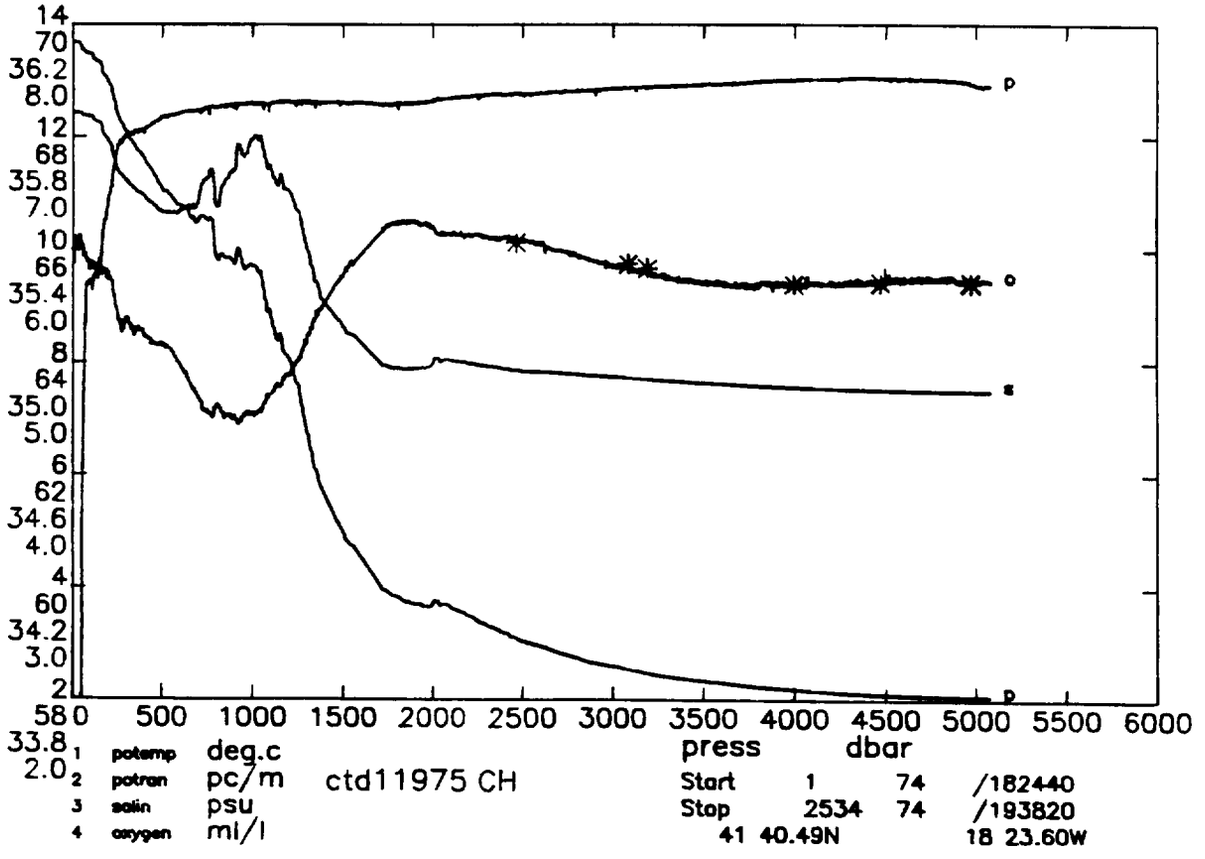
ctd11975 CH
Start 1 74 /182440
Stop 140 74 /182913
41 40.49N 18 23.60W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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11975 CH
Start 1 74 /182440
Stop 2534 74 /193820
41 40.49N 18 23.60W

DISCOVERY CRUISE 189 STATION 11975

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.694	35.887	5.96	13.692	51.90	1.46	26.938	35.589	43.864	0.011	1503.7	10.	111.01	-9.999
20.	13.693	35.887	6.12	13.690	52.17	1.48	26.938	35.590	43.865	0.022	1503.9	20.	111.27	0.422
30.	13.690	35.886	6.01	13.685	52.55	1.32	26.939	35.591	43.866	0.033	1504.0	30.	111.52	0.440
40.	13.663	35.886	6.13	13.657	54.36	1.10	26.944	35.597	43.873	0.045	1504.1	40.	111.33	1.298
50.	13.593	35.879	6.01	13.586	59.08	0.66	26.954	35.609	43.888	0.056	1504.0	50.	110.74	1.731
60.	13.542	35.877	5.95	13.534	63.28	0.30	26.963	35.621	43.901	0.067	1504.0	60.	110.14	1.738
70.	13.522	35.876	5.96	13.512	64.74	0.25	26.967	35.626	43.907	0.078	1504.1	69.	110.06	1.138
80.	13.509	35.874	5.89	13.497	65.41	0.22	26.968	35.628	43.910	0.089	1504.2	79.	110.23	0.671
90.	13.502	35.874	5.83	13.489	65.41	0.22	26.970	35.629	43.912	0.100	1504.4	89.	110.41	0.671
100.	13.486	35.873	5.89	13.472	65.44	0.22	26.973	35.633	43.916	0.111	1504.5	99.	110.45	0.937
120.	13.398	35.860	5.84	13.381	65.52	0.19	26.981	35.645	43.931	0.133	1504.5	119.	110.23	1.178
140.	13.359	35.853	5.86	13.339	65.53	0.16	26.985	35.650	43.938	0.155	1504.7	139.	110.52	0.731
160.	13.233	35.827	5.78	13.211	65.98	0.18	26.991	35.661	43.954	0.177	1504.6	159.	110.51	1.015
180.	13.098	35.801	5.81	13.073	66.51	0.17	26.999	35.675	43.973	0.199	1504.4	179.	110.30	1.164
200.	12.982	35.780	5.73	12.955	66.95	0.15	27.007	35.687	43.990	0.221	1504.4	198.	110.11	1.145
220.	12.779	35.742	5.66	12.749	67.34	0.17	27.018	35.708	44.018	0.243	1504.0	218.	109.51	1.408
240.	12.509	35.692	5.48	12.476	67.69	0.16	27.034	35.734	44.055	0.265	1503.3	238.	108.48	1.639
260.	12.326	35.668	5.37	12.291	67.89	0.18	27.052	35.760	44.088	0.286	1503.0	258.	107.27	1.723
280.	12.198	35.654	5.30	12.161	67.98	0.15	27.066	35.779	44.112	0.308	1502.9	278.	106.42	1.538
300.	12.107	35.642	5.38	12.068	68.00	0.14	27.075	35.792	44.128	0.329	1502.9	297.	106.09	1.222
350.	11.849	35.608	5.28	11.803	68.11	0.14	27.099	35.828	44.174	0.382	1502.8	347.	104.97	1.292
400.	11.644	35.584	5.24	11.592	68.13	0.13	27.121	35.858	44.213	0.434	1502.9	396.	104.13	1.211
450.	11.378	35.556	5.18	11.321	68.25	0.13	27.150	35.898	44.264	0.486	1502.8	446.	102.49	1.411
500.	11.104	35.533	5.16	11.041	68.35	0.15	27.183	35.943	44.319	0.537	1502.6	495.	100.40	1.508
550.	10.984	35.529	5.09	10.914	68.39	0.16	27.204	35.969	44.350	0.587	1503.0	545.	99.61	1.176
600.	10.859	35.539	4.95	10.784	68.44	0.16	27.235	36.005	44.391	0.636	1503.4	594.	97.82	1.432
650.	10.665	35.545	4.82	10.584	68.47	0.12	27.275	36.054	44.448	0.685	1503.6	644.	94.98	1.656
700.	10.630	35.593	4.68	10.543	68.45	0.18	27.320	36.099	44.494	0.731	1504.3	693.	92.01	1.681
750.	10.601	35.652	4.55	10.508	68.50	0.14	27.373	36.153	44.548	0.776	1505.1	743.	88.25	1.831
800.	9.939	35.551	4.62	9.843	68.53	0.18	27.410	36.219	44.642	0.820	1503.5	792.	84.88	1.753
850.	9.961	35.647	4.53	9.859	68.57	0.17	27.482	36.289	44.710	0.861	1504.5	842.	79.35	2.123
900.	9.864	35.688	4.49	9.756	68.57	0.16	27.531	36.342	44.766	0.900	1505.0	891.	75.74	1.793
950.	9.769	35.728	4.54	9.655	68.59	0.13	27.580	36.395	44.823	0.937	1505.6	940.	72.14	1.790
1000.	9.827	35.794	4.55	9.707	68.60	0.12	27.622	36.434	44.859	0.972	1506.7	990.	69.47	1.606
1200.	8.185	35.603	4.88	8.054	68.62	0.17	27.740	36.626	45.121	1.100	1503.7	1187.	58.87	1.586
1400.	5.747	35.208	5.54	5.617	68.61	0.17	27.765	36.772	45.379	1.210	1497.1	1384.	52.51	1.286
1600.	4.660	35.068	5.97	4.523	68.61	0.17	27.783	36.846	45.507	1.311	1495.9	1581.	49.40	0.981
1800.	3.971	34.981	6.24	3.823	68.59	0.17	27.789	36.889	45.584	1.408	1496.3	1778.	48.15	0.763
2000.	3.878	35.001	6.18	3.713	68.64	0.14	27.817	36.922	45.623	1.503	1499.3	1975.	47.09	0.719
2200.	3.674	34.997	6.13	3.492	68.72	0.12	27.836	36.953	45.664	1.597	1501.8	2171.	46.15	0.699
2400.	3.384	34.977	6.11	3.187	68.74	0.11	27.849	36.982	45.709	1.688	1503.9	2368.	44.99	0.711
2600.	3.167	34.966	6.05	2.954	68.77	0.13	27.862	37.008	45.746	1.776	1506.3	2564.	44.00	0.676
2800.	2.985	34.958	5.95	2.755	68.83	0.11	27.874	37.030	45.779	1.863	1508.9	2760.	43.22	0.638
3000.	2.848	34.949	5.86	2.601	68.85	0.11	27.881	37.046	45.802	1.949	1511.7	2956.	43.00	0.547
3200.	2.738	34.940	5.80	2.472	68.89	0.09	27.884	37.056	45.819	2.035	1514.7	3151.	43.16	0.476
3400.	2.661	34.932	5.73	2.375	68.92	0.07	27.886	37.064	45.832	2.122	1517.8	3347.	43.60	0.414
3600.	2.612	34.925	5.71	2.306	68.94	0.08	27.886	37.068	45.839	2.210	1521.0	3542.	44.40	0.324
3700.	2.584	34.921	5.69	2.268	68.97	0.07	27.886	37.070	45.843	2.255	1522.6	3639.	44.75	0.347
3800.	2.557	34.917	5.68	2.230	68.99	0.07	27.887	37.073	45.848	2.299	1524.2	3737.	45.04	0.373
3900.	2.546	34.915	5.70	2.208	69.00	0.09	27.887	37.074	45.850	2.345	1525.8	3834.	45.52	0.263
4000.	2.539	34.913	5.69	2.190	69.01	0.08	27.886	37.074	45.852	2.391	1527.5	3932.	46.07	0.219
4100.	2.524	34.910	5.72	2.164	69.03	0.12	27.887	37.076	45.855	2.437	1529.2	4029.	46.47	0.315
4200.	2.515	34.909	5.71	2.143	69.03	0.06	27.887	37.078	45.858	2.483	1530.9	4126.	46.91	0.291
4300.	2.508	34.905	5.72	2.125	69.05	0.09	27.886	37.077	45.858	2.531	1532.5	4224.	47.51	0.172
4400.	2.503	34.904	5.71	2.108	69.06	0.07	27.886	37.079	45.861	2.578	1534.3	4321.	47.95	0.289
4500.	2.505	34.902	5.77	2.097	69.05	0.06	27.886	37.079	45.861	2.627	1536.0	4418.	48.58	0.135
4600.	2.507	34.901	5.74	2.087	69.04	0.10	27.886	37.080	45.863	2.676	1537.7	4515.	49.15	0.208
4700.	2.512	34.900	5.73	2.080	69.04	0.06	27.885	37.079	45.863	2.725	1539.5	4612.	49.79	0.126
4800.	2.519	34.899	5.74	2.074	69.03	0.08	27.885	37.080	45.864	2.775	1541.2	4710.	50.42	0.144
4900.	2.527	34.899	5.72	2.069	69.00	0.05	27.885	37.080	45.864	2.826	1543.0	4807.	51.04	0.149
5000.	2.538	34.898	5.73	2.067	68.91	0.07	27.885	37.080	45.864	2.877	1544.8	4904.	51.75	-0.045

Sample data

4963.	2.533	34.899	5.72	2.067
4468.	2.501	34.902	5.71	2.098
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3184.	2.746	34.940	5.84	2.481
3077.	2.807	34.945	5.88	2.552
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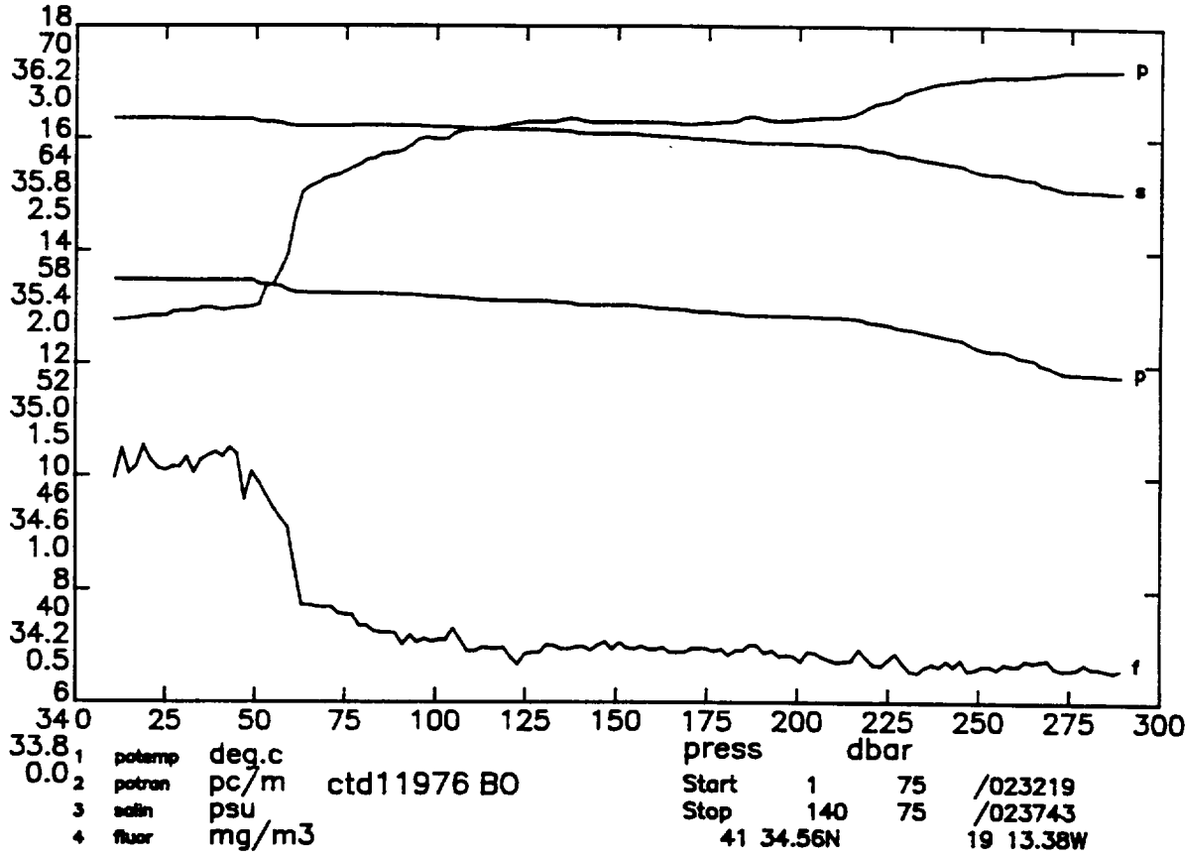
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press dbar
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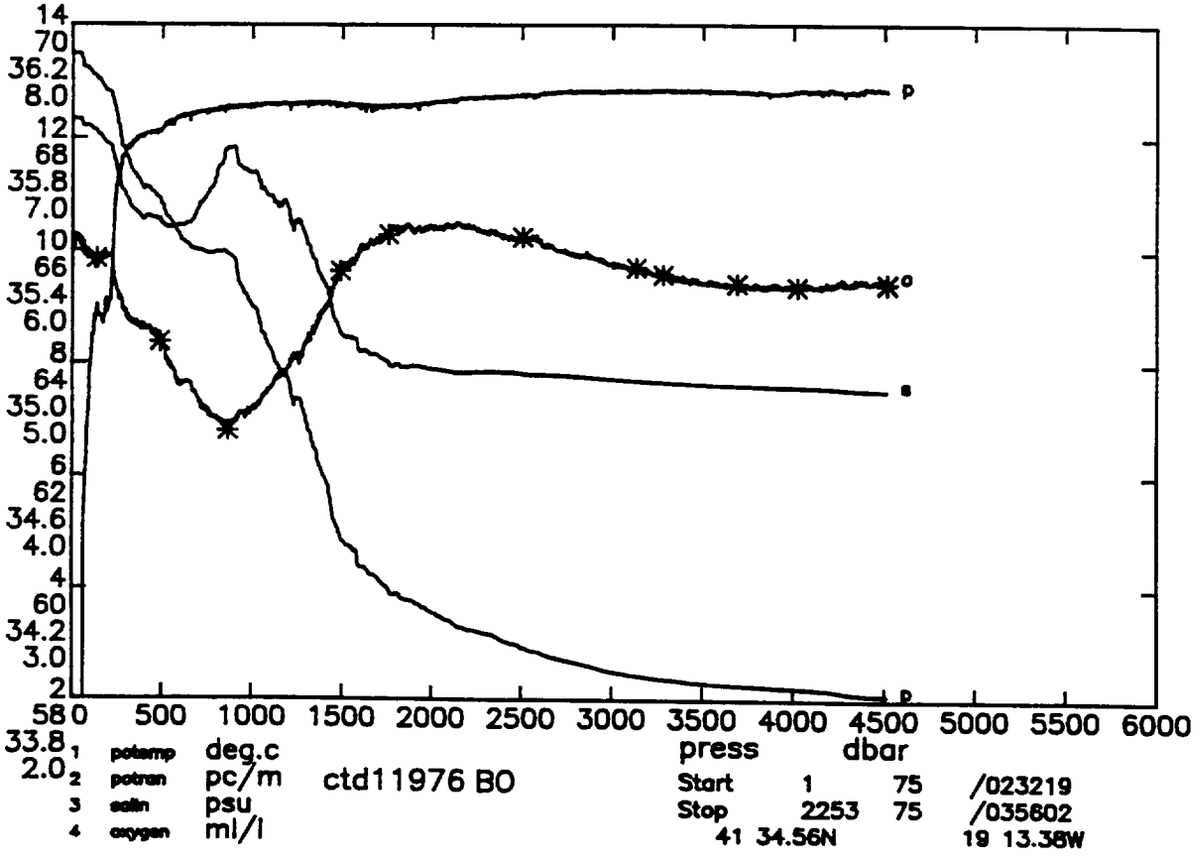
2 potrat pc/m
3 salin psu
4 fluor mg/m3
ctd11976 BO
Start 1 75 /023219
Stop 140 75 /023743
41 34.56N 19 13.38W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33.8
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p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potrat pc/m
3 salin psu
4 oxygen ml/l
ctd11976 BO
Start 1 75 /023219
Stop 2253 75 /035602
41 34.56N 19 13.38W

DISCOVERY CRUISE 189 STATION 11976

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
20.	13.492	35.869	6.14	13.489	54.54	1.10	26.966	35.625	43.908	0.022	1503.2	20.	108.63	-9.999
30.	13.486	35.867	6.13	13.481	54.81	1.06	26.966	35.626	43.909	0.033	1503.3	30.	108.89	0.418
40.	13.491	35.868	6.11	13.485	54.88	1.10	26.966	35.626	43.909	0.043	1503.5	40.	109.20	-0.151
50.	13.455	35.863	6.07	13.448	55.11	1.00	26.970	35.631	43.915	0.054	1503.5	50.	109.19	1.036
60.	13.295	35.843	6.04	13.287	58.80	0.68	26.988	35.655	43.945	0.065	1503.2	60.	107.74	2.418
70.	13.267	35.842	5.99	13.257	61.88	0.42	26.993	35.662	43.953	0.076	1503.2	69.	107.54	1.301
80.	13.260	35.845	5.97	13.249	62.72	0.34	26.997	35.666	43.957	0.087	1503.4	79.	107.49	1.083
90.	13.244	35.844	5.97	13.231	63.27	0.28	27.000	35.670	43.961	0.098	1503.5	89.	107.52	0.963
100.	13.206	35.838	5.96	13.192	63.94	0.27	27.003	35.675	43.968	0.108	1503.5	99.	107.48	1.069
120.	13.133	35.828	5.92	13.116	64.68	0.22	27.011	35.685	43.981	0.130	1503.6	119.	107.36	1.096
140.	13.061	35.814	5.86	13.042	64.93	0.25	27.016	35.693	43.992	0.151	1503.7	139.	107.50	0.875
160.	13.007	35.805	5.94	12.985	64.81	0.23	27.020	35.699	44.000	0.173	1503.8	159.	107.66	0.855
180.	12.912	35.788	5.97	12.888	64.85	0.22	27.026	35.709	44.014	0.194	1503.8	179.	107.65	1.005
200.	12.859	35.777	5.95	12.832	64.99	0.19	27.029	35.715	44.022	0.216	1504.0	198.	107.93	0.722
220.	12.759	35.755	5.93	12.729	65.74	0.18	27.033	35.723	44.034	0.237	1503.9	218.	108.13	0.799
240.	12.522	35.711	5.70	12.489	67.02	0.17	27.046	35.746	44.066	0.259	1503.4	238.	107.31	1.530
260.	12.202	35.662	5.57	12.168	67.35	0.16	27.071	35.784	44.117	0.280	1502.6	258.	105.37	2.045
280.	11.879	35.615	5.47	11.842	67.66	0.16	27.097	35.824	44.169	0.301	1501.8	278.	103.31	2.092
300.	11.723	35.591	5.42	11.684	67.78	0.17	27.109	35.842	44.193	0.322	1501.5	297.	102.64	1.422
350.	11.399	35.541	5.35	11.354	67.94	0.13	27.131	35.879	44.243	0.373	1501.2	347.	101.63	1.255
400.	11.148	35.510	5.30	11.098	68.06	0.15	27.155	35.913	44.287	0.423	1501.1	396.	100.52	1.272
450.	11.091	35.516	5.28	11.034	68.10	0.14	27.171	35.931	44.308	0.474	1501.7	446.	100.23	1.027
500.	10.881	35.498	5.22	10.819	68.15	0.14	27.197	35.966	44.351	0.523	1501.8	495.	98.91	1.321
550.	10.582	35.482	4.95	10.515	68.30	0.14	27.238	36.020	44.417	0.572	1501.6	545.	95.92	1.685
600.	10.324	35.487	4.80	10.251	68.39	0.13	27.289	36.082	44.490	0.619	1501.5	594.	92.03	1.850
650.	10.182	35.497	4.83	10.104	68.41	0.14	27.323	36.122	44.535	0.664	1501.8	644.	89.89	1.497
700.	10.104	35.548	4.67	10.019	68.45	0.17	27.377	36.179	44.595	0.708	1502.4	693.	85.87	1.870
750.	10.055	35.598	4.59	9.964	68.48	0.16	27.425	36.229	44.646	0.750	1503.1	743.	82.46	1.756
800.	10.068	35.660	4.52	9.972	68.49	0.15	27.473	36.275	44.691	0.791	1504.1	792.	79.24	1.721
850.	10.094	35.754	4.46	9.991	68.53	0.14	27.542	36.343	44.757	0.829	1505.1	842.	73.96	2.087
900.	9.966	35.768	4.48	9.857	68.55	0.14	27.577	36.382	44.801	0.866	1505.5	891.	71.69	1.523
950.	9.395	35.690	4.55	9.284	68.57	0.14	27.612	36.443	44.886	0.901	1504.2	940.	68.38	1.733
1000.	9.131	35.676	4.60	9.016	68.56	0.15	27.645	36.488	44.942	0.934	1504.0	990.	65.85	1.566
1200.	7.822	35.549	4.96	7.694	68.61	0.17	27.751	36.655	45.166	1.056	1502.3	1187.	56.81	1.488
1400.	6.078	35.285	5.48	5.945	68.64	0.11	27.785	36.775	45.366	1.164	1498.5	1384.	51.81	1.192
1600.	4.499	35.041	6.00	4.364	68.53	0.17	27.780	36.851	45.519	1.265	1495.2	1581.	49.18	0.944
1800.	4.051	34.997	6.19	3.902	68.56	0.16	27.794	36.890	45.581	1.362	1496.6	1778.	48.07	0.745
2000.	3.721	34.978	6.20	3.558	68.63	0.12	27.814	36.928	45.636	1.457	1498.6	1975.	46.56	0.769
2200.	3.433	34.966	6.22	3.255	68.71	0.14	27.834	36.964	45.688	1.548	1500.7	2171.	44.95	0.765
2400.	3.245	34.968	6.13	3.051	68.72	0.14	27.855	36.995	45.729	1.637	1503.3	2368.	43.66	0.717
2600.	3.062	34.960	6.08	2.851	68.78	0.12	27.867	37.018	45.762	1.724	1505.9	2564.	42.92	0.637
2800.	2.905	34.953	5.97	2.677	68.83	0.09	27.877	37.038	45.790	1.809	1508.6	2760.	42.35	0.603
3000.	2.758	34.943	5.88	2.512	68.84	0.11	27.883	37.053	45.814	1.894	1511.4	2956.	42.09	0.548
3100.	2.709	34.938	5.84	2.454	68.84	0.08	27.885	37.058	45.822	1.936	1512.8	3053.	42.24	0.443
3200.	2.676	34.935	5.81	2.411	68.83	0.09	27.886	37.061	45.827	1.978	1514.4	3151.	42.52	0.389
3300.	2.646	34.932	5.76	2.372	68.86	0.10	27.886	37.064	45.832	2.021	1516.0	3249.	42.86	0.358
3400.	2.623	34.928	5.75	2.338	68.84	0.10	27.886	37.066	45.836	2.064	1517.6	3347.	43.28	0.312
3500.	2.601	34.926	5.71	2.306	68.84	0.12	27.887	37.069	45.840	2.107	1519.2	3444.	43.63	0.343
3600.	2.588	34.923	5.69	2.282	68.83	0.07	27.887	37.070	45.843	2.151	1520.9	3542.	44.13	0.264
3700.	2.583	34.921	5.70	2.267	68.82	0.07	27.886	37.070	45.844	2.196	1522.6	3639.	44.73	0.179
3800.	2.578	34.920	5.69	2.250	68.80	0.06	27.887	37.071	45.846	2.241	1524.2	3737.	45.23	0.260
3900.	2.573	34.917	5.68	2.234	68.80	0.11	27.886	37.072	45.847	2.286	1525.9	3834.	45.79	0.211
4000.	2.570	34.916	5.69	2.220	68.82	0.11	27.886	37.073	45.849	2.332	1527.6	3932.	46.35	0.217
4100.	2.563	34.914	5.68	2.201	68.84	0.08	27.887	37.074	45.851	2.379	1529.3	4029.	46.84	0.264
4200.	2.551	34.912	5.69	2.178	68.87	0.07	27.887	37.075	45.854	2.426	1531.0	4126.	47.30	0.285
4300.	2.517	34.907	5.70	2.133	68.82	0.07	27.886	37.078	45.858	2.473	1532.6	4224.	47.53	0.399
4400.	2.501	34.904	5.73	2.106	68.87	0.09	27.886	37.079	45.861	2.521	1534.2	4321.	47.94	0.310
4500.	2.498	34.901	5.73	2.091	68.85	0.07	27.885	37.079	45.862	2.569	1536.0	4418.	48.53	0.174

Sample data

4516.	2.496	34.901	5.70	2.087
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3688.	2.583	34.920	5.71	2.268
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3134.	2.700	34.936	5.85	2.442
2506.	3.143	34.965	6.12	2.940
1761.	4.070	35.005	6.14	3.925
1493.	4.991	35.105	5.82	4.860
867.	10.041	35.769	4.40	9.936
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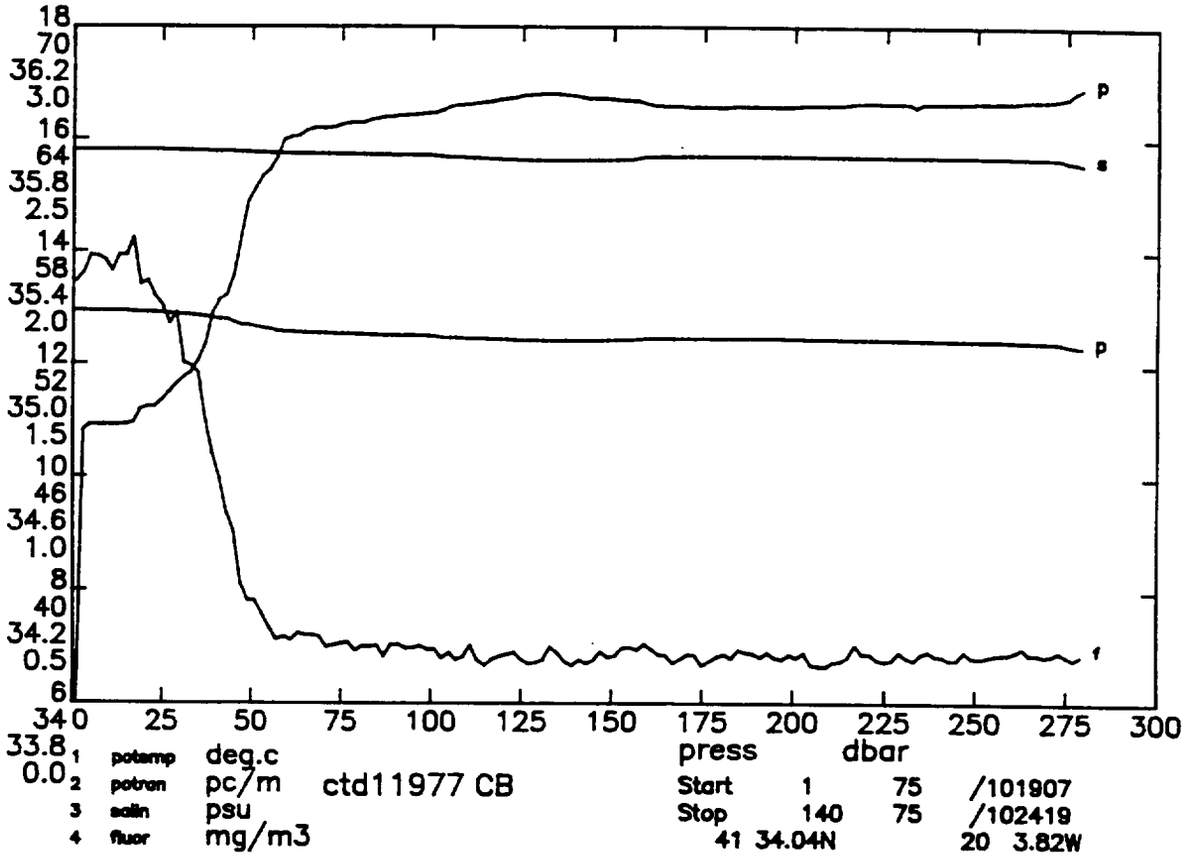
137.	13.097	35.817	5.93	13.078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press dbar
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Stop 140 75 /102419
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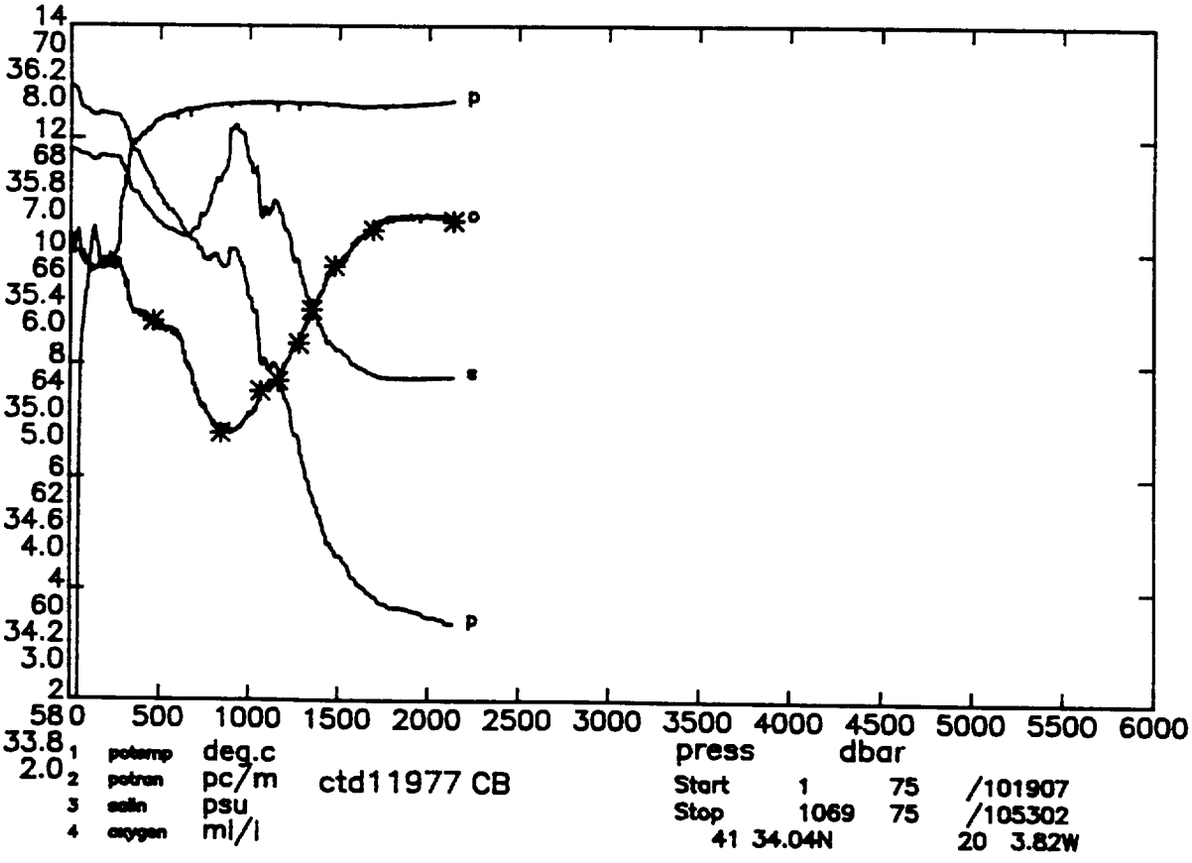
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2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11977 CB
press dbar
Start 1 75 /101907
Stop 1069 75 /105302
41 34.04N 20 3.82W

DISCOVERY CRUISE 189 STATION 11977

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	12.944	35.760	6.09	12.943	48.76	1.94	26.993	35.675	43.978	0.011	1501.1	10.	105.73	-9.999
20.	12.927	35.759	6.13	12.924	49.66	1.86	26.996	35.679	43.982	0.021	1501.2	20.	105.73	0.992
30.	12.892	35.757	6.14	12.888	51.11	1.62	27.002	35.686	43.991	0.032	1501.2	30.	105.45	1.389
40.	12.819	35.754	6.16	12.813	55.08	1.05	27.015	35.702	44.009	0.042	1501.1	40.	104.55	1.992
50.	12.688	35.749	6.10	12.681	61.00	0.46	27.038	35.730	44.042	0.053	1500.9	50.	102.67	2.695
60.	12.582	35.746	5.95	12.574	64.02	0.29	27.057	35.753	44.069	0.063	1500.7	60.	101.17	2.444
70.	12.562	35.745	5.93	12.553	64.59	0.27	27.060	35.757	44.074	0.073	1500.8	69.	101.15	1.019
80.	12.545	35.743	5.96	12.534	64.89	0.24	27.062	35.760	44.078	0.083	1500.9	79.	101.20	0.903
90.	12.527	35.741	5.93	12.514	65.24	0.26	27.064	35.763	44.081	0.093	1501.0	89.	101.31	0.770
100.	12.521	35.740	5.91	12.507	65.42	0.24	27.065	35.764	44.083	0.103	1501.1	99.	101.51	0.538
120.	12.459	35.727	5.83	12.443	66.16	0.21	27.068	35.769	44.091	0.124	1501.2	119.	101.83	0.658
140.	12.433	35.724	5.84	12.414	66.28	0.18	27.071	35.773	44.096	0.144	1501.5	139.	102.10	0.708
160.	12.477	35.737	5.85	12.455	65.86	0.25	27.073	35.774	44.095	0.164	1502.0	159.	102.50	0.550
180.	12.480	35.738	5.89	12.456	65.70	0.21	27.074	35.774	44.095	0.185	1502.3	179.	102.99	0.368
200.	12.473	35.737	5.93	12.446	65.76	0.21	27.075	35.776	44.097	0.206	1502.6	198.	103.48	0.392
220.	12.460	35.735	5.88	12.430	65.95	0.22	27.076	35.778	44.100	0.226	1502.9	218.	103.90	0.495
240.	12.461	35.734	5.90	12.429	65.91	0.21	27.076	35.777	44.099	0.247	1503.2	238.	104.52	-0.266
260.	12.454	35.733	5.93	12.419	66.00	0.23	27.077	35.779	44.101	0.268	1503.5	258.	104.97	0.454
280.	12.355	35.709	5.86	12.317	66.82	0.18	27.078	35.785	44.111	0.289	1503.5	278.	105.37	0.533
300.	12.262	35.691	5.78	12.222	67.11	0.14	27.083	35.794	44.124	0.310	1503.5	297.	105.40	0.944
350.	11.848	35.613	5.48	11.802	67.96	0.19	27.103	35.831	44.178	0.363	1502.8	347.	104.62	1.206
400.	11.610	35.576	5.45	11.559	68.08	0.16	27.121	35.859	44.215	0.415	1502.8	396.	104.14	1.107
450.	11.352	35.539	5.40	11.295	68.18	0.17	27.141	35.891	44.257	0.467	1502.7	446.	103.28	1.209
500.	11.053	35.504	5.34	10.990	68.34	0.16	27.170	35.932	44.311	0.518	1502.4	495.	101.61	1.409
550.	10.807	35.478	5.32	10.738	68.42	0.17	27.196	35.969	44.357	0.568	1502.4	545.	100.16	1.350
600.	10.639	35.464	5.25	10.564	68.48	0.18	27.215	35.996	44.391	0.618	1502.6	594.	99.34	1.178
650.	10.352	35.454	5.02	10.273	68.50	0.15	27.259	36.052	44.459	0.667	1502.4	644.	96.05	1.740
700.	10.250	35.483	4.77	10.165	68.53	0.17	27.301	36.097	44.508	0.715	1502.9	693.	93.24	1.641
750.	9.962	35.529	4.61	9.872	68.56	0.15	27.388	36.196	44.618	0.759	1502.7	743.	85.83	2.401
800.	10.012	35.620	4.49	9.916	68.60	0.17	27.451	36.256	44.675	0.801	1503.8	792.	81.19	1.977
850.	9.844	35.674	4.44	9.742	68.62	0.14	27.522	36.334	44.759	0.840	1504.1	842.	75.36	2.170
900.	10.150	35.832	4.40	10.040	68.61	0.16	27.595	36.392	44.803	0.877	1506.2	891.	70.33	2.043
950.	9.929	35.820	4.45	9.814	68.64	0.15	27.624	36.431	44.851	0.912	1506.3	940.	68.34	1.463
1000.	9.305	35.718	4.56	9.188	68.64	0.13	27.650	36.485	44.931	0.945	1504.7	990.	65.80	1.576
1100.	8.040	35.532	4.82	7.921	68.64	0.16	27.704	36.598	45.099	1.008	1501.4	1089.	59.88	1.642
1200.	7.501	35.477	4.98	7.375	68.64	0.16	27.741	36.661	45.186	1.067	1501.0	1187.	56.87	1.286
1300.	6.351	35.285	5.30	6.226	68.63	0.16	27.749	36.725	45.303	1.122	1498.0	1286.	54.53	1.168
1400.	5.344	35.131	5.64	5.219	68.62	0.16	27.753	36.780	45.407	1.176	1495.4	1384.	52.31	1.114
1500.	4.705	35.050	5.90	4.577	68.61	0.17	27.763	36.824	45.482	1.227	1494.4	1483.	50.33	1.047
1600.	4.236	34.991	6.09	4.104	68.57	0.14	27.768	36.853	45.535	1.277	1494.0	1581.	49.23	0.867
1700.	3.993	34.962	6.24	3.855	68.57	0.16	27.771	36.870	45.564	1.326	1494.7	1680.	48.91	0.680
1800.	3.807	34.950	6.28	3.662	68.59	0.15	27.781	36.890	45.593	1.374	1495.5	1778.	48.17	0.765
1900.	3.766	34.948	6.30	3.612	68.60	0.18	27.785	36.897	45.602	1.423	1497.0	1877.	48.54	0.451
2000.	3.655	34.949	6.32	3.493	68.62	0.12	27.797	36.915	45.627	1.471	1498.3	1975.	47.79	0.757
2100.	3.556	34.951	6.28	3.385	68.66	0.14	27.810	36.933	45.650	1.519	1499.5	2073.	47.02	0.759

Sample data

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1689.	3.999	34.996	6.19	3.861
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1277.	6.773	35.359	5.18	6.646
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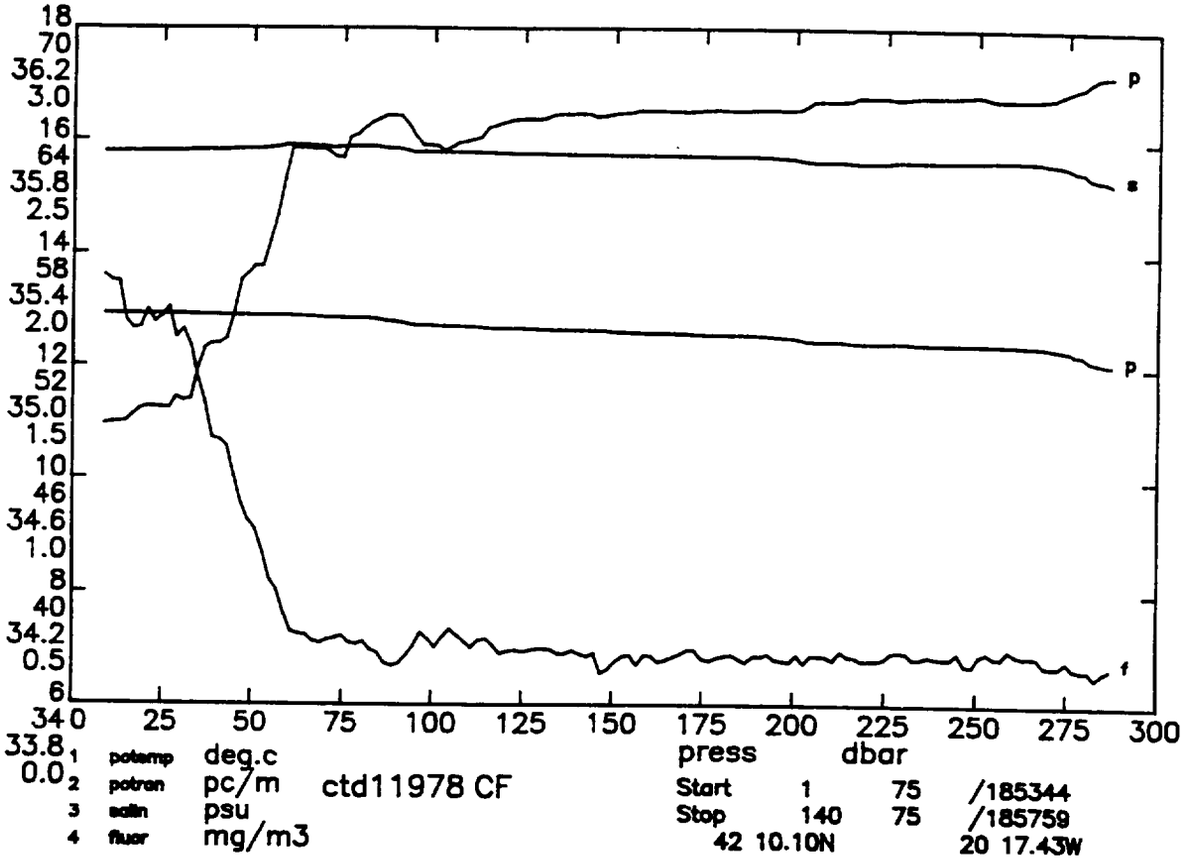
464.	11.204	35.542	5.38	11.145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Stop 140 75 /185759
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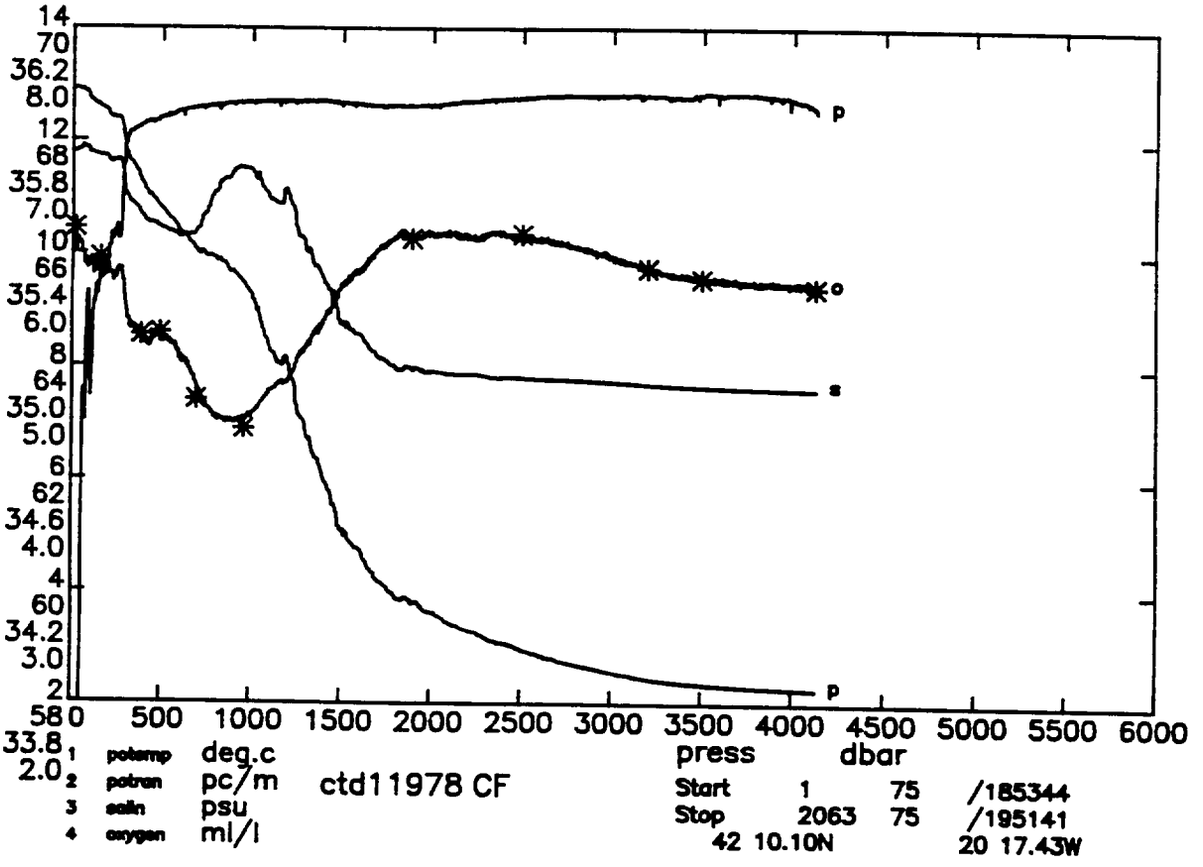
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3 salin psu
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ctd11978 CF
Start 1 75 /185344
Stop 2063 75 /195141
42 10.10N 20 17.43W

DISCOVERY CRUISE 189 STATION 11978

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.922	35.758	6.14	12.921	48.90	1.89	26.996	35.679	43.983	0.011	1501.0	10.	105.44	-9.999
20.	12.920	35.759	6.03	12.917	49.76	1.71	26.998	35.681	43.985	0.021	1501.2	20.	105.55	0.799
30.	12.921	35.759	6.10	12.917	50.23	1.64	26.998	35.681	43.985	0.032	1501.3	30.	105.84	0.098
40.	12.908	35.764	6.10	12.903	53.17	1.17	27.005	35.688	43.992	0.042	1501.5	40.	105.52	1.440
50.	12.894	35.768	6.09	12.888	57.11	0.79	27.011	35.695	44.000	0.053	1501.6	50.	105.23	1.403
60.	12.904	35.781	6.00	12.896	62.74	0.36	27.019	35.703	44.007	0.063	1501.8	60.	104.73	1.626
70.	12.870	35.776	5.92	12.860	63.49	0.28	27.022	35.707	44.013	0.074	1501.8	69.	104.75	0.966
80.	12.865	35.778	5.94	12.854	64.47	0.27	27.025	35.710	44.016	0.084	1502.0	79.	104.74	0.999
90.	12.801	35.769	5.87	12.788	65.30	0.18	27.031	35.719	44.027	0.095	1501.9	89.	104.46	1.387
100.	12.741	35.758	5.90	12.727	63.71	0.27	27.035	35.725	44.036	0.105	1501.9	99.	104.37	1.128
120.	12.687	35.753	5.82	12.671	65.00	0.23	27.042	35.735	44.048	0.126	1502.0	119.	104.28	1.065
140.	12.656	35.748	5.85	12.637	65.43	0.23	27.046	35.739	44.054	0.147	1502.2	139.	104.53	0.742
160.	12.610	35.745	5.86	12.589	65.59	0.22	27.053	35.749	44.065	0.168	1502.4	159.	104.39	1.096
180.	12.580	35.743	5.83	12.555	65.63	0.21	27.058	35.754	44.072	0.189	1502.6	179.	104.56	0.837
200.	12.519	35.734	5.89	12.492	65.67	0.21	27.063	35.763	44.082	0.210	1502.8	198.	104.56	0.975
220.	12.436	35.721	5.82	12.406	66.31	0.20	27.070	35.773	44.096	0.230	1502.8	218.	104.43	1.089
240.	12.427	35.726	5.80	12.394	66.39	0.21	27.076	35.780	44.103	0.251	1503.1	238.	104.43	0.974
260.	12.428	35.730	5.86	12.393	66.24	0.24	27.080	35.783	44.107	0.272	1503.4	258.	104.67	0.745
280.	12.230	35.684	5.78	12.193	67.12	0.16	27.083	35.795	44.126	0.293	1503.0	278.	104.80	0.861
300.	11.834	35.606	5.52	11.795	67.99	0.16	27.100	35.828	44.175	0.314	1501.9	297.	103.58	1.722
350.	11.557	35.568	5.33	11.511	68.19	0.14	27.123	35.864	44.222	0.365	1501.8	347.	102.49	1.276
400.	11.246	35.524	5.22	11.195	68.28	0.16	27.148	35.902	44.272	0.416	1501.5	396.	101.24	1.312
450.	11.033	35.505	5.23	10.976	68.33	0.12	27.173	35.936	44.315	0.467	1501.5	446.	99.96	1.313
500.	10.827	35.488	5.28	10.765	68.40	0.14	27.198	35.970	44.357	0.516	1501.6	495.	98.70	1.303
550.	10.660	35.475	5.19	10.592	68.45	0.12	27.219	35.998	44.393	0.565	1501.8	545.	97.76	1.211
600.	10.456	35.458	5.07	10.382	68.51	0.18	27.243	36.031	44.434	0.614	1501.9	594.	96.50	1.291
650.	10.290	35.460	5.01	10.211	68.55	0.16	27.275	36.070	44.479	0.662	1502.2	644.	94.51	1.465
700.	10.106	35.483	4.80	10.022	68.58	0.15	27.326	36.128	44.545	0.708	1502.4	693.	90.69	1.835
750.	10.026	35.543	4.64	9.936	68.60	0.17	27.387	36.192	44.611	0.753	1503.0	743.	86.00	1.985
800.	10.013	35.615	4.54	9.917	68.62	0.13	27.447	36.252	44.671	0.794	1503.8	792.	81.53	1.948
850.	9.924	35.661	4.52	9.822	68.65	0.18	27.499	36.308	44.729	0.834	1504.4	842.	77.70	1.834
900.	9.781	35.690	4.50	9.674	68.62	0.16	27.547	36.362	44.789	0.872	1504.7	891.	74.09	1.793
950.	9.604	35.701	4.52	9.491	68.66	0.16	27.587	36.409	44.843	0.908	1504.9	940.	71.19	1.649
1000.	9.394	35.695	4.56	9.276	68.67	0.17	27.617	36.449	44.892	0.943	1505.0	990.	69.02	1.491
1200.	8.176	35.612	4.87	8.044	68.69	0.16	27.748	36.635	45.130	1.068	1503.7	1187.	58.08	1.599
1400.	6.114	35.301	5.41	5.980	68.71	0.18	27.794	36.781	45.371	1.177	1498.7	1384.	51.13	1.328
1600.	4.881	35.113	5.85	4.741	68.66	0.16	27.795	36.846	45.496	1.277	1496.8	1581.	49.24	0.886
1800.	4.052	34.994	6.14	3.903	68.63	0.18	27.792	36.887	45.578	1.374	1496.6	1778.	48.29	0.738
2000.	3.776	34.983	6.18	3.612	68.64	0.12	27.813	36.924	45.629	1.470	1498.8	1975.	46.98	0.748
2200.	3.486	34.972	6.15	3.307	68.71	0.10	27.834	36.961	45.682	1.562	1500.9	2171.	45.26	0.780
2400.	3.272	34.962	6.18	3.077	68.74	0.13	27.848	36.987	45.719	1.652	1503.4	2368.	44.44	0.660
2600.	3.078	34.956	6.13	2.866	68.79	0.10	27.862	37.013	45.756	1.740	1505.9	2564.	43.44	0.672
2700.	3.003	34.954	6.11	2.783	68.80	0.05	27.868	37.023	45.770	1.783	1507.3	2662.	43.14	0.611
2800.	2.928	34.951	6.05	2.700	68.81	0.09	27.873	37.033	45.784	1.826	1508.7	2760.	42.85	0.602
2900.	2.878	34.949	6.01	2.640	68.80	0.09	27.877	37.040	45.794	1.869	1510.2	2858.	42.85	0.511
3000.	2.817	34.945	5.96	2.570	68.82	0.11	27.880	37.047	45.804	1.912	1511.6	2955.	42.84	0.511
3100.	2.768	34.941	5.93	2.512	68.83	0.07	27.882	37.052	45.813	1.954	1513.1	3053.	42.94	0.468
3200.	2.714	34.937	5.87	2.448	68.82	0.12	27.884	37.058	45.822	1.997	1514.6	3151.	42.96	0.491
3300.	2.686	34.933	5.84	2.411	68.79	0.07	27.884	37.060	45.826	2.041	1516.2	3249.	43.37	0.329
3400.	2.665	34.931	5.81	2.380	68.78	0.12	27.885	37.063	45.830	2.084	1517.8	3346.	43.72	0.352
3500.	2.651	34.929	5.77	2.354	68.83	0.08	27.886	37.064	45.833	2.128	1519.4	3444.	44.18	0.293
3600.	2.639	34.926	5.78	2.332	68.82	0.08	27.885	37.065	45.836	2.173	1521.1	3542.	44.72	0.239
3700.	2.631	34.924	5.76	2.313	68.85	0.07	27.885	37.066	45.837	2.217	1522.8	3639.	45.27	0.233
3800.	2.627	34.923	5.73	2.298	68.83	0.07	27.886	37.068	45.840	2.263	1524.5	3737.	45.78	0.257
3900.	2.625	34.921	5.74	2.285	68.79	0.09	27.885	37.068	45.840	2.309	1526.2	3834.	46.41	0.160
4000.	2.622	34.920	5.73	2.270	68.76	0.10	27.886	37.069	45.843	2.356	1527.9	3932.	46.90	0.274
4100.	2.621	34.918	5.71	2.258	68.64	0.07	27.885	37.069	45.844	2.403	1529.6	4029.	47.54	0.146

Sample data

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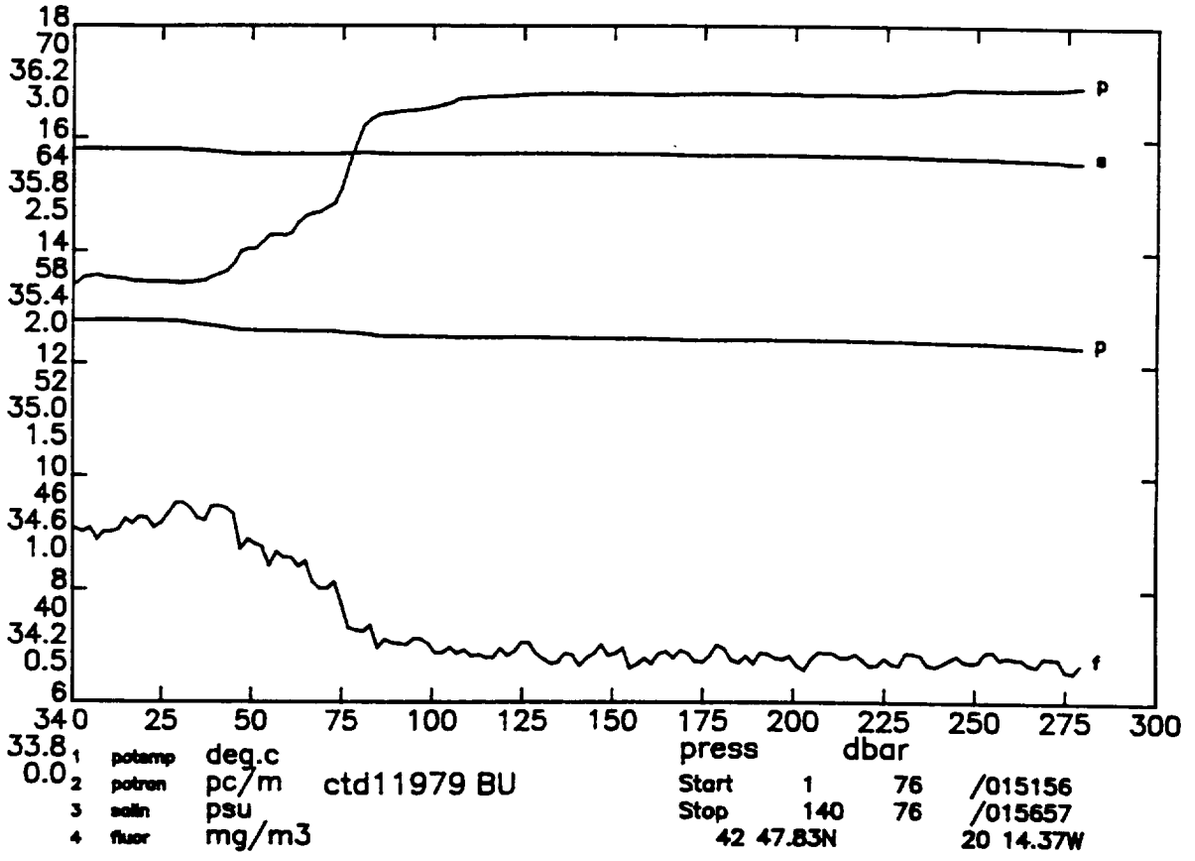
1889.	3.961	35.000	6.13	3.804
959.	9.571	35.698	4.45	9.458
694.	10.134	35.479	4.71	10.051
492.	10.870	35.492	5.30	10.809
385.	11.310	35.533	5.28	11.261
157.	12.613	35.743	5.96	12.592
15.	12.919	35.755	6.22	12.917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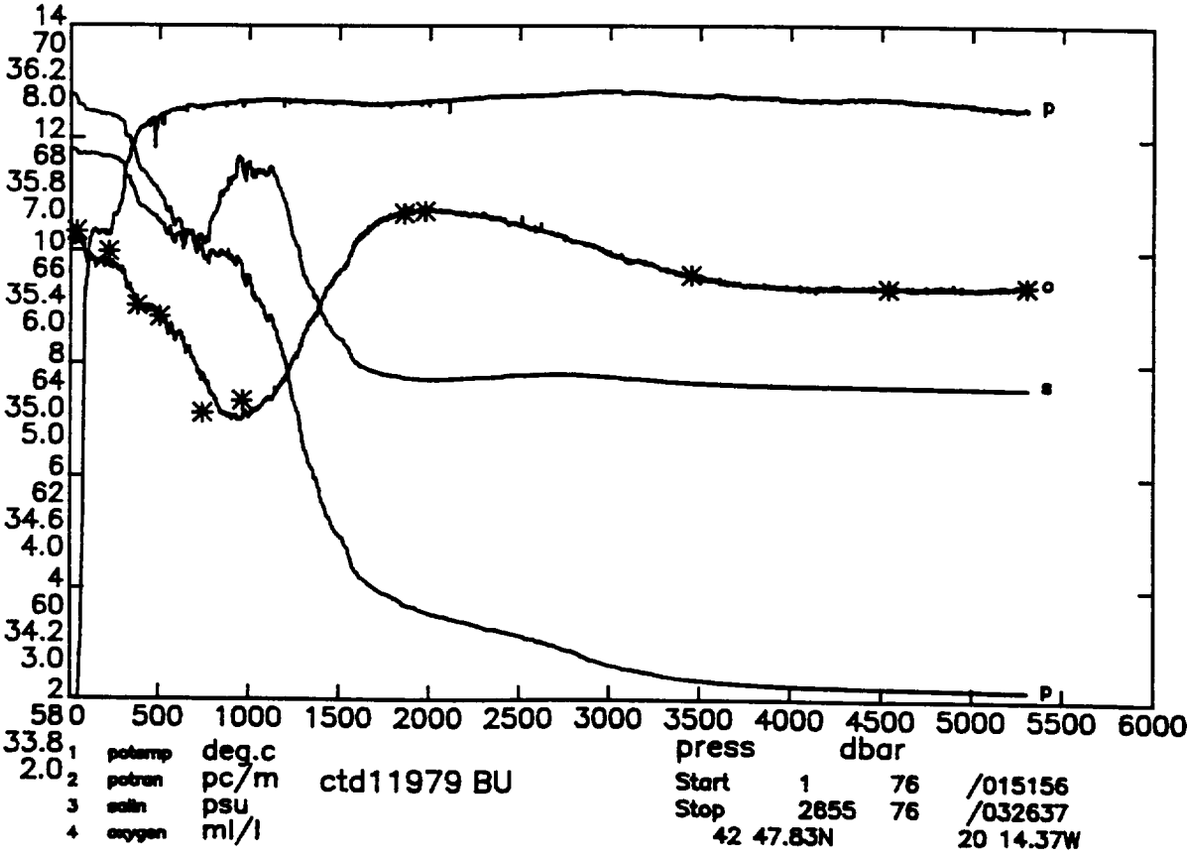
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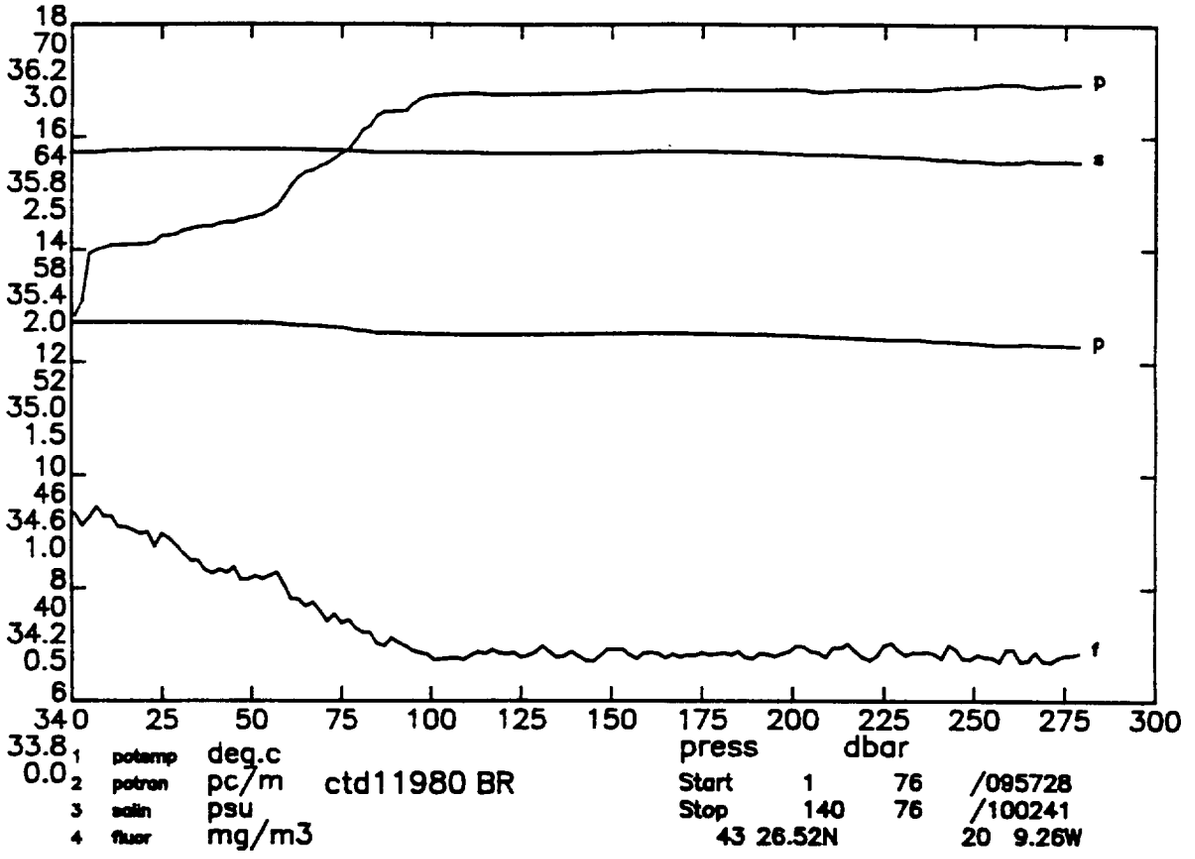
33.8
2.0
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
p
o
s
p
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11979 BU
Start 1 76 /015156
Stop 2855 76 /032637
42 47.83N 20 14.37W

DISCOVERY CRUISE 189 STATION 11979

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.770	35.759	6.09	12.769	56.57	0.75	27.028	35.716	44.026	0.010	1500.5	10.	102.43	-9.999
20.	12.769	35.759	6.12	12.767	56.36	0.82	27.028	35.717	44.026	0.020	1500.7	20.	102.70	0.300
30.	12.757	35.757	6.06	12.753	56.30	0.88	27.030	35.719	44.029	0.031	1500.8	30.	102.85	0.679
40.	12.675	35.748	6.10	12.669	56.71	0.87	27.039	35.732	44.045	0.041	1500.7	40.	102.22	1.762
50.	12.602	35.741	6.09	12.596	58.13	0.71	27.048	35.744	44.059	0.051	1500.6	50.	101.66	1.677
60.	12.596	35.741	6.11	12.588	58.89	0.64	27.050	35.745	44.061	0.061	1500.7	60.	101.82	0.665
70.	12.591	35.741	6.04	12.582	60.21	0.50	27.051	35.747	44.064	0.072	1500.9	69.	101.94	0.753
80.	12.553	35.747	5.99	12.542	64.18	0.32	27.063	35.761	44.078	0.082	1500.9	79.	101.11	1.939
90.	12.501	35.742	5.95	12.489	65.39	0.26	27.070	35.769	44.089	0.092	1500.9	89.	100.76	1.458
100.	12.499	35.743	5.94	12.486	65.64	0.24	27.071	35.771	44.091	0.102	1501.1	99.	100.90	0.704
120.	12.486	35.743	5.95	12.470	66.24	0.22	27.075	35.775	44.096	0.122	1501.3	119.	101.14	0.750
140.	12.479	35.743	5.92	12.460	66.36	0.19	27.077	35.777	44.098	0.142	1501.6	139.	101.57	0.498
160.	12.463	35.739	5.90	12.442	66.30	0.18	27.077	35.779	44.100	0.163	1501.9	159.	102.07	0.348
180.	12.442	35.734	5.89	12.418	66.34	0.25	27.078	35.781	44.103	0.183	1502.2	178.	102.54	0.425
200.	12.443	35.735	5.92	12.416	66.34	0.19	27.079	35.781	44.104	0.204	1502.5	198.	103.07	0.281
220.	12.434	35.733	5.88	12.404	66.28	0.18	27.080	35.783	44.106	0.224	1502.8	218.	103.53	0.430
240.	12.416	35.729	5.85	12.384	66.46	0.17	27.081	35.785	44.108	0.245	1503.1	238.	103.99	0.429
260.	12.398	35.726	5.87	12.363	66.62	0.20	27.083	35.787	44.112	0.266	1503.3	258.	104.40	0.525
280.	12.354	35.716	5.85	12.316	66.80	0.19	27.084	35.790	44.117	0.287	1503.5	278.	104.83	0.476
300.	12.301	35.705	5.82	12.260	67.08	0.15	27.087	35.795	44.124	0.308	1503.6	297.	105.10	0.701
350.	11.910	35.628	5.62	11.864	67.85	0.15	27.103	35.829	44.173	0.360	1503.1	347.	104.66	1.108
400.	11.469	35.556	5.48	11.417	68.19	0.17	27.132	35.876	44.238	0.412	1502.3	396.	103.00	1.420
450.	11.303	35.535	5.49	11.246	68.29	0.19	27.147	35.899	44.267	0.464	1502.5	446.	102.66	1.051
500.	11.104	35.507	5.40	11.040	68.37	0.16	27.163	35.924	44.300	0.515	1502.6	495.	102.25	1.070
550.	10.756	35.456	5.27	10.688	68.44	0.14	27.187	35.963	44.354	0.566	1502.1	545.	100.88	1.330
600.	10.601	35.455	5.26	10.527	68.50	0.15	27.215	35.997	44.394	0.615	1502.4	594.	99.34	1.364
650.	10.435	35.450	5.10	10.355	68.47	0.12	27.242	36.031	44.435	0.665	1502.7	644.	97.82	1.357
700.	10.133	35.424	5.00	10.048	68.55	0.16	27.275	36.078	44.494	0.713	1502.4	693.	95.43	1.551
750.	9.945	35.426	4.88	9.855	68.55	0.17	27.310	36.121	44.544	0.760	1502.5	743.	93.05	1.544
800.	10.068	35.524	4.71	9.971	68.59	0.13	27.366	36.171	44.588	0.806	1503.9	792.	89.17	1.842
850.	10.076	35.605	4.56	9.972	68.60	0.14	27.429	36.232	44.649	0.849	1504.9	842.	84.48	1.986
900.	10.003	35.652	4.52	9.894	68.62	0.16	27.480	36.285	44.705	0.891	1505.5	891.	80.81	1.807
950.	9.935	35.730	4.49	9.820	68.66	0.15	27.553	36.361	44.782	0.929	1506.2	940.	74.97	2.172
1000.	9.672	35.715	4.53	9.553	68.66	0.16	27.587	36.406	44.838	0.966	1506.0	990.	72.43	1.577
1200.	8.168	35.569	4.88	8.036	68.68	0.16	27.716	36.604	45.100	1.097	1503.6	1187.	61.06	1.624
1400.	5.707	35.180	5.53	5.578	68.65	0.15	27.748	36.757	45.367	1.211	1496.9	1384.	53.96	1.331
1600.	4.411	35.000	6.10	4.277	68.61	0.18	27.756	36.833	45.506	1.317	1494.8	1581.	50.97	0.966
1800.	3.975	34.955	6.31	3.827	68.62	0.18	27.768	36.869	45.564	1.417	1496.2	1778.	50.09	0.713
2000.	3.701	34.940	6.36	3.538	68.67	0.16	27.786	36.901	45.611	1.517	1498.4	1975.	49.07	0.710
2200.	3.572	34.946	6.33	3.392	68.71	0.16	27.805	36.928	45.645	1.614	1501.3	2171.	48.38	0.657
2400.	3.421	34.953	6.27	3.223	68.74	0.13	27.826	36.958	45.683	1.710	1504.0	2367.	47.26	0.704
2600.	3.273	34.961	6.19	3.058	68.77	0.12	27.849	36.989	45.722	1.803	1506.8	2564.	45.91	0.724
2800.	3.094	34.960	6.08	2.862	68.80	0.12	27.866	37.017	45.760	1.893	1509.4	2759.	44.65	0.706
3000.	2.870	34.952	5.97	2.622	68.83	0.12	27.881	37.045	45.800	1.981	1511.8	2955.	43.14	0.725
3200.	2.758	34.943	5.90	2.492	68.83	0.09	27.885	37.057	45.818	2.067	1514.8	3151.	43.20	0.494
3400.	2.662	34.934	5.80	2.376	68.76	0.08	27.888	37.065	45.833	2.154	1517.8	3346.	43.47	0.450
3600.	2.618	34.928	5.74	2.311	68.78	0.08	27.889	37.070	45.841	2.241	1521.0	3541.	44.23	0.334
3800.	2.603	34.924	5.70	2.274	68.73	0.09	27.889	37.072	45.845	2.331	1524.4	3736.	45.29	0.243
3900.	2.598	34.923	5.68	2.258	68.73	0.08	27.889	37.073	45.847	2.376	1526.1	3834.	45.79	0.265
4000.	2.597	34.922	5.68	2.246	68.69	0.08	27.889	37.074	45.848	2.422	1527.8	3931.	46.39	0.181
4100.	2.602	34.921	5.66	2.239	68.68	0.07	27.889	37.074	45.849	2.469	1529.5	4029.	47.03	0.152
4200.	2.611	34.921	5.67	2.236	68.68	0.08	27.889	37.074	45.850	2.517	1531.3	4126.	47.69	0.117
4300.	2.618	34.920	5.67	2.231	68.69	0.08	27.889	37.075	45.850	2.565	1533.0	4223.	48.35	0.136
4400.	2.624	34.920	5.68	2.225	68.69	0.05	27.889	37.075	45.851	2.613	1534.8	4320.	49.00	0.134
4500.	2.628	34.919	5.67	2.216	68.71	0.08	27.889	37.075	45.852	2.662	1536.5	4418.	49.62	0.181
4600.	2.635	34.918	5.68	2.211	68.69	0.06	27.889	37.076	45.852	2.712	1538.3	4515.	50.25	0.166
4700.	2.641	34.918	5.66	2.204	68.65	0.07	27.890	37.077	45.854	2.763	1540.0	4612.	50.83	0.216
4800.	2.647	34.917	5.67	2.198	68.63	0.05	27.889	37.077	45.854	2.814	1541.8	4709.	51.54	0.047
4900.	2.654	34.916	5.67	2.192	68.62	0.06	27.889	37.077	45.855	2.866	1543.6	4806.	52.17	0.182
5000.	2.664	34.916	5.66	2.189	68.59	0.06	27.889	37.077	45.855	2.919	1545.3	4903.	52.87	0.073
5100.	2.671	34.915	5.67	2.183	68.56	0.06	27.889	37.077	45.855	2.972	1547.1	5000.	53.57	0.095
5200.	2.679	34.915	5.67	2.178	68.55	0.20	27.889	37.078	45.856	3.026	1548.9	5097.	54.19	0.198
5300.	2.690	34.914	5.68	2.175	68.52	0.24	27.888	37.077	45.856	3.080	1550.7	5194.	54.92	-0.056

Sample data

5303.	2.689	34.912	5.69	2.174
4539.	2.631	34.916	5.67	2.215
3452.	2.648	34.930	5.79	2.357
1975.	3.737	34.939	6.35	3.576
1860.	3.854	34.947	6.33	3.702
962.	9.697	35.726	4.67	9.582
741.	10.055	35.535	4.56	9.966
502.	11.085	35.505	5.41	11.022
377.	11.617	35.580	5.51	11.568
219.	12.435	35.733	5.99	12.406
36.	12.705	35.746	6.17	12.700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1.5
10
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34.6
1.0
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40
34.2
0.5
6
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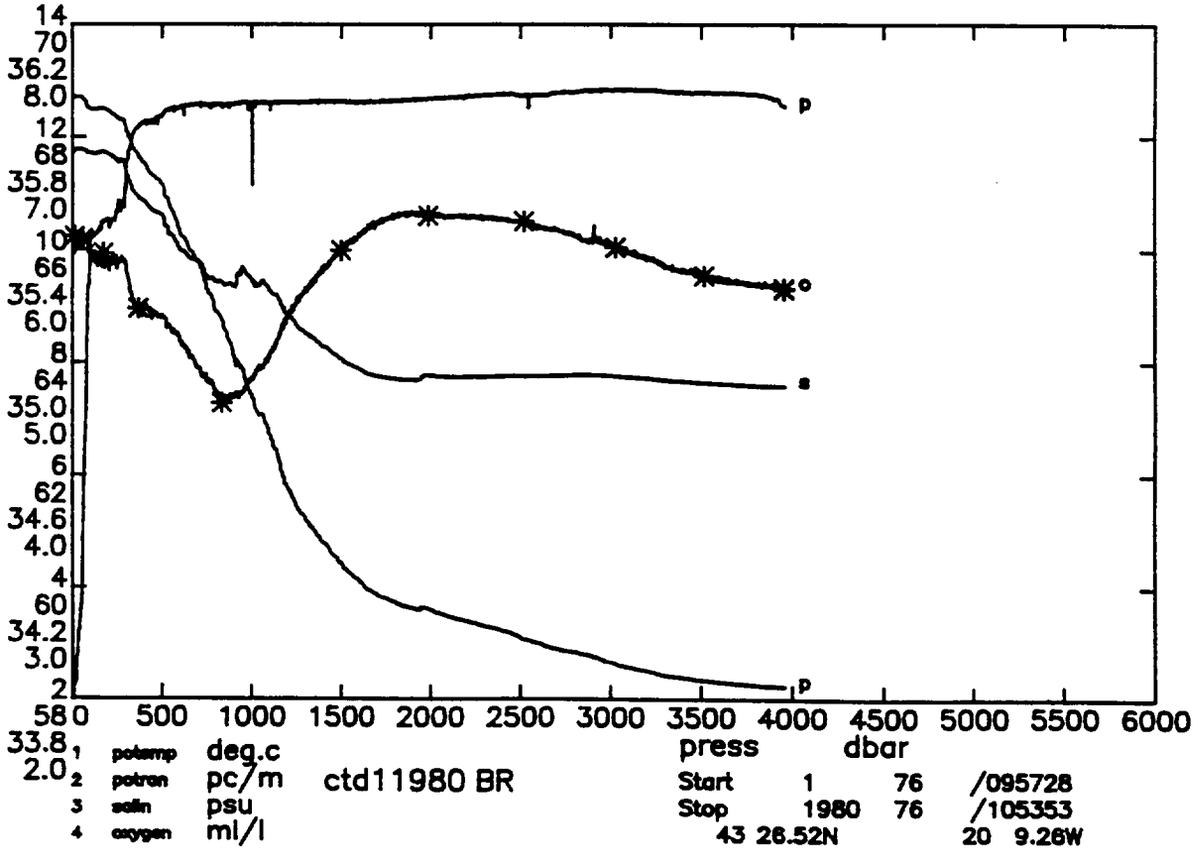
33.8 0.0
p
s
p
f
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11980 BR
press dbar
Start 1 76 /095728
Stop 140 76 /100241
43 26.52N 20 9.26W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35.4
6.0
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35.0
5.0
6
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34.6
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34.2
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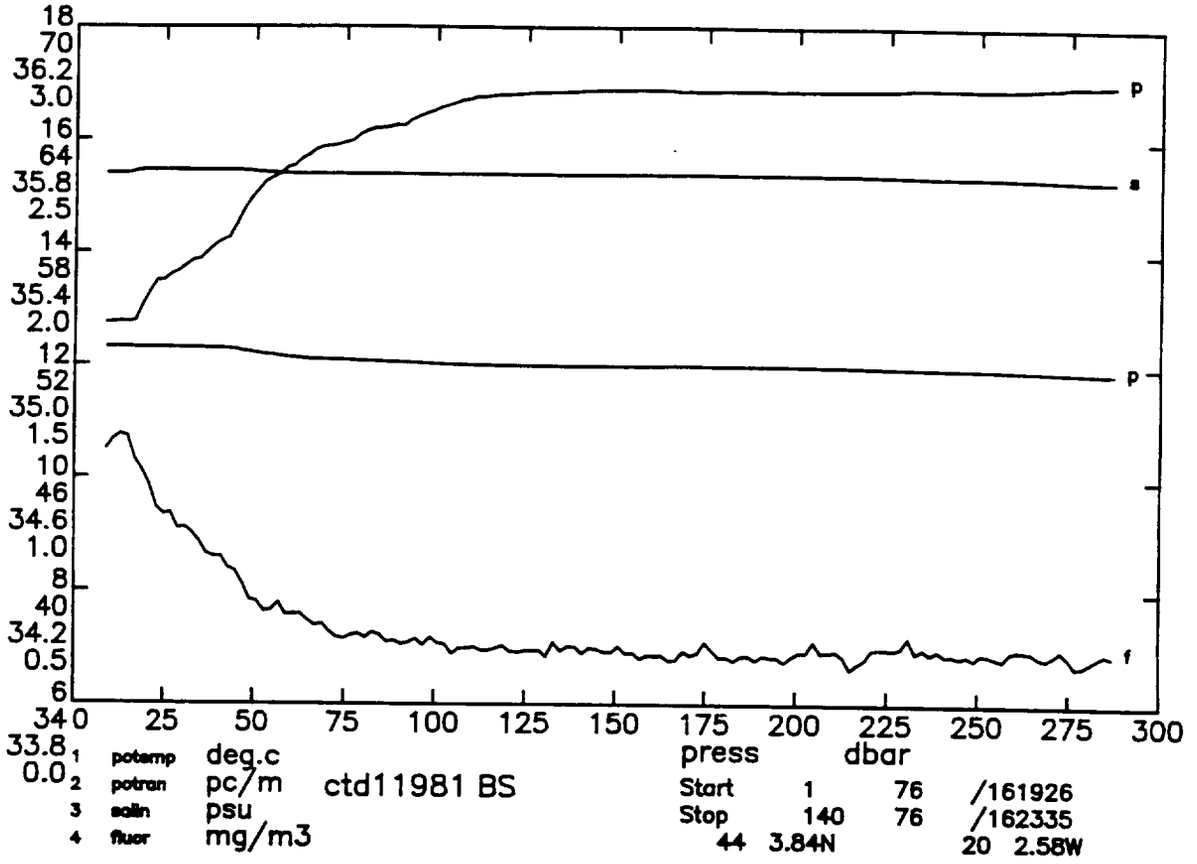
58 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
33.8 2.0
p
o
s
p
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11980 BR
press dbar
Start 1 76 /095728
Stop 1980 76 /105353
43 26.52N 20 9.26W

DISCOVERY CRUISE 189 STATION 11980

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.705	35.748	5.98	12.704	58.18	0.82	27.032	35.723	44.035	0.010	1500.3	10.	102.02	-9.999
20.	12.714	35.753	6.04	12.711	58.32	0.75	27.034	35.725	44.037	0.020	1500.5	20.	102.11	0.822
30.	12.720	35.756	6.10	12.716	58.94	0.67	27.036	35.726	44.038	0.031	1500.7	30.	102.26	0.702
40.	12.718	35.756	6.06	12.713	59.32	0.58	27.037	35.727	44.039	0.041	1500.8	40.	102.46	0.559
50.	12.714	35.756	6.09	12.707	59.72	0.55	27.038	35.729	44.041	0.051	1501.0	50.	102.63	0.627
60.	12.684	35.755	6.09	12.676	61.10	0.48	27.043	35.735	44.048	0.061	1501.0	60.	102.46	1.243
70.	12.654	35.751	6.10	12.645	62.51	0.38	27.047	35.740	44.054	0.072	1501.1	69.	102.41	1.079
80.	12.582	35.746	6.07	12.571	64.07	0.31	27.057	35.754	44.070	0.082	1501.0	79.	101.67	1.855
90.	12.538	35.742	5.97	12.526	65.36	0.27	27.063	35.761	44.079	0.092	1501.0	89.	101.42	1.332
100.	12.519	35.743	5.96	12.506	66.19	0.19	27.068	35.766	44.085	0.102	1501.1	99.	101.27	1.219
120.	12.499	35.738	5.97	12.483	66.25	0.21	27.068	35.768	44.088	0.122	1501.4	119.	101.78	0.325
140.	12.509	35.739	5.87	12.490	66.30	0.21	27.068	35.767	44.087	0.143	1501.7	139.	102.41	-0.297
160.	12.537	35.747	5.92	12.515	66.44	0.21	27.069	35.767	44.086	0.163	1502.2	159.	102.89	0.421
180.	12.524	35.744	5.88	12.500	66.50	0.21	27.070	35.769	44.088	0.184	1502.5	178.	103.37	0.398
200.	12.499	35.738	5.90	12.472	66.55	0.23	27.071	35.771	44.091	0.205	1502.7	198.	103.84	0.413
220.	12.449	35.730	5.88	12.420	66.52	0.19	27.074	35.776	44.099	0.225	1502.9	218.	104.07	0.759
240.	12.403	35.719	5.94	12.371	66.61	0.20	27.076	35.780	44.104	0.246	1503.0	238.	104.47	0.539
260.	12.349	35.711	5.89	12.314	66.84	0.23	27.081	35.788	44.114	0.267	1503.2	258.	104.53	0.923
280.	12.342	35.711	5.91	12.305	66.85	0.22	27.082	35.789	44.116	0.288	1503.5	278.	104.98	0.449
300.	12.130	35.665	5.80	12.091	67.56	0.19	27.088	35.804	44.139	0.309	1503.0	297.	104.86	1.071
350.	11.775	35.596	5.50	11.729	68.14	0.16	27.104	35.836	44.185	0.362	1502.6	347.	104.45	1.091
400.	11.577	35.571	5.50	11.526	68.28	0.16	27.123	35.863	44.220	0.414	1502.7	396.	103.87	1.138
450.	11.359	35.538	5.45	11.301	68.29	0.16	27.139	35.889	44.255	0.465	1502.7	446.	103.48	1.072
500.	11.207	35.521	5.40	11.144	68.40	0.16	27.155	35.911	44.284	0.517	1503.0	495.	103.14	1.048
550.	10.769	35.452	5.29	10.700	68.51	0.16	27.182	35.957	44.347	0.568	1502.2	545.	101.38	1.425
600.	10.351	35.398	5.17	10.279	68.54	0.15	27.215	36.008	44.416	0.619	1501.5	594.	99.02	1.552
650.	10.082	35.372	5.04	10.004	68.57	0.15	27.242	36.047	44.466	0.668	1501.3	644.	97.31	1.395
700.	9.889	35.358	4.96	9.806	68.58	0.16	27.265	36.079	44.505	0.716	1501.4	693.	96.02	1.283
750.	9.379	35.305	4.83	9.292	68.57	0.16	27.310	36.146	44.594	0.763	1500.3	743.	92.16	1.830
800.	8.989	35.287	4.74	8.899	68.58	0.16	27.359	36.213	44.677	0.808	1499.7	792.	87.92	1.891
850.	8.657	35.274	4.70	8.563	68.58	0.18	27.402	36.271	44.749	0.852	1499.3	841.	84.34	1.763
900.	8.179	35.273	4.70	8.082	68.58	0.17	27.476	36.366	44.864	0.892	1498.3	891.	77.54	2.290
950.	7.948	35.334	4.74	7.847	68.61	0.19	27.559	36.459	44.967	0.929	1498.4	940.	70.24	2.359
1000.	7.505	35.292	4.85	7.402	67.82	0.14	27.592	36.512	45.039	0.963	1497.5	990.	67.17	1.642
1200.	5.861	35.170	5.43	5.751	68.63	0.17	27.719	36.719	45.321	1.084	1494.2	1187.	54.35	1.647
1400.	4.893	35.055	5.83	4.772	68.63	0.15	27.745	36.796	45.445	1.189	1493.5	1384.	51.49	0.968
1600.	4.220	34.974	6.13	4.088	68.62	0.15	27.757	36.843	45.526	1.291	1493.9	1581.	50.19	0.779
1800.	3.875	34.942	6.29	3.729	68.65	0.18	27.768	36.873	45.574	1.390	1495.8	1778.	49.69	0.657
2000.	3.753	34.951	6.29	3.590	68.68	0.17	27.789	36.902	45.609	1.489	1498.7	1975.	48.98	0.670
2200.	3.575	34.947	6.28	3.394	68.74	0.17	27.805	36.928	45.645	1.586	1501.3	2171.	48.37	0.648
2400.	3.416	34.950	6.26	3.219	68.77	0.15	27.825	36.957	45.682	1.682	1504.0	2367.	47.37	0.688
2500.	3.304	34.951	6.24	3.098	68.73	0.13	27.837	36.976	45.707	1.729	1505.2	2465.	46.37	0.797
2600.	3.212	34.952	6.20	2.998	68.75	0.12	27.847	36.991	45.727	1.775	1506.5	2563.	45.69	0.720
2700.	3.120	34.953	6.18	2.898	68.79	0.10	27.857	37.006	45.747	1.820	1507.8	2661.	44.90	0.741
2800.	3.070	34.956	6.12	2.838	68.80	0.13	27.865	37.017	45.761	1.865	1509.3	2759.	44.61	0.612
2900.	3.004	34.955	6.08	2.763	68.82	0.10	27.871	37.027	45.775	1.910	1510.7	2857.	44.34	0.603
3000.	2.910	34.951	6.06	2.661	68.84	0.10	27.877	37.039	45.792	1.954	1512.0	2955.	43.79	0.673
3100.	2.831	34.946	5.99	2.573	68.83	0.13	27.881	37.048	45.805	1.997	1513.4	3053.	43.52	0.594
3200.	2.777	34.943	5.92	2.510	68.82	0.09	27.884	37.054	45.814	2.041	1514.8	3151.	43.53	0.503
3300.	2.699	34.937	5.85	2.423	68.80	0.13	27.886	37.061	45.826	2.084	1516.2	3248.	43.33	0.562
3400.	2.668	34.932	5.82	2.383	68.78	0.12	27.886	37.063	45.830	2.128	1517.8	3346.	43.71	0.342
3500.	2.635	34.928	5.76	2.339	68.78	0.11	27.887	37.066	45.836	2.172	1519.3	3444.	43.96	0.394
3600.	2.613	34.925	5.73	2.307	68.79	0.11	27.887	37.068	45.839	2.216	1521.0	3541.	44.39	0.312
3700.	2.596	34.922	5.71	2.279	68.78	0.09	27.886	37.069	45.842	2.261	1522.6	3639.	44.87	0.273
3800.	2.580	34.918	5.69	2.252	68.77	0.12	27.886	37.070	45.845	2.306	1524.2	3736.	45.34	0.280
3900.	2.575	34.917	5.68	2.236	68.67	0.09	27.886	37.071	45.847	2.351	1525.9	3834.	45.87	0.235

Sample data

3952.	2.573	34.917	5.65	2.228
3513.	2.634	34.927	5.77	2.336
3024.	2.892	34.949	6.02	2.641
2517.	3.277	34.950	6.25	3.070
1985.	3.775	34.953	6.30	3.612
1497.	4.541	35.015	5.99	4.415
834.	8.819	35.284	4.64	8.726
368.	11.678	35.585	5.48	11.630
173.	12.534	35.748	5.97	12.510
59.	12.691	35.758	6.10	12.683
13.	12.713	35.755	6.12	12.711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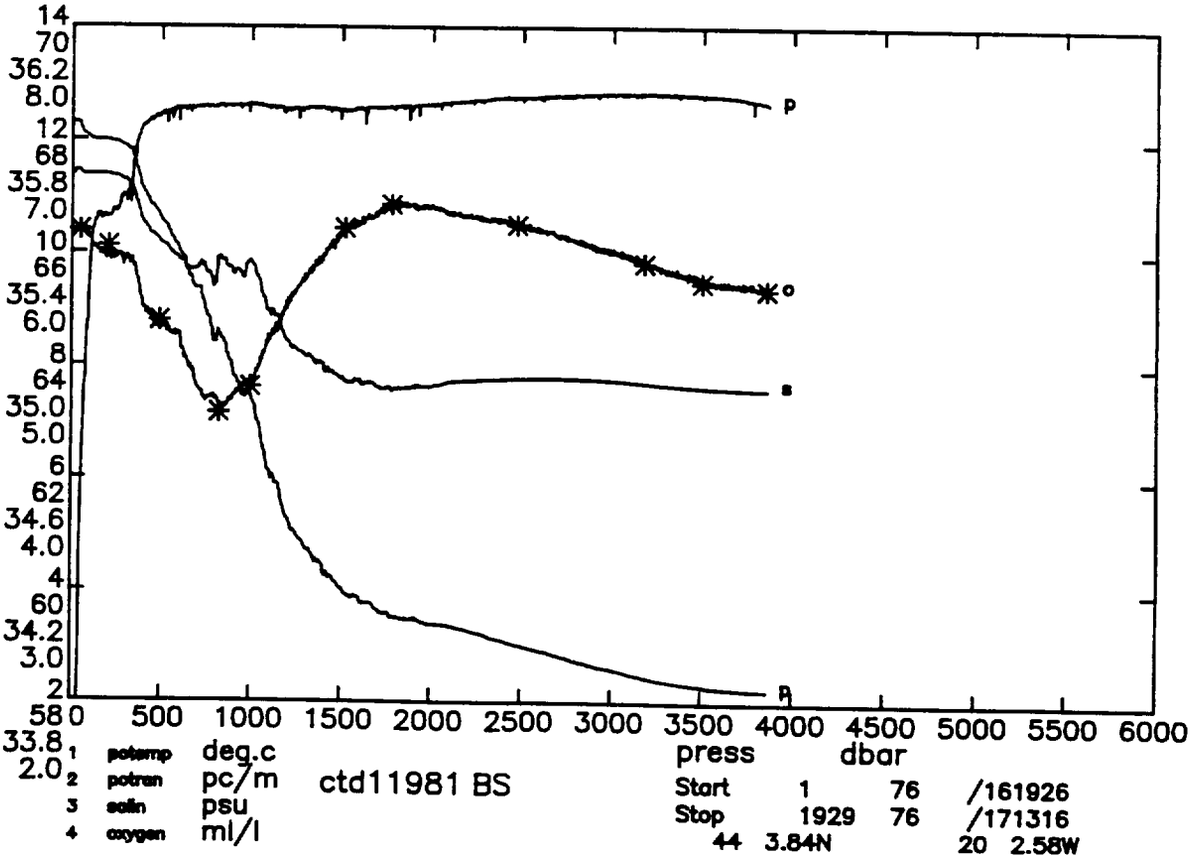
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11981 BS
press dbar
Start 1 76 /161926
Stop 140 76 /162335
44 3.84N 20 2.58W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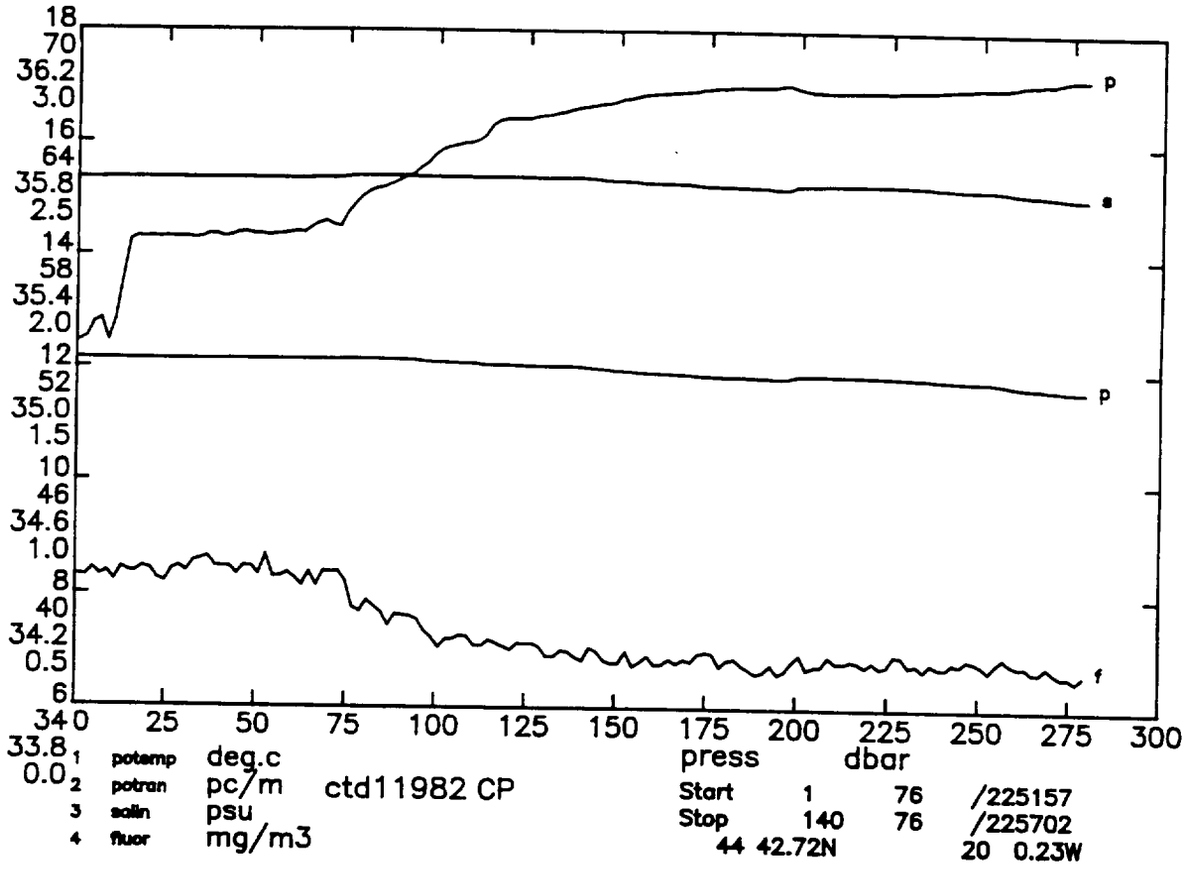
34.2
3.0
2
58
33.8
2.0
p
o
s
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11981 BS
press dbar
Start 1 76 /161926
Stop 1929 76 /171316
44 3.84N 20 2.58W

DISCOVERY CRUISE 189 STATION 11981

pres db	temp degc90	salin	oxygen ml/l	potemp degc90	potran %/m	fluor mg/m^3	sigma0 kg/m^3	sigma2 kg/m^3	sigma4 kg/m^3	dynht dyn.m	sndv m/s	depth m	svanom $10^{-8}m^3/kg$	bvfr cy/hr
10.	12.318	35.678	6.15	12.316	54.25	1.15	27.054	35.761	44.088	0.010	1498.9	10.	99.92	-9.999
20.	12.313	35.690	6.18	12.310	55.56	1.00	27.065	35.772	44.099	0.020	1499.0	20.	99.20	1.832
30.	12.313	35.692	6.22	12.309	57.18	0.78	27.067	35.774	44.101	0.030	1499.2	30.	99.28	0.833
40.	12.302	35.692	6.22	12.297	58.50	0.65	27.069	35.776	44.104	0.040	1499.3	40.	99.40	0.743
50.	12.225	35.686	6.22	12.218	61.06	0.45	27.080	35.790	44.121	0.050	1499.2	50.	98.65	1.856
60.	12.146	35.679	6.21	12.138	62.57	0.40	27.090	35.804	44.137	0.060	1499.1	60.	97.96	1.800
70.	12.111	35.677	6.18	12.101	63.63	0.34	27.096	35.811	44.146	0.069	1499.2	69.	97.66	1.399
80.	12.091	35.677	6.19	12.080	64.36	0.30	27.100	35.816	44.152	0.079	1499.3	79.	97.57	1.107
90.	12.074	35.677	6.17	12.062	64.76	0.27	27.103	35.820	44.156	0.089	1499.4	89.	97.53	1.043
100.	12.046	35.677	6.12	12.033	65.61	0.28	27.109	35.827	44.164	0.099	1499.4	99.	97.28	1.324
120.	12.017	35.677	6.06	12.001	66.42	0.25	27.115	35.834	44.172	0.118	1499.7	119.	97.27	0.980
140.	12.005	35.676	6.02	11.987	66.62	0.24	27.117	35.837	44.175	0.138	1500.0	139.	97.65	0.549
160.	12.009	35.676	6.00	11.988	66.67	0.22	27.117	35.837	44.176	0.157	1500.3	159.	98.16	0.259
180.	12.015	35.677	6.00	11.991	66.64	0.21	27.117	35.837	44.175	0.177	1500.7	178.	98.73	-0.123
200.	12.017	35.678	5.98	11.990	66.63	0.22	27.118	35.838	44.176	0.197	1501.0	198.	99.21	0.373
220.	12.002	35.674	5.96	11.973	66.65	0.22	27.118	35.839	44.178	0.217	1501.3	218.	99.73	0.243
240.	11.992	35.672	5.97	11.960	66.75	0.23	27.119	35.840	44.180	0.236	1501.6	238.	100.22	0.317
260.	11.979	35.668	5.98	11.945	66.78	0.24	27.119	35.841	44.181	0.257	1501.8	258.	100.73	0.288
280.	11.947	35.661	5.96	11.910	66.97	0.19	27.120	35.844	44.186	0.277	1502.1	278.	101.14	0.483
300.	11.918	35.657	5.93	11.878	67.00	0.28	27.123	35.847	44.191	0.297	1502.3	297.	101.43	0.665
350.	11.692	35.610	5.88	11.647	67.74	0.19	27.131	35.865	44.217	0.348	1502.3	347.	101.91	0.768
400.	11.156	35.507	5.50	11.105	68.26	0.19	27.151	35.909	44.283	0.399	1501.1	396.	100.90	1.251
450.	10.894	35.467	5.40	10.838	68.36	0.18	27.169	35.938	44.323	0.449	1501.0	446.	100.24	1.141
500.	10.654	35.436	5.34	10.592	68.44	0.18	27.189	35.968	44.363	0.499	1500.9	495.	99.42	1.179
550.	10.420	35.408	5.29	10.353	68.51	0.15	27.209	35.999	44.404	0.548	1500.9	545.	98.41	1.222
600.	10.134	35.377	5.28	10.062	68.45	0.14	27.236	36.039	44.455	0.597	1500.7	594.	96.74	1.389
650.	9.741	35.346	5.01	9.665	68.57	0.15	27.279	36.099	44.532	0.645	1500.0	644.	93.31	1.754
700.	9.449	35.343	4.80	9.369	68.58	0.18	27.327	36.159	44.604	0.690	1499.8	693.	89.56	1.809
750.	9.034	35.336	4.70	8.949	68.60	0.16	27.390	36.241	44.702	0.734	1499.1	743.	84.11	2.096
800.	8.546	35.298	4.71	8.458	68.58	0.17	27.438	36.311	44.793	0.775	1498.1	792.	79.80	1.896
850.	8.529	35.373	4.62	8.435	68.58	0.17	27.500	36.373	44.855	0.813	1498.9	841.	74.98	1.981
900.	7.944	35.327	4.73	7.849	68.60	0.18	27.554	36.454	44.961	0.850	1497.5	891.	69.78	2.041
950.	7.650	35.320	4.81	7.551	68.60	0.18	27.592	36.505	45.026	0.883	1497.2	940.	66.56	1.673
1000.	7.536	35.370	4.86	7.433	68.64	0.18	27.649	36.567	45.092	0.915	1497.7	990.	61.91	1.938
1200.	5.396	35.089	5.52	5.289	68.54	0.15	27.711	36.736	45.360	1.030	1492.2	1187.	53.70	1.385
1400.	4.546	35.002	5.96	4.429	68.58	0.15	27.742	36.811	45.476	1.133	1492.0	1384.	50.62	0.970
1600.	3.997	34.947	6.27	3.868	68.57	0.20	27.758	36.856	45.550	1.233	1493.0	1581.	49.20	0.779
1800.	3.657	34.915	6.42	3.513	68.59	0.17	27.768	36.885	45.597	1.331	1494.9	1778.	48.68	0.645
2000.	3.551	34.925	6.43	3.390	68.63	0.13	27.788	36.912	45.629	1.428	1497.8	1974.	48.09	0.641
2200.	3.468	34.945	6.34	3.289	68.69	0.13	27.814	36.942	45.664	1.523	1500.8	2171.	47.00	0.701
2400.	3.301	34.951	6.29	3.105	68.75	0.14	27.837	36.975	45.705	1.616	1503.5	2367.	45.62	0.729
2500.	3.221	34.954	6.25	3.017	68.73	0.14	27.847	36.990	45.725	1.661	1504.9	2465.	44.98	0.710
2600.	3.145	34.955	6.19	2.933	68.75	0.13	27.855	37.002	45.742	1.706	1506.2	2563.	44.51	0.664
2700.	3.071	34.954	6.15	2.850	68.80	0.12	27.862	37.014	45.757	1.750	1507.6	2661.	44.12	0.640
2800.	2.985	34.952	6.11	2.755	68.82	0.13	27.869	37.026	45.775	1.794	1508.9	2759.	43.61	0.669
2900.	2.917	34.950	6.07	2.678	68.83	0.13	27.874	37.035	45.788	1.837	1510.3	2857.	43.39	0.583
3000.	2.864	34.948	6.00	2.616	68.84	0.16	27.878	37.043	45.798	1.881	1511.8	2955.	43.32	0.532
3100.	2.793	34.943	5.98	2.536	68.83	0.16	27.881	37.050	45.810	1.924	1513.2	3053.	43.18	0.551
3200.	2.729	34.938	5.89	2.463	68.84	0.15	27.884	37.056	45.820	1.967	1514.6	3150.	43.13	0.518
3300.	2.672	34.933	5.85	2.396	68.84	0.13	27.885	37.061	45.828	2.010	1516.1	3248.	43.19	0.475
3400.	2.633	34.928	5.81	2.348	68.82	0.12	27.885	37.064	45.834	2.053	1517.6	3346.	43.47	0.382
3500.	2.605	34.924	5.78	2.310	68.79	0.16	27.885	37.067	45.838	2.097	1519.2	3443.	43.81	0.353
3600.	2.580	34.920	5.73	2.275	68.80	0.12	27.885	37.069	45.842	2.141	1520.8	3541.	44.20	0.322
3700.	2.569	34.918	5.72	2.253	68.75	0.10	27.885	37.070	45.844	2.185	1522.5	3638.	44.69	0.269
3800.	2.564	34.917	5.70	2.237	68.69	0.10	27.885	37.071	45.846	2.230	1524.2	3736.	45.22	0.232

Sample data

3857.	2.564	34.916	5.68	2.230
3500.	2.604	34.924	5.74	2.309
3180.	2.738	34.939	5.91	2.474
2472.	3.233	34.954	6.25	3.031
1777.	3.665	34.917	6.43	3.523
1519.	4.067	34.945	6.22	3.944
994.	7.586	35.335	4.81	7.483
820.	8.699	35.398	4.58	8.608
489.	10.727	35.447	5.40	10.667
203.	12.013	35.677	6.06	11.986
44.	12.287	35.692	6.20	12.281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press dbar
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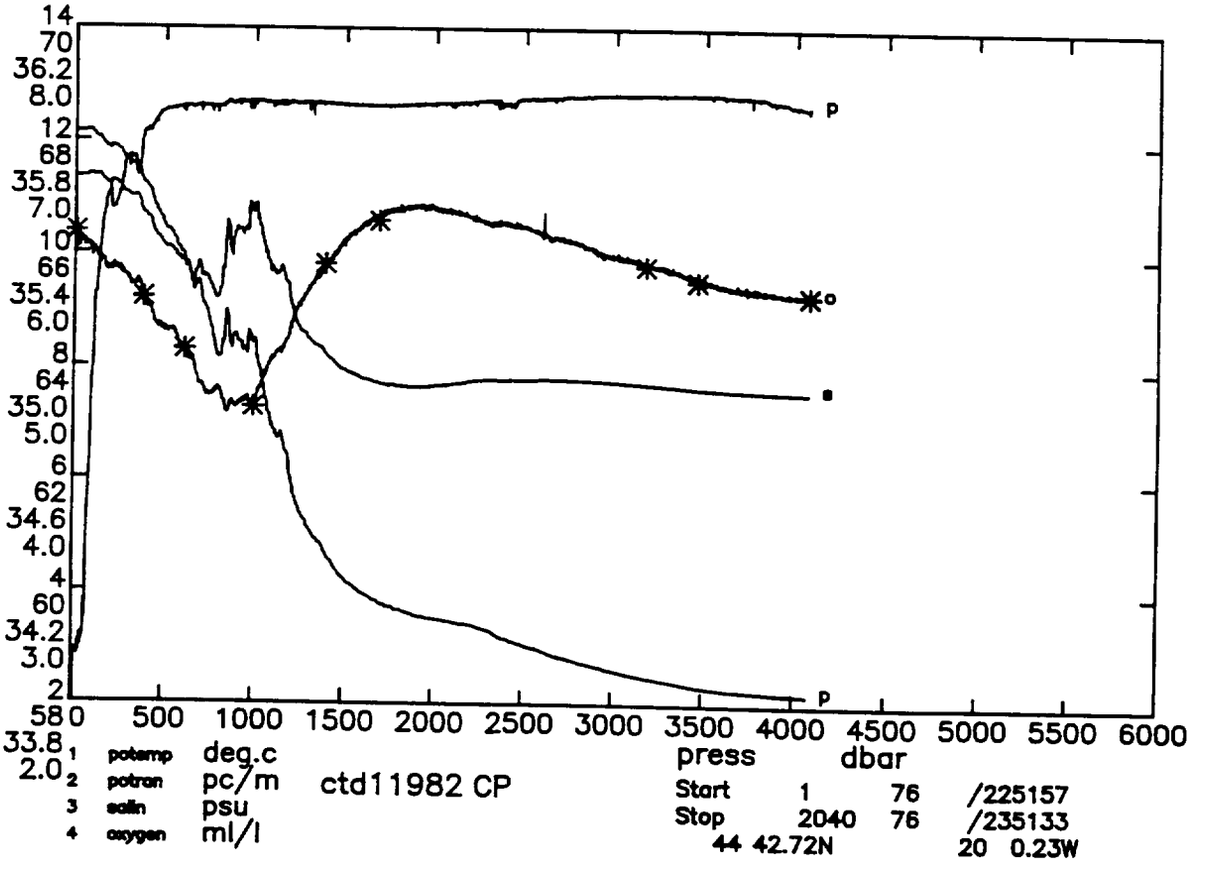
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11982 CP
Start 1 76 /225157
Stop 140 76 /225702
44 42.72N 20 0.23W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press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11982 CP
Start 1 76 /225157
Stop 2040 76 /235133
44 42.72N 20 0.23W

DISCOVERY CRUISE 189 STATION 11982

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	12.150	35.671	6.15	12.148	53.94	0.58	27.082	35.795	44.128	0.010	1498.3	10.	97.32	-9.999
20.	12.152	35.671	6.12	12.149	58.92	0.61	27.082	35.795	44.128	0.019	1498.5	20.	97.61	-0.042
30.	12.151	35.671	6.09	12.147	58.92	0.61	27.082	35.796	44.129	0.029	1498.6	30.	97.87	0.277
40.	12.153	35.671	6.10	12.147	59.01	0.62	27.082	35.795	44.129	0.039	1498.8	40.	98.16	-0.189
50.	12.158	35.671	6.10	12.151	59.11	0.60	27.081	35.795	44.128	0.049	1499.0	50.	98.48	-0.356
60.	12.163	35.672	6.07	12.155	59.23	0.58	27.081	35.794	44.127	0.059	1499.2	60.	98.79	-0.286
70.	12.168	35.673	6.07	12.159	59.72	0.60	27.082	35.795	44.128	0.069	1499.4	69.	99.01	0.444
80.	12.183	35.681	6.07	12.173	61.26	0.45	27.085	35.797	44.129	0.079	1499.6	79.	99.01	0.979
90.	12.176	35.681	6.04	12.164	62.07	0.41	27.086	35.799	44.132	0.088	1499.7	89.	99.13	0.739
100.	12.129	35.678	6.01	12.116	63.49	0.29	27.093	35.808	44.142	0.098	1499.7	99.	98.77	1.467
120.	12.083	35.678	6.01	12.067	65.28	0.26	27.103	35.820	44.156	0.118	1499.9	119.	98.39	1.251
140.	12.059	35.677	5.97	12.041	65.93	0.22	27.107	35.825	44.162	0.138	1500.1	139.	98.53	0.833
160.	11.953	35.659	5.93	11.932	66.64	0.21	27.114	35.836	44.177	0.157	1500.1	159.	98.44	1.042
180.	11.902	35.648	5.86	11.879	67.00	0.20	27.116	35.840	44.184	0.177	1500.2	178.	98.81	0.556
200.	11.916	35.653	5.86	11.890	66.96	0.23	27.118	35.842	44.185	0.197	1500.6	198.	99.15	0.598
220.	11.922	35.655	5.91	11.893	66.81	0.20	27.119	35.843	44.186	0.217	1501.0	218.	99.61	0.391
240.	11.876	35.646	5.87	11.845	66.98	0.19	27.121	35.847	44.192	0.237	1501.1	238.	99.92	0.633
260.	11.793	35.631	5.85	11.760	67.23	0.20	27.126	35.855	44.203	0.257	1501.2	258.	100.02	0.873
280.	11.705	35.616	5.81	11.669	67.64	0.17	27.131	35.864	44.216	0.277	1501.2	278.	100.02	0.952
300.	11.671	35.609	5.78	11.633	67.62	0.19	27.133	35.868	44.220	0.297	1501.4	297.	100.37	0.564
350.	11.591	35.600	5.76	11.546	67.40	0.18	27.142	35.881	44.237	0.347	1501.9	347.	100.78	0.795
400.	11.272	35.535	5.54	11.221	68.16	0.14	27.152	35.904	44.274	0.398	1501.6	396.	100.92	0.891
450.	10.877	35.470	5.38	10.821	68.36	0.19	27.174	35.944	44.330	0.448	1500.9	446.	99.72	1.290
500.	10.545	35.428	5.32	10.484	68.51	0.14	27.201	35.986	44.385	0.497	1500.5	495.	98.08	1.389
550.	10.369	35.409	5.33	10.302	68.58	0.16	27.219	36.011	44.417	0.546	1500.7	545.	97.46	1.113
600.	10.083	35.376	5.15	10.011	68.55	0.16	27.244	36.049	44.467	0.594	1500.5	594.	95.94	1.349
650.	9.642	35.321	5.07	9.566	68.59	0.14	27.276	36.101	44.538	0.642	1499.7	644.	93.45	1.563
700.	9.522	35.361	4.84	9.441	68.59	0.12	27.329	36.158	44.599	0.687	1500.1	693.	89.50	1.844
750.	8.923	35.302	4.74	8.839	68.62	0.14	27.381	36.237	44.703	0.731	1498.7	743.	84.76	1.979
800.	8.266	35.244	4.81	8.180	68.60	0.17	27.438	36.324	44.819	0.772	1497.0	792.	79.28	2.090
850.	9.070	35.513	4.59	8.973	68.69	0.16	27.524	36.371	44.830	0.810	1501.1	841.	73.75	2.102
900.	8.667	35.483	4.65	8.566	68.68	0.17	27.565	36.431	44.906	0.846	1500.4	891.	70.17	1.766
950.	8.407	35.486	4.71	8.303	68.69	0.17	27.609	36.486	44.972	0.880	1500.3	940.	66.58	1.762
1000.	8.592	35.572	4.68	8.481	68.70	0.17	27.649	36.517	44.995	0.913	1501.9	990.	64.29	1.495
1200.	6.182	35.236	5.34	6.068	68.69	0.15	27.730	36.715	45.301	1.030	1495.6	1187.	54.19	1.519
1400.	4.799	35.044	5.89	4.680	68.67	0.17	27.747	36.802	45.455	1.135	1493.1	1384.	51.03	0.998
1600.	4.102	34.960	6.26	3.971	68.64	0.17	27.757	36.850	45.538	1.235	1493.4	1581.	49.67	0.781
1800.	3.816	34.932	6.39	3.670	68.64	0.15	27.766	36.875	45.578	1.335	1495.5	1778.	49.55	0.599
2000.	3.677	34.935	6.39	3.514	68.66	0.14	27.784	36.901	45.612	1.434	1498.3	1974.	49.10	0.632
2200.	3.590	34.951	6.33	3.410	68.70	0.16	27.807	36.929	45.645	1.531	1501.3	2171.	48.27	0.675
2400.	3.370	34.954	6.28	3.173	68.67	0.14	27.832	36.967	45.694	1.626	1503.8	2367.	46.42	0.786
2600.	3.192	34.960	6.16	2.978	68.77	0.11	27.855	37.000	45.737	1.717	1506.4	2563.	44.84	0.748
2700.	3.087	34.957	6.14	2.866	68.79	0.10	27.863	37.014	45.757	1.761	1507.7	2661.	44.12	0.723
2800.	3.016	34.956	6.09	2.785	68.80	0.14	27.869	37.024	45.771	1.805	1509.1	2759.	43.83	0.609
2900.	2.941	34.953	6.04	2.702	68.83	0.16	27.875	37.034	45.785	1.849	1510.4	2857.	43.53	0.608
3000.	2.874	34.949	5.98	2.626	68.84	0.11	27.878	37.042	45.797	1.892	1511.9	2955.	43.40	0.554
3100.	2.808	34.945	5.95	2.551	68.83	0.14	27.882	37.050	45.808	1.936	1513.3	3052.	43.26	0.552
3200.	2.751	34.940	5.92	2.485	68.84	0.12	27.884	37.055	45.817	1.979	1514.7	3150.	43.31	0.487
3300.	2.710	34.936	5.87	2.434	68.83	0.11	27.885	37.059	45.824	2.022	1516.3	3248.	43.52	0.417
3400.	2.662	34.931	5.82	2.376	68.84	0.08	27.885	37.063	45.831	2.066	1517.8	3346.	43.70	0.432
3500.	2.620	34.926	5.78	2.325	68.84	0.06	27.886	37.066	45.837	2.110	1519.3	3443.	43.93	0.403
3600.	2.595	34.923	5.73	2.290	68.81	0.08	27.886	37.068	45.841	2.154	1520.9	3541.	44.28	0.348
3700.	2.583	34.920	5.71	2.267	68.82	0.10	27.886	37.069	45.843	2.198	1522.5	3638.	44.80	0.245
3800.	2.576	34.918	5.68	2.248	68.80	0.10	27.886	37.071	45.845	2.243	1524.2	3736.	45.30	0.259
3900.	2.563	34.915	5.68	2.224	68.73	0.11	27.886	37.072	45.848	2.289	1525.9	3833.	45.78	0.271
4000.	2.562	34.914	5.65	2.212	68.65	0.10	27.885	37.072	45.849	2.335	1527.6	3931.	46.37	0.189

Sample data

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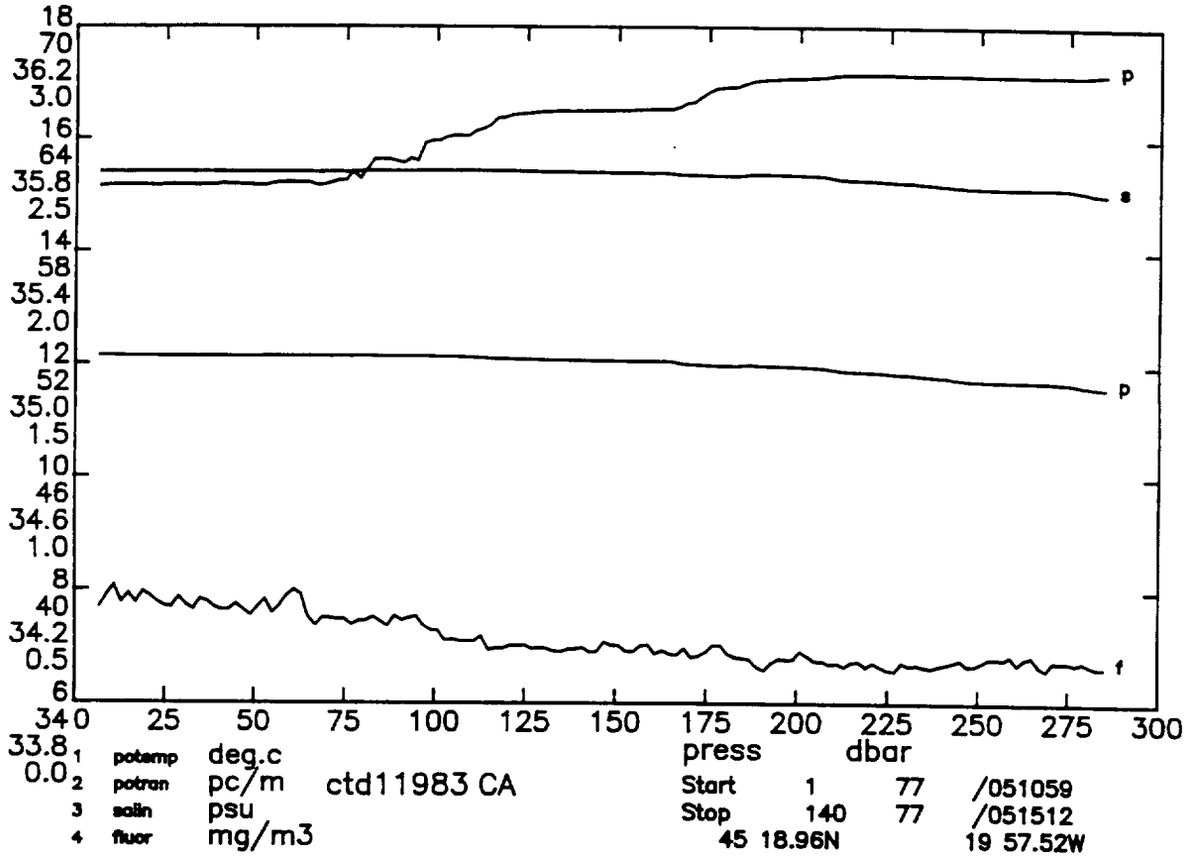
3461.	2.633	34.927	5.77	2.341
3174.	2.766	34.942	5.90	2.502
2015.	3.671	34.936	-9.99	3.507
1684.	3.961	34.947	6.29	3.825
1389.	4.876	35.056	5.91	4.757
991.	8.542	35.548	4.64	8.432
611.	10.040	35.371	5.15	9.967
381.	11.309	35.540	5.61	11.260
10.	12.154	35.675	6.19	12.154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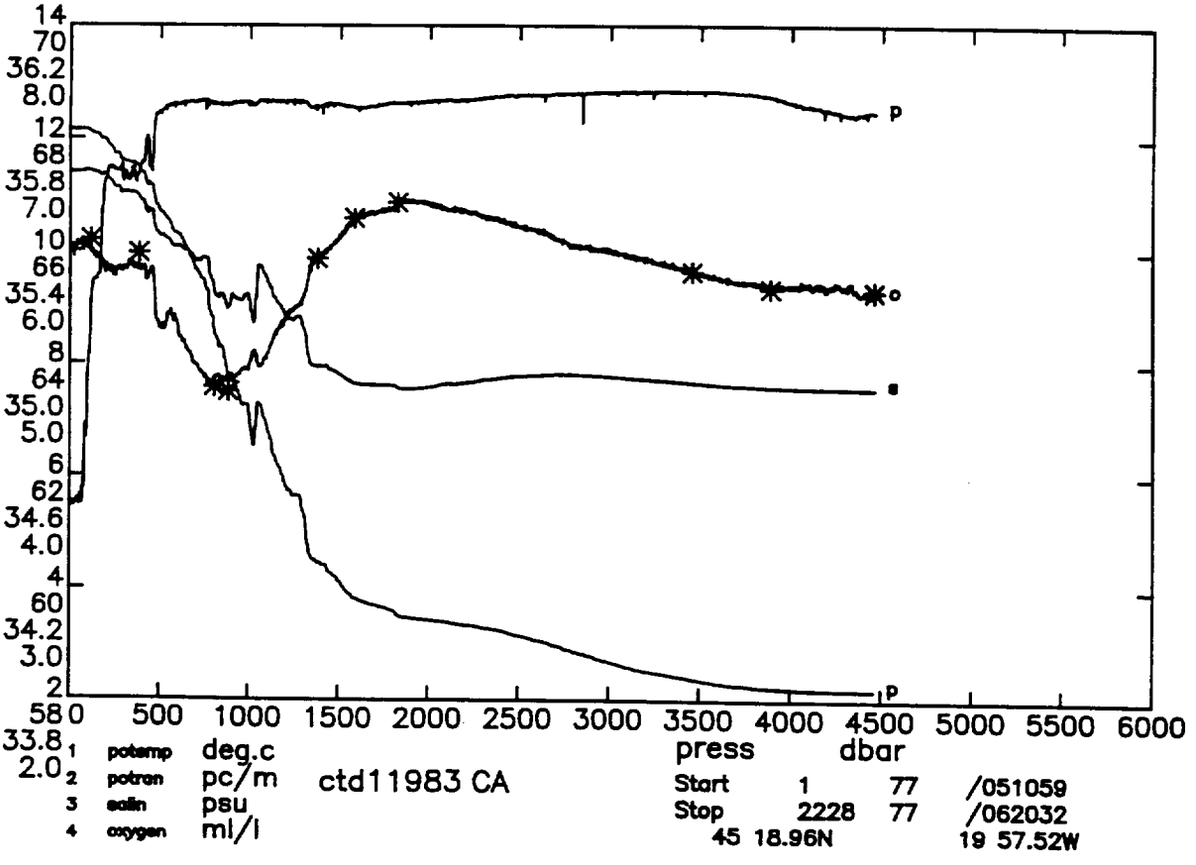
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11983 CA
Start 1 77 /051059
Stop 140 77 /051512
45 18.96N 19 57.52W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33.8
2.0
p
o
s
p
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press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11983 CA
Start 1 77 /051059
Stop 2228 77 /062032
45 18.96N 19 57.52W

DISCOVERY CRUISE 189 STATION 11983

pres db	temp degc90	salin	oxygen ml/l	potemp degc90	potran %/m	fluor mg/m^3	sigma0 kg/m^3	sigma2 kg/m^3	sigma4 kg/m^3	dynht dyn.m	sndv m/s	depth m	svanom 10^{-8}m^3/kg	bvfr cy/hr
10.	12.151	35.680	6.01	12.149	61.51	0.50	27.088	35.802	44.135	0.010	1498.3	10.	96.67	-9.999
20.	12.150	35.680	6.02	12.147	61.48	0.48	27.089	35.802	44.135	0.019	1498.5	20.	96.93	0.282
30.	12.150	35.679	6.01	12.146	61.50	0.45	27.089	35.802	44.135	0.029	1498.6	30.	97.23	-0.249
40.	12.153	35.679	6.08	12.148	61.55	0.42	27.088	35.802	44.135	0.039	1498.8	40.	97.54	-0.293
50.	12.150	35.679	6.05	12.144	61.49	0.41	27.089	35.803	44.136	0.049	1499.0	50.	97.76	0.473
60.	12.157	35.680	6.05	12.149	61.65	0.49	27.088	35.802	44.135	0.058	1499.2	60.	98.10	-0.453
70.	12.160	35.680	6.07	12.151	61.58	0.38	27.088	35.802	44.135	0.068	1499.3	69.	98.38	0.141
80.	12.169	35.683	6.08	12.158	62.10	0.37	27.090	35.803	44.135	0.078	1499.5	79.	98.56	0.593
90.	12.165	35.683	6.04	12.153	62.73	0.38	27.090	35.803	44.136	0.088	1499.7	89.	98.79	0.408
100.	12.161	35.685	6.02	12.148	63.90	0.32	27.093	35.806	44.139	0.098	1499.8	99.	98.82	0.923
120.	12.124	35.683	5.99	12.108	65.20	0.25	27.099	35.814	44.148	0.118	1500.0	119.	98.79	0.997
140.	12.101	35.679	5.95	12.083	65.49	0.24	27.100	35.817	44.152	0.137	1500.3	139.	99.20	0.495
160.	12.085	35.676	5.94	12.064	65.58	0.24	27.102	35.819	44.155	0.157	1500.6	159.	99.60	0.516
180.	12.003	35.666	5.91	11.979	66.77	0.24	27.111	35.831	44.170	0.177	1500.6	178.	99.31	1.190
200.	11.992	35.670	5.82	11.965	67.27	0.21	27.116	35.837	44.177	0.197	1500.9	198.	99.35	0.935
220.	11.906	35.652	5.81	11.877	67.48	0.17	27.119	35.844	44.187	0.217	1500.9	218.	99.58	0.728
240.	11.826	35.636	5.79	11.795	67.47	0.17	27.123	35.851	44.198	0.237	1501.0	238.	99.74	0.809
260.	11.757	35.626	5.83	11.723	67.43	0.19	27.129	35.860	44.209	0.257	1501.0	258.	99.69	0.998
280.	11.682	35.612	5.84	11.646	67.45	0.18	27.132	35.867	44.219	0.277.	1501.1	278.	99.85	0.807
300.	11.640	35.608	5.86	11.602	67.35	0.20	27.137	35.874	44.228	0.297	1501.3	297.	99.89	0.913
350.	11.592	35.606	5.86	11.547	67.47	0.15	27.146	35.884	44.241	0.347	1501.9	347.	100.39	0.751
400.	11.440	35.578	5.86	11.388	67.57	0.21	27.154	35.900	44.262	0.397	1502.2	396.	100.81	0.783
450.	11.228	35.544	5.83	11.170	67.48	0.19	27.168	35.922	44.294	0.447	1502.3	446.	100.66	0.991
500.	10.759	35.453	5.31	10.697	68.46	0.15	27.183	35.958	44.349	0.498	1501.3	495.	100.03	1.131
550.	10.585	35.438	5.44	10.518	68.57	0.19	27.204	35.987	44.384	0.547	1501.5	545.	99.12	1.199
600.	10.364	35.416	5.31	10.291	68.60	0.14	27.226	36.019	44.425	0.597	1501.5	594.	97.98	1.258
650.	10.106	35.400	5.13	10.027	68.62	0.18	27.259	36.063	44.480	0.645	1501.4	644.	95.70	1.527
700.	9.761	35.366	4.97	9.679	68.62	0.16	27.292	36.111	44.543	0.692	1501.0	693.	93.26	1.556
750.	9.506	35.372	4.89	9.418	68.67	0.16	27.341	36.171	44.613	0.738	1500.9	743.	89.41	1.829
800.	8.733	35.262	4.86	8.644	68.62	0.13	27.380	36.245	44.720	0.782	1498.7	792.	85.54	1.822
850.	8.358	35.242	4.83	8.266	68.60	0.14	27.424	36.306	44.797	0.823	1498.1	841.	81.75	1.798
900.	7.898	35.237	4.85	7.803	68.60	0.16	27.490	36.393	44.904	0.863	1497.2	891.	75.65	2.180
950.	7.451	35.224	4.92	7.354	68.62	0.17	27.545	36.469	44.999	0.899	1496.3	940.	70.50	2.022
1000.	7.173	35.223	4.99	7.073	68.63	0.14	27.584	36.521	45.064	0.934	1496.1	989.	67.07	1.704
1200.	5.944	35.167	5.40	5.833	68.61	0.16	27.706	36.703	45.301	1.054	1494.5	1187.	55.74	1.566
1400.	4.539	34.987	5.97	4.422	68.57	0.15	27.731	36.800	45.466	1.161	1491.9	1384.	51.61	1.067
1600.	3.931	34.926	6.29	3.803	68.53	0.17	27.748	36.850	45.547	1.262	1492.7	1581.	49.83	0.814
1800.	3.744	34.920	6.36	3.599	68.62	0.16	27.764	36.877	45.583	1.361	1495.2	1778.	49.45	0.627
2000.	3.593	34.916	6.42	3.431	68.66	0.15	27.777	36.899	45.614	1.460	1497.9	1974.	49.30	0.585
2200.	3.522	34.932	6.36	3.342	68.67	0.17	27.798	36.924	45.644	1.558	1501.0	2171.	48.71	0.638
2400.	3.446	34.949	6.27	3.247	68.74	0.12	27.821	36.952	45.676	1.655	1504.1	2367.	47.86	0.669
2600.	3.293	34.958	6.18	3.077	68.76	0.13	27.844	36.984	45.716	1.749	1506.9	2563.	46.43	0.734
2800.	3.110	34.961	6.04	2.878	68.79	0.12	27.865	37.015	45.757	1.840	1509.5	2759.	44.88	0.741
3000.	2.949	34.953	6.00	2.699	68.83	0.12	27.875	37.035	45.786	1.929	1512.2	2955.	44.25	0.615
3100.	2.864	34.949	5.96	2.606	68.83	0.16	27.880	37.045	45.801	1.973	1513.5	3052.	43.86	0.629
3200.	2.803	34.944	5.95	2.536	68.84	0.16	27.882	37.051	45.811	2.017	1515.0	3150.	43.83	0.518
3300.	2.765	34.941	5.91	2.488	68.84	0.13	27.884	37.055	45.817	2.061	1516.5	3248.	44.06	0.417
3400.	2.719	34.937	5.84	2.432	68.83	0.13	27.885	37.060	45.825	2.105	1518.0	3345.	44.17	0.459
3500.	2.669	34.932	5.80	2.373	68.84	0.09	27.886	37.064	45.832	2.149	1519.5	3443.	44.29	0.455
3600.	2.623	34.925	5.77	2.316	68.83	0.10	27.886	37.067	45.838	2.194	1521.0	3541.	44.52	0.405
3700.	2.599	34.923	5.72	2.282	68.80	0.11	27.887	37.070	45.843	2.238	1522.6	3638.	44.80	0.379
3800.	2.581	34.920	5.72	2.253	68.79	0.10	27.887	37.071	45.846	2.283	1524.3	3736.	45.25	0.292
3900.	2.571	34.917	5.69	2.233	68.72	0.13	27.886	37.072	45.847	2.329	1525.9	3833.	45.78	0.236
4000.	2.566	34.915	5.69	2.216	68.64	0.12	27.886	37.073	45.849	2.375	1527.6	3930.	46.34	0.220
4100.	2.563	34.914	5.71	2.202	68.57	0.11	27.886	37.074	45.851	2.421	1529.3	4028.	46.87	0.236
4200.	2.568	34.913	5.67	2.195	68.52	0.09	27.886	37.074	45.852	2.469	1531.1	4125.	47.49	0.161
4300.	2.576	34.913	5.66	2.190	68.43	0.08	27.887	37.075	45.852	2.516	1532.8	4222.	48.12	0.147
4400.	2.587	34.910	5.63	2.189	68.43	0.07	27.885	37.073	45.850	2.565	1534.6	4320.	48.99	-0.241

Sample data

4458.	2.592	34.912	5.65	2.187
3884.	2.572	34.916	5.67	2.235
3452.	2.689	34.932	5.82	2.397
2463.	3.392	34.954	-9.99	3.189
1820.	3.697	34.913	6.43	3.551
1578.	3.952	34.929	6.29	3.825
1373.	4.573	34.985	5.93	4.458
880.	7.883	35.209	4.75	7.791
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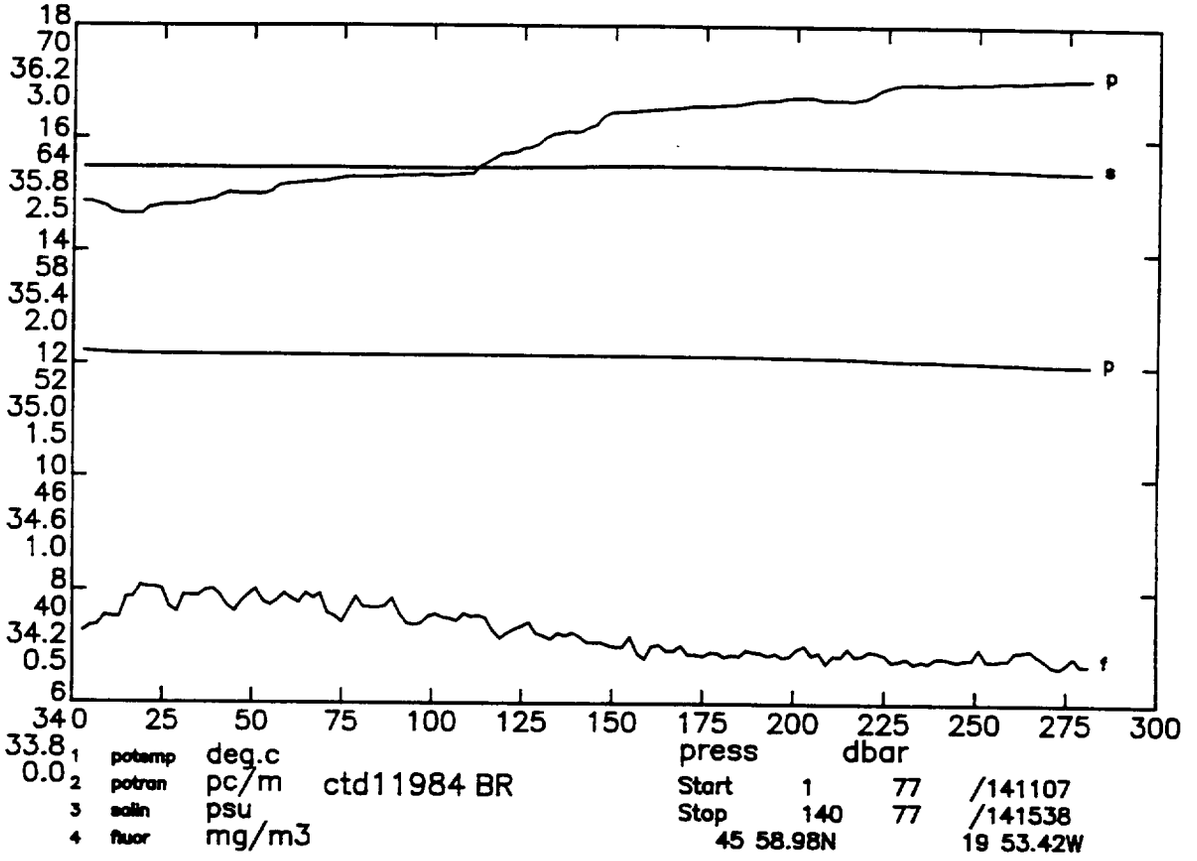
114.	12.135	35.683	6.10	12.120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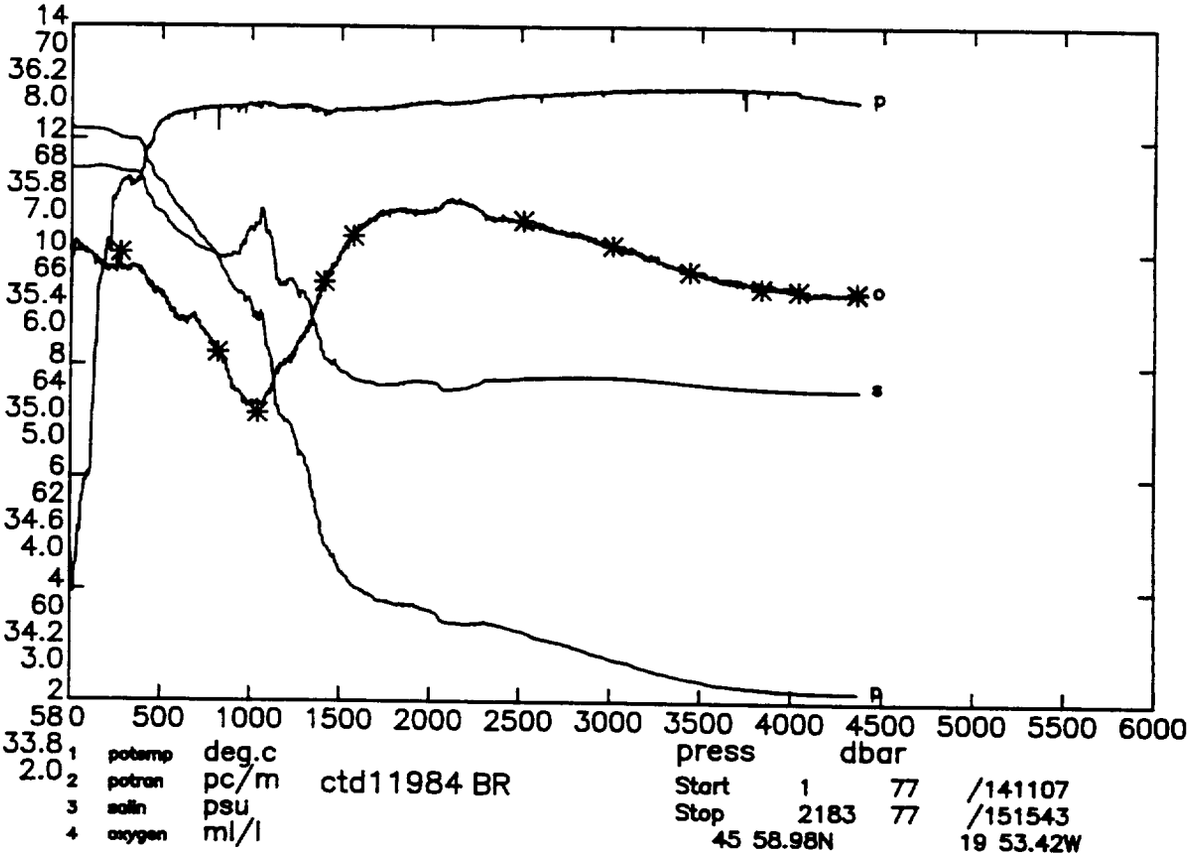
4 fluor mg/m3
ctd11984 BR
Start 1 77 /141107
Stop 140 77 /141538
45 58.98N 19 53.42W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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11984 BR
Start 1 77 /141107
Stop 2183 77 /151543
45 58.98N 19 53.42W

DISCOVERY CRUISE 189 STATION 11984

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.191	35.694	5.97	12.190	60.22	0.38	27.092	35.804	44.135	0.010	1498.5	10.	96.35	-9.999
20.	12.177	35.694	6.08	12.174	60.11	0.51	27.095	35.807	44.139	0.019	1498.6	20.	96.37	0.937
30.	12.175	35.694	6.08	12.171	60.44	0.44	27.095	35.807	44.139	0.029	1498.7	30.	96.63	0.317
40.	12.174	35.694	6.04	12.169	60.84	0.49	27.096	35.808	44.140	0.039	1498.9	40.	96.82	0.547
50.	12.176	35.694	6.05	12.169	61.03	0.49	27.096	35.808	44.140	0.048	1499.1	50.	97.12	-0.263
60.	12.176	35.694	6.03	12.168	61.53	0.47	27.096	35.809	44.141	0.058	1499.2	59.	97.36	0.394
70.	12.176	35.694	6.02	12.167	61.70	0.44	27.096	35.809	44.141	0.068	1499.4	69.	97.62	0.258
80.	12.178	35.693	5.99	12.168	61.91	0.45	27.095	35.808	44.140	0.078	1499.6	79.	98.01	-0.575
90.	12.179	35.694	5.99	12.168	62.00	0.43	27.096	35.808	44.140	0.087	1499.8	89.	98.26	0.325
100.	12.180	35.694	5.99	12.167	62.00	0.39	27.096	35.809	44.141	0.097	1499.9	99.	98.50	0.355
120.	12.180	35.696	5.95	12.164	63.19	0.30	27.098	35.811	44.143	0.117	1500.3	119.	98.84	0.616
140.	12.180	35.699	5.94	12.161	64.34	0.31	27.101	35.814	44.146	0.137	1500.6	139.	99.14	0.671
160.	12.173	35.701	5.91	12.152	65.50	0.23	27.104	35.818	44.150	0.157	1500.9	159.	99.41	0.702
180.	12.169	35.700	5.87	12.145	65.76	0.22	27.105	35.819	44.151	0.177	1501.2	178.	99.89	0.357
200.	12.151	35.699	5.85	12.124	66.19	0.23	27.108	35.822	44.156	0.197	1501.5	198.	100.20	0.661
220.	12.127	35.696	5.84	12.098	66.25	0.23	27.111	35.826	44.161	0.217	1501.7	218.	100.45	0.721
240.	12.100	35.692	5.83	12.068	66.92	0.20	27.114	35.830	44.166	0.237	1502.0	238.	100.72	0.689
260.	12.077	35.689	5.88	12.043	67.06	0.21	27.116	35.833	44.170	0.257	1502.2	258.	101.08	0.574
280.	12.048	35.683	5.84	12.011	67.23	0.17	27.117	35.836	44.174	0.277	1502.4	278.	101.48	0.526
300.	12.045	35.681	5.84	12.005	67.26	0.16	27.117	35.837	44.175	0.298	1502.7	297.	102.04	-0.093
350.	12.039	35.680	5.86	11.993	67.20	0.22	27.119	35.839	44.178	0.349	1503.6	347.	103.25	0.346
400.	11.852	35.640	5.81	11.799	67.53	0.19	27.125	35.853	44.199	0.401	1503.7	396.	103.94	0.676
450.	11.462	35.567	5.70	11.404	67.98	0.14	27.142	35.887	44.249	0.452	1503.1	446.	103.29	1.158
500.	11.291	35.538	5.61	11.227	68.31	0.15	27.153	35.905	44.274	0.504	1503.3	495.	103.45	0.877
550.	11.041	35.495	5.47	10.971	68.38	0.10	27.167	35.930	44.309	0.556	1503.2	545.	103.17	1.029
600.	10.818	35.466	5.39	10.743	68.44	0.15	27.185	35.958	44.347	0.607	1503.2	594.	102.41	1.163
650.	10.658	35.446	5.40	10.578	68.49	0.14	27.199	35.979	44.374	0.658	1503.4	644.	102.12	1.015
700.	10.415	35.419	5.36	10.329	68.51	0.16	27.222	36.013	44.418	0.709	1503.4	693.	100.86	1.289
750.	10.237	35.404	5.26	10.146	68.53	0.15	27.242	36.041	44.454	0.759	1503.6	743.	99.86	1.217
800.	10.057	35.390	5.16	9.961	68.55	0.14	27.263	36.070	44.490	0.809	1503.7	792.	98.75	1.240
850.	9.742	35.377	5.01	9.641	68.57	0.14	27.308	36.128	44.561	0.858	1503.4	841.	95.21	1.776
900.	9.457	35.395	4.79	9.352	68.56	0.18	27.370	36.202	44.647	0.904	1503.2	891.	89.99	2.065
950.	9.344	35.425	4.72	9.233	68.58	0.17	27.413	36.250	44.699	0.948	1503.7	940.	86.80	1.700
1000.	9.157	35.485	4.66	9.041	68.60	0.13	27.492	36.336	44.792	0.990	1503.9	989.	80.17	2.280
1200.	7.118	35.293	5.03	6.996	68.56	0.20	27.651	36.590	45.135	1.132	1499.3	1187.	64.22	1.828
1400.	5.071	35.043	5.68	4.948	68.49	0.17	27.715	36.757	45.398	1.250	1494.2	1384.	54.87	1.443
1600.	4.132	34.943	6.22	4.001	68.54	0.18	27.740	36.832	45.519	1.355	1493.5	1581.	51.32	0.995
1800.	3.879	34.928	6.36	3.732	68.56	0.18	27.757	36.862	45.563	1.457	1495.8	1778.	50.70	0.670
2000.	3.794	34.939	6.36	3.630	68.66	0.17	27.776	36.887	45.592	1.558	1498.8	1974.	50.41	0.616
2200.	3.566	34.918	6.43	3.386	68.67	0.15	27.783	36.907	45.624	1.659	1501.2	2171.	50.34	0.573
2400.	3.553	34.947	6.31	3.353	68.73	0.13	27.810	36.935	45.653	1.758	1504.6	2367.	49.55	0.665
2600.	3.357	34.954	6.25	3.141	68.78	0.13	27.836	36.972	45.701	1.856	1507.1	2563.	47.63	0.793
2800.	3.210	34.958	6.16	2.975	68.82	0.12	27.854	36.999	45.736	1.950	1509.9	2759.	46.53	0.691
2900.	3.112	34.958	6.11	2.869	68.85	0.14	27.864	37.014	45.757	1.996	1511.2	2857.	45.73	0.745
3000.	3.027	34.957	6.06	2.776	68.88	0.12	27.871	37.027	45.774	2.042	1512.5	2954.	45.18	0.679
3100.	2.974	34.954	6.03	2.713	68.87	0.13	27.874	37.033	45.784	2.087	1514.0	3052.	45.20	0.511
3200.	2.874	34.950	5.96	2.604	68.90	0.12	27.881	37.046	45.802	2.132	1515.3	3150.	44.53	0.704
3300.	2.799	34.945	5.91	2.521	68.86	0.11	27.884	37.054	45.814	2.176	1516.6	3248.	44.30	0.577
3400.	2.727	34.938	5.84	2.439	68.88	0.10	27.886	37.060	45.825	2.220	1518.0	3345.	44.17	0.545
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3700.	2.598	34.922	5.74	2.281	68.90	0.09	27.886	37.069	45.842	2.354	1522.6	3638.	44.88	0.273
3800.	2.585	34.920	5.71	2.257	68.88	0.11	27.887	37.071	45.845	2.399	1524.3	3735.	45.30	0.305
3900.	2.568	34.918	5.69	2.230	68.87	0.10	27.887	37.073	45.848	2.444	1525.9	3833.	45.71	0.318
4000.	2.567	34.915	5.68	2.217	68.87	0.08	27.886	37.073	45.849	2.490	1527.6	3930.	46.33	0.152
4100.	2.558	34.913	5.63	2.197	68.79	0.07	27.886	37.074	45.851	2.537	1529.3	4027.	46.83	0.261
4200.	2.567	34.912	5.63	2.193	68.74	0.06	27.886	37.074	45.851	2.584	1531.1	4125.	47.53	-0.062
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Sample data

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3832.	2.578	34.919	5.68	2.247
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3009.	3.021	34.958	6.06	2.769
2514.	3.461	34.955	6.28	3.251
1568.	4.194	34.954	6.14	4.065
1407.	4.978	35.026	5.73	4.856
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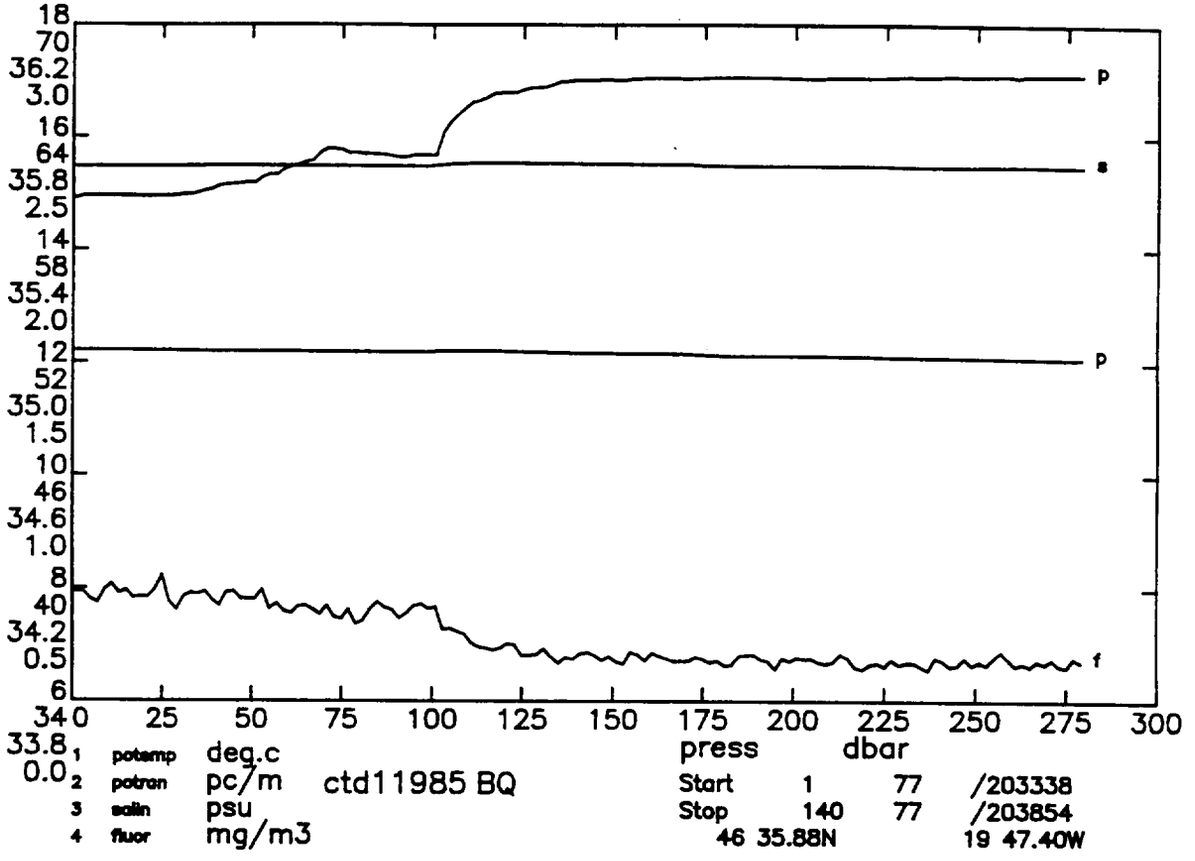
274.	12.051	35.682	5.99	12.015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2 potran pc/m
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press dbar
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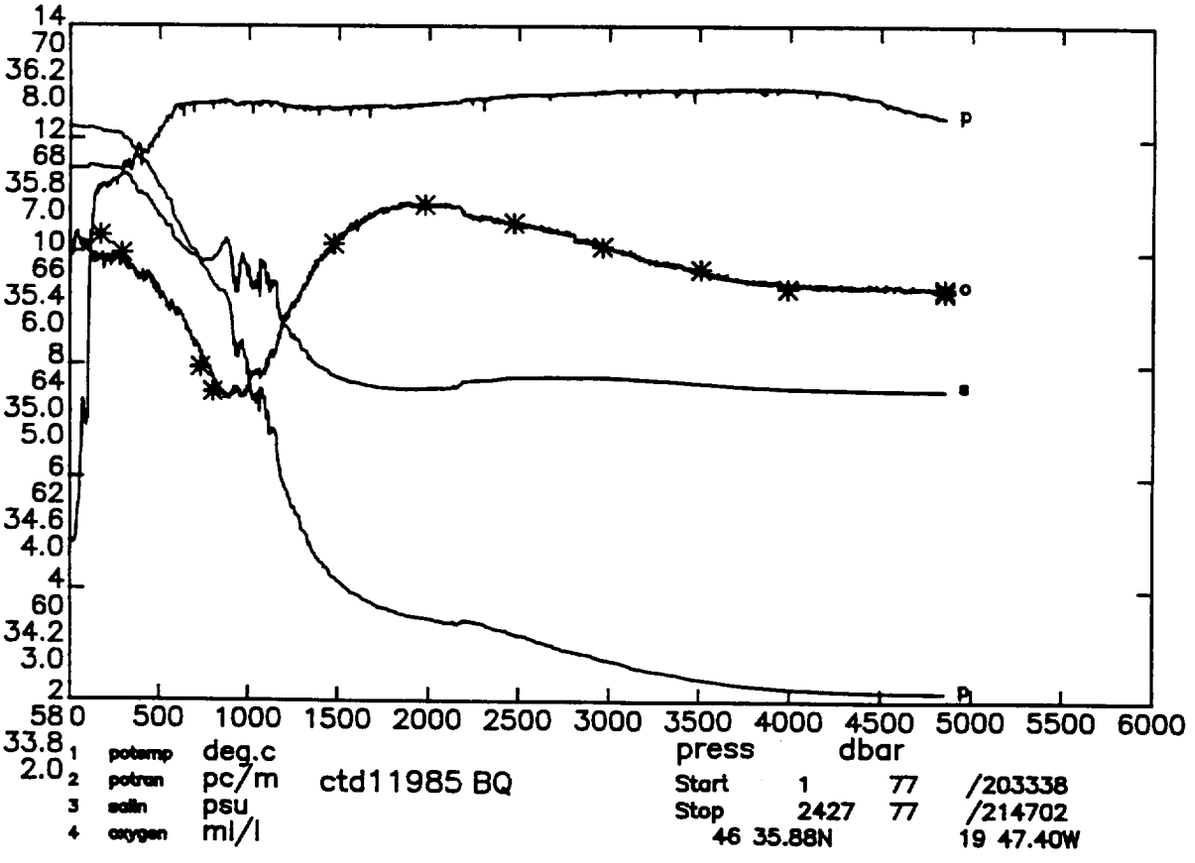
Stop 140 77 /203854
46 35.88N 19 47.40W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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11985 BQ
press dbar
Start 1 77 /203338
Stop 2427 77 /214702
46 35.88N 19 47.40W

DISCOVERY CRUISE 189 STATION 11985

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.208	35.694	6.02	12.207	60.85	0.51	27.088	35.799	44.130	0.010	1498.5	10.	96.72	-9.999
20.	12.208	35.694	6.02	12.205	60.82	0.46	27.089	35.800	44.131	0.019	1498.7	20.	96.91	0.536
30.	12.202	35.695	6.15	12.198	60.91	0.43	27.091	35.802	44.133	0.029	1498.8	30.	97.01	0.790
40.	12.194	35.696	6.16	12.189	61.29	0.43	27.093	35.805	44.136	0.039	1499.0	40.	97.08	0.858
50.	12.193	35.696	6.11	12.187	61.55	0.45	27.094	35.805	44.137	0.048	1499.1	50.	97.32	0.360
60.	12.192	35.696	6.07	12.184	62.34	0.39	27.095	35.806	44.138	0.058	1499.3	59.	97.52	0.523
70.	12.189	35.696	6.00	12.180	63.27	0.40	27.095	35.807	44.139	0.068	1499.5	69.	97.74	0.473
80.	12.183	35.695	6.08	12.172	63.13	0.35	27.096	35.808	44.140	0.078	1499.6	79.	97.96	0.462
90.	12.182	35.695	6.07	12.170	62.93	0.39	27.096	35.808	44.140	0.088	1499.8	89.	98.24	0.055
100.	12.189	35.696	6.03	12.175	63.03	0.41	27.096	35.809	44.140	0.097	1500.0	99.	98.49	0.354
120.	12.210	35.706	5.93	12.195	66.36	0.25	27.100	35.812	44.143	0.117	1500.4	119.	98.68	0.786
140.	12.182	35.704	5.96	12.164	67.02	0.20	27.104	35.817	44.149	0.137	1500.6	139.	98.86	0.807
160.	12.172	35.702	5.95	12.151	67.15	0.20	27.105	35.819	44.151	0.157	1500.9	159.	99.31	0.424
180.	12.143	35.697	5.97	12.119	67.19	0.17	27.108	35.822	44.156	0.177	1501.1	178.	99.66	0.599
200.	12.138	35.697	5.91	12.111	67.14	0.19	27.109	35.824	44.158	0.197	1501.4	198.	100.07	0.505
220.	12.136	35.697	5.95	12.107	67.16	0.15	27.110	35.825	44.159	0.217	1501.8	218.	100.56	0.344
240.	12.122	35.694	5.96	12.090	67.26	0.19	27.111	35.827	44.162	0.237	1502.0	238.	101.00	0.453
260.	12.126	35.695	5.94	12.092	67.23	0.17	27.111	35.827	44.162	0.257	1502.4	258.	101.55	0.127
280.	12.111	35.691	5.88	12.074	67.33	0.16	27.112	35.828	44.164	0.277	1502.7	277.	102.03	0.384
300.	12.037	35.673	5.90	11.997	67.57	0.15	27.113	35.832	44.171	0.298	1502.7	297.	102.47	0.429
350.	11.879	35.642	5.87	11.833	67.56	0.17	27.120	35.846	44.192	0.349	1503.0	347.	103.06	0.729
400.	11.689	35.609	5.78	11.637	67.72	0.17	27.131	35.866	44.219	0.401	1503.1	396.	103.20	0.905
450.	11.486	35.575	5.76	11.428	67.90	0.19	27.145	35.888	44.249	0.452	1503.2	446.	103.09	0.983
500.	11.211	35.526	5.61	11.148	68.15	0.17	27.158	35.914	44.286	0.504	1503.0	495.	102.84	1.022
550.	10.985	35.489	5.51	10.915	68.39	0.18	27.172	35.938	44.319	0.555	1503.0	545.	102.58	1.017
600.	10.594	35.436	5.48	10.520	68.57	0.12	27.202	35.985	44.382	0.606	1502.4	594.	100.54	1.486
650.	10.306	35.407	5.31	10.227	68.61	0.12	27.230	36.026	44.435	0.656	1502.1	644.	98.70	1.432
700.	10.099	35.387	5.19	10.015	68.61	0.13	27.252	36.056	44.474	0.705	1502.2	693.	97.55	1.251
750.	9.808	35.367	5.05	9.720	68.63	0.15	27.287	36.104	44.534	0.753	1502.0	742.	95.02	1.575
800.	9.550	35.374	4.89	9.457	68.58	0.16	27.336	36.164	44.605	0.800	1501.9	792.	91.08	1.846
850.	9.409	35.421	4.74	9.311	68.67	0.14	27.397	36.231	44.677	0.844	1502.2	841.	86.24	2.001
900.	9.033	35.385	4.73	8.930	68.65	0.14	27.431	36.282	44.744	0.886	1501.6	891.	83.41	1.623
950.	8.461	35.353	4.72	8.356	68.61	0.13	27.497	36.374	44.859	0.927	1500.3	940.	77.16	2.215
1000.	7.938	35.339	4.79	7.832	68.63	0.16	27.566	36.466	44.974	0.964	1499.2	989.	70.55	2.260
1200.	5.903	35.135	5.42	5.792	68.59	0.14	27.686	36.685	45.286	1.091	1494.3	1187.	57.50	1.664
1400.	4.584	34.989	5.93	4.466	68.53	0.16	27.727	36.794	45.458	1.200	1492.1	1384.	52.13	1.161
1600.	4.023	34.935	6.25	3.894	68.57	0.18	27.746	36.843	45.535	1.302	1493.1	1581.	50.42	0.809
1800.	3.753	34.914	6.39	3.608	68.56	0.16	27.758	36.870	45.577	1.402	1495.3	1777.	50.02	0.634
2000.	3.630	34.915	6.42	3.468	68.62	0.15	27.773	36.892	45.606	1.502	1498.1	1974.	49.90	0.581
2200.	3.618	34.941	6.34	3.437	68.72	0.14	27.796	36.917	45.632	1.602	1501.4	2170.	49.42	0.628
2400.	3.470	34.950	6.29	3.272	68.76	0.13	27.820	36.949	45.672	1.699	1504.2	2367.	48.13	0.727
2600.	3.290	34.956	6.22	3.075	68.80	0.12	27.843	36.983	45.715	1.794	1506.8	2563.	46.55	0.752
2800.	3.127	34.956	6.16	2.895	68.82	0.11	27.860	37.009	45.750	1.886	1509.5	2759.	45.45	0.686
3000.	2.988	34.955	6.04	2.737	68.84	0.10	27.873	37.031	45.780	1.976	1512.3	2954.	44.71	0.632
3200.	2.844	34.948	5.93	2.575	68.88	0.09	27.882	37.048	45.806	2.065	1515.1	3150.	44.20	0.591
3400.	2.760	34.940	5.89	2.472	68.88	0.12	27.885	37.057	45.820	2.154	1518.2	3345.	44.56	0.440
3500.	2.709	34.936	5.83	2.411	68.87	0.09	27.886	37.062	45.828	2.199	1519.7	3443.	44.64	0.472
3600.	2.672	34.931	5.79	2.365	68.88	0.09	27.887	37.065	45.833	2.243	1521.2	3540.	44.89	0.402
3700.	2.630	34.926	5.77	2.313	68.89	0.11	27.887	37.068	45.839	2.288	1522.8	3638.	45.10	0.412
3800.	2.608	34.923	5.75	2.280	68.89	0.12	27.887	37.070	45.843	2.334	1524.4	3735.	45.51	0.321
3900.	2.597	34.920	5.73	2.257	68.90	0.07	27.887	37.071	45.845	2.379	1526.0	3833.	46.01	0.258
4000.	2.584	34.918	5.72	2.233	68.89	0.12	27.887	37.073	45.848	2.426	1527.7	3930.	46.42	0.318
4100.	2.583	34.917	5.70	2.220	68.87	0.10	27.887	37.073	45.849	2.472	1529.4	4027.	47.00	0.203
4200.	2.581	34.915	5.70	2.207	68.85	0.05	27.887	37.074	45.850	2.520	1531.1	4125.	47.60	0.180
4300.	2.584	34.914	5.71	2.198	68.82	0.09	27.887	37.074	45.851	2.567	1532.9	4222.	48.21	0.181
4400.	2.585	34.912	5.70	2.188	68.75	0.06	27.886	37.074	45.852	2.616	1534.6	4319.	48.85	0.145
4500.	2.591	34.912	5.69	2.180	68.69	0.07	27.886	37.075	45.853	2.665	1536.4	4416.	49.45	0.187
4600.	2.598	34.910	5.70	2.175	68.57	0.06	27.885	37.074	45.853	2.715	1538.1	4513.	50.17	-0.088
4700.	2.603	34.911	5.68	2.168	68.47	0.06	27.887	37.076	45.855	2.765	1539.9	4610.	50.70	0.250
4800.	2.611	34.910	5.66	2.164	68.42	0.10	27.886	37.076	45.855	2.816	1541.6	4707.	51.38	0.098

Sample data

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2474.	3.403	34.954	6.26	3.198
1978.	3.637	34.914	6.42	3.477
1475.	4.319	34.962	6.07	4.197
800.	9.540	35.370	4.76	9.446
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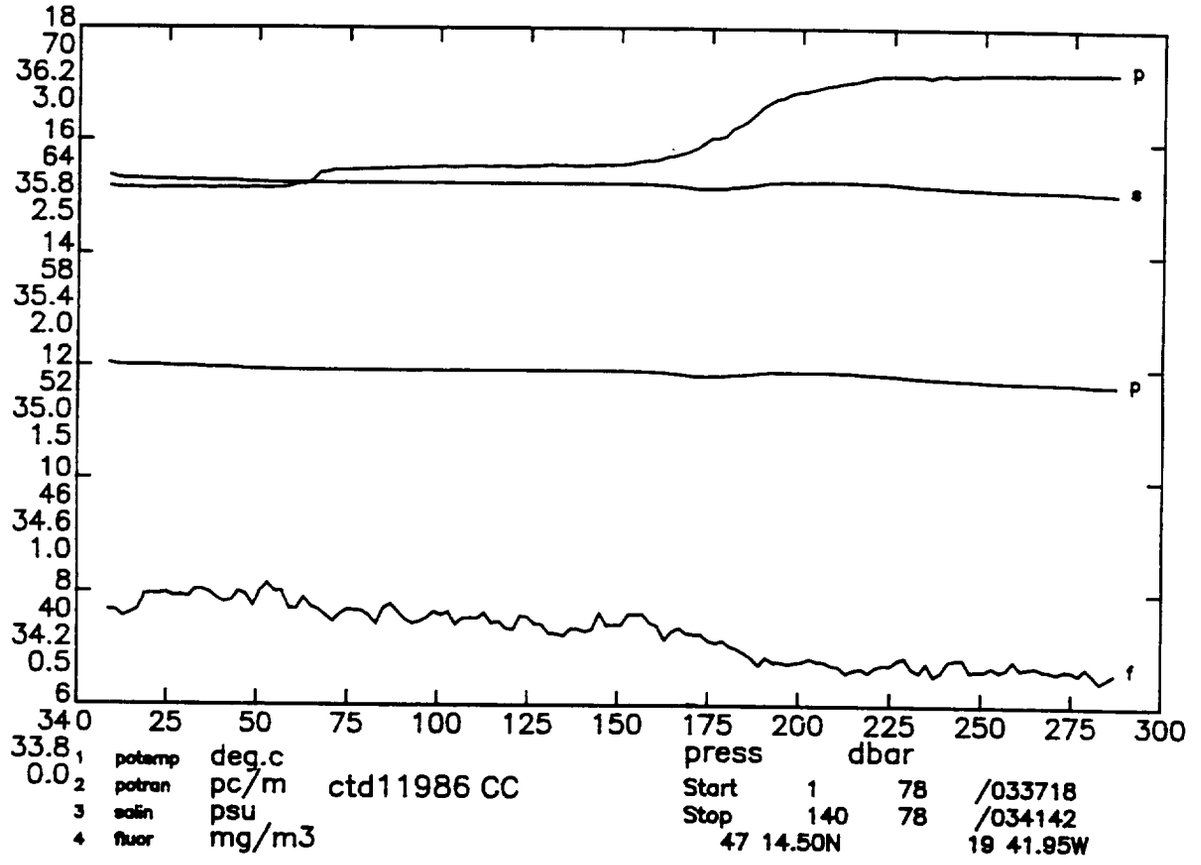
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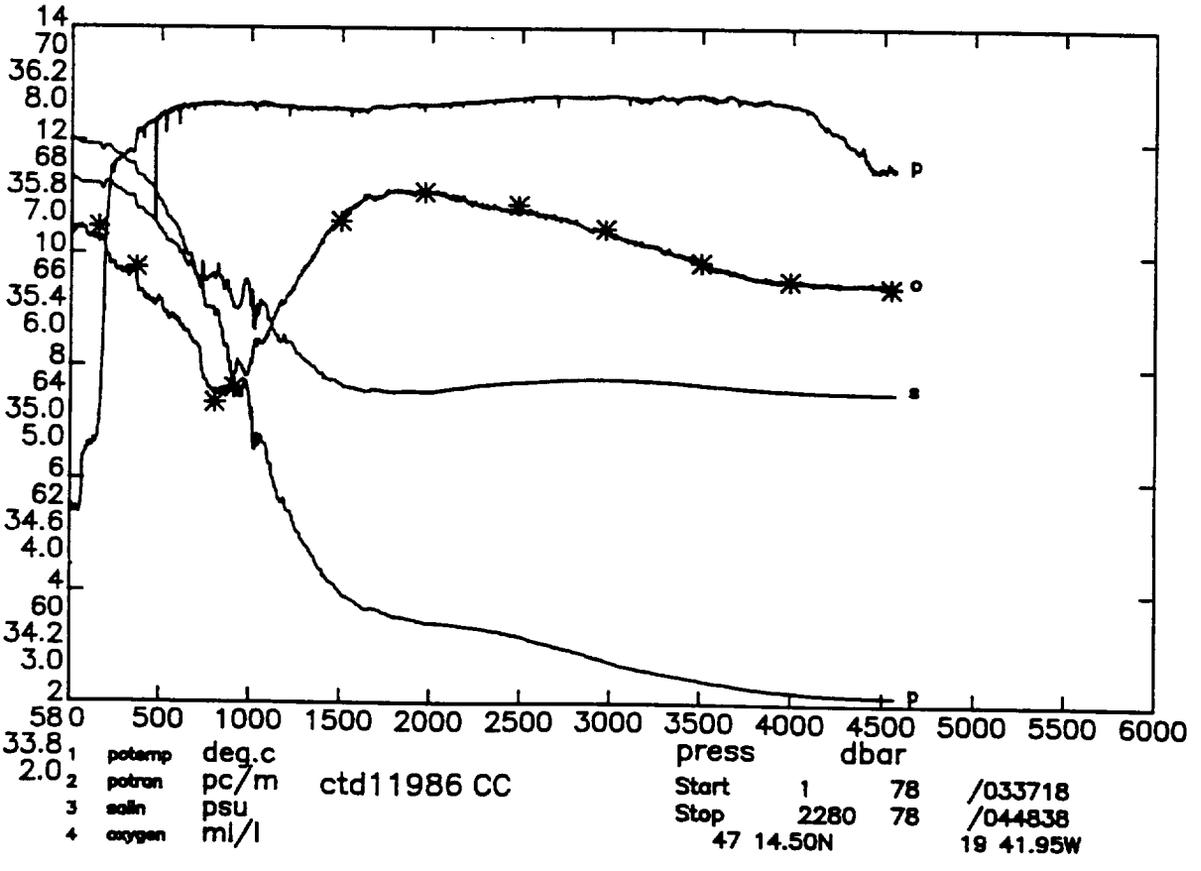
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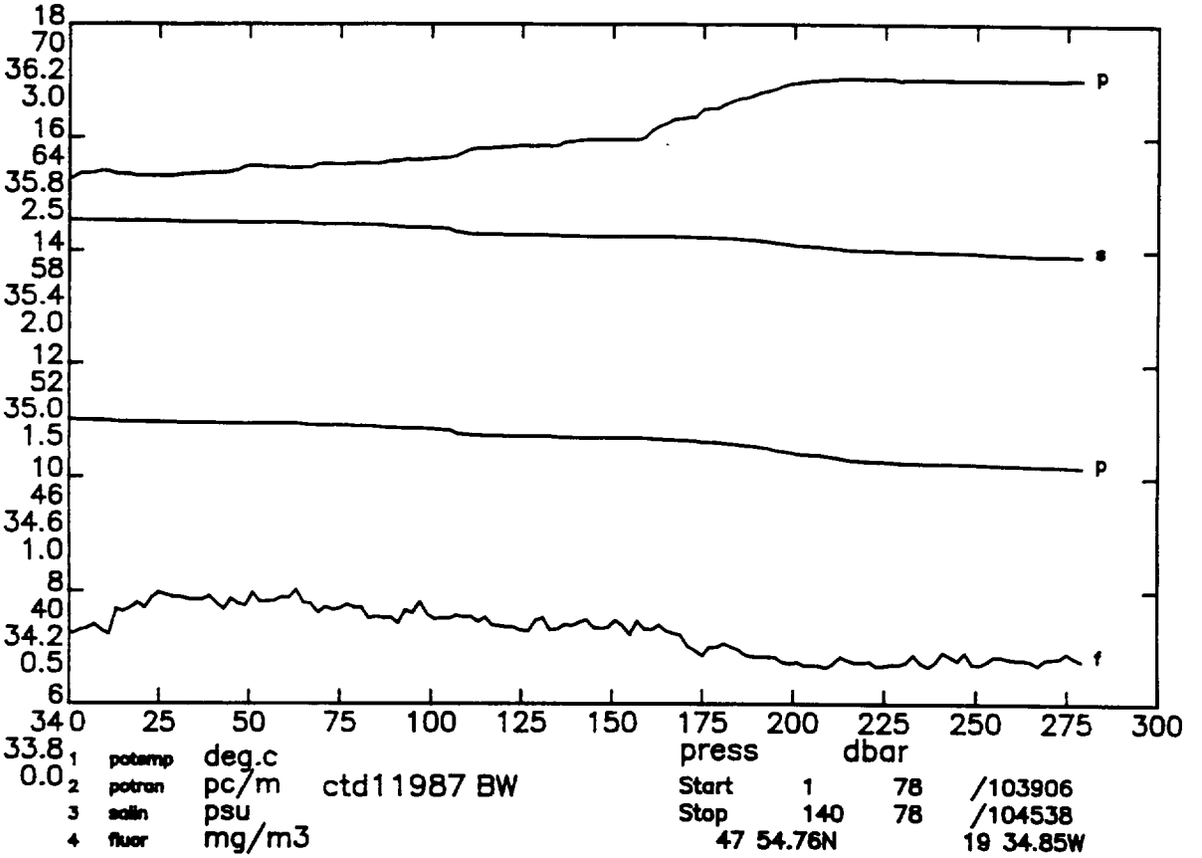
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11986 CC
Start 1 78 /033718
Stop 2280 78 /044838
47 14.50N 19 41.95W

DISCOVERY CRUISE 189 STATION 11986

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	12.038	35.668	6.16	12.037	61.50	0.42	27.101	35.820	44.157	0.010	1497.9	10.	95.44	-9.999
20.	12.019	35.661	6.23	12.016	61.41	0.49	27.099	35.818	44.156	0.019	1498.0	20.	95.94	-0.843
30.	12.003	35.659	6.21	11.999	61.44	0.48	27.101	35.821	44.160	0.029	1498.1	30.	96.03	0.801
40.	11.986	35.655	6.22	11.981	61.43	0.46	27.102	35.822	44.162	0.038	1498.2	40.	96.24	0.483
50.	11.958	35.650	6.21	11.952	61.44	0.47	27.103	35.825	44.166	0.048	1498.3	50.	96.38	0.668
60.	11.948	35.647	6.24	11.941	61.59	0.43	27.103	35.826	44.167	0.058	1498.4	59.	96.64	0.246
70.	11.946	35.647	6.22	11.937	62.35	0.38	27.104	35.826	44.167	0.067	1498.6	69.	96.89	0.337
80.	11.945	35.647	6.22	11.935	62.45	0.41	27.104	35.827	44.168	0.077	1498.7	79.	97.13	0.326
90.	11.945	35.647	6.16	11.934	62.54	0.40	27.104	35.827	44.168	0.087	1498.9	89.	97.40	0.231
100.	11.946	35.647	6.14	11.933	62.60	0.41	27.105	35.827	44.168	0.096	1499.1	99.	97.66	0.249
120.	11.947	35.646	6.15	11.931	62.60	0.34	27.104	35.827	44.168	0.116	1499.4	119.	98.23	-0.154
140.	11.946	35.646	6.15	11.928	62.64	0.33	27.105	35.827	44.169	0.136	1499.7	139.	98.75	0.227
160.	11.928	35.642	6.11	11.907	62.97	0.36	27.106	35.829	44.172	0.156	1500.0	159.	99.21	0.409
180.	11.860	35.632	6.11	11.836	64.43	0.28	27.111	35.838	44.183	0.175	1500.1	178.	99.19	0.978
200.	11.919	35.652	5.99	11.893	66.62	0.19	27.116	35.840	44.183	0.195	1500.6	198.	99.29	0.862
220.	11.894	35.649	5.90	11.865	67.46	0.16	27.119	35.845	44.188	0.215	1500.9	218.	99.55	0.700
240.	11.822	35.634	5.91	11.790	67.55	0.18	27.122	35.851	44.197	0.235	1500.9	238.	99.80	0.714
260.	11.776	35.625	5.84	11.742	67.62	0.19	27.124	35.855	44.203	0.255	1501.1	258.	100.12	0.617
280.	11.744	35.619	5.86	11.708	67.70	0.16	27.126	35.858	44.208	0.275	1501.3	277.	100.48	0.547
300.	11.690	35.610	5.84	11.651	67.73	0.16	27.130	35.864	44.217	0.295	1501.4	297.	100.61	0.831
350.	11.626	35.602	5.86	11.581	67.79	0.14	27.137	35.874	44.229	0.346	1502.0	347.	101.29	0.671
400.	11.396	35.551	5.65	11.344	68.20	0.12	27.141	35.889	44.253	0.396	1502.0	396.	102.02	0.639
450.	11.242	35.526	5.56	11.185	68.33	0.12	27.151	35.905	44.276	0.447	1502.3	446.	102.27	0.841
500.	10.982	35.484	5.59	10.920	68.45	0.13	27.167	35.933	44.315	0.499	1502.1	495.	101.74	1.102
550.	10.693	35.444	5.43	10.625	68.52	0.15	27.189	35.967	44.361	0.549	1501.9	545.	100.65	1.257
600.	10.446	35.409	5.40	10.372	68.45	0.15	27.207	35.996	44.399	0.599	1501.8	594.	99.92	1.144
650.	10.028	35.354	5.31	9.950	68.61	0.13	27.237	36.045	44.466	0.648	1501.1	644.	97.70	1.515
700.	9.677	35.319	5.19	9.595	68.63	0.15	27.270	36.093	44.529	0.697	1500.6	693.	95.21	1.562
750.	9.131	35.300	4.86	9.046	68.65	0.16	27.346	36.193	44.651	0.743	1499.4	742.	88.37	2.310
800.	9.012	35.308	4.78	8.922	68.65	0.14	27.372	36.224	44.687	0.787	1499.8	792.	86.79	1.335
850.	8.504	35.274	4.79	8.411	68.63	0.15	27.427	36.302	44.787	0.829	1498.7	841.	81.79	2.015
900.	7.854	35.227	4.89	7.759	68.63	0.18	27.488	36.394	44.906	0.868	1497.0	891.	75.71	2.178
950.	7.581	35.233	4.99	7.483	68.63	0.15	27.533	36.451	44.976	0.905	1496.8	940.	71.85	1.794
1000.	7.296	35.230	5.02	7.195	68.64	0.16	27.573	36.504	45.041	0.940	1496.6	989.	68.44	1.704
1200.	5.554	35.081	5.61	5.447	68.60	0.17	27.686	36.703	45.320	1.062	1492.9	1187.	56.49	1.595
1400.	4.447	34.964	6.12	4.331	68.58	0.16	27.722	36.797	45.468	1.170	1491.5	1384.	52.06	1.082
1600.	3.875	34.916	6.45	3.747	68.54	0.15	27.745	36.851	45.550	1.271	1492.4	1581.	49.85	0.854
1800.	3.676	34.907	6.56	3.532	68.62	0.16	27.760	36.876	45.587	1.371	1494.9	1777.	49.52	0.615
2000.	3.575	34.907	6.55	3.414	68.64	0.14	27.772	36.894	45.611	1.470	1497.9	1974.	49.69	0.533
2200.	3.532	34.925	6.46	3.352	68.69	0.12	27.792	36.917	45.636	1.569	1501.1	2170.	49.34	0.606
2400.	3.445	34.940	6.40	3.247	68.73	0.12	27.814	36.944	45.668	1.667	1504.1	2366.	48.55	0.662
2600.	3.305	34.948	6.35	3.090	68.79	0.13	27.835	36.974	45.706	1.763	1506.9	2563.	47.35	0.707
2800.	3.166	34.954	6.29	2.933	68.79	0.11	27.855	37.002	45.741	1.857	1509.7	2758.	46.19	0.695
3000.	2.997	34.955	6.18	2.747	68.82	0.10	27.872	37.029	45.778	1.948	1512.4	2954.	44.86	0.708
3100.	2.917	34.952	6.12	2.657	68.79	0.10	27.878	37.040	45.793	1.993	1513.7	3052.	44.46	0.637
3200.	2.864	34.950	6.08	2.595	68.75	0.09	27.882	37.047	45.803	2.037	1515.2	3149.	44.38	0.536
3300.	2.814	34.946	6.04	2.535	68.76	0.11	27.884	37.053	45.812	2.081	1516.7	3247.	44.43	0.490
3400.	2.770	34.941	5.99	2.482	68.80	0.16	27.884	37.056	45.818	2.126	1518.2	3345.	44.70	0.401
3500.	2.718	34.936	5.93	2.420	68.82	0.11	27.885	37.061	45.826	2.170	1519.7	3442.	44.78	0.473
3600.	2.683	34.932	5.88	2.375	68.76	0.15	27.886	37.064	45.832	2.215	1521.3	3540.	45.05	0.394
3700.	2.642	34.927	5.84	2.323	68.70	0.09	27.887	37.067	45.838	2.261	1522.8	3637.	45.24	0.423
3800.	2.612	34.922	5.79	2.283	68.70	0.09	27.886	37.069	45.842	2.306	1524.4	3735.	45.59	0.351
3900.	2.587	34.919	5.77	2.248	68.69	0.08	27.887	37.072	45.846	2.352	1526.0	3832.	45.90	0.369
4000.	2.577	34.917	5.75	2.226	68.66	0.10	27.887	37.073	45.849	2.398	1527.7	3930.	46.38	0.273
4100.	2.560	34.914	5.75	2.199	68.57	0.12	27.887	37.074	45.851	2.444	1529.3	4027.	46.81	0.297
4200.	2.556	34.912	5.75	2.183	68.23	0.10	27.886	37.074	45.852	2.491	1531.0	4124.	47.40	0.191
4300.	2.556	34.910	5.73	2.170	67.97	0.08	27.886	37.075	45.854	2.539	1532.8	4222.	47.96	0.217
4400.	2.560	34.909	5.74	2.163	67.70	0.10	27.886	37.075	45.854	2.587	1534.5	4319.	48.61	0.122
4500.	2.565	34.909	5.73	2.156	67.53	0.06	27.886	37.076	45.855	2.636	1536.2	4416.	49.20	0.192

Sample data

4541.	2.567	34.909	5.71	2.153
3988.	2.577	34.916	5.77	2.228
3495.	2.725	34.936	5.93	2.428
2965.	3.030	34.956	6.23	2.782
2480.	3.404	34.942	6.44	3.198
1959.	3.588	34.910	6.55	3.431
1496.	4.092	34.938	6.29	3.971
906.	7.763	35.223	4.81	7.668
798.	9.050	35.328	4.68	8.959
365.	11.474	35.578	5.88	11.427
152.	11.938	35.647	6.24	11.918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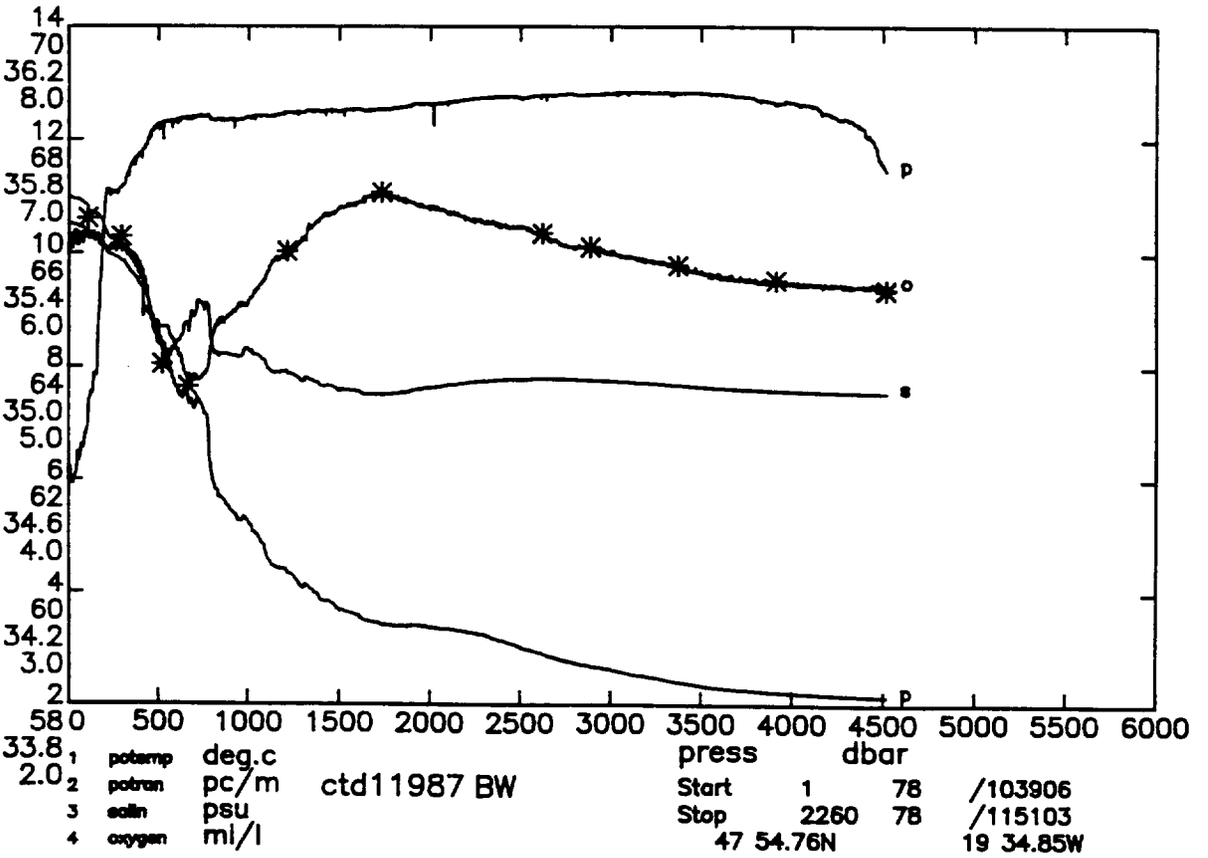
1.5
10
46
34.6
1.0
8
40
34.2
0.5
6
34
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11987 BW
Start 1 78 /103906
Stop 140 78 /104538
47 54.76N 19 34.85W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34.6
4.0
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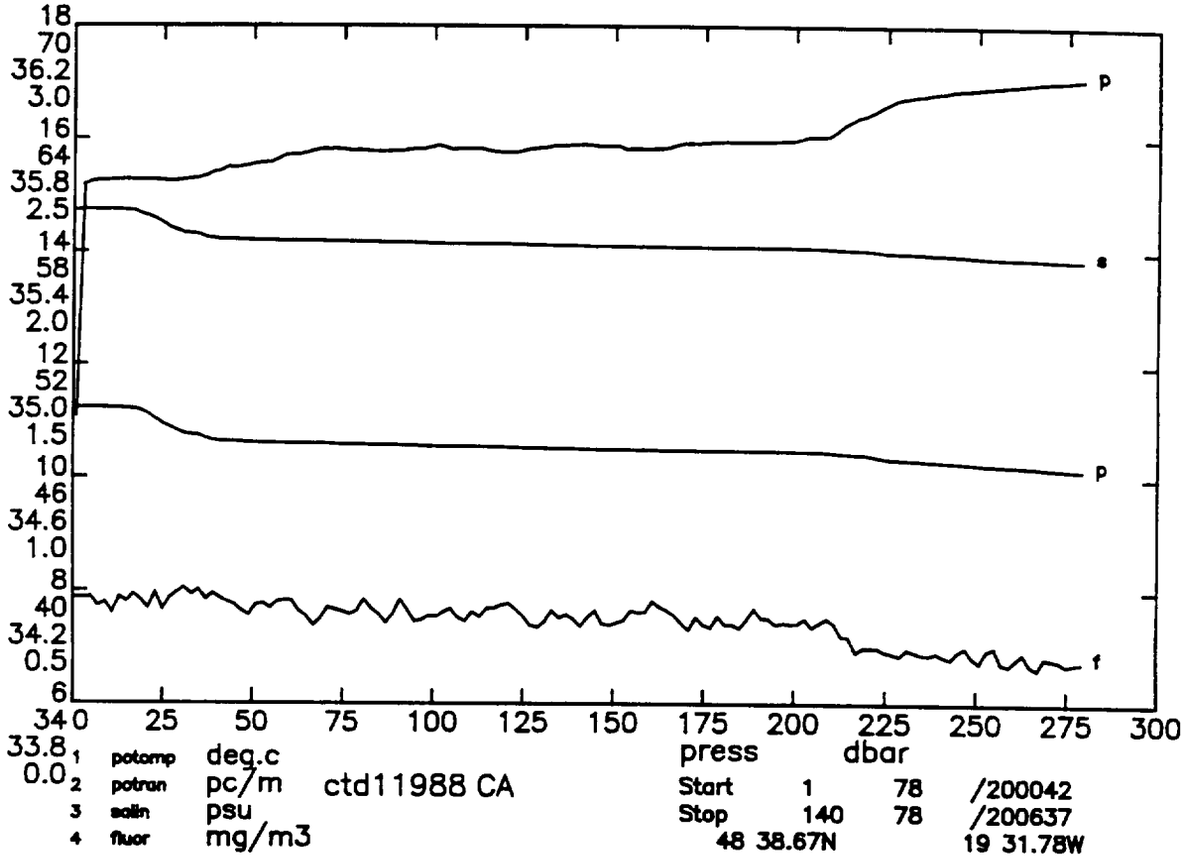
34.2
3.0
2
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11987 BW
Start 1 78 /103906
Stop 2260 78 /115103
47 54.76N 19 34.85W

DISCOVERY CRUISE 189 STATION 11987

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.999	35.505	6.05	10.997	62.22	0.32	27.170	35.932	44.310	0.009	1494.1	10.	88.95	-9.999
20.	10.975	35.505	6.16	10.973	61.95	0.44	27.174	35.937	44.316	0.018	1494.2	20.	88.82	1.142
30.	10.960	35.501	6.17	10.957	61.99	0.47	27.174	35.937	44.317	0.027	1494.3	30.	89.09	-0.187
40.	10.954	35.500	6.20	10.949	62.11	0.46	27.174	35.938	44.318	0.036	1494.5	40.	89.30	0.379
50.	10.939	35.497	6.15	10.933	62.47	0.46	27.175	35.940	44.321	0.045	1494.6	50.	89.49	0.490
60.	10.954	35.498	6.09	10.946	62.38	0.47	27.174	35.938	44.318	0.053	1494.8	59.	89.88	-0.664
70.	10.916	35.491	6.13	10.908	62.59	0.42	27.175	35.941	44.323	0.062	1494.8	69.	90.01	0.652
80.	10.904	35.490	6.13	10.894	62.62	0.43	27.176	35.943	44.325	0.071	1494.9	79.	90.14	0.663
90.	10.874	35.483	6.18	10.863	62.73	0.37	27.177	35.944	44.328	0.081	1495.0	89.	90.36	0.334
100.	10.857	35.479	6.18	10.845	62.86	0.39	27.177	35.945	44.330	0.090	1495.1	99.	90.59	0.325
120.	10.739	35.454	6.18	10.725	63.48	0.34	27.179	35.953	44.343	0.108	1495.0	119.	90.84	0.657
140.	10.710	35.449	6.16	10.693	63.81	0.35	27.181	35.956	44.347	0.126	1495.2	139.	91.19	0.512
160.	10.695	35.448	6.13	10.675	64.18	0.33	27.184	35.960	44.351	0.144	1495.5	159.	91.43	0.662
180.	10.625	35.442	6.12	10.604	65.63	0.26	27.192	35.971	44.365	0.162	1495.6	178.	91.15	1.148
200.	10.452	35.418	6.05	10.428	66.89	0.18	27.204	35.991	44.392	0.181	1495.2	198.	90.38	1.453
220.	10.319	35.399	6.04	10.293	67.11	0.19	27.213	36.005	44.412	0.199	1495.1	218.	90.00	1.208
240.	10.283	35.394	6.04	10.254	67.08	0.21	27.216	36.010	44.419	0.217	1495.3	238.	90.19	0.703
260.	10.251	35.388	6.07	10.220	67.06	0.20	27.217	36.013	44.423	0.235	1495.5	258.	90.53	0.490
280.	10.211	35.382	6.07	10.178	67.10	0.18	27.220	36.017	44.429	0.253	1495.7	277.	90.75	0.669
300.	10.167	35.373	6.05	10.131	67.19	0.21	27.220	36.020	44.434	0.271	1495.8	297.	91.12	0.420
350.	9.924	35.331	6.01	9.884	67.59	0.19	27.230	36.041	44.465	0.317	1495.7	347.	91.20	0.861
400.	9.655	35.290	5.86	9.609	67.77	0.15	27.245	36.068	44.504	0.362	1495.5	396.	90.74	1.042
450.	9.148	35.186	5.54	9.098	68.03	0.14	27.248	36.095	44.552	0.409	1494.4	446.	91.08	0.718
500.	8.664	35.152	5.22	8.610	68.28	0.22	27.299	36.168	44.646	0.453	1493.4	495.	86.83	1.885
550.	8.319	35.141	5.07	8.260	68.33	0.17	27.345	36.229	44.722	0.496	1492.9	545.	83.10	1.783
600.	7.690	35.087	5.14	7.629	68.36	0.15	27.397	36.311	44.831	0.536	1491.3	594.	78.37	1.954
650.	7.591	35.153	4.93	7.525	68.38	0.13	27.464	36.382	44.905	0.574	1491.8	644.	72.85	2.080
700.	7.332	35.179	4.91	7.262	68.39	0.15	27.523	36.452	44.986	0.609	1491.7	693.	67.88	1.985
750.	7.324	35.214	4.93	7.249	68.43	0.13	27.552	36.481	45.016	0.642	1492.5	742.	66.02	1.360
800.	6.138	35.069	5.28	6.065	68.35	0.15	27.599	36.586	45.175	0.674	1488.5	792.	60.28	2.101
850.	5.748	35.046	5.39	5.673	68.34	0.16	27.631	36.637	45.244	0.703	1487.8	841.	57.28	1.586
900.	5.540	35.041	5.46	5.461	68.36	0.16	27.652	36.669	45.286	0.731	1487.8	891.	55.52	1.288
950.	5.350	35.035	5.54	5.268	68.36	0.15	27.671	36.697	45.323	0.759	1487.8	940.	54.02	1.210
1000.	5.331	35.060	5.58	5.245	68.41	0.12	27.694	36.721	45.348	0.785	1488.6	989.	52.51	1.211
1200.	4.503	34.984	5.96	4.405	68.47	0.17	27.730	36.801	45.468	0.887	1488.5	1187.	49.31	0.978
1400.	3.969	34.933	6.31	3.858	68.50	0.15	27.748	36.847	45.541	0.984	1489.5	1384.	48.09	0.755
1600.	3.718	34.914	6.44	3.592	68.55	0.14	27.759	36.872	45.580	1.080	1491.8	1581.	47.94	0.595
1800.	3.549	34.905	6.49	3.407	68.57	0.18	27.771	36.894	45.610	1.176	1494.4	1777.	47.93	0.561
2000.	3.536	34.924	6.40	3.375	68.61	0.15	27.789	36.913	45.631	1.272	1497.7	1974.	47.93	0.553
2200.	3.481	34.943	6.31	3.302	68.71	0.12	27.811	36.939	45.660	1.368	1500.9	2170.	47.34	0.636
2400.	3.340	34.954	6.25	3.144	68.77	0.14	27.835	36.971	45.700	1.461	1503.7	2366.	45.98	0.728
2600.	3.150	34.958	6.16	2.937	68.77	0.11	27.857	37.004	45.743	1.551	1506.3	2562.	44.36	0.750
2800.	2.987	34.955	6.06	2.757	68.80	0.14	27.871	37.028	45.776	1.639	1508.9	2758.	43.45	0.655
3000.	2.893	34.950	6.01	2.644	68.82	0.11	27.878	37.041	45.794	1.726	1511.9	2954.	43.59	0.489
3100.	2.826	34.947	5.98	2.569	68.84	0.11	27.882	37.048	45.806	1.769	1513.4	3052.	43.42	0.564
3200.	2.783	34.944	5.94	2.516	68.84	0.09	27.884	37.053	45.814	1.813	1514.9	3149.	43.56	0.455
3300.	2.733	34.939	5.92	2.456	68.83	0.11	27.885	37.058	45.822	1.856	1516.4	3247.	43.65	0.467
3400.	2.690	34.935	5.87	2.404	68.84	0.10	27.886	37.062	45.829	1.900	1517.9	3345.	43.84	0.427
3500.	2.651	34.930	5.84	2.354	68.85	0.12	27.886	37.065	45.834	1.944	1519.4	3442.	44.13	0.384
3600.	2.616	34.925	5.82	2.310	68.82	0.11	27.886	37.068	45.839	1.988	1521.0	3540.	44.42	0.375
3700.	2.599	34.923	5.78	2.282	68.79	0.10	27.887	37.070	45.842	2.033	1522.6	3637.	44.84	0.314
3800.	2.587	34.920	5.78	2.259	68.72	0.10	27.887	37.071	45.845	2.078	1524.3	3735.	45.31	0.276
3900.	2.574	34.917	5.75	2.235	68.66	0.08	27.886	37.072	45.847	2.124	1525.9	3832.	45.82	0.259
4000.	2.570	34.915	5.75	2.220	68.66	0.10	27.886	37.072	45.848	2.170	1527.6	3929.	46.39	0.204
4100.	2.565	34.913	5.75	2.203	68.61	0.11	27.886	37.073	45.850	2.216	1529.3	4027.	46.94	0.225
4200.	2.560	34.912	5.72	2.186	68.46	0.10	27.886	37.074	45.852	2.264	1531.0	4124.	47.44	0.254
4300.	2.560	34.911	5.71	2.175	68.38	0.07	27.886	37.075	45.853	2.311	1532.8	4221.	48.03	0.194
4400.	2.559	34.909	5.71	2.162	68.18	0.07	27.886	37.076	45.855	2.360	1534.5	4318.	48.57	0.228
4500.	2.561	34.908	5.71	2.152	67.57	0.13	27.886	37.076	45.856	2.408	1536.2	4416.	49.18	0.178

Sample data

4515.	2.562	34.908	5.68	2.151
3911.	2.573	34.916	5.77	2.233
3370.	2.699	34.935	5.90	2.416
2885.	2.937	34.953	6.06	2.699
2620.	3.137	34.958	6.18	2.922
1732.	3.564	34.904	6.54	3.428
1211.	4.476	34.981	6.02	4.377
662.	7.514	35.224	4.83	7.447
519.	8.499	35.170	5.03	8.444
291.	10.186	35.373	6.15	10.152
106.	10.826	35.472	6.31	10.813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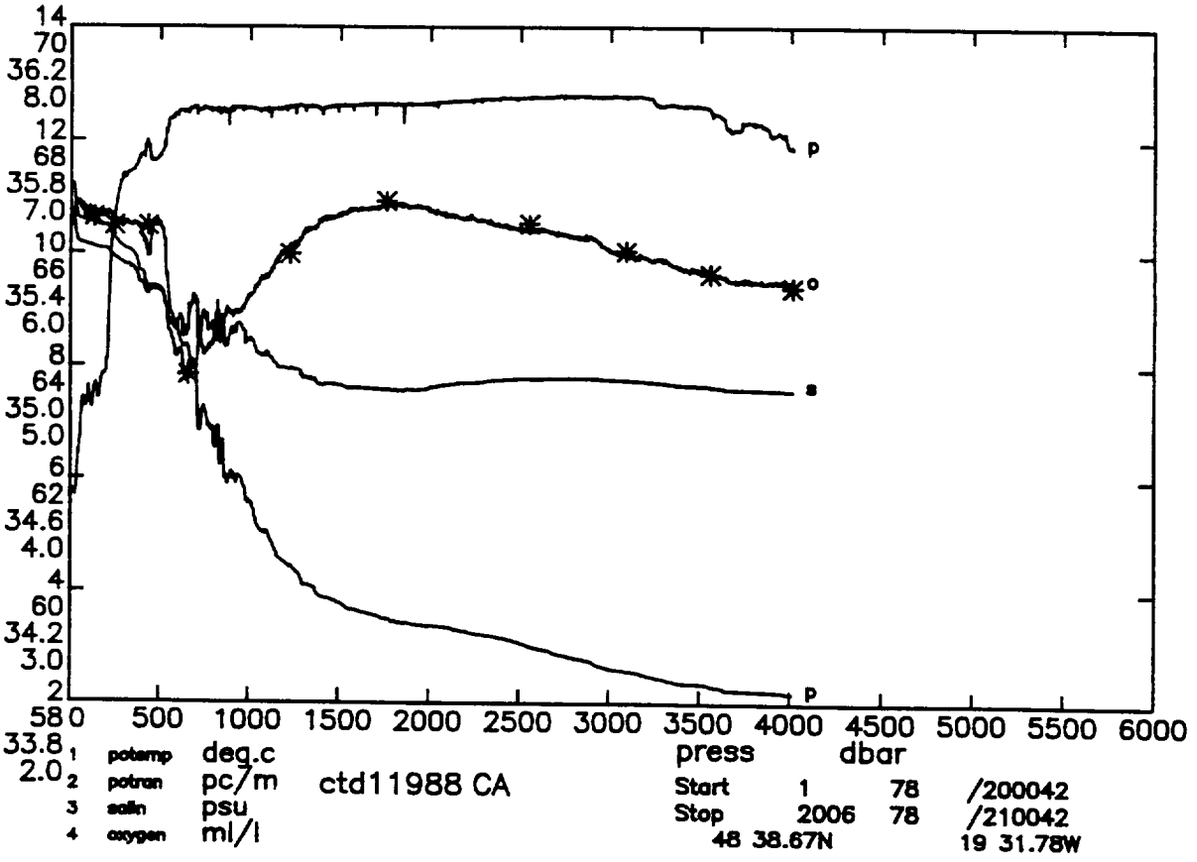
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11988 CA
Start 1 78 /200042
Stop 140 78 /200637
48 38.67N 19 31.78W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2.0
p
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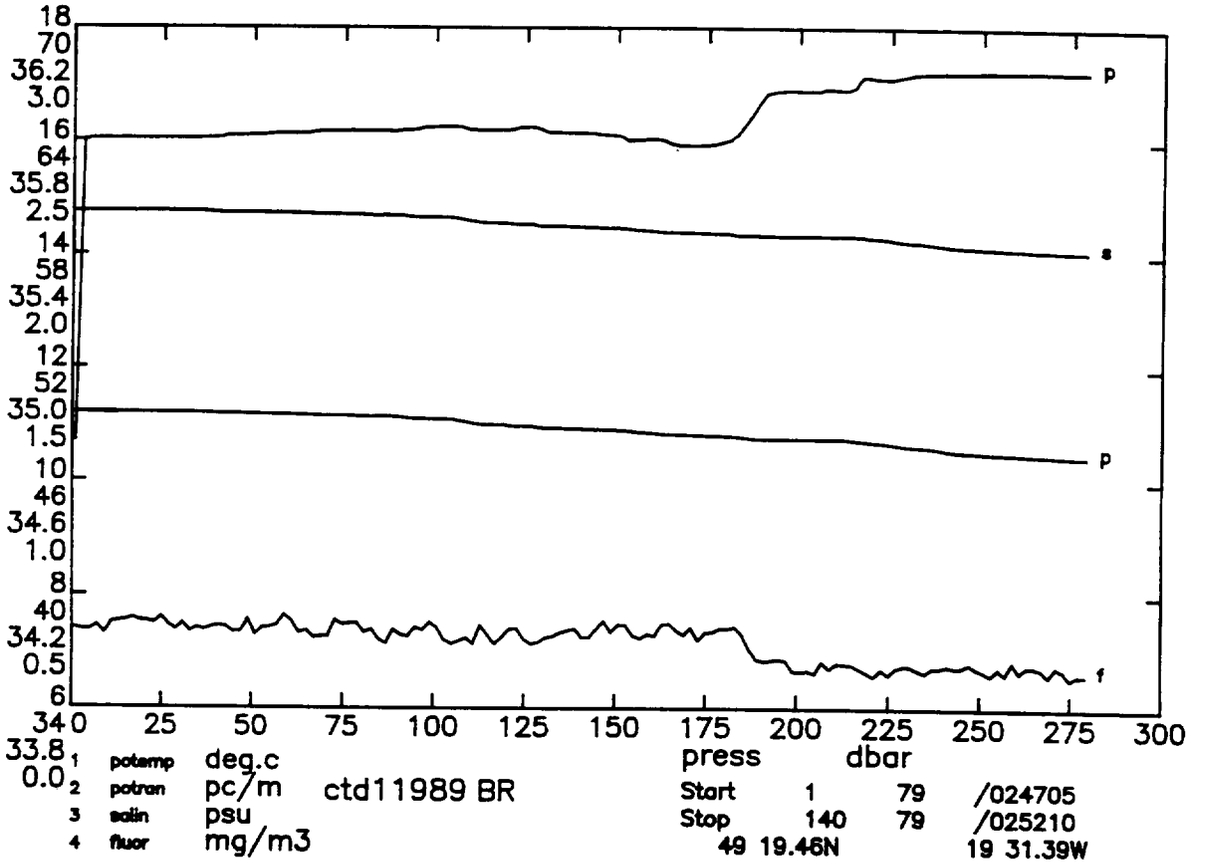
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11988 CA
Start 1 78 /200042
Stop 2006 78 /210042
48 38.67N 19 31.78W

DISCOVERY CRUISE 189 STATION 11988

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.226	35.546	6.24	11.225	61.76	0.43	27.160	35.912	44.281	0.009	1495.0	10.	89.89	-9.999
20.	11.149	35.526	6.34	11.147	61.75	0.44	27.159	35.914	44.287	0.018	1494.9	20.	90.28	-0.647
30.	10.805	35.469	6.43	10.801	61.76	0.50	27.177	35.948	44.334	0.027	1493.7	30.	88.76	2.432
40.	10.655	35.444	6.46	10.650	62.24	0.48	27.185	35.962	44.354	0.036	1493.4	40.	88.26	1.586
50.	10.621	35.439	6.46	10.615	62.62	0.41	27.187	35.966	44.360	0.045	1493.4	50.	88.31	0.836
60.	10.608	35.437	6.41	10.601	63.12	0.46	27.188	35.967	44.361	0.053	1493.5	59.	88.49	0.462
70.	10.606	35.435	6.38	10.597	63.42	0.40	27.187	35.967	44.361	0.062	1493.7	69.	88.77	-0.308
80.	10.593	35.433	6.32	10.583	63.35	0.44	27.188	35.968	44.363	0.071	1493.8	79.	88.95	0.504
90.	10.585	35.432	6.36	10.574	63.32	0.43	27.189	35.969	44.365	0.080	1493.9	89.	89.16	0.358
100.	10.567	35.428	6.39	10.555	63.58	0.39	27.189	35.970	44.366	0.089	1494.0	99.	89.39	0.274
120.	10.558	35.426	6.36	10.544	63.27	0.44	27.190	35.972	44.368	0.107	1494.3	119.	89.80	0.396
140.	10.535	35.422	6.37	10.518	63.68	0.36	27.191	35.974	44.372	0.125	1494.6	139.	90.19	0.416
160.	10.519	35.418	6.32	10.500	63.45	0.43	27.191	35.975	44.373	0.143	1494.8	159.	90.68	0.158
180.	10.507	35.415	6.33	10.486	63.85	0.37	27.191	35.976	44.375	0.161	1495.1	178.	91.12	0.295
200.	10.499	35.414	6.34	10.475	63.94	0.36	27.192	35.977	44.377	0.179	1495.4	198.	91.54	0.364
220.	10.436	35.404	6.35	10.410	65.35	0.25	27.196	35.984	44.386	0.198	1495.5	218.	91.65	0.795
240.	10.327	35.390	6.30	10.298	66.51	0.22	27.205	35.998	44.405	0.216	1495.4	238.	91.21	1.249
260.	10.251	35.380	6.28	10.220	66.92	0.19	27.211	36.007	44.417	0.234	1495.5	258.	91.13	0.972
280.	10.178	35.370	6.27	10.144	67.26	0.18	27.216	36.015	44.428	0.253	1495.5	277.	91.06	0.963
300.	10.132	35.364	6.27	10.097	67.37	0.21	27.219	36.021	44.436	0.271	1495.7	297.	91.21	0.741
350.	10.043	35.348	6.25	10.002	67.47	0.19	27.224	36.029	44.448	0.317	1496.2	347.	91.91	0.575
400.	9.722	35.294	6.16	9.675	67.73	0.16	27.237	36.057	44.490	0.362	1495.8	396.	91.56	1.007
450.	9.461	35.268	6.12	9.410	67.63	0.19	27.261	36.093	44.537	0.408	1495.6	446.	90.19	1.296
500.	9.429	35.265	6.27	9.372	67.71	0.16	27.265	36.098	44.544	0.453	1496.3	495.	90.93	0.501
550.	8.680	35.161	5.61	8.620	68.36	0.15	27.305	36.173	44.650	0.498	1494.3	545.	87.37	1.763
600.	8.288	35.150	5.31	8.224	68.45	0.15	27.358	36.243	44.737	0.541	1493.6	594.	82.89	1.918
650.	7.793	35.110	5.18	7.726	68.49	0.17	27.401	36.310	44.825	0.582	1492.5	643.	79.10	1.787
700.	7.994	35.239	4.97	7.921	68.58	0.14	27.473	36.371	44.877	0.620	1494.3	693.	73.57	2.085
750.	7.311	35.179	5.10	7.236	68.56	0.18	27.527	36.457	44.993	0.655	1492.4	742.	68.36	2.031
800.	6.732	35.115	5.22	6.655	68.54	0.18	27.557	36.515	45.078	0.688	1490.9	792.	65.31	1.621
850.	6.749	35.175	5.33	6.667	68.55	0.19	27.603	36.560	45.120	0.720	1491.9	841.	61.90	1.687
900.	6.197	35.133	5.46	6.114	68.57	0.17	27.643	36.627	45.213	0.749	1490.5	890.	57.79	1.816
950.	6.077	35.144	5.47	5.989	68.58	0.17	27.668	36.658	45.249	0.778	1490.9	940.	55.95	1.325
1000.	5.657	35.090	5.62	5.568	68.57	0.13	27.679	36.689	45.301	0.805	1490.0	989.	54.73	1.146
1200.	4.587	34.989	6.01	4.488	68.56	0.14	27.725	36.791	45.454	0.909	1488.8	1186.	50.05	1.105
1400.	4.003	34.931	6.28	3.892	68.50	0.16	27.743	36.840	45.533	1.008	1489.6	1384.	48.64	0.777
1600.	3.771	34.922	6.38	3.645	68.62	0.16	27.761	36.871	45.576	1.104	1492.0	1580.	48.03	0.662
1800.	3.614	34.914	6.43	3.472	68.63	0.12	27.771	36.891	45.604	1.200	1494.7	1777.	48.18	0.540
2000.	3.548	34.923	6.38	3.387	68.65	0.11	27.787	36.911	45.628	1.297	1497.8	1974.	48.19	0.555
2200.	3.465	34.939	6.30	3.287	68.70	0.13	27.810	36.938	45.660	1.392	1500.8	2170.	47.36	0.667
2400.	3.366	34.949	6.25	3.169	68.76	0.13	27.828	36.963	45.691	1.486	1503.8	2366.	46.74	0.637
2600.	3.200	34.954	6.21	2.986	68.76	0.13	27.849	36.994	45.730	1.578	1506.5	2562.	45.39	0.720
2700.	3.119	34.956	6.16	2.897	68.77	0.12	27.859	37.009	45.750	1.623	1507.8	2660.	44.70	0.716
2800.	3.056	34.956	6.15	2.825	68.78	0.11	27.866	37.019	45.764	1.668	1509.2	2758.	44.41	0.611
2900.	2.998	34.955	6.15	2.758	68.77	0.13	27.872	37.028	45.776	1.712	1510.7	2856.	44.22	0.579
3000.	2.873	34.951	6.02	2.625	68.78	0.13	27.880	37.044	45.799	1.756	1511.9	2954.	43.24	0.774
3100.	2.836	34.949	5.98	2.579	68.77	0.13	27.882	37.048	45.806	1.799	1513.4	3051.	43.46	0.428
3200.	2.777	34.944	5.97	2.510	68.76	0.09	27.884	37.055	45.815	1.843	1514.8	3149.	43.44	0.510
3300.	2.718	34.940	5.95	2.442	68.60	0.09	27.887	37.061	45.825	1.886	1516.3	3247.	43.40	0.516
3400.	2.653	34.932	5.87	2.367	68.60	0.12	27.887	37.065	45.833	1.930	1517.7	3344.	43.46	0.475
3500.	2.654	34.931	5.85	2.358	68.60	0.15	27.887	37.065	45.834	1.973	1519.4	3442.	44.12	0.128
3600.	2.609	34.925	5.81	2.303	68.46	0.08	27.887	37.069	45.840	2.018	1521.0	3539.	44.30	0.427
3700.	2.556	34.919	5.76	2.240	68.19	0.07	27.887	37.072	45.847	2.062	1522.4	3637.	44.41	0.447
3800.	2.557	34.918	5.76	2.229	68.32	0.07	27.887	37.073	45.848	2.107	1524.1	3734.	45.02	0.169
3900.	2.558	34.916	5.75	2.219	68.09	0.10	27.887	37.073	45.849	2.152	1525.9	3832.	45.63	0.159
4000.	2.539	34.913	5.74	2.189	67.86	0.08	27.887	37.075	45.853	2.198	1527.5	3929.	46.00	0.334

Sample data

4010.	2.541	34.912	5.70	2.190
3555.	2.626	34.926	5.82	2.324
3091.	2.839	34.947	6.02	2.582
2553.	3.236	34.955	6.26	3.026
1758.	3.640	34.919	6.46	3.501
1226.	4.511	34.980	5.99	4.411
661.	8.016	35.192	4.92	7.947
435.	9.441	35.272	6.24	9.392
247.	10.300	35.388	6.24	10.270
132.	10.534	35.422	6.32	10.518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4 fluor mg/m3
ctd11989 BR
Start 1 79 /024705
Stop 140 79 /025210
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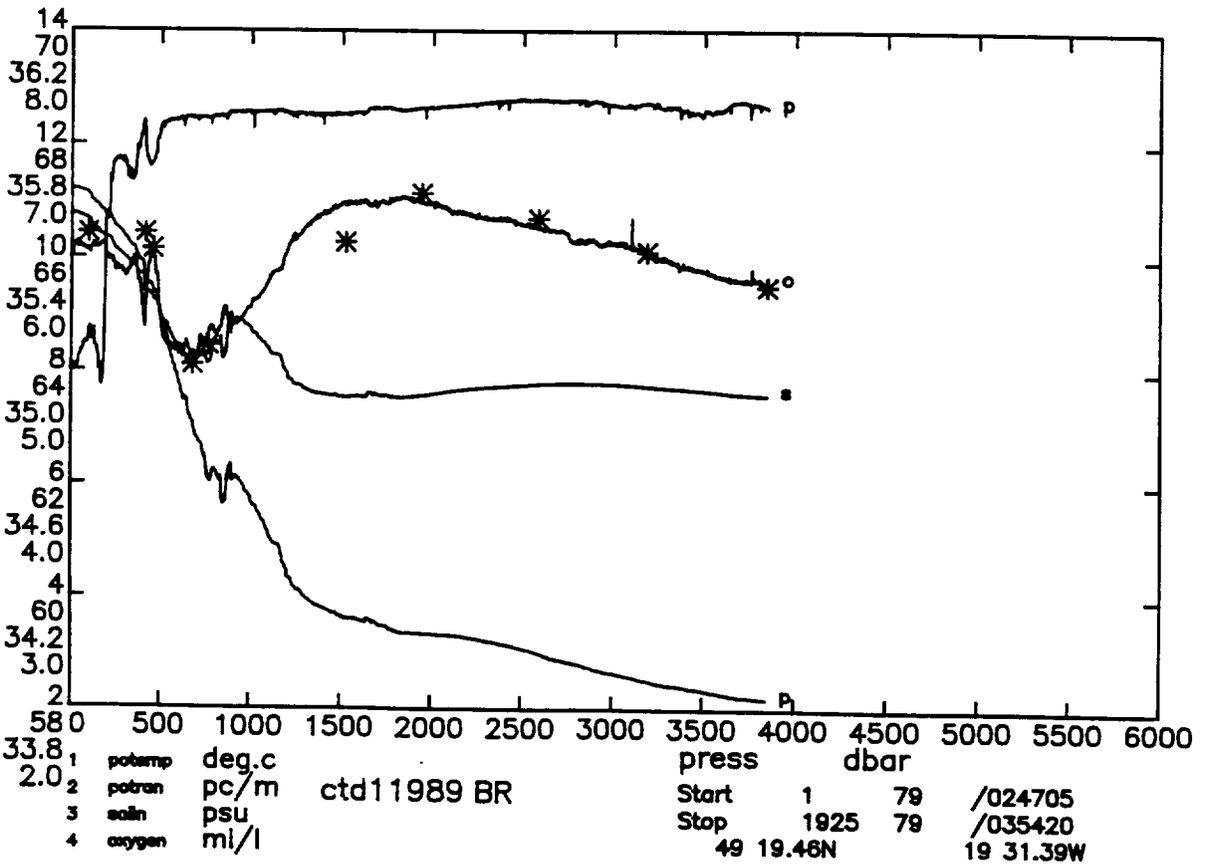
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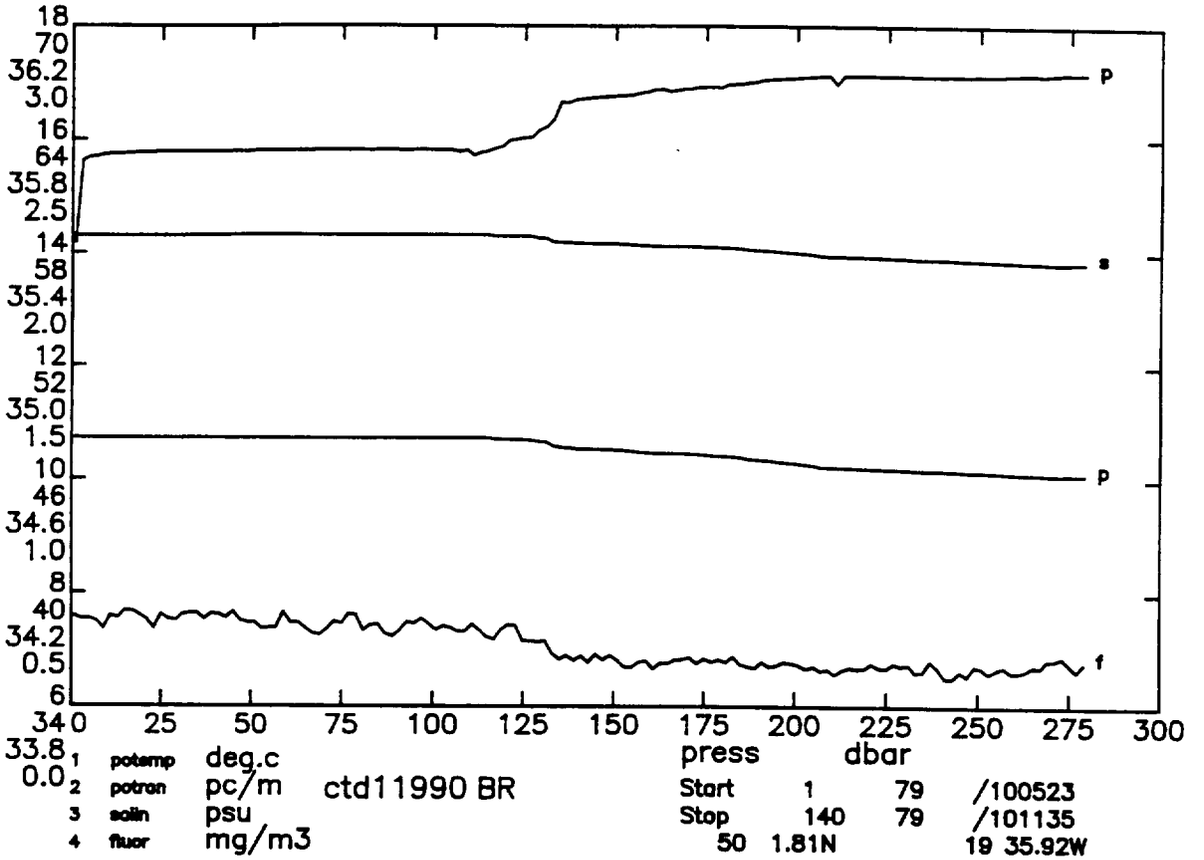
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11989 BR
Start 1 79 /024705
Stop 1925 79 /035420
49 19.46N 19 31.39W

DISCOVERY CRUISE 189 STATION 11989

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.196	35.550	6.03	11.194	64.11	0.35	27.168	35.922	44.292	0.009	1494.9	10.	89.10	-9.999
20.	11.196	35.550	6.11	11.193	64.08	0.39	27.169	35.922	44.292	0.018	1495.0	20.	89.32	0.359
30.	11.198	35.550	6.13	11.194	64.07	0.36	27.168	35.922	44.292	0.027	1495.2	30.	89.60	-0.218
40.	11.187	35.546	6.10	11.182	64.13	0.36	27.168	35.921	44.292	0.036	1495.3	40.	89.95	-0.539
50.	11.181	35.545	6.10	11.174	64.27	0.36	27.168	35.923	44.294	0.045	1495.5	50.	90.14	0.510
60.	11.173	35.543	6.08	11.166	64.35	0.40	27.168	35.923	44.295	0.054	1495.6	59.	90.39	0.199
70.	11.156	35.539	6.08	11.147	64.46	0.32	27.169	35.924	44.296	0.063	1495.7	69.	90.64	0.220
80.	11.145	35.537	6.06	11.135	64.48	0.36	27.169	35.925	44.298	0.072	1495.8	79.	90.83	0.509
90.	11.138	35.535	6.05	11.127	64.51	0.34	27.169	35.926	44.299	0.081	1496.0	89.	91.08	0.146
100.	11.104	35.530	6.06	11.091	64.73	0.37	27.172	35.929	44.304	0.090	1496.0	99.	91.13	0.841
120.	10.999	35.508	6.11	10.984	64.57	0.33	27.174	35.937	44.316	0.108	1496.0	119.	91.36	0.695
140.	10.941	35.496	6.09	10.923	64.40	0.33	27.176	35.941	44.322	0.127	1496.1	139.	91.72	0.515
160.	10.874	35.482	6.10	10.854	64.10	0.32	27.178	35.946	44.330	0.145	1496.2	159.	92.05	0.554
180.	10.828	35.473	6.11	10.806	64.01	0.35	27.179	35.950	44.336	0.163	1496.3	178.	92.37	0.565
200.	10.772	35.466	5.99	10.747	66.70	0.17	27.184	35.957	44.345	0.182	1496.4	198.	92.41	0.882
220.	10.731	35.459	5.99	10.704	67.38	0.15	27.187	35.962	44.352	0.200	1496.6	218.	92.64	0.681
240.	10.595	35.434	5.94	10.566	67.68	0.19	27.192	35.972	44.368	0.219	1496.4	238.	92.64	0.921
260.	10.529	35.422	5.92	10.497	67.73	0.19	27.195	35.979	44.377	0.238	1496.5	258.	92.76	0.788
280.	10.468	35.411	5.89	10.434	67.74	0.17	27.197	35.984	44.385	0.256	1496.6	277.	92.99	0.664
300.	10.387	35.400	5.84	10.351	67.71	0.17	27.204	35.994	44.398	0.275	1496.6	297.	92.85	1.027
350.	10.214	35.374	6.00	10.172	67.40	0.17	27.215	36.012	44.425	0.321	1496.8	347.	92.92	0.877
400.	9.957	35.342	5.54	9.910	68.30	0.14	27.235	36.044	44.467	0.367	1496.7	396.	92.00	1.188
450.	9.530	35.264	6.04	9.478	67.64	0.18	27.247	36.076	44.517	0.413	1495.9	446.	91.63	1.009
500.	8.937	35.189	5.41	8.881	68.30	0.13	27.285	36.141	44.607	0.458	1494.4	495.	88.47	1.688
550.	8.417	35.137	5.21	8.358	68.41	0.12	27.327	36.207	44.696	0.502	1493.3	545.	84.92	1.751
600.	7.871	35.087	5.15	7.809	68.43	0.13	27.370	36.276	44.788	0.544	1492.0	594.	81.12	1.790
650.	7.456	35.089	5.10	7.391	68.47	0.14	27.434	36.358	44.889	0.583	1491.2	643.	75.50	2.096
700.	6.875	35.048	5.14	6.808	68.45	0.14	27.483	36.435	44.992	0.619	1489.8	693.	70.82	1.930
750.	6.545	35.059	5.25	6.474	68.46	0.14	27.537	36.505	45.076	0.653	1489.3	742.	66.04	1.941
800.	6.330	35.105	5.32	6.250	68.49	0.18	27.602	36.580	45.160	0.685	1489.3	792.	60.33	2.089
850.	5.718	35.041	5.54	5.643	68.48	0.16	27.631	36.638	45.247	0.714	1487.7	841.	57.23	1.609
900.	6.129	35.159	5.40	6.046	68.55	0.15	27.673	36.659	45.248	0.742	1490.3	890.	54.91	1.435
950.	6.108	35.177	5.46	6.020	68.56	0.16	27.690	36.678	45.267	0.770	1491.0	940.	53.97	1.070
1000.	5.840	35.146	5.56	5.749	68.55	0.15	27.700	36.701	45.304	0.796	1490.8	989.	53.14	1.030
1200.	4.581	34.993	6.05	4.482	68.55	0.17	27.729	36.795	45.458	0.899	1488.8	1186.	49.70	1.010
1400.	3.903	34.918	6.40	3.793	68.49	0.16	27.742	36.845	45.543	0.996	1489.2	1383.	48.34	0.770
1600.	3.700	34.909	6.49	3.574	68.55	0.14	27.757	36.871	45.579	1.093	1491.7	1580.	48.09	0.607
1800.	3.532	34.906	6.52	3.391	68.60	0.14	27.773	36.896	45.614	1.189	1494.3	1777.	47.70	0.615
2000.	3.498	34.918	6.46	3.338	68.63	0.14	27.788	36.914	45.634	1.284	1497.6	1973.	47.83	0.530
2200.	3.458	34.936	6.38	3.279	68.71	0.12	27.808	36.937	45.659	1.380	1500.8	2170.	47.49	0.600
2400.	3.359	34.946	6.34	3.162	68.76	0.13	27.827	36.962	45.690	1.474	1503.7	2366.	46.82	0.641
2500.	3.296	34.951	6.29	3.091	68.79	0.08	27.837	36.976	45.708	1.521	1505.2	2464.	46.31	0.682
2600.	3.207	34.955	6.25	2.993	68.79	0.13	27.850	36.994	45.730	1.567	1506.5	2562.	45.40	0.774
2700.	3.110	34.956	6.23	2.888	68.78	0.16	27.861	37.010	45.752	1.611	1507.8	2660.	44.53	0.759
2800.	3.050	34.956	6.15	2.819	68.79	0.14	27.867	37.020	45.765	1.656	1509.2	2758.	44.29	0.598
2900.	2.958	34.955	6.13	2.718	68.78	0.09	27.875	37.034	45.784	1.700	1510.5	2855.	43.64	0.701
3000.	2.901	34.953	6.13	2.652	68.71	0.13	27.879	37.042	45.795	1.743	1512.0	2953.	43.50	0.557
3100.	2.844	34.950	6.23	2.586	68.68	0.11	27.882	37.048	45.805	1.787	1513.4	3051.	43.50	0.511
3200.	2.772	34.945	6.02	2.506	68.72	0.10	27.885	37.056	45.817	1.830	1514.8	3149.	43.31	0.563
3300.	2.715	34.940	5.98	2.439	68.65	0.12	27.887	37.061	45.826	1.874	1516.3	3246.	43.36	0.484
3400.	2.689	34.936	5.91	2.402	68.62	0.11	27.887	37.063	45.830	1.917	1517.9	3344.	43.74	0.343
3500.	2.644	34.931	5.88	2.348	68.59	0.09	27.888	37.067	45.836	1.961	1519.4	3442.	43.95	0.416
3600.	2.590	34.924	5.83	2.284	68.61	0.10	27.888	37.070	45.843	2.005	1520.9	3539.	44.07	0.447
3700.	2.546	34.918	5.79	2.230	68.75	0.10	27.887	37.073	45.849	2.049	1522.4	3637.	44.30	0.398
3800.	2.528	34.915	5.79	2.202	68.70	0.09	27.887	37.075	45.852	2.094	1524.0	3734.	44.74	0.293

Sample data

3847.	2.520	34.913	5.74	2.189
3184.	2.788	34.946	6.05	2.522
2585.	3.223	34.954	6.34	3.011
1940.	3.499	34.912	6.56	3.344
764.	6.184	35.019	5.22	6.114
676.	7.162	35.060	5.05	7.096
454.	9.480	35.256	6.07	9.428
411.	9.604	35.292	6.21	9.557
93.	11.118	35.532	6.21	11.106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33.8
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press dbar
p
s
p
f
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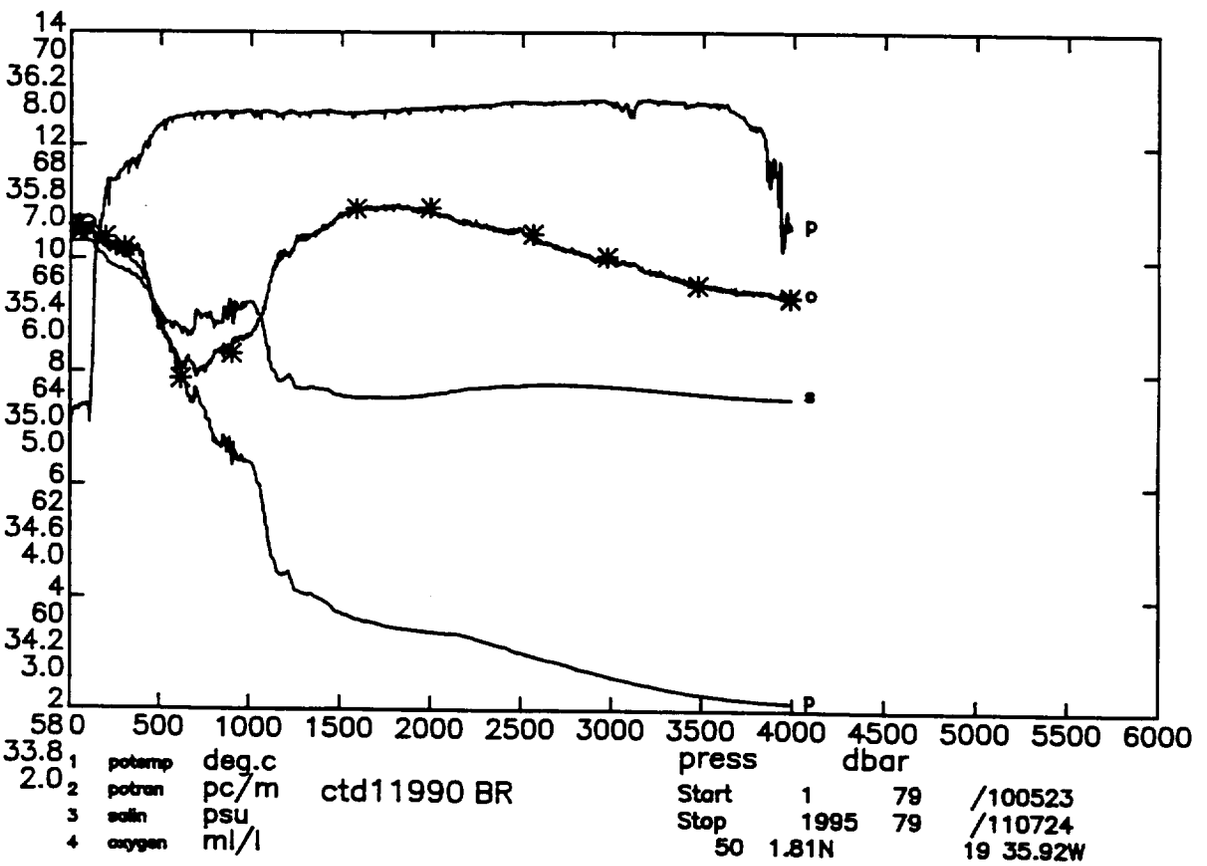
2 potrem pc/m
3 salin psu
4 fluor mg/m3
ctd11990 BR
Start 1 79 /100523
Stop 140 79 /101135
50 1.81N 19 35.92W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press dbar
p
o
s
p
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11990 BR
Start 1 79 /100523
Stop 1995 79 /110724
50 1.81N 19 35.92W

DISCOVERY CRUISE 189 STATION 11990

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.729	35.461	6.23	10.728	63.21	0.37	27.184	35.958	44.347	0.009	1493.1	10.	87.60	-9.999
20.	10.729	35.461	6.18	10.727	63.31	0.39	27.184	35.958	44.347	0.018	1493.3	20.	87.84	0.235
30.	10.731	35.461	6.22	10.727	63.35	0.39	27.184	35.958	44.347	0.026	1493.5	30.	88.12	-0.266
40.	10.732	35.460	6.23	10.727	63.33	0.41	27.184	35.957	44.347	0.035	1493.6	40.	88.38	-0.150
50.	10.735	35.461	6.22	10.729	63.35	0.37	27.184	35.958	44.347	0.044	1493.8	50.	88.61	0.278
60.	10.735	35.461	6.20	10.728	63.38	0.39	27.184	35.957	44.347	0.053	1494.0	59.	88.89	-0.267
70.	10.736	35.461	6.23	10.727	63.42	0.33	27.184	35.958	44.347	0.062	1494.2	69.	89.11	0.316
80.	10.738	35.461	6.25	10.728	63.40	0.37	27.184	35.958	44.347	0.071	1494.3	79.	89.37	-0.118
90.	10.739	35.461	6.27	10.728	63.41	0.32	27.184	35.958	44.347	0.080	1494.5	89.	89.62	0.090
100.	10.740	35.461	6.26	10.728	63.40	0.35	27.184	35.958	44.347	0.089	1494.7	99.	89.88	-0.177
120.	10.715	35.456	6.25	10.700	63.76	0.35	27.185	35.960	44.350	0.107	1494.9	119.	90.30	0.380
140.	10.553	35.430	6.17	10.536	66.11	0.21	27.194	35.976	44.373	0.125	1494.6	139.	89.88	1.241
160.	10.485	35.420	6.22	10.465	66.56	0.18	27.199	35.984	44.384	0.143	1494.7	159.	89.90	0.901
180.	10.434	35.414	6.11	10.412	66.80	0.20	27.204	35.991	44.393	0.161	1494.8	178.	89.94	0.868
200.	10.308	35.396	6.09	10.284	67.27	0.19	27.212	36.005	44.412	0.179	1494.7	198.	89.58	1.191
220.	10.223	35.382	6.10	10.197	67.39	0.18	27.216	36.013	44.424	0.197	1494.7	218.	89.64	0.846
240.	10.189	35.375	6.13	10.161	67.37	0.15	27.217	36.016	44.428	0.214	1494.9	238.	90.02	0.423
260.	10.147	35.367	6.14	10.117	67.46	0.15	27.218	36.019	44.433	0.233	1495.1	258.	90.35	0.499
280.	10.124	35.365	6.05	10.091	67.53	0.19	27.221	36.023	44.438	0.251	1495.3	277.	90.55	0.679
300.	10.078	35.355	6.02	10.043	67.63	0.19	27.222	36.026	44.443	0.269	1495.5	297.	90.91	0.457
350.	9.973	35.340	6.07	9.932	67.72	0.19	27.230	36.038	44.460	0.314	1495.9	347.	91.30	0.727
400.	9.772	35.307	6.00	9.726	67.93	0.18	27.239	36.057	44.487	0.360	1496.0	396.	91.44	0.830
450.	9.418	35.257	5.64	9.367	68.14	0.16	27.259	36.093	44.539	0.406	1495.5	446.	90.33	1.227
500.	9.009	35.209	5.39	8.953	68.37	0.12	27.290	36.142	44.605	0.450	1494.7	495.	88.12	1.486
550.	8.614	35.174	5.25	8.554	68.46	0.15	27.326	36.196	44.676	0.493	1494.0	545.	85.32	1.607
600.	8.302	35.161	5.05	8.238	68.49	0.14	27.364	36.249	44.742	0.535	1493.7	594.	82.33	1.637
650.	7.734	35.136	5.12	7.668	68.53	0.15	27.430	36.341	44.859	0.575	1492.3	643.	76.30	2.166
700.	7.775	35.212	4.97	7.703	68.55	0.15	27.485	36.393	44.908	0.612	1493.4	693.	72.17	1.845
750.	7.395	35.200	4.99	7.320	68.56	0.12	27.531	36.457	44.989	0.647	1492.8	742.	68.07	1.835
800.	6.879	35.156	5.16	6.801	68.50	0.15	27.569	36.520	45.075	0.680	1491.6	792.	64.46	1.736
850.	6.879	35.209	5.13	6.796	68.58	0.14	27.612	36.562	45.116	0.711	1492.5	841.	61.35	1.630
900.	6.573	35.197	5.24	6.487	68.50	0.17	27.644	36.609	45.178	0.741	1492.1	890.	58.49	1.576
950.	6.515	35.220	5.28	6.425	68.60	0.14	27.671	36.639	45.209	0.770	1492.7	940.	56.67	1.329
1000.	6.485	35.245	5.32	6.389	68.60	0.15	27.695	36.664	45.236	0.798	1493.4	989.	55.16	1.248
1200.	4.514	34.978	6.04	4.415	68.58	0.14	27.724	36.794	45.460	0.902	1488.5	1186.	49.94	1.159
1400.	4.061	34.938	6.25	3.949	68.60	0.18	27.742	36.837	45.526	1.000	1489.9	1383.	48.89	0.737
1600.	3.735	34.908	6.44	3.609	68.58	0.14	27.753	36.866	45.572	1.097	1491.8	1580.	48.58	0.623
1800.	3.606	34.907	6.46	3.463	68.62	0.15	27.767	36.887	45.601	1.194	1494.6	1777.	48.54	0.567
2000.	3.549	34.920	6.41	3.389	68.66	0.16	27.785	36.908	45.626	1.291	1497.8	1973.	48.39	0.579
2200.	3.491	34.942	6.32	3.312	68.69	0.14	27.809	36.937	45.657	1.388	1500.9	2170.	47.56	0.668
2400.	3.325	34.951	6.24	3.129	68.77	0.13	27.834	36.971	45.701	1.481	1503.6	2366.	45.97	0.753
2500.	3.230	34.953	6.25	3.026	68.78	0.13	27.845	36.988	45.722	1.527	1504.9	2464.	45.17	0.749
2600.	3.146	34.956	6.16	2.934	68.76	0.12	27.856	37.003	45.743	1.572	1506.2	2562.	44.43	0.732
2700.	3.080	34.956	6.10	2.858	68.76	0.14	27.863	37.015	45.758	1.616	1507.6	2660.	44.08	0.627
2800.	2.990	34.953	6.06	2.760	68.77	0.15	27.870	37.026	45.774	1.660	1509.0	2758.	43.60	0.659
2900.	2.925	34.951	6.00	2.687	68.80	0.11	27.874	37.035	45.787	1.703	1510.4	2855.	43.44	0.565
3000.	2.850	34.948	5.98	2.602	68.72	0.14	27.879	37.044	45.801	1.746	1511.8	2953.	43.13	0.606
3100.	2.786	34.945	5.96	2.529	68.63	0.10	27.883	37.052	45.812	1.790	1513.2	3051.	42.97	0.556
3200.	2.726	34.938	5.89	2.461	68.81	0.14	27.884	37.057	45.820	1.833	1514.6	3149.	43.11	0.452
3300.	2.668	34.932	5.85	2.393	68.77	0.12	27.885	37.062	45.829	1.876	1516.1	3246.	43.13	0.489
3400.	2.622	34.928	5.80	2.337	68.71	0.11	27.886	37.066	45.836	1.919	1517.6	3344.	43.28	0.436
3500.	2.581	34.922	5.78	2.286	68.76	0.16	27.885	37.068	45.841	1.962	1519.1	3442.	43.60	0.363
3600.	2.549	34.918	5.74	2.245	68.73	0.07	27.886	37.071	45.846	2.006	1520.7	3539.	43.88	0.375
3700.	2.520	34.914	5.71	2.205	68.55	0.09	27.886	37.073	45.850	2.050	1522.3	3637.	44.19	0.357
3800.	2.501	34.911	5.71	2.176	68.33	0.07	27.886	37.075	45.853	2.094	1523.9	3734.	44.59	0.312
3900.	2.491	34.909	5.68	2.154	67.51	0.10	27.886	37.076	45.856	2.139	1525.6	3831.	45.07	0.261

Sample data

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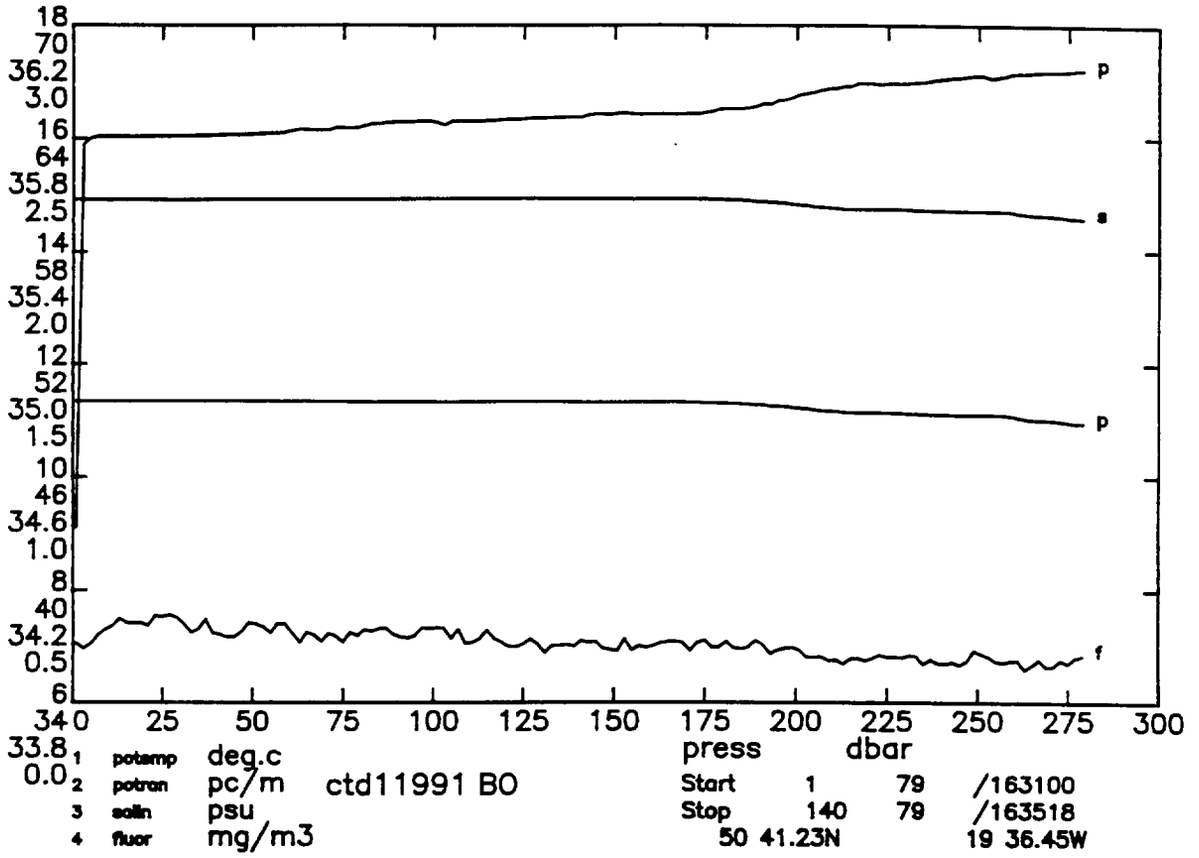
3475.	2.587	34.923	5.77	2.295
2973.	2.866	34.948	6.02	2.621
2562.	3.176	34.959	6.22	2.966
1993.	3.549	34.922	6.45	3.389
1587.	3.740	34.915	6.44	3.615
901.	6.496	35.226	5.16	6.411
618.	8.055	35.152	4.94	7.991
302.	10.071	35.357	6.10	10.035
195.	10.345	35.411	6.19	10.322
48.	10.733	35.470	6.30	10.727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4 fluor mg/m3
ctd11991 BO
Start 1 79 /163100
Stop 140 79 /163518
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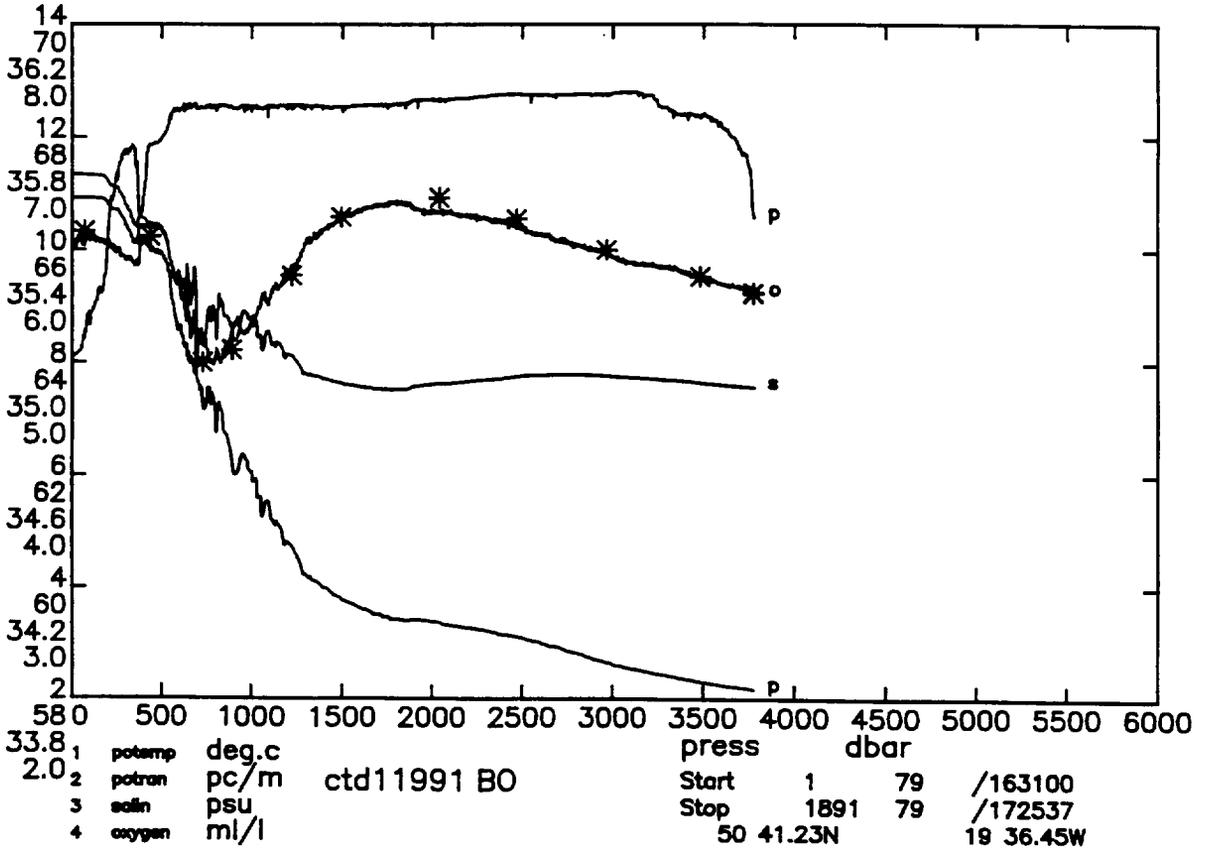
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1 potemp deg.c
2 potrat pc/m
3 salin psu
4 oxygen ml/l
ctd11991 BO
Start 1 79 /163100
Stop 1891 79 /172537
50 41.23N 19 36.45W

DISCOVERY CRUISE 189 STATION 11991

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.342	35.584	6.04	11.341	64.13	0.33	27.168	35.915	44.279	0.009	1495.4	10.	89.13	-9.999
20.	11.343	35.584	6.07	11.341	64.13	0.35	27.168	35.915	44.279	0.018	1495.6	20.	89.40	0.121
30.	11.345	35.584	6.06	11.341	64.15	0.36	27.168	35.915	44.279	0.027	1495.8	30.	89.70	-0.321
40.	11.344	35.584	6.11	11.338	64.18	0.31	27.168	35.916	44.280	0.036	1495.9	40.	89.88	0.538
50.	11.345	35.584	6.11	11.338	64.21	0.35	27.168	35.915	44.279	0.045	1496.1	50.	90.20	-0.415
60.	11.340	35.584	6.07	11.333	64.36	0.33	27.169	35.916	44.281	0.054	1496.3	59.	90.35	0.625
70.	11.340	35.584	6.05	11.332	64.42	0.29	27.169	35.917	44.281	0.063	1496.4	69.	90.60	0.169
80.	11.337	35.584	6.11	11.327	64.61	0.31	27.170	35.918	44.282	0.072	1496.6	79.	90.80	0.487
90.	11.336	35.584	6.14	11.325	64.85	0.30	27.171	35.918	44.283	0.081	1496.7	89.	91.00	0.479
100.	11.337	35.584	6.08	11.325	64.85	0.33	27.170	35.918	44.283	0.090	1496.9	99.	91.30	-0.358
120.	11.338	35.584	6.11	11.323	64.97	0.26	27.171	35.918	44.283	0.108	1497.2	119.	91.79	0.269
140.	11.336	35.583	6.10	11.318	65.09	0.26	27.171	35.919	44.284	0.127	1497.6	139.	92.28	0.272
160.	11.334	35.582	6.08	11.313	65.23	0.25	27.171	35.919	44.285	0.145	1497.9	159.	92.81	0.099
180.	11.314	35.578	6.05	11.292	65.52	0.26	27.172	35.922	44.288	0.164	1498.1	178.	93.22	0.445
200.	11.235	35.562	6.06	11.209	66.23	0.24	27.175	35.927	44.297	0.183	1498.2	198.	93.49	0.655
220.	11.156	35.546	6.02	11.128	66.93	0.19	27.178	35.934	44.307	0.201	1498.2	218.	93.71	0.717
240.	11.127	35.542	6.02	11.097	67.16	0.17	27.180	35.937	44.311	0.220	1498.4	238.	94.02	0.597
260.	11.099	35.537	6.01	11.066	67.47	0.19	27.182	35.940	44.316	0.239	1498.7	258.	94.35	0.568
280.	10.976	35.514	5.96	10.942	67.68	0.21	27.186	35.950	44.331	0.258	1498.5	277.	94.36	0.919
300.	10.827	35.484	5.90	10.790	67.76	0.15	27.191	35.962	44.348	0.277	1498.3	297.	94.33	0.952
350.	10.473	35.425	5.88	10.431	67.79	0.21	27.209	35.995	44.396	0.324	1497.8	347.	93.66	1.131
400.	10.593	35.486	6.11	10.544	66.94	0.22	27.236	36.017	44.413	0.370	1499.1	396.	92.37	1.300
450.	10.502	35.477	6.01	10.447	67.87	0.17	27.246	36.032	44.431	0.416	1499.6	446.	92.58	0.830
500.	10.440	35.466	5.97	10.379	67.98	0.14	27.250	36.038	44.440	0.463	1500.2	495.	93.44	0.501
550.	9.864	35.358	5.61	9.799	68.34	0.14	27.266	36.080	44.507	0.510	1498.8	545.	92.42	1.218
600.	9.416	35.304	5.30	9.347	68.47	0.15	27.300	36.134	44.579	0.555	1498.0	594.	89.86	1.573
650.	8.918	35.285	5.02	8.846	68.57	0.17	27.367	36.223	44.689	0.599	1497.0	643.	83.98	2.162
700.	7.758	35.105	5.14	7.686	68.52	0.17	27.403	36.314	44.831	0.640	1493.2	693.	79.78	1.867
750.	7.396	35.132	5.12	7.321	68.56	0.14	27.478	36.405	44.937	0.678	1492.7	742.	73.09	2.259
800.	7.009	35.133	5.05	6.930	68.51	0.13	27.533	36.478	45.028	0.714	1492.0	792.	68.08	1.991
850.	6.839	35.163	5.10	6.757	68.57	0.13	27.581	36.534	45.091	0.747	1492.2	841.	64.13	1.793
900.	6.123	35.078	5.31	6.040	68.50	0.16	27.609	36.597	45.187	0.778	1490.2	890.	60.83	1.661
950.	6.447	35.178	5.26	6.357	68.55	0.13	27.647	36.618	45.193	0.808	1492.4	940.	58.79	1.379
1000.	6.151	35.160	5.35	6.059	68.49	0.18	27.672	36.658	45.246	0.837	1492.0	989.	56.55	1.426
1200.	4.890	35.027	5.80	4.788	68.57	0.14	27.721	36.771	45.420	0.945	1490.1	1186.	51.32	1.160
1400.	4.101	34.942	6.18	3.989	68.55	0.15	27.742	36.834	45.521	1.045	1490.1	1383.	49.10	0.871
1600.	3.756	34.914	6.34	3.630	68.55	0.14	27.756	36.867	45.572	1.142	1491.9	1580.	48.43	0.671
1800.	3.584	34.906	6.42	3.442	68.59	0.15	27.768	36.889	45.604	1.239	1494.5	1777.	48.36	0.572
2000.	3.561	34.924	6.33	3.400	68.67	0.16	27.786	36.910	45.626	1.335	1497.8	1973.	48.29	0.567
2200.	3.461	34.933	6.31	3.282	68.69	0.15	27.805	36.934	45.656	1.431	1500.8	2170.	47.77	0.627
2300.	3.422	34.938	6.27	3.234	68.71	0.13	27.814	36.945	45.670	1.479	1502.3	2268.	47.58	0.602
2400.	3.356	34.946	6.24	3.160	68.75	0.11	27.827	36.963	45.691	1.526	1503.7	2366.	46.78	0.754
2500.	3.311	34.953	6.18	3.105	68.77	0.10	27.838	36.976	45.707	1.573	1505.2	2464.	46.33	0.668
2600.	3.224	34.955	6.14	3.010	68.74	0.13	27.849	36.992	45.727	1.619	1506.6	2562.	45.61	0.731
2700.	3.152	34.957	6.08	2.929	68.75	0.13	27.857	37.005	45.744	1.664	1508.0	2660.	45.13	0.667
2800.	3.064	34.956	6.05	2.833	68.76	0.09	27.865	37.018	45.762	1.709	1509.3	2757.	44.52	0.695
2900.	2.957	34.954	6.00	2.718	68.76	0.12	27.874	37.033	45.783	1.753	1510.5	2855.	43.67	0.749
3000.	2.879	34.950	5.94	2.630	68.78	0.11	27.879	37.042	45.797	1.797	1511.9	2953.	43.38	0.600
3100.	2.804	34.946	5.89	2.547	68.79	0.11	27.882	37.051	45.809	1.840	1513.3	3051.	43.18	0.573
3200.	2.759	34.943	5.87	2.493	68.74	0.12	27.885	37.056	45.817	1.883	1514.8	3148.	43.28	0.466
3300.	2.709	34.939	5.84	2.433	68.54	0.13	27.887	37.061	45.826	1.926	1516.3	3246.	43.32	0.486
3400.	2.651	34.933	5.78	2.366	68.41	0.10	27.888	37.066	45.834	1.969	1517.7	3344.	43.39	0.470
3500.	2.599	34.926	5.74	2.304	68.39	0.13	27.887	37.069	45.841	2.013	1519.2	3441.	43.59	0.415
3600.	2.558	34.920	5.70	2.254	68.21	0.10	27.887	37.072	45.846	2.057	1520.7	3539.	43.85	0.385
3700.	2.525	34.915	5.66	2.210	67.80	0.10	27.887	37.074	45.850	2.101	1522.3	3636.	44.17	0.357

Sample data

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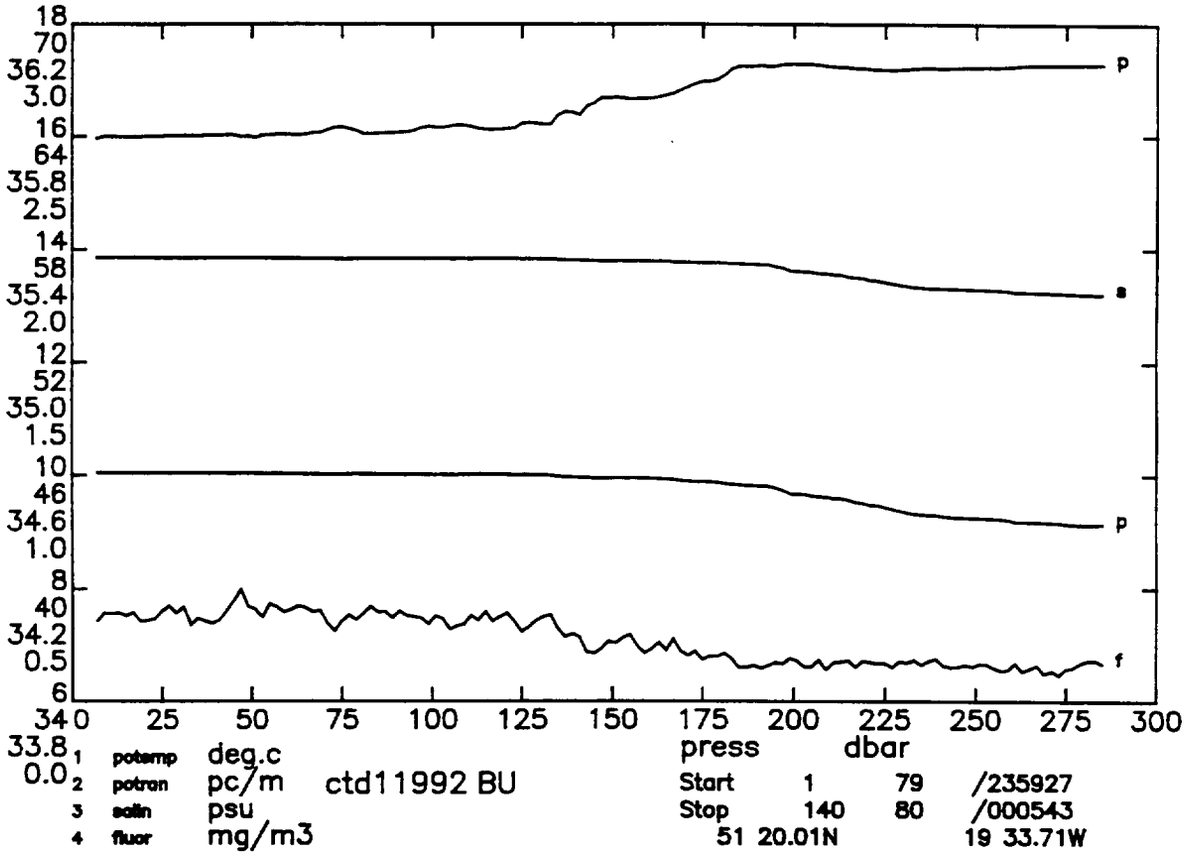
2035.	3.547	34.932	6.46	3.383
1490.	3.925	34.928	6.29	3.807
1215.	4.849	35.012	5.77	4.746
887.	6.385	35.125	5.11	6.302
723.	7.511	35.106	5.00	7.438
435.	10.519	35.492	6.12	10.466
70.	11.340	35.583	6.16	11.331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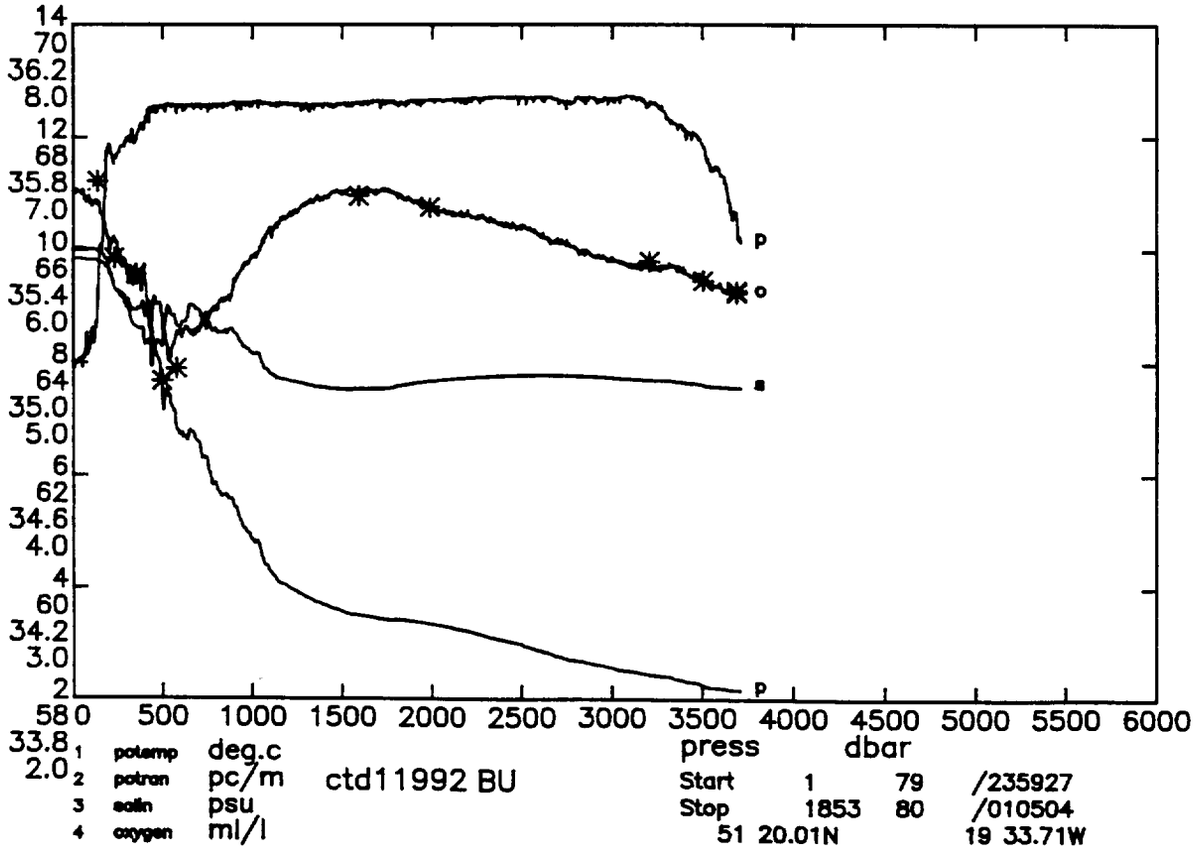
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11992 BU
Start 1 79 /235927
Stop 140 80 /000543
51 20.01N 19 33.71W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p
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press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11992 BU
Start 1 79 /235927
Stop 1853 80 /010504
51 20.01N 19 33.71W

DISCOVERY CRUISE 189 STATION 11992

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	10.043	35.371	6.51	10.042	64.01	0.39	27.235	36.038	44.455	0.008	1490.6	10.	82.78	-9.999
20.	10.043	35.371	6.53	10.041	64.01	0.36	27.235	36.038	44.456	0.017	1490.8	20.	83.00	0.258
30.	10.046	35.370	6.52	10.042	64.06	0.41	27.234	36.038	44.455	0.025	1490.9	30.	83.31	-0.478
40.	10.044	35.370	6.52	10.039	64.06	0.35	27.234	36.038	44.455	0.033	1491.1	40.	83.52	0.329
50.	10.046	35.370	6.52	10.040	63.97	0.42	27.234	36.037	44.455	0.042	1491.3	50.	83.82	-0.460
60.	10.043	35.370	6.51	10.036	64.12	0.40	27.235	36.038	44.456	0.050	1491.4	59.	83.98	0.533
70.	10.030	35.368	6.47	10.022	64.30	0.38	27.236	36.040	44.458	0.058	1491.5	69.	84.13	0.542
80.	10.034	35.368	6.46	10.025	64.23	0.38	27.235	36.039	44.457	0.067	1491.7	79.	84.42	-0.416
90.	10.028	35.367	6.47	10.017	64.21	0.39	27.236	36.040	44.459	0.075	1491.9	89.	84.58	0.533
100.	10.025	35.367	6.43	10.013	64.51	0.36	27.236	36.041	44.459	0.084	1492.0	99.	84.78	0.371
120.	10.029	35.366	6.43	10.015	64.38	0.38	27.236	36.040	44.459	0.101	1492.4	119.	85.33	-0.347
140.	9.984	35.360	6.42	9.967	65.20	0.29	27.239	36.046	44.466	0.118	1492.5	139.	85.47	0.751
160.	9.966	35.357	6.31	9.947	66.01	0.22	27.240	36.047	44.469	0.135	1492.8	159.	85.87	0.348
180.	9.888	35.350	6.20	9.867	67.15	0.21	27.248	36.059	44.484	0.152	1492.8	178.	85.52	1.173
200.	9.694	35.321	6.08	9.671	67.88	0.19	27.259	36.079	44.511	0.169	1492.4	198.	84.89	1.352
220.	9.524	35.292	6.10	9.499	67.61	0.18	27.265	36.092	44.532	0.186	1492.1	218.	84.71	1.031
240.	9.326	35.262	6.08	9.299	67.65	0.17	27.275	36.111	44.560	0.203	1491.7	238.	84.13	1.314
260.	9.236	35.252	5.97	9.208	67.77	0.16	27.282	36.123	44.575	0.220	1491.7	258.	83.83	1.117
280.	9.167	35.244	5.86	9.136	67.86	0.18	27.287	36.131	44.586	0.237	1491.7	277.	83.74	0.939
300.	9.031	35.229	5.82	8.999	67.98	0.18	27.298	36.148	44.609	0.253	1491.5	297.	83.07	1.359
350.	8.686	35.188	5.87	8.648	67.96	0.16	27.321	36.188	44.664	0.294	1491.0	347.	81.66	1.289
400.	8.402	35.170	5.81	8.360	68.25	0.16	27.352	36.231	44.720	0.335	1490.8	396.	79.55	1.449
450.	8.362	35.234	5.15	8.314	68.55	0.13	27.410	36.290	44.779	0.374	1491.5	446.	75.12	1.908
500.	7.467	35.132	5.20	7.417	68.55	0.14	27.464	36.386	44.915	0.410	1488.8	495.	70.02	2.016
550.	7.293	35.170	5.09	7.238	68.57	0.14	27.519	36.450	44.985	0.444	1489.0	544.	65.47	1.911
600.	6.778	35.130	5.29	6.721	68.58	0.12	27.560	36.515	45.074	0.476	1487.8	594.	61.82	1.741
650.	6.863	35.206	5.28	6.800	68.57	0.15	27.609	36.559	45.113	0.506	1489.1	643.	58.25	1.722
700.	6.646	35.189	5.29	6.580	68.57	0.12	27.626	36.587	45.151	0.535	1489.0	693.	57.11	1.152
750.	6.270	35.159	5.35	6.201	68.50	0.17	27.653	36.632	45.213	0.563	1488.4	742.	54.76	1.456
800.	5.858	35.113	5.49	5.786	68.55	0.14	27.670	36.669	45.270	0.590	1487.5	792.	53.16	1.260
850.	5.723	35.114	5.56	5.648	68.58	0.14	27.687	36.694	45.301	0.616	1487.8	841.	51.96	1.136
900.	5.500	35.106	5.72	5.421	68.63	0.13	27.709	36.727	45.344	0.641	1487.7	890.	50.15	1.302
950.	5.127	35.057	5.85	5.046	68.61	0.17	27.715	36.752	45.387	0.666	1487.0	940.	49.44	0.964
1000.	4.924	35.035	5.96	4.840	68.62	0.14	27.721	36.769	45.415	0.691	1486.9	989.	48.97	0.860
1200.	4.092	34.938	6.31	3.997	68.60	0.14	27.737	36.829	45.516	0.787	1486.7	1186.	47.43	0.803
1400.	3.791	34.912	6.47	3.682	68.58	0.16	27.749	36.858	45.561	0.882	1488.7	1383.	47.32	0.598
1600.	3.619	34.907	6.51	3.494	68.61	0.17	27.763	36.882	45.594	0.976	1491.3	1580.	47.18	0.585
1800.	3.564	34.917	6.50	3.422	68.61	0.15	27.779	36.901	45.616	1.071	1494.5	1777.	47.30	0.539
2000.	3.500	34.935	6.37	3.340	68.66	0.15	27.801	36.927	45.647	1.165	1497.6	1973.	46.64	0.647
2200.	3.394	34.946	6.33	3.216	68.66	0.11	27.821	36.954	45.679	1.257	1500.5	2169.	45.91	0.651
2300.	3.316	34.949	6.27	3.130	68.70	0.14	27.832	36.969	45.699	1.303	1501.9	2268.	45.29	0.711
2400.	3.255	34.952	6.22	3.061	68.71	0.14	27.841	36.982	45.715	1.348	1503.3	2366.	44.90	0.650
2500.	3.189	34.954	6.21	2.986	68.71	0.12	27.850	36.994	45.731	1.393	1504.7	2464.	44.52	0.641
2600.	3.089	34.956	6.13	2.877	68.72	0.09	27.861	37.011	45.753	1.436	1506.0	2562.	43.61	0.769
2700.	2.996	34.954	6.10	2.776	68.67	0.09	27.869	37.024	45.772	1.480	1507.3	2659.	43.04	0.682
2800.	2.922	34.952	6.02	2.694	68.71	0.11	27.875	37.035	45.786	1.523	1508.7	2757.	42.71	0.616
2900.	2.874	34.950	5.94	2.636	68.71	0.10	27.878	37.041	45.796	1.565	1510.2	2855.	42.73	0.502
3000.	2.819	34.946	5.92	2.573	68.67	0.10	27.880	37.047	45.805	1.608	1511.6	2953.	42.82	0.475
3100.	2.762	34.942	5.86	2.506	68.74	0.11	27.883	37.054	45.815	1.651	1513.1	3051.	42.78	0.519
3200.	2.719	34.939	5.88	2.454	68.56	0.12	27.885	37.058	45.822	1.694	1514.6	3148.	42.93	0.443
3300.	2.689	34.937	5.85	2.413	68.36	0.12	27.887	37.062	45.828	1.737	1516.2	3246.	43.15	0.415
3400.	2.620	34.930	5.80	2.335	68.15	0.10	27.888	37.068	45.838	1.780	1517.6	3344.	43.12	0.503
3500.	2.554	34.921	5.75	2.260	67.87	0.09	27.887	37.071	45.845	1.823	1519.0	3441.	43.23	0.450
3600.	2.500	34.914	5.68	2.197	67.33	0.09	27.887	37.074	45.852	1.866	1520.5	3539.	43.37	0.432
3700.	2.476	34.910	5.62	2.162	66.20	0.09	27.886	37.076	45.855	1.910	1522.1	3636.	43.76	0.309

Sample data

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1986.	3.506	34.934	6.38	3.347
1592.	3.620	34.908	6.48	3.496
579.	6.883	35.210	4.95	6.827
499.	7.552	35.204	4.84	7.502
354.	8.673	35.192	5.79	8.635
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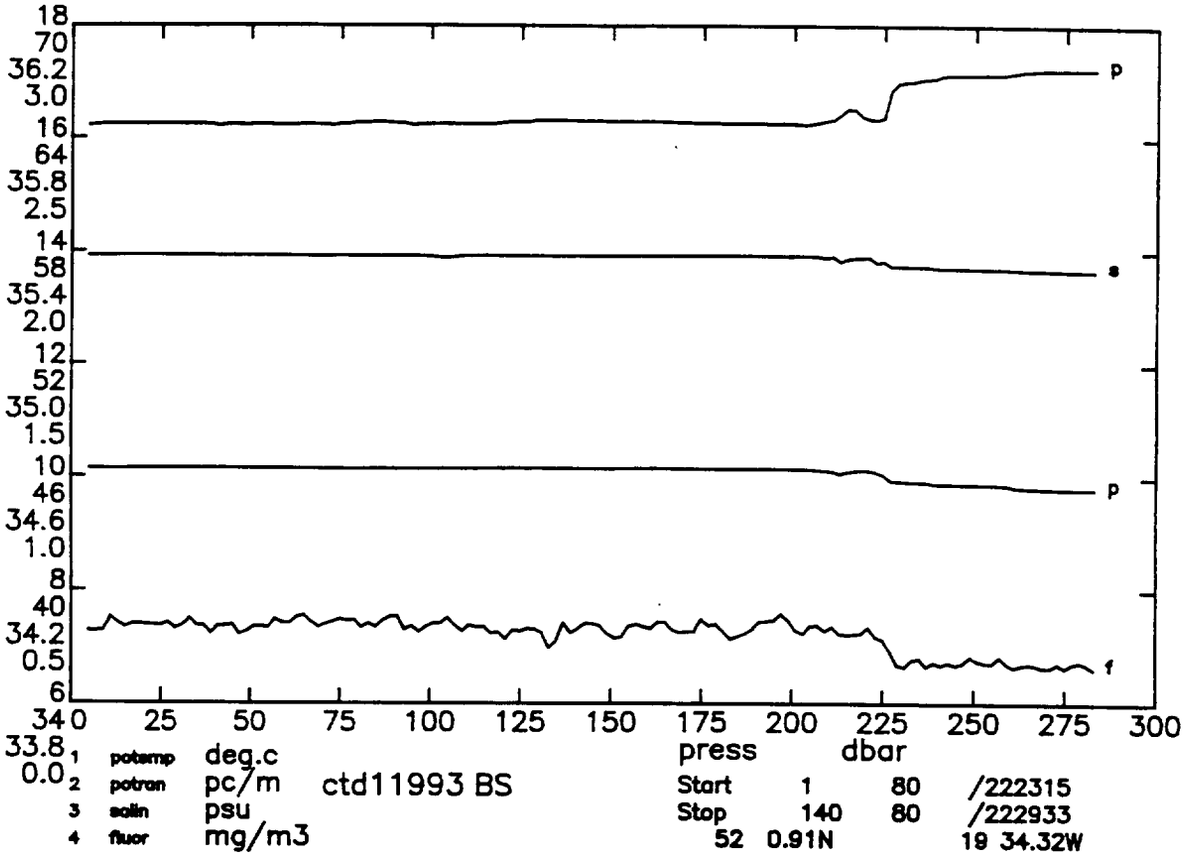
137.	9.993	35.365	6.61	9.977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Stop 140 80 /222933
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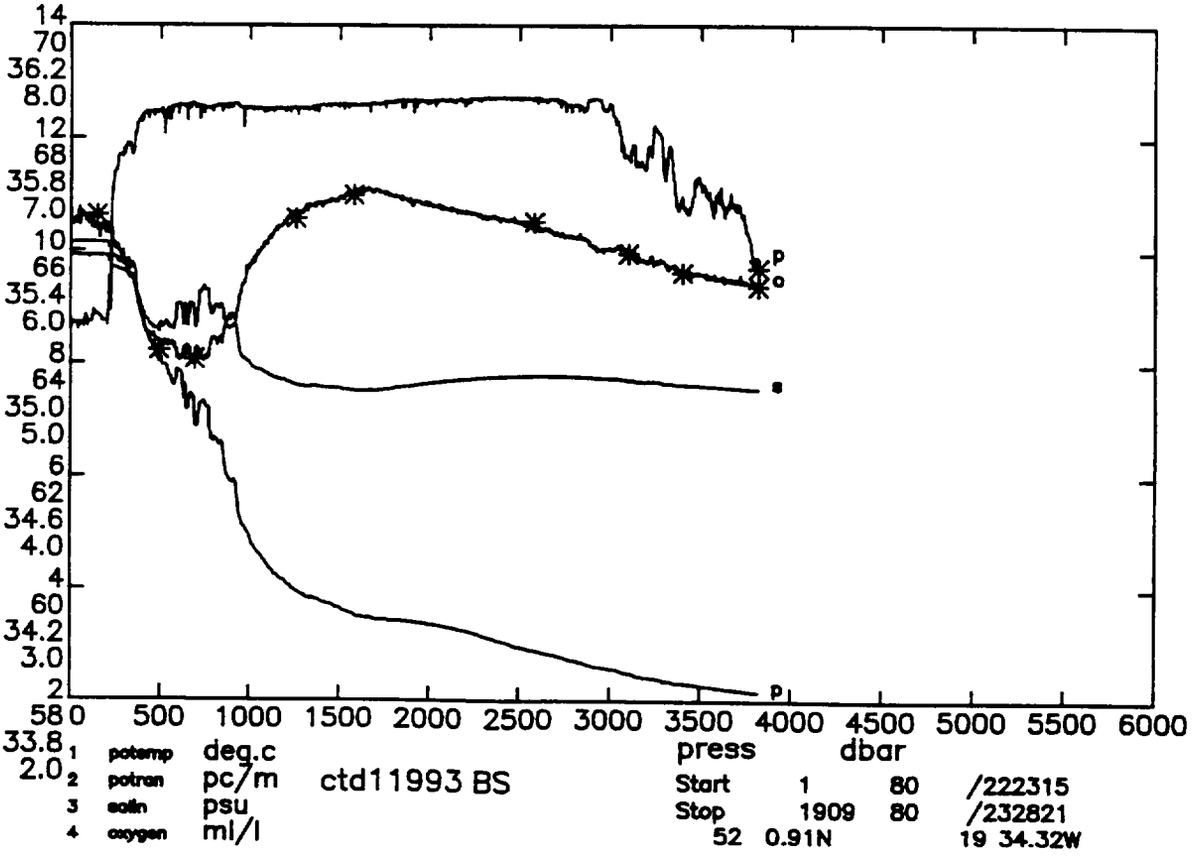
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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11993 BS
Start 1 80 /222315
Stop 1909 80 /232821
52 0.91N 19 34.32W

DISCOVERY CRUISE 189 STATION 11993

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.138	35.383	6.25	10.137	64.73	0.35	27.228	36.027	44.440	0.008	1491.0	10.	83.46	-9.999
20.	10.147	35.385	6.24	10.144	64.71	0.35	27.228	36.027	44.440	0.017	1491.2	20.	83.68	0.221
30.	10.156	35.385	6.28	10.152	64.71	0.34	27.226	36.025	44.437	0.025	1491.3	30.	84.08	-0.712
40.	10.157	35.384	6.26	10.152	64.66	0.33	27.225	36.024	44.437	0.034	1491.5	40.	84.39	-0.483
50.	10.157	35.384	6.25	10.151	64.69	0.33	27.226	36.025	44.438	0.042	1491.7	50.	84.55	0.519
60.	10.159	35.383	6.35	10.152	64.70	0.36	27.225	36.024	44.437	0.050	1491.9	59.	84.89	-0.548
70.	10.157	35.383	6.34	10.149	64.70	0.34	27.225	36.024	44.437	0.059	1492.0	69.	85.12	0.189
80.	10.151	35.383	6.31	10.142	64.80	0.35	27.226	36.026	44.439	0.067	1492.2	79.	85.26	0.569
90.	10.155	35.383	6.27	10.145	64.79	0.38	27.226	36.025	44.438	0.076	1492.3	89.	85.54	-0.342
100.	10.154	35.380	6.29	10.143	64.74	0.35	27.224	36.023	44.436	0.085	1492.5	99.	85.97	-0.786
120.	10.161	35.383	6.21	10.147	64.80	0.30	27.226	36.025	44.437	0.102	1492.9	119.	86.30	0.504
140.	10.166	35.383	6.23	10.150	64.89	0.32	27.225	36.024	44.437	0.119	1493.2	139.	86.81	-0.198
160.	10.163	35.383	6.15	10.144	64.85	0.33	27.226	36.025	44.438	0.137	1493.5	159.	87.21	0.372
180.	10.161	35.383	6.21	10.140	64.76	0.34	27.227	36.026	44.439	0.154	1493.8	178.	87.61	0.358
200.	10.161	35.382	6.20	10.138	64.73	0.35	27.227	36.026	44.439	0.172	1494.2	198.	88.14	-0.281
220.	10.145	35.378	6.20	10.120	65.06	0.32	27.227	36.027	44.441	0.189	1494.4	218.	88.62	0.106
240.	9.915	35.341	6.06	9.888	67.28	0.18	27.238	36.048	44.472	0.207	1493.9	238.	87.90	1.411
260.	9.875	35.337	6.02	9.845	67.51	0.17	27.242	36.054	44.480	0.224	1494.1	258.	87.95	0.838
280.	9.826	35.333	5.96	9.793	67.70	0.18	27.247	36.062	44.490	0.242	1494.2	277.	87.89	0.940
300.	9.793	35.329	5.89	9.759	67.75	0.16	27.250	36.066	44.495	0.260	1494.4	297.	88.10	0.662
350.	9.527	35.289	5.88	9.488	67.82	0.17	27.264	36.093	44.533	0.304	1494.2	347.	87.69	1.021
400.	8.857	35.192	5.41	8.814	68.36	0.13	27.299	36.158	44.627	0.347	1492.5	396.	84.98	1.594
450.	8.393	35.135	5.24	8.346	68.46	0.14	27.327	36.208	44.697	0.389	1491.5	446.	82.90	1.444
500.	8.155	35.143	5.16	8.103	68.48	0.15	27.371	36.262	44.761	0.429	1491.5	495.	79.55	1.705
550.	7.831	35.129	5.17	7.774	68.50	0.15	27.409	36.315	44.829	0.468	1491.0	544.	76.50	1.642
600.	7.933	35.211	5.06	7.871	68.51	0.15	27.459	36.360	44.868	0.506	1492.4	594.	72.89	1.749
650.	7.258	35.138	5.15	7.194	68.45	0.14	27.501	36.433	44.971	0.542	1490.5	643.	68.96	1.805
700.	6.962	35.135	5.12	6.894	68.57	0.15	27.540	36.487	45.038	0.575	1490.2	693.	65.66	1.673
750.	7.346	35.266	5.05	7.271	68.53	0.16	27.590	36.518	45.051	0.607	1492.7	742.	62.47	1.652
800.	6.759	35.195	5.21	6.682	68.55	0.15	27.617	36.572	45.132	0.638	1491.1	791.	59.83	1.536
850.	6.554	35.192	5.24	6.473	68.54	0.14	27.642	36.608	45.177	0.667	1491.2	841.	57.85	1.372
900.	5.983	35.130	5.43	5.901	68.58	0.16	27.668	36.662	45.258	0.695	1489.7	890.	55.02	1.559
950.	5.303	35.030	5.64	5.221	68.54	0.15	27.673	36.702	45.330	0.723	1487.6	940.	53.72	1.161
1000.	5.006	35.003	5.86	4.921	68.54	0.14	27.687	36.731	45.374	0.749	1487.2	989.	52.34	1.169
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1600.	3.636	34.904	6.55	3.511	68.59	0.15	27.759	36.877	45.589	1.041	1491.4	1580.	47.60	0.610
1800.	3.581	34.915	6.49	3.438	68.64	0.17	27.776	36.897	45.612	1.136	1494.5	1777.	47.64	0.552
2000.	3.524	34.933	6.42	3.364	68.66	0.16	27.797	36.922	45.641	1.231	1497.7	1973.	47.10	0.632
2200.	3.428	34.945	6.35	3.250	68.68	0.11	27.818	36.948	45.672	1.325	1500.7	2169.	46.43	0.646
2400.	3.257	34.954	6.29	3.062	68.72	0.14	27.842	36.983	45.716	1.416	1503.3	2365.	44.83	0.752
2500.	3.172	34.955	6.25	2.969	68.73	0.13	27.852	36.998	45.735	1.461	1504.6	2463.	44.18	0.711
2600.	3.108	34.957	6.20	2.896	68.67	0.14	27.860	37.009	45.750	1.505	1506.1	2561.	43.83	0.629
2700.	3.042	34.956	6.15	2.822	68.71	0.12	27.867	37.020	45.765	1.549	1507.5	2659.	43.54	0.610
2800.	2.958	34.954	6.13	2.728	68.60	0.12	27.873	37.032	45.781	1.592	1508.8	2757.	43.06	0.658
2900.	2.882	34.950	6.05	2.644	68.70	0.11	27.878	37.040	45.794	1.635	1510.2	2855.	42.84	0.582
3000.	2.827	34.947	6.02	2.580	68.61	0.11	27.881	37.047	45.805	1.678	1511.7	2953.	42.81	0.517
3100.	2.758	34.942	5.99	2.502	67.66	0.11	27.884	37.054	45.816	1.720	1513.1	3050.	42.71	0.538
3200.	2.696	34.938	5.91	2.431	67.56	0.09	27.886	37.061	45.826	1.763	1514.5	3148.	42.62	0.529
3300.	2.639	34.930	5.90	2.365	67.33	0.10	27.886	37.064	45.832	1.806	1515.9	3246.	42.86	0.401
3400.	2.608	34.926	5.82	2.323	66.89	0.10	27.886	37.066	45.837	1.849	1517.5	3343.	43.19	0.358
3500.	2.582	34.923	5.80	2.287	67.19	0.12	27.887	37.069	45.842	1.892	1519.1	3441.	43.48	0.372
3600.	2.548	34.920	5.76	2.244	66.94	0.10	27.887	37.072	45.847	1.936	1520.7	3538.	43.74	0.387
3700.	2.521	34.915	5.75	2.206	66.76	0.06	27.887	37.074	45.851	1.980	1522.3	3636.	44.14	0.313
3800.	2.492	34.911	5.71	2.167	65.84	0.07	27.887	37.077	45.855	2.024	1523.9	3733.	44.40	0.379

Sample data

3818.	2.492	34.910	5.69	2.165
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3100.	2.758	34.942	5.98	2.502
2581.	3.122	34.956	6.26	2.911
1579.	3.669	34.908	6.50	3.545
1257.	4.054	34.927	6.29	3.955
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492.	8.079	35.118	5.12	8.028
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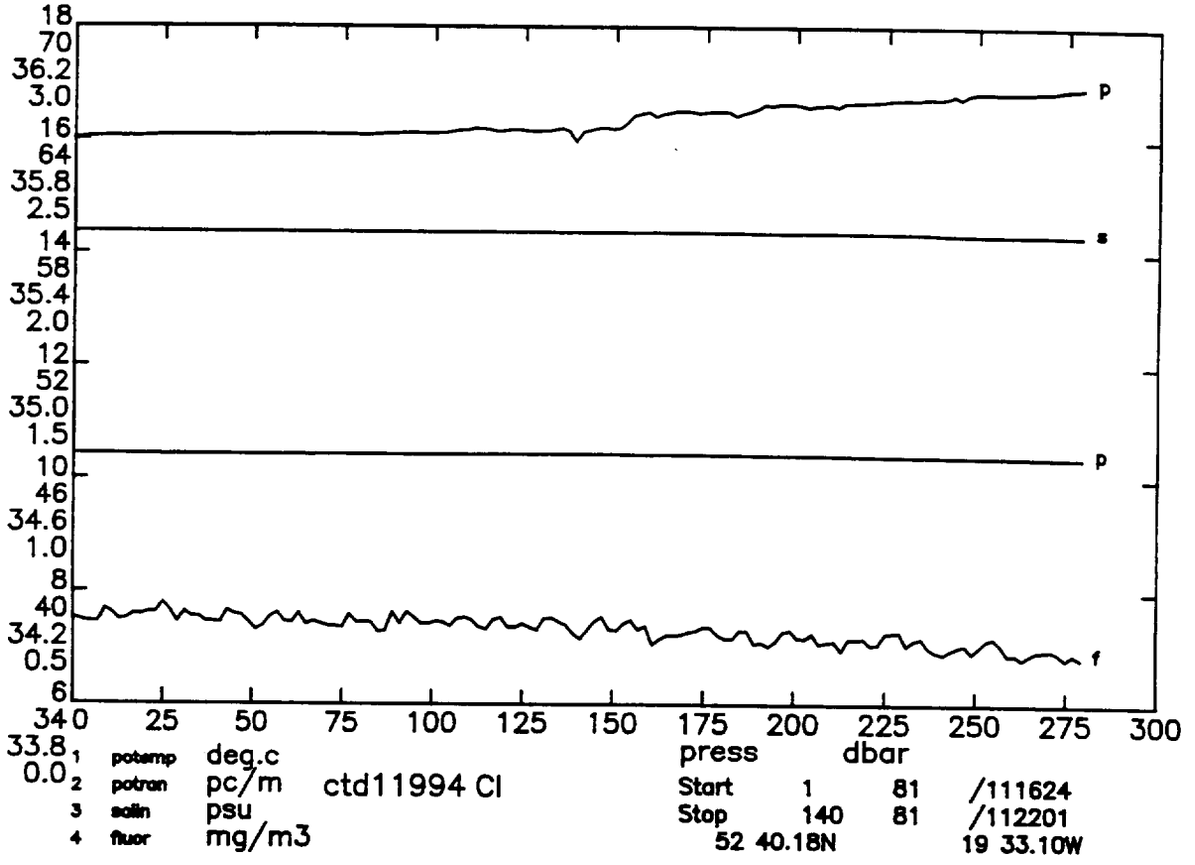
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2 potran pc/m
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4 fluor mg/m3
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Stop 140 81 /112201
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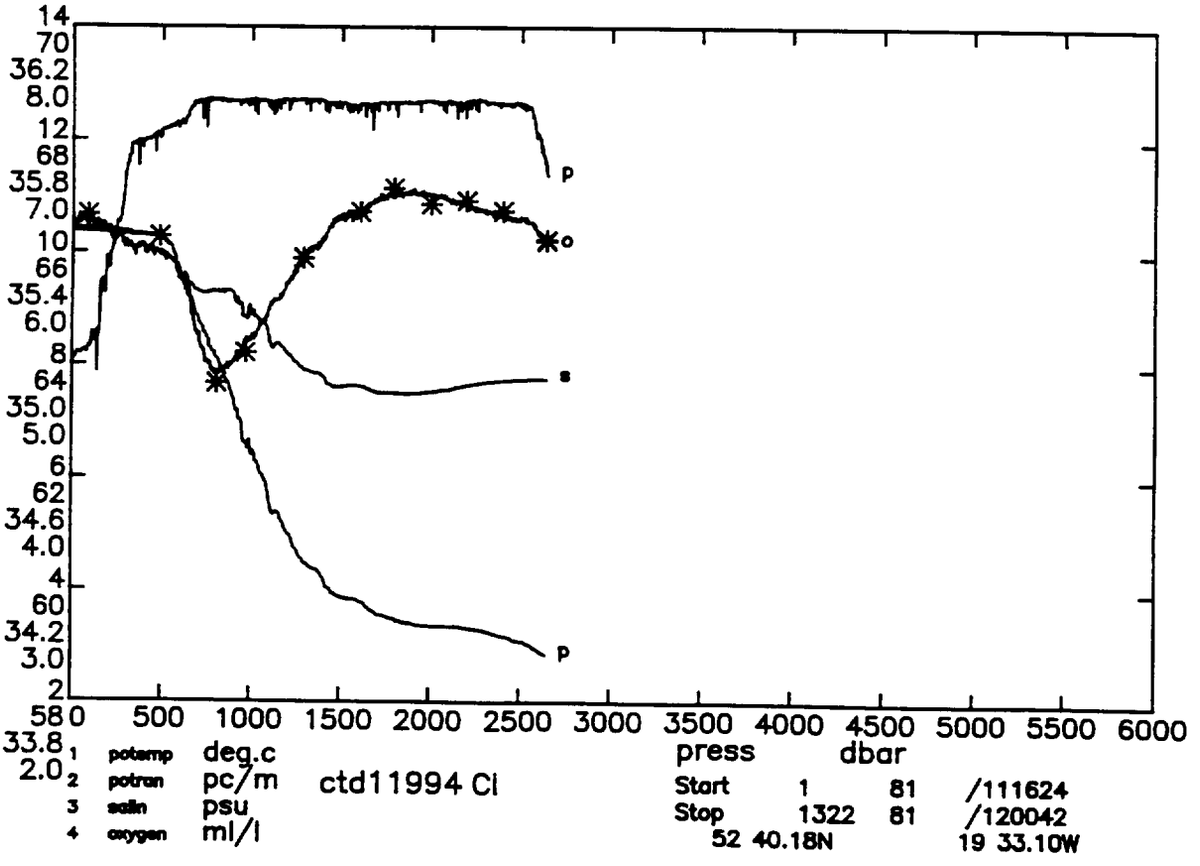
19 33.10W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s
p
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press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11994 Cl
Start 1 81 /111624
Stop 1322 81 /120042
52 40.18N
19 33.10W

DISCOVERY CRUISE 189 STATION 11994

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.428	35.473	6.25	10.427	64.15	0.41	27.247	36.033	44.434	0.008	1492.1	10.	81.58	-9.999
20.	10.427	35.473	6.25	10.425	64.17	0.40	27.247	36.033	44.434	0.016	1492.3	20.	81.83	0.124
30.	10.430	35.472	6.28	10.427	64.22	0.39	27.246	36.032	44.433	0.025	1492.4	30.	82.18	-0.600
40.	10.432	35.472	6.30	10.428	64.20	0.36	27.246	36.032	44.433	0.033	1492.6	40.	82.45	-0.264
50.	10.433	35.472	6.30	10.427	64.21	0.35	27.246	36.032	44.433	0.041	1492.8	50.	82.68	0.243
60.	10.433	35.472	6.31	10.426	64.26	0.36	27.246	36.032	44.433	0.049	1492.9	59.	82.93	0.111
70.	10.435	35.471	6.29	10.427	64.24	0.35	27.246	36.032	44.433	0.058	1493.1	69.	83.23	-0.415
80.	10.438	35.471	6.24	10.429	64.22	0.36	27.245	36.031	44.432	0.066	1493.3	79.	83.51	-0.317
90.	10.441	35.472	6.28	10.430	64.32	0.38	27.245	36.031	44.432	0.074	1493.5	89.	83.75	0.108
100.	10.442	35.471	6.29	10.430	64.32	0.36	27.245	36.031	44.432	0.083	1493.6	99.	84.04	-0.354
120.	10.446	35.471	6.22	10.432	64.48	0.37	27.244	36.030	44.431	0.100	1494.0	119.	84.60	-0.317
140.	10.449	35.470	6.28	10.432	64.14	0.30	27.244	36.030	44.430	0.117	1494.3	139.	85.14	-0.267
160.	10.442	35.470	6.26	10.423	65.33	0.31	27.246	36.032	44.433	0.134	1494.6	159.	85.48	0.503
180.	10.443	35.470	6.25	10.421	65.51	0.30	27.246	36.032	44.433	0.151	1494.9	178.	85.97	0.086
200.	10.435	35.468	6.22	10.411	65.88	0.31	27.246	36.032	44.434	0.168	1495.2	198.	86.46	0.150
220.	10.432	35.466	6.14	10.405	66.02	0.28	27.246	36.033	44.434	0.185	1495.6	218.	86.96	-0.125
240.	10.422	35.463	6.11	10.393	66.23	0.23	27.245	36.033	44.435	0.203	1495.9	238.	87.47	-0.137
260.	10.414	35.463	6.13	10.383	66.54	0.23	27.247	36.035	44.437	0.220	1496.2	258.	87.82	0.479
280.	10.404	35.462	6.08	10.371	66.84	0.22	27.248	36.036	44.440	0.238	1496.4	277.	88.19	0.458
300.	10.407	35.464	6.08	10.371	67.48	0.21	27.250	36.038	44.441	0.256	1496.8	297.	88.50	0.551
350.	10.365	35.459	5.98	10.323	67.94	0.16	27.255	36.045	44.450	0.300	1497.5	347.	89.24	0.570
400.	10.367	35.461	6.07	10.319	67.98	0.15	27.256	36.047	44.452	0.345	1498.3	396.	90.30	0.334
450.	10.353	35.458	6.02	10.298	68.07	0.15	27.258	36.050	44.455	0.390	1499.1	446.	91.36	0.328
500.	10.304	35.448	6.00	10.244	68.17	0.15	27.260	36.054	44.462	0.436	1499.7	495.	92.36	0.378
550.	10.182	35.423	5.93	10.116	68.23	0.16	27.263	36.062	44.476	0.483	1500.1	544.	93.13	0.539
600.	9.720	35.337	5.80	9.650	68.28	0.15	27.275	36.095	44.529	0.529	1499.1	594.	92.57	1.075
650.	9.297	35.287	5.67	9.223	68.52	0.15	27.307	36.147	44.598	0.575	1498.4	643.	90.08	1.557
700.	8.922	35.265	5.27	8.844	68.67	0.18	27.351	36.208	44.674	0.619	1497.8	693.	86.48	1.772
750.	8.573	35.254	5.03	8.491	68.63	0.19	27.398	36.271	44.752	0.661	1497.3	742.	82.52	1.832
800.	8.227	35.260	4.93	8.141	68.72	0.17	27.457	36.345	44.841	0.701	1496.8	791.	77.45	2.020
850.	7.848	35.256	4.97	7.759	68.71	0.16	27.511	36.416	44.928	0.738	1496.2	841.	72.65	1.969
900.	7.478	35.253	5.03	7.386	68.69	0.17	27.563	36.485	45.013	0.774	1495.6	890.	67.98	1.940
950.	6.878	35.189	5.14	6.785	68.69	0.18	27.598	36.549	45.104	0.807	1494.1	939.	64.31	1.750
1000.	6.507	35.179	5.24	6.412	68.66	0.12	27.641	36.609	45.181	0.838	1493.5	989.	60.28	1.806
1200.	5.125	35.041	5.72	5.021	68.70	0.14	27.706	36.744	45.381	0.951	1491.1	1186.	53.45	1.280
1300.	4.572	34.981	5.99	4.464	68.68	0.17	27.721	36.789	45.453	1.004	1490.4	1285.	51.48	1.037
1400.	4.334	34.958	6.13	4.219	68.68	0.15	27.730	36.810	45.486	1.055	1491.1	1383.	50.99	0.740
1500.	3.989	34.920	6.31	3.869	68.64	0.16	27.736	36.835	45.529	1.106	1491.2	1481.	50.15	0.798
1600.	3.929	34.926	6.36	3.801	68.58	0.14	27.748	36.850	45.547	1.155	1492.7	1580.	49.82	0.673
1700.	3.707	34.903	6.47	3.572	68.57	0.17	27.753	36.867	45.576	1.205	1493.4	1678.	49.38	0.690
1800.	3.632	34.899	6.52	3.489	68.57	0.14	27.758	36.877	45.590	1.255	1494.7	1776.	49.48	0.533
1900.	3.559	34.900	6.54	3.407	68.66	0.16	27.766	36.890	45.606	1.304	1496.1	1875.	49.24	0.623
2000.	3.520	34.907	6.51	3.359	68.69	0.15	27.776	36.902	45.621	1.353	1497.6	1973.	48.99	0.625
2100.	3.523	34.912	6.47	3.354	68.70	0.14	27.782	36.907	45.627	1.402	1499.3	2071.	49.38	0.416
2200.	3.507	34.929	6.40	3.328	68.68	0.13	27.798	36.924	45.644	1.451	1501.0	2169.	48.70	0.732
2300.	3.472	34.938	6.37	3.283	68.66	0.15	27.809	36.938	45.660	1.500	1502.5	2267.	48.34	0.653
2400.	3.392	34.946	6.32	3.195	68.66	0.13	27.824	36.957	45.684	1.548	1503.9	2365.	47.33	0.802
2500.	3.306	34.949	6.31	3.100	68.65	0.14	27.835	36.974	45.705	1.595	1505.2	2463.	46.55	0.748
2600.	3.162	34.952	6.16	2.949	68.06	0.13	27.851	36.998	45.737	1.641	1506.3	2561.	44.95	0.911

Sample data

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1998.	3.519	34.904	6.43	3.359
1791.	3.633	34.898	6.57	3.490
1603.	3.925	34.924	6.36	3.796
1290.	4.613	34.986	5.95	4.506
967.	6.690	35.200	5.11	6.597
805.	8.202	35.263	4.84	8.115
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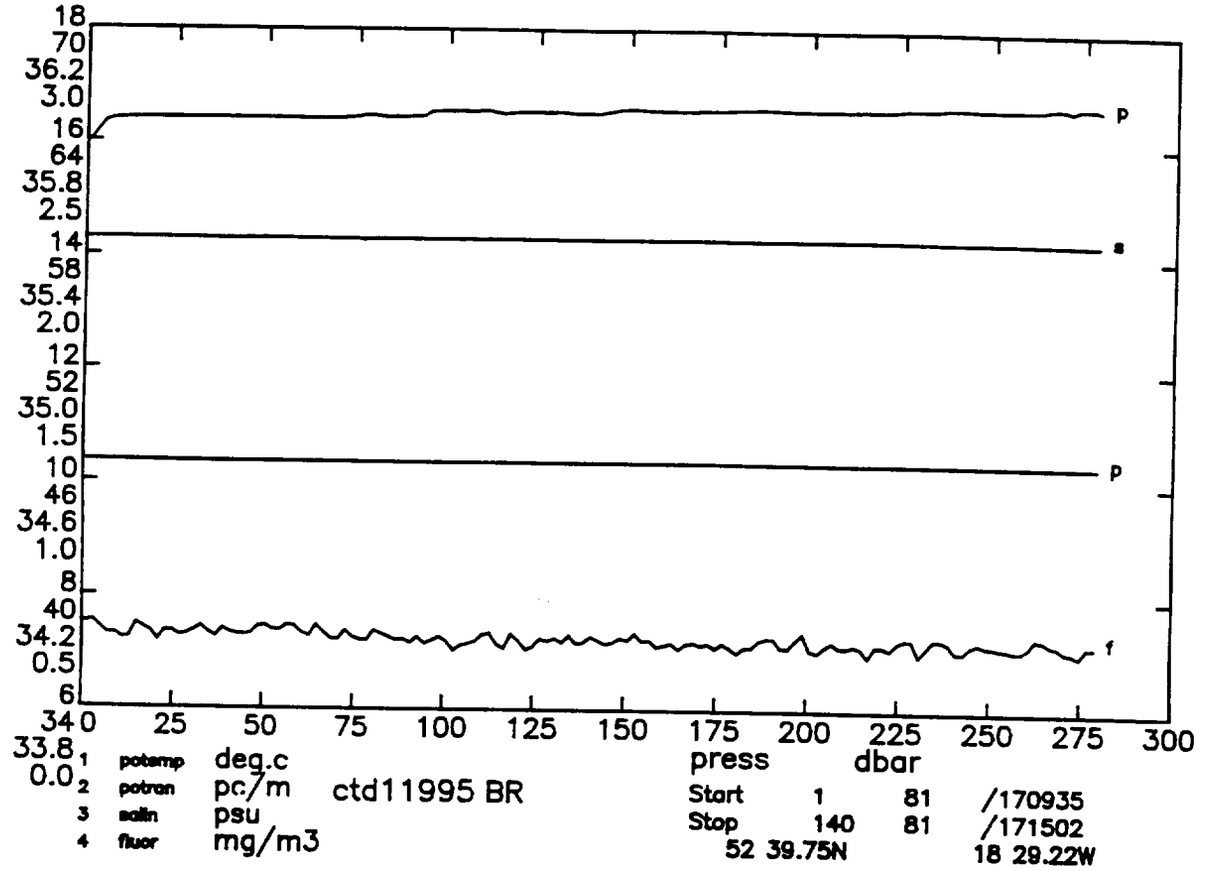
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ctd11995 BR
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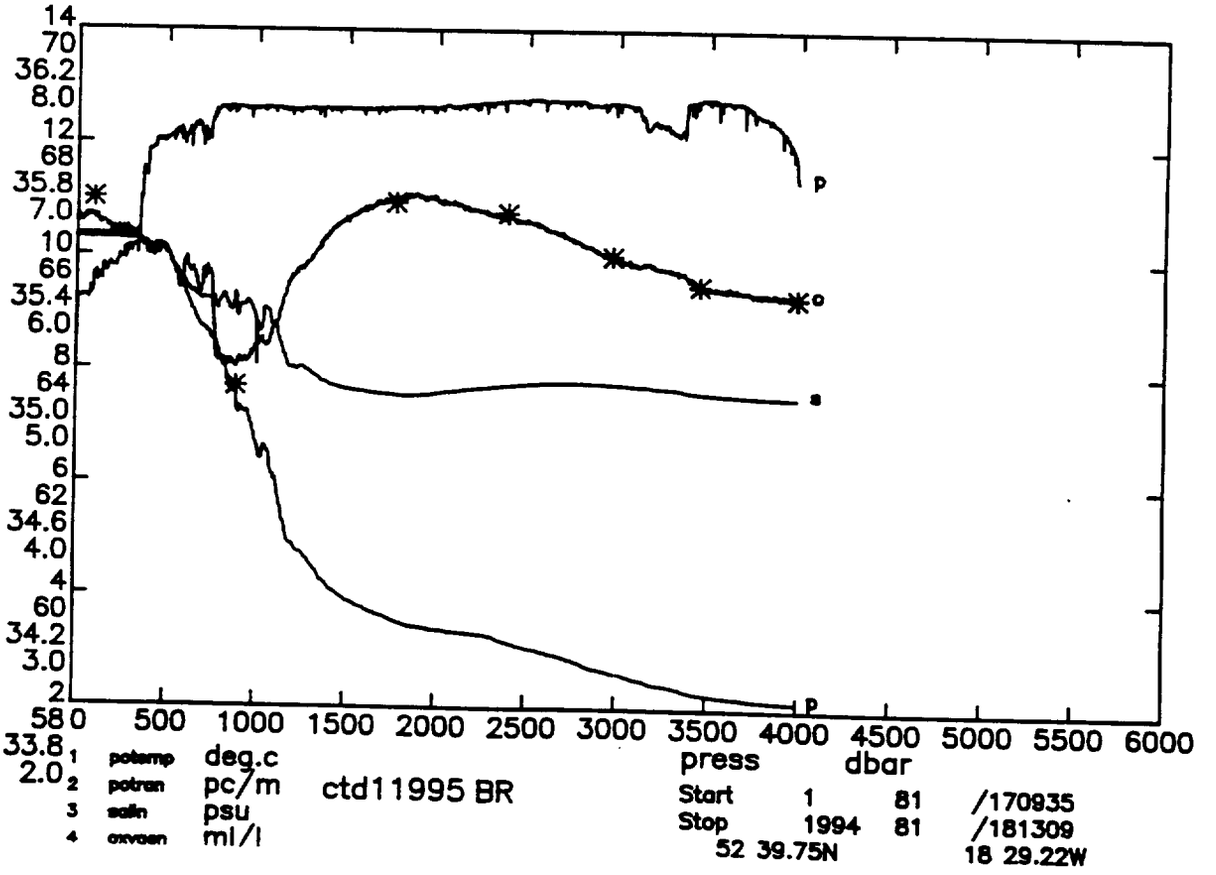
Stop 140 81 /171502
52 39.75N
18 29.22W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4 oxygen ml/l
ctd11995 BR
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Stop 1994 81 /181309
52 39.75N
18 29.22W

DISCOVERY CRUISE 189 STATION 11995

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.352	35.459	6.32	10.350	65.22	0.32	27.250	36.039	44.443	0.008	1491.8	10.	81.36	-9.999
20.	10.353	35.459	6.32	10.351	65.24	0.32	27.250	36.039	44.443	0.016	1492.0	20.	81.60	0.197
30.	10.354	35.459	6.29	10.351	65.23	0.34	27.249	36.038	44.442	0.024	1492.1	30.	81.91	-0.456
40.	10.355	35.458	6.34	10.350	65.26	0.34	27.249	36.039	44.442	0.033	1492.3	40.	82.15	0.082
50.	10.357	35.459	6.35	10.351	65.26	0.37	27.249	36.039	44.443	0.041	1492.5	50.	82.38	0.270
60.	10.359	35.459	6.35	10.352	65.22	0.35	27.249	36.038	44.442	0.049	1492.7	59.	82.66	-0.341
70.	10.360	35.458	6.35	10.352	65.26	0.31	27.248	36.038	44.442	0.057	1492.8	69.	82.97	-0.453
80.	10.362	35.457	6.34	10.353	65.38	0.32	27.248	36.037	44.441	0.066	1493.0	79.	83.27	-0.429
90.	10.364	35.457	6.35	10.353	65.36	0.30	27.248	36.037	44.441	0.074	1493.2	89.	83.52	-0.135
100.	10.363	35.457	6.31	10.351	65.66	0.31	27.248	36.037	44.441	0.082	1493.3	99.	83.74	0.313
120.	10.368	35.457	6.28	10.353	65.61	0.32	27.248	36.037	44.441	0.099	1493.7	119.	84.28	-0.277
140.	10.370	35.457	6.29	10.353	65.56	0.31	27.248	36.037	44.441	0.116	1494.0	139.	84.76	0.172
160.	10.371	35.457	6.27	10.352	65.73	0.28	27.248	36.037	44.441	0.133	1494.3	159.	85.25	-0.032
180.	10.373	35.458	6.25	10.352	65.82	0.27	27.248	36.038	44.441	0.150	1494.7	178.	85.70	0.283
200.	10.376	35.457	6.24	10.352	65.79	0.31	27.248	36.037	44.441	0.167	1495.0	198.	86.22	-0.219
220.	10.378	35.457	6.21	10.352	65.78	0.29	27.248	36.037	44.441	0.185	1495.4	218.	86.73	-0.161
240.	10.377	35.456	6.19	10.348	65.99	0.29	27.247	36.037	44.441	0.202	1495.7	238.	87.25	-0.238
260.	10.380	35.456	6.22	10.348	65.96	0.28	27.248	36.037	44.441	0.220	1496.0	258.	87.71	0.237
280.	10.375	35.455	6.23	10.342	66.04	0.28	27.248	36.038	44.442	0.237	1496.3	277.	88.19	0.117
300.	10.379	35.455	6.20	10.343	66.07	0.31	27.247	36.037	44.441	0.255	1496.7	297.	88.71	-0.224
350.	10.329	35.443	6.10	10.287	66.72	0.22	27.248	36.041	44.447	0.300	1497.3	347.	89.82	0.281
400.	10.230	35.424	6.01	10.183	67.86	0.18	27.252	36.049	44.459	0.345	1497.8	396.	90.63	0.520
450.	10.244	35.435	6.03	10.190	68.02	0.18	27.259	36.055	44.466	0.390	1498.7	446.	91.19	0.657
500.	10.168	35.419	6.03	10.108	68.06	0.17	27.261	36.061	44.475	0.436	1499.2	495.	92.10	0.445
550.	9.797	35.349	5.85	9.732	68.21	0.15	27.271	36.087	44.517	0.482	1498.6	544.	91.93	0.948
600.	9.436	35.308	5.95	9.367	68.07	0.17	27.299	36.132	44.577	0.528	1498.1	594.	89.93	1.451
650.	9.092	35.271	5.83	9.019	68.31	0.15	27.327	36.176	44.636	0.572	1497.6	643.	87.88	1.451
700.	8.808	35.243	5.83	8.730	67.97	0.17	27.352	36.214	44.686	0.616	1497.3	693.	86.22	1.353
750.	8.622	35.241	5.73	8.539	68.37	0.14	27.380	36.250	44.730	0.658	1497.5	742.	84.31	1.405
800.	8.297	35.238	5.09	8.211	69.61	0.13	27.429	36.314	44.807	0.699	1497.1	791.	80.19	1.856
850.	7.794	35.217	5.06	7.706	68.58	0.16	27.488	36.396	44.912	0.738	1496.0	841.	74.64	2.092
900.	7.331	35.186	5.08	7.240	68.63	0.14	27.532	36.461	44.997	0.774	1495.0	890.	70.59	1.828
950.	7.357	35.238	5.07	7.261	68.60	0.14	27.569	36.497	45.031	0.809	1496.0	939.	68.03	1.525
1000.	6.798	35.133	5.19	6.700	68.58	0.13	27.565	36.521	45.081	0.842	1494.5	989.	68.01	0.771
1200.	5.003	35.007	5.80	4.900	68.56	0.16	27.692	36.737	45.381	0.961	1490.5	1186.	54.31	1.672
1400.	4.260	34.950	6.20	4.146	68.57	0.15	27.731	36.815	45.495	1.065	1490.7	1383.	50.63	1.007
1600.	3.901	34.924	6.41	3.773	68.60	0.17	27.749	36.853	45.551	1.165	1492.6	1580.	49.60	0.724
1800.	3.651	34.908	6.51	3.508	68.63	0.17	27.763	36.881	45.593	1.264	1494.8	1776.	49.07	0.643
2000.	3.553	34.916	6.50	3.393	68.63	0.16	27.781	36.905	45.622	1.362	1497.8	1973.	48.75	0.604
2200.	3.507	34.933	6.41	3.328	68.69	0.13	27.801	36.927	45.647	1.459	1501.0	2169.	48.42	0.602
2400.	3.376	34.945	6.34	3.180	68.75	0.14	27.825	36.959	45.686	1.555	1503.8	2365.	47.15	0.718
2500.	3.289	34.950	6.32	3.084	68.77	0.12	27.838	36.977	45.709	1.601	1505.1	2463.	46.22	0.781
2600.	3.222	34.955	6.24	3.008	68.73	0.11	27.849	36.992	45.727	1.647	1506.6	2561.	45.60	0.706
2700.	3.152	34.956	6.18	2.929	68.74	0.10	27.857	37.004	45.743	1.693	1508.0	2659.	45.18	0.652
2800.	3.054	34.956	6.12	2.823	68.77	0.11	27.866	37.019	45.764	1.738	1509.2	2757.	44.41	0.734
2900.	2.950	34.954	6.04	2.711	68.68	0.12	27.874	37.034	45.784	1.781	1510.5	2855.	43.62	0.735
3000.	2.879	34.950	5.97	2.631	68.66	0.14	27.879	37.042	45.797	1.825	1511.9	2953.	43.39	0.582
3100.	2.799	34.945	5.94	2.542	68.67	0.08	27.883	37.051	45.810	1.868	1513.2	3050.	43.12	0.591
3200.	2.720	34.940	5.91	2.454	68.42	0.11	27.886	37.059	45.823	1.911	1514.6	3148.	42.84	0.591
3300.	2.682	34.937	5.88	2.406	68.21	0.11	27.888	37.064	45.830	1.954	1516.1	3246.	43.02	0.429
3400.	2.600	34.926	5.80	2.316	68.75	0.11	27.887	37.068	45.839	1.997	1517.5	3343.	43.05	0.482
3500.	2.558	34.921	5.73	2.264	68.79	0.09	27.887	37.071	45.845	2.040	1519.0	3441.	43.27	0.404
3600.	2.528	34.917	5.71	2.224	68.75	0.12	27.887	37.073	45.849	2.084	1520.6	3538.	43.58	0.357
3700.	2.509	34.914	5.70	2.194	68.69	0.10	27.887	37.075	45.852	2.128	1522.2	3636.	44.00	0.299
3800.	2.490	34.910	5.67	2.165	68.48	0.11	27.886	37.076	45.855	2.172	1523.9	3733.	44.45	0.284
3900.	2.482	34.908	5.66	2.146	68.23	0.11	27.886	37.077	45.857	2.217	1525.5	3830.	44.94	0.249

Sample data

3985.	2.480	34.906	5.65	2.134
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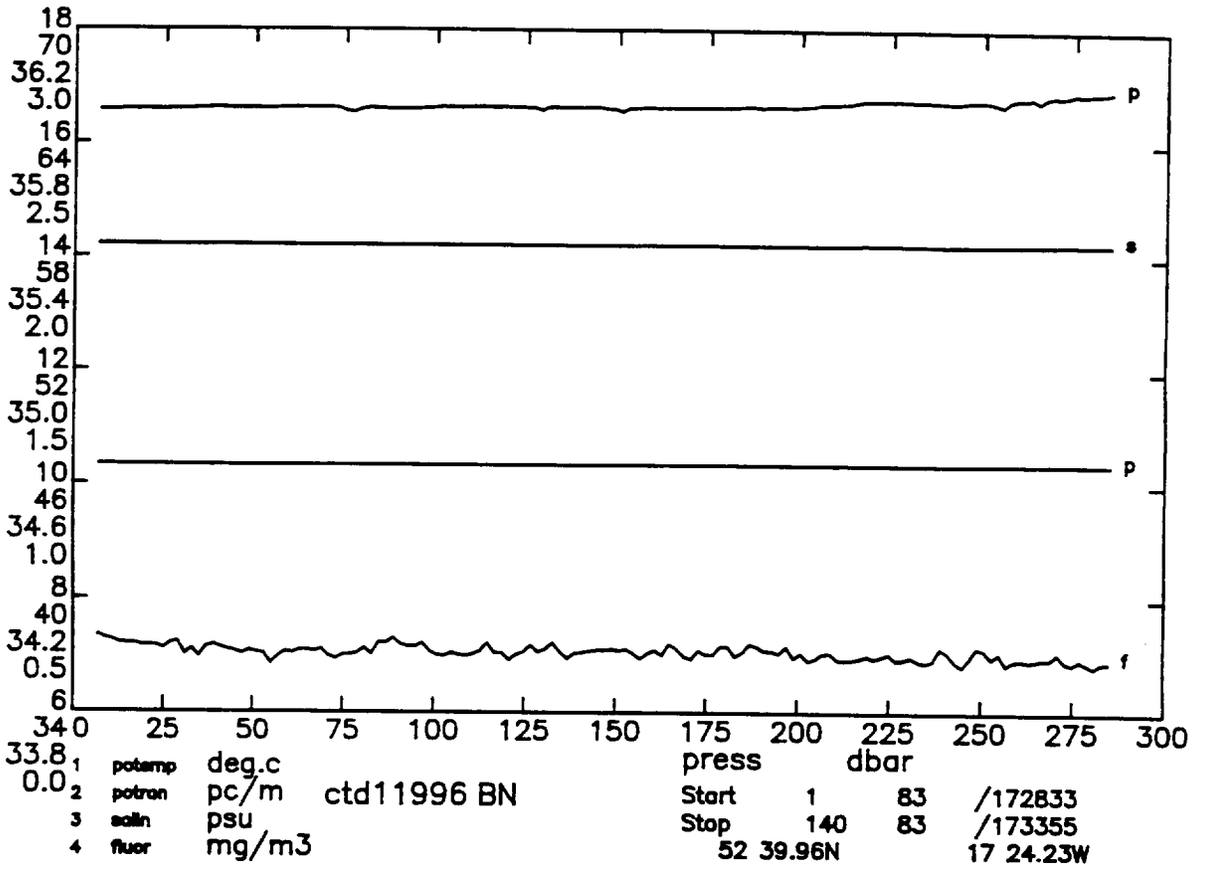
2970.	2.898	34.950	6.01	2.652
2390.	3.386	34.948	6.38	3.190
1770.	3.687	34.912	6.47	3.546
889.	7.698	35.232	4.85	7.606
95.	10.363	35.459	6.50	10.351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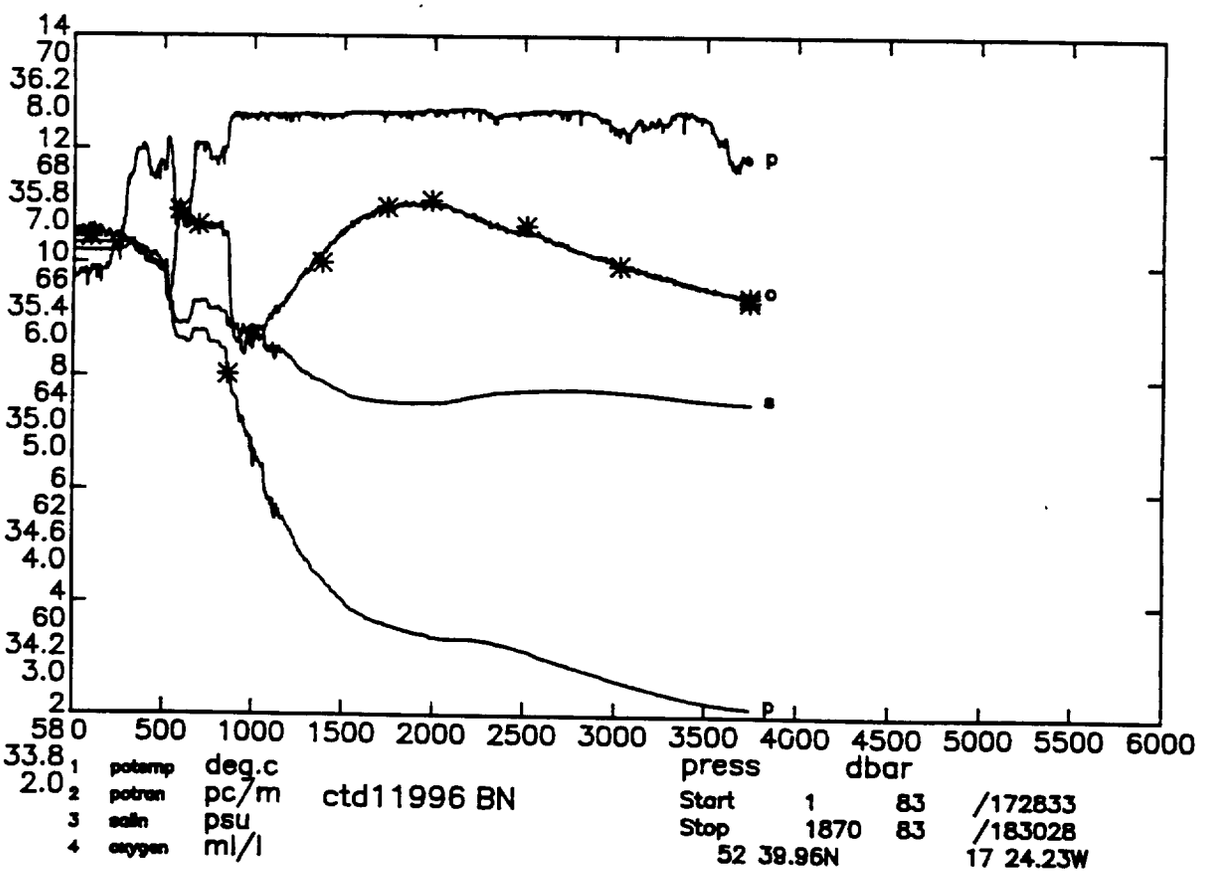
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p
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2 potrat pc/m
3 salin psu
4 oxygen ml/l
ctd11996 BN
press dbar
Start 1 83 /172833
Stop 1870 83 /183028
52 39.96N 17 24.23W

DISCOVERY CRUISE 189 STATION 11996

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.343	35.442	6.28	10.342	65.73	0.32	27.237	36.027	44.432	0.008	1491.8	10.	82.52	-9.999
20.	10.344	35.441	6.24	10.342	65.75	0.29	27.237	36.027	44.431	0.017	1491.9	20.	82.81	-0.347
30.	10.345	35.441	6.25	10.342	65.77	0.28	27.237	36.027	44.431	0.025	1492.1	30.	83.07	-0.215
40.	10.347	35.441	6.29	10.343	65.84	0.29	27.237	36.027	44.431	0.033	1492.3	40.	83.33	-0.249
50.	10.347	35.440	6.27	10.341	65.81	0.27	27.237	36.027	44.431	0.041	1492.4	50.	83.59	-0.161
60.	10.350	35.441	6.26	10.343	65.86	0.26	27.236	36.026	44.431	0.050	1492.6	59.	83.86	-0.280
70.	10.351	35.440	6.26	10.343	65.86	0.26	27.236	36.026	44.431	0.058	1492.8	69.	84.12	-0.189
80.	10.352	35.440	6.32	10.343	65.78	0.27	27.236	36.026	44.431	0.067	1492.9	79.	84.36	0.144
90.	10.352	35.441	6.31	10.342	65.79	0.31	27.237	36.027	44.431	0.075	1493.1	89.	84.57	0.342
100.	10.356	35.439	6.30	10.344	65.89	0.26	27.235	36.025	44.429	0.084	1493.3	99.	84.96	-0.695
120.	10.357	35.440	6.25	10.343	65.90	0.25	27.236	36.026	44.430	0.101	1493.6	119.	85.37	0.371
140.	10.360	35.439	6.29	10.344	65.89	0.26	27.235	36.025	44.430	0.118	1494.0	139.	85.91	-0.294
160.	10.362	35.440	6.28	10.343	65.87	0.27	27.236	36.026	44.431	0.135	1494.3	159.	86.34	0.338
180.	10.366	35.440	6.22	10.344	65.88	0.29	27.236	36.026	44.430	0.152	1494.6	178.	86.85	-0.200
200.	10.370	35.441	6.26	10.346	65.96	0.25	27.236	36.026	44.430	0.170	1495.0	198.	87.33	0.138
220.	10.380	35.443	6.23	10.354	66.29	0.25	27.236	36.026	44.430	0.187	1495.4	218.	87.81	0.144
240.	10.380	35.441	6.27	10.351	66.20	0.27	27.235	36.025	44.429	0.205	1495.7	238.	88.38	-0.356
260.	10.392	35.444	6.24	10.360	66.43	0.23	27.236	36.025	44.429	0.223	1496.1	258.	88.81	0.332
280.	10.398	35.447	6.22	10.365	66.75	0.21	27.237	36.026	44.430	0.240	1496.4	277.	89.20	0.417
300.	10.428	35.459	6.19	10.392	67.40	0.17	27.243	36.030	44.432	0.258	1496.9	297.	89.21	0.891
350.	10.302	35.437	6.15	10.260	67.97	0.14	27.248	36.042	44.449	0.303	1497.2	347.	89.81	0.646
400.	10.144	35.403	6.12	10.097	67.99	0.18	27.250	36.051	44.466	0.348	1497.4	396.	90.70	0.465
450.	10.070	35.391	6.08	10.017	67.47	0.18	27.255	36.059	44.477	0.394	1498.0	446.	91.38	0.581
500.	9.933	35.368	5.98	9.874	67.67	0.16	27.261	36.071	44.495	0.439	1498.3	495.	91.86	0.688
550.	9.155	35.255	5.89	9.093	67.55	0.19	27.302	36.148	44.605	0.484	1496.1	544.	88.16	1.798
600.	8.718	35.185	6.38	8.652	67.00	0.21	27.319	36.185	44.661	0.528	1495.3	594.	87.11	1.189
650.	8.688	35.205	6.40	8.616	67.20	0.19	27.340	36.207	44.684	0.571	1496.0	643.	86.16	1.154
700.	8.868	35.261	6.30	8.790	68.08	0.17	27.356	36.215	44.684	0.614	1497.6	693.	85.94	0.921
750.	8.772	35.246	6.31	8.689	67.94	0.18	27.360	36.224	44.697	0.657	1498.0	742.	86.40	0.632
800.	8.679	35.240	6.31	8.590	67.80	0.17	27.372	36.240	44.717	0.701	1498.5	791.	86.23	0.901
850.	8.453	35.207	6.26	8.361	68.06	0.17	27.381	36.260	44.748	0.744	1498.4	841.	85.89	0.952
900.	7.735	35.176	5.32	7.641	68.60	0.13	27.466	36.377	44.896	0.784	1496.5	890.	77.56	2.500
950.	7.179	35.153	5.19	7.084	68.61	0.13	27.527	36.465	45.008	0.821	1495.2	939.	71.53	2.159
1000.	6.513	35.109	5.40	6.417	68.56	0.15	27.585	36.554	45.127	0.856	1493.4	989.	65.50	2.149
1200.	5.365	35.064	5.72	5.259	68.53	0.17	27.695	36.721	45.347	0.974	1492.1	1186.	55.11	1.498
1400.	4.455	34.976	6.10	4.339	68.61	0.17	27.731	36.805	45.475	1.080	1491.6	1383.	51.32	1.027
1600.	3.903	34.922	6.40	3.775	68.65	0.18	27.747	36.851	45.549	1.181	1492.6	1580.	49.81	0.782
1800.	3.683	34.907	6.51	3.539	68.64	0.15	27.759	36.875	45.585	1.280	1495.0	1776.	49.63	0.596
2000.	3.541	34.906	6.52	3.380	68.67	0.14	27.774	36.899	45.616	1.379	1497.7	1973.	49.30	0.606
2200.	3.537	34.927	6.42	3.357	68.72	0.11	27.793	36.918	45.637	1.478	1501.1	2169.	49.26	0.560
2300.	3.505	34.939	6.35	3.316	68.61	0.12	27.806	36.934	45.654	1.527	1502.7	2267.	48.72	0.699
2400.	3.444	34.946	6.29	3.246	68.62	0.14	27.819	36.950	45.673	1.575	1504.1	2365.	48.08	0.723
2500.	3.362	34.950	6.26	3.156	68.66	0.09	27.831	36.966	45.694	1.623	1505.4	2463.	47.32	0.745
2600.	3.248	34.953	6.24	3.034	68.68	0.11	27.844	36.986	45.721	1.670	1506.7	2561.	46.15	0.830
2700.	3.158	34.955	6.18	2.935	68.63	0.10	27.855	37.002	45.741	1.716	1508.0	2659.	45.37	0.741
2800.	3.077	34.954	6.10	2.846	68.70	0.11	27.863	37.015	45.758	1.761	1509.3	2757.	44.85	0.673
2900.	2.995	34.951	6.06	2.755	68.60	0.08	27.869	37.026	45.774	1.805	1510.7	2855.	44.44	0.642
3000.	2.889	34.948	6.00	2.641	68.38	0.08	27.876	37.039	45.793	1.849	1511.9	2953.	43.72	0.715
3100.	2.809	34.943	5.98	2.552	68.40	0.10	27.880	37.048	45.807	1.893	1513.3	3050.	43.44	0.595
3200.	2.733	34.938	5.91	2.467	68.50	0.10	27.883	37.056	45.819	1.936	1514.7	3148.	43.21	0.575
3300.	2.661	34.931	5.87	2.386	68.56	0.06	27.885	37.062	45.829	1.979	1516.0	3246.	43.12	0.526
3400.	2.599	34.924	5.83	2.315	68.63	0.09	27.885	37.066	45.837	2.023	1517.5	3343.	43.22	0.456
3500.	2.542	34.918	5.78	2.248	68.53	0.11	27.886	37.070	45.845	2.066	1518.9	3441.	43.26	0.473
3600.	2.504	34.912	5.74	2.201	68.23	0.08	27.885	37.073	45.850	2.109	1520.5	3538.	43.55	0.367
3700.	2.476	34.909	5.73	2.162	67.88	0.09	27.885	37.075	45.854	2.153	1522.1	3636.	43.85	0.357

Sample data

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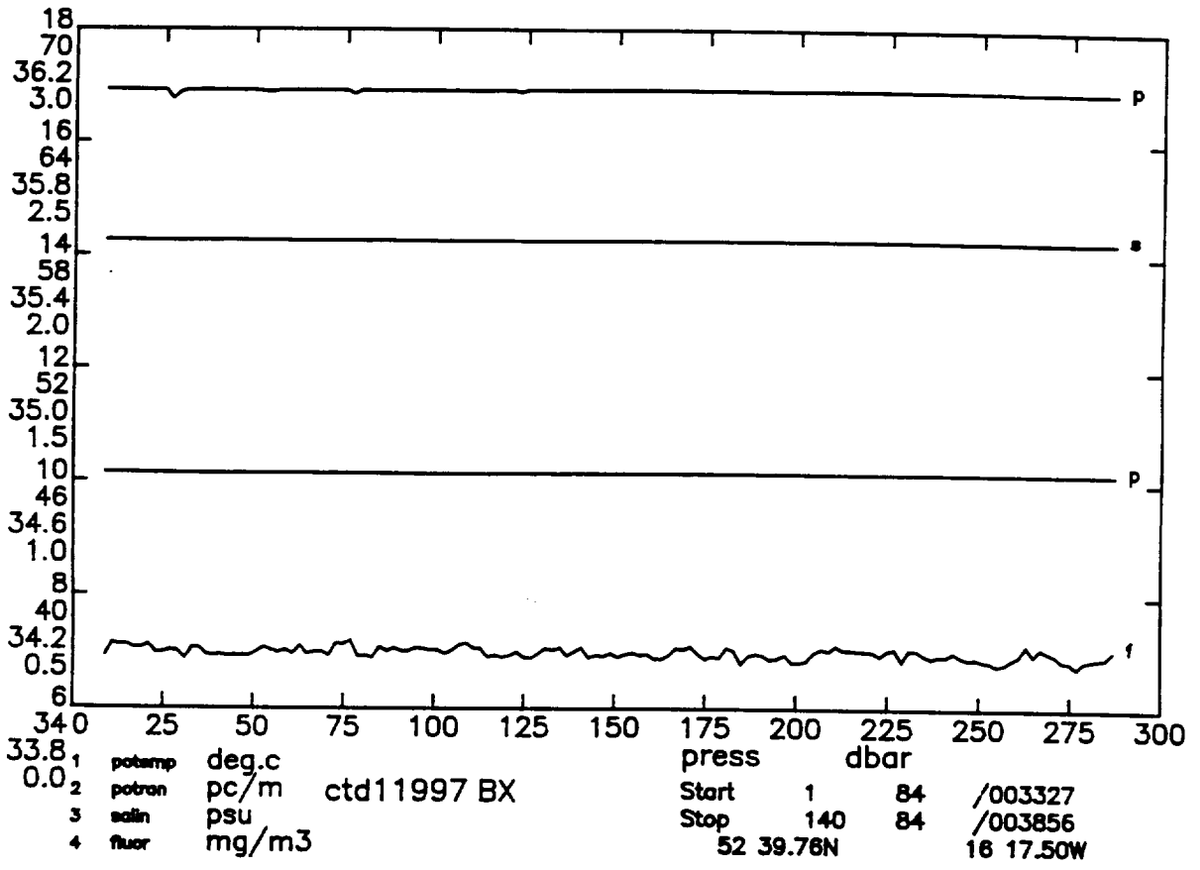
2514.	3.356	34.952	6.33	3.148
1987.	3.546	34.912	6.55	3.386
1743.	3.732	34.910	6.49	3.592
1383.	4.518	34.979	6.00	4.403
863.	8.114	35.204	5.02	8.022
693.	8.871	35.263	6.33	8.794
587.	8.724	35.187	6.46	8.659
94.	10.354	35.443	6.24	10.343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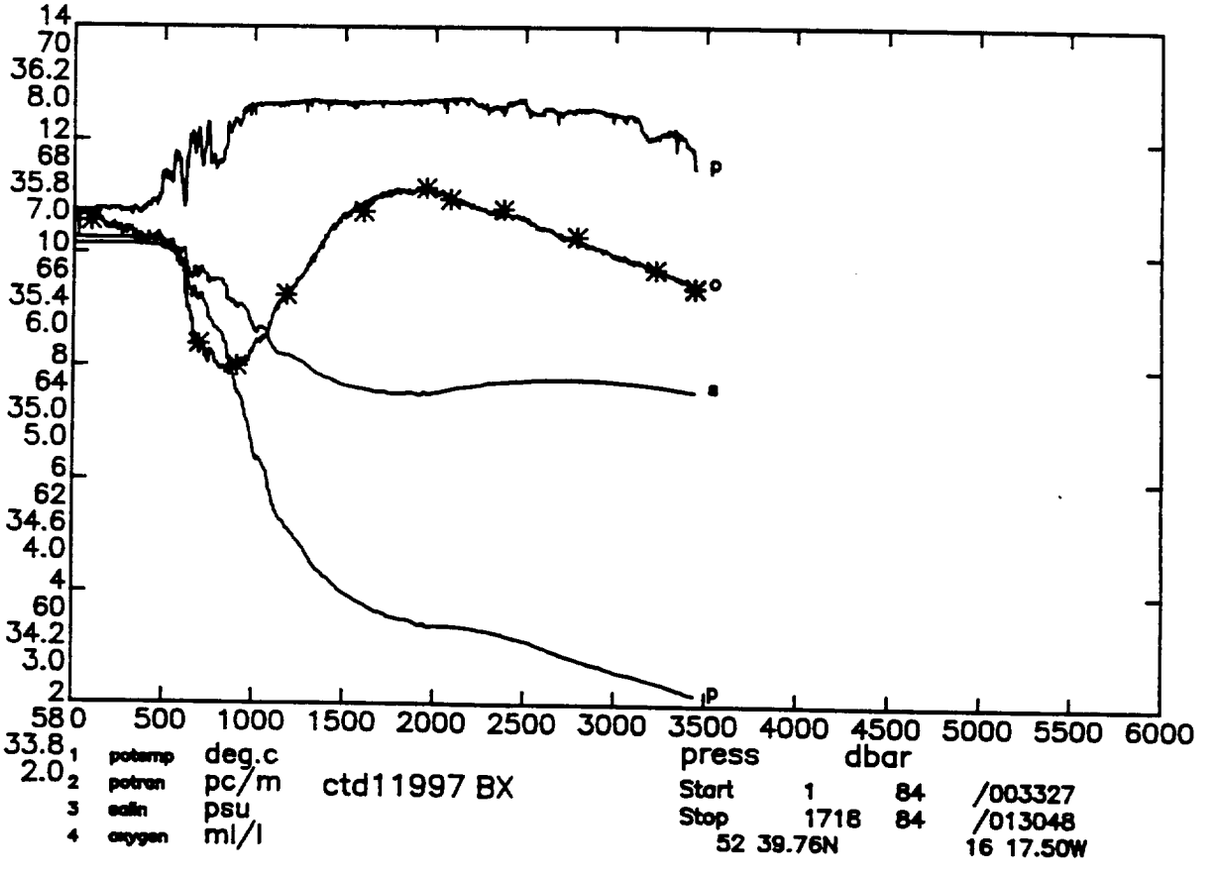
f
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 fluor mg/m3
ctd11997 BX
press dbar
Start 1 84 /003327
Stop 140 84 /003856
52 39.76N
16 17.50W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2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd11997 BX
press dbar
Start 1 84 /003327
Stop 1718 84 /013048
52 39.76N
16 17.50W

DISCOVERY CRUISE 189 STATION 11997

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.144	35.452	6.28	10.143	66.77	0.26	27.280	36.078	44.490	0.008	1491.1	10.	78.48	-9.999
20.	10.149	35.451	6.34	10.146	66.74	0.28	27.279	36.077	44.489	0.016	1491.2	20.	78.80	-0.488
30.	10.149	35.451	6.36	10.145	66.67	0.24	27.279	36.077	44.489	0.024	1491.4	30.	79.05	-0.214
40.	10.149	35.451	6.36	10.144	66.74	0.24	27.280	36.078	44.490	0.032	1491.6	40.	79.25	0.407
50.	10.151	35.450	6.35	10.145	66.73	0.24	27.279	36.077	44.489	0.039	1491.7	50.	79.59	-0.565
60.	10.152	35.450	6.34	10.145	66.75	0.25	27.279	36.077	44.489	0.047	1491.9	59.	79.82	0.136
70.	10.153	35.451	6.36	10.145	66.76	0.24	27.279	36.077	44.489	0.055	1492.1	69.	80.02	0.390
80.	10.154	35.450	6.36	10.145	66.75	0.23	27.279	36.077	44.489	0.063	1492.2	79.	80.30	-0.339
90.	10.154	35.450	6.31	10.143	66.74	0.26	27.279	36.077	44.489	0.071	1492.4	89.	80.52	0.284
100.	10.154	35.451	6.30	10.142	66.75	0.26	27.280	36.078	44.490	0.080	1492.6	99.	80.70	0.443
120.	10.159	35.451	6.32	10.145	66.76	0.23	27.279	36.077	44.489	0.096	1492.9	119.	81.25	-0.311
140.	10.166	35.450	6.33	10.150	66.78	0.26	27.278	36.075	44.487	0.112	1493.3	139.	81.87	-0.486
160.	10.167	35.450	6.26	10.148	66.78	0.23	27.278	36.076	44.488	0.128	1493.6	159.	82.31	0.292
180.	10.172	35.450	6.25	10.151	66.78	0.25	27.278	36.075	44.487	0.145	1494.0	178.	82.84	-0.277
200.	10.171	35.450	6.23	10.148	66.76	0.21	27.278	36.076	44.488	0.162	1494.3	198.	83.26	0.337
220.	10.174	35.450	6.26	10.148	66.79	0.26	27.278	36.076	44.487	0.178	1494.6	218.	83.81	-0.352
240.	10.182	35.450	6.20	10.154	66.79	0.24	27.277	36.074	44.486	0.195	1495.0	238.	84.38	-0.371
260.	10.184	35.450	6.24	10.153	66.73	0.23	27.277	36.075	44.487	0.212	1495.3	258.	84.82	0.259
280.	10.189	35.450	6.18	10.155	66.73	0.22	27.276	36.074	44.486	0.229	1495.7	277.	85.39	-0.362
300.	10.190	35.451	6.20	10.154	66.74	0.25	27.278	36.075	44.487	0.246	1496.0	297.	85.74	0.472
350.	10.193	35.450	6.10	10.151	66.76	0.26	27.277	36.075	44.487	0.289	1496.8	347.	87.00	-0.184
400.	10.193	35.449	6.12	10.145	66.79	0.22	27.277	36.075	44.487	0.333	1497.7	396.	88.19	0.104
450.	10.183	35.444	6.11	10.129	66.91	0.25	27.277	36.076	44.488	0.378	1498.4	446.	89.42	-0.145
500.	10.137	35.436	6.11	10.077	67.37	0.21	27.279	36.080	44.495	0.423	1499.1	495.	90.36	0.416
550.	10.125	35.440	6.03	10.059	67.34	0.15	27.285	36.087	44.502	0.468	1499.9	544.	90.96	0.631
600.	9.899	35.401	5.89	9.828	67.25	0.17	27.295	36.107	44.532	0.513	1499.9	594.	90.96	0.887
650.	9.414	35.315	5.44	9.340	68.02	0.16	27.309	36.143	44.589	0.559	1498.8	643.	90.06	1.171
700.	9.296	35.330	5.16	9.216	68.06	0.17	27.342	36.181	44.632	0.603	1499.2	693.	87.93	1.472
750.	8.920	35.292	5.05	8.836	68.06	0.16	27.373	36.230	44.697	0.647	1498.6	742.	85.44	1.548
800.	8.729	35.306	5.01	8.640	67.57	0.17	27.415	36.280	44.755	0.688	1498.8	791.	82.24	1.690
850.	8.392	35.267	4.96	8.300	67.91	0.14	27.438	36.319	44.808	0.729	1498.3	841.	80.49	1.365
900.	7.715	35.212	5.01	7.621	68.37	0.11	27.497	36.409	44.928	0.768	1496.5	890.	74.60	2.146
950.	7.306	35.207	5.04	7.210	68.53	0.13	27.552	36.483	45.020	0.804	1495.8	939.	69.49	2.011
1000.	6.597	35.132	5.16	6.501	68.58	0.13	27.591	36.556	45.125	0.838	1493.7	989.	65.12	1.874
1200.	5.191	35.037	5.68	5.087	68.67	0.15	27.694	36.729	45.364	0.956	1491.3	1186.	54.69	1.499
1400.	4.361	34.958	6.14	4.246	68.68	0.13	27.727	36.805	45.480	1.062	1491.2	1383.	51.39	0.980
1600.	3.915	34.919	6.43	3.786	68.68	0.12	27.744	36.847	45.545	1.163	1492.6	1580.	50.13	0.753
1800.	3.660	34.902	6.55	3.516	68.68	0.16	27.758	36.875	45.586	1.262	1494.9	1776.	49.63	0.639
2000.	3.556	34.906	6.55	3.395	68.71	0.13	27.773	36.896	45.614	1.361	1497.8	1973.	49.51	0.577
2100.	3.552	34.921	6.47	3.382	68.70	0.13	27.786	36.910	45.627	1.411	1499.5	2071.	49.16	0.651
2200.	3.530	34.929	6.41	3.351	68.73	0.16	27.795	36.921	45.640	1.460	1501.1	2169.	49.01	0.598
2300.	3.481	34.940	6.36	3.292	68.58	0.10	27.810	36.938	45.660	1.508	1502.6	2267.	48.30	0.740
2400.	3.415	34.944	6.35	3.217	68.65	0.13	27.820	36.952	45.678	1.557	1504.0	2365.	47.78	0.690
2500.	3.343	34.948	6.30	3.136	68.65	0.10	27.831	36.967	45.697	1.604	1505.4	2463.	47.20	0.703
2600.	3.235	34.952	6.23	3.021	68.50	0.11	27.845	36.987	45.722	1.651	1506.6	2561.	46.03	0.829
2700.	3.121	34.952	6.16	2.899	68.46	0.09	27.856	37.005	45.746	1.696	1507.8	2659.	45.03	0.790
2800.	3.030	34.952	6.09	2.799	68.54	0.09	27.865	37.020	45.766	1.741	1509.1	2757.	44.31	0.720
2900.	2.950	34.950	6.05	2.710	68.54	0.07	27.872	37.031	45.781	1.785	1510.5	2855.	43.88	0.645
3000.	2.855	34.945	5.98	2.607	68.46	0.08	27.877	37.042	45.797	1.829	1511.8	2953.	43.41	0.649
3100.	2.786	34.940	5.92	2.530	68.38	0.13	27.880	37.049	45.809	1.872	1513.2	3050.	43.28	0.546
3200.	2.697	34.933	5.89	2.432	68.01	0.10	27.882	37.057	45.822	1.915	1514.5	3148.	43.02	0.585
3300.	2.610	34.926	5.81	2.336	68.18	0.10	27.885	37.064	45.834	1.958	1515.8	3246.	42.72	0.585
3400.	2.507	34.915	5.75	2.225	67.93	0.09	27.885	37.071	45.847	2.000	1517.1	3343.	42.42	0.584

Sample data

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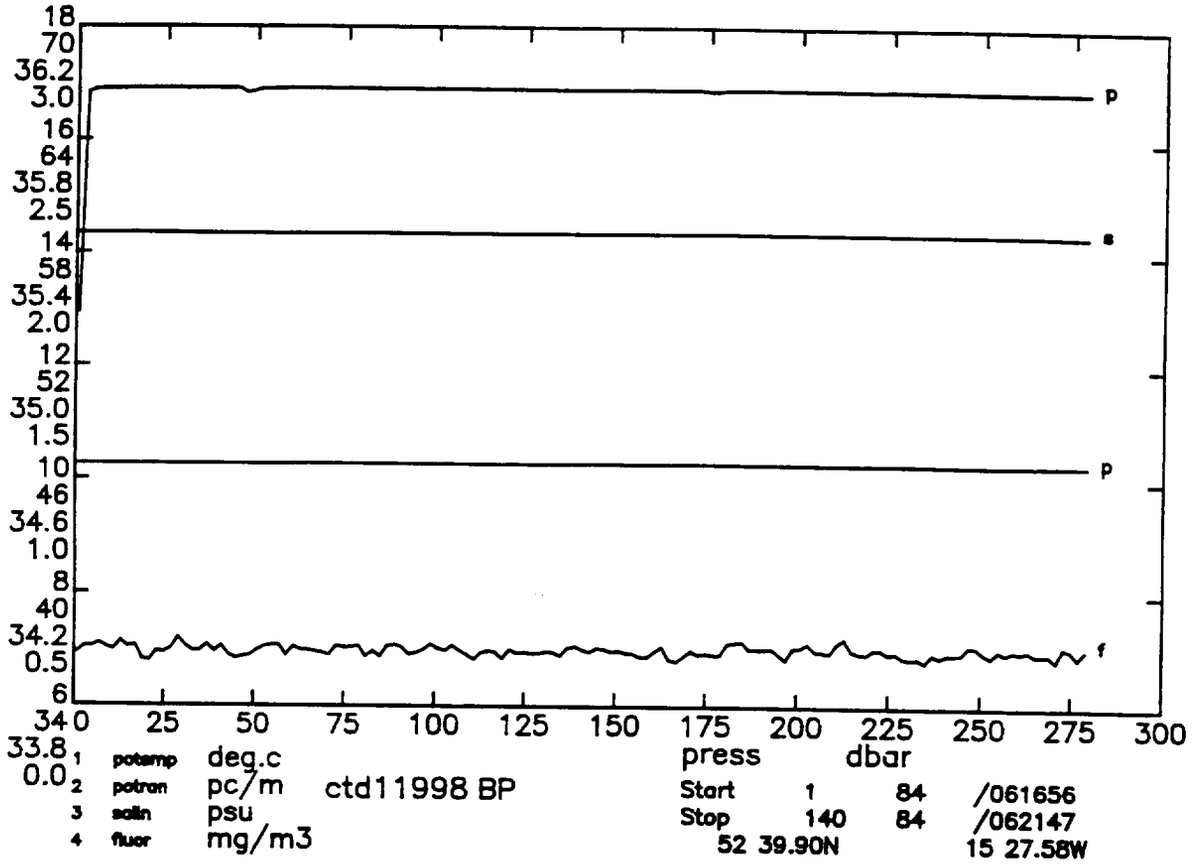
2790.	3.043	34.952	6.15	2.813
2381.	3.431	34.943	6.39	3.234
2085.	3.552	34.918	6.48	3.383
1952.	3.550	34.897	6.58	3.393
1606.	3.904	34.918	6.37	3.775
1183.	5.238	35.036	5.63	5.135
909.	7.643	35.209	5.00	7.549
697.	9.265	35.331	5.20	9.185
98.	10.153	35.454	6.28	10.141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0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
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4 fluor mg/m3
ctd11998 BP
Start 1 84 /061656
Stop 140 84 /062147
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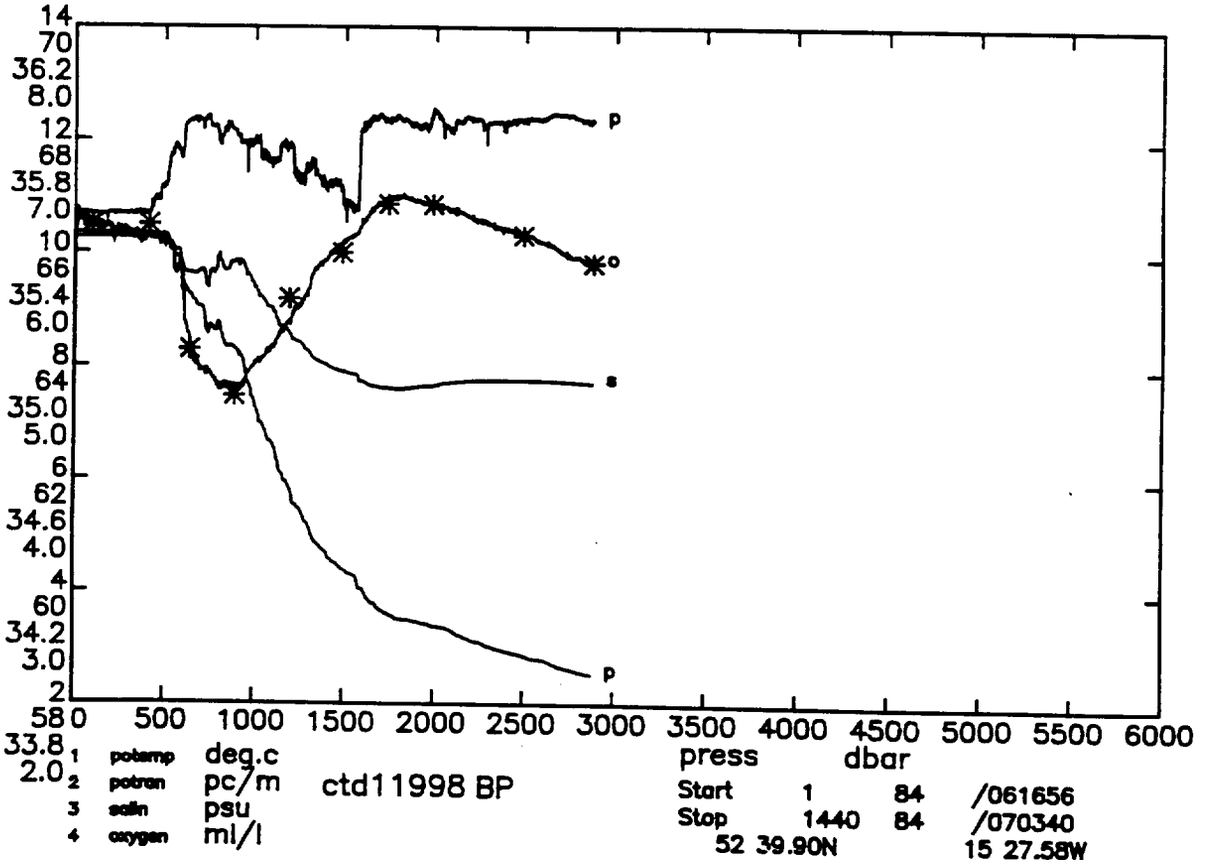
15 27.58W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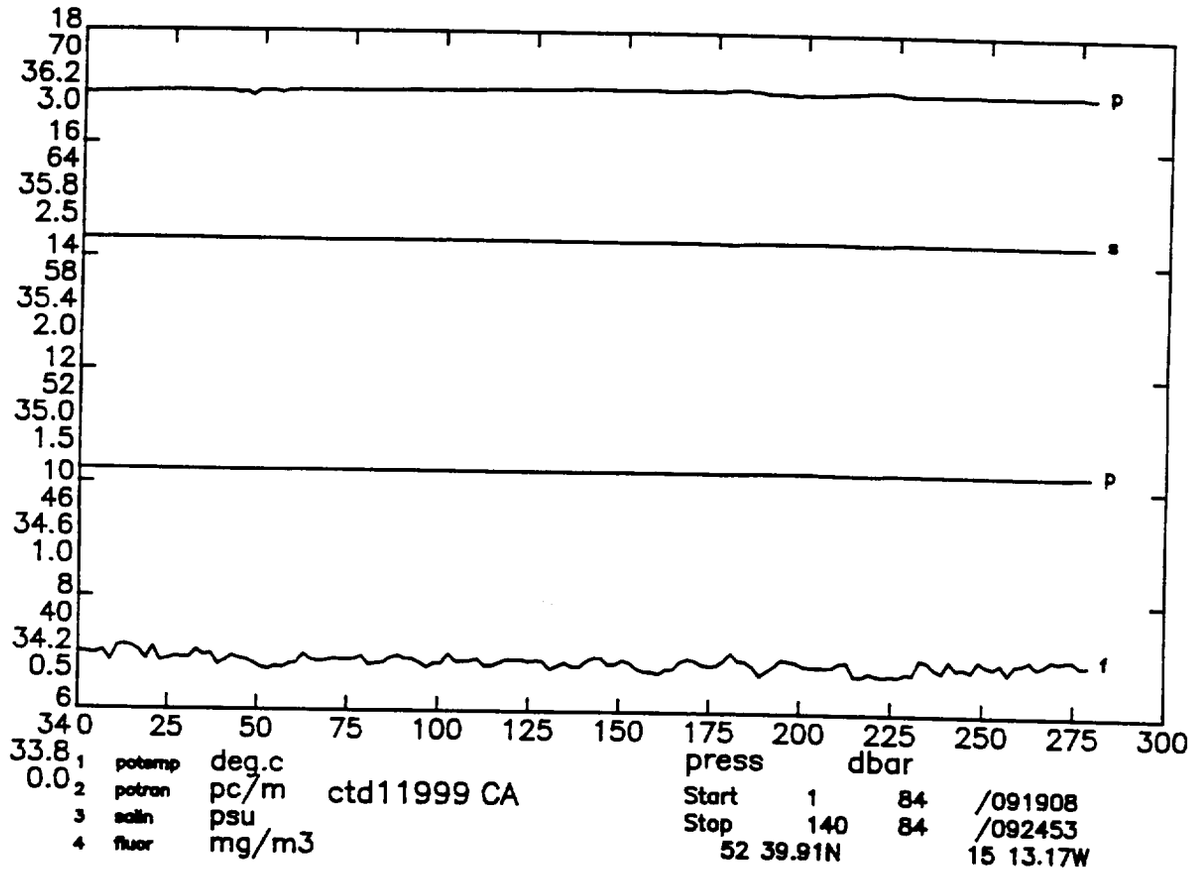
press dbar
1 potemp deg.c
2 potrat pc/m
3 salin psu
4 oxygen ml/l
ctd11998 BP
Start 1 84 /061656
Stop 1440 84 /070340
52 39.90N
15 27.58W

DISCOVERY CRUISE 189 STATION 11998

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.262	35.470	6.28	10.261	66.69	0.25	27.274	36.067	44.474	0.008	1491.5	10.	79.08	-9.999
20.	10.266	35.469	6.33	10.264	66.72	0.20	27.273	36.065	44.473	0.016	1491.7	20.	79.43	-0.578
30.	10.273	35.469	6.32	10.269	66.69	0.29	27.272	36.064	44.471	0.024	1491.9	30.	79.75	-0.509
40.	10.275	35.469	6.34	10.270	66.69	0.25	27.271	36.064	44.471	0.032	1492.0	40.	80.04	-0.359
50.	10.277	35.468	6.31	10.271	66.59	0.24	27.271	36.063	44.470	0.040	1492.2	50.	80.35	-0.462
60.	10.278	35.468	6.32	10.271	66.71	0.24	27.271	36.063	44.470	0.048	1492.4	59.	80.61	-0.217
70.	10.280	35.469	6.28	10.272	66.70	0.23	27.271	36.064	44.470	0.056	1492.6	69.	80.81	0.399
80.	10.282	35.469	6.26	10.273	66.69	0.24	27.271	36.063	44.470	0.064	1492.7	79.	81.06	-0.176
90.	10.284	35.468	6.22	10.274	66.69	0.27	27.270	36.063	44.469	0.072	1492.9	89.	81.38	-0.488
100.	10.285	35.469	6.23	10.273	66.69	0.27	27.271	36.064	44.470	0.080	1493.1	99.	81.54	0.517
120.	10.287	35.469	6.25	10.273	66.68	0.23	27.271	36.063	44.470	0.097	1493.4	119.	82.06	-0.220
140.	10.290	35.468	6.25	10.274	66.67	0.26	27.270	36.063	44.469	0.113	1493.7	139.	82.61	-0.305
160.	10.291	35.469	6.22	10.272	66.67	0.23	27.271	36.063	44.470	0.130	1494.1	159.	83.04	0.311
180.	10.293	35.468	6.24	10.272	66.67	0.25	27.271	36.063	44.470	0.146	1494.4	178.	83.55	-0.140
200.	10.290	35.469	6.23	10.267	66.69	0.26	27.272	36.065	44.472	0.163	1494.7	198.	83.92	0.447
220.	10.293	35.469	6.19	10.267	66.67	0.25	27.272	36.065	44.472	0.180	1495.1	218.	84.39	0.149
240.	10.298	35.468	6.23	10.270	66.71	0.23	27.271	36.064	44.471	0.197	1495.4	238.	84.98	-0.411
260.	10.301	35.468	6.19	10.270	66.69	0.25	27.270	36.063	44.470	0.214	1495.8	258.	85.53	-0.305
280.	10.303	35.469	6.22	10.270	66.69	0.26	27.271	36.064	44.471	0.231	1496.1	277.	85.92	0.391
300.	10.308	35.469	6.17	10.273	66.70	0.23	27.271	36.063	44.470	0.248	1496.4	297.	86.48	-0.340
350.	10.310	35.467	6.15	10.268	66.71	0.29	27.270	36.063	44.470	0.292	1497.3	347.	87.78	-0.223
400.	10.319	35.467	6.15	10.271	66.69	0.24	27.270	36.062	44.469	0.336	1498.1	396.	89.03	-0.142
450.	10.288	35.459	6.16	10.234	66.94	0.23	27.270	36.064	44.473	0.381	1498.8	446.	90.18	0.202
500.	10.227	35.447	6.06	10.167	67.22	0.22	27.272	36.069	44.480	0.426	1499.4	495.	91.13	0.416
550.	10.068	35.420	5.97	10.003	67.84	0.15	27.280	36.084	44.503	0.472	1499.7	544.	91.37	0.798
600.	9.677	35.363	5.67	9.607	67.82	0.16	27.302	36.124	44.559	0.517	1499.0	594.	89.97	1.312
650.	9.324	35.331	5.08	9.250	68.34	0.13	27.337	36.175	44.624	0.562	1498.5	643.	87.31	1.591
700.	9.133	35.338	4.99	9.054	68.35	0.14	27.374	36.220	44.677	0.605	1498.6	693.	84.67	1.584
750.	8.764	35.314	4.95	8.681	68.33	0.15	27.415	36.278	44.751	0.646	1498.1	742.	81.27	1.730
800.	8.843	35.388	4.83	8.754	67.98	0.14	27.462	36.320	44.789	0.686	1499.3	791.	78.12	1.680
850.	8.441	35.340	4.82	8.348	68.27	0.14	27.488	36.365	44.851	0.724	1498.6	841.	75.98	1.462
900.	8.390	35.375	4.81	8.291	68.07	0.12	27.524	36.403	44.891	0.762	1499.2	890.	73.49	1.534
950.	7.971	35.340	4.90	7.870	67.96	0.14	27.560	36.459	44.966	0.798	1498.5	939.	70.18	1.700
1000.	7.405	35.278	5.02	7.303	68.05	0.16	27.595	36.521	45.052	0.832	1497.1	989.	66.60	1.743
1200.	5.897	35.112	5.38	5.787	67.88	0.15	27.668	36.668	45.269	0.957	1494.3	1186.	59.14	1.344
1400.	4.822	35.007	5.93	4.702	67.09	0.11	27.715	36.770	45.423	1.069	1493.1	1383.	54.01	1.147
1500.	4.502	34.981	6.10	4.376	66.77	0.13	27.731	36.802	45.471	1.122	1493.4	1481.	52.59	0.935
1600.	4.165	34.947	6.26	4.034	68.17	0.11	27.740	36.830	45.515	1.174	1493.7	1580.	51.48	0.864
1700.	3.822	34.924	6.43	3.686	68.44	0.14	27.758	36.866	45.569	1.224	1493.9	1678.	49.39	1.025
1800.	3.658	34.920	6.49	3.514	68.41	0.14	27.772	36.889	45.600	1.273	1494.9	1776.	48.33	0.825
1900.	3.620	34.926	6.46	3.467	68.24	0.13	27.782	36.901	45.614	1.322	1496.4	1875.	48.14	0.614
2000.	3.542	34.933	6.43	3.381	68.52	0.11	27.795	36.919	45.636	1.369	1497.8	1973.	47.40	0.749
2100.	3.478	34.944	6.37	3.309	68.20	0.11	27.811	36.938	45.659	1.416	1499.2	2071.	46.49	0.785
2200.	3.326	34.950	6.31	3.149	68.34	0.15	27.831	36.967	45.696	1.462	1500.2	2169.	44.65	0.961
2300.	3.228	34.951	6.26	3.044	68.29	0.11	27.842	36.984	45.718	1.506	1501.5	2267.	43.88	0.740
2400.	3.150	34.953	6.23	2.957	68.35	0.10	27.851	36.997	45.735	1.550	1502.9	2365.	43.38	0.672
2500.	3.081	34.953	6.16	2.879	68.39	0.14	27.859	37.009	45.751	1.593	1504.3	2463.	43.04	0.628
2600.	3.027	34.952	6.10	2.816	68.37	0.08	27.864	37.017	45.762	1.636	1505.7	2561.	42.98	0.539
2700.	2.906	34.949	6.02	2.688	68.47	0.16	27.873	37.033	45.785	1.678	1506.9	2659.	42.07	0.760
2800.	2.828	34.945	5.98	2.601	68.39	0.16	27.877	37.042	45.798	1.720	1508.3	2757.	41.83	0.582

Sample data

2879.	2.780	34.942	5.92	2.546
2490.	3.092	34.952	6.16	2.891
1984.	3.549	34.928	6.43	3.390
1737.	3.759	34.920	6.43	3.620
1485.	4.527	34.985	6.00	4.402
1193.	5.934	35.115	5.60	5.823
891.	8.409	35.350	4.74	8.312
643.	9.347	35.325	5.15	9.273
411.	10.320	35.460	6.25	10.271
96.	10.284	35.468	6.25	10.273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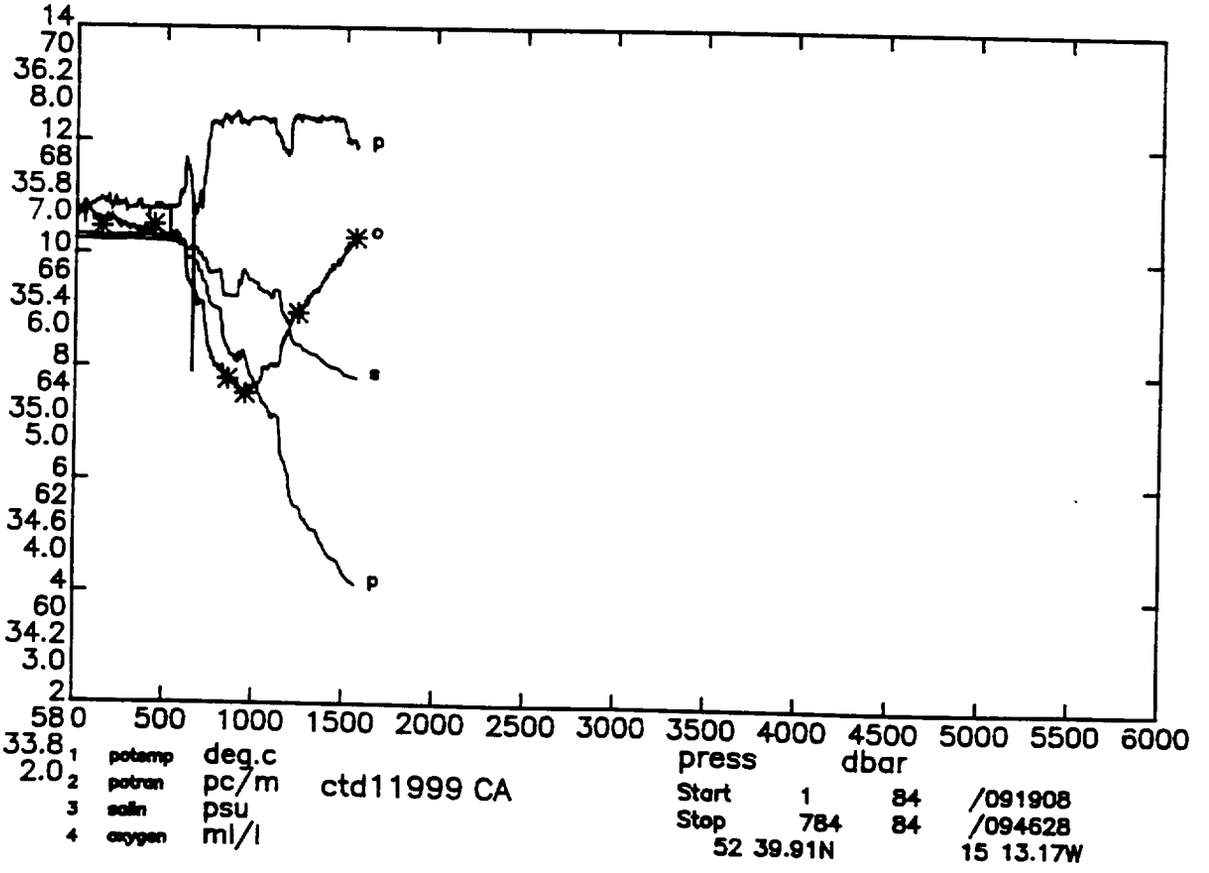
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd11999 CA
Start 1 84 /091908
Stop 140 84 /092453
52 39.91N 15 13.17W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3.0
2
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33.8
2.0
p
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p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd11999 CA
Start 1 84 /091908
Stop 784 84 /094628
52 39.91N 15 13.17W

DISCOVERY CRUISE 189 STATION 11999

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	10.234	35.465	6.37	10.233	66.69	0.25	27.275	36.069	44.477	0.008	1491.4	10.	78.98	-9.999
20.	10.237	35.465	6.37	10.234	66.76	0.25	27.274	36.068	44.477	0.016	1491.6	20.	79.28	-0.409
30.	10.237	35.464	6.37	10.233	66.77	0.23	27.274	36.068	44.477	0.024	1491.7	30.	79.53	-0.141
40.	10.240	35.463	6.42	10.236	66.77	0.21	27.272	36.067	44.475	0.032	1491.9	40.	79.93	-0.733
50.	10.240	35.463	6.46	10.234	66.79	0.20	27.273	36.067	44.476	0.040	1492.1	50.	80.13	0.388
60.	10.240	35.463	6.42	10.233	66.83	0.21	27.273	36.067	44.476	0.048	1492.2	59.	80.38	0.068
70.	10.242	35.463	6.39	10.233	66.83	0.22	27.273	36.067	44.476	0.056	1492.4	69.	80.62	-0.082
80.	10.242	35.463	6.35	10.233	66.83	0.22	27.273	36.067	44.476	0.064	1492.6	79.	80.86	0.213
90.	10.240	35.463	6.35	10.230	66.87	0.24	27.273	36.068	44.476	0.072	1492.7	89.	81.07	0.314
100.	10.243	35.461	6.34	10.231	66.86	0.21	27.272	36.067	44.475	0.080	1492.9	99.	81.41	-0.563
120.	10.239	35.461	6.31	10.225	66.92	0.23	27.273	36.068	44.476	0.096	1493.2	119.	81.85	0.299
140.	10.236	35.459	6.28	10.220	66.98	0.21	27.272	36.067	44.476	0.113	1493.5	139.	82.39	-0.296
160.	10.242	35.460	6.28	10.223	66.91	0.18	27.273	36.067	44.476	0.129	1493.9	159.	82.85	0.220
180.	10.232	35.455	6.31	10.211	67.01	0.25	27.271	36.066	44.476	0.146	1494.2	178.	83.47	-0.476
200.	10.254	35.461	6.33	10.230	66.83	0.22	27.272	36.067	44.475	0.163	1494.6	198.	83.87	0.392
220.	10.236	35.458	6.29	10.210	67.00	0.18	27.273	36.068	44.478	0.180	1494.9	218.	84.25	0.413
240.	10.253	35.461	6.27	10.225	66.84	0.22	27.273	36.068	44.476	0.196	1495.3	238.	84.78	-0.250
260.	10.259	35.461	6.26	10.228	66.86	0.23	27.273	36.067	44.476	0.213	1495.6	258.	85.27	-0.134
280.	10.269	35.463	6.23	10.235	66.84	0.23	27.273	36.067	44.475	0.231	1496.0	277.	85.76	0.033
300.	10.276	35.463	6.21	10.240	66.78	0.20	27.272	36.066	44.474	0.248	1496.3	297.	86.32	-0.352
350.	10.264	35.460	6.21	10.222	66.90	0.21	27.273	36.068	44.477	0.291	1497.1	347.	87.44	0.262
400.	10.271	35.461	6.17	10.223	66.79	0.22	27.273	36.068	44.477	0.335	1498.0	396.	88.63	0.107
450.	10.268	35.459	6.20	10.214	66.86	0.22	27.273	36.068	44.478	0.380	1498.8	446.	89.84	0.066
500.	10.269	35.458	6.16	10.208	66.77	0.21	27.273	36.069	44.478	0.425	1499.6	495.	91.03	0.106
550.	10.263	35.455	6.18	10.196	66.82	0.20	27.273	36.069	44.479	0.471	1500.4	544.	92.22	0.119
600.	10.195	35.441	6.06	10.123	67.12	0.15	27.276	36.075	44.488	0.517	1501.0	594.	93.13	0.438
650.	9.992	35.425	5.70	9.915	66.87	0.16	27.298	36.106	44.528	0.563	1501.0	643.	91.90	1.274
700.	9.727	35.394	5.57	9.644	66.80	0.16	27.320	36.141	44.573	0.609	1500.9	693.	90.58	1.288
750.	9.188	35.328	5.13	9.102	68.30	0.13	27.359	36.203	44.659	0.654	1499.7	742.	87.25	1.729
800.	9.106	35.342	4.97	9.015	68.31	0.13	27.384	36.232	44.690	0.697	1500.2	791.	85.86	1.287
850.	8.412	35.252	4.92	8.320	68.33	0.12	27.423	36.303	44.792	0.739	1498.4	841.	81.90	1.833
900.	8.182	35.245	4.85	8.085	68.46	0.14	27.454	36.344	44.843	0.779	1498.3	890.	79.60	1.488
950.	8.229	35.330	4.79	8.126	68.29	0.14	27.514	36.402	44.897	0.818	1499.4	939.	75.03	1.933
1000.	7.783	35.295	4.83	7.677	68.39	0.13	27.554	36.462	44.977	0.854	1498.5	989.	71.29	1.780
1100.	7.195	35.241	5.02	7.083	68.36	0.11	27.597	36.533	45.075	0.924	1497.9	1087.	67.68	1.351
1200.	5.929	35.110	5.38	5.817	68.26	0.13	27.663	36.661	45.261	0.988	1494.4	1186.	59.72	1.795
1300.	5.313	35.050	5.58	5.197	68.39	0.13	27.692	36.721	45.350	1.046	1493.5	1285.	56.56	1.239
1400.	4.859	35.010	5.79	4.738	68.39	0.14	27.713	36.766	45.417	1.101	1493.3	1383.	54.33	1.088
1500.	4.455	34.972	6.03	4.330	68.19	0.14	27.729	36.803	45.474	1.155	1493.2	1481.	52.57	0.995

Sample data

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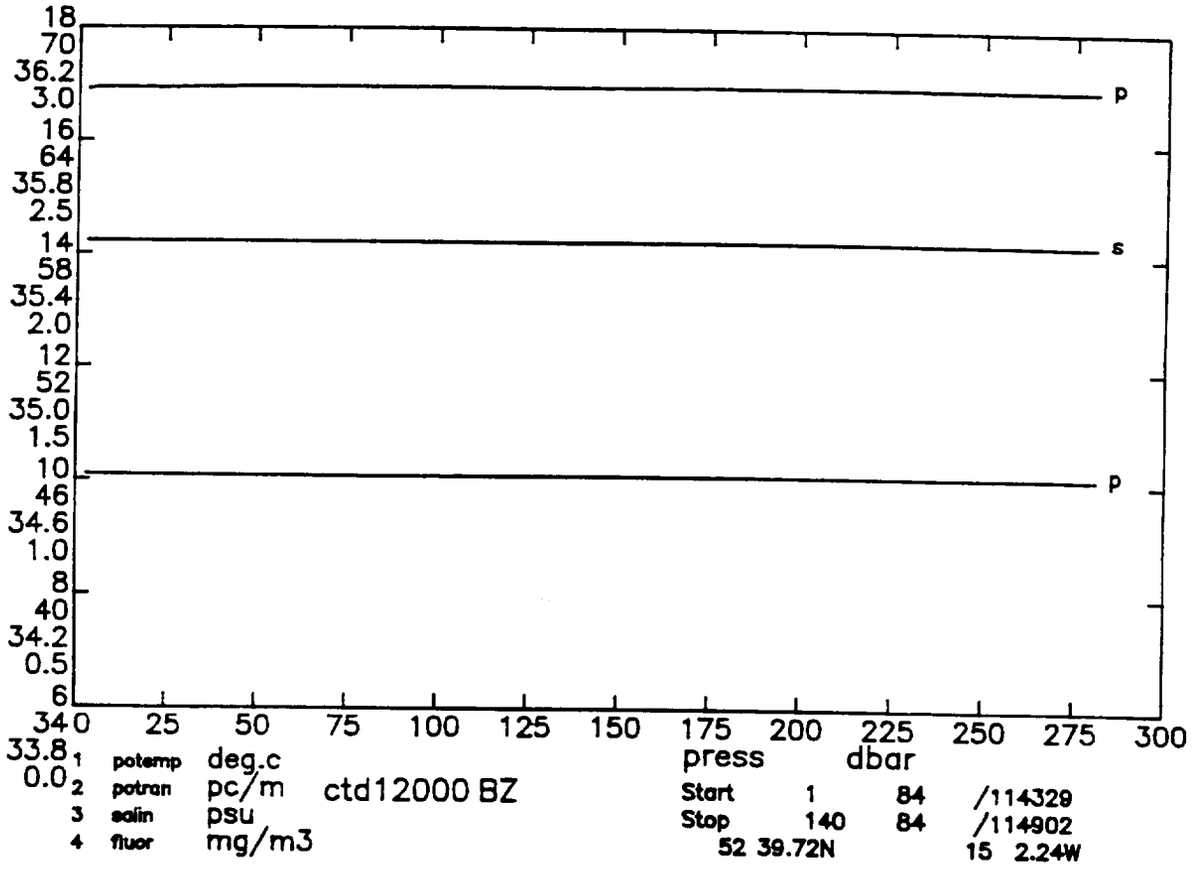
1243.	5.627	35.075	5.47	5.514
951.	8.223	35.325	4.76	8.120
853.	8.401	35.247	4.89	8.308
436.	10.273	35.463	6.25	10.221
143.	10.238	35.466	6.23	10.221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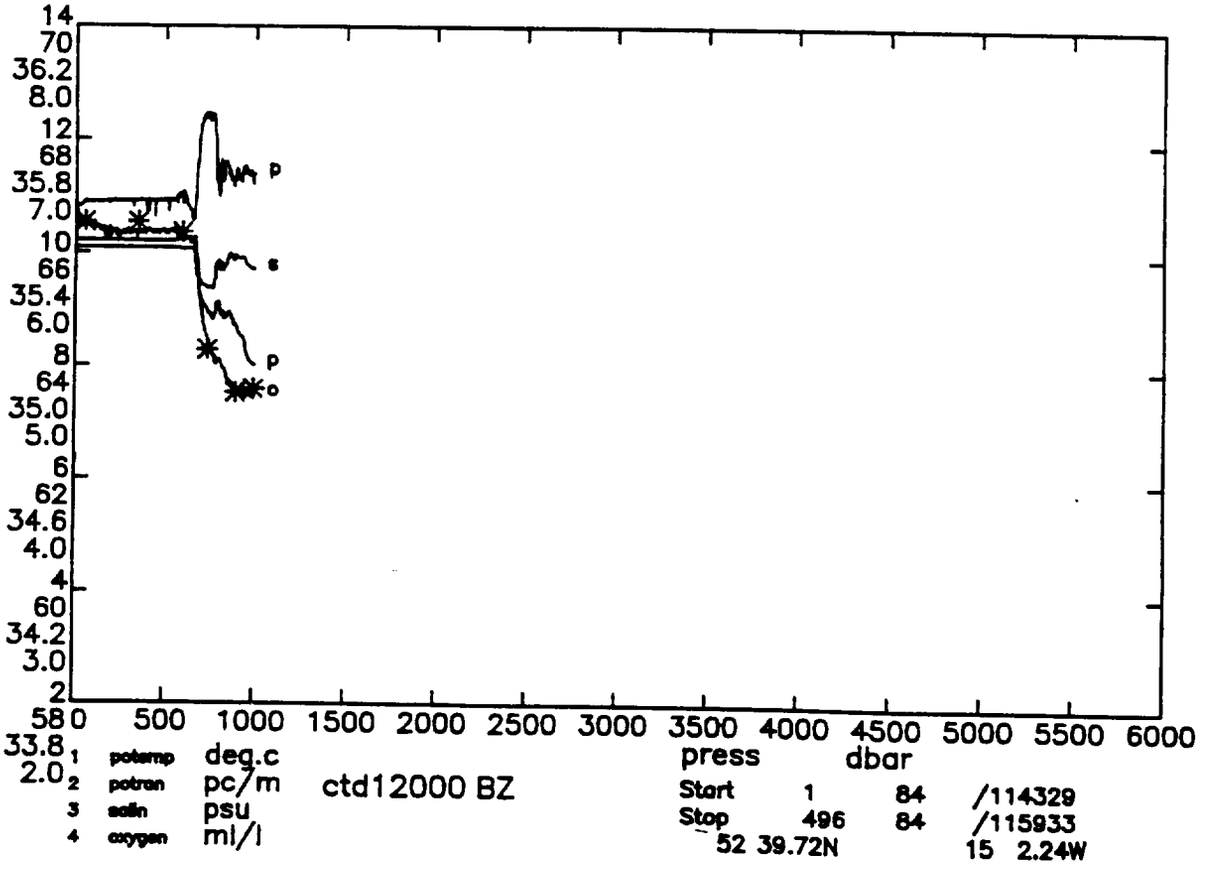
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12000 BZ
Start 1 84 /114329
Stop 140 84 /114902
52 39.72N 15 2.24W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p
s
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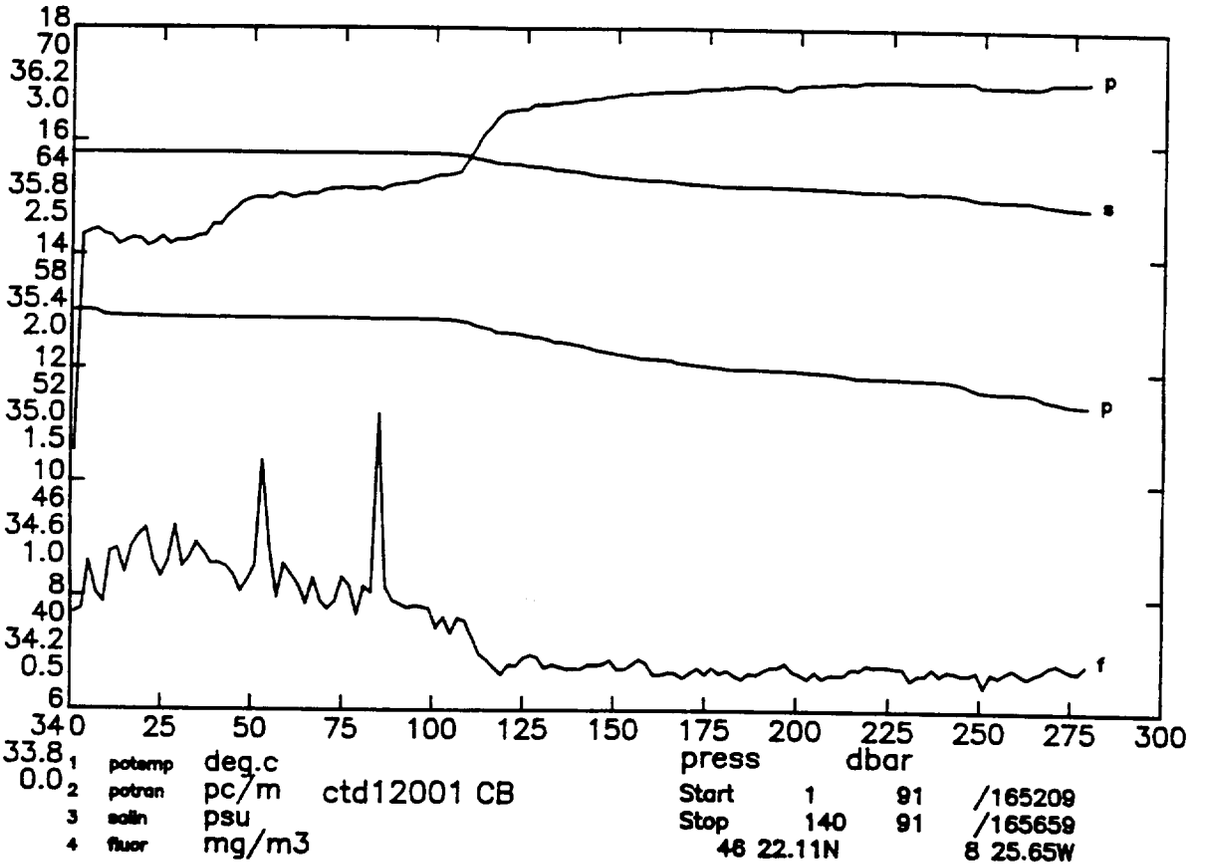
o
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12000 BZ
Start 1 84 /114329
Stop 496 84 /115933
52 39.72N 15 2.24W

DISCOVERY CRUISE 189 STATION 12000

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	10.091	35.445	6.24	10.090	66.83	-9.99	27.284	36.084	44.499	0.008	1490.9	10.	78.12	-9.999
20.	10.092	35.445	6.24	10.090	66.82	-9.99	27.284	36.084	44.499	0.016	1491.0	20.	78.37	-0.162
30.	10.093	35.444	6.26	10.090	66.84	-9.99	27.284	36.084	44.498	0.023	1491.2	30.	78.62	-0.189
40.	10.095	35.444	6.26	10.090	66.87	-9.99	27.283	36.083	44.498	0.031	1491.4	40.	78.93	-0.473
50.	10.095	35.444	6.30	10.090	66.90	-9.99	27.283	36.084	44.498	0.039	1491.5	50.	79.14	0.297
60.	10.097	35.444	6.27	10.090	66.89	-9.99	27.283	36.084	44.498	0.047	1491.7	59.	79.38	0.124
70.	10.098	35.444	6.27	10.090	66.89	-9.99	27.283	36.084	44.498	0.055	1491.9	69.	79.63	-0.088
80.	10.099	35.444	6.26	10.089	66.89	-9.99	27.283	36.084	44.498	0.063	1492.0	79.	79.87	-0.132
90.	10.100	35.444	6.22	10.090	66.88	-9.99	27.283	36.084	44.498	0.071	1492.2	89.	80.12	-0.180
100.	10.101	35.444	6.23	10.089	66.90	-9.99	27.283	36.084	44.498	0.079	1492.4	99.	80.36	0.115
120.	10.104	35.443	6.23	10.090	66.90	-9.99	27.283	36.083	44.498	0.095	1492.7	119.	80.89	-0.256
140.	10.106	35.443	6.20	10.089	66.88	-9.99	27.283	36.083	44.498	0.111	1493.1	139.	81.35	0.154
160.	10.108	35.443	6.21	10.090	66.90	-9.99	27.282	36.083	44.497	0.128	1493.4	159.	81.88	-0.251
180.	10.110	35.443	6.21	10.089	66.91	-9.99	27.283	36.083	44.497	0.144	1493.7	178.	82.36	0.068
200.	10.113	35.443	6.18	10.089	66.92	-9.99	27.282	36.083	44.497	0.161	1494.1	198.	82.85	-0.153
220.	10.114	35.443	6.20	10.089	66.92	-9.99	27.283	36.083	44.498	0.177	1494.4	218.	83.29	0.283
240.	10.117	35.443	6.13	10.089	66.91	-9.99	27.282	36.083	44.497	0.194	1494.7	238.	83.81	-0.266
260.	10.120	35.443	6.19	10.089	66.91	-9.99	27.282	36.083	44.497	0.211	1495.1	258.	84.29	0.097
280.	10.123	35.443	6.19	10.090	66.90	-9.99	27.282	36.083	44.497	0.228	1495.4	277.	84.80	-0.235
300.	10.125	35.443	6.18	10.090	66.90	-9.99	27.282	36.083	44.497	0.245	1495.8	297.	85.25	0.224
350.	10.130	35.442	6.18	10.088	66.92	-9.99	27.282	36.082	44.497	0.288	1496.6	347.	86.50	-0.178
400.	10.137	35.441	6.21	10.090	66.92	-9.99	27.281	36.081	44.496	0.331	1497.5	396.	87.80	-0.261
450.	10.139	35.441	6.19	10.085	66.91	-9.99	27.282	36.083	44.497	0.375	1498.3	446.	88.90	0.266
500.	10.146	35.441	6.18	10.086	66.94	-9.99	27.282	36.082	44.497	0.420	1499.1	495.	90.11	-0.101
550.	10.153	35.441	6.18	10.087	66.93	-9.99	27.282	36.082	44.497	0.466	1500.0	544.	91.31	-0.077
600.	10.131	35.446	6.13	10.059	67.07	-9.99	27.290	36.092	44.507	0.511	1500.7	594.	91.68	0.741
650.	10.130	35.452	6.09	10.052	66.57	-9.99	27.296	36.098	44.514	0.557	1501.6	643.	92.30	0.618
700.	9.266	35.294	5.49	9.186	68.27	-9.99	27.318	36.159	44.612	0.603	1499.1	693.	90.11	1.495
750.	8.999	35.277	5.15	8.915	68.45	-9.99	27.349	36.202	44.666	0.647	1498.9	742.	87.86	1.496
900.	9.176	35.363	5.04	9.085	67.01	-9.99	27.309	36.233	44.689	0.691	1500.5	791.	85.52	1.515
850.	9.030	35.381	4.87	8.933	67.43	-9.99	27.428	36.278	44.740	0.732	1500.8	841.	82.69	1.621
900.	8.751	35.386	4.79	8.650	67.39	-9.99	27.476	36.340	44.813	0.773	1500.6	890.	78.64	1.852
950.	8.306	35.358	4.73	8.203	67.46	-9.99	27.525	36.408	44.900	0.811	1499.7	939.	74.24	1.910

Sample data

991.	8.120	35.345	4.79	8.013
892.	8.831	35.394	4.76	8.731
736.	9.044	35.280	5.14	8.961
593.	10.136	35.447	6.18	10.064
346.	10.130	35.444	6.27	10.089
48.	10.095	35.444	6.27	10.090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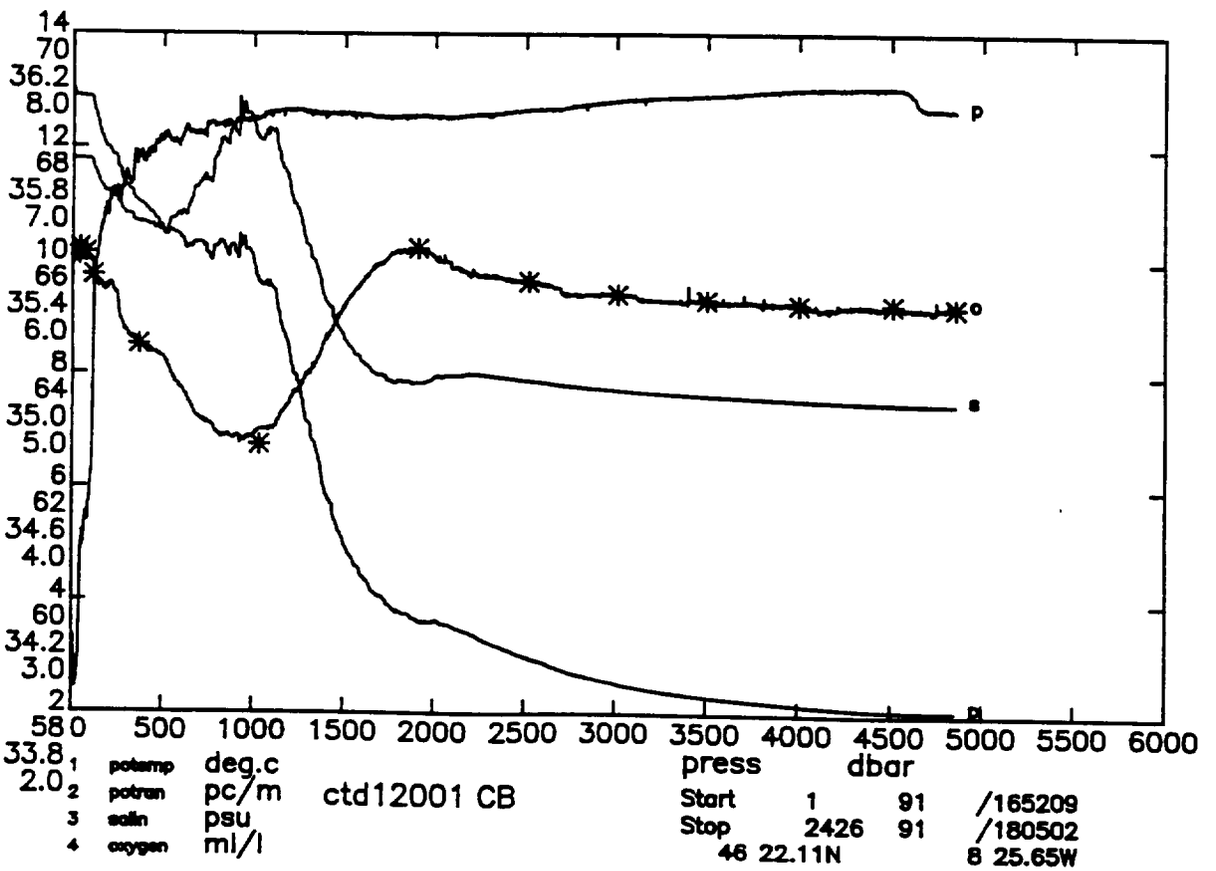
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12001 CB
Start 1 91 /165209
Stop 140 91 /165659
46 22.11N 8 25.65W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press dbar
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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12001 CB
Start 1 91 /165209
Stop 2426 91 /180502
46 22.11N 8 25.65W

DISCOVERY CRUISE 189 STATION 12001

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.938	35.757	6.02	12.936	59.01	0.58	26.992	35.674	43.978	0.011	1501.0	10.	105.82	-9.999
20.	12.920	35.756	6.04	12.917	58.62	0.78	26.996	35.679	43.983	0.021	1501.2	20.	105.76	1.086
30.	12.910	35.757	6.06	12.906	58.73	0.72	26.998	35.682	43.986	0.032	1501.3	30.	105.82	0.894
40.	12.904	35.757	5.97	12.899	59.58	0.64	27.000	35.683	43.988	0.042	1501.4	40.	105.99	0.652
50.	12.902	35.757	6.03	12.895	60.97	0.60	27.001	35.684	43.989	0.053	1501.6	50.	106.21	0.496
60.	12.901	35.756	6.03	12.893	61.07	0.62	27.001	35.684	43.989	0.064	1501.8	59.	106.50	0.115
70.	12.901	35.756	6.02	12.891	61.42	0.46	27.001	35.684	43.989	0.074	1501.9	69.	106.80	0.131
80.	12.899	35.755	6.00	12.889	61.47	0.48	27.001	35.684	43.990	0.085	1502.1	79.	107.09	-0.065
90.	12.894	35.754	6.00	12.882	61.71	0.47	27.001	35.685	43.991	0.096	1502.2	89.	107.32	0.494
100.	12.883	35.753	6.00	12.869	62.13	0.40	27.003	35.687	43.993	0.106	1502.4	99.	107.49	0.654
120.	12.652	35.719	5.88	12.636	65.56	0.18	27.023	35.717	44.032	0.128	1501.9	119.	106.08	1.821
140.	12.439	35.690	5.80	12.420	66.15	0.18	27.044	35.746	44.069	0.149	1501.5	139.	104.66	1.826
160.	12.208	35.662	5.80	12.187	66.61	0.18	27.067	35.780	44.111	0.170	1501.0	159.	102.93	1.960
180.	12.046	35.643	5.74	12.022	66.87	0.17	27.084	35.803	44.141	0.190	1500.7	178.	101.82	1.673
200.	12.000	35.640	5.78	11.973	67.02	0.17	27.091	35.812	44.152	0.211	1500.9	198.	101.70	1.062
220.	11.892	35.628	5.77	11.864	67.22	0.20	27.103	35.829	44.173	0.231	1500.8	218.	101.09	1.391
240.	11.859	35.622	5.72	11.828	67.25	0.17	27.106	35.833	44.178	0.251	1501.1	238.	101.38	0.667
260.	11.659	35.599	5.50	11.626	67.05	0.18	27.126	35.862	44.215	0.271	1500.7	258.	99.88	1.847
280.	11.424	35.573	5.43	11.389	67.38	0.22	27.151	35.896	44.258	0.291	1500.2	278.	97.99	2.012
300.	11.346	35.565	5.38	11.307	67.53	0.18	27.159	35.908	44.273	0.310	1500.2	297.	97.67	1.197
350.	11.106	35.539	5.31	11.062	67.86	0.17	27.184	35.943	44.318	0.359	1500.2	347.	96.45	1.298
400.	10.988	35.533	5.23	10.938	67.76	0.20	27.202	35.966	44.346	0.407	1500.6	396.	95.97	1.088
450.	10.832	35.521	5.19	10.776	67.95	0.19	27.222	35.993	44.379	0.455	1500.8	446.	95.20	1.172
500.	10.595	35.505	5.14	10.533	68.16	0.17	27.253	36.034	44.430	0.502	1500.8	495.	93.30	1.453
550.	10.592	35.547	4.97	10.524	68.11	0.17	27.288	36.069	44.465	0.548	1501.7	545.	91.27	1.480
600.	10.474	35.565	4.87	10.401	68.15	0.18	27.323	36.109	44.510	0.593	1502.1	594.	89.02	1.528
650.	10.320	35.600	4.73	10.241	68.27	0.21	27.379	36.170	44.577	0.637	1502.4	644.	84.84	1.903
700.	10.410	35.670	4.62	10.324	68.26	0.14	27.419	36.206	44.608	0.679	1503.7	693.	82.44	1.559
750.	10.216	35.686	4.57	10.125	68.40	0.18	27.466	36.262	44.671	0.719	1503.8	742.	78.90	1.787
800.	10.361	35.775	4.48	10.262	68.39	0.20	27.512	36.300	44.703	0.758	1505.3	792.	76.09	1.644
850.	10.283	35.817	4.45	10.178	68.43	0.19	27.559	36.350	44.756	0.795	1505.9	841.	72.75	1.750
900.	10.251	35.851	4.45	10.140	68.45	0.16	27.593	36.385	44.792	0.831	1506.6	891.	70.75	1.471
950.	10.527	35.956	4.41	10.408	68.48	0.13	27.627	36.407	44.802	0.865	1508.6	940.	69.30	1.342
1000.	10.111	35.887	4.46	9.989	68.50	0.15	27.647	36.445	44.858	0.900	1507.8	989.	67.79	1.355
1200.	8.450	35.657	4.77	8.316	68.66	0.17	27.741	36.615	45.099	1.027	1504.8	1187.	59.43	1.468
1400.	5.983	35.253	5.34	5.851	68.61	0.18	27.772	36.767	45.363	1.140	1498.1	1384.	52.69	1.317
1600.	4.554	35.041	5.82	4.418	68.59	0.18	27.774	36.843	45.509	1.241	1495.4	1581.	49.89	0.959
1800.	3.958	34.976	6.09	3.811	68.54	0.19	27.786	36.887	45.583	1.340	1496.2	1778.	48.34	0.791
2000.	3.800	34.989	6.02	3.635	68.55	0.19	27.815	36.925	45.629	1.435	1498.9	1974.	46.87	0.765
2200.	3.585	34.997	5.87	3.405	68.57	0.21	27.844	36.966	45.681	1.528	1501.4	2170.	44.88	0.812
2400.	3.323	34.984	5.84	3.127	68.62	0.20	27.860	36.997	45.726	1.616	1503.6	2367.	43.61	0.721
2600.	3.120	34.970	5.79	2.908	68.68	0.16	27.869	37.018	45.758	1.702	1506.1	2563.	43.07	0.615
2800.	2.920	34.955	5.70	2.691	68.75	0.19	27.877	37.037	45.789	1.788	1508.7	2759.	42.49	0.607
3000.	2.790	34.945	5.71	2.544	68.83	0.22	27.882	37.050	45.809	1.873	1511.5	2954.	42.47	0.511
3200.	2.690	34.935	5.66	2.425	68.87	0.24	27.884	37.059	45.824	1.958	1514.5	3150.	42.78	0.441
3400.	2.627	34.927	5.67	2.342	68.90	0.24	27.885	37.065	45.835	2.044	1517.6	3345.	43.40	0.372
3500.	2.604	34.924	5.64	2.309	68.92	0.23	27.886	37.067	45.838	2.087	1519.2	3443.	43.77	0.333
3600.	2.582	34.921	5.63	2.277	68.93	0.25	27.886	37.069	45.842	2.131	1520.8	3540.	44.14	0.336
3700.	2.566	34.919	5.68	2.250	68.96	0.18	27.886	37.071	45.845	2.176	1522.5	3638.	44.58	0.293
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3900.	2.539	34.913	5.63	2.201	69.01	0.22	27.886	37.074	45.851	2.266	1525.8	3833.	45.51	0.266
4000.	2.520	34.911	5.64	2.172	69.03	0.23	27.886	37.075	45.854	2.312	1527.4	3930.	45.90	0.317
4100.	2.512	34.908	5.57	2.151	69.03	0.22	27.886	37.076	45.856	2.358	1529.1	4027.	46.40	0.249
4200.	2.505	34.906	5.58	2.134	69.05	0.23	27.886	37.077	45.858	2.404	1530.8	4125.	46.91	0.250
4300.	2.501	34.904	5.61	2.118	69.04	0.22	27.885	37.078	45.859	2.452	1532.5	4222.	47.45	0.215
4400.	2.497	34.902	5.60	2.102	69.05	0.21	27.885	37.078	45.861	2.499	1534.2	4319.	47.98	0.230
4500.	2.500	34.901	5.59	2.093	69.06	0.22	27.885	37.078	45.861	2.548	1536.0	4416.	48.61	0.133
4600.	2.503	34.899	5.59	2.083	68.98	0.22	27.884	37.078	45.862	2.597	1537.7	4513.	49.21	0.172
4700.	2.511	34.899	5.58	2.079	68.66	0.21	27.885	37.079	45.863	2.646	1539.5	4610.	49.83	0.157
4800.	2.524	34.899	5.59	2.079	68.67	0.22	27.884	37.078	45.862	2.696	1541.3	4708.	50.57	-0.132

Sample data

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3007.	2.786	34.942	5.71	2.539
2516.	3.200	34.974	5.82	2.994
1905.	3.797	34.968	6.11	3.642
1031.	9.755	35.866	4.38	9.630
365.	11.068	35.538	5.26	11.022
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71.	12.901	35.750	6.07	12.891
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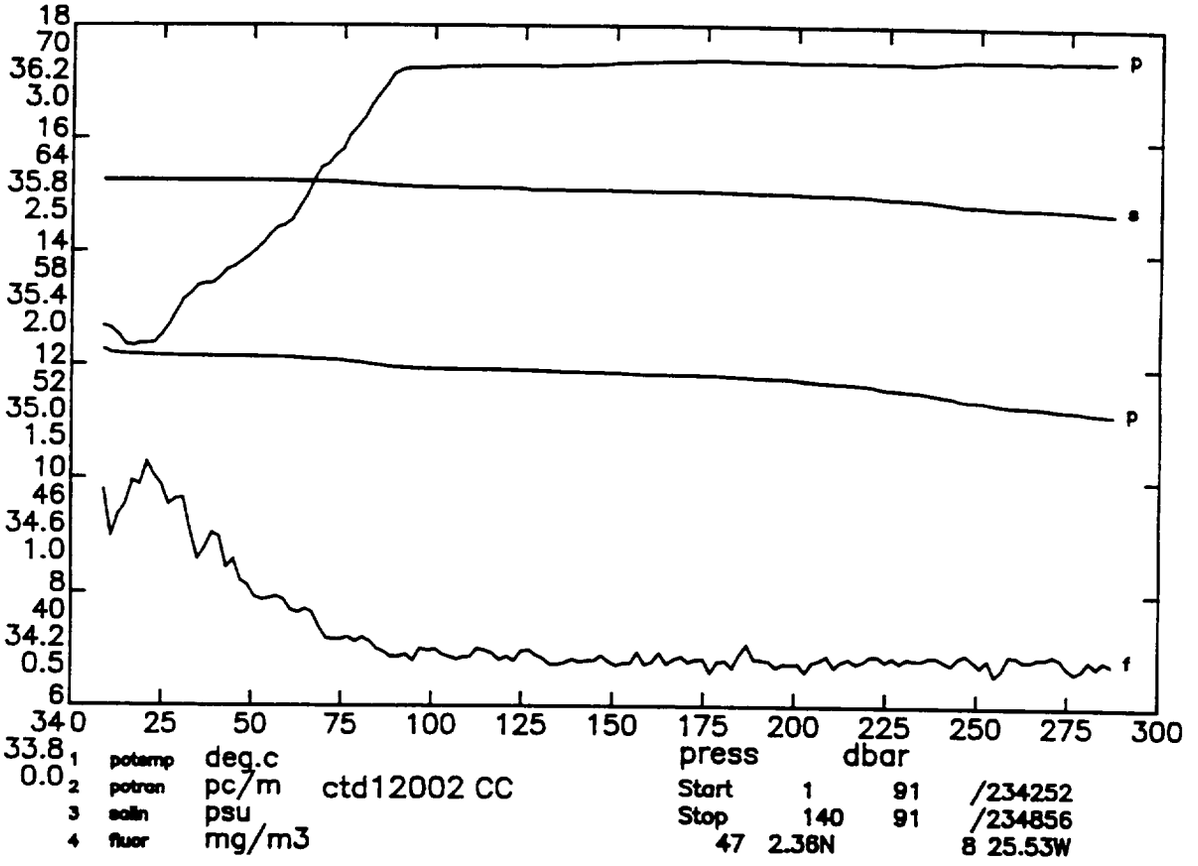
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4 fluor mg/m3
ctd12002 CC
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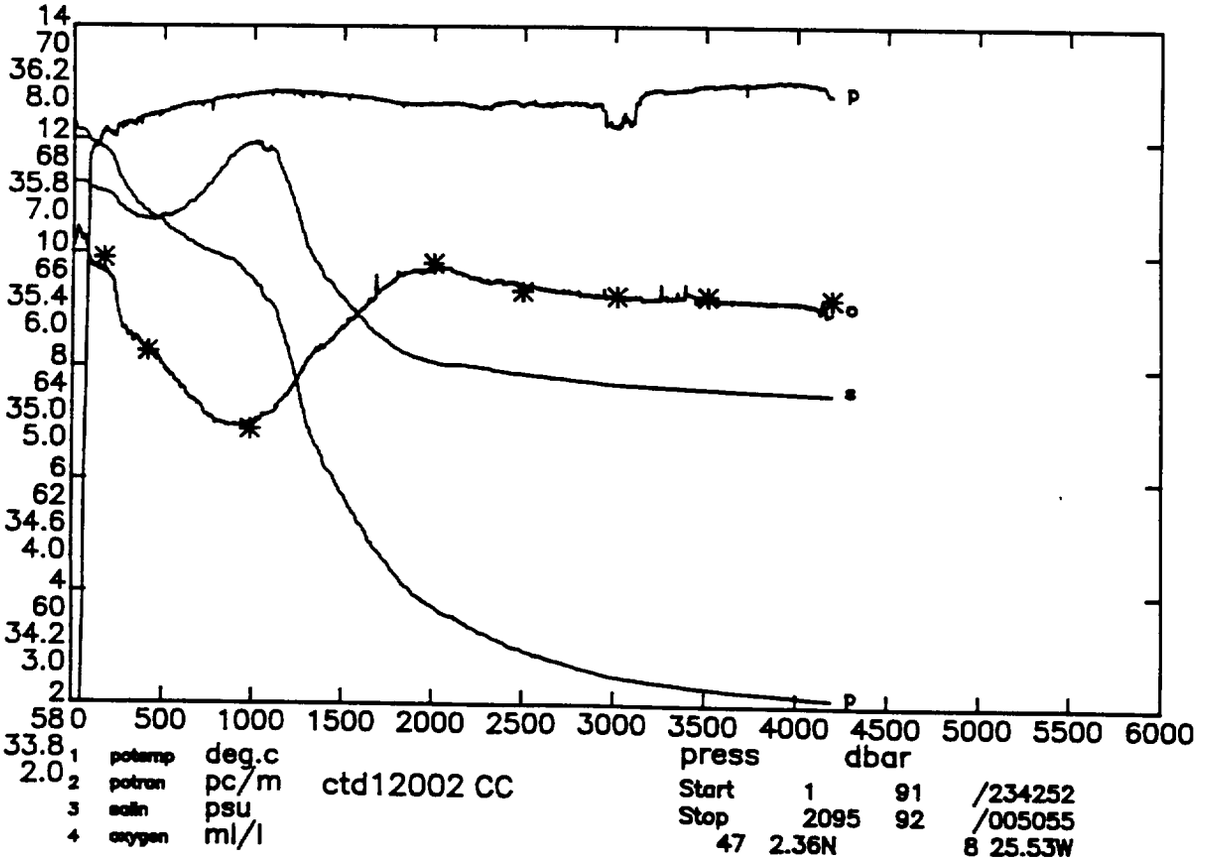
Stop 140 91 /234856
47 2.38N 8 25.53W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press dbar
1 potemp deg.c
2 potrn pc/m
3 salin psu
4 oxygen ml/l
ctd12002 CC
Start 1 91 /234252
Stop 2095 92 /005055
47 2.36N 8 25.53W

DISCOVERY CRUISE 189 STATION 12002

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	12.242	35.650	6.08	12.240	53.95	0.84	27.048	35.758	44.088	0.010	1498.6	10.	100.56	-9.999
20.	12.181	35.650	6.17	12.178	53.13	1.02	27.060	35.772	44.105	0.020	1498.5	20.	99.70	1.947
30.	12.166	35.650	6.21	12.162	55.13	0.91	27.062	35.776	44.109	0.030	1498.7	30.	99.71	0.960
40.	12.165	35.650	6.15	12.160	56.47	0.75	27.063	35.777	44.109	0.040	1498.8	40.	99.94	0.425
50.	12.163	35.649	6.13	12.157	57.89	0.51	27.063	35.777	44.110	0.050	1499.0	50.	100.22	0.092
60.	12.152	35.649	6.12	12.145	59.56	0.45	27.065	35.779	44.113	0.060	1499.1	59.	100.29	0.844
70.	12.119	35.647	6.11	12.110	62.56	0.32	27.070	35.786	44.121	0.070	1499.2	69.	100.09	1.270
80.	12.064	35.640	6.02	12.054	64.86	0.29	27.076	35.793	44.130	0.080	1499.1	79.	99.85	1.311
90.	11.988	35.631	5.94	11.976	67.52	0.22	27.084	35.805	44.145	0.090	1499.0	89.	99.30	1.664
100.	11.963	35.627	5.91	11.950	67.74	0.25	27.086	35.808	44.149	0.100	1499.1	99.	99.40	0.771
120.	11.947	35.625	5.88	11.931	67.87	0.21	27.088	35.811	44.153	0.120	1499.4	119.	99.77	0.561
140.	11.909	35.618	5.87	11.891	67.91	0.20	27.090	35.815	44.158	0.140	1499.6	139.	100.11	0.599
160.	11.870	35.615	5.85	11.849	68.10	0.19	27.096	35.822	44.167	0.160	1499.8	159.	100.14	0.930
180.	11.844	35.612	5.83	11.820	68.19	0.20	27.099	35.827	44.173	0.180	1500.0	178.	100.34	0.770
200.	11.789	35.607	5.80	11.763	68.10	0.19	27.106	35.836	44.184	0.200	1500.1	198.	100.20	1.069
220.	11.697	35.598	5.76	11.669	68.09	0.21	27.117	35.851	44.202	0.220	1500.1	218.	99.69	1.330
240.	11.531	35.579	5.60	11.500	68.14	0.21	27.134	35.874	44.233	0.240	1499.9	238.	98.57	1.666
260.	11.353	35.560	5.42	11.319	68.24	0.23	27.153	35.901	44.267	0.259	1499.6	258.	97.18	1.792
280.	11.246	35.551	5.33	11.211	68.24	0.19	27.166	35.919	44.288	0.279	1499.5	277.	96.44	1.454
300.	11.138	35.542	5.31	11.101	68.30	0.21	27.179	35.937	44.310	0.298	1499.5	297.	95.64	1.490
350.	10.901	35.520	5.25	10.857	68.32	0.20	27.207	35.974	44.358	0.345	1499.4	347.	94.15	1.362
400.	10.782	35.517	5.18	10.733	68.39	0.15	27.227	35.999	44.388	0.392	1499.8	396.	93.45	1.149
450.	10.673	35.513	5.12	10.617	68.45	0.21	27.244	36.022	44.415	0.439	1500.3	446.	92.94	1.085
500.	10.600	35.530	5.00	10.538	68.47	0.23	27.272	36.053	44.448	0.485	1500.9	495.	91.52	1.338
550.	10.466	35.532	4.92	10.398	68.52	0.22	27.298	36.084	44.485	0.531	1501.2	545.	90.16	1.318
600.	10.370	35.549	4.81	10.297	68.58	0.17	27.329	36.119	44.524	0.575	1501.7	594.	88.36	1.424
650.	10.261	35.576	4.71	10.182	68.63	0.20	27.371	36.165	44.574	0.618	1502.2	644.	85.50	1.651
700.	10.186	35.601	4.66	10.102	68.63	0.22	27.404	36.202	44.613	0.661	1502.8	693.	83.47	1.474
750.	10.124	35.638	4.56	10.033	68.65	0.25	27.445	36.245	44.659	0.702	1503.4	742.	80.74	1.623
800.	10.066	35.678	4.51	9.969	68.71	0.18	27.487	36.289	44.705	0.742	1504.1	792.	77.90	1.647
850.	10.000	35.717	4.48	9.897	68.75	0.20	27.530	36.334	44.753	0.780	1504.7	841.	74.96	1.666
900.	9.937	35.753	4.48	9.828	68.76	0.22	27.570	36.377	44.798	0.817	1505.4	891.	72.24	1.620
950.	9.770	35.776	4.49	9.656	68.79	0.19	27.617	36.431	44.858	0.852	1505.6	940.	68.72	1.775
1000.	9.646	35.784	4.50	9.527	68.79	0.17	27.645	36.464	44.896	0.886	1506.0	989.	66.99	1.395
1200.	8.339	35.620	4.77	8.206	68.84	0.20	27.730	36.609	45.097	1.012	1504.3	1187.	60.23	1.366
1400.	6.324	35.308	5.17	6.188	68.80	0.21	27.772	36.749	45.329	1.125	1499.5	1384.	53.83	1.298
1600.	5.311	35.169	5.48	5.165	68.75	0.20	27.790	36.819	45.448	1.231	1498.7	1581.	51.38	0.950
1800.	4.408	35.060	5.77	4.255	68.65	0.17	27.807	36.884	45.557	1.331	1498.2	1777.	48.47	0.953
2000.	3.883	35.012	5.85	3.717	68.62	0.29	27.825	36.930	45.630	1.425	1499.3	1974.	46.35	0.847
2200.	3.546	34.998	5.78	3.366	68.59	0.21	27.848	36.972	45.689	1.515	1501.2	2170.	44.28	0.821
2400.	3.275	34.979	5.73	3.079	68.65	0.20	27.861	37.000	45.732	1.603	1503.4	2367.	43.26	0.689
2600.	3.069	34.965	5.69	2.858	68.61	0.23	27.870	37.021	45.764	1.688	1505.9	2563.	42.66	0.619
2700.	2.984	34.958	5.66	2.764	68.64	0.26	27.873	37.029	45.777	1.731	1507.2	2660.	42.56	0.554
2800.	2.889	34.950	5.66	2.661	68.63	0.20	27.876	37.038	45.791	1.773	1508.5	2758.	42.37	0.572
2900.	2.823	34.944	5.63	2.586	68.64	0.26	27.878	37.044	45.801	1.816	1509.9	2856.	42.40	0.498
3000.	2.748	34.937	5.62	2.503	68.23	0.25	27.880	37.050	45.812	1.858	1511.3	2954.	42.35	0.517
3100.	2.714	34.934	5.61	2.459	68.35	0.20	27.881	37.054	45.817	1.901	1512.9	3052.	42.63	0.388
3200.	2.676	34.931	5.59	2.411	68.87	0.22	27.882	37.058	45.824	1.943	1514.4	3150.	42.84	0.419
3300.	2.653	34.928	5.61	2.378	68.85	0.19	27.883	37.060	45.828	1.986	1516.0	3247.	43.24	0.326
3400.	2.620	34.924	5.64	2.335	68.90	0.22	27.884	37.063	45.833	2.030	1517.6	3345.	43.50	0.391
3500.	2.601	34.922	5.58	2.306	68.95	0.18	27.885	37.066	45.838	2.074	1519.2	3442.	43.85	0.345
3600.	2.574	34.919	5.58	2.269	68.98	0.24	27.885	37.069	45.842	2.118	1520.8	3540.	44.19	0.352
3700.	2.551	34.916	5.58	2.236	68.98	0.20	27.885	37.071	45.846	2.162	1522.4	3637.	44.56	0.330
3800.	2.545	34.914	5.57	2.218	69.00	0.19	27.885	37.071	45.847	2.207	1524.1	3735.	45.10	0.223
3900.	2.534	34.912	5.57	2.196	69.05	0.22	27.885	37.073	45.850	2.252	1525.8	3832.	45.52	0.304
4000.	2.517	34.909	5.56	2.168	69.03	0.21	27.885	37.075	45.853	2.298	1527.4	3930.	45.94	0.303
4100.	2.505	34.907	5.54	2.145	68.99	0.24	27.885	37.076	45.856	2.344	1529.1	4027.	46.40	0.278

Sample data

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3017.	2.748	34.937	5.64	2.500
2498.	3.155	34.970	5.76	2.952
2004.	3.877	35.012	5.90	3.710
986.	9.682	35.791	4.44	9.564
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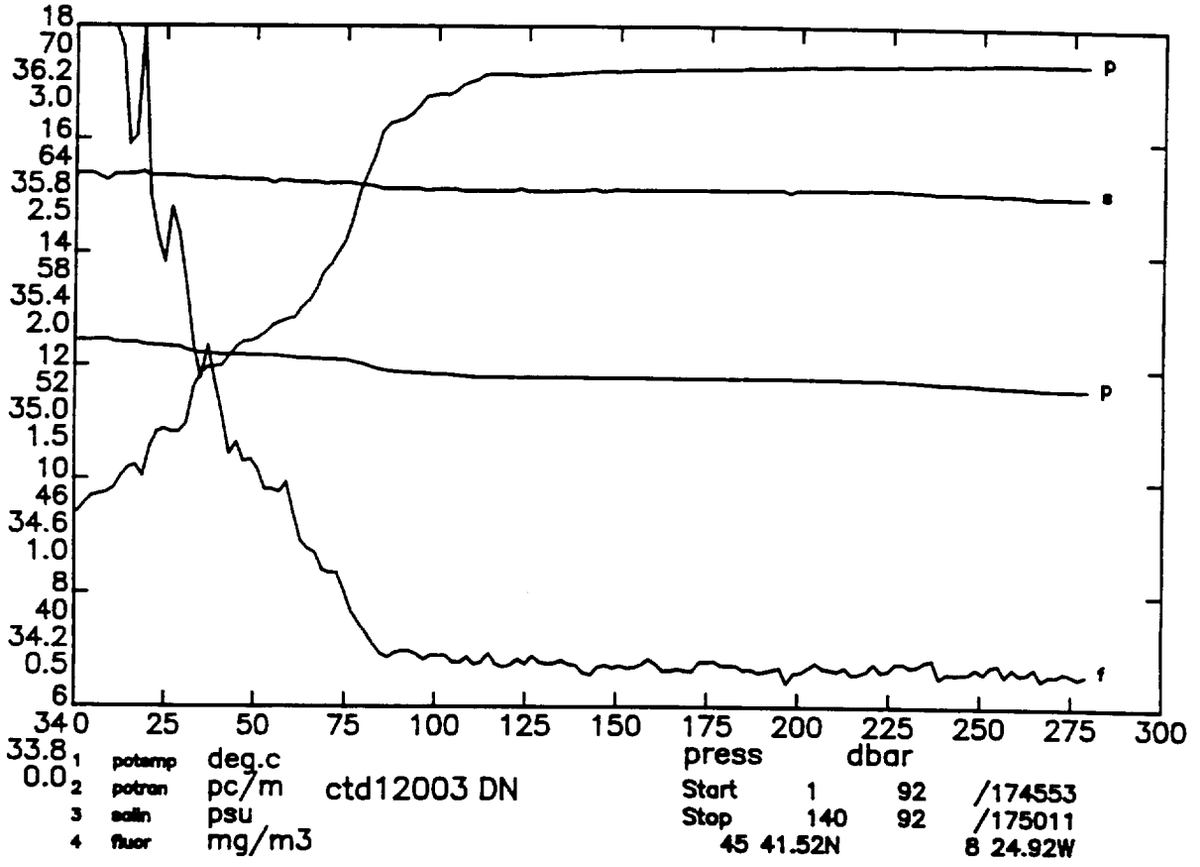
173.	11.860	35.612	5.95	11.837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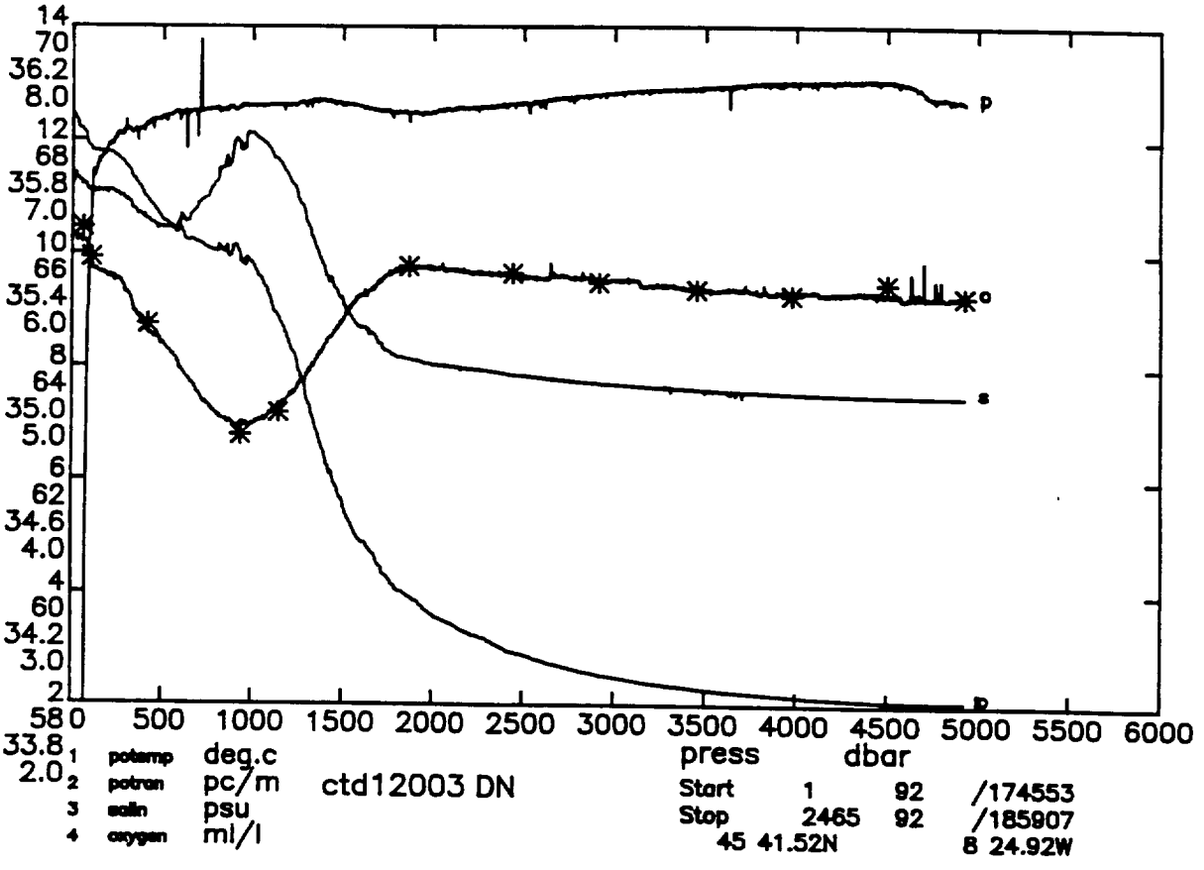
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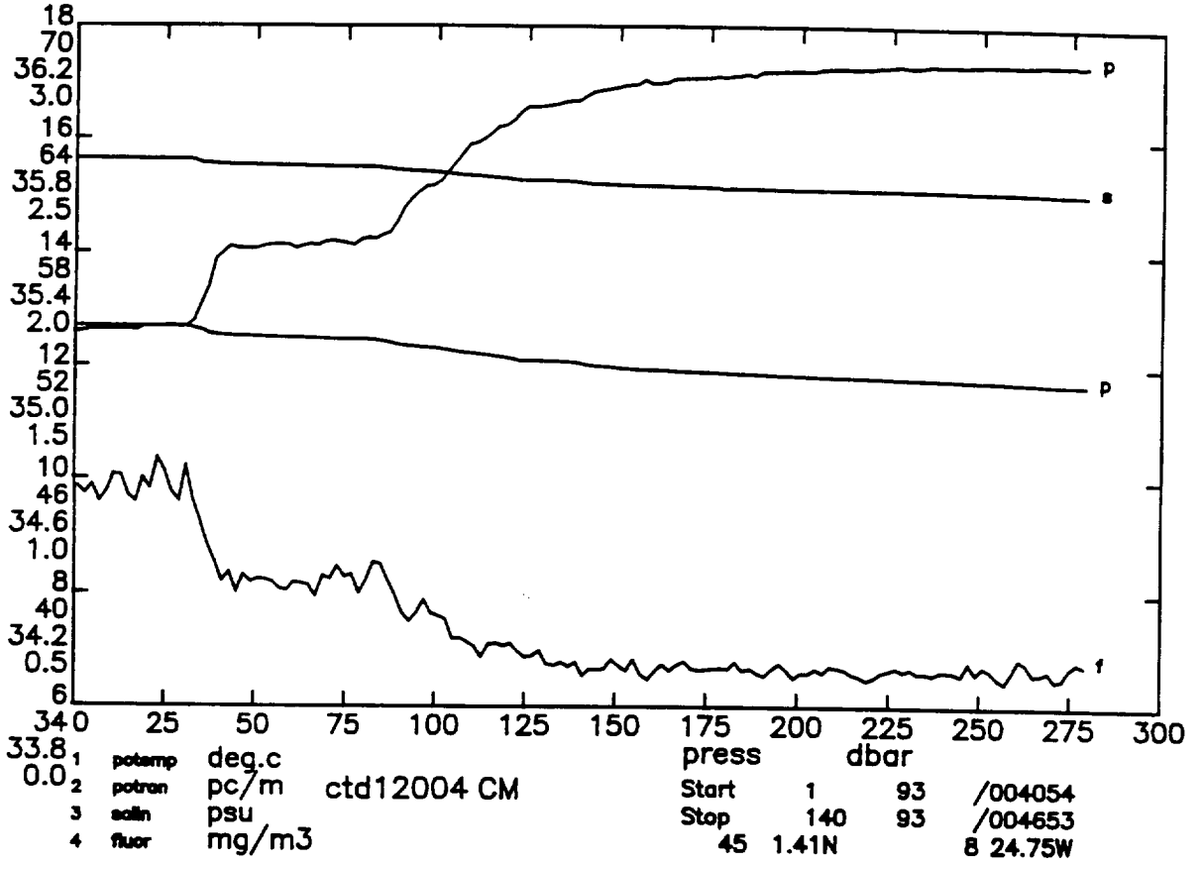
Stop 2465 92 /185907
45 41.52N
8 24.92W
p
o
s
p

DISCOVERY CRUISE 189 STATION 12003

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.443	35.662	6.16	12.441	45.37	3.16	27.017	35.720	44.042	0.010	1499.3	10.	103.41	-9.999
20.	12.371	35.675	6.17	12.369	46.88	2.67	27.042	35.747	44.072	0.020	1499.2	20.	101.38	2.780
30.	12.313	35.666	6.11	12.309	48.69	1.97	27.046	35.754	44.081	0.031	1499.2	30.	101.23	1.202
40.	12.214	35.660	6.13	12.209	51.99	1.35	27.061	35.773	44.104	0.041	1499.0	40.	100.11	2.160
50.	12.204	35.654	6.13	12.197	53.41	1.07	27.059	35.771	44.103	0.051	1499.1	50.	100.57	-0.754
60.	12.174	35.649	6.12	12.166	54.53	0.92	27.061	35.775	44.107	0.061	1499.2	60.	100.66	0.806
70.	12.140	35.643	6.11	12.131	57.15	0.60	27.063	35.778	44.112	0.071	1499.2	69.	100.78	0.731
80.	12.047	35.637	6.09	12.037	61.72	0.35	27.077	35.795	44.133	0.081	1499.1	79.	99.75	2.089
90.	11.923	35.625	6.00	11.911	65.00	0.24	27.092	35.816	44.158	0.091	1498.8	89.	98.54	2.228
100.	11.886	35.623	5.93	11.873	66.35	0.22	27.097	35.822	44.166	0.101	1498.8	99.	98.33	1.280
120.	11.826	35.617	5.86	11.810	67.45	0.18	27.105	35.833	44.179	0.120	1499.0	119.	98.12	1.127
140.	11.821	35.620	5.85	11.802	67.56	0.17	27.108	35.836	44.183	0.140	1499.3	139.	98.36	0.713
160.	11.809	35.619	5.83	11.788	67.66	0.20	27.111	35.839	44.186	0.160	1499.6	159.	98.69	0.618
180.	11.800	35.619	5.82	11.777	67.74	0.18	27.113	35.842	44.189	0.179	1499.9	178.	99.04	0.577
200.	11.802	35.622	5.80	11.776	67.89	0.15	27.115	35.844	44.192	0.199	1500.2	198.	99.37	0.602
220.	11.794	35.623	5.78	11.765	67.91	0.17	27.118	35.848	44.196	0.219	1500.5	218.	99.61	0.709
240.	11.747	35.614	5.77	11.716	68.02	0.14	27.120	35.852	44.202	0.239	1500.7	238.	99.95	0.590
260.	11.708	35.608	5.77	11.675	68.13	0.16	27.124	35.857	44.209	0.259	1500.8	258.	100.12	0.798
280.	11.663	35.604	5.72	11.627	68.09	0.14	27.130	35.865	44.218	0.279	1501.0	278.	100.12	0.952
300.	11.584	35.591	5.65	11.545	68.26	0.13	27.135	35.874	44.230	0.299	1501.1	297.	100.06	0.995
350.	11.347	35.555	5.48	11.302	68.16	0.15	27.152	35.901	44.267	0.349	1501.0	347.	99.63	1.087
400.	11.084	35.526	5.36	11.034	68.19	0.17	27.179	35.940	44.316	0.399	1500.9	396.	98.17	1.361
450.	10.893	35.507	5.26	10.837	68.23	0.17	27.200	35.969	44.353	0.447	1501.0	446.	97.31	1.194
500.	10.668	35.491	5.21	10.606	68.40	0.13	27.229	36.007	44.401	0.496	1501.1	495.	95.65	1.400
550.	10.562	35.491	5.12	10.495	68.43	0.13	27.249	36.032	44.430	0.543	1501.5	545.	94.89	1.156
600.	10.481	35.503	4.98	10.407	68.38	0.15	27.274	36.060	44.461	0.590	1502.1	594.	93.65	1.287
650.	10.309	35.517	4.88	10.230	68.47	0.16	27.316	36.109	44.517	0.636	1502.3	644.	90.72	1.667
700.	10.276	35.572	4.77	10.190	68.47	0.17	27.366	36.160	44.569	0.680	1503.1	693.	87.20	1.782
750.	10.193	35.598	4.67	10.102	68.52	0.18	27.401	36.199	44.611	0.723	1503.6	743.	84.92	1.528
800.	10.129	35.651	4.58	10.032	68.54	0.14	27.455	36.255	44.669	0.765	1504.3	792.	81.01	1.852
850.	10.120	35.704	4.53	10.016	68.54	0.17	27.499	36.299	44.713	0.805	1505.2	841.	78.04	1.672
900.	10.243	35.792	4.47	10.133	68.54	0.17	27.547	36.341	44.749	0.843	1506.5	891.	74.95	1.700
950.	9.939	35.769	4.49	9.824	68.62	0.16	27.583	36.390	44.810	0.880	1506.2	940.	72.22	1.623
1000.	9.950	35.826	4.48	9.829	68.60	0.14	27.627	36.433	44.852	0.915	1507.2	989.	69.35	1.652
1200.	8.601	35.674	4.73	8.465	68.61	0.16	27.731	36.598	45.075	1.045	1505.4	1187.	60.77	1.481
1400.	6.560	35.347	5.18	6.422	68.70	0.13	27.772	36.737	45.306	1.160	1500.5	1384.	54.64	1.287
1600.	5.041	35.135	5.62	4.899	68.59	0.16	27.794	36.837	45.479	1.264	1497.5	1581.	49.94	1.132
1800.	4.209	35.034	5.85	4.058	68.49	0.17	27.808	36.895	45.578	1.361	1497.3	1778.	47.53	0.897
2000.	3.768	35.005	5.86	3.603	68.47	0.17	27.831	36.942	45.647	1.455	1498.8	1974.	45.28	0.852
2200.	3.461	34.989	5.83	3.282	68.56	0.11	27.850	36.978	45.700	1.543	1500.9	2171.	43.68	0.767
2400.	3.195	34.973	5.82	3.001	68.59	0.14	27.863	37.006	45.742	1.630	1503.1	2367.	42.57	0.694
2600.	3.008	34.960	5.77	2.798	68.71	0.14	27.872	37.026	45.772	1.714	1505.6	2563.	42.12	0.595
2800.	2.846	34.947	5.78	2.619	68.77	0.13	27.877	37.042	45.797	1.798	1508.3	2759.	41.93	0.542
3000.	2.740	34.938	5.76	2.494	68.83	0.11	27.881	37.052	45.813	1.882	1511.3	2954.	42.20	0.455
3200.	2.648	34.928	5.71	2.384	68.87	0.08	27.883	37.060	45.827	1.967	1514.3	3150.	42.58	0.425
3400.	2.602	34.923	5.69	2.318	68.90	0.11	27.884	37.065	45.836	2.053	1517.5	3345.	43.31	0.339
3500.	2.571	34.919	5.68	2.277	68.92	0.11	27.884	37.067	45.840	2.096	1519.1	3443.	43.63	0.358
3600.	2.550	34.916	5.67	2.245	68.95	0.11	27.884	37.069	45.844	2.140	1520.7	3540.	44.01	0.328
3700.	2.541	34.914	5.67	2.225	68.97	0.09	27.885	37.071	45.846	2.185	1522.4	3638.	44.50	0.258
3800.	2.529	34.911	5.64	2.203	69.00	0.08	27.884	37.071	45.848	2.229	1524.0	3735.	45.04	0.224
3900.	2.517	34.909	5.65	2.179	68.99	0.14	27.884	37.073	45.851	2.275	1525.7	3833.	45.47	0.292
4000.	2.506	34.907	5.65	2.158	69.01	0.12	27.884	37.074	45.853	2.320	1527.4	3930.	45.93	0.278
4100.	2.499	34.904	5.66	2.139	69.02	0.11	27.884	37.075	45.855	2.366	1529.1	4028.	46.46	0.232
4200.	2.494	34.902	5.64	2.123	69.03	0.12	27.884	37.075	45.857	2.413	1530.8	4125.	46.99	0.224
4300.	2.492	34.901	5.65	2.109	69.03	0.07	27.884	37.077	45.859	2.460	1532.5	4222.	47.47	0.260
4400.	2.493	34.899	5.65	2.098	69.05	0.07	27.883	37.077	45.859	2.508	1534.2	4319.	48.10	0.134
4500.	2.494	34.898	5.64	2.087	69.04	0.06	27.883	37.077	45.860	2.557	1535.9	4417.	48.66	0.210
4600.	2.499	34.897	5.59	2.079	68.98	0.06	27.883	37.077	45.861	2.606	1537.7	4514.	49.30	0.121
4700.	2.508	34.895	5.79	2.076	68.84	0.06	27.881	37.076	45.860	2.655	1539.5	4611.	50.07	-0.172
4800.	2.518	34.896	5.61	2.073	68.73	0.05	27.882	37.077	45.861	2.706	1541.2	4708.	50.65	0.197
4900.	2.531	34.895	5.61	2.073	68.71	0.07	27.882	37.077	45.861	2.757	1543.0	4805.	51.36	-0.090

Sample data

4925.	2.534	34.900	5.62	2.072
3974.	2.507	34.908	5.63	2.161
3452.	2.585	34.921	5.68	2.295
2916.	2.776	34.940	5.74	2.539
2441.	3.142	34.970	5.82	2.944
1867.	4.082	35.026	5.88	3.926
1147.	9.008	35.720	4.59	8.875
937.	9.963	35.751	4.39	9.849
424.	10.992	35.514	5.37	10.939
61.	12.163	35.644	6.23	12.154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2.0
12
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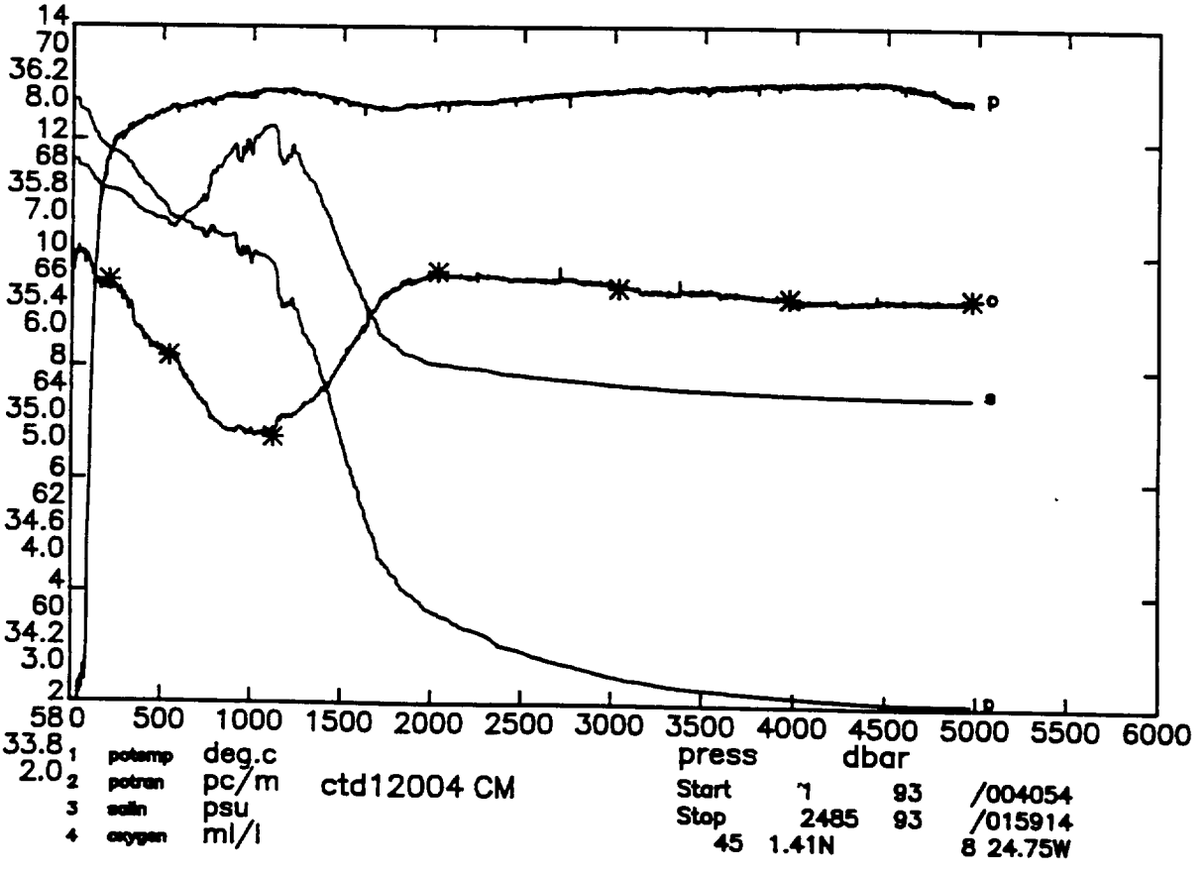
35.0
1.5
10
46
34.6
1.0
8
40
34.2
0.5
6
34
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12004 CM
Start 1 93 /004054
Stop 140 93 /004653
45 1.41N 8 24.75W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66
35.4
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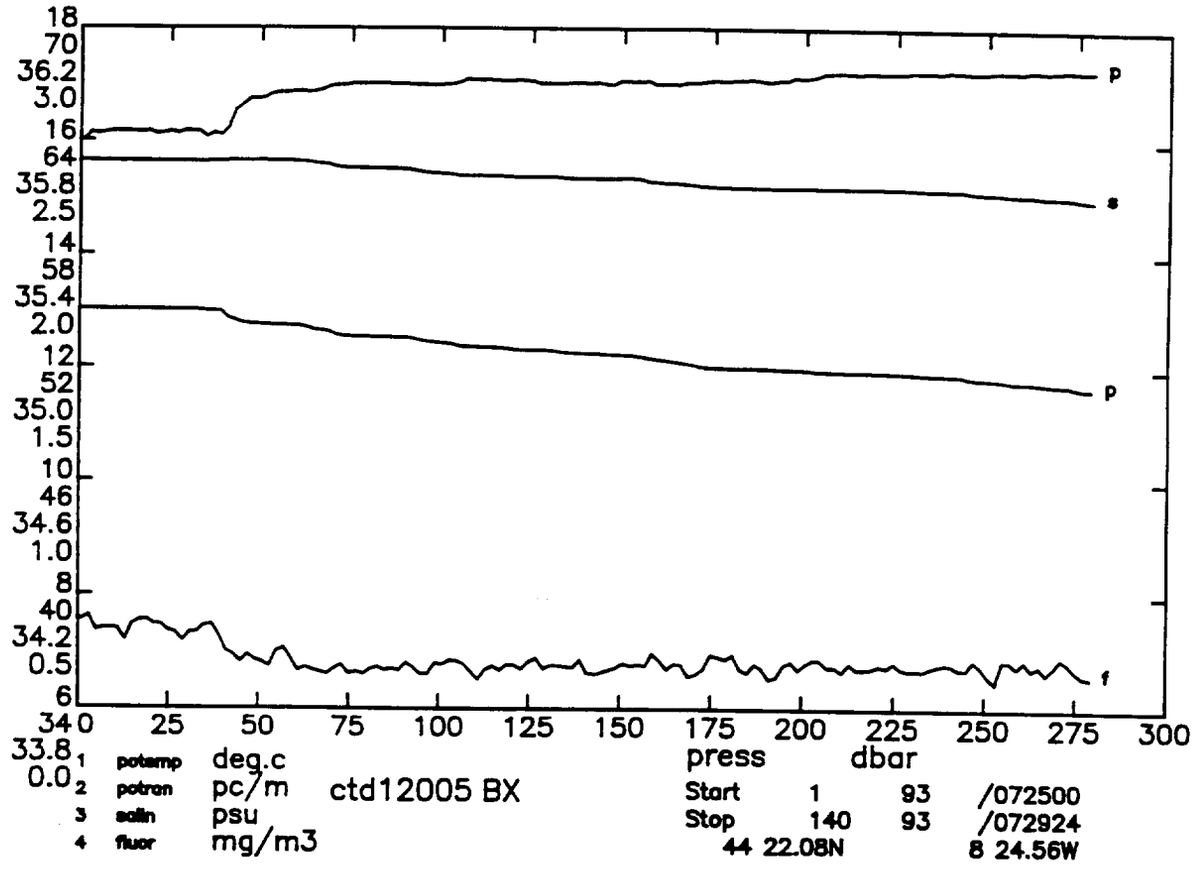
5.0
6
62
34.6
4.0
4
60
34.2
3.0
2
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12004 CM
Start 1 93 /004054
Stop 2485 93 /015914
45 1.41N 8 24.75W

DISCOVERY CRUISE 189 STATION 12004

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.692	35.727	5.87	12.691	53.89	0.98	27.019	35.710	44.023	0.010	1500.2	10.	103.31	-9.999
20.	12.700	35.725	5.96	12.698	54.08	0.98	27.016	35.707	44.020	0.021	1500.4	20.	103.88	-0.950
30.	12.702	35.726	6.00	12.698	54.07	0.98	27.016	35.708	44.020	0.031	1500.6	30.	104.12	0.394
40.	12.560	35.708	6.03	12.554	57.84	0.59	27.031	35.728	44.046	0.041	1500.2	40.	103.01	2.164
50.	12.536	35.705	6.01	12.530	58.20	0.55	27.034	35.732	44.051	0.052	1500.3	50.	103.02	0.967
60.	12.523	35.703	6.00	12.515	58.32	0.53	27.035	35.734	44.053	0.062	1500.4	60.	103.19	0.635
70.	12.504	35.701	5.98	12.494	58.62	0.57	27.037	35.737	44.057	0.072	1500.5	69.	103.26	0.851
80.	12.491	35.699	5.94	12.480	58.73	0.53	27.039	35.739	44.060	0.083	1500.6	79.	103.41	0.694
90.	12.397	35.688	5.97	12.385	59.99	0.45	27.049	35.753	44.077	0.093	1500.5	89.	102.72	1.797
100.	12.338	35.681	5.91	12.325	61.67	0.41	27.055	35.762	44.088	0.103	1500.4	99.	102.43	1.397
120.	12.168	35.660	5.79	12.152	64.87	0.27	27.072	35.786	44.119	0.124	1500.2	119.	101.32	1.671
140.	12.070	35.647	5.75	12.052	66.18	0.17	27.082	35.799	44.136	0.144	1500.1	139.	100.97	1.235
160.	11.962	35.635	5.69	11.941	66.96	0.14	27.094	35.816	44.157	0.164	1500.1	159.	100.36	1.396
180.	11.907	35.626	5.70	11.883	67.33	0.17	27.098	35.823	44.166	0.184	1500.2	178.	100.48	0.847
200.	11.856	35.623	5.69	11.830	67.66	0.14	27.106	35.833	44.178	0.204	1500.4	198.	100.28	1.122
220.	11.828	35.621	5.70	11.800	67.82	0.13	27.110	35.838	44.184	0.224	1500.6	218.	100.43	0.813
240.	11.806	35.619	5.71	11.775	68.01	0.16	27.114	35.843	44.190	0.244	1500.9	238.	100.62	0.777
260.	11.776	35.615	5.67	11.742	68.02	0.19	27.117	35.847	44.196	0.264	1501.1	258.	100.86	0.714
280.	11.732	35.608	5.58	11.696	68.08	0.17	27.120	35.852	44.203	0.285	1501.3	278.	101.08	0.741
300.	11.685	35.601	5.59	11.646	68.12	0.15	27.124	35.858	44.211	0.305	1501.4	297.	101.23	0.810
350.	11.464	35.569	5.35	11.419	68.24	0.13	27.141	35.885	44.247	0.355	1501.4	347.	100.74	1.105
400.	11.244	35.542	5.27	11.193	68.35	0.16	27.162	35.915	44.286	0.406	1501.5	396.	99.94	1.190
450.	11.092	35.529	5.19	11.035	68.41	0.15	27.181	35.941	44.318	0.455	1501.8	446.	99.29	1.142
500.	10.948	35.519	5.11	10.885	68.47	0.18	27.201	35.967	44.350	0.505	1502.1	495.	98.56	1.162
550.	10.719	35.494	5.11	10.651	68.58	0.18	27.224	36.000	44.392	0.554	1502.1	545.	97.42	1.268
600.	10.670	35.518	4.98	10.595	68.55	0.19	27.252	36.031	44.424	0.602	1502.7	594.	95.91	1.358
650.	10.593	35.544	4.85	10.513	68.60	0.14	27.287	36.068	44.465	0.650	1503.3	644.	93.81	1.497
700.	10.479	35.572	4.73	10.392	68.65	0.15	27.330	36.116	44.517	0.696	1503.8	693.	90.83	1.680
750.	10.381	35.603	4.64	10.289	68.70	0.16	27.372	36.162	44.567	0.740	1504.3	743.	87.92	1.666
800.	10.448	35.689	4.50	10.349	68.71	0.19	27.429	36.215	44.616	0.783	1505.5	792.	83.95	1.866
850.	10.393	35.734	4.44	10.288	68.76	0.13	27.475	36.263	44.666	0.825	1506.2	841.	80.77	1.722
900.	10.437	35.778	4.41	10.325	68.77	0.14	27.503	36.289	44.690	0.865	1507.2	891.	79.43	1.310
950.	10.124	35.756	4.44	10.007	68.77	0.13	27.541	36.341	44.754	0.904	1506.9	940.	76.50	1.670
1000.	10.015	35.771	4.42	9.893	68.78	0.16	27.573	36.377	44.794	0.941	1507.3	989.	74.50	1.464
1200.	9.219	35.738	4.56	9.078	68.86	0.16	27.684	36.523	44.974	1.083	1507.7	1187.	66.81	1.437
1400.	7.861	35.555	4.80	7.709	68.76	0.16	27.753	36.656	45.166	1.210	1505.8	1384.	60.50	1.325
1600.	5.752	35.250	5.30	5.602	68.61	0.20	27.801	36.807	45.415	1.322	1500.5	1581.	52.09	1.409
1800.	4.403	35.073	5.69	4.250	68.55	0.17	27.818	36.894	45.568	1.421	1498.2	1778.	47.46	1.103
2000.	3.792	35.009	5.79	3.628	68.63	0.16	27.832	36.942	45.646	1.513	1498.9	1974.	45.31	0.848
2200.	3.506	34.993	5.77	3.327	68.67	0.13	27.849	36.974	45.694	1.602	1501.0	2171.	44.06	0.728
2400.	3.218	34.974	5.77	3.024	68.71	0.12	27.862	37.004	45.739	1.690	1503.2	2367.	42.80	0.714
2600.	3.037	34.961	5.76	2.826	68.79	0.15	27.870	37.023	45.768	1.775	1505.8	2563.	42.46	0.580
2800.	2.893	34.950	5.75	2.665	68.82	0.13	27.876	37.037	45.790	1.860	1508.5	2759.	42.40	0.524
3000.	2.749	34.938	5.72	2.504	68.85	0.13	27.880	37.051	45.812	1.945	1511.3	2955.	42.28	0.525
3200.	2.664	34.930	5.65	2.399	68.87	0.12	27.883	37.059	45.826	2.029	1514.3	3150.	42.70	0.418
3400.	2.584	34.921	5.66	2.300	68.94	0.14	27.884	37.066	45.838	2.115	1517.4	3345.	43.17	0.399
3500.	2.566	34.918	5.65	2.272	68.94	0.09	27.884	37.068	45.841	2.159	1519.0	3443.	43.60	0.300
3600.	2.556	34.917	5.63	2.251	68.94	0.13	27.885	37.069	45.844	2.202	1520.7	3541.	44.05	0.287
3700.	2.537	34.914	5.64	2.222	68.95	0.10	27.885	37.071	45.847	2.247	1522.3	3638.	44.46	0.307
3800.	2.526	34.912	5.61	2.200	68.98	0.13	27.885	37.072	45.849	2.291	1524.0	3736.	44.94	0.267
3900.	2.516	34.908	5.63	2.178	68.98	0.11	27.884	37.072	45.851	2.337	1525.7	3833.	45.51	0.198
4000.	2.505	34.907	5.57	2.156	68.99	0.07	27.885	37.075	45.854	2.382	1527.4	3930.	45.89	0.322
4100.	2.496	34.905	5.59	2.136	69.01	0.11	27.885	37.076	45.856	2.428	1529.0	4028.	46.36	0.267
4200.	2.490	34.903	5.59	2.119	68.99	0.09	27.884	37.076	45.858	2.475	1530.7	4125.	46.88	0.236
4300.	2.491	34.902	5.57	2.108	69.04	0.08	27.884	37.077	45.859	2.522	1532.5	4222.	47.44	0.199
4400.	2.491	34.900	5.58	2.096	69.04	0.10	27.884	37.078	45.860	2.570	1534.2	4320.	48.01	0.198
4500.	2.492	34.899	5.58	2.085	69.03	0.09	27.884	37.078	45.861	2.618	1535.9	4417.	48.60	0.179
4600.	2.499	34.898	5.60	2.079	68.98	0.07	27.883	37.078	45.861	2.667	1537.7	4514.	49.25	0.108
4700.	2.506	34.897	5.59	2.074	68.91	0.11	27.883	37.078	45.862	2.717	1539.5	4611.	49.90	0.103
4800.	2.513	34.897	5.59	2.068	68.79	0.09	27.884	37.079	45.863	2.767	1541.2	4708.	50.49	0.188
4900.	2.524	34.897	5.59	2.067	68.72	0.08	27.883	37.078	45.863	2.818	1543.0	4805.	51.17	0.042

Sample data

4969.	2.533	34.916	5.61	2.066
3967.	2.508	34.908	5.61	2.163
3028.	2.737	34.936	5.69	2.488
2028.	3.758	35.007	5.83	3.591
1115.	9.946	35.849	4.37	9.810
539.	10.747	35.506	5.09	10.680
203.	11.852	35.623	5.75	11.825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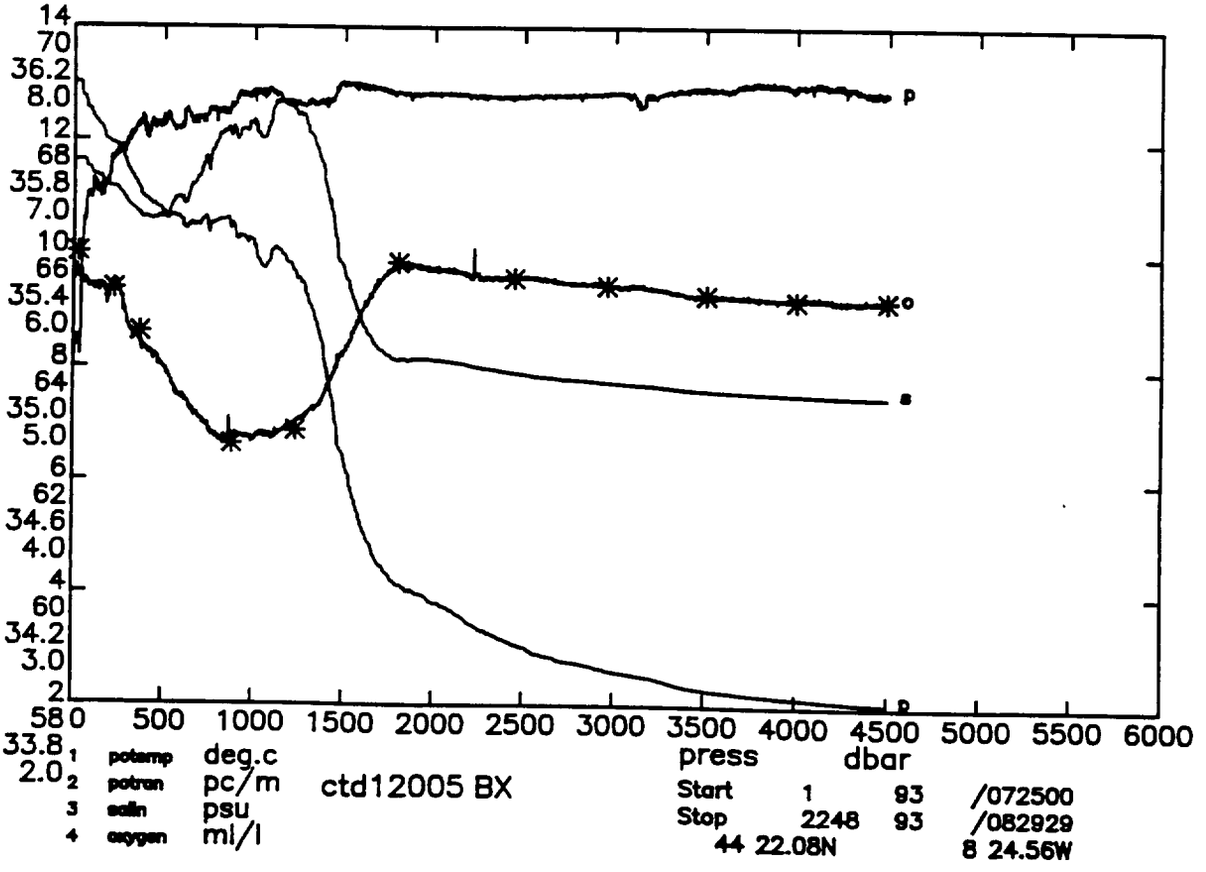
10
46
34.6
1.0
8
40
34.2
0.5
6
34
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12005 BX
press dbar
Start 1 93 /072500
Stop 140 93 /072924
44 22.08N
8 24.56W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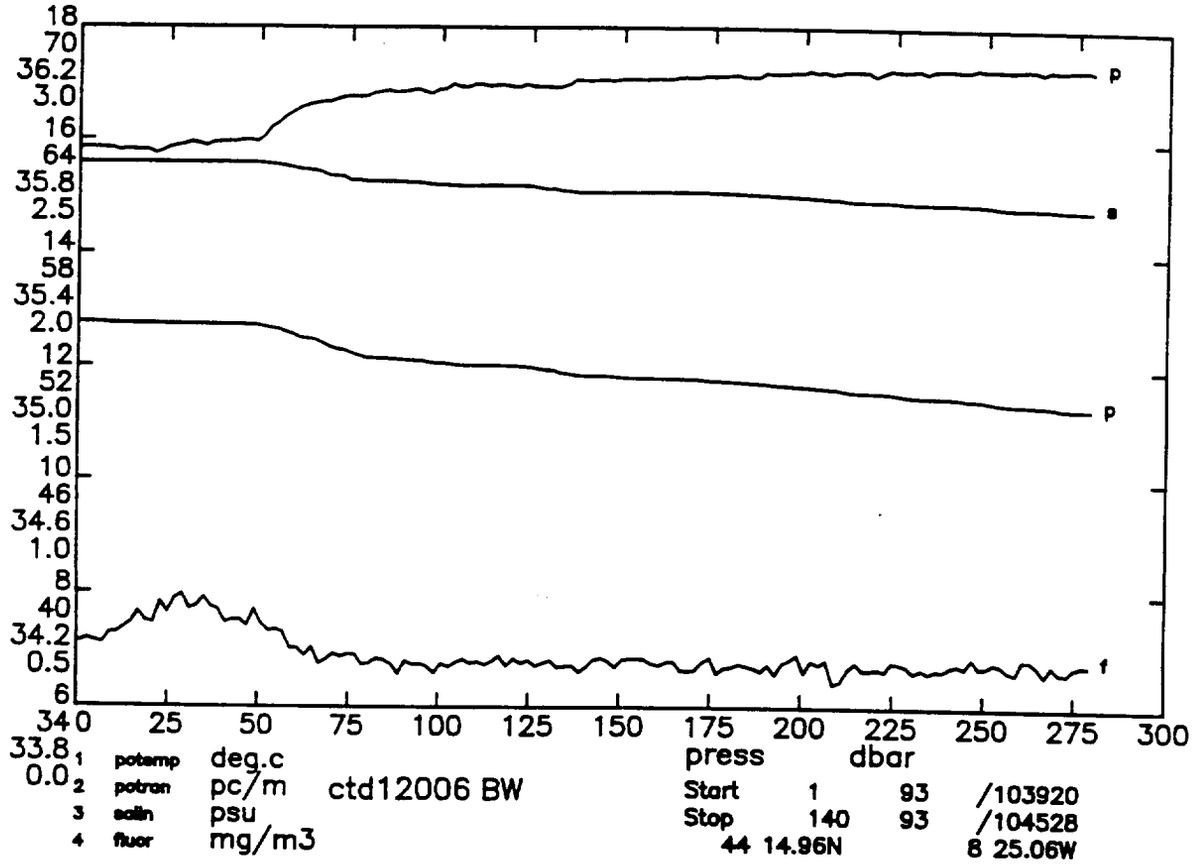
34.6
4.0
4
60
34.2
3.0
2
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12005 BX
press dbar
Start 1 93 /072500
Stop 2248 93 /082929
44 22.08N
8 24.56W

DISCOVERY CRUISE 189 STATION 12005

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.019	35.728	5.86	13.018	64.51	0.35	26.954	35.633	43.934	0.011	1501.3	10.	109.47	-9.999
20.	13.023	35.728	5.87	13.020	64.45	0.38	26.953	35.632	43.933	0.022	1501.5	20.	109.83	-0.467
30.	13.023	35.727	5.81	13.019	64.52	0.31	26.953	35.632	43.933	0.033	1501.6	30.	110.16	-0.312
40.	12.946	35.728	5.83	12.940	64.47	0.29	26.969	35.651	43.955	0.044	1501.5	40.	108.89	2.291
50.	12.780	35.730	5.79	12.773	66.23	0.21	27.004	35.693	44.003	0.055	1501.2	50.	105.83	3.344
60.	12.757	35.727	5.75	12.749	66.64	0.19	27.007	35.697	44.007	0.065	1501.2	60.	105.88	0.892
70.	12.634	35.711	5.76	12.625	66.92	0.16	27.019	35.714	44.029	0.076	1501.0	69.	105.00	1.978
80.	12.568	35.702	5.75	12.558	67.04	0.16	27.025	35.723	44.040	0.086	1500.9	79.	104.71	1.393
90.	12.556	35.699	5.71	12.543	67.03	0.18	27.026	35.724	44.042	0.097	1501.0	89.	104.93	0.496
100.	12.464	35.684	5.70	12.451	67.00	0.20	27.033	35.734	44.056	0.107	1500.9	99.	104.55	1.485
120.	12.349	35.674	5.69	12.333	67.23	0.19	27.048	35.755	44.081	0.128	1500.8	119.	103.65	1.571
140.	12.280	35.669	5.72	12.261	67.11	0.19	27.059	35.768	44.097	0.149	1500.9	139.	103.20	1.302
160.	12.176	35.655	5.70	12.155	67.03	0.23	27.068	35.782	44.115	0.169	1500.8	159.	102.84	1.244
180.	12.023	35.638	5.66	12.000	67.26	0.23	27.085	35.805	44.144	0.190	1500.6	178.	101.75	1.660
200.	11.996	35.636	5.62	11.970	67.39	0.19	27.089	35.811	44.151	0.210	1500.9	198.	101.88	0.845
220.	11.962	35.634	5.70	11.933	67.67	0.19	27.095	35.817	44.159	0.230	1501.1	218.	101.90	0.938
240.	11.930	35.630	5.72	11.899	67.80	0.20	27.098	35.822	44.165	0.251	1501.3	238.	102.13	0.735
260.	11.822	35.615	5.67	11.788	67.81	0.20	27.107	35.836	44.183	0.271	1501.2	258.	101.74	1.253
280.	11.693	35.596	5.51	11.657	67.87	0.15	27.118	35.852	44.204	0.291	1501.1	278.	101.27	1.307
300.	11.524	35.576	5.38	11.485	67.98	0.14	27.135	35.876	44.235	0.312	1500.8	297.	100.06	1.706
350.	11.274	35.549	5.27	11.230	68.25	0.13	27.161	35.913	44.282	0.361	1500.8	347.	98.78	1.320
400.	11.015	35.528	5.16	10.965	68.10	0.17	27.193	35.956	44.335	0.410	1500.7	396.	96.83	1.475
450.	10.925	35.523	5.10	10.869	68.24	0.18	27.207	35.974	44.357	0.458	1501.2	446.	96.73	0.961
500.	10.793	35.534	5.00	10.731	68.31	0.15	27.241	36.013	44.401	0.506	1501.5	495.	94.68	1.491
550.	10.742	35.578	4.84	10.673	68.23	0.17	27.285	36.059	44.449	0.553	1502.2	545.	91.68	1.688
600.	10.668	35.596	4.73	10.594	68.26	0.15	27.313	36.090	44.483	0.598	1502.8	594.	90.22	1.347
650.	10.608	35.634	4.64	10.527	68.36	0.19	27.355	36.135	44.529	0.643	1503.5	644.	87.45	1.643
700.	10.599	35.676	4.54	10.512	68.42	0.13	27.390	36.170	44.564	0.686	1504.3	693.	85.40	1.486
750.	10.454	35.690	4.47	10.362	68.55	0.15	27.427	36.213	44.613	0.728	1504.7	743.	82.89	1.585
800.	10.667	35.805	4.38	10.566	68.48	0.16	27.481	36.257	44.648	0.769	1506.4	792.	79.45	1.774
850.	10.727	35.836	4.34	10.619	68.51	0.18	27.496	36.269	44.658	0.808	1507.5	841.	79.40	0.935
900.	10.414	35.806	4.41	10.302	68.73	0.13	27.529	36.315	44.717	0.848	1507.2	891.	76.99	1.567
950.	10.412	35.837	4.39	10.294	68.81	0.16	27.555	36.341	44.742	0.886	1508.0	940.	75.81	1.272
1000.	10.326	35.865	4.37	10.202	68.86	0.17	27.593	36.383	44.787	0.923	1508.6	990.	73.28	1.589
1200.	9.972	35.923	4.47	9.825	68.70	0.17	27.703	36.508	44.926	1.062	1510.7	1187.	66.96	1.368
1400.	8.140	35.634	4.79	7.985	68.73	0.17	27.775	36.664	45.161	1.189	1506.9	1384.	59.40	1.416
1600.	5.313	35.159	5.49	5.168	68.98	0.15	27.782	36.811	45.440	1.300	1498.7	1581.	52.15	1.335
1800.	4.286	35.023	5.91	4.133	68.86	0.18	27.790	36.874	45.553	1.402	1497.6	1778.	49.45	0.931
2000.	3.987	35.024	5.87	3.819	68.85	0.16	27.824	36.924	45.619	1.498	1499.7	1974.	46.94	0.884
2200.	3.653	35.007	5.80	3.471	68.79	0.12	27.846	36.964	45.676	1.591	1501.7	2171.	45.10	0.802
2400.	3.365	34.987	5.80	3.168	68.79	0.14	27.859	36.993	45.720	1.680	1503.8	2367.	43.96	0.708
2600.	3.126	34.969	5.79	2.914	68.78	0.13	27.868	37.016	45.756	1.767	1506.2	2563.	43.21	0.645
2800.	2.995	34.958	5.75	2.765	68.81	0.13	27.873	37.029	45.777	1.853	1509.0	2759.	43.36	0.496
3000.	2.862	34.948	5.72	2.614	68.85	0.09	27.878	37.043	45.798	1.940	1511.8	2955.	43.31	0.522
3100.	2.823	34.943	5.73	2.565	68.84	0.16	27.879	37.046	45.804	1.984	1513.3	3053.	43.66	0.369
3200.	2.781	34.940	5.71	2.514	68.80	0.12	27.881	37.051	45.812	2.027	1514.9	3150.	43.77	0.466
3300.	2.706	34.933	5.68	2.430	68.89	0.12	27.883	37.057	45.822	2.071	1516.2	3248.	43.66	0.538
3400.	2.635	34.926	5.65	2.350	68.88	0.11	27.884	37.063	45.832	2.115	1517.6	3346.	43.59	0.519
3500.	2.602	34.923	5.62	2.307	68.93	0.12	27.885	37.067	45.838	2.158	1519.2	3443.	43.82	0.400
3600.	2.576	34.920	5.65	2.271	68.91	0.11	27.885	37.069	45.842	2.202	1520.8	3541.	44.19	0.337
3700.	2.554	34.916	5.64	2.239	69.00	0.09	27.885	37.070	45.845	2.247	1522.4	3638.	44.59	0.317
3800.	2.539	34.914	5.63	2.212	69.02	0.08	27.885	37.072	45.848	2.291	1524.1	3736.	45.01	0.299
3900.	2.522	34.912	5.61	2.185	69.02	0.08	27.886	37.074	45.852	2.337	1525.7	3833.	45.37	0.336
4000.	2.511	34.909	5.62	2.162	69.00	0.10	27.886	37.075	45.854	2.382	1527.4	3931.	45.86	0.259
4100.	2.499	34.907	5.62	2.139	69.03	0.06	27.886	37.076	45.857	2.428	1529.1	4028.	46.31	0.283
4200.	2.490	34.904	5.60	2.119	68.98	0.07	27.885	37.077	45.858	2.475	1530.7	4125.	46.84	0.224
4300.	2.479	34.901	5.59	2.096	68.96	0.05	27.885	37.078	45.861	2.522	1532.4	4223.	47.27	0.294
4400.	2.481	34.899	5.60	2.086	68.82	0.09	27.884	37.078	45.861	2.570	1534.2	4320.	47.90	0.120

Sample data

4494.	2.478	34.898	5.60	2.071
3999.	2.511	34.908	5.60	2.162
3506.	2.600	34.922	5.65	2.304
2959.	2.882	34.949	5.73	2.638
2449.	3.294	34.984	5.79	3.094
1803.	4.283	35.022	5.92	4.130
1233.	9.823	35.909	4.44	9.672
881.	10.641	35.858	4.32	10.530
372.	11.105	35.542	5.31	11.058
227.	11.954	35.624	5.69	11.925
27.	13.022	35.725	6.01	13.018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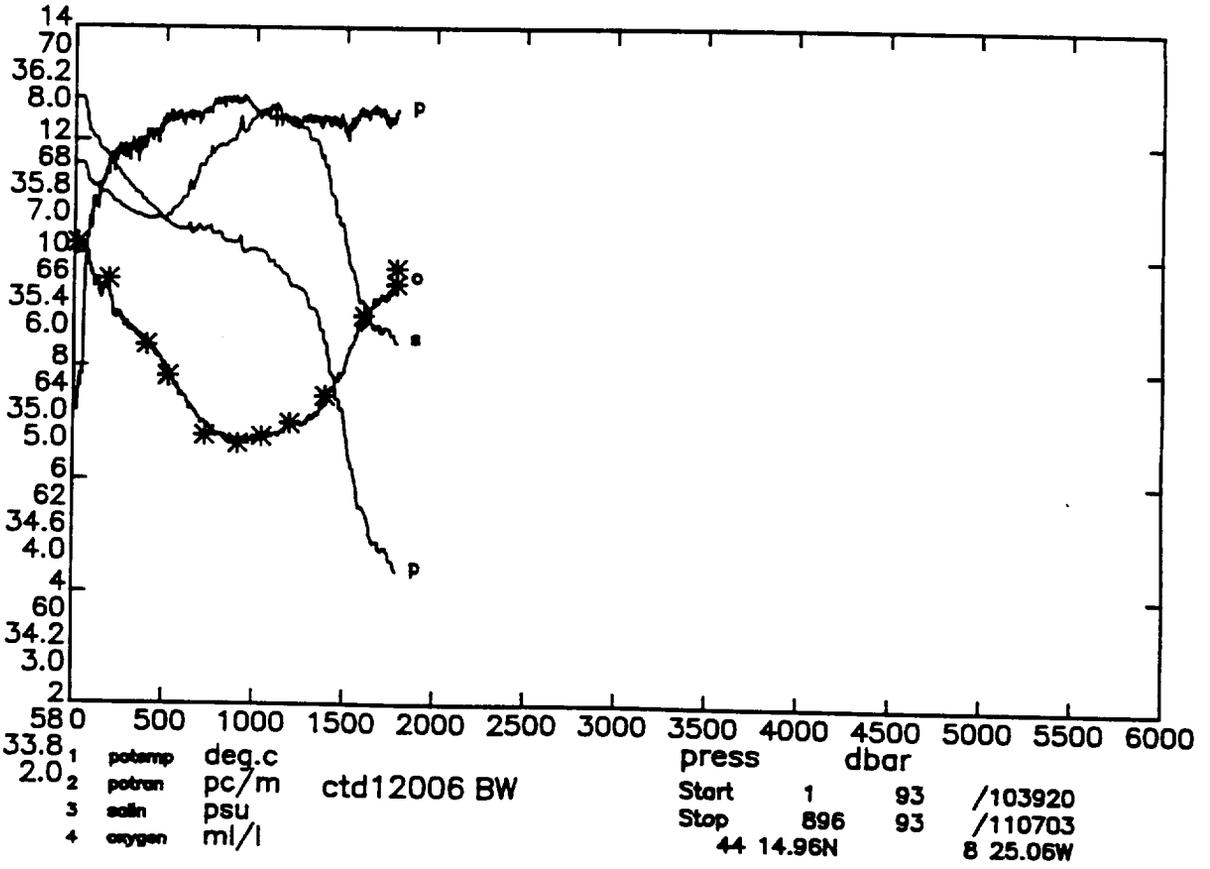
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potrat pc/m
3 salin psu
4 fluor mg/m3
ctd12006 BW
Start 1 93 /103920
Stop 140 93 /104528
44 14.96N
8 25.06W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34.6
4.0
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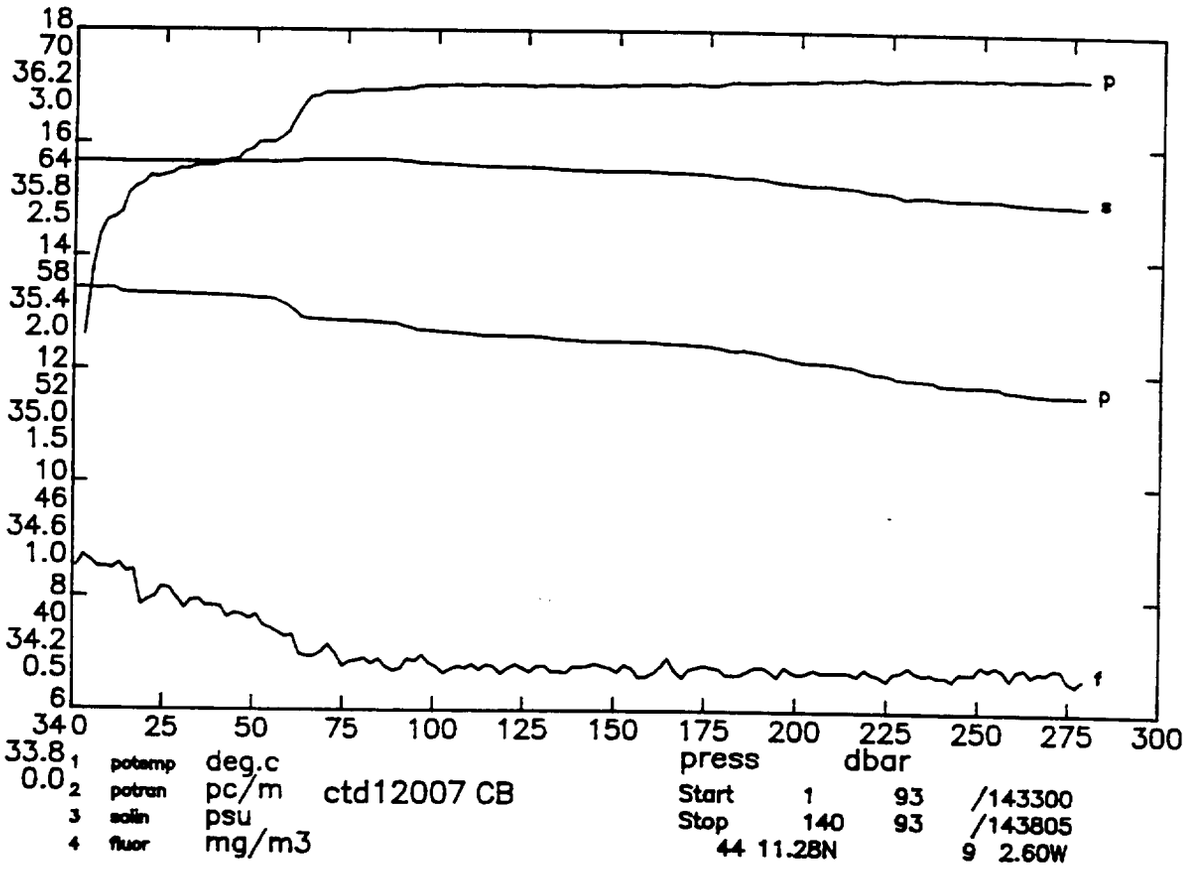
60
34.2
3.0
2
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potrat pc/m
3 salin psu
4 oxygen ml/l
ctd12006 BW
Start 1 93 /103920
Stop 896 93 /110703
44 14.96N
8 25.06W

DISCOVERY CRUISE 189 STATION 12006

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.752	35.717	6.03	12.751	63.44	0.32	26.999	35.688	43.999	0.011	1500.4	10.	105.19	-9.999
20.	12.754	35.717	6.05	12.751	63.31	0.37	26.999	35.689	43.999	0.021	1500.6	20.	105.47	0.232
30.	12.750	35.717	6.09	12.746	63.78	0.46	27.000	35.690	44.000	0.032	1500.7	30.	105.68	0.529
40.	12.750	35.717	6.05	12.744	63.86	0.40	27.000	35.690	44.001	0.042	1500.9	40.	105.96	0.242
50.	12.737	35.715	6.08	12.730	64.00	0.40	27.002	35.692	44.004	0.053	1501.0	50.	106.08	0.744
60.	12.573	35.698	6.08	12.565	65.58	0.26	27.021	35.718	44.036	0.063	1500.6	60.	104.49	2.508
70.	12.367	35.673	6.06	12.358	66.09	0.22	27.042	35.748	44.073	0.074	1500.0	69.	102.77	2.587
80.	12.181	35.653	6.00	12.170	66.40	0.19	27.063	35.776	44.109	0.084	1499.5	79.	101.03	2.600
90.	12.147	35.650	5.88	12.135	66.58	0.18	27.068	35.782	44.116	0.094	1499.6	89.	100.87	1.205
100.	12.092	35.641	5.83	12.078	66.70	0.17	27.072	35.789	44.125	0.104	1499.6	99.	100.79	1.108
120.	12.040	35.640	5.74	12.024	66.82	0.20	27.082	35.801	44.139	0.124	1499.7	119.	100.39	1.267
140.	11.874	35.615	5.66	11.856	67.16	0.17	27.094	35.820	44.165	0.144	1499.4	139.	99.71	1.432
160.	11.830	35.616	5.66	11.809	67.27	0.19	27.104	35.832	44.178	0.164	1499.6	159.	99.30	1.269
180.	11.773	35.612	5.72	11.749	67.49	0.18	27.113	35.843	44.191	0.184	1499.8	178.	99.06	1.149
200.	11.682	35.600	5.63	11.656	67.69	0.19	27.121	35.855	44.208	0.204	1499.8	198.	98.74	1.203
220.	11.583	35.584	5.46	11.554	67.55	0.17	27.128	35.866	44.222	0.223	1499.7	218.	98.62	1.048
240.	11.516	35.579	5.43	11.485	67.83	0.18	27.137	35.878	44.237	0.243	1499.8	238.	98.27	1.221
260.	11.409	35.566	5.44	11.375	67.88	0.19	27.148	35.893	44.257	0.263	1499.8	258.	97.73	1.337
280.	11.333	35.557	5.37	11.298	67.75	0.16	27.155	35.904	44.270	0.282	1499.8	278.	97.52	1.109
300.	11.268	35.550	5.34	11.230	67.85	0.21	27.161	35.913	44.282	0.302	1499.9	297.	97.40	1.045
350.	11.117	35.537	5.28	11.073	67.76	0.18	27.180	35.939	44.314	0.350	1500.2	347.	96.80	1.129
400.	10.936	35.523	5.23	10.886	68.07	0.16	27.204	35.970	44.353	0.398	1500.4	396.	95.71	1.260
450.	10.821	35.527	5.10	10.765	68.15	0.17	27.229	36.000	44.387	0.446	1500.8	446.	94.56	1.274
500.	10.644	35.524	5.03	10.582	68.42	0.19	27.259	36.038	44.432	0.493	1501.0	495.	92.75	1.432
550.	10.542	35.559	4.86	10.474	68.42	0.18	27.306	36.088	44.486	0.538	1501.5	545.	89.53	1.729
600.	10.506	35.597	4.75	10.432	68.33	0.18	27.343	36.127	44.525	0.583	1502.3	594.	87.25	1.534
650.	10.442	35.627	4.63	10.362	68.41	0.16	27.378	36.165	44.566	0.626	1502.9	644.	85.03	1.521
700.	10.532	35.715	4.51	10.446	68.39	0.16	27.432	36.214	44.611	0.668	1504.2	693.	81.35	1.816
750.	10.563	35.760	4.47	10.470	68.54	0.18	27.463	36.243	44.638	0.708	1505.1	743.	79.75	1.382
800.	10.471	35.781	4.41	10.372	68.72	0.17	27.497	36.281	44.680	0.747	1505.7	792.	77.64	1.500
850.	10.332	35.793	4.36	10.227	68.70	0.19	27.532	36.322	44.726	0.785	1506.0	841.	75.34	1.539
900.	10.317	35.830	4.35	10.206	68.70	0.16	27.564	36.354	44.759	0.822	1506.8	891.	73.52	1.430
950.	10.154	35.836	4.34	10.037	68.75	0.18	27.599	36.396	44.807	0.858	1507.1	940.	71.16	1.548
1000.	10.214	35.886	4.36	10.090	68.53	0.14	27.628	36.423	44.831	0.894	1508.2	990.	69.74	1.331
1100.	10.013	35.886	4.40	9.878	68.61	0.16	27.666	36.469	44.885	0.963	1509.1	1088.	68.21	1.150
1200.	9.606	35.859	4.50	9.461	68.38	0.14	27.715	36.536	44.970	1.029	1509.3	1187.	64.94	1.373
1300.	9.219	35.810	4.54	9.065	68.37	0.15	27.742	36.581	45.032	1.094	1509.5	1286.	63.55	1.108
1400.	8.521	35.704	4.69	8.362	68.43	0.14	27.771	36.642	45.123	1.157	1508.4	1384.	60.91	1.268
1500.	7.055	35.450	4.99	6.900	68.15	0.17	27.787	36.729	45.275	1.216	1504.2	1483.	56.48	1.461
1600.	5.657	35.232	5.35	5.507	68.46	0.20	27.798	36.809	45.421	1.269	1500.1	1581.	51.98	1.433
1700.	4.893	35.122	5.61	4.743	68.56	0.13	27.802	36.853	45.502	1.320	1498.6	1679.	49.88	1.076

Sample data

1788.	4.524	35.088	5.87	4.369
1607.	5.603	35.224	5.45	5.453
1393.	8.577	35.705	4.74	8.418
1199.	9.615	35.860	4.50	9.471
1042.	10.179	35.893	4.38	10.050
913.	10.409	35.803	4.32	10.295
728.	10.544	35.740	4.39	10.454
523.	10.595	35.530	4.91	10.531
405.	10.926	35.522	5.19	10.876
195.	11.700	35.612	5.77	11.675
20.	12.753	35.718	6.09	12.750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press dbar
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4 fluor mg/m3
ctd12007 CB
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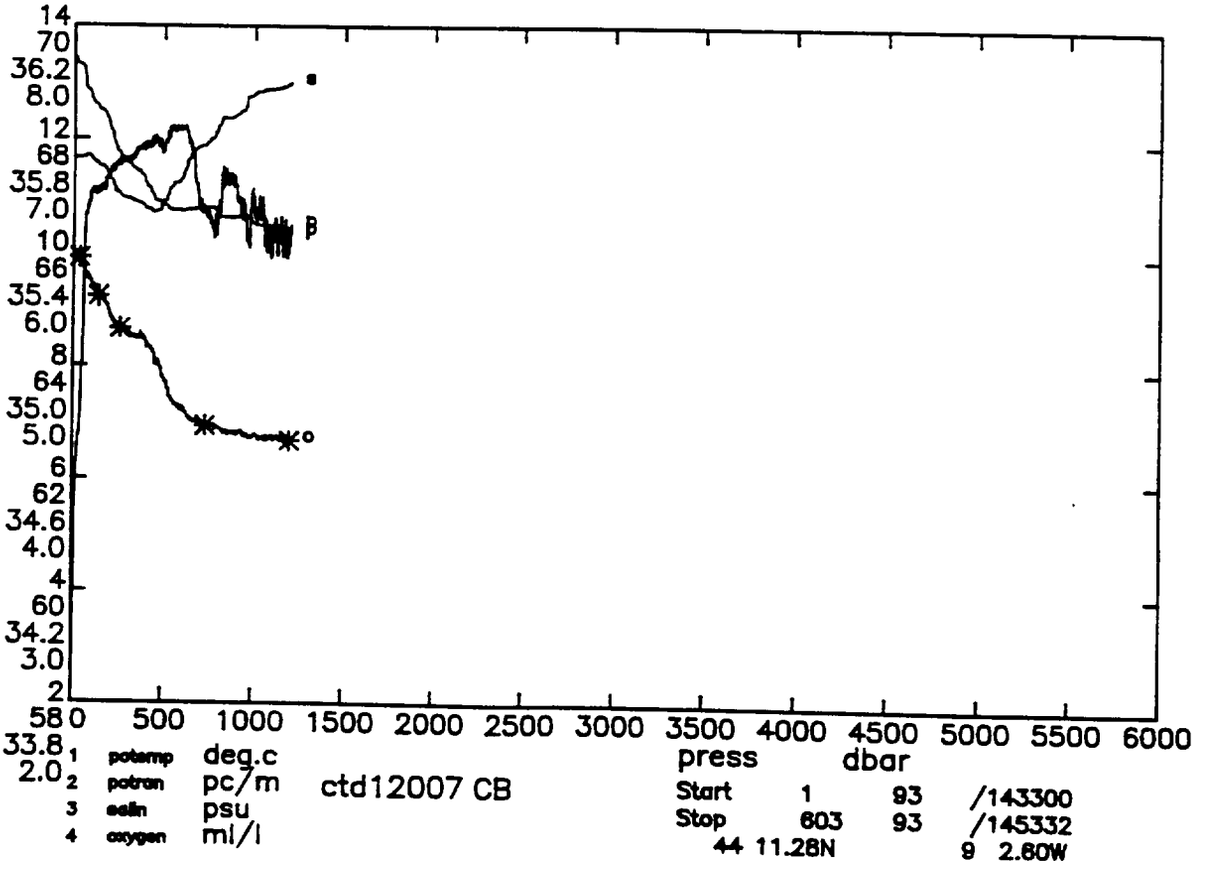
Stop 140 93 /143805
44 11.28N 9 2.60W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0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12007 CB
Start 1 93 /143300
Stop 603 93 /145332
44 11.28N 9 2.60W

DISCOVERY CRUISE 189 STATION 12007

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	13.424	35.732	5.97	13.423	59.94	0.62	26.874	35.538	43.824	0.012	1502.6	10.	117.02	-9.999
20.	13.337	35.731	5.95	13.334	62.03	0.47	26.891	35.559	43.848	0.023	1502.5	20.	115.69	2.334
30.	13.327	35.731	5.92	13.323	62.58	0.47	26.894	35.561	43.851	0.035	1502.6	30.	115.77	0.858
40.	13.312	35.732	5.93	13.306	62.87	0.46	26.898	35.566	43.857	0.046	1502.8	40.	115.68	1.153
50.	13.275	35.733	5.93	13.268	63.85	0.41	26.907	35.576	43.868	0.058	1502.8	50.	115.15	1.661
60.	13.102	35.735	5.87	13.094	64.95	0.33	26.943	35.620	43.918	0.069	1502.4	60.	111.95	3.415
70.	12.897	35.742	5.78	12.887	66.67	0.27	26.991	35.675	43.980	0.080	1501.9	69.	107.75	3.873
80.	12.876	35.741	5.77	12.865	66.80	0.23	26.995	35.680	43.986	0.091	1502.0	79.	107.66	1.145
90.	12.821	35.737	5.76	12.808	66.87	0.18	27.003	35.690	43.998	0.102	1502.0	89.	107.19	1.590
100.	12.705	35.726	5.74	12.691	67.03	0.20	27.018	35.710	44.022	0.112	1501.7	99.	106.02	2.211
120.	12.625	35.716	5.69	12.609	67.08	0.18	27.026	35.721	44.037	0.134	1501.8	119.	105.79	1.167
140.	12.547	35.705	5.65	12.528	67.09	0.19	27.034	35.732	44.051	0.155	1501.8	139.	105.64	1.101
160.	12.520	35.701	5.61	12.499	67.16	0.16	27.037	35.736	44.056	0.176	1502.1	159.	105.93	0.687
180.	12.401	35.685	5.56	12.377	67.25	0.17	27.048	35.753	44.077	0.197	1502.0	178.	105.36	1.383
200.	12.199	35.659	5.49	12.173	67.38	0.17	27.068	35.781	44.113	0.218	1501.6	198.	104.00	1.795
220.	12.011	35.635	5.41	11.982	67.47	0.18	27.086	35.807	44.146	0.239	1501.3	218.	102.78	1.726
240.	11.816	35.612	5.36	11.784	67.57	0.16	27.106	35.835	44.182	0.259	1500.9	238.	101.33	1.825
260.	11.718	35.601	5.35	11.684	67.62	0.17	27.117	35.850	44.201	0.279	1500.9	258.	100.81	1.340
280.	11.646	35.594	5.31	11.610	67.63	0.16	27.125	35.861	44.215	0.300	1500.9	278.	100.50	1.188
300.	11.627	35.591	5.29	11.588	67.64	0.18	27.127	35.864	44.219	0.320	1501.2	297.	100.88	0.515
350.	11.496	35.577	5.24	11.451	67.77	0.18	27.142	35.884	44.244	0.370	1501.6	347.	100.75	0.994
400.	11.282	35.555	5.22	11.231	67.84	0.15	27.165	35.917	44.286	0.420	1501.6	396.	99.67	1.268
450.	10.980	35.541	5.11	10.923	68.01	0.17	27.211	35.976	44.356	0.470	1501.4	446.	96.37	1.753
500.	10.903	35.581	4.90	10.840	67.80	0.17	27.257	36.024	44.408	0.517	1502.0	495.	93.25	1.715
550.	10.816	35.635	4.68	10.748	68.21	0.18	27.316	36.086	44.473	0.563	1502.6	545.	88.88	1.945
600.	10.809	35.661	4.62	10.734	68.16	0.12	27.339	36.109	44.496	0.607	1503.4	594.	87.99	1.202
650.	10.831	35.744	4.54	10.749	67.86	0.14	27.401	36.170	44.554	0.650	1504.4	644.	83.47	1.969
700.	10.864	35.772	4.49	10.776	66.80	0.15	27.418	36.185	44.568	0.691	1505.4	693.	83.18	1.024
750.	10.870	35.790	4.48	10.775	66.63	0.15	27.432	36.199	44.582	0.733	1506.3	743.	83.11	0.950
800.	10.726	35.846	4.47	10.626	66.77	0.16	27.502	36.275	44.663	0.774	1506.7	792.	77.59	2.135
850.	10.724	35.873	4.42	10.617	67.29	0.17	27.525	36.298	44.686	0.812	1507.5	841.	76.70	1.203
900.	10.728	35.884	4.42	10.614	67.18	0.18	27.534	36.307	44.695	0.851	1508.4	891.	77.08	0.766
950.	10.749	35.911	4.38	10.628	66.54	0.17	27.553	36.324	44.711	0.889	1509.3	940.	76.68	1.058
1000.	10.634	35.958	4.38	10.507	66.78	0.17	27.611	36.387	44.778	0.926	1509.8	990.	72.26	1.954
1100.	10.597	35.976	4.39	10.458	66.46	0.14	27.634	36.412	44.805	0.998	1511.3	1088.	72.47	0.876
1200.	10.488	35.999	4.32	10.336	66.17	0.15	27.673	36.456	44.853	1.071	1512.6	1187.	71.02	1.151

Sample data

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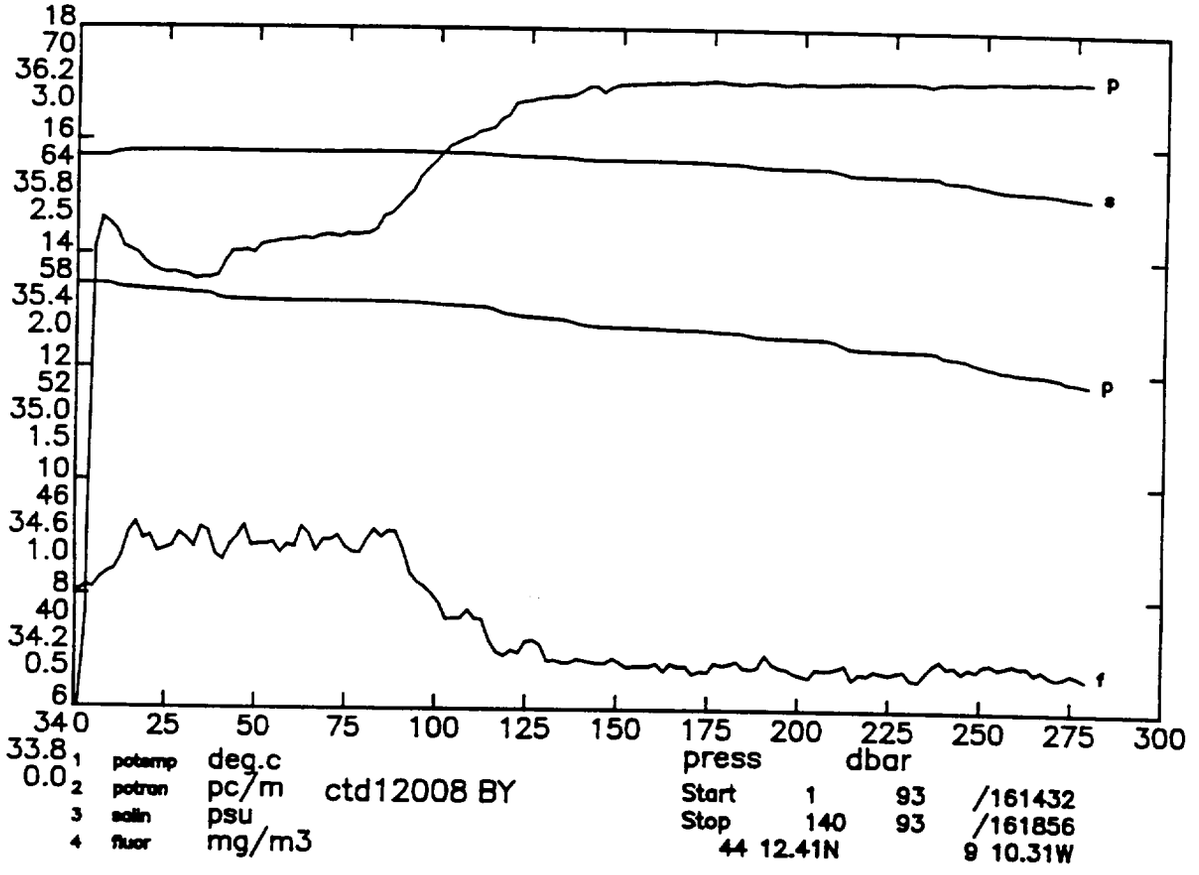
141.	12.542	35.707	5.61	12.523
36.	13.320	35.732	5.95	13.315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Stop 140 93 /161856
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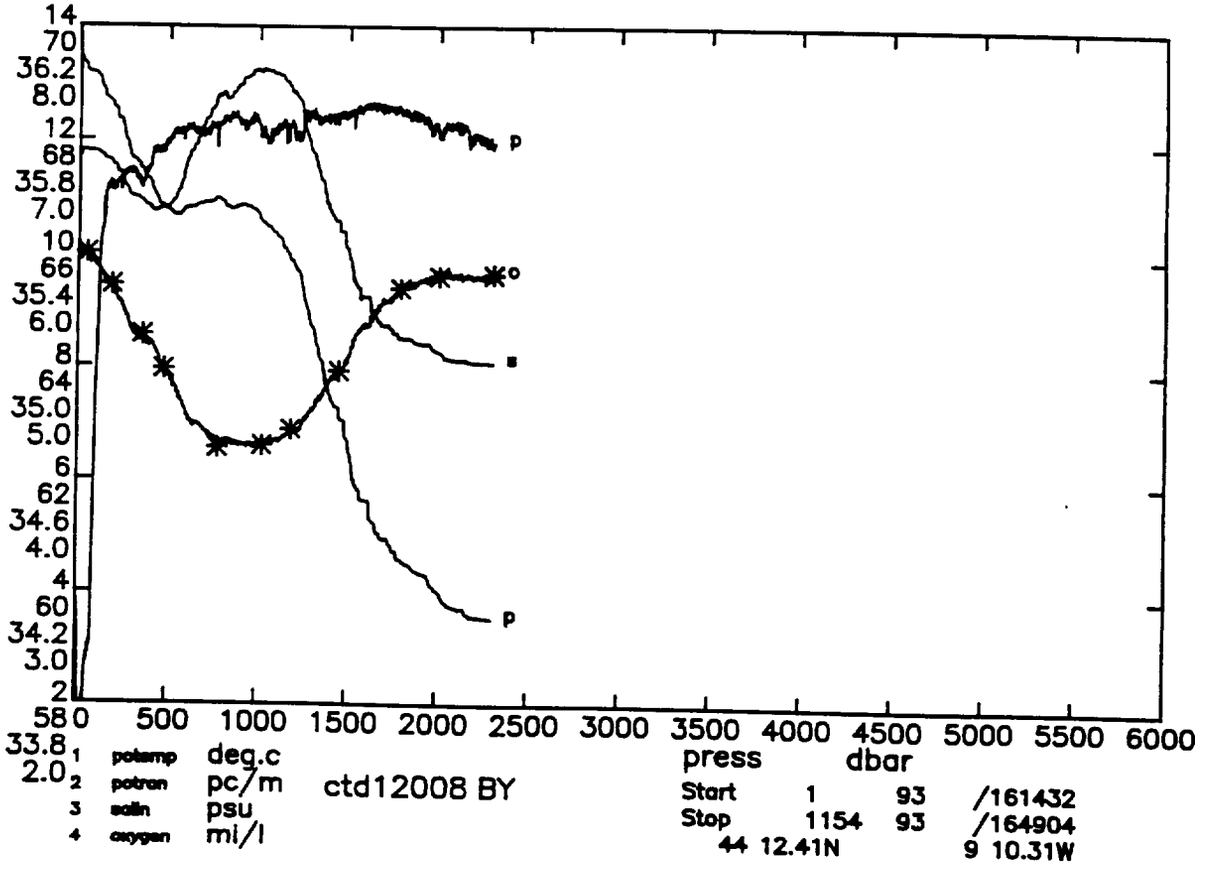
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Start 1 93 /161432
Stop 1154 93 /164904
44 12.41N
9 10.31W

DISCOVERY CRUISE 189 STATION 12008

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	13.431	35.747	5.94	13.429	59.41	0.60	26.884	35.548	43.834	0.012	1502.7	10.	116.07	-9.999
20.	13.362	35.760	5.94	13.359	57.37	0.75	26.909	35.575	43.863	0.023	1502.6	20.	114.05	2.787
30.	13.326	35.762	6.00	13.322	56.87	0.76	26.918	35.585	43.875	0.035	1502.7	30.	113.47	1.714
40.	13.234	35.763	6.03	13.228	57.21	0.67	26.937	35.608	43.901	0.046	1502.5	40.	111.92	2.483
50.	13.204	35.761	6.01	13.197	58.29	0.72	26.942	35.614	43.908	0.057	1502.6	50.	111.75	1.257
60.	13.194	35.760	6.00	13.185	58.79	0.72	26.944	35.617	43.911	0.068	1502.7	60.	111.86	0.795
70.	13.189	35.760	5.91	13.179	59.02	0.74	26.946	35.618	43.913	0.079	1502.9	69.	112.05	0.611
80.	13.185	35.760	5.97	13.174	59.11	0.71	26.947	35.620	43.914	0.091	1503.0	79.	112.24	0.614
90.	13.177	35.760	5.93	13.165	60.76	0.74	26.948	35.621	43.917	0.102	1503.2	89.	112.41	0.666
100.	13.138	35.757	5.91	13.124	63.12	0.49	26.954	35.629	43.926	0.113	1503.2	99.	112.10	1.423
120.	12.973	35.748	5.85	12.956	65.70	0.25	26.981	35.663	43.965	0.135	1503.0	119.	110.13	2.068
140.	12.802	35.736	5.80	12.783	66.83	0.22	27.007	35.695	44.004	0.157	1502.7	139.	108.26	2.029
160.	12.740	35.732	5.76	12.718	67.16	0.20	27.017	35.707	44.019	0.179	1502.8	159.	107.89	1.262
180.	12.678	35.724	5.74	12.654	67.18	0.20	27.023	35.717	44.031	0.200	1503.0	178.	107.81	1.047
200.	12.576	35.709	5.66	12.549	67.19	0.16	27.033	35.731	44.049	0.222	1502.9	198.	107.44	1.262
220.	12.395	35.685	5.59	12.366	67.26	0.17	27.050	35.755	44.080	0.243	1502.6	218.	106.33	1.678
240.	12.297	35.669	5.56	12.265	67.33	0.21	27.058	35.767	44.096	0.265	1502.6	238.	106.11	1.141
260.	12.031	35.635	5.49	11.997	67.40	0.21	27.083	35.803	44.142	0.286	1502.0	258.	104.16	2.048
280.	11.812	35.612	5.42	11.775	67.44	0.15	27.108	35.837	44.185	0.306	1501.5	278.	102.25	2.027
300.	11.707	35.602	5.33	11.668	67.41	0.17	27.120	35.854	44.205	0.327	1501.5	297.	101.57	1.435
350.	11.529	35.587	5.24	11.484	67.17	0.16	27.143	35.884	44.243	0.377	1501.7	347.	100.61	1.242
400.	11.294	35.561	5.21	11.243	67.59	0.19	27.168	35.919	44.287	0.427	1501.7	396.	99.43	1.293
450.	10.931	35.557	5.08	10.875	67.77	0.19	27.232	35.998	44.381	0.476	1501.2	446.	94.35	2.065
500.	10.835	35.566	4.93	10.773	67.96	0.19	27.257	36.028	44.414	0.523	1501.7	495.	93.13	1.292
550.	10.748	35.615	4.79	10.680	68.15	0.19	27.313	36.086	44.475	0.568	1502.3	545.	89.09	1.885
600.	10.867	35.723	4.59	10.792	68.25	0.14	27.377	36.144	44.527	0.612	1503.7	594.	84.52	1.978
650.	10.892	35.782	4.50	10.810	68.18	0.14	27.419	36.185	44.567	0.653	1504.7	644.	81.82	1.633
700.	10.980	35.871	4.43	10.891	68.10	0.16	27.474	36.235	44.613	0.693	1505.9	693.	78.11	1.830
750.	11.017	35.917	4.37	10.921	68.22	0.14	27.504	36.264	44.640	0.732	1506.9	743.	76.59	1.374
800.	11.024	35.967	4.32	10.922	68.29	0.11	27.544	36.302	44.677	0.769	1507.8	792.	74.23	1.567
850.	10.892	35.963	4.32	10.783	68.42	0.11	27.565	36.329	44.710	0.807	1508.2	841.	73.27	1.229
900.	10.952	35.993	4.31	10.836	68.30	0.14	27.579	36.341	44.719	0.843	1509.3	891.	73.36	0.895
950.	10.947	36.026	4.31	10.825	68.30	0.11	27.607	36.368	44.746	0.879	1510.1	940.	72.04	1.325
1000.	10.829	36.044	4.31	10.701	68.27	0.13	27.643	36.410	44.792	0.915	1510.6	990.	69.66	1.568
1100.	10.488	36.032	4.34	10.350	68.14	0.12	27.697	36.478	44.875	0.982	1511.0	1088.	66.38	1.397
1200.	9.980	35.967	4.41	9.832	68.07	0.13	27.737	36.540	44.958	1.047	1510.8	1187.	63.87	1.289
1300.	8.873	35.757	4.62	8.723	68.46	0.15	27.756	36.611	45.076	1.110	1508.1	1286.	61.29	1.277
1400.	7.659	35.553	4.87	7.509	68.41	0.16	27.781	36.693	45.212	1.169	1505.0	1384.	57.27	1.425
1500.	6.839	35.415	5.05	6.687	68.44	0.18	27.790	36.742	45.298	1.226	1503.4	1483.	55.53	1.089
1600.	5.783	35.247	5.35	5.631	68.60	0.14	27.795	36.800	45.406	1.279	1500.6	1581.	52.73	1.215
1700.	5.103	35.144	5.57	4.950	68.56	0.18	27.796	36.836	45.475	1.331	1499.5	1679.	51.29	0.972
1800.	4.739	35.100	5.68	4.580	68.53	0.12	27.803	36.862	45.520	1.382	1499.6	1778.	50.28	0.873
1900.	4.518	35.082	5.76	4.352	68.46	0.15	27.814	36.885	45.553	1.432	1500.3	1876.	49.41	0.830
2000.	4.212	35.055	5.81	4.041	68.06	0.14	27.826	36.913	45.597	1.481	1500.7	1974.	47.92	0.939
2100.	3.921	35.025	5.80	3.745	68.23	0.14	27.832	36.936	45.634	1.528	1501.1	2073.	46.83	0.849
2200.	3.765	35.016	5.78	3.581	68.10	0.17	27.842	36.954	45.660	1.575	1502.2	2171.	46.08	0.767
2300.	3.734	35.012	5.82	3.541	67.91	0.15	27.843	36.957	45.666	1.621	1503.7	2269.	46.70	0.340

Sample data

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1453.	7.419	35.520	4.96	7.265
1189.	10.015	35.961	4.44	9.869
1027.	10.682	36.041	4.30	10.551
780.	11.069	35.963	4.28	10.969
481.	10.859	35.562	4.98	10.799
362.	11.480	35.584	5.28	11.433
191.	12.591	35.705	5.72	12.565
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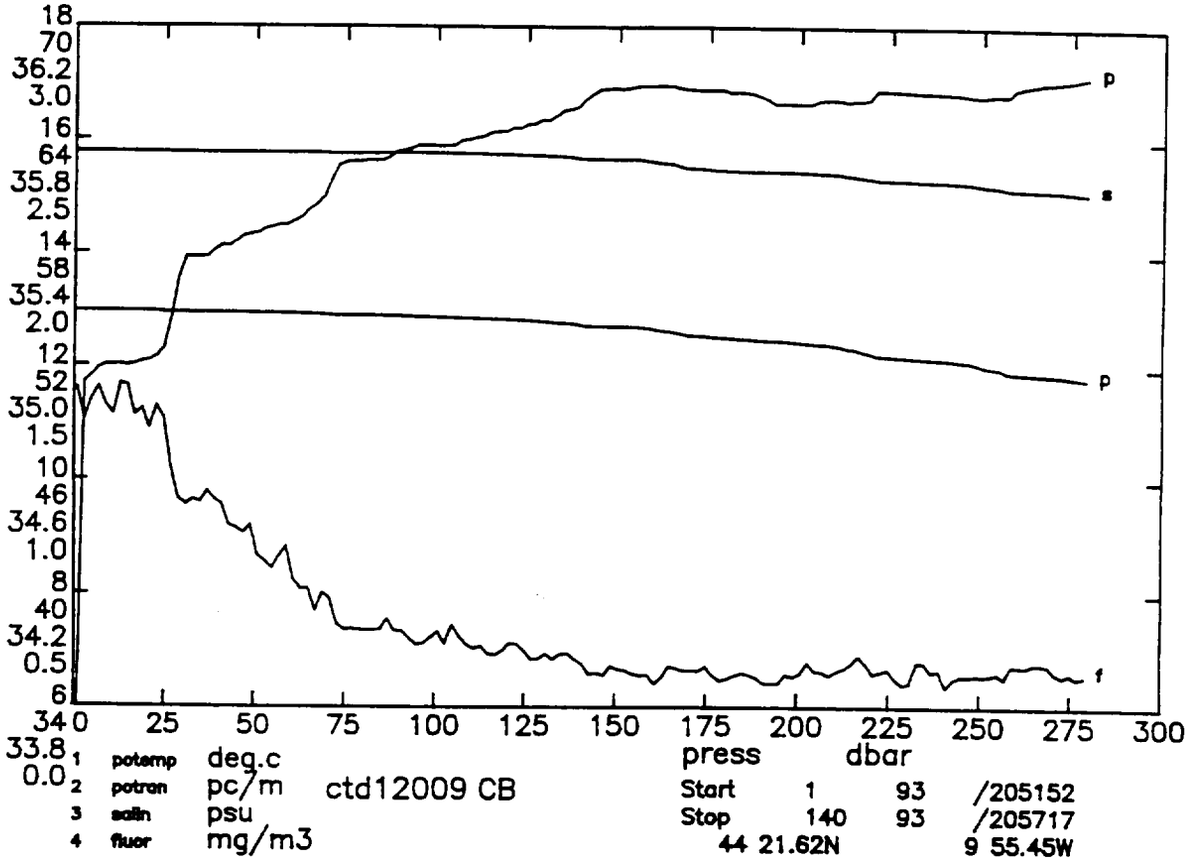
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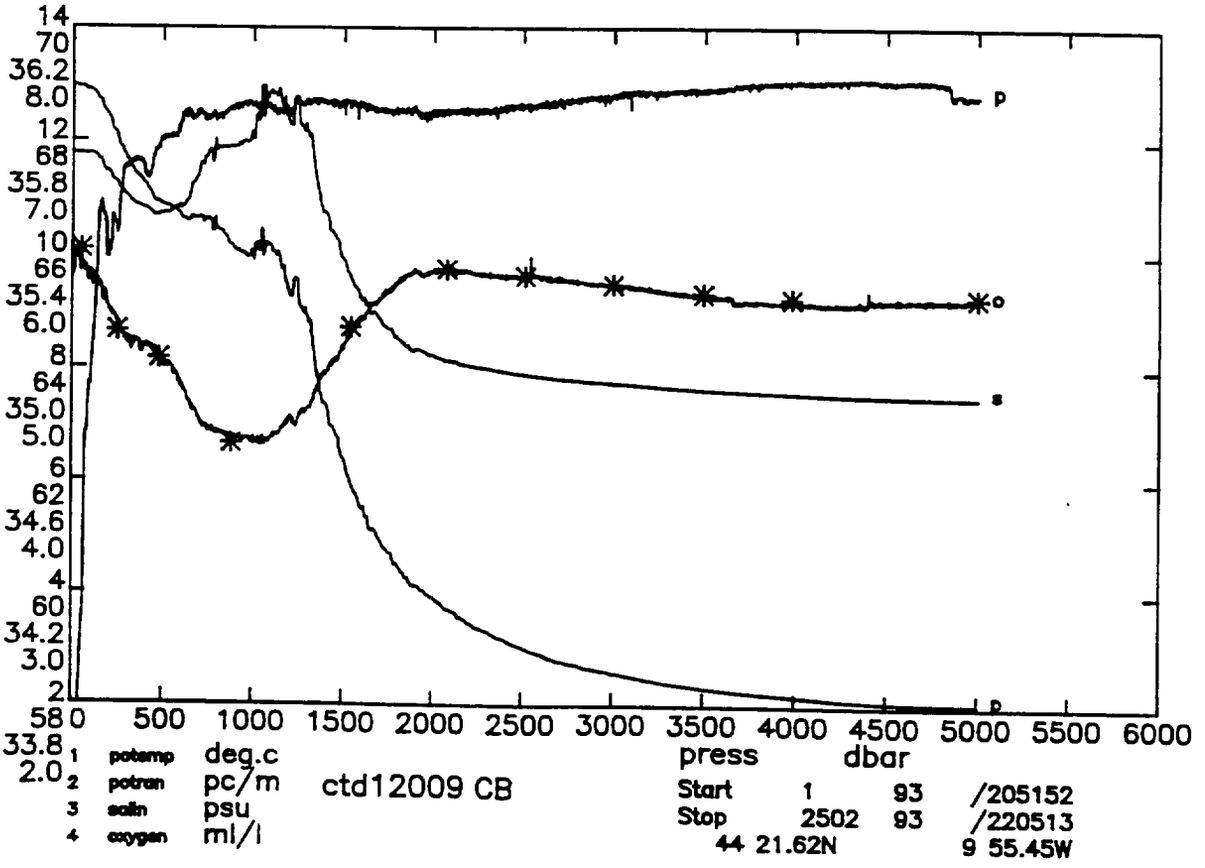
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12009 CB
press dbar
Start 1 93 /205152
Stop 140 93 /205717
44 21.62N 9 55.45W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1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12009 CB
press dbar
Start 1 93 /205152
Stop 2502 93 /220513
44 21.62N 9 55.45W

DISCOVERY CRUISE 189 STATION 12009

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.967	35.755	5.84	12.966	52.03	1.30	26.985	35.666	43.968	0.011	1501.1	10.	106.51	-9.999
20.	12.970	35.754	5.98	12.967	52.27	1.27	26.984	35.665	43.967	0.021	1501.3	20.	106.90	-0.534
30.	12.950	35.753	5.98	12.946	57.25	0.90	26.987	35.669	43.972	0.032	1501.4	30.	106.88	1.031
40.	12.951	35.753	5.92	12.946	58.29	0.90	26.987	35.669	43.972	0.043	1501.6	40.	107.17	0.161
50.	12.952	35.753	5.90	12.945	59.06	0.73	26.988	35.670	43.973	0.053	1501.8	50.	107.41	0.405
60.	12.949	35.753	5.90	12.941	59.63	0.63	26.989	35.671	43.974	0.064	1501.9	60.	107.63	0.515
70.	12.923	35.751	5.87	12.914	61.42	0.49	26.992	35.675	43.979	0.075	1502.0	69.	107.61	1.040
80.	12.909	35.750	5.84	12.898	62.87	0.34	26.995	35.679	43.983	0.086	1502.1	79.	107.63	0.958
90.	12.909	35.754	5.77	12.897	63.40	0.34	26.998	35.682	43.986	0.096	1502.3	89.	107.64	0.970
100.	12.896	35.753	5.82	12.882	63.68	0.32	27.000	35.684	43.990	0.107	1502.4	99.	107.73	0.825
120.	12.855	35.748	5.79	12.839	64.54	0.26	27.005	35.691	43.998	0.129	1502.6	119.	107.84	0.897
140.	12.758	35.734	5.76	12.739	65.95	0.20	27.014	35.704	44.015	0.150	1502.6	139.	107.55	1.208
160.	12.683	35.722	5.72	12.662	66.89	0.12	27.020	35.713	44.027	0.172	1502.6	159.	107.51	1.024
180.	12.535	35.692	5.62	12.510	66.60	0.12	27.028	35.727	44.046	0.193	1502.4	178.	107.37	1.093
200.	12.450	35.687	5.54	12.423	65.93	0.14	27.041	35.744	44.066	0.215	1502.5	198.	106.65	1.472
220.	12.252	35.664	5.47	12.223	66.44	0.17	27.062	35.772	44.103	0.236	1502.1	218.	105.17	1.850
240.	12.169	35.654	5.42	12.137	66.53	0.13	27.071	35.785	44.119	0.257	1502.1	238.	104.80	1.247
260.	11.945	35.629	5.38	11.911	66.86	0.18	27.095	35.818	44.161	0.278	1501.7	258.	103.01	1.979
280.	11.829	35.615	5.32	11.792	67.46	0.14	27.106	35.835	44.182	0.298	1501.6	278.	102.39	1.399
300.	11.716	35.601	5.23	11.677	67.55	0.16	27.118	35.851	44.203	0.319	1501.5	297.	101.76	1.400
350.	11.445	35.574	5.23	11.400	67.67	0.18	27.149	35.893	44.256	0.369	1501.4	347.	100.03	1.434
400.	11.279	35.561	5.19	11.228	67.42	0.13	27.171	35.922	44.291	0.419	1501.6	396.	99.16	1.210
450.	11.014	35.536	5.16	10.957	67.71	0.15	27.201	35.964	44.343	0.468	1501.5	446.	97.37	1.436
500.	10.930	35.541	5.06	10.868	68.01	0.12	27.221	35.988	44.371	0.517	1502.0	495.	96.62	1.167
550.	10.871	35.551	5.01	10.802	68.07	0.16	27.241	36.010	44.396	0.565	1502.7	545.	95.98	1.132
600.	10.737	35.562	4.83	10.663	68.35	0.12	27.274	36.049	44.440	0.612	1503.0	594.	93.94	1.485
650.	10.673	35.612	4.69	10.593	68.45	0.13	27.326	36.103	44.496	0.659	1503.7	644.	90.25	1.821
700.	10.713	35.685	4.55	10.626	68.53	0.17	27.377	36.152	44.542	0.703	1504.8	693.	86.80	1.776
750.	10.699	35.753	4.44	10.605	68.38	0.16	27.434	36.209	44.599	0.745	1505.6	743.	82.68	1.898
800.	10.529	35.766	4.44	10.429	68.42	0.15	27.475	36.257	44.653	0.786	1505.9	792.	79.81	1.663
850.	10.408	35.773	4.41	10.302	68.49	0.14	27.503	36.290	44.692	0.825	1506.3	841.	78.18	1.388
900.	10.205	35.780	4.37	10.095	68.62	0.22	27.545	36.340	44.750	0.864	1506.4	891.	75.12	1.694
950.	10.129	35.796	4.37	10.013	68.65	0.16	27.572	36.371	44.783	0.901	1507.0	940.	73.63	1.347
1000.	10.165	35.831	4.34	10.042	68.62	0.11	27.594	36.391	44.802	0.937	1508.0	990.	72.88	1.145
1200.	9.459	35.864	4.55	9.316	68.52	0.13	27.743	36.571	45.010	1.072	1508.8	1187.	61.91	1.623
1400.	7.505	35.546	4.95	7.356	68.68	0.15	27.798	36.717	45.242	1.189	1504.4	1384.	55.25	1.347
1600.	5.663	35.241	5.43	5.513	68.67	0.18	27.805	36.816	45.427	1.295	1500.2	1581.	51.39	1.095
1800.	4.665	35.106	5.74	4.507	68.52	0.14	27.816	36.879	45.539	1.395	1499.3	1778.	48.77	0.939
2000.	4.086	35.043	5.85	3.917	68.48	0.19	27.829	36.924	45.613	1.491	1500.2	1974.	46.98	0.825
2200.	3.645	35.006	5.83	3.463	68.53	0.21	27.845	36.964	45.676	1.583	1501.6	2171.	45.09	0.810
2400.	3.370	34.985	5.78	3.174	68.54	0.16	27.857	36.991	45.718	1.672	1503.8	2367.	44.18	0.681
2600.	3.125	34.968	5.78	2.912	68.64	0.13	27.868	37.016	45.756	1.759	1506.2	2563.	43.23	0.670
2800.	2.954	34.955	5.76	2.725	68.70	0.10	27.874	37.033	45.783	1.845	1508.8	2759.	42.95	0.565
3000.	2.831	34.945	5.72	2.584	68.81	0.10	27.879	37.045	45.802	1.931	1511.7	2955.	43.03	0.498
3200.	2.729	34.937	5.70	2.463	68.87	0.11	27.882	37.055	45.818	2.017	1514.6	3150.	43.25	0.463
3400.	2.648	34.928	5.65	2.363	68.91	0.11	27.884	37.062	45.831	2.104	1517.7	3346.	43.69	0.412
3600.	2.590	34.921	5.62	2.284	68.91	0.10	27.885	37.068	45.840	2.192	1520.9	3541.	44.34	0.360
3700.	2.569	34.919	5.57	2.253	68.99	0.10	27.886	37.070	45.845	2.236	1522.5	3638.	44.65	0.362
3800.	2.552	34.916	5.59	2.225	69.02	0.15	27.886	37.072	45.848	2.281	1524.1	3736.	45.05	0.313
3900.	2.544	34.913	5.57	2.205	69.02	0.08	27.885	37.073	45.849	2.327	1525.8	3833.	45.61	0.211
4000.	2.531	34.912	5.57	2.182	69.06	0.09	27.886	37.075	45.853	2.372	1527.5	3931.	46.01	0.318
4100.	2.519	34.908	5.57	2.158	69.03	0.13	27.886	37.075	45.855	2.419	1529.1	4028.	46.51	0.252
4200.	2.505	34.906	5.55	2.133	69.03	0.13	27.886	37.077	45.858	2.465	1530.8	4125.	46.91	0.311
4300.	2.498	34.904	5.56	2.114	69.08	0.11	27.886	37.078	45.860	2.513	1532.5	4223.	47.40	0.261
4400.	2.496	34.903	5.64	2.101	69.09	0.10	27.886	37.079	45.861	2.560	1534.2	4320.	47.92	0.230
4500.	2.495	34.901	5.59	2.088	69.06	0.09	27.885	37.079	45.862	2.608	1535.9	4417.	48.53	0.163
4600.	2.498	34.900	5.59	2.079	69.05	0.08	27.885	37.080	45.863	2.657	1537.7	4514.	49.09	0.209
4700.	2.504	34.899	5.59	2.072	69.05	0.09	27.885	37.080	45.864	2.707	1539.4	4611.	49.72	0.129
4800.	2.510	34.898	5.59	2.065	69.02	0.10	27.885	37.080	45.864	2.757	1541.2	4708.	50.33	0.170
4900.	2.518	34.897	5.59	2.061	68.82	0.06	27.885	37.080	45.864	2.807	1543.0	4805.	51.01	0.068
5000.	2.530	34.897	5.60	2.060	68.80	0.07	27.885	37.080	45.865	2.859	1544.8	4902.	51.67	0.104

Sample data

5002.	2.531	34.897	5.62	2.059
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2516.	3.213	34.974	5.80	3.008
2080.	3.880	35.026	5.86	3.706
1548.	6.055	35.304	5.35	5.906
890.	10.243	35.786	4.33	10.133
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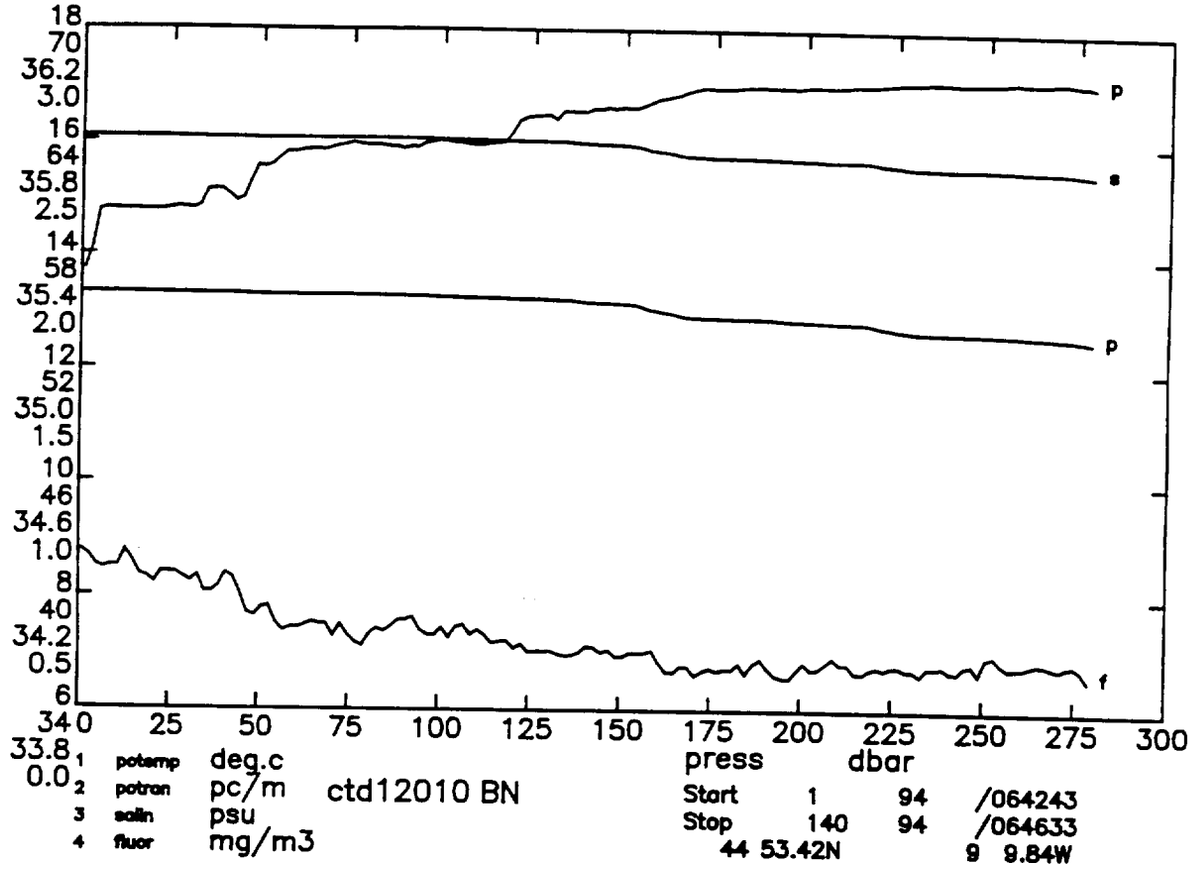
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press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 fluor mg/m3
ctd12010 BN
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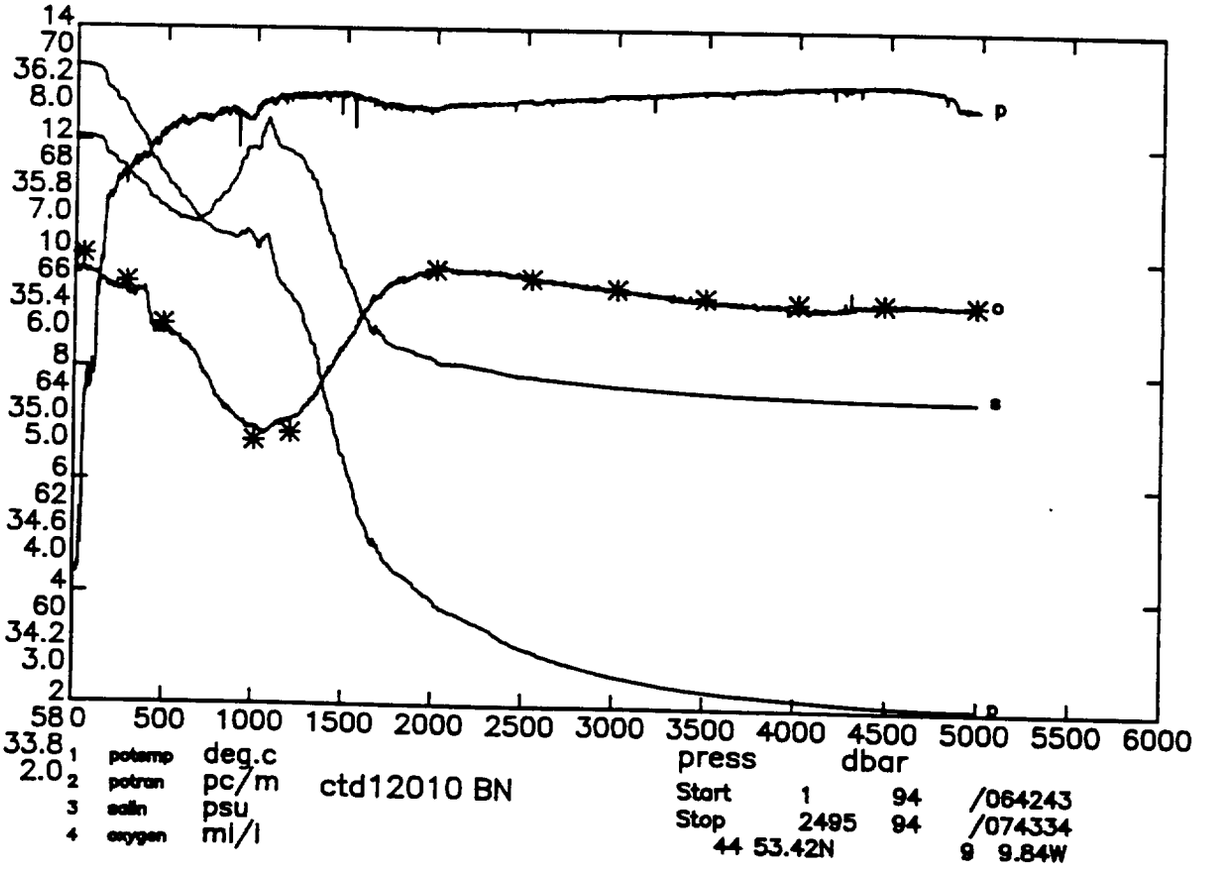
Stop 140 94 /064633
44 53.42N
9 9.84W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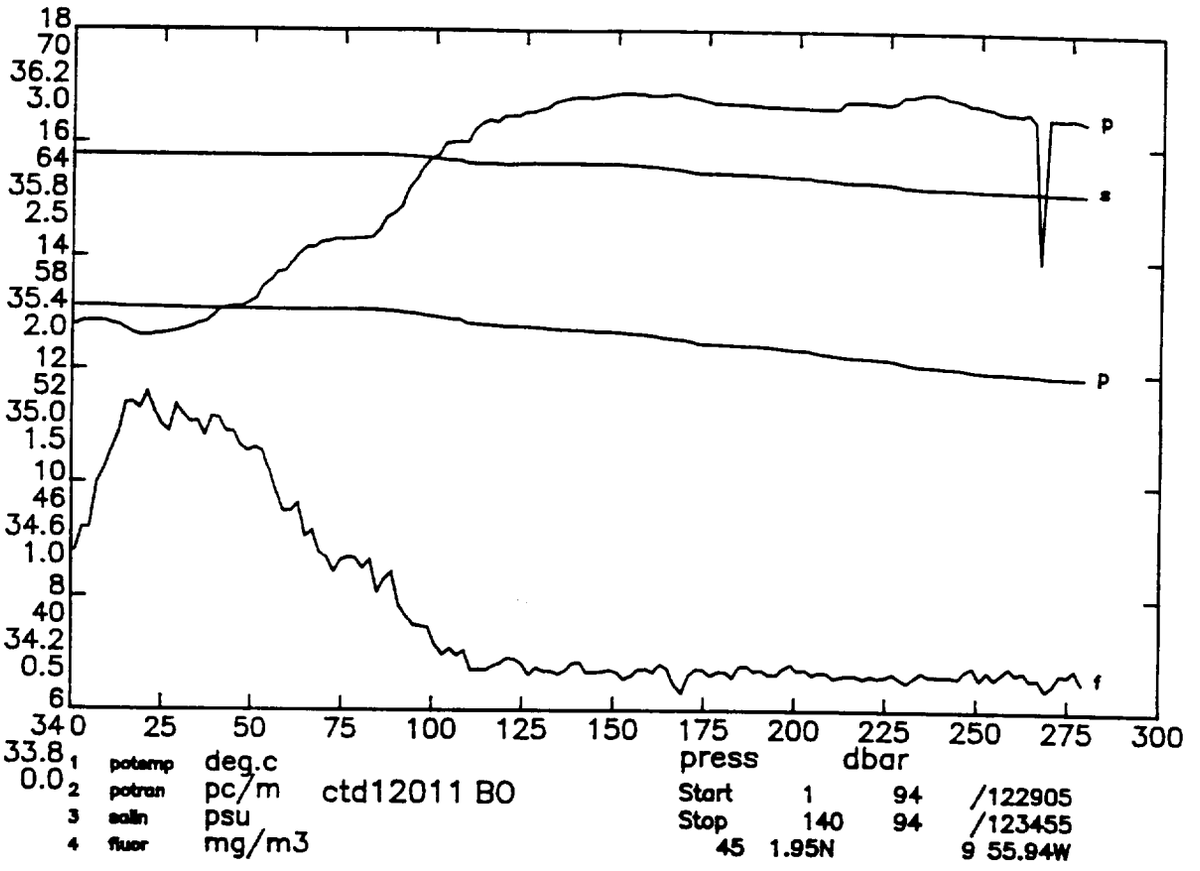
press dbar
1 potemp deg.c
2 potrun pc/m
3 salin psu
4 oxygen ml/l
ctd12010 BN
Start 1 94 /064243
Stop 2495 94 /074334
44 53.42N
9 9.84W

DISCOVERY CRUISE 189 STATION 12010

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	13.325	35.814	5.83	13.324	60.36	0.63	26.958	35.625	43.913	0.011	1502.4	10.	109.06	-9.999
20.	13.326	35.815	5.86	13.324	60.34	0.57	26.958	35.625	43.914	0.022	1502.6	20.	109.33	0.337
30.	13.324	35.814	5.84	13.320	60.44	0.57	26.958	35.625	43.914	0.033	1502.7	30.	109.64	0.050
40.	13.326	35.813	5.88	13.320	61.31	0.57	26.958	35.624	43.913	0.044	1502.9	40.	110.00	-0.430
50.	13.311	35.810	5.85	13.304	62.68	0.43	26.959	35.626	43.916	0.055	1503.0	50.	110.21	0.538
60.	13.318	35.813	5.84	13.310	63.49	0.36	26.960	35.627	43.916	0.066	1503.2	60.	110.40	0.636
70.	13.318	35.813	5.85	13.308	63.72	0.35	26.961	35.628	43.917	0.077	1503.4	69.	110.65	0.413
80.	13.313	35.812	5.85	13.302	63.82	0.30	26.961	35.628	43.918	0.088	1503.5	79.	110.91	0.377
90.	13.306	35.810	5.83	13.293	63.68	0.40	26.961	35.629	43.919	0.099	1503.7	89.	111.19	0.283
100.	13.293	35.808	5.83	13.279	64.07	0.34	26.962	35.631	43.921	0.110	1503.8	99.	111.38	0.612
120.	13.268	35.804	5.81	13.251	64.85	0.29	26.965	35.634	43.925	0.132	1504.0	119.	111.78	0.592
140.	13.218	35.796	5.78	13.198	65.73	0.27	26.969	35.641	43.934	0.155	1504.2	139.	111.91	0.888
160.	13.064	35.768	5.77	13.041	66.38	0.24	26.980	35.658	43.957	0.177	1504.0	159.	111.48	1.311
180.	12.938	35.748	5.73	12.913	66.96	0.18	26.990	35.673	43.977	0.199	1503.8	178.	111.06	1.302
200.	12.891	35.741	5.72	12.863	67.05	0.20	26.995	35.680	43.986	0.222	1504.0	198.	111.16	0.902
220.	12.817	35.729	5.71	12.787	67.16	0.19	27.001	35.689	43.998	0.244	1504.1	218.	111.18	0.978
240.	12.727	35.714	5.68	12.694	67.30	0.19	27.008	35.700	44.012	0.266	1504.1	238.	111.06	1.083
260.	12.702	35.710	5.67	12.666	67.37	0.20	27.010	35.703	44.017	0.288	1504.3	258.	111.39	0.648
280.	12.592	35.696	5.70	12.554	67.30	0.15	27.022	35.720	44.038	0.311	1504.3	278.	110.79	1.403
300.	12.474	35.681	5.66	12.433	67.51	0.17	27.034	35.736	44.059	0.333	1504.2	297.	110.20	1.395
350.	12.232	35.652	5.68	12.185	67.69	0.18	27.060	35.773	44.104	0.388	1504.2	347.	108.96	1.331
400.	11.941	35.617	5.63	11.889	67.77	0.18	27.090	35.814	44.158	0.442	1504.0	396.	107.33	1.420
450.	11.666	35.587	5.34	11.608	67.95	0.21	27.120	35.857	44.211	0.495	1503.8	446.	105.55	1.450
500.	11.430	35.561	5.33	11.365	68.17	0.19	27.146	35.892	44.255	0.547	1503.8	495.	104.27	1.322
550.	11.219	35.540	5.29	11.149	68.24	0.16	27.169	35.924	44.296	0.599	1503.9	545.	103.18	1.267
600.	11.048	35.527	5.22	10.972	68.37	0.16	27.191	35.954	44.333	0.650	1504.1	594.	102.13	1.253
650.	10.855	35.517	5.15	10.773	68.35	0.22	27.219	35.990	44.377	0.701	1504.2	644.	100.52	1.388
700.	10.648	35.526	5.02	10.561	68.39	0.18	27.264	36.044	44.439	0.751	1504.3	693.	97.24	1.743
750.	10.567	35.548	4.89	10.474	68.43	0.16	27.297	36.080	44.478	0.799	1504.9	743.	95.26	1.469
800.	10.464	35.591	4.72	10.365	68.52	0.18	27.350	36.137	44.538	0.845	1505.4	792.	91.39	1.848
850.	10.445	35.623	4.62	10.340	68.51	0.16	27.380	36.167	44.569	0.890	1506.2	841.	89.77	1.382
900.	10.392	35.679	4.55	10.280	68.50	0.13	27.434	36.223	44.627	0.934	1506.9	891.	85.84	1.861
950.	10.518	35.763	4.49	10.399	68.42	0.15	27.478	36.261	44.659	0.976	1508.3	940.	83.17	1.618
1000.	10.369	35.776	4.47	10.244	68.47	0.17	27.515	36.305	44.709	1.017	1508.6	990.	80.58	1.601
1200.	9.436	35.764	4.53	9.293	68.77	0.17	27.669	36.499	44.940	1.164	1508.6	1187.	68.74	1.668
1400.	7.578	35.507	4.94	7.429	68.84	0.14	27.757	36.673	45.196	1.293	1504.6	1384.	59.26	1.513
1600.	5.460	35.188	5.46	5.312	68.75	0.17	27.787	36.809	45.430	1.405	1499.3	1581.	52.21	1.316
1800.	4.517	35.071	5.78	4.361	68.60	0.19	27.804	36.875	45.543	1.506	1498.6	1778.	49.22	0.964
2000.	4.046	35.031	5.85	3.878	68.57	0.16	27.824	36.920	45.612	1.602	1500.0	1974.	47.29	0.834
2200.	3.703	35.007	5.86	3.520	68.67	0.13	27.841	36.956	45.666	1.695	1501.9	2171.	45.82	0.765
2400.	3.361	34.983	5.84	3.165	68.71	0.14	27.856	36.990	45.718	1.785	1503.8	2367.	44.22	0.762
2600.	3.122	34.966	5.78	2.909	68.78	0.14	27.866	37.015	45.755	1.873	1506.1	2563.	43.35	0.660
2800.	2.960	34.955	5.75	2.731	68.79	0.10	27.874	37.032	45.781	1.959	1508.8	2759.	43.06	0.567
3000.	2.813	34.944	5.72	2.566	68.85	0.11	27.879	37.046	45.804	2.045	1511.6	2955.	42.86	0.542
3200.	2.713	34.934	5.68	2.447	68.71	0.10	27.882	37.056	45.820	2.131	1514.6	3150.	43.15	0.448
3400.	2.630	34.926	5.64	2.345	68.92	0.15	27.884	37.063	45.833	2.218	1517.6	3346.	43.55	0.419
3500.	2.609	34.923	5.62	2.313	68.93	0.11	27.885	37.066	45.837	2.262	1519.2	3443.	43.91	0.343
3600.	2.584	34.919	5.61	2.279	68.93	0.07	27.884	37.067	45.840	2.306	1520.8	3541.	44.33	0.311
3700.	2.571	34.918	5.61	2.254	68.96	0.10	27.885	37.069	45.844	2.350	1522.5	3638.	44.73	0.315
3800.	2.561	34.915	5.60	2.234	68.98	0.06	27.885	37.070	45.846	2.395	1524.2	3736.	45.27	0.231
3900.	2.546	34.913	5.60	2.207	68.98	0.07	27.885	37.072	45.849	2.441	1525.8	3833.	45.65	0.326
4000.	2.533	34.911	5.56	2.184	69.01	0.07	27.885	37.074	45.852	2.487	1527.5	3931.	46.09	0.294
4100.	2.525	34.908	5.57	2.164	69.02	0.08	27.885	37.074	45.853	2.533	1529.2	4028.	46.63	0.226
4200.	2.513	34.906	5.56	2.141	69.02	0.06	27.885	37.076	45.856	2.580	1530.8	4125.	47.08	0.280
4300.	2.507	34.904	5.60	2.123	69.03	0.07	27.885	37.077	45.858	2.627	1532.5	4222.	47.54	0.279
4400.	2.505	34.903	5.59	2.109	69.06	0.08	27.885	37.078	45.860	2.675	1534.3	4320.	48.05	0.247
4500.	2.504	34.901	5.60	2.097	69.06	0.08	27.885	37.078	45.861	2.723	1536.0	4417.	48.65	0.168
4600.	2.506	34.900	5.61	2.087	69.03	0.06	27.885	37.079	45.862	2.772	1537.7	4514.	49.23	0.190
4700.	2.508	34.899	5.60	2.076	69.01	0.10	27.885	37.079	45.863	2.822	1539.5	4611.	49.80	0.202
4800.	2.514	34.898	5.59	2.070	68.91	0.06	27.884	37.079	45.863	2.872	1541.2	4708.	50.43	0.149
4900.	2.521	34.897	5.59	2.063	68.69	0.06	27.884	37.080	45.864	2.922	1543.0	4805.	51.04	0.166

Sample data

4985.	2.531	34.898	5.60	2.062
4478.	2.504	34.903	5.61	2.099
4006.	2.534	34.909	5.61	2.184
3494.	2.611	34.921	5.65	2.316
3006.	2.812	34.942	5.72	2.564
2536.	3.209	34.973	5.80	3.001
2008.	4.008	-99.999	5.87	3.839
1203.	9.427	35.765	4.42	9.284
1003.	10.353	35.775	4.35	10.228
492.	11.465	35.569	5.38	11.401
286.	12.549	35.697	5.75	12.510
45.	13.327	35.814	5.99	13.321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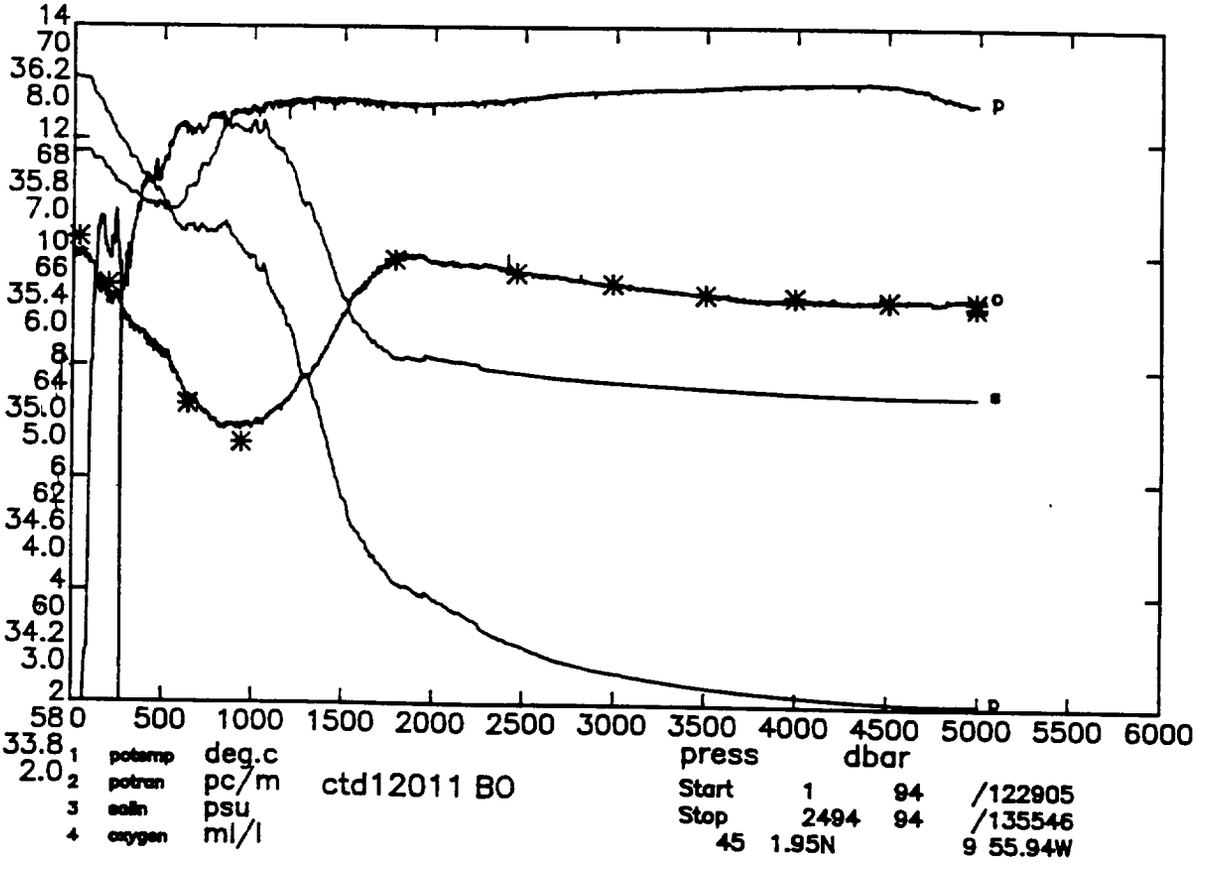
0 25 50 75 100 125 150 175 200 225 250 275 300
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12011 BO
Start 1 94 /122905
Stop 140 94 /123455
45 1.95N 9 55.94W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3.0
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33.8
2.0
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s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12011 BO
Start 1 94 /122905
Stop 2494 94 /135546
45 1.95N 9 55.94W

DISCOVERY CRUISE 189 STATION 12011

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	$10^{-8}m^3/kg$	cy/hr
10.	13.118	35.756	5.95	13.116	54.45	1.09	26.955	35.630	43.927	0.011	1501.6	10.	109.34	-9.999
20.	13.098	35.755	5.99	13.096	53.76	1.36	26.959	35.634	43.932	0.022	1501.7	20.	109.31	1.046
30.	13.090	35.755	5.96	13.086	54.09	1.32	26.960	35.637	43.935	0.033	1501.9	30.	109.45	0.738
40.	13.085	35.755	5.98	13.079	55.01	1.29	26.962	35.639	43.937	0.044	1502.0	40.	109.57	0.774
50.	13.085	35.756	5.96	13.078	55.66	1.15	26.963	35.639	43.938	0.055	1502.2	50.	109.81	0.460
60.	13.080	35.757	5.96	13.072	57.49	0.87	26.965	35.642	43.940	0.066	1502.3	60.	109.91	0.811
70.	13.076	35.757	5.94	13.067	58.78	0.68	26.966	35.643	43.942	0.077	1502.5	69.	110.07	0.672
80.	13.076	35.757	5.96	13.065	58.95	0.65	26.967	35.644	43.943	0.088	1502.7	79.	110.33	0.391
90.	13.043	35.753	5.93	13.031	60.44	0.53	26.971	35.649	43.949	0.099	1502.7	89.	110.26	1.108
100.	12.966	35.745	5.89	12.952	63.26	0.33	26.980	35.661	43.964	0.110	1502.6	99.	109.67	1.717
120.	12.786	35.725	5.71	12.770	65.42	0.22	27.001	35.690	44.000	0.132	1502.3	119.	108.21	1.849
140.	12.726	35.727	5.64	12.707	66.45	0.21	27.016	35.707	44.019	0.153	1502.5	139.	107.40	1.528
160.	12.638	35.716	5.66	12.616	66.51	0.18	27.025	35.720	44.035	0.175	1502.5	159.	107.06	1.237
180.	12.475	35.693	5.62	12.450	66.10	0.17	27.040	35.741	44.063	0.196	1502.2	178.	106.19	1.557
200.	12.385	35.682	5.60	12.358	65.93	0.19	27.050	35.755	44.080	0.217	1502.2	198.	105.79	1.270
220.	12.251	35.664	5.62	12.221	66.22	0.15	27.062	35.773	44.104	0.238	1502.1	218.	105.12	1.439
240.	12.110	35.646	5.65	12.078	66.61	0.16	27.076	35.793	44.129	0.259	1501.9	238.	104.28	1.532
260.	12.018	35.638	5.53	11.983	65.67	0.18	27.088	35.809	44.148	0.280	1501.9	258.	103.67	1.396
280.	11.949	35.632	5.45	11.912	65.31	0.15	27.097	35.821	44.163	0.301	1502.0	278.	103.35	1.207
300.	11.849	35.622	5.40	11.810	65.63	0.17	27.109	35.837	44.183	0.321	1502.0	297.	102.69	1.422
350.	11.637	35.601	5.32	11.592	66.67	0.15	27.134	35.871	44.225	0.372	1502.1	347.	101.56	1.290
400.	11.373	35.576	5.24	11.321	67.24	0.14	27.165	35.913	44.278	0.422	1502.0	396.	99.78	1.443
450.	11.187	35.558	5.16	11.130	67.45	0.18	27.187	35.943	44.315	0.472	1502.1	446.	98.86	1.222
500.	10.963	35.553	5.07	10.900	67.57	0.16	27.225	35.990	44.371	0.521	1502.2	495.	96.36	1.592
550.	10.684	35.551	4.94	10.616	67.96	0.14	27.274	36.052	44.444	0.568	1502.0	545.	92.62	1.832
600.	10.455	35.572	4.83	10.382	68.25	0.11	27.332	36.119	44.520	0.613	1502.1	594.	88.13	1.958
650.	10.549	35.630	4.70	10.469	68.17	0.12	27.362	36.144	44.541	0.657	1503.3	644.	86.73	1.330
700.	10.502	35.685	4.62	10.415	68.19	0.11	27.415	36.198	44.596	0.700	1504.0	693.	82.95	1.834
750.	10.451	35.711	4.57	10.358	68.36	0.15	27.445	36.230	44.630	0.741	1504.7	743.	81.27	1.398
800.	10.506	35.787	4.49	10.407	68.38	0.11	27.495	36.278	44.675	0.780	1505.8	792.	77.87	1.765
850.	10.616	35.859	4.46	10.510	68.32	0.14	27.534	36.311	44.703	0.819	1507.1	841.	75.69	1.515
900.	10.335	35.849	4.47	10.223	68.46	0.15	27.576	36.365	44.769	0.856	1506.9	891.	72.46	1.734
950.	10.099	35.826	4.48	9.983	68.47	0.12	27.601	36.400	44.813	0.892	1506.9	940.	70.91	1.362
1000.	10.035	35.863	4.47	9.913	68.55	0.16	27.641	36.443	44.859	0.927	1507.5	989.	68.15	1.632
1200.	8.823	35.714	4.68	8.686	68.63	0.19	27.728	36.585	45.052	1.056	1506.3	1187.	61.63	1.362
1400.	6.951	35.415	5.13	6.808	68.70	0.15	27.773	36.719	45.270	1.173	1502.1	1384.	55.81	1.276
1600.	5.099	35.130	5.66	4.956	68.65	0.17	27.784	36.824	45.463	1.279	1497.7	1581.	51.11	1.140
1800.	4.269	35.027	5.98	4.118	68.62	0.13	27.795	36.879	45.559	1.379	1497.6	1778.	48.94	0.876
2000.	4.012	35.027	5.92	3.844	68.62	0.13	27.824	36.922	45.615	1.476	1499.8	1974.	47.12	0.816
2200.	3.696	35.006	5.89	3.513	68.66	0.11	27.841	36.957	45.667	1.569	1501.9	2171.	45.77	0.750
2400.	3.327	34.981	5.85	3.131	68.70	0.13	27.858	36.994	45.723	1.658	1503.6	2367.	43.85	0.797
2600.	3.096	34.966	5.80	2.884	68.76	0.11	27.869	37.019	45.760	1.745	1506.0	2563.	42.94	0.662
2800.	2.929	34.954	5.76	2.701	68.84	0.12	27.876	37.035	45.786	1.831	1508.7	2759.	42.66	0.563
3000.	2.812	34.945	5.72	2.565	68.87	0.12	27.881	37.048	45.806	1.916	1511.6	2955.	42.72	0.499
3200.	2.720	34.937	5.68	2.454	68.90	0.11	27.884	37.057	45.821	2.001	1514.6	3150.	43.04	0.443
3400.	2.647	34.930	5.65	2.362	68.90	0.06	27.886	37.064	45.833	2.088	1517.7	3345.	43.54	0.398
3500.	2.620	34.926	5.63	2.324	68.93	0.09	27.886	37.066	45.837	2.132	1519.3	3443.	43.92	0.337
3600.	2.595	34.923	5.63	2.290	68.94	0.16	27.886	37.069	45.841	2.176	1520.9	3541.	44.24	0.358
3700.	2.573	34.920	5.60	2.256	68.96	0.08	27.887	37.071	45.845	2.220	1522.5	3638.	44.59	0.345
3800.	2.555	34.917	5.59	2.228	68.97	0.12	27.887	37.073	45.848	2.265	1524.1	3736.	45.01	0.307
3900.	2.540	34.915	5.59	2.202	68.96	0.07	27.887	37.074	45.851	2.310	1525.8	3833.	45.44	0.298
4000.	2.529	34.913	5.58	2.180	68.99	0.09	27.887	37.076	45.854	2.356	1527.5	3930.	45.89	0.286
4100.	2.518	34.910	5.59	2.157	69.01	0.06	27.886	37.076	45.856	2.402	1529.1	4028.	46.41	0.240
4200.	2.509	34.908	5.61	2.137	69.02	0.07	27.887	37.078	45.859	2.449	1530.8	4125.	46.83	0.302
4300.	2.504	34.906	5.58	2.121	69.03	0.06	27.887	37.079	45.860	2.496	1532.5	4222.	47.38	0.214
4400.	2.503	34.905	5.59	2.108	69.03	0.08	27.887	37.079	45.861	2.544	1534.3	4320.	47.91	0.231
4500.	2.501	34.902	5.60	2.094	69.00	0.07	27.886	37.079	45.862	2.592	1536.0	4417.	48.51	0.173
4600.	2.502	34.902	5.58	2.083	68.97	0.06	27.886	37.080	45.864	2.640	1537.7	4514.	49.04	0.229
4700.	2.506	34.901	5.59	2.074	68.92	0.07	27.886	37.081	45.864	2.690	1539.5	4611.	49.65	0.158
4800.	2.515	34.900	5.58	2.070	68.78	0.08	27.886	37.081	45.865	2.740	1541.2	4708.	50.28	0.149
4900.	2.524	34.900	5.61	2.066	68.70	0.06	27.886	37.081	45.865	2.790	1543.0	4805.	50.94	0.093

Sample data

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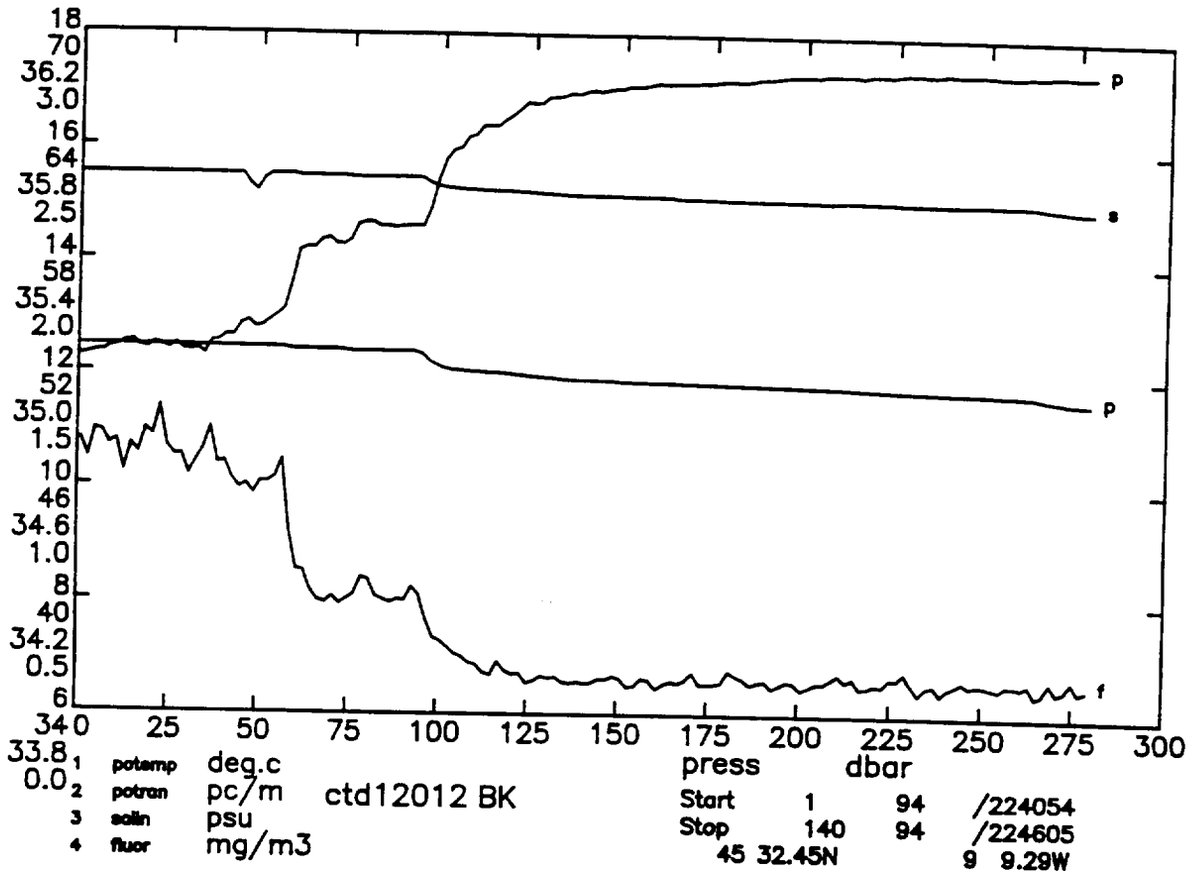
4508.	2.499	34.902	5.59	2.090
3989.	2.530	34.912	5.62	2.181
3498.	2.621	34.926	5.64	2.325
2985.	2.825	34.946	5.73	2.579
2456.	3.262	34.978	5.82	3.061
1785.	4.295	35.030	5.93	4.143
937.	10.158	35.826	4.32	10.043
637.	10.547	35.606	4.66	10.468
192.	12.441	35.698	5.71	12.415
29.	13.092	35.756	6.13	13.088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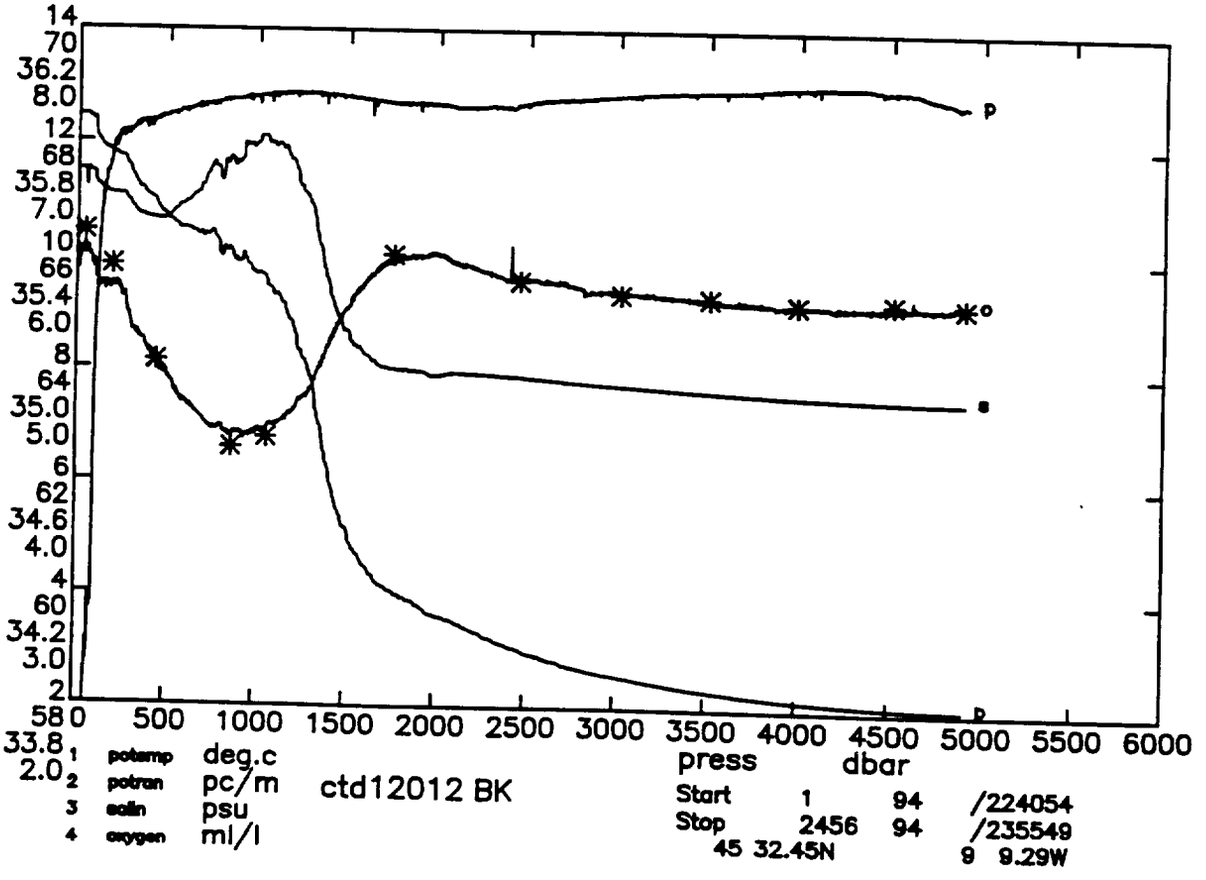
4 fluor mg/m3
ctd12012 BK
Start 1 94 /224054
Stop 140 94 /224605
45 32.45N
9 9.29W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press dbar
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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12012 BK
Start 1 94 /224054
Stop 2456 94 /235549
45 32.45N
9 9.29W

DISCOVERY CRUISE 189 STATION 12012

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.465	35.700	5.90	12.464	53.29	1.19	27.042	35.743	44.064	0.010	1499.4	10.	101.06	-9.999
20.	12.464	35.700	6.02	12.461	53.36	1.23	27.043	35.744	44.065	0.020	1499.6	20.	101.30	0.398
30.	12.468	35.700	6.06	12.464	53.17	1.09	27.042	35.743	44.064	0.030	1499.7	30.	101.64	-0.403
40.	12.468	35.699	6.10	12.462	53.86	1.11	27.042	35.743	44.065	0.041	1499.9	40.	101.92	0.156
50.	12.468	35.662	6.04	12.461	54.48	1.00	27.014	35.715	44.037	0.051	1500.0	50.	104.94	-3.017
60.	12.433	35.698	6.05	12.425	57.66	0.72	27.049	35.751	44.074	0.061	1500.1	60.	101.90	3.329
70.	12.433	35.695	5.98	12.424	59.00	0.50	27.047	35.749	44.072	0.071	1500.3	69.	102.36	-0.757
80.	12.401	35.690	5.96	12.391	60.00	0.60	27.049	35.753	44.077	0.082	1500.3	79.	102.40	0.899
90.	12.406	35.691	5.90	12.394	59.79	0.50	27.049	35.753	44.077	0.092	1500.5	89.	102.72	-0.291
100.	12.150	35.658	5.92	12.137	62.82	0.33	27.074	35.788	44.122	0.102	1499.8	99.	100.57	2.847
120.	12.010	35.643	5.71	11.994	65.89	0.19	27.090	35.810	44.149	0.122	1499.6	119.	99.61	1.593
140.	11.920	35.629	5.74	11.902	67.03	0.14	27.097	35.821	44.163	0.142	1499.6	139.	99.49	1.064
160.	11.884	35.626	5.69	11.864	67.42	0.14	27.102	35.827	44.171	0.162	1499.8	159.	99.58	0.877
180.	11.855	35.617	5.71	11.831	67.60	0.17	27.101	35.828	44.173	0.182	1500.0	178.	100.19	-0.304
200.	11.823	35.615	5.75	11.797	67.94	0.13	27.106	35.834	44.181	0.202	1500.3	198.	100.25	0.903
220.	11.789	35.614	5.74	11.761	68.05	0.14	27.112	35.842	44.190	0.222	1500.5	218.	100.16	1.029
240.	11.761	35.612	5.69	11.730	68.14	0.12	27.116	35.847	44.196	0.242	1500.7	238.	100.35	0.779
260.	11.744	35.612	5.64	11.711	68.11	0.14	27.120	35.852	44.202	0.262	1501.0	258.	100.48	0.825
280.	11.610	35.592	5.52	11.574	68.15	0.15	27.130	35.868	44.223	0.282	1500.8	278.	99.99	1.313
300.	11.479	35.574	5.40	11.440	68.20	0.15	27.141	35.884	44.245	0.302	1500.7	297.	99.46	1.340
350.	11.227	35.542	5.26	11.183	68.33	0.12	27.164	35.918	44.289	0.351	1500.6	347.	98.44	1.249
400.	11.087	35.531	5.16	11.037	68.35	0.13	27.183	35.943	44.319	0.401	1500.9	396.	97.84	1.127
450.	10.888	35.525	5.05	10.832	68.42	0.13	27.215	35.984	44.368	0.449	1501.0	446.	95.88	1.474
500.	10.734	35.532	4.97	10.672	68.45	0.11	27.249	36.024	44.415	0.497	1501.3	495.	93.78	1.499
550.	10.612	35.562	4.79	10.544	68.50	0.14	27.295	36.075	44.470	0.543	1501.8	545.	90.56	1.730
600.	10.545	35.587	4.70	10.471	68.52	0.12	27.328	36.111	44.508	0.587	1502.4	594.	88.65	1.453
650.	10.495	35.613	4.64	10.415	68.60	0.12	27.358	36.142	44.542	0.631	1503.1	644.	87.01	1.388
700.	10.417	35.649	4.55	10.331	68.62	0.11	27.401	36.188	44.590	0.674	1503.7	693.	84.11	1.666
750.	10.520	35.723	4.46	10.427	68.64	0.12	27.442	36.224	44.622	0.716	1504.9	743.	81.65	1.572
800.	10.093	35.664	4.48	9.996	68.72	0.18	27.471	36.273	44.688	0.756	1504.2	792.	79.39	1.529
850.	10.232	35.747	4.41	10.128	68.76	0.11	27.514	36.308	44.717	0.795	1505.6	841.	76.88	1.578
900.	9.991	35.730	4.44	9.882	68.75	0.14	27.543	36.348	44.767	0.833	1505.6	891.	74.90	1.461
950.	9.966	35.789	4.41	9.850	68.80	0.22	27.594	36.400	44.819	0.870	1506.4	940.	71.22	1.807
1000.	9.790	35.797	4.45	9.669	68.80	0.15	27.631	36.444	44.870	0.905	1506.6	989.	68.59	1.601
1200.	8.957	35.734	4.62	8.819	68.87	0.11	27.723	36.573	45.035	1.036	1506.8	1187.	62.52	1.333
1400.	6.364	35.306	5.20	6.228	68.85	0.14	27.765	36.740	45.318	1.153	1499.7	1384.	54.64	1.399
1600.	4.662	35.053	5.76	4.524	68.77	0.14	27.772	36.835	45.495	1.258	1495.9	1581.	50.56	1.074
1800.	4.148	34.999	5.98	3.998	68.70	0.14	27.786	36.877	45.563	1.358	1497.0	1778.	49.23	0.776
2000.	3.794	34.979	6.03	3.630	68.69	0.14	27.807	36.917	45.622	1.454	1498.9	1974.	47.55	0.792
2200.	3.563	34.984	5.91	3.382	68.62	0.14	27.836	36.959	45.676	1.547	1501.3	2171.	45.51	0.817
2400.	3.309	34.978	5.79	3.113	68.63	0.16	27.857	36.994	45.724	1.636	1503.6	2367.	43.81	0.768
2600.	3.107	34.967	5.79	2.895	68.78	0.12	27.869	37.018	45.759	1.723	1506.1	2563.	43.02	0.647
2800.	2.948	34.956	5.74	2.719	68.81	0.10	27.876	37.034	45.784	1.809	1508.8	2759.	42.79	0.556
3000.	2.842	34.948	5.70	2.594	68.86	0.13	27.880	37.045	45.802	1.895	1511.7	2954.	43.02	0.471
3200.	2.745	34.939	5.67	2.479	68.89	0.10	27.883	37.055	45.817	1.981	1514.7	3150.	43.32	0.449
3400.	2.666	34.931	5.65	2.380	68.93	0.12	27.885	37.062	45.830	2.068	1517.8	3345.	43.75	0.418
3500.	2.641	34.928	5.63	2.345	68.94	0.09	27.886	37.065	45.835	2.112	1519.4	3443.	44.08	0.359
3600.	2.613	34.924	5.61	2.307	68.95	0.07	27.886	37.067	45.839	2.156	1521.0	3540.	44.43	0.348
3700.	2.587	34.921	5.63	2.270	68.95	0.08	27.887	37.070	45.844	2.201	1522.6	3638.	44.74	0.366
3800.	2.565	34.919	5.60	2.238	68.98	0.07	27.887	37.073	45.848	2.246	1524.2	3735.	45.06	0.361
3900.	2.547	34.916	5.59	2.209	69.02	0.07	27.888	37.075	45.851	2.291	1525.8	3833.	45.45	0.320
4000.	2.531	34.913	5.58	2.182	69.02	0.07	27.887	37.076	45.854	2.336	1527.5	3930.	45.89	0.291
4100.	2.525	34.911	5.60	2.164	68.97	0.07	27.887	37.077	45.856	2.383	1529.2	4028.	46.41	0.237
4200.	2.513	34.909	5.56	2.141	69.02	0.09	27.887	37.078	45.858	2.429	1530.8	4125.	46.86	0.286
4300.	2.511	34.908	5.57	2.128	69.04	0.10	27.887	37.079	45.860	2.476	1532.6	4222.	47.39	0.231
4400.	2.506	34.906	5.58	2.110	69.00	0.06	27.887	37.080	45.862	2.524	1534.3	4319.	47.90	0.244
4500.	2.507	34.903	5.58	2.100	68.97	0.12	27.886	37.079	45.862	2.572	1536.0	4417.	48.55	0.118
4600.	2.510	34.903	5.58	2.090	68.96	0.07	27.887	37.080	45.863	2.621	1537.7	4514.	49.08	0.231
4700.	2.512	34.902	5.59	2.080	68.88	0.07	27.887	37.081	45.864	2.670	1539.5	4611.	49.67	0.184
4800.	2.521	34.902	5.58	2.077	68.81	0.09	27.887	37.081	45.865	2.720	1541.3	4708.	50.30	0.140
4900.	2.530	34.901	5.61	2.072	68.74	0.07	27.887	37.081	45.865	2.771	1543.0	4805.	50.95	0.130

Sample data

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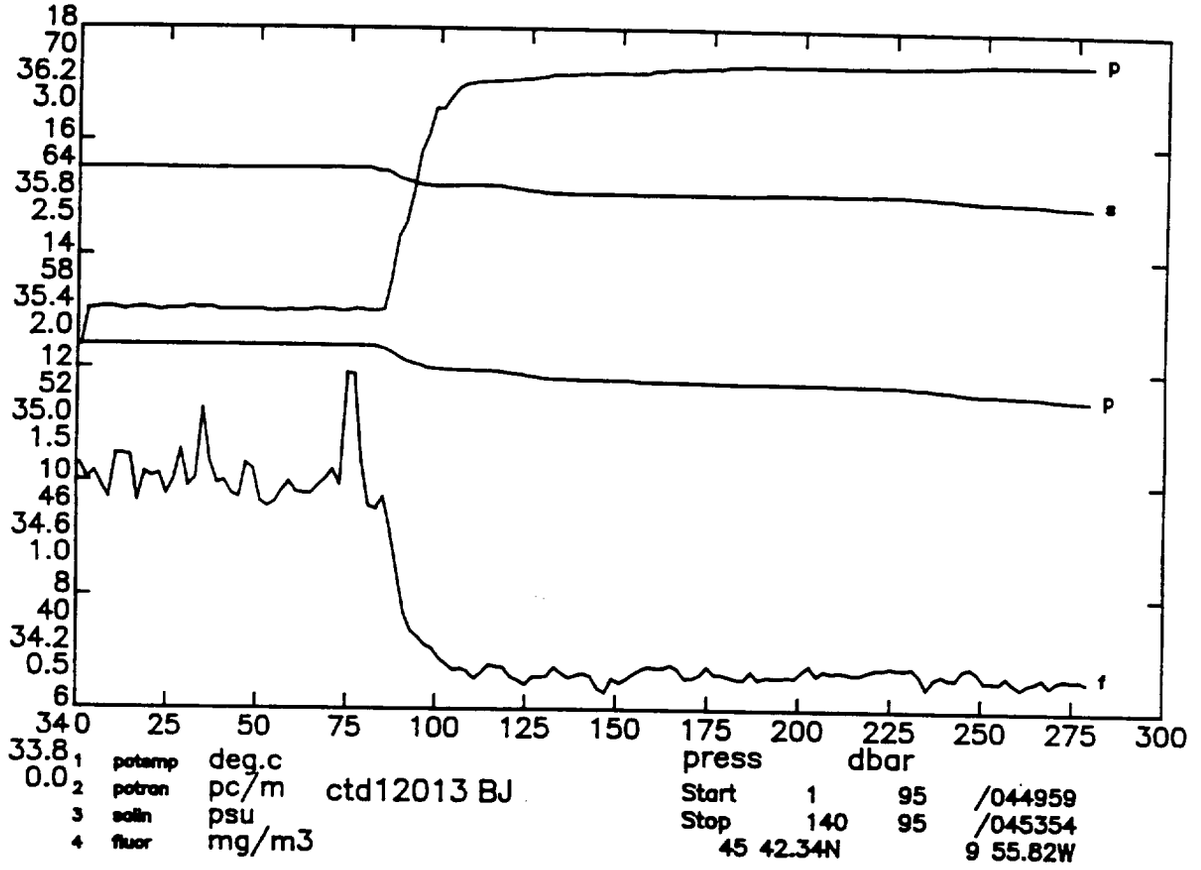
2458.	3.247	34.979	5.79	3.047
1757.	4.210	35.002	6.01	4.063
1059.	9.657	35.799	4.39	9.530
865.	10.171	35.804	4.30	10.065
445.	10.914	35.530	5.07	10.859
196.	11.829	35.620	5.91	11.804
41.	12.467	35.703	6.21	12.462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2 potran pc/m
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press dbar
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Stop 140 95 /045354
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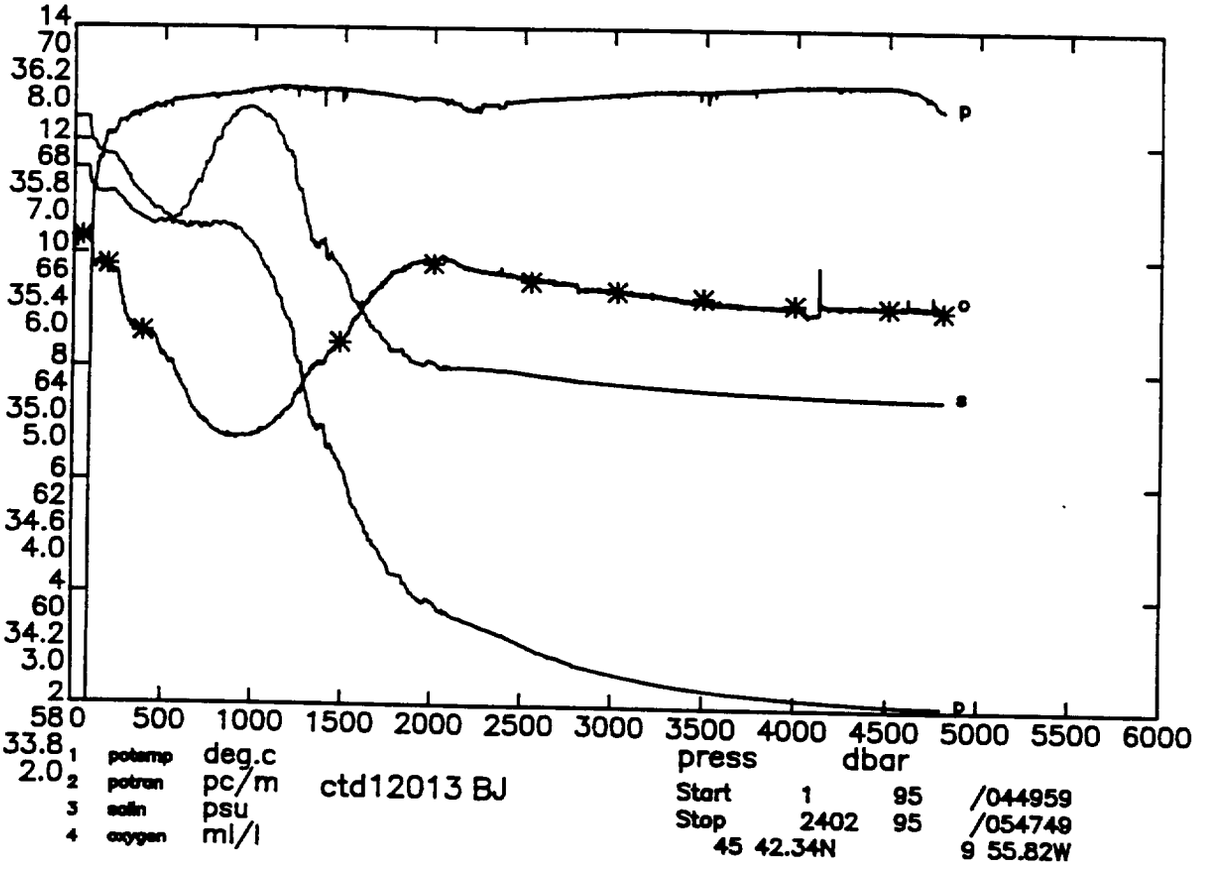
9 55.82W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2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12013 BJ
press dbar
Start 1 95 /044959
Stop 2402 95 /054749
45 42.34N
9 55.82W

DISCOVERY CRUISE 189 STATION 12013

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.403	35.703	6.13	12.402	55.15	1.02	27.057	35.760	44.084	0.010	1499.2	10.	99.67	-9.999
20.	12.406	35.703	6.06	12.404	55.13	1.03	27.057	35.760	44.083	0.020	1499.4	20.	100.00	-0.389
30.	12.409	35.702	6.11	12.405	55.16	1.06	27.056	35.759	44.082	0.030	1499.5	30.	100.34	-0.408
40.	12.412	35.702	6.16	12.407	55.08	1.00	27.056	35.759	44.082	0.040	1499.7	40.	100.65	-0.288
50.	12.416	35.703	6.17	12.409	55.09	0.98	27.056	35.759	44.082	0.050	1499.9	50.	100.94	-0.155
60.	12.413	35.703	6.17	12.405	55.06	0.98	27.057	35.760	44.083	0.060	1500.1	60.	101.14	0.565
70.	12.410	35.704	6.15	12.401	55.10	1.03	27.058	35.761	44.085	0.070	1500.2	69.	101.30	0.651
80.	12.411	35.703	6.13	12.400	55.07	0.99	27.058	35.761	44.085	0.080	1500.4	79.	101.60	-0.264
90.	12.183	35.664	6.17	12.171	59.30	0.51	27.072	35.785	44.117	0.091	1499.7	89.	100.53	2.128
100.	12.003	35.641	6.06	11.990	65.74	0.25	27.089	35.809	44.149	0.101	1499.3	99.	99.14	2.366
120.	11.942	35.636	5.89	11.926	67.27	0.16	27.098	35.820	44.162	0.120	1499.4	119.	98.87	1.170
140.	11.826	35.615	5.91	11.808	67.65	0.16	27.104	35.832	44.178	0.140	1499.3	139.	98.81	1.011
160.	11.791	35.614	5.92	11.770	67.80	0.19	27.110	35.839	44.187	0.160	1499.5	159.	98.74	1.015
180.	11.771	35.613	5.90	11.747	68.07	0.15	27.114	35.844	44.193	0.180	1499.7	178.	98.90	0.806
200.	11.769	35.618	5.85	11.743	68.12	0.16	27.119	35.849	44.198	0.199	1500.1	198.	99.01	0.861
220.	11.759	35.618	5.82	11.731	68.12	0.18	27.121	35.852	44.201	0.219	1500.4	218.	99.33	0.607
240.	11.694	35.609	5.84	11.663	68.21	0.15	27.126	35.860	44.212	0.239	1500.5	238.	99.35	0.942
260.	11.611	35.594	5.69	11.577	68.33	0.12	27.132	35.869	44.224	0.259	1500.5	258.	99.35	0.950
280.	11.520	35.579	5.53	11.484	68.35	0.13	27.137	35.879	44.238	0.279	1500.5	278.	99.30	0.990
300.	11.404	35.564	5.43	11.366	68.37	0.18	27.147	35.894	44.257	0.299	1500.4	297.	98.81	1.307
350.	11.164	35.536	5.34	11.120	68.47	0.12	27.171	35.928	44.301	0.348	1500.4	347.	97.69	1.275
400.	11.008	35.518	5.30	10.958	68.52	0.13	27.187	35.950	44.330	0.397	1500.6	396.	97.42	1.023
450.	10.836	35.501	5.27	10.780	68.62	0.16	27.206	35.977	44.363	0.445	1500.8	446.	96.74	1.143
500.	10.739	35.506	5.11	10.678	68.60	0.14	27.228	36.003	44.394	0.493	1501.3	495.	95.81	1.212
550.	10.584	35.501	5.04	10.516	68.71	0.16	27.253	36.035	44.431	0.541	1501.6	545.	94.54	1.297
600.	10.597	35.550	4.86	10.523	68.71	0.11	27.290	36.071	44.467	0.588	1502.5	594.	92.29	1.530
650.	10.571	35.610	4.70	10.491	68.73	0.12	27.342	36.124	44.520	0.633	1503.3	644.	88.58	1.820
700.	10.542	35.649	4.56	10.456	68.76	0.18	27.379	36.161	44.559	0.677	1504.1	693.	86.32	1.532
750.	10.549	35.725	4.51	10.456	68.79	0.17	27.438	36.220	44.616	0.719	1505.1	743.	82.02	1.929
800.	10.612	35.803	4.43	10.512	68.79	0.14	27.490	36.267	44.660	0.759	1506.2	792.	78.59	1.772
850.	10.615	35.855	4.39	10.508	68.80	0.15	27.531	36.308	44.700	0.798	1507.1	841.	75.99	1.608
900.	10.540	35.891	4.39	10.427	68.83	0.13	27.573	36.353	44.749	0.835	1507.7	891.	73.10	1.667
950.	10.422	35.911	4.39	10.303	68.84	0.14	27.611	36.396	44.795	0.871	1508.1	940.	70.62	1.582
1000.	10.262	35.916	4.39	10.138	68.88	0.17	27.643	36.435	44.841	0.906	1508.4	989.	68.45	1.510
1200.	8.961	35.763	4.63	8.822	68.94	0.15	27.745	36.595	45.056	1.034	1506.8	1187.	60.45	1.456
1400.	6.965	35.423	5.05	6.822	68.90	0.15	27.777	36.723	45.273	1.149	1502.2	1384.	55.44	1.224
1600.	5.446	35.202	5.49	5.299	68.87	0.13	27.800	36.822	45.444	1.255	1499.2	1581.	50.99	1.128
1800.	4.472	35.057	5.85	4.317	68.81	0.15	27.798	36.871	45.542	1.355	1498.4	1778.	49.58	0.812
2000.	4.017	35.017	5.93	3.850	68.77	0.15	27.816	36.914	45.607	1.452	1499.9	1974.	47.88	0.808
2200.	3.671	34.996	5.88	3.489	68.55	0.14	27.836	36.953	45.664	1.546	1501.7	2171.	46.14	0.793
2400.	3.471	34.991	5.83	3.272	68.72	0.14	27.852	36.981	45.703	1.637	1504.3	2367.	45.20	0.687
2600.	3.185	34.973	5.78	2.972	68.78	0.12	27.866	37.011	45.748	1.726	1506.4	2563.	43.76	0.735
2800.	2.983	34.958	5.74	2.754	68.80	0.12	27.874	37.031	45.779	1.813	1508.9	2759.	43.17	0.612
3000.	2.852	34.948	5.70	2.604	68.84	0.11	27.879	37.044	45.800	1.900	1511.8	2954.	43.18	0.510
3200.	2.736	34.938	5.67	2.470	68.91	0.09	27.883	37.056	45.818	1.986	1514.7	3150.	43.23	0.495
3400.	2.662	34.930	5.61	2.376	68.91	0.09	27.885	37.063	45.830	2.073	1517.8	3345.	43.72	0.403
3500.	2.631	34.926	5.60	2.335	68.92	0.08	27.885	37.065	45.835	2.117	1519.3	3443.	44.05	0.364
3600.	2.603	34.924	5.59	2.297	68.93	0.10	27.886	37.068	45.840	2.161	1520.9	3540.	44.32	0.386
3700.	2.581	34.921	5.58	2.264	68.95	0.09	27.887	37.071	45.844	2.206	1522.5	3638.	44.68	0.337
3800.	2.564	34.918	5.57	2.236	68.98	0.10	27.887	37.073	45.848	2.250	1524.2	3735.	45.07	0.324
3900.	2.549	34.916	5.56	2.211	68.99	0.08	27.887	37.074	45.851	2.296	1525.8	3833.	45.50	0.299
4000.	2.537	34.914	5.57	2.188	69.01	0.11	27.887	37.075	45.853	2.342	1527.5	3930.	45.97	0.278
4100.	2.523	34.911	5.51	2.163	69.01	0.08	27.887	37.076	45.856	2.388	1529.2	4028.	46.43	0.278
4200.	2.516	34.909	5.58	2.144	69.03	0.11	27.887	37.078	45.858	2.434	1530.9	4125.	46.90	0.269
4300.	2.508	34.907	5.57	2.125	69.02	0.09	27.887	37.079	45.860	2.482	1532.5	4222.	47.40	0.258
4400.	2.505	34.905	5.57	2.109	69.02	0.05	27.887	37.079	45.861	2.529	1534.3	4319.	47.92	0.238
4500.	2.503	34.903	5.57	2.096	69.04	0.10	27.887	37.080	45.863	2.577	1536.0	4417.	48.47	0.212
4600.	2.507	34.902	5.56	2.087	68.98	0.08	27.886	37.080	45.863	2.626	1537.7	4514.	49.10	0.136
4700.	2.513	34.901	5.57	2.080	68.87	0.09	27.886	37.080	45.863	2.676	1539.5	4611.	49.77	0.089
4800.	2.522	34.901	5.59	2.077	68.61	0.07	27.886	37.081	45.864	2.726	1541.3	4708.	50.34	0.200

Sample data

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3018.	2.846	34.948	5.69	2.596
2542.	3.260	34.978	5.77	3.051
2001.	4.013	35.021	5.92	3.845
1479.	6.468	35.358	5.22	6.322
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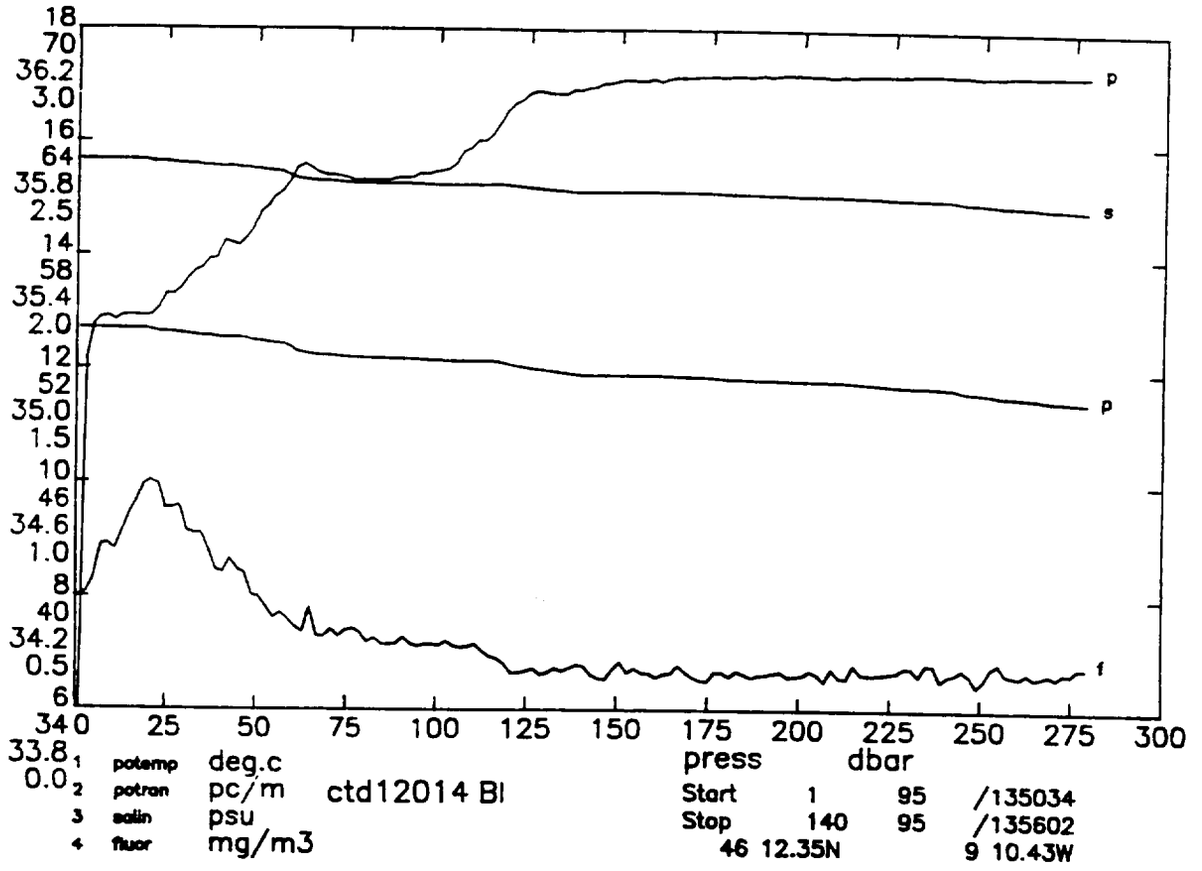
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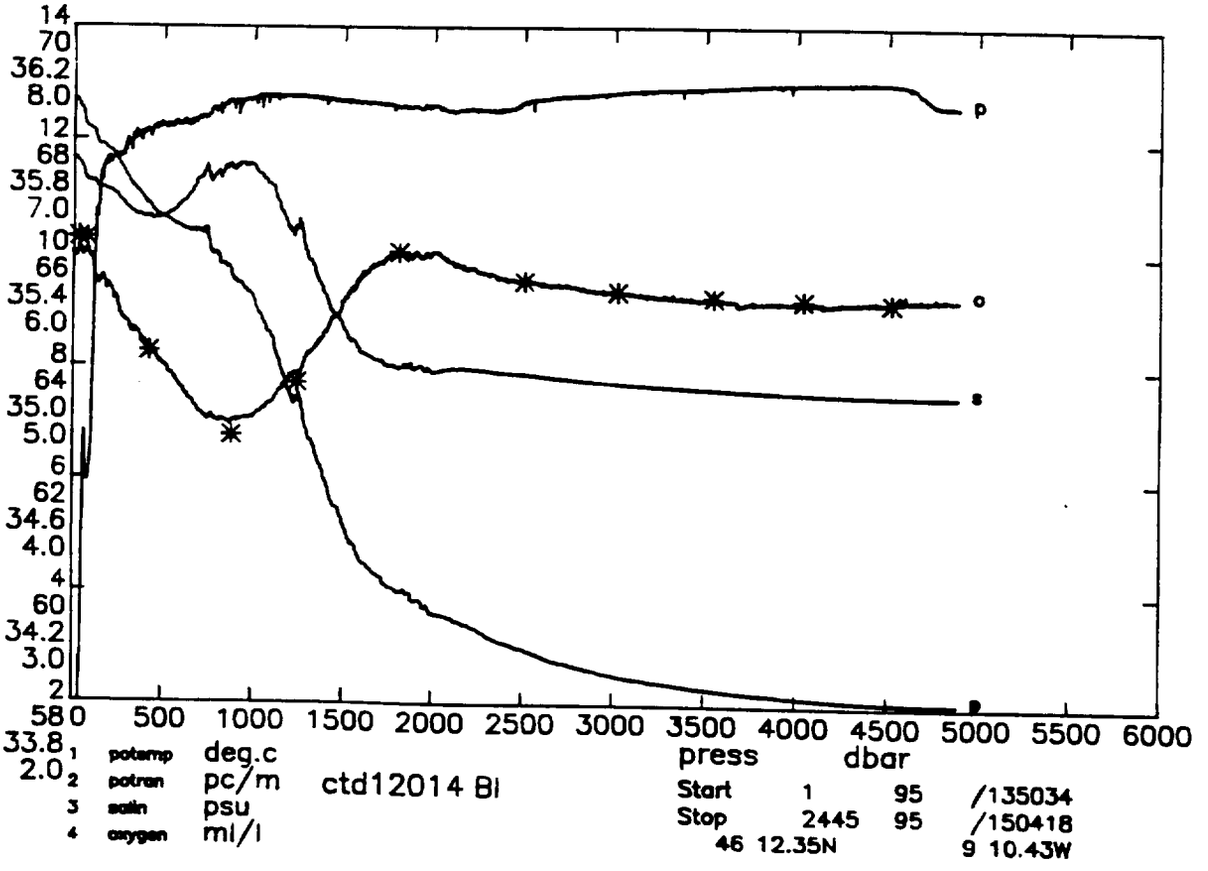
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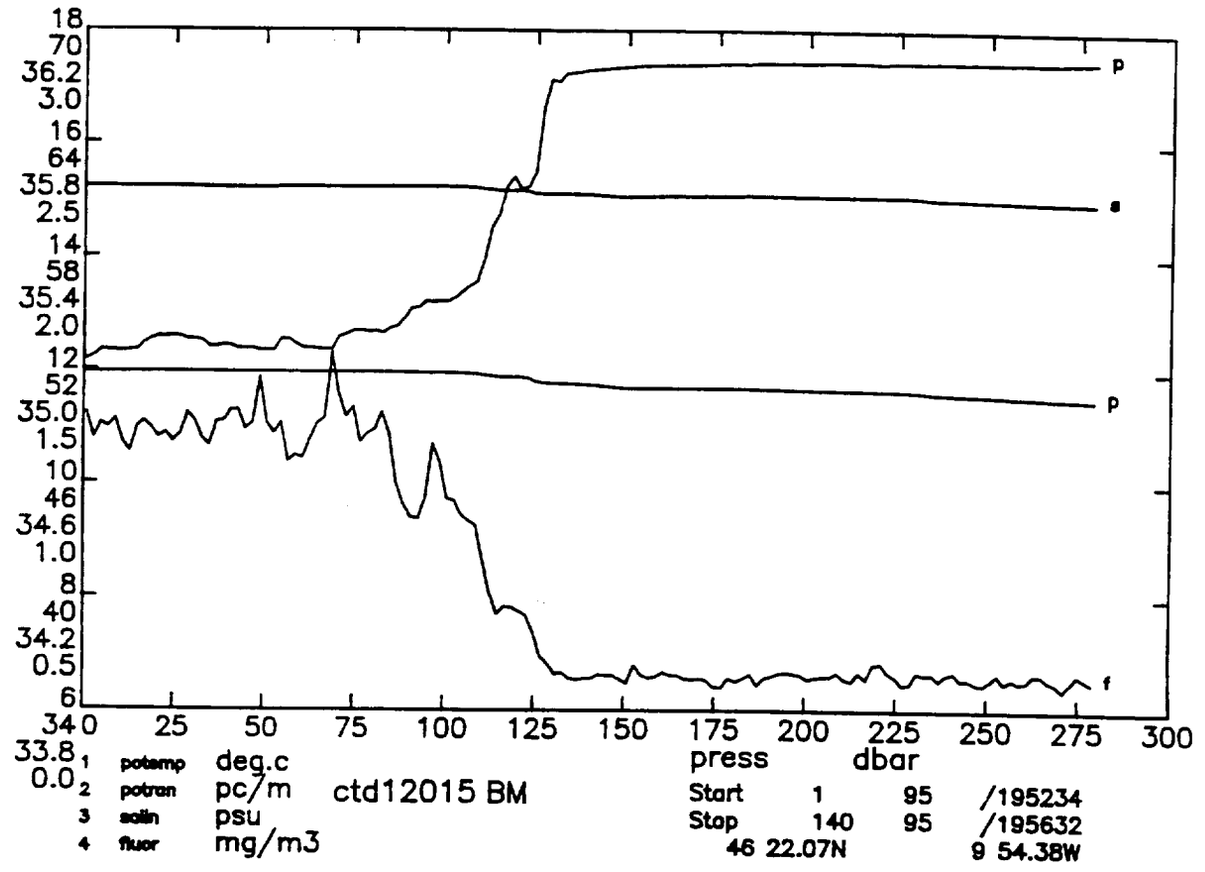
6.0
8
64
35.0
5.0
6
62
34.6
4.0
4
60
34.2
3.0
2
58
33.8
2.0
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
p
o
s
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12014 BI
press dbar
Start 1 95 /135034
Stop 2445 95 /150418
46 12.35N 9 10.43W

DISCOVERY CRUISE 189 STATION 12014

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.696	35.733	5.97	12.695	54.63	0.72	27.023	35.714	44.026	0.010	1500.2	10.	102.94	-9.999
20.	12.689	35.730	5.98	12.686	54.80	1.00	27.022	35.714	44.027	0.021	1500.4	20.	103.27	-0.365
30.	12.622	35.722	6.02	12.618	56.52	0.84	27.029	35.724	44.039	0.031	1500.3	30.	102.92	1.466
40.	12.555	35.712	6.02	12.550	58.33	0.61	27.035	35.732	44.050	0.041	1500.2	40.	102.64	1.377
50.	12.509	35.702	6.00	12.503	59.84	0.50	27.037	35.736	44.056	0.051	1500.2	50.	102.73	0.810
60.	12.366	35.677	5.98	12.358	62.22	0.39	27.046	35.751	44.076	0.062	1499.9	59.	102.17	1.687
70.	12.259	35.661	6.02	12.249	62.25	0.34	27.054	35.764	44.094	0.072	1499.7	69.	101.61	1.670
80.	12.216	35.653	6.03	12.205	61.97	0.32	27.057	35.769	44.100	0.082	1499.7	79.	101.65	0.909
90.	12.206	35.652	5.98	12.194	62.11	0.31	27.059	35.771	44.102	0.092	1499.8	89.	101.78	0.717
100.	12.181	35.648	5.96	12.168	62.46	0.29	27.060	35.773	44.106	0.102	1499.9	99.	101.90	0.742
120.	12.105	35.648	5.79	12.089	65.89	0.19	27.075	35.792	44.127	0.123	1499.9	119.	101.02	1.552
140.	11.933	35.627	5.75	11.915	66.89	0.20	27.093	35.816	44.159	0.143	1499.7	139.	99.86	1.693
160.	11.929	35.628	5.79	11.908	67.36	0.15	27.094	35.818	44.161	0.163	1500.0	159.	100.27	0.481
180.	11.871	35.621	5.73	11.848	67.57	0.16	27.101	35.827	44.172	0.183	1500.1	178.	100.18	1.041
200.	11.831	35.616	5.72	11.805	67.68	0.16	27.105	35.833	44.179	0.203	1500.3	198.	100.34	0.805
220.	11.794	35.611	5.65	11.765	67.67	0.16	27.109	35.838	44.186	0.223	1500.5	218.	100.53	0.778
240.	11.742	35.604	5.61	11.711	67.71	0.15	27.114	35.845	44.196	0.243	1500.6	238.	100.58	0.907
260.	11.587	35.584	5.47	11.554	67.74	0.15	27.128	35.866	44.223	0.263	1500.4	258.	99.69	1.547
280.	11.477	35.572	5.42	11.441	67.74	0.17	27.139	35.882	44.243	0.283	1500.3	278.	99.08	1.380
300.	11.358	35.557	5.39	11.320	68.00	0.16	27.150	35.899	44.264	0.303	1500.2	297.	98.50	1.367
350.	11.137	35.533	5.32	11.093	68.11	0.18	27.174	35.932	44.306	0.352	1500.3	347.	97.44	1.257
400.	10.938	35.525	5.22	10.888	68.13	0.16	27.205	35.971	44.353	0.400	1500.4	396.	95.63	1.440
450.	10.770	35.520	5.12	10.715	68.23	0.14	27.232	36.006	44.395	0.447	1500.6	446.	94.16	1.354
500.	10.676	35.526	5.01	10.614	68.25	0.12	27.255	36.032	44.425	0.494	1501.1	495.	93.21	1.215
550.	10.594	35.542	4.93	10.526	68.23	0.13	27.283	36.064	44.460	0.540	1501.7	545.	91.71	1.357
600.	10.511	35.575	4.81	10.437	68.28	0.13	27.324	36.109	44.508	0.586	1502.3	594.	88.95	1.636
650.	10.454	35.607	4.70	10.375	68.32	0.13	27.361	36.147	44.548	0.630	1502.9	644.	86.70	1.528
700.	10.468	35.661	4.60	10.381	68.40	0.14	27.402	36.187	44.587	0.672	1503.9	693.	84.10	1.604
750.	10.336	35.678	4.55	10.244	68.45	0.12	27.439	36.230	44.635	0.714	1504.2	742.	81.60	1.580
800.	10.084	35.681	4.52	9.987	68.53	0.11	27.486	36.288	44.703	0.754	1504.2	792.	78.00	1.797
850.	9.854	35.699	4.51	9.752	68.65	0.15	27.540	36.351	44.776	0.792	1504.2	841.	73.71	1.917
900.	9.619	35.699	4.53	9.512	68.66	0.16	27.581	36.402	44.836	0.828	1504.2	891.	70.63	1.689
950.	9.497	35.714	4.55	9.385	68.70	0.16	27.614	36.440	44.879	0.862	1504.6	940.	68.43	1.498
1000.	9.320	35.708	4.54	9.203	68.71	0.16	27.640	36.474	44.920	0.896	1504.8	989.	66.75	1.375
1200.	7.656	35.487	4.90	7.529	68.77	0.16	27.726	36.638	45.157	1.021	1501.6	1187.	58.68	1.431
1400.	6.089	35.253	5.31	5.956	68.69	0.13	27.759	36.748	45.339	1.134	1498.5	1384.	54.29	1.145
1600.	4.674	35.051	5.80	4.537	68.67	0.16	27.769	36.831	45.491	1.239	1495.9	1581.	50.87	1.016
1800.	4.149	34.994	6.00	3.998	68.58	0.17	27.782	36.872	45.559	1.339	1497.0	1778.	49.64	0.765
2000.	3.786	34.980	6.01	3.621	68.61	0.18	27.809	36.919	45.624	1.436	1498.8	1974.	47.36	0.853
2200.	3.595	34.990	5.87	3.414	68.56	0.14	27.838	36.959	45.674	1.529	1501.4	2171.	45.54	0.794
2400.	3.303	34.977	5.78	3.107	68.54	0.10	27.856	36.994	45.724	1.618	1503.5	2367.	43.83	0.771
2600.	3.091	34.966	5.73	2.879	68.72	0.10	27.869	37.019	45.761	1.704	1506.0	2563.	42.88	0.666
2800.	2.918	34.952	5.70	2.689	68.79	0.10	27.875	37.036	45.787	1.790	1508.6	2759.	42.61	0.561
3000.	2.789	34.943	5.66	2.543	68.84	0.13	27.881	37.049	45.808	1.875	1511.5	2954.	42.56	0.517
3200.	2.696	34.933	5.64	2.431	68.87	0.13	27.883	37.057	45.822	1.960	1514.5	3150.	42.97	0.423
3400.	2.631	34.927	5.61	2.346	68.91	0.07	27.885	37.064	45.834	2.047	1517.6	3345.	43.48	0.394
3500.	2.604	34.924	5.60	2.309	68.93	0.11	27.886	37.067	45.839	2.090	1519.2	3443.	43.77	0.378
3600.	2.582	34.921	5.60	2.276	68.94	0.09	27.886	37.069	45.842	2.134	1520.8	3540.	44.14	0.332
3700.	2.556	34.918	5.56	2.240	68.95	0.09	27.886	37.072	45.847	2.179	1522.4	3638.	44.48	0.350
3800.	2.541	34.915	5.58	2.215	68.98	0.07	27.886	37.073	45.849	2.223	1524.1	3735.	44.94	0.280
3900.	2.535	34.913	5.58	2.197	68.98	0.06	27.886	37.074	45.851	2.268	1525.8	3833.	45.45	0.245
4000.	2.516	34.911	5.57	2.167	69.00	0.11	27.887	37.076	45.855	2.314	1527.4	3930.	45.81	0.337
4100.	2.503	34.908	5.58	2.143	69.01	0.07	27.887	37.077	45.857	2.360	1529.1	4027.	46.25	0.285
4200.	2.496	34.906	5.56	2.125	69.01	0.09	27.886	37.078	45.859	2.407	1530.8	4125.	46.76	0.247
4300.	2.491	34.904	5.57	2.108	69.02	0.09	27.886	37.079	45.861	2.454	1532.5	4222.	47.27	0.238
4400.	2.493	34.903	5.59	2.098	69.01	0.06	27.886	37.080	45.862	2.501	1534.2	4319.	47.84	0.197
4500.	2.495	34.902	5.58	2.088	69.02	0.07	27.886	37.080	45.863	2.549	1535.9	4416.	48.45	0.163
4600.	2.499	34.901	5.60	2.079	68.98	0.06	27.886	37.080	45.864	2.598	1537.7	4513.	49.04	0.177
4700.	2.505	34.900	5.59	2.073	68.78	0.10	27.886	37.080	45.864	2.647	1539.4	4611.	49.68	0.127
4800.	2.515	34.900	5.61	2.070	68.63	0.07	27.886	37.080	45.864	2.697	1541.2	4708.	50.33	0.120

Sample data

4890.	2.526	34.900	-9.99	2.069
4518.	2.496	34.900	5.58	2.086
4034.	2.512	34.908	5.60	2.159
3543.	2.593	34.922	5.62	2.293
3017.	2.776	34.943	5.67	2.528
2501.	3.207	34.974	5.76	3.002
1805.	4.146	34.996	6.01	3.995
1240.	7.561	35.492	4.86	7.430
878.	9.735	35.702	4.39	9.630
426.	10.891	35.527	5.13	10.838
77.	12.222	35.656	6.13	12.212
32.	12.609	35.723	6.13	12.604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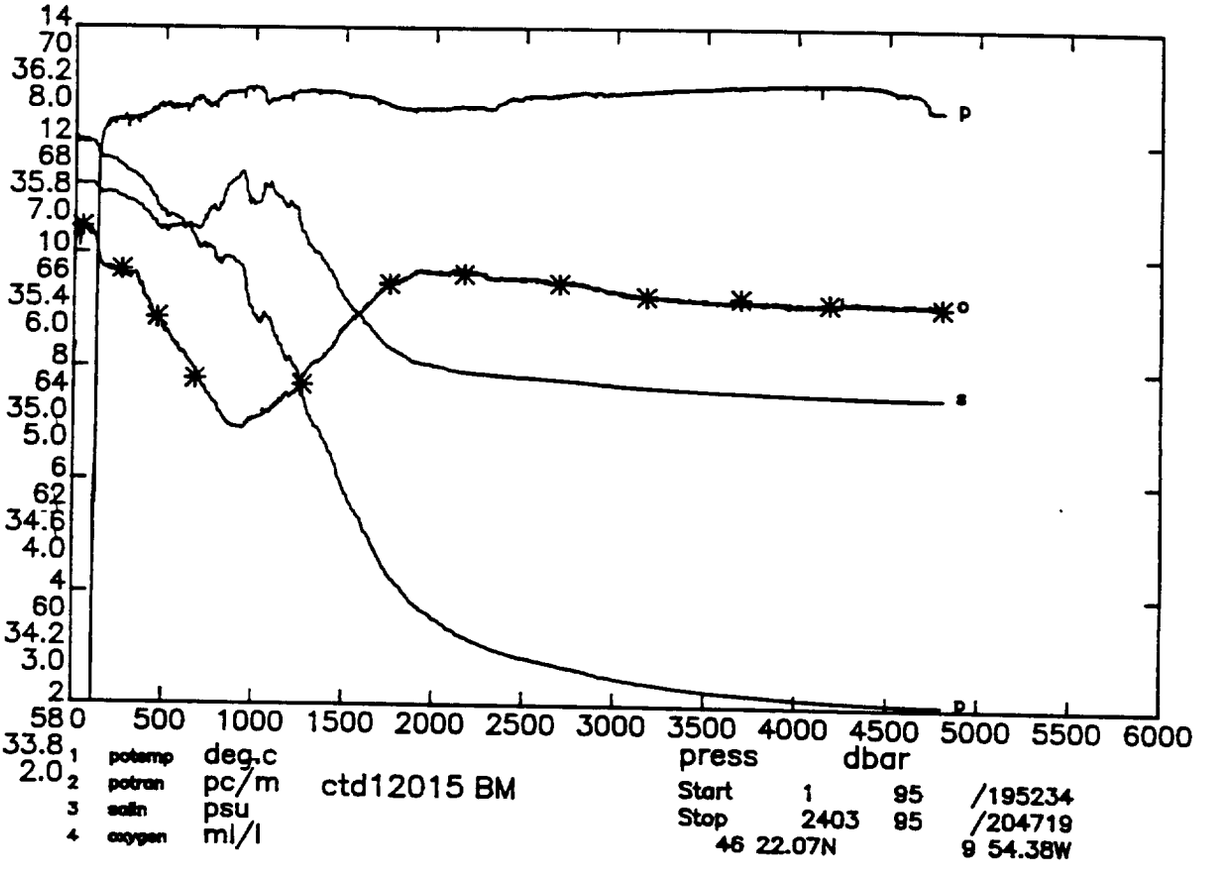
1.0
8
40
34.2
0.5
6
34
33.8
0.0
p
s
p
f
0 25 50 75 100 125 150 175 200 225 250 275 300
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12015 BM
press dbar
Start 1 95 /195234
Stop 140 95 /195632
46 22.07N 9 54.38W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60
34.2
3.0
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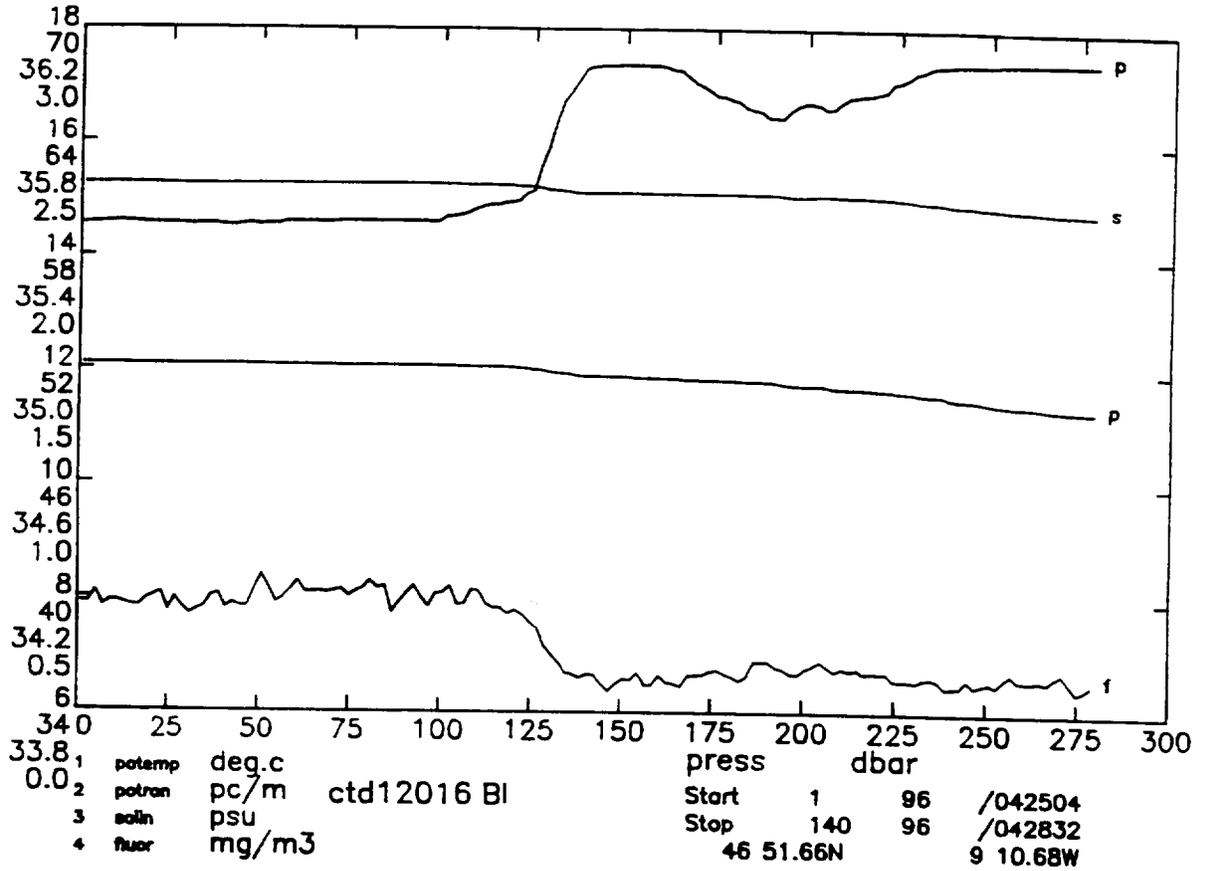
58
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12015 BM
press dbar
Start 1 95 /195234
Stop 2403 95 /204719
46 22.07N 9 54.38W

DISCOVERY CRUISE 189 STATION 12015

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.958	35.643	6.16	11.956	52.97	1.23	27.097	35.819	44.160	0.010	1497.6	10.	95.82	-9.999
20.	11.967	35.643	6.18	11.964	53.70	1.22	27.096	35.817	44.157	0.019	1497.8	20.	96.27	-0.757
30.	11.967	35.644	6.12	11.963	53.60	1.29	27.097	35.818	44.159	0.029	1498.0	30.	96.42	0.648
40.	11.965	35.642	6.20	11.960	53.28	1.30	27.096	35.817	44.158	0.038	1498.1	40.	96.82	-0.628
50.	11.962	35.640	6.21	11.956	53.03	1.37	27.095	35.817	44.157	0.048	1498.3	50.	97.15	-0.415
60.	11.966	35.643	6.21	11.959	53.26	1.11	27.097	35.818	44.159	0.058	1498.5	59.	97.27	0.734
70.	11.970	35.644	6.21	11.961	53.44	1.48	27.097	35.818	44.158	0.068	1498.7	69.	97.57	-0.234
80.	11.973	35.644	6.20	11.963	54.03	1.23	27.097	35.818	44.159	0.077	1498.8	79.	97.83	0.249
90.	11.973	35.644	6.20	11.961	54.97	0.88	27.097	35.818	44.159	0.087	1499.0	89.	98.11	-0.165
100.	11.969	35.643	6.17	11.956	55.62	1.01	27.097	35.819	44.160	0.097	1499.1	99.	98.33	0.443
120.	11.891	35.631	6.09	11.876	61.88	0.44	27.103	35.828	44.172	0.117	1499.2	119.	98.30	0.990
140.	11.756	35.618	5.92	11.738	67.90	0.14	27.119	35.850	44.199	0.136	1499.0	139.	97.30	1.610
160.	11.702	35.612	5.87	11.681	68.16	0.16	27.126	35.859	44.210	0.156	1499.2	159.	97.22	1.019
180.	11.701	35.615	5.86	11.678	68.28	0.14	27.129	35.862	44.213	0.175	1499.5	178.	97.50	0.672
200.	11.681	35.614	5.85	11.655	68.31	0.15	27.132	35.866	44.218	0.195	1499.8	198.	97.75	0.703
220.	11.666	35.612	5.84	11.637	68.29	0.21	27.134	35.868	44.221	0.214	1500.0	218.	98.11	0.554
240.	11.612	35.602	5.83	11.581	68.36	0.17	27.137	35.874	44.229	0.234	1500.2	238.	98.31	0.747
260.	11.575	35.597	5.78	11.542	68.36	0.13	27.140	35.879	44.236	0.254	1500.4	258.	98.51	0.762
280.	11.525	35.592	5.81	11.489	68.40	0.14	27.146	35.887	44.245	0.273	1500.5	278.	98.49	0.963
300.	11.477	35.586	5.80	11.439	68.37	0.18	27.151	35.894	44.254	0.293	1500.7	297.	98.55	0.889
350.	11.390	35.571	5.78	11.345	68.39	0.17	27.157	35.904	44.268	0.342	1501.2	347.	99.25	0.649
400.	11.223	35.542	5.60	11.172	68.44	0.17	27.166	35.921	44.292	0.392	1501.4	396.	99.52	0.836
450.	11.018	35.508	5.43	10.961	68.53	0.13	27.178	35.942	44.322	0.442	1501.5	446.	99.47	0.947
500.	10.791	35.490	5.31	10.729	68.61	0.16	27.207	35.980	44.369	0.491	1501.5	495.	97.87	1.386
550.	10.730	35.493	5.22	10.662	68.59	0.12	27.221	35.997	44.388	0.540	1502.1	545.	97.70	0.977
600.	10.609	35.492	5.13	10.535	68.59	0.15	27.243	36.024	44.420	0.588	1502.5	594.	96.73	1.219
650.	10.445	35.492	5.03	10.365	68.64	0.13	27.273	36.061	44.464	0.636	1502.7	644.	94.91	1.428
700.	10.178	35.490	4.87	10.093	68.76	0.15	27.318	36.118	44.532	0.683	1502.6	693.	91.47	1.766
750.	10.197	35.551	4.75	10.106	68.58	0.15	27.364	36.162	44.574	0.728	1503.6	742.	88.42	1.687
800.	9.932	35.554	4.61	9.836	68.70	0.14	27.413	36.222	44.645	0.772	1503.5	792.	84.58	1.836
850.	10.040	35.637	4.50	9.937	68.83	0.16	27.460	36.265	44.682	0.813	1504.8	841.	81.50	1.692
900.	9.944	35.663	4.47	9.836	68.85	0.16	27.498	36.306	44.728	0.854	1505.3	891.	78.95	1.582
950.	9.648	35.656	4.47	9.535	68.91	0.14	27.544	36.365	44.798	0.892	1505.1	940.	75.28	1.802
1000.	9.015	35.572	4.54	8.900	68.93	0.16	27.583	36.432	44.892	0.929	1503.5	989.	71.41	1.831
1200.	8.287	35.583	4.73	8.154	68.80	0.12	27.709	36.591	45.082	1.061	1504.1	1187.	62.02	1.511
1400.	6.767	35.362	5.10	6.626	68.85	0.10	27.756	36.711	45.271	1.179	1501.3	1384.	56.78	1.226
1600.	5.383	35.173	5.48	5.237	68.76	0.15	27.784	36.810	45.435	1.288	1499.0	1581.	52.18	1.134
1800.	4.276	35.051	5.75	4.124	68.58	0.09	27.813	36.897	45.576	1.386	1497.6	1778.	47.29	1.114
2000.	3.695	35.001	5.83	3.532	68.56	0.15	27.835	36.950	45.659	1.478	1498.5	1974.	44.51	0.904
2200.	3.344	34.978	5.84	3.167	68.59	0.14	27.852	36.986	45.713	1.566	1500.3	2170.	42.90	0.763
2400.	3.125	34.969	5.77	2.933	68.73	0.12	27.867	37.014	45.753	1.650	1502.8	2367.	41.83	0.684
2600.	2.993	34.960	5.77	2.783	68.79	0.14	27.873	37.028	45.775	1.734	1505.6	2563.	41.90	0.510
2800.	2.876	34.951	5.73	2.649	68.85	0.12	27.878	37.040	45.794	1.818	1508.5	2759.	42.10	0.478
3000.	2.735	34.939	5.67	2.490	68.85	0.11	27.882	37.053	45.815	1.902	1511.3	2954.	42.05	0.512
3200.	2.658	34.931	5.63	2.394	68.89	0.07	27.884	37.060	45.827	1.986	1514.3	3150.	42.56	0.399
3400.	2.594	34.925	5.60	2.310	68.93	0.10	27.886	37.067	45.839	2.072	1517.5	3345.	43.07	0.391
3500.	2.572	34.922	5.59	2.278	68.94	0.09	27.886	37.069	45.842	2.115	1519.1	3443.	43.46	0.323
3600.	2.550	34.919	5.59	2.246	68.97	0.10	27.887	37.072	45.846	2.159	1520.7	3540.	43.80	0.346
3700.	2.541	34.917	5.58	2.226	68.96	0.07	27.887	37.073	45.849	2.203	1522.4	3638.	44.30	0.252
3800.	2.530	34.915	5.58	2.204	68.98	0.06	27.887	37.074	45.851	2.247	1524.0	3735.	44.80	0.251
3900.	2.514	34.913	5.58	2.176	69.00	0.06	27.887	37.076	45.854	2.292	1525.7	3833.	45.16	0.334
4000.	2.507	34.910	5.56	2.158	69.01	0.08	27.887	37.077	45.856	2.338	1527.4	3930.	45.69	0.231
4100.	2.502	34.909	5.56	2.142	69.00	0.08	27.887	37.078	45.858	2.384	1529.1	4027.	46.20	0.242
4200.	2.496	34.907	5.57	2.125	69.00	0.07	27.887	37.079	45.860	2.430	1530.8	4125.	46.68	0.259
4300.	2.499	34.906	5.58	2.115	69.01	0.10	27.887	37.079	45.861	2.477	1532.5	4222.	47.30	0.152
4400.	2.497	34.904	5.58	2.102	69.00	0.08	27.887	37.080	45.862	2.525	1534.2	4319.	47.84	0.217
4500.	2.499	34.903	5.57	2.092	68.95	0.09	27.887	37.080	45.863	2.573	1536.0	4416.	48.42	0.191
4600.	2.504	34.902	5.57	2.084	68.88	0.13	27.886	37.080	45.864	2.622	1537.7	4513.	49.06	0.129
4700.	2.509	34.901	5.57	2.077	68.75	0.05	27.886	37.081	45.864	2.671	1539.5	4610.	49.65	0.181
4800.	2.520	34.902	5.55	2.075	68.56	0.06	27.887	37.081	45.865	2.721	1541.2	4708.	50.27	0.152

Sample data

4801.	2.520	34.902	5.55	2.075
4181.	2.498	34.906	5.58	2.128
3693.	2.543	34.916	5.62	2.228
3174.	2.668	34.932	5.63	2.406
2693.	2.930	34.956	5.74	2.712
2167.	3.392	34.982	5.82	3.217
1752.	4.451	35.068	5.73	4.301
1272.	7.597	35.478	4.84	7.462
676.	10.306	35.485	4.89	10.223
463.	10.880	35.498	5.43	10.822
266.	11.567	35.600	5.85	11.532
43.	11.964	35.648	6.23	11.958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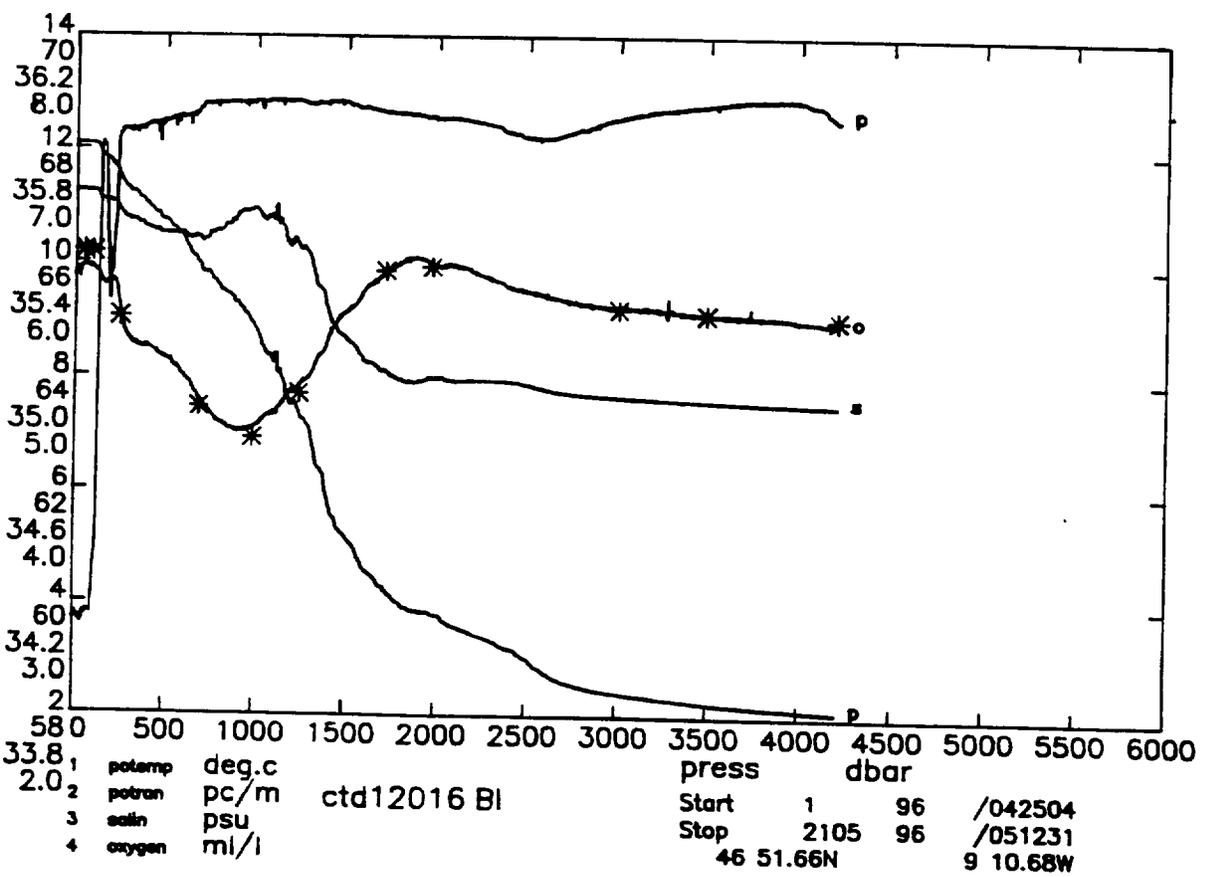
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 fluor mg/m3
ctd12016 BI
Start 1 96 /042504
Stop 140 96 /042832
46 51.66N
9 10.68W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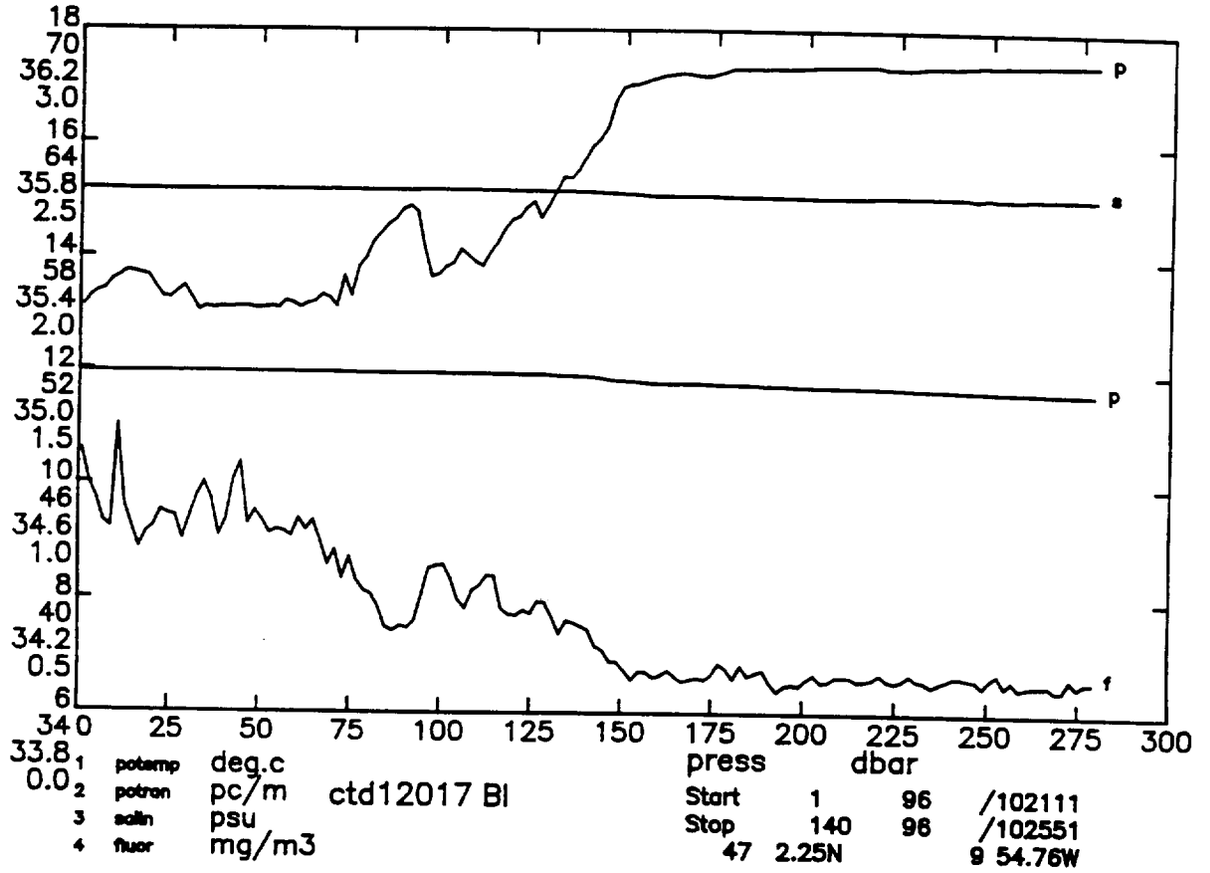
33.8
2.0
p
o
s
p
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
press dbar
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12016 BI
Start 1 96 /042504
Stop 2105 96 /051231
46 51.66N
9 10.68W

DISCOVERY CRUISE 189 STATION 12016

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	12.084	35.652	5.93	12.082	59.79	0.48	27.080	35.796	44.132	0.010	1498.1	10.	97.50	-9.999
20.	12.092	35.652	5.94	12.089	59.72	0.50	27.078	35.795	44.130	0.020	1498.2	20.	97.91	-0.652
30.	12.090	35.652	5.91	12.086	59.68	0.44	27.079	35.795	44.131	0.029	1498.4	30.	98.16	0.324
40.	12.093	35.651	5.96	12.087	59.63	0.49	27.078	35.795	44.130	0.039	1498.6	40.	98.47	-0.327
50.	12.096	35.651	5.97	12.089	59.65	0.57	27.078	35.794	44.130	0.049	1498.8	50.	98.81	-0.426
60.	12.092	35.650	5.96	12.084	59.80	0.56	27.078	35.795	44.130	0.059	1498.9	59.	99.05	0.348
70.	12.094	35.650	5.97	12.085	59.79	0.53	27.078	35.795	44.130	0.069	1499.1	69.	99.34	-0.191
80.	12.094	35.651	5.96	12.083	59.83	0.56	27.079	35.795	44.131	0.079	1499.2	79.	99.57	0.446
90.	12.095	35.650	5.95	12.083	59.80	0.50	27.078	35.795	44.131	0.089	1499.4	89.	99.88	-0.350
100.	12.091	35.649	5.95	12.078	59.92	0.52	27.079	35.795	44.131	0.099	1499.6	99.	100.13	0.318
120.	12.065	35.645	5.92	12.050	60.89	0.44	27.081	35.798	44.135	0.119	1499.8	119.	100.51	0.552
140.	11.912	35.620	5.86	11.894	67.96	0.16	27.091	35.816	44.159	0.139	1499.6	139.	100.00	1.335
160.	11.880	35.618	5.81	11.859	68.04	0.14	27.097	35.822	44.167	0.159	1499.8	159.	100.05	0.917
180.	11.842	35.618	5.82	11.819	66.25	0.17	27.104	35.832	44.177	0.179	1500.0	178.	99.87	1.105
200.	11.755	35.611	5.85	11.729	66.15	0.18	27.116	35.847	44.196	0.199	1500.0	198.	99.28	1.378
220.	11.692	35.607	5.83	11.664	66.76	0.18	27.125	35.859	44.211	0.219	1500.1	218.	98.90	1.240
240.	11.561	35.584	5.66	11.530	68.24	0.12	27.132	35.871	44.228	0.238	1500.0	238.	98.76	1.068
260.	11.442	35.569	5.47	11.409	68.35	0.15	27.143	35.887	44.249	0.258	1499.9	258.	98.18	1.364
280.	11.353	35.558	5.37	11.317	68.35	0.13	27.152	35.900	44.266	0.278	1499.9	277.	97.83	1.213
300.	11.297	35.552	5.32	11.259	68.34	0.16	27.158	35.909	44.277	0.297	1500.0	297.	97.73	1.028
350.	11.189	35.540	5.26	11.145	68.34	0.14	27.170	35.925	44.298	0.346	1500.5	347.	97.85	0.892
400.	11.058	35.524	5.26	11.008	68.43	0.13	27.182	35.943	44.321	0.395	1500.8	396.	97.89	0.917
450.	10.917	35.513	5.21	10.861	68.36	0.14	27.200	35.968	44.351	0.444	1501.1	446.	97.32	1.112
500.	10.810	35.503	5.15	10.748	68.49	0.13	27.213	35.986	44.373	0.493	1501.6	495.	97.26	0.944
550.	10.671	35.501	5.09	10.603	68.47	0.21	27.238	36.016	44.410	0.541	1501.9	545.	96.05	1.284
600.	10.493	35.504	5.00	10.419	68.56	0.14	27.272	36.058	44.459	0.588	1502.1	594.	93.83	1.521
650.	10.215	35.488	4.90	10.137	68.62	0.14	27.310	36.108	44.520	0.635	1501.9	644.	91.14	1.618
700.	9.982	35.478	4.78	9.899	68.76	0.16	27.343	36.151	44.572	0.680	1501.9	693.	88.90	1.516
750.	9.871	35.503	4.68	9.782	68.80	0.13	27.382	36.195	44.621	0.724	1502.4	742.	86.17	1.617
800.	9.664	35.514	4.59	9.570	68.82	0.15	27.426	36.248	44.682	0.766	1502.5	792.	82.85	1.734
850.	9.544	35.535	4.54	9.444	68.81	0.13	27.464	36.291	44.730	0.807	1502.9	841.	80.23	1.588
900.	9.401	35.573	4.52	9.296	68.83	0.13	27.518	36.351	44.795	0.846	1503.2	891.	76.02	1.893
950.	9.206	35.582	4.52	9.096	68.83	0.12	27.559	36.400	44.852	0.883	1503.4	940.	72.96	1.675
1000.	8.941	35.589	4.56	8.827	68.85	0.17	27.607	36.460	44.923	0.918	1503.2	989.	68.95	1.852
1200.	7.667	35.475	4.88	7.540	68.84	0.12	27.715	36.627	45.146	1.046	1501.6	1187.	59.71	1.494
1400.	5.947	35.227	5.33	5.815	68.85	0.15	27.756	36.752	45.350	1.160	1497.9	1384.	54.08	1.231
1600.	4.751	35.055	5.76	4.612	68.75	0.13	27.764	36.822	45.478	1.265	1496.2	1581.	51.65	0.929
1800.	4.153	34.990	6.00	4.003	68.66	0.13	27.778	36.869	45.555	1.367	1497.0	1777.	49.99	0.813
2000.	3.946	34.996	5.98	3.779	68.56	0.16	27.806	36.908	45.605	1.465	1499.5	1974.	48.39	0.786
2200.	3.658	34.988	5.93	3.476	68.52	0.12	27.830	36.948	45.660	1.560	1501.7	2170.	46.57	0.800
2400.	3.411	34.984	5.80	3.213	68.32	0.13	27.852	36.984	45.709	1.652	1504.0	2367.	44.85	0.775
2600.	3.014	34.958	5.72	2.804	68.21	0.09	27.870	37.024	45.769	1.739	1505.7	2563.	42.36	0.842
2800.	2.765	34.940	5.65	2.540	68.37	0.11	27.879	37.047	45.807	1.822	1508.0	2758.	41.25	0.670
2900.	2.707	34.936	5.63	2.473	68.48	0.11	27.881	37.053	45.816	1.864	1509.4	2856.	41.29	0.484
3000.	2.671	34.932	5.61	2.427	68.57	0.12	27.882	37.057	45.822	1.905	1511.0	2954.	41.55	0.398
3100.	2.642	34.929	5.61	2.389	68.63	0.10	27.883	37.060	45.827	1.947	1512.5	3052.	41.92	0.337
3200.	2.612	34.926	5.60	2.349	68.70	0.08	27.884	37.063	45.832	1.989	1514.1	3150.	42.21	0.375
3300.	2.592	34.924	5.59	2.319	68.74	0.09	27.885	37.065	45.836	2.031	1515.7	3247.	42.56	0.343
3400.	2.574	34.922	5.57	2.291	68.77	0.13	27.885	37.067	45.840	2.074	1517.4	3345.	42.98	0.307
3500.	2.546	34.919	5.56	2.252	68.82	0.06	27.886	37.070	45.845	2.117	1519.0	3443.	43.25	0.377
3600.	2.528	34.917	5.55	2.224	68.84	0.08	27.887	37.073	45.849	2.161	1520.6	3540.	43.60	0.339
3700.	2.513	34.914	5.54	2.198	68.88	0.07	27.887	37.074	45.852	2.204	1522.2	3638.	44.05	0.282
3800.	2.503	34.912	5.54	2.177	68.89	0.11	27.887	37.075	45.854	2.249	1523.9	3735.	44.54	0.256
3900.	2.497	34.910	5.54	2.160	68.90	0.08	27.887	37.076	45.856	2.294	1525.6	3832.	45.06	0.233
4000.	2.488	34.908	5.51	2.140	68.88	0.11	27.887	37.078	45.858	2.339	1527.3	3930.	45.50	0.286
4100.	2.481	34.906	5.50	2.122	68.79	0.07	27.887	37.079	45.860	2.385	1529.0	4027.	46.03	0.228
4200.	2.477	34.905	5.48	2.106	68.54	0.05	27.887	37.080	45.862	2.431	1530.7	4124.	46.52	0.253

Sample data

4209.	2.478	34.904	5.52	2.106
3491.	2.550	34.918	5.56	2.257
3004.	2.671	34.932	5.60	2.426
2516.	3.219	34.973	-9.99	3.013
1971.	3.990	34.998	5.97	3.825
1717.	4.411	35.020	5.93	4.265
1238.	7.494	35.470	4.85	7.364
980.	9.048	35.586	4.46	8.935
687.	10.081	35.481	4.73	9.998
246.	11.541	35.576	5.52	11.509
94.	12.096	35.652	6.09	12.083
46.	12.091	35.654	6.10	12.085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3 salin psu
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ctd12017 BI
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Stop 140 96 /102551
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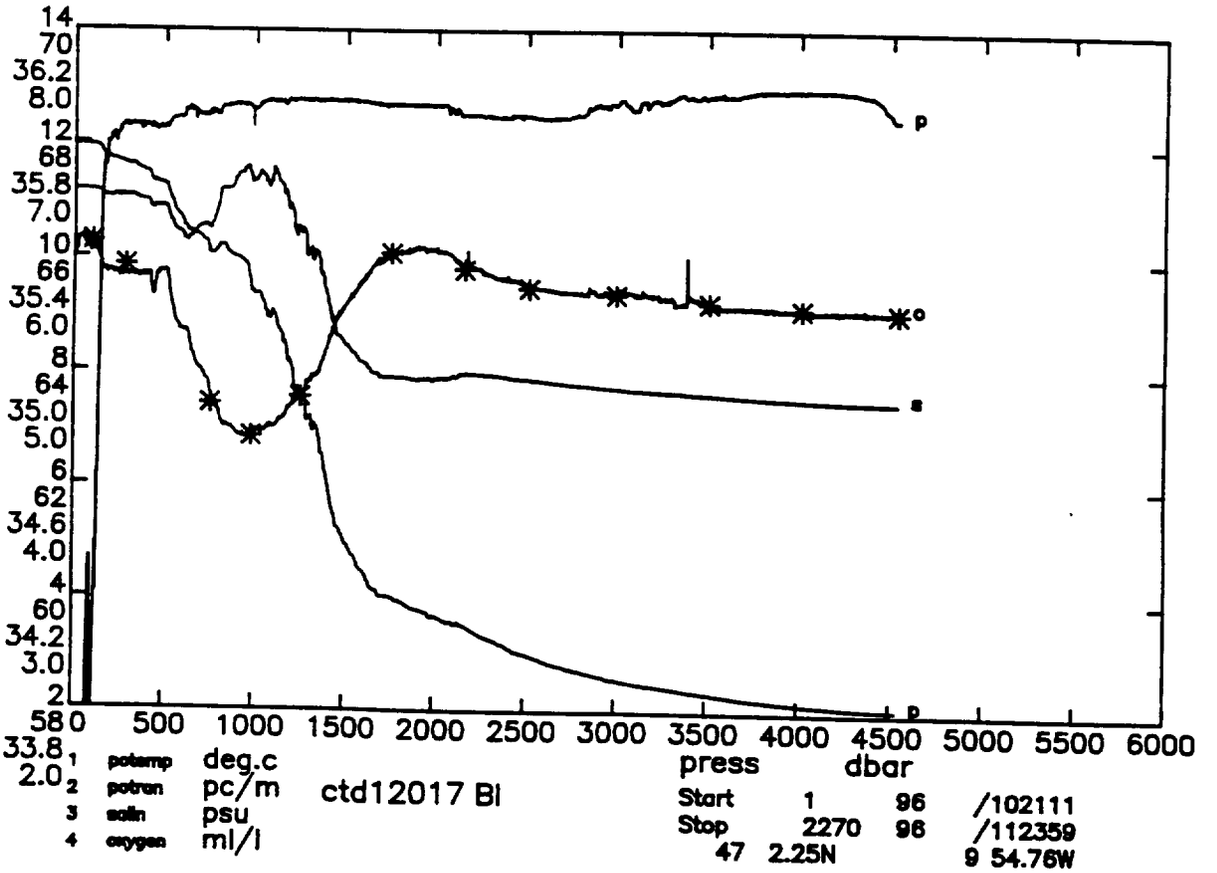
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press dbar
1 potemp deg.c
2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd12017 BI
Start 1 96 /102111
Stop 2270 96 /112359
47 2.25N 9 54.76W
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DISCOVERY CRUISE 189 STATION 12017

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.963	35.634	6.05	11.961	56.83	1.03	27.089	35.811	44.151	0.010	1497.6	10.	96.58	-9.999
20.	11.968	35.635	6.13	11.965	56.67	0.80	27.089	35.811	44.151	0.019	1497.8	20.	96.87	-0.161
30.	11.973	35.636	6.16	11.969	56.11	0.81	27.089	35.811	44.151	0.029	1498.0	30.	97.15	-0.032
40.	11.975	35.636	6.17	11.970	55.30	0.81	27.089	35.810	44.150	0.039	1498.2	40.	97.46	-0.311
50.	11.974	35.636	6.14	11.968	55.28	0.86	27.089	35.810	44.151	0.049	1498.3	50.	97.72	0.232
60.	11.975	35.636	6.15	11.967	55.44	0.81	27.090	35.811	44.151	0.058	1498.5	59.	97.96	0.373
70.	11.976	35.636	6.09	11.967	55.60	0.68	27.090	35.811	44.151	0.068	1498.7	69.	98.24	-0.096
80.	11.964	35.633	6.09	11.953	58.37	0.53	27.090	35.812	44.152	0.078	1498.8	79.	98.50	0.193
90.	11.959	35.632	6.05	11.948	60.57	0.38	27.090	35.812	44.153	0.088	1498.9	89.	98.76	0.305
100.	11.967	35.634	6.06	11.954	57.27	0.65	27.091	35.813	44.153	0.098	1499.1	99.	98.96	0.486
120.	11.956	35.632	6.05	11.941	60.05	0.43	27.092	35.814	44.155	0.118	1499.4	119.	99.45	0.350
140.	11.921	35.628	5.98	11.903	63.56	0.37	27.096	35.820	44.163	0.137	1499.6	139.	99.56	0.854
160.	11.808	35.614	5.88	11.787	67.58	0.16	27.107	35.836	44.183	0.157	1499.5	159.	99.04	1.343
180.	11.784	35.611	5.86	11.761	67.99	0.17	27.110	35.840	44.188	0.177	1499.8	178.	99.30	0.691
200.	11.747	35.610	5.88	11.721	68.08	0.14	27.116	35.848	44.197	0.197	1500.0	198.	99.23	1.009
220.	11.737	35.614	5.85	11.709	68.10	0.16	27.122	35.854	44.204	0.217	1500.3	218.	99.27	0.926
240.	11.715	35.615	5.85	11.684	68.15	0.16	27.128	35.860	44.211	0.237	1500.6	238.	99.24	0.976
260.	11.700	35.615	5.85	11.666	68.28	0.12	27.131	35.864	44.216	0.257	1500.8	258.	99.46	0.736
280.	11.676	35.615	5.84	11.640	68.31	0.14	27.135	35.870	44.223	0.276	1501.1	277.	99.57	0.853
300.	11.659	35.613	5.84	11.621	68.30	0.17	27.138	35.873	44.227	0.296	1501.3	297.	99.86	0.645
350.	11.614	35.608	5.83	11.569	68.34	0.19	27.143	35.881	44.236	0.347	1502.0	347.	100.66	0.606
400.	11.541	35.598	5.83	11.489	68.32	0.17	27.151	35.892	44.250	0.397	1502.6	396.	101.21	0.729
450.	11.392	35.580	5.73	11.334	68.23	0.17	27.166	35.914	44.278	0.448	1502.9	446.	100.98	1.021
500.	11.335	35.577	5.87	11.271	68.30	0.15	27.175	35.925	44.292	0.498	1503.5	495.	101.40	0.775
550.	10.975	35.511	5.56	10.906	68.45	0.10	27.191	35.957	44.339	0.549	1503.0	545.	100.77	1.134
600.	10.726	35.482	5.37	10.652	68.47	0.19	27.214	35.990	44.382	0.599	1502.9	594.	99.60	1.277
650.	10.520	35.472	5.20	10.440	68.63	0.13	27.244	36.029	44.430	0.648	1503.0	644.	97.73	1.444
700.	10.459	35.506	5.02	10.373	68.51	0.19	27.282	36.070	44.472	0.696	1503.6	693.	95.27	1.571
750.	10.181	35.502	4.88	10.090	68.57	0.14	27.328	36.128	44.541	0.743	1503.5	742.	91.73	1.785
800.	10.255	35.592	4.68	10.157	68.52	0.14	27.387	36.183	44.592	0.788	1504.7	792.	87.54	1.902
850.	10.224	35.641	4.52	10.120	68.68	0.13	27.432	36.228	44.639	0.831	1505.4	841.	84.49	1.688
900.	10.119	35.679	4.46	10.010	68.70	0.16	27.481	36.281	44.696	0.873	1505.9	891.	80.92	1.791
950.	10.004	35.712	4.43	9.889	68.68	0.14	27.527	36.332	44.751	0.912	1506.4	940.	77.55	1.750
1000.	9.491	35.669	4.49	9.373	68.61	0.14	27.581	36.408	44.848	0.950	1505.3	989.	72.63	2.022
1200.	8.295	35.580	4.70	8.162	68.76	0.16	27.705	36.587	45.078	1.084	1504.1	1187.	62.38	1.563
1400.	6.261	35.271	5.20	6.125	68.78	0.15	27.751	36.732	45.315	1.203	1499.2	1384.	55.58	1.322
1600.	4.611	35.034	5.80	4.474	68.75	0.16	27.762	36.828	45.491	1.309	1495.6	1581.	51.20	1.094
1800.	4.107	34.980	6.04	3.957	68.69	0.17	27.775	36.868	45.557	1.410	1496.8	1777.	50.08	0.749
2000.	3.851	34.976	6.08	3.686	68.69	0.17	27.800	36.907	45.609	1.508	1499.1	1974.	48.53	0.778
2200.	3.645	34.993	5.93	3.463	68.52	0.16	27.835	36.954	45.667	1.603	1501.6	2170.	46.00	0.869
2400.	3.363	34.983	5.82	3.166	68.47	0.12	27.856	36.990	45.717	1.693	1503.8	2367.	44.26	0.777
2600.	3.126	34.969	5.74	2.914	68.46	0.11	27.868	37.016	45.756	1.780	1506.2	2563.	43.22	0.680
2800.	2.970	34.955	5.71	2.740	68.52	0.10	27.873	37.030	45.779	1.867	1508.9	2758.	43.21	0.524
3000.	2.832	34.945	5.73	2.585	68.76	0.10	27.878	37.044	45.801	1.953	1511.7	2954.	43.09	0.530
3100.	2.781	34.939	5.69	2.525	68.63	0.13	27.879	37.048	45.808	1.996	1513.2	3052.	43.32	0.419
3200.	2.744	34.936	5.68	2.478	68.80	0.10	27.881	37.053	45.815	2.039	1514.7	3150.	43.52	0.429
3300.	2.712	34.932	5.66	2.436	68.82	0.09	27.881	37.056	45.820	2.083	1516.3	3247.	43.84	0.371
3400.	2.673	34.929	5.67	2.387	68.88	0.08	27.883	37.060	45.827	2.127	1517.8	3345.	44.01	0.433
3500.	2.641	34.925	5.58	2.345	68.88	0.08	27.883	37.063	45.832	2.171	1519.4	3442.	44.32	0.374
3600.	2.609	34.921	5.58	2.303	68.87	0.06	27.884	37.066	45.837	2.215	1520.9	3540.	44.58	0.389
3700.	2.571	34.918	5.58	2.255	68.91	0.08	27.885	37.069	45.844	2.260	1522.5	3637.	44.74	0.429
3800.	2.553	34.915	5.58	2.226	68.97	0.11	27.885	37.071	45.847	2.305	1524.1	3735.	45.17	0.300
3900.	2.532	34.911	5.56	2.194	68.98	0.07	27.885	37.073	45.850	2.350	1525.8	3832.	45.56	0.321
4000.	2.515	34.908	5.56	2.166	68.98	0.08	27.885	37.074	45.853	2.396	1527.4	3930.	45.96	0.310
4100.	2.507	34.906	5.55	2.146	68.98	0.07	27.885	37.075	45.855	2.442	1529.1	4027.	46.45	0.256
4200.	2.499	34.904	5.55	2.127	68.97	0.05	27.884	37.076	45.857	2.489	1530.8	4124.	46.96	0.244
4300.	2.494	34.903	5.56	2.111	68.95	0.07	27.885	37.077	45.859	2.536	1532.5	4222.	47.45	0.257
4400.	2.495	34.901	5.55	2.099	68.87	0.08	27.885	37.078	45.860	2.584	1534.2	4319.	48.01	0.202
4500.	2.497	34.899	5.55	2.090	68.50	0.08	27.884	37.077	45.860	2.632	1535.9	4416.	48.67	0.105

Sample data

4539.	2.501	34.902	5.54	2.087
4013.	2.513	34.910	5.57	2.161
3508.	2.640	34.924	5.62	2.342
2995.	2.834	34.943	5.69	2.586
2514.	3.226	34.972	5.74	3.020
2158.	3.710	34.994	5.90	3.531
1752.	4.168	34.982	6.04	4.021
1256.	7.784	35.502	4.78	7.649
984.	9.538	35.666	4.43	9.421
759.	10.165	35.506	4.72	10.073
285.	11.673	35.618	5.93	11.636
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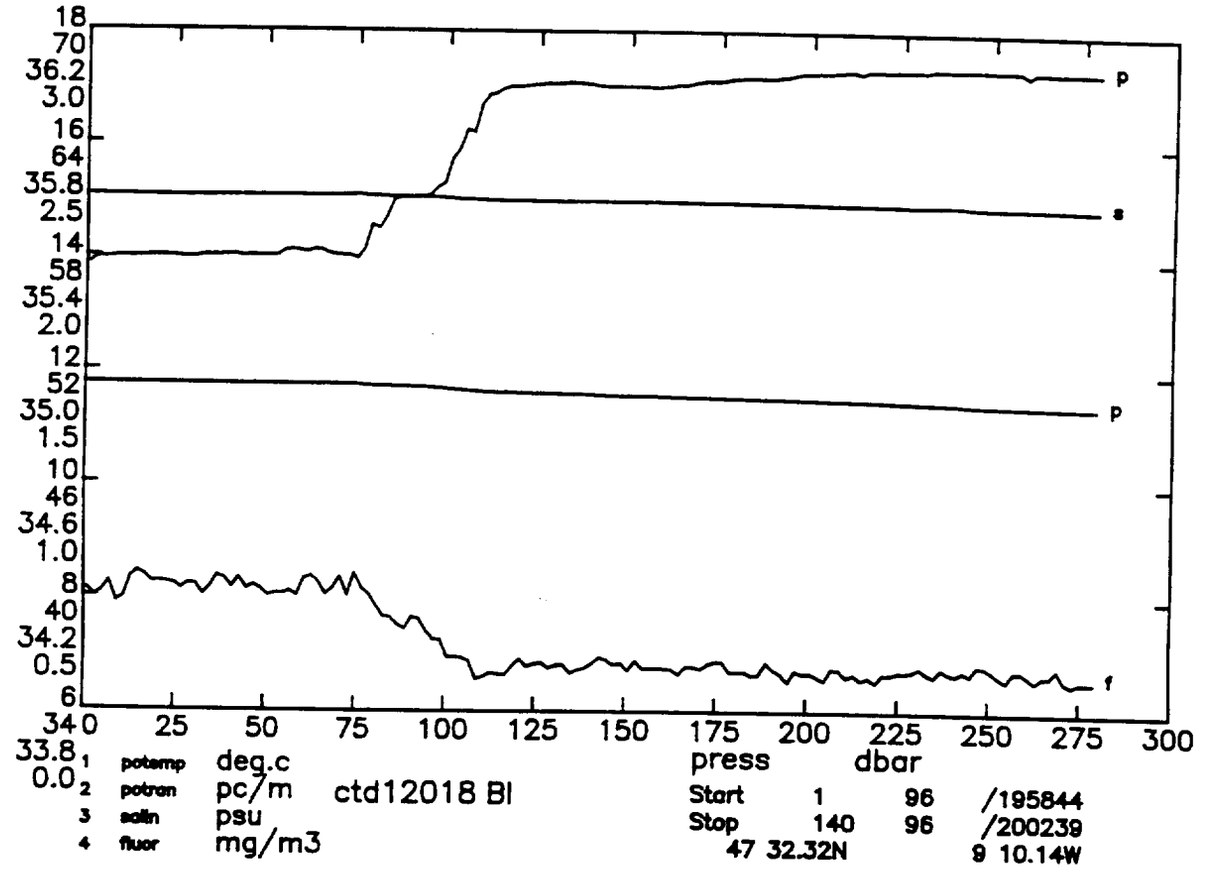
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2 potran pc/m
3 salin psu
4 fluor mg/m3
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press dbar
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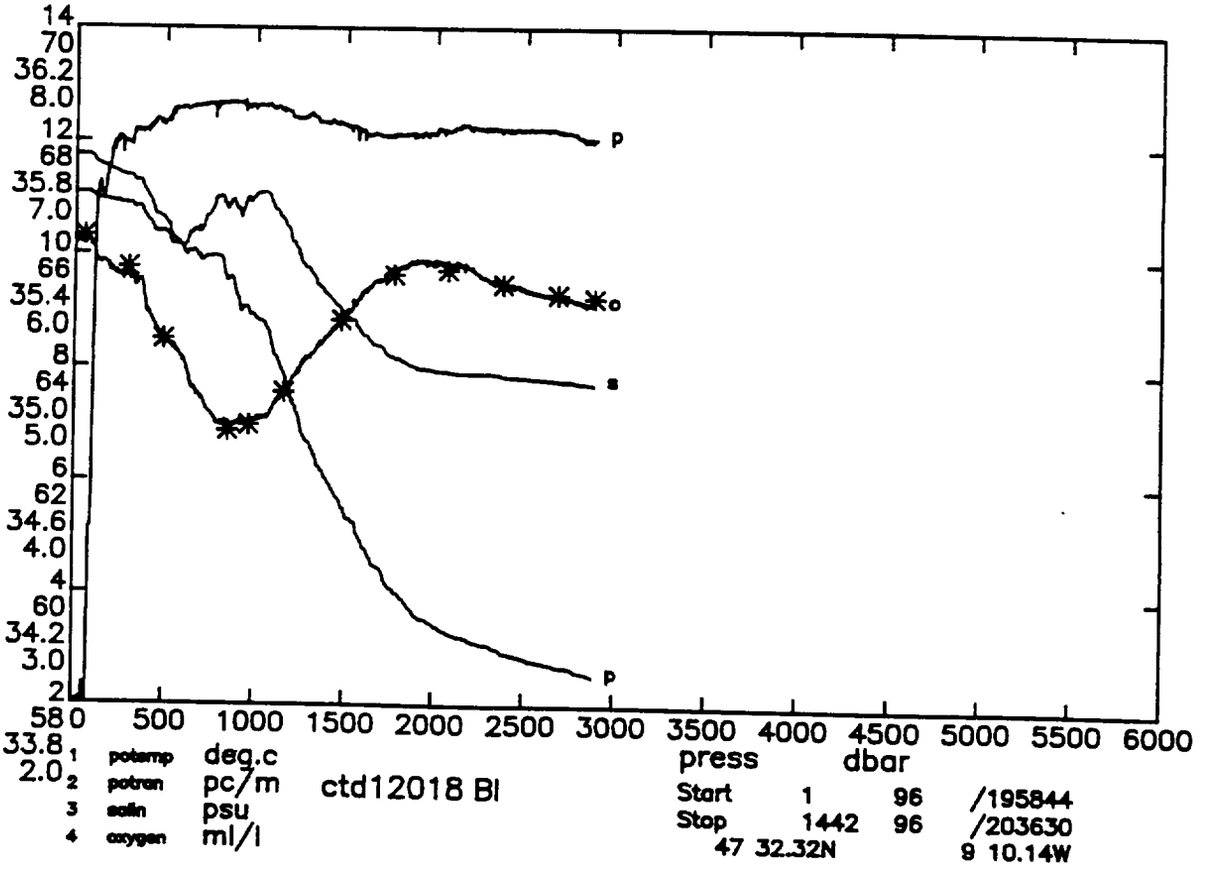
Stop 140 96 /200239
47 32.32N 9 10.14W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33.8
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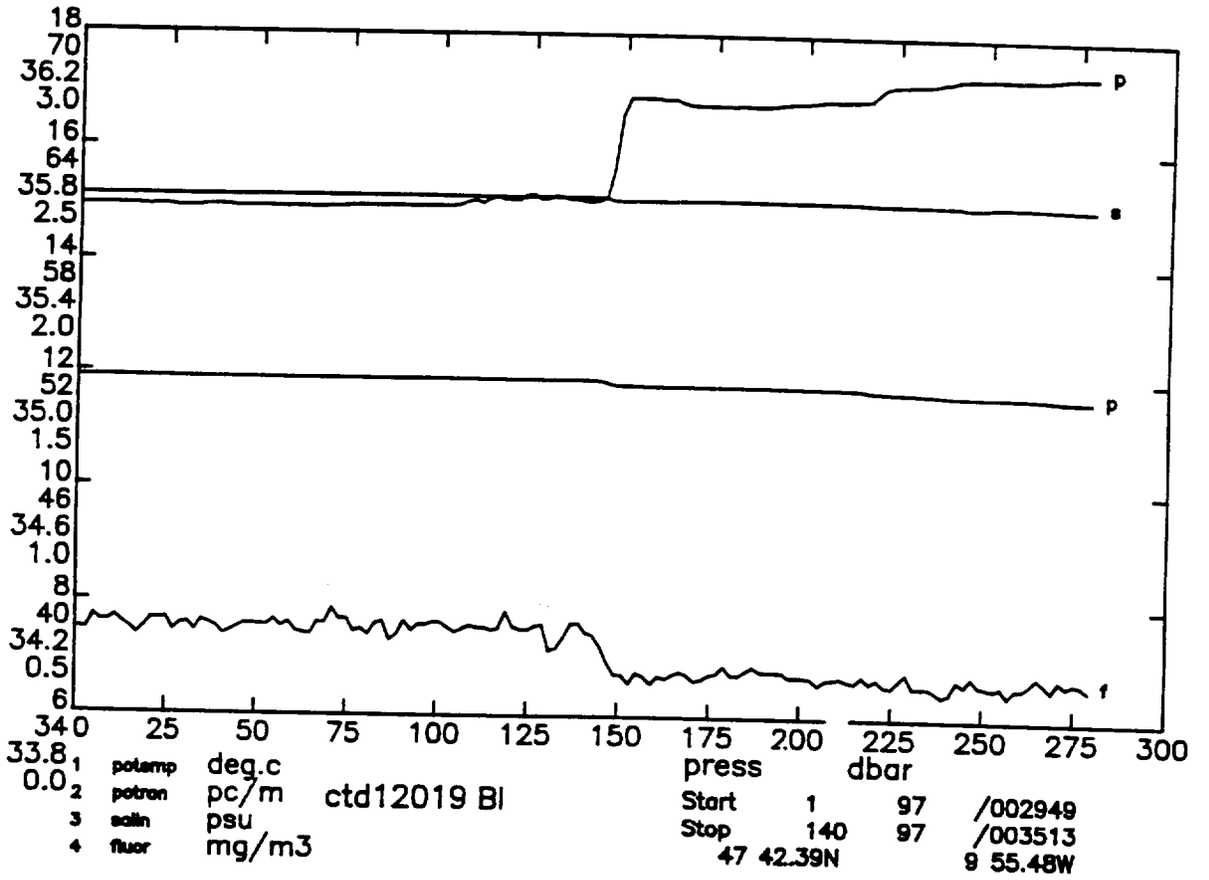
1 potemp deg.c
2 potran pc/m
3 salin psu
4 oxygen ml/l
ctd12018 Bl
press dbar
Start 1 96 /195844
Stop 1442 96 /203630
47 32.32N 9 10.14W

DISCOVERY CRUISE 189 STATION 12018

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.757	35.616	6.11	11.756	57.98	0.48	27.114	35.844	44.193	0.009	1496.9	10.	94.21	-9.999
20.	11.757	35.616	6.11	11.754	58.04	0.57	27.115	35.845	44.193	0.019	1497.1	20.	94.44	0.350
30.	11.758	35.616	6.12	11.754	57.96	0.56	27.115	35.845	44.193	0.028	1497.2	30.	94.71	0.174
40.	11.759	35.616	6.11	11.754	58.07	0.56	27.115	35.845	44.193	0.038	1497.4	40.	95.01	-0.275
50.	11.761	35.616	6.10	11.754	58.02	0.52	27.115	35.845	44.193	0.047	1497.6	50.	95.27	0.233
60.	11.760	35.616	6.11	11.752	58.26	0.54	27.115	35.845	44.193	0.057	1497.7	59.	95.53	0.151
70.	11.765	35.616	6.13	11.756	58.07	0.56	27.115	35.845	44.193	0.066	1497.9	69.	95.84	-0.312
80.	11.743	35.614	6.13	11.732	59.57	0.49	27.117	35.848	44.197	0.076	1498.0	79.	95.87	0.893
90.	11.730	35.611	6.09	11.719	61.17	0.39	27.118	35.849	44.199	0.086	1498.1	89.	96.10	0.419
100.	11.696	35.606	6.05	11.684	62.52	0.27	27.121	35.853	44.205	0.095	1498.2	99.	96.09	0.961
120.	11.624	35.598	5.94	11.609	67.04	0.21	27.128	35.864	44.218	0.114	1498.2	119.	95.87	1.132
140.	11.597	35.596	5.91	11.579	67.14	0.20	27.133	35.870	44.225	0.134	1498.5	139.	96.00	0.832
160.	11.573	35.594	5.93	11.553	67.07	0.19	27.136	35.874	44.230	0.153	1498.7	159.	96.23	0.722
180.	11.544	35.592	5.91	11.521	67.54	0.18	27.141	35.880	44.238	0.172	1498.9	178.	96.32	0.860
200.	11.519	35.589	5.88	11.494	67.84	0.17	27.143	35.884	44.242	0.191	1499.2	198.	96.60	0.666
220.	11.494	35.586	5.85	11.466	67.96	0.15	27.146	35.888	44.247	0.211	1499.4	218.	96.87	0.665
240.	11.471	35.588	5.82	11.441	68.07	0.17	27.152	35.895	44.256	0.230	1499.7	238.	96.79	1.014
260.	11.442	35.582	5.82	11.409	67.91	0.18	27.154	35.898	44.260	0.249	1499.9	258.	97.18	0.486
280.	11.427	35.580	5.82	11.392	67.99	0.15	27.155	35.900	44.263	0.269	1500.2	277.	97.54	0.548
300.	11.420	35.579	5.82	11.382	67.95	0.15	27.156	35.902	44.264	0.289	1500.5	297.	97.98	0.389
350.	11.345	35.568	5.77	11.301	68.20	0.17	27.163	35.911	44.277	0.338	1501.0	347.	98.66	0.654
400.	11.104	35.524	5.51	11.054	68.17	0.15	27.174	35.934	44.309	0.387	1501.0	396.	98.68	0.928
450.	10.758	35.479	5.35	10.702	68.39	0.12	27.203	35.977	44.367	0.436	1500.5	446.	96.93	1.423
500.	10.652	35.478	5.24	10.590	68.35	0.18	27.222	36.001	44.395	0.484	1501.0	495.	96.31	1.118
550.	10.335	35.436	5.19	10.268	68.54	0.16	27.246	36.039	44.446	0.532	1500.6	545.	94.90	1.330
600.	10.156	35.428	5.07	10.084	68.59	0.15	27.272	36.073	44.488	0.579	1500.8	594.	93.43	1.337
650.	10.136	35.478	4.82	10.058	68.62	0.14	27.316	36.117	44.532	0.625	1501.6	644.	90.47	1.668
700.	9.973	35.483	4.73	9.889	68.64	0.16	27.348	36.157	44.579	0.670	1501.9	693.	88.34	1.492
750.	10.052	35.546	4.60	9.961	68.65	0.14	27.385	36.190	44.608	0.713	1503.1	742.	86.20	1.491
800.	10.054	35.604	4.50	9.957	68.67	0.16	27.431	36.235	44.652	0.755	1504.0	792.	83.11	1.695
850.	9.652	35.571	4.51	9.552	68.69	0.15	27.474	36.296	44.730	0.796	1503.3	841.	79.49	1.792
900.	9.369	35.562	4.51	9.264	68.69	0.17	27.515	36.349	44.795	0.835	1503.1	891.	76.26	1.712
950.	9.183	35.591	4.51	9.073	68.62	0.17	27.569	36.411	44.864	0.872	1503.3	940.	71.94	1.909
1000.	8.999	35.607	4.53	8.885	68.61	0.18	27.612	36.462	44.922	0.907	1503.5	989.	68.62	1.723
1200.	7.537	35.455	4.88	7.411	68.44	0.17	27.719	36.637	45.161	1.035	1501.1	1187.	59.07	1.511
1400.	6.142	35.261	5.28	6.008	68.34	0.20	27.758	36.744	45.333	1.148	1498.8	1384.	54.54	1.153
1500.	5.552	35.185	5.45	5.414	68.29	0.17	27.773	36.789	45.406	1.202	1498.0	1482.	52.55	1.079
1600.	4.988	35.120	5.67	4.846	68.11	0.18	27.789	36.835	45.479	1.254	1497.3	1581.	50.26	1.106
1700.	4.580	35.078	5.77	4.433	68.12	0.17	27.801	36.869	45.533	1.303	1497.2	1679.	48.61	0.982
1800.	4.149	35.032	5.87	3.999	68.13	0.17	27.812	36.902	45.588	1.350	1497.1	1777.	46.85	0.985
1900.	3.753	34.998	5.93	3.599	68.12	0.16	27.826	36.937	45.643	1.396	1497.0	1876.	44.72	1.032
2000.	3.595	34.987	5.93	3.433	68.19	0.18	27.833	36.954	45.668	1.441	1498.0	1974.	44.18	0.711
2100.	3.437	34.981	5.90	3.268	68.23	0.17	27.845	36.974	45.696	1.484	1499.1	2072.	43.21	0.797
2200.	3.346	34.978	5.88	3.169	68.27	0.18	27.851	36.986	45.713	1.527	1500.4	2170.	42.93	0.628
2300.	3.280	34.978	5.76	3.094	68.23	0.15	27.859	36.997	45.728	1.570	1501.8	2268.	42.66	0.620
2400.	3.132	34.966	5.74	2.939	68.19	0.15	27.864	37.011	45.749	1.612	1502.8	2366.	42.13	0.679
2500.	3.065	34.963	5.70	2.864	68.21	0.15	27.868	37.019	45.762	1.654	1504.2	2464.	42.07	0.544
2600.	2.987	34.958	5.66	2.777	68.23	0.16	27.872	37.027	45.775	1.696	1505.6	2562.	41.97	0.551
2700.	2.921	34.952	5.63	2.702	68.17	0.12	27.874	37.034	45.785	1.738	1507.0	2660.	42.07	0.483
2800.	2.842	34.946	5.59	2.615	68.09	0.12	27.876	37.041	45.796	1.781	1508.3	2758.	41.98	0.535

Sample data

2883.	2.764	34.941	5.62	2.529
2680.	2.928	34.953	5.65	2.710
2377.	3.166	34.968	5.74	2.974
2070.	3.490	34.984	5.86	3.322
1770.	4.220	35.036	5.82	4.071
1477.	5.690	35.207	5.42	5.552
1162.	7.967	35.518	4.78	7.842
967.	9.059	35.600	4.49	8.947
852.	9.659	35.572	4.44	9.558
494.	10.698	35.492	5.25	10.637
297.	11.420	35.583	5.88	11.382
50.	11.761	35.624	6.16	11.754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ctd12019 BI
Start 1 97 /002949
Stop 140 97 /003513
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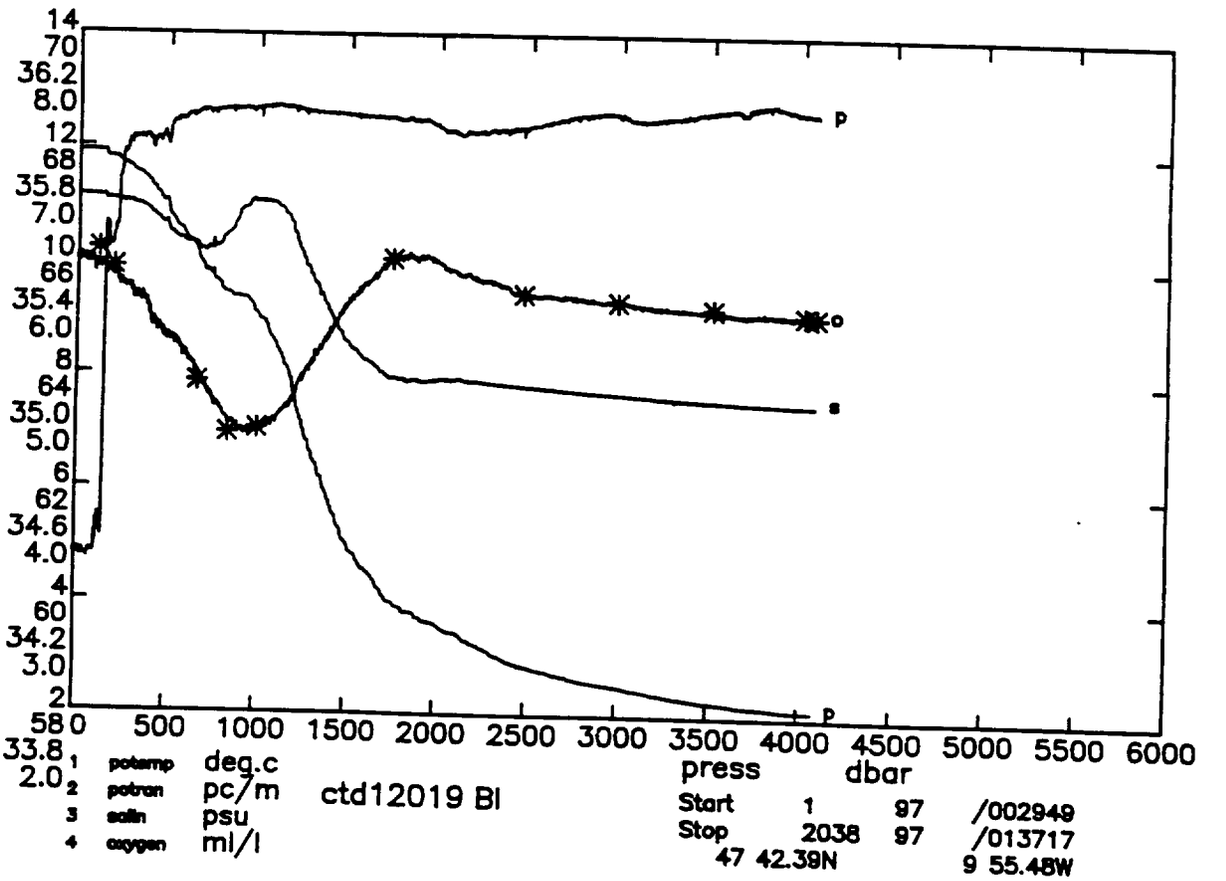
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ctd12019 BI
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Stop 2038 97 /013717
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9 55.48W

DISCOVERY CRUISE 189 STATION 12019

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
10.	11.911	35.626	6.03	11.910	60.89	0.42	27.093	35.816	44.159	0.010	1497.4	10.	96.28	-9.999
20.	11.912	35.626	6.00	11.910	60.84	0.40	27.093	35.817	44.159	0.019	1497.6	20.	96.53	0.333
30.	11.914	35.625	6.02	11.911	60.78	0.40	27.092	35.816	44.158	0.029	1497.8	30.	96.87	-0.449
40.	11.915	35.626	6.01	11.910	60.86	0.37	27.092	35.816	44.159	0.039	1497.9	40.	97.12	0.267
50.	11.918	35.626	5.98	11.912	60.80	0.40	27.093	35.816	44.159	0.048	1498.1	50.	97.39	0.237
60.	11.919	35.626	6.02	11.911	60.78	0.39	27.093	35.816	44.159	0.058	1498.3	59.	97.65	0.218
70.	11.922	35.625	6.00	11.913	60.79	0.44	27.092	35.815	44.158	0.068	1498.5	69.	98.02	-0.545
80.	11.923	35.626	6.01	11.913	60.85	0.37	27.092	35.816	44.158	0.078	1498.6	79.	98.29	0.168
90.	11.924	35.626	5.97	11.913	60.84	0.39	27.092	35.816	44.158	0.088	1498.8	89.	98.54	0.285
100.	11.926	35.626	5.96	11.913	60.85	0.41	27.092	35.816	44.158	0.097	1499.0	99.	98.81	0.163
120.	11.920	35.624	5.95	11.904	61.21	0.42	27.092	35.816	44.159	0.117	1499.3	119.	99.37	-0.067
140.	11.927	35.625	5.98	11.909	61.14	0.39	27.093	35.816	44.159	0.137	1499.6	139.	99.90	0.199
160.	11.831	35.613	5.88	11.810	66.59	0.16	27.102	35.830	44.176	0.157	1499.6	159.	99.53	1.240
180.	11.828	35.614	5.90	11.805	66.26	0.21	27.104	35.832	44.178	0.177	1499.9	178.	99.90	0.541
200.	11.817	35.613	5.89	11.791	66.48	0.18	27.106	35.834	44.181	0.197	1500.2	198.	100.26	0.566
220.	11.773	35.609	5.84	11.745	67.17	0.17	27.111	35.842	44.190	0.217	1500.4	218.	100.28	0.938
240.	11.729	35.608	5.81	11.698	67.77	0.12	27.119	35.852	44.202	0.237	1500.6	238.	100.02	1.160
260.	11.722	35.608	5.77	11.688	67.93	0.15	27.121	35.854	44.205	0.257	1500.9	258.	100.40	0.521
280.	11.684	35.606	5.78	11.647	68.11	0.13	27.127	35.862	44.214	0.277	1501.1	277.	100.33	1.011
300.	11.627	35.600	5.73	11.588	68.15	0.16	27.134	35.871	44.226	0.297	1501.2	297.	100.21	1.055
350.	11.550	35.591	5.64	11.505	68.15	0.13	27.143	35.883	44.241	0.348	1501.8	347.	100.67	0.771
400.	11.362	35.568	5.55	11.311	68.05	0.17	27.161	35.909	44.275	0.398	1501.9	396.	100.17	1.106
450.	11.180	35.542	5.42	11.123	68.16	0.14	27.175	35.932	44.305	0.448	1502.1	446.	99.91	1.023
500.	10.920	35.506	5.35	10.857	68.25	0.15	27.196	35.964	44.347	0.498	1502.0	495.	99.00	1.213
550.	10.668	35.478	5.27	10.600	68.48	0.17	27.220	35.999	44.393	0.547	1501.9	545.	97.67	1.315
600.	10.457	35.462	5.20	10.384	68.56	0.14	27.246	36.034	44.437	0.595	1501.9	594.	96.23	1.339
650.	10.335	35.460	5.03	10.256	68.59	0.19	27.267	36.060	44.468	0.643	1502.3	644.	95.34	1.187
700.	9.977	35.434	4.92	9.893	68.66	0.17	27.309	36.118	44.540	0.690	1501.8	693.	92.04	1.736
750.	9.895	35.456	4.77	9.806	68.59	0.15	27.342	36.154	44.580	0.735	1502.4	742.	89.99	1.469
800.	9.592	35.470	4.69	9.498	68.67	0.16	27.405	36.230	44.667	0.779	1502.1	792.	84.76	2.069
850.	9.521	35.504	4.58	9.421	68.64	0.17	27.444	36.272	44.712	0.821	1502.7	841.	82.07	1.602
900.	9.473	35.576	4.52	9.368	68.68	0.19	27.509	36.339	44.780	0.860	1503.5	891.	76.99	2.042
950.	9.413	35.607	4.50	9.301	68.67	0.14	27.544	36.376	44.820	0.899	1504.1	940.	74.73	1.509
1000.	9.182	35.610	4.55	9.066	68.70	0.17	27.585	36.427	44.880	0.935	1504.1	989.	71.53	1.702
1200.	7.780	35.497	4.84	7.652	68.70	0.14	27.716	36.623	45.136	1.066	1502.1	1187.	59.94	1.625
1400.	5.903	35.222	5.39	5.771	68.61	0.15	27.757	36.756	45.356	1.179	1497.8	1384.	53.81	1.265
1600.	4.708	35.054	5.79	4.569	68.56	0.13	27.768	36.828	45.487	1.283	1496.1	1581.	51.10	0.952
1800.	4.032	34.988	6.04	3.883	68.49	0.13	27.789	36.885	45.578	1.383	1496.5	1777.	48.48	0.903
2000.	3.756	34.986	5.99	3.592	68.38	0.17	27.817	36.929	45.635	1.478	1498.7	1974.	46.49	0.821
2200.	3.440	34.980	5.85	3.262	68.29	0.12	27.844	36.974	45.696	1.568	1500.8	2170.	44.10	0.849
2400.	3.146	34.967	5.74	2.953	68.37	0.10	27.863	37.009	45.747	1.655	1502.9	2366.	42.29	0.773
2600.	3.005	34.956	5.71	2.795	68.45	0.13	27.869	37.024	45.770	1.739	1505.6	2562.	42.34	0.515
2700.	2.926	34.951	5.70	2.707	68.56	0.13	27.873	37.032	45.783	1.782	1507.0	2660.	42.20	0.558
2800.	2.860	34.946	5.68	2.633	68.56	0.11	27.875	37.038	45.793	1.824	1508.4	2758.	42.25	0.494
2900.	2.819	34.943	5.65	2.582	68.67	0.12	27.877	37.043	45.801	1.866	1509.9	2856.	42.43	0.441
3000.	2.785	34.939	5.66	2.539	68.63	0.11	27.878	37.047	45.806	1.909	1511.5	2954.	42.78	0.366
3100.	2.734	34.935	5.64	2.478	68.53	0.13	27.880	37.052	45.814	1.952	1512.9	3052.	42.89	0.460
3200.	2.673	34.929	5.62	2.409	68.54	0.15	27.881	37.057	45.823	1.995	1514.4	3149.	42.91	0.490
3300.	2.638	34.926	5.60	2.363	68.57	0.13	27.882	37.061	45.829	2.038	1515.9	3247.	43.14	0.405
3400.	2.602	34.923	5.59	2.318	68.62	0.13	27.884	37.065	45.835	2.081	1517.5	3345.	43.35	0.412
3500.	2.575	34.919	5.58	2.281	68.65	0.15	27.884	37.067	45.840	2.124	1519.1	3442.	43.70	0.344
3600.	2.558	34.917	5.57	2.253	68.73	0.18	27.885	37.069	45.844	2.168	1520.7	3540.	44.05	0.341
3700.	2.524	34.914	5.56	2.209	68.76	0.11	27.886	37.073	45.849	2.212	1522.3	3637.	44.26	0.402
3800.	2.520	34.912	5.56	2.194	68.80	0.14	27.886	37.074	45.851	2.257	1524.0	3735.	44.79	0.228
3900.	2.499	34.909	5.56	2.162	68.75	0.12	27.886	37.076	45.855	2.302	1525.6	3832.	45.14	0.337
4000.	2.493	34.907	5.54	2.145	68.66	0.13	27.886	37.076	45.856	2.347	1527.3	3930.	45.68	0.221

Sample data

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2985.	2.785	34.939	5.66	2.539
2465.	3.089	34.964	5.72	2.890
2060.	3.638	34.986	-9.99	3.469
1742.	4.136	34.994	6.02	3.990
998.	9.189	35.603	4.53	9.073
837.	9.535	35.496	4.49	9.437
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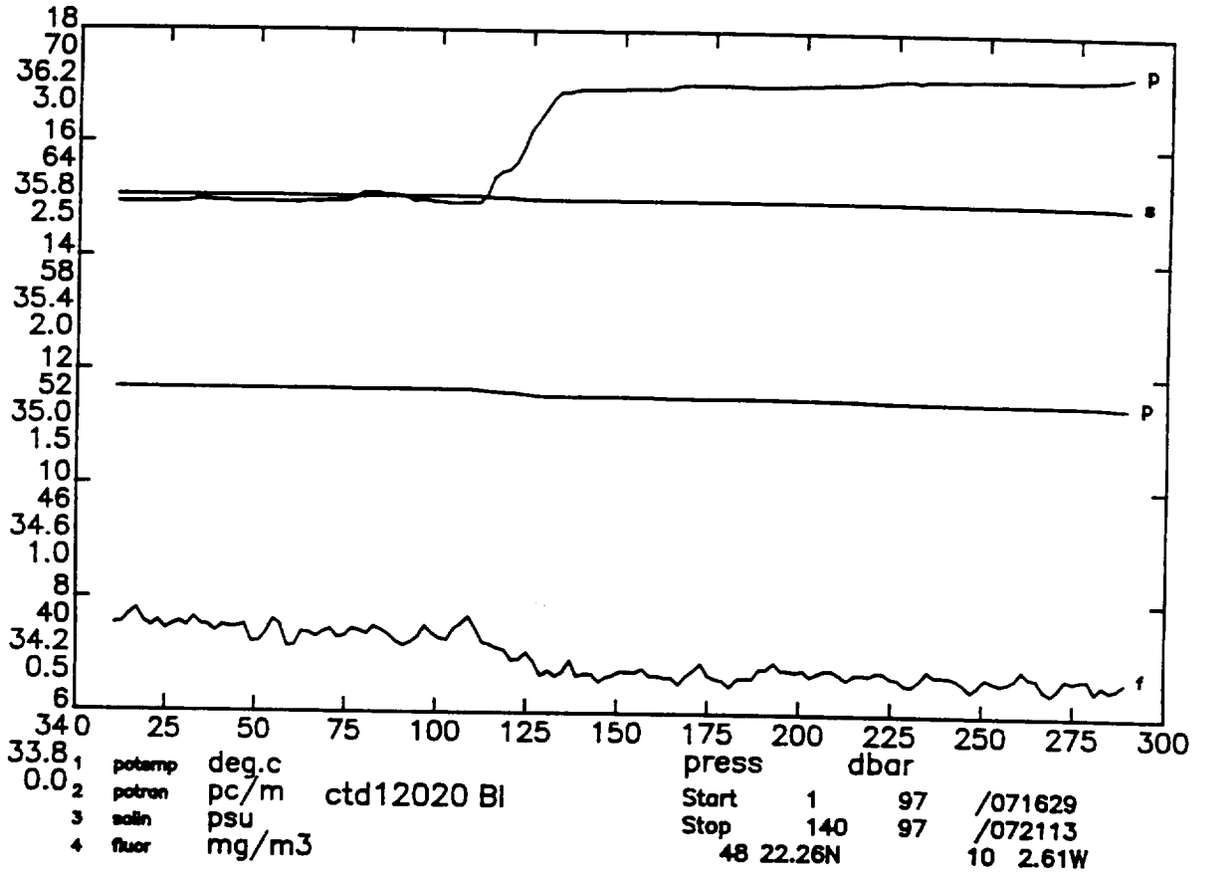
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p
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p
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2 potrem pc/m
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press dbar
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Stop 140 97 /072113
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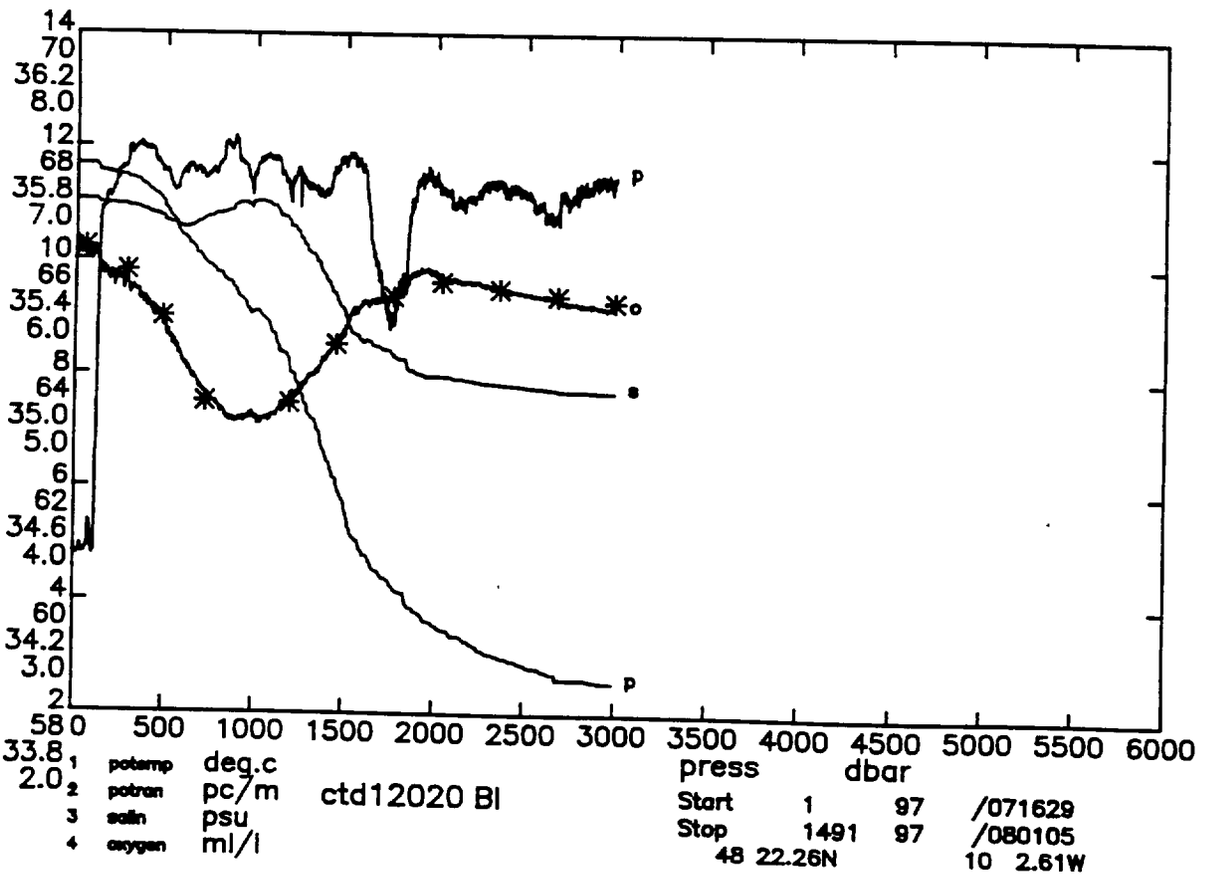
10 2.61W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33.8
2.0
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p
o
s
p
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2 potrem pc/m
3 salin psu
4 oxygen ml/l
ctd12020 BI
press dbar
Start 1 97 /071629
Stop 1491 97 /080105
48 22.26N
10 2.61W

DISCOVERY CRUISE 189 STATION 12020

pres	temp	salin	oxygen	potemp	potran	fluor	sigma0	sigma2	sigma4	dynht	sndv	depth	svanom	bvfr
db	degc90		ml/l	degc90	%/m	mg/m^3	kg/m^3	kg/m^3	kg/m^3	dyn.m	m/s	m	10^{-8}m^3/kg	cy/hr
20.	11.692	35.613	6.09	11.689	60.81	0.39	27.125	35.857	44.208	0.019	1496.8	20.	93.49	-9.999
30.	11.693	35.613	6.14	11.689	60.87	0.39	27.125	35.857	44.208	0.028	1497.0	30.	93.79	-0.270
40.	11.696	35.613	6.14	11.691	60.91	0.37	27.125	35.857	44.208	0.037	1497.2	40.	94.05	0.179
50.	11.698	35.614	6.10	11.692	60.86	0.31	27.125	35.857	44.208	0.047	1497.4	50.	94.32	0.066
60.	11.700	35.613	6.01	11.692	60.84	0.29	27.124	35.856	44.207	0.056	1497.5	59.	94.68	-0.530
70.	11.701	35.613	6.07	11.692	60.94	0.36	27.124	35.857	44.208	0.066	1497.7	69.	94.91	0.400
80.	11.690	35.612	6.07	11.680	61.37	0.35	27.125	35.858	44.210	0.075	1497.8	79.	95.08	0.586
90.	11.699	35.613	6.00	11.688	61.17	0.30	27.125	35.858	44.209	0.085	1498.0	89.	95.40	-0.390
100.	11.703	35.614	6.09	11.690	60.87	0.34	27.125	35.858	44.209	0.094	1498.2	99.	95.62	0.402
120.	11.649	35.607	6.04	11.634	62.81	0.26	27.131	35.866	44.219	0.113	1498.3	119.	95.64	0.935
140.	11.585	35.600	5.92	11.567	66.90	0.17	27.138	35.876	44.231	0.133	1498.4	139.	95.50	1.068
160.	11.583	35.600	5.91	11.562	66.94	0.17	27.139	35.877	44.233	0.152	1498.8	159.	95.95	0.399
180.	11.569	35.599	5.85	11.546	67.18	0.14	27.141	35.879	44.235	0.171	1499.0	178.	96.33	0.519
200.	11.561	35.600	5.86	11.535	67.23	0.20	27.143	35.882	44.239	0.190	1499.3	198.	96.60	0.669
220.	11.544	35.597	5.82	11.515	67.42	0.19	27.145	35.885	44.243	0.210	1499.6	218.	96.94	0.571
240.	11.534	35.597	5.87	11.503	67.59	0.18	27.148	35.888	44.246	0.229	1499.9	238.	97.26	0.613
260.	11.531	35.595	5.85	11.498	67.63	0.19	27.147	35.888	44.246	0.249	1500.2	258.	97.85	-0.301
280.	11.526	35.596	5.82	11.490	67.70	0.14	27.149	35.890	44.248	0.268	1500.5	277.	98.19	0.576
300.	11.491	35.590	5.74	11.453	67.99	0.18	27.152	35.894	44.254	0.288	1500.7	297.	98.44	0.684
350.	11.452	35.585	5.73	11.407	68.03	0.13	27.156	35.901	44.262	0.337	1501.4	347.	99.33	0.548
400.	11.322	35.570	5.60	11.271	67.97	0.15	27.170	35.920	44.287	0.387	1501.8	396.	99.26	0.964
450.	11.223	35.564	5.56	11.166	67.77	0.14	27.185	35.939	44.310	0.436	1502.3	446.	99.07	1.003
500.	10.989	35.541	5.46	10.926	67.56	0.17	27.211	35.975	44.356	0.486	1502.2	495.	97.69	1.336
550.	10.777	35.532	5.30	10.709	67.25	0.12	27.243	36.016	44.405	0.534	1502.3	545.	95.72	1.473
600.	10.496	35.517	5.12	10.422	67.59	0.15	27.282	36.068	44.468	0.581	1502.1	594.	92.89	1.652
650.	10.357	35.520	4.98	10.278	67.62	0.18	27.310	36.102	44.508	0.627	1502.5	644.	91.30	1.372
700.	10.177	35.538	4.89	10.093	67.60	0.13	27.356	36.155	44.568	0.672	1502.7	693.	87.95	1.749
750.	10.014	35.555	4.79	9.923	67.56	0.17	27.399	36.204	44.624	0.715	1502.9	742.	84.89	1.689
800.	9.889	35.566	4.71	9.794	67.69	0.12	27.429	36.241	44.665	0.757	1503.3	792.	82.97	1.441
850.	9.746	35.574	4.62	9.645	68.05	0.17	27.461	36.278	44.709	0.798	1503.7	841.	80.90	1.472
900.	9.549	35.598	4.59	9.443	67.94	0.15	27.514	36.339	44.777	0.837	1503.8	890.	76.75	1.886
950.	9.360	35.604	4.61	9.249	67.63	0.09	27.550	36.384	44.830	0.875	1503.9	940.	74.05	1.603
1000.	9.222	35.607	4.61	9.106	67.53	0.13	27.577	36.417	44.868	0.911	1504.3	989.	72.42	1.358
1200.	8.176	35.524	4.83	8.044	67.28	0.15	27.679	36.567	45.063	1.050	1503.6	1186.	64.51	1.427
1400.	6.628	35.333	5.16	6.488	67.16	0.15	27.752	36.715	45.281	1.172	1500.8	1384.	56.67	1.389
1500.	5.817	35.221	5.36	5.676	67.67	0.13	27.769	36.772	45.376	1.227	1499.1	1482.	53.87	1.211
1600.	5.020	35.121	5.64	4.878	67.69	0.14	27.786	36.830	45.473	1.279	1497.4	1580.	50.67	1.242
1700.	4.623	35.097	5.66	4.476	65.53	0.15	27.812	36.877	45.539	1.328	1497.4	1679.	47.84	1.170
1800.	4.320	35.057	5.74	4.167	65.38	0.16	27.814	36.895	45.572	1.375	1497.8	1777.	47.44	0.720
1900.	3.974	35.007	5.90	3.817	67.36	0.10	27.811	36.911	45.606	1.423	1498.0	1875.	47.14	0.677
2000.	3.745	34.997	5.91	3.581	67.46	0.12	27.827	36.939	45.646	1.469	1498.7	1974.	45.55	0.935
2100.	3.563	34.988	5.86	3.393	67.04	0.14	27.838	36.960	45.676	1.514	1499.6	2072.	44.47	0.828
2200.	3.442	34.980	5.83	3.264	67.15	0.13	27.844	36.974	45.696	1.559	1500.8	2170.	44.10	0.657
2300.	3.272	34.970	5.79	3.086	67.41	0.12	27.853	36.992	45.723	1.602	1501.7	2268.	43.15	0.787
2400.	3.197	34.965	5.74	3.003	67.16	0.12	27.857	37.000	45.736	1.645	1503.1	2366.	43.15	0.535
2500.	3.103	34.959	5.73	2.901	67.17	0.14	27.862	37.011	45.752	1.688	1504.4	2464.	42.88	0.608
2600.	3.001	34.952	5.69	2.791	66.74	0.10	27.866	37.021	45.767	1.731	1505.6	2562.	42.59	0.608
2700.	2.861	34.944	5.64	2.644	67.11	0.11	27.873	37.035	45.789	1.773	1506.7	2660.	41.79	0.733
2800.	2.872	34.944	5.61	2.645	67.22	0.14	27.873	37.035	45.789	1.816	1508.4	2758.	42.54	0.037
2900.	2.844	34.943	5.60	2.607	67.45	0.12	27.875	37.040	45.796	1.858	1510.0	2856.	42.83	0.397

Sample data

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1768.	4.410	35.069	5.69	4.258
1454.	6.199	35.265	5.27	6.058
1195.	8.274	35.524	4.75	8.142
984.	9.207	35.601	-9.99	9.093
726.	10.061	35.543	4.76	9.974
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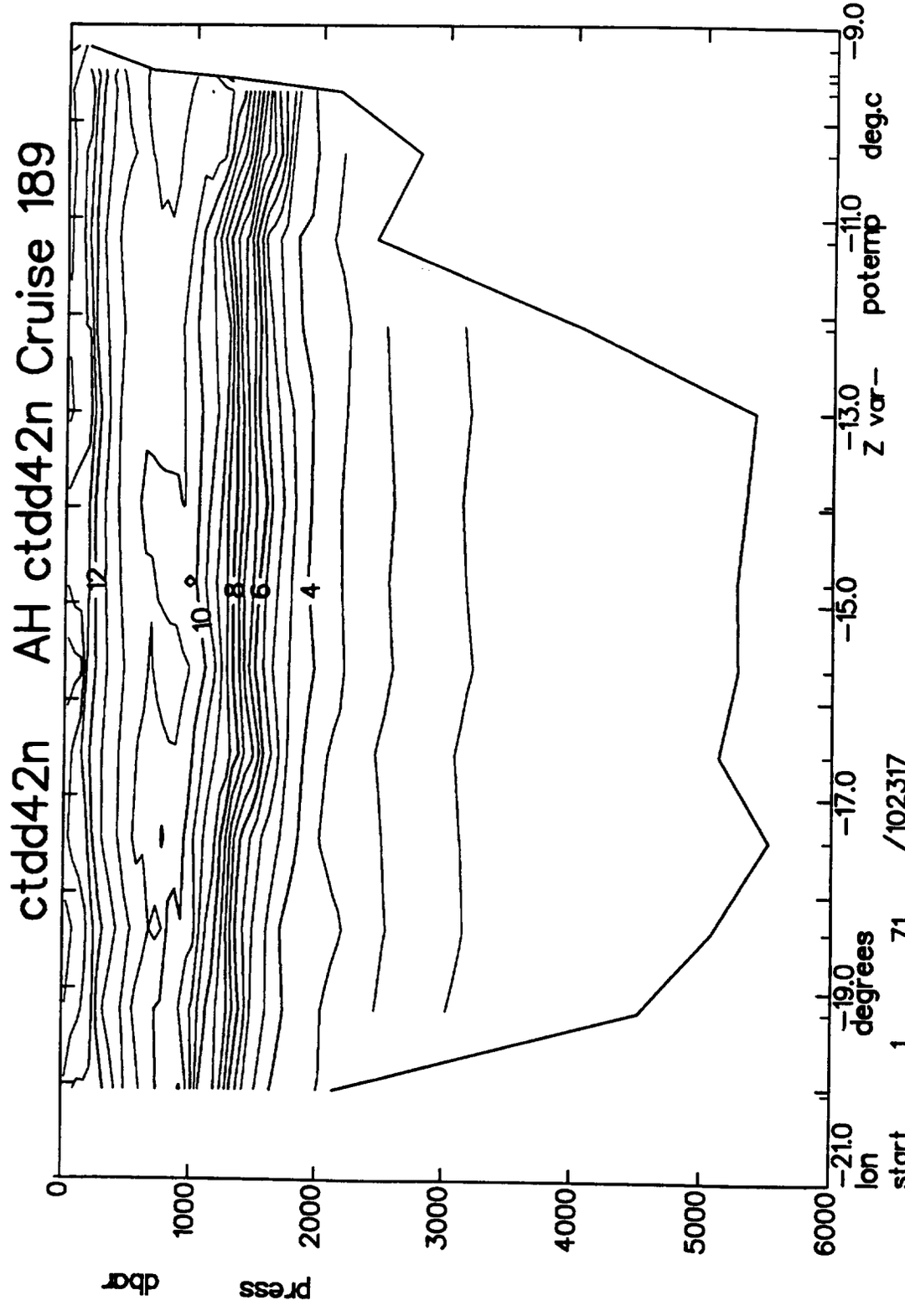
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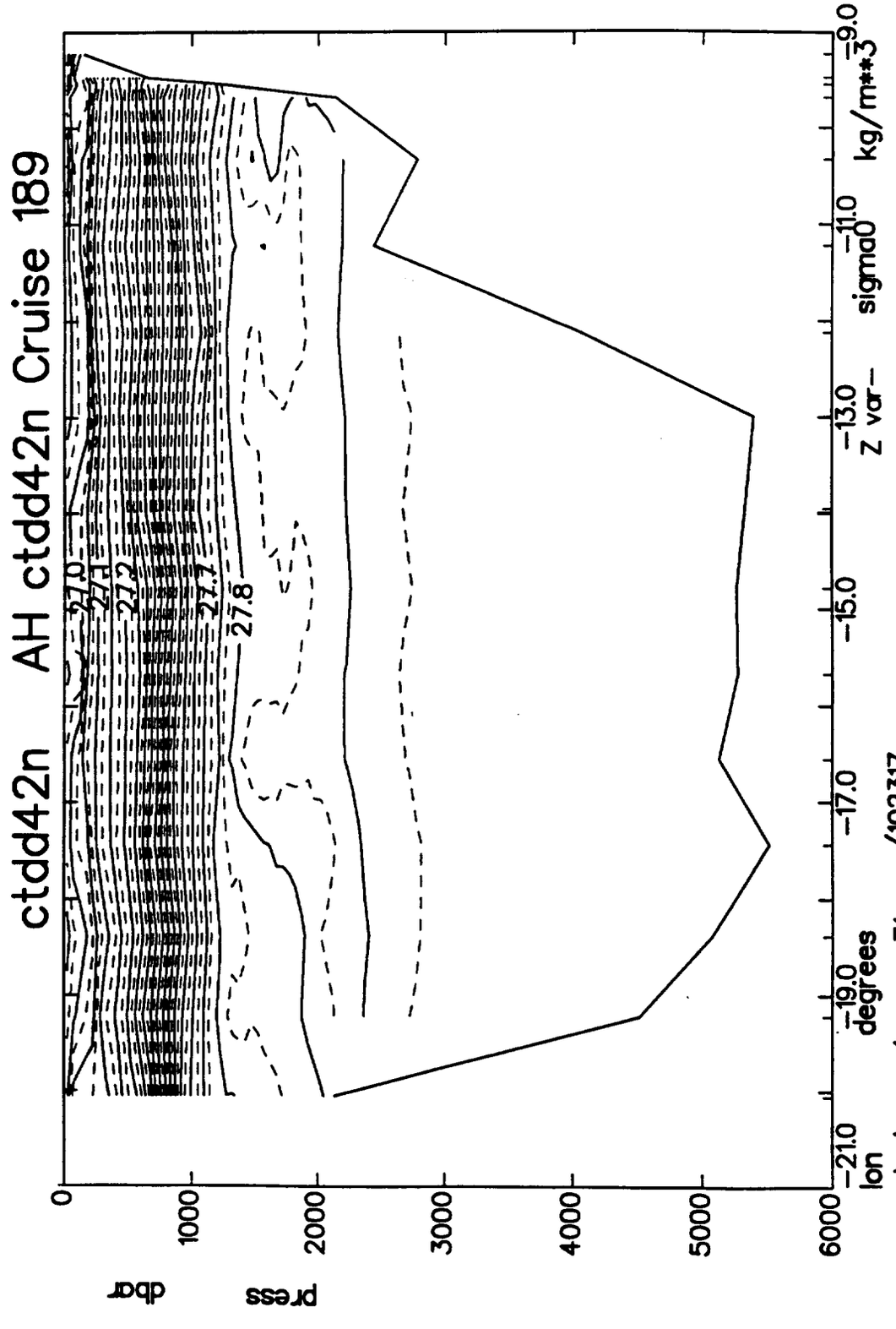
start 1 71 /102317
stop 1936 75 /105240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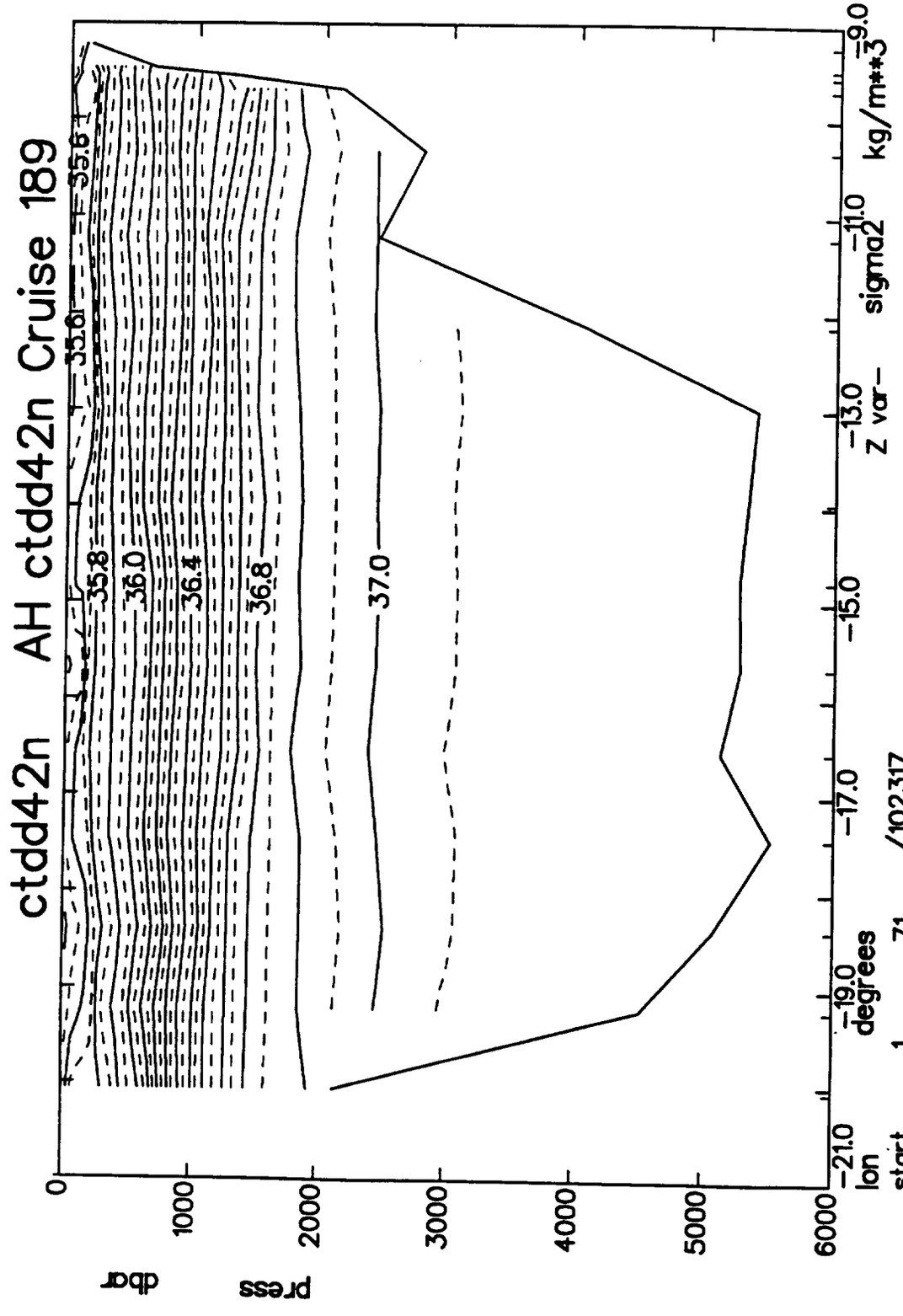
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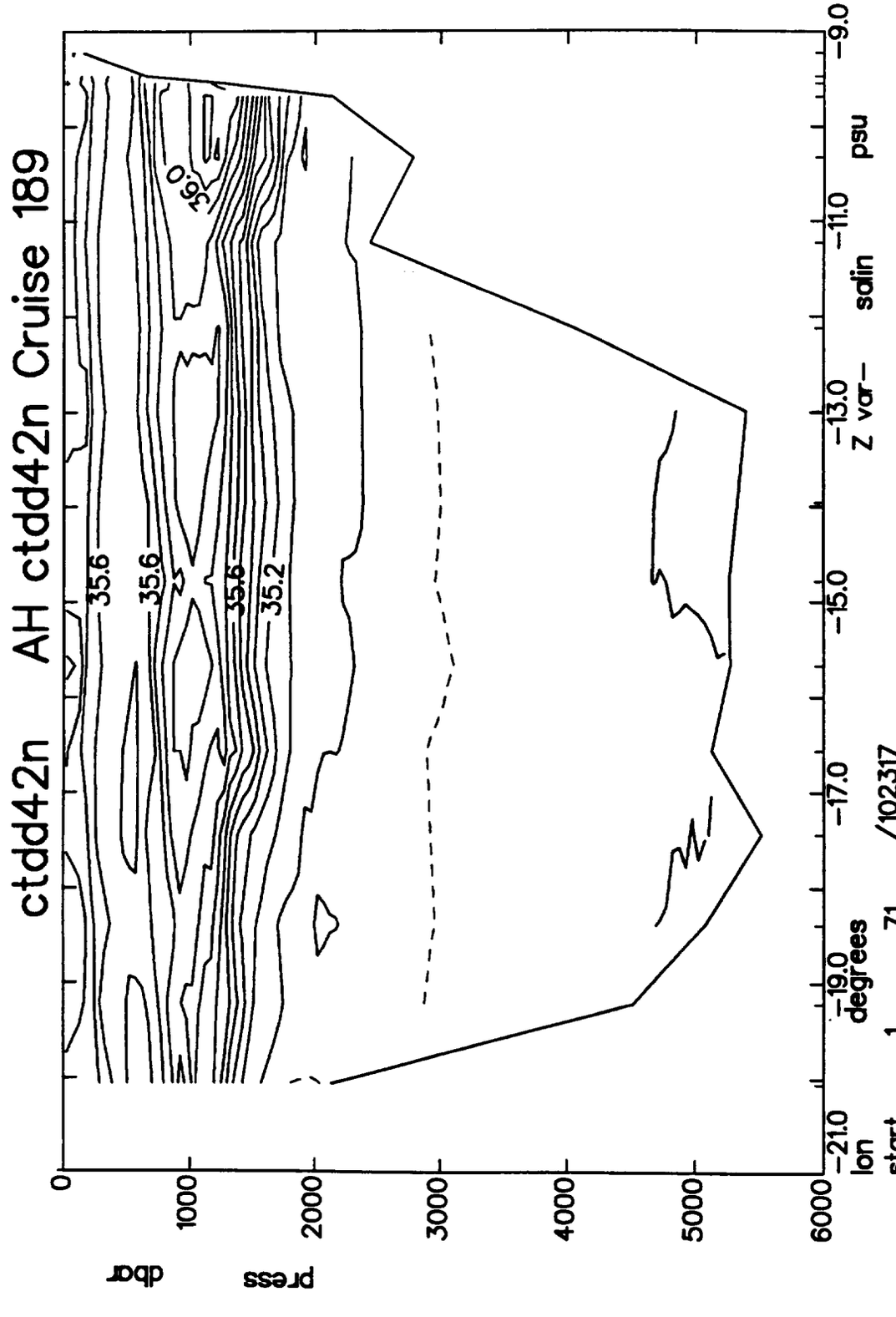
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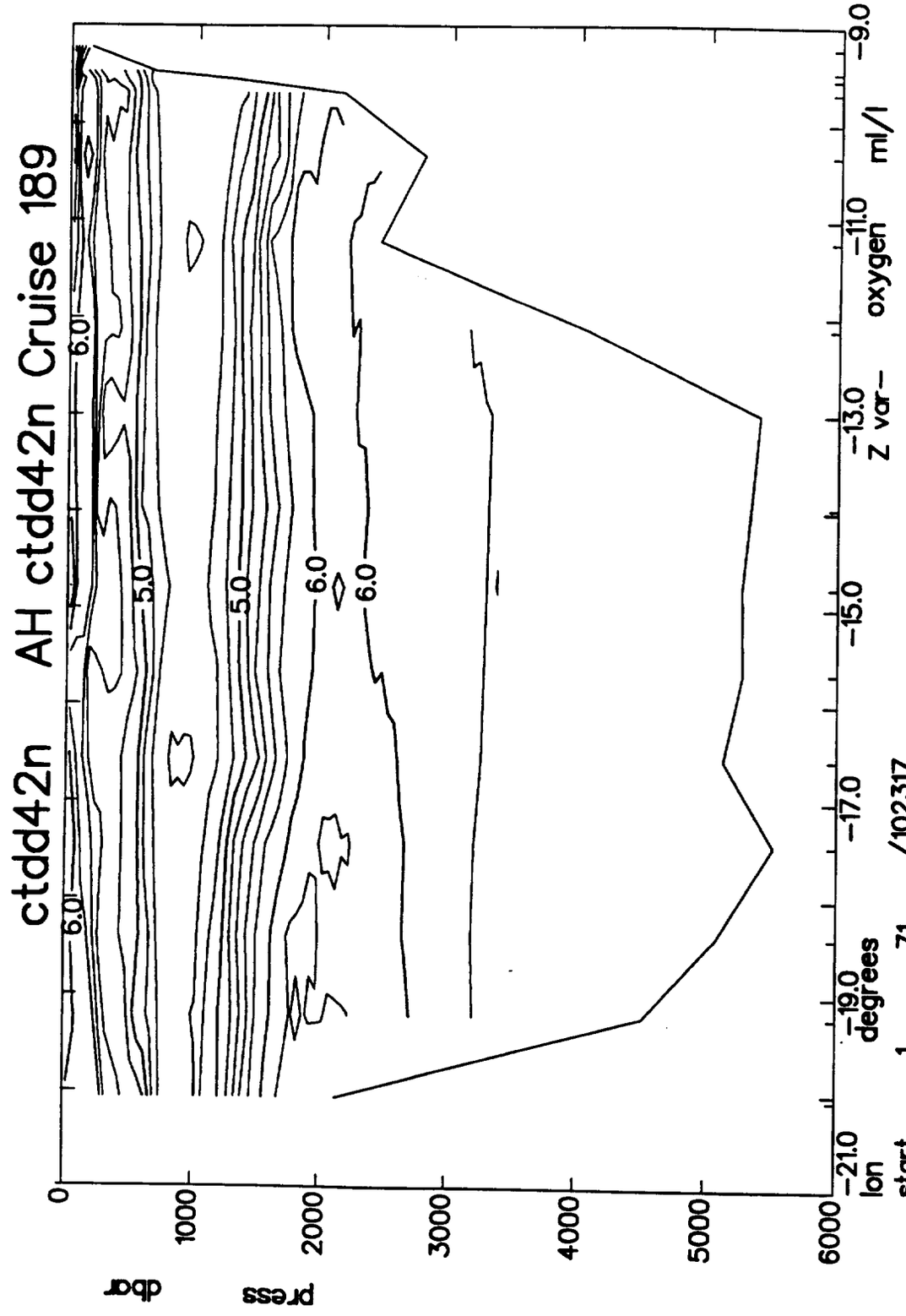
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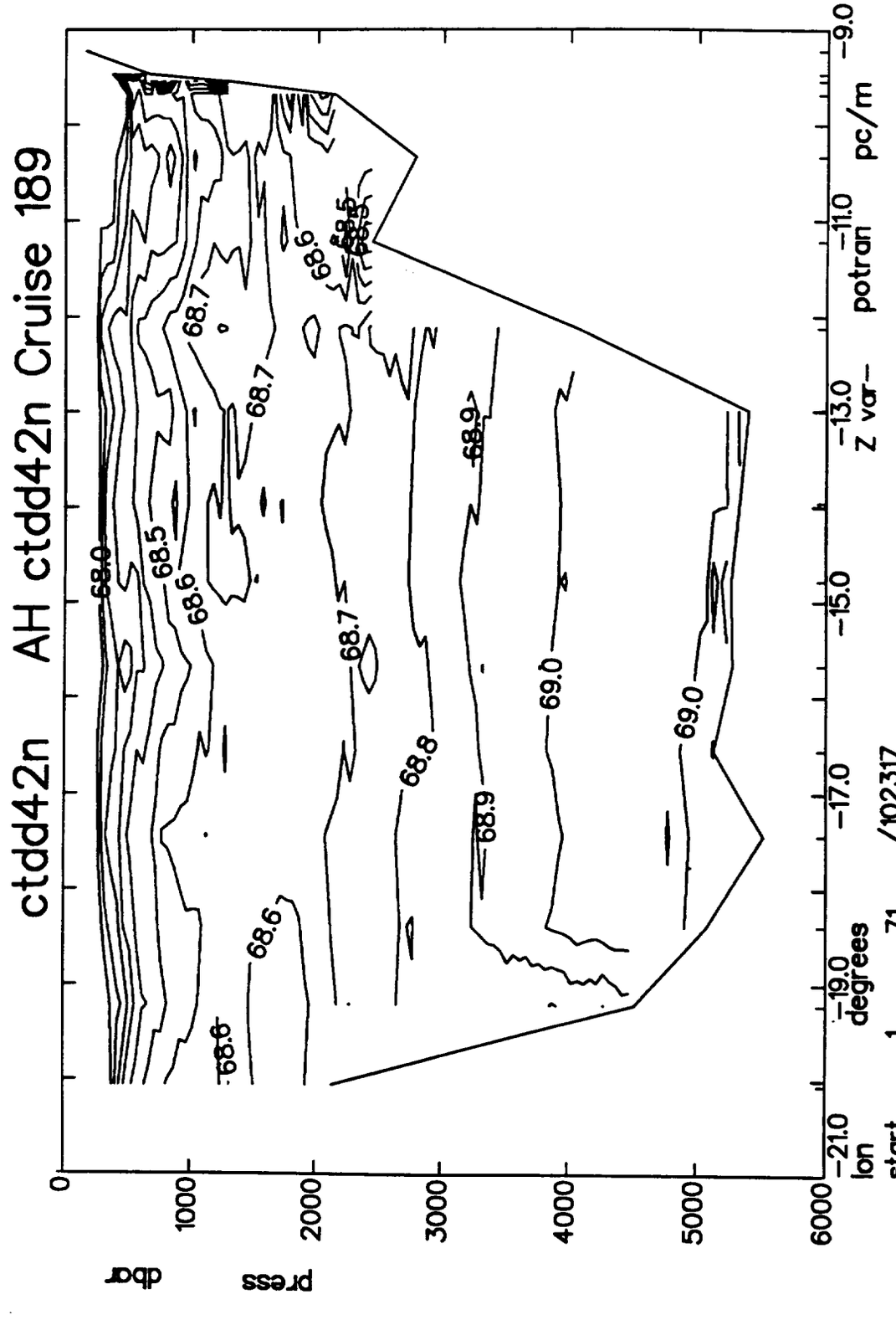
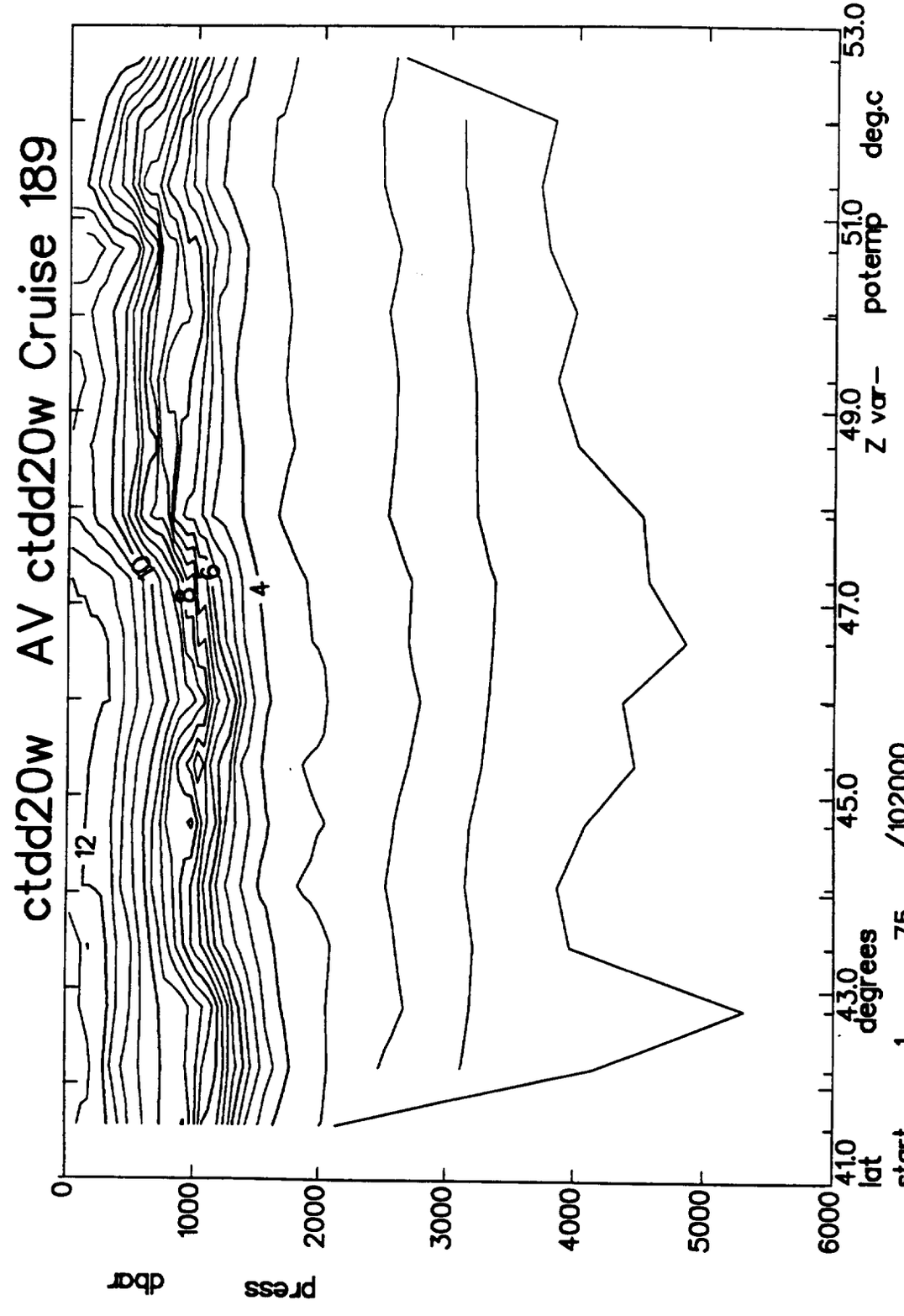
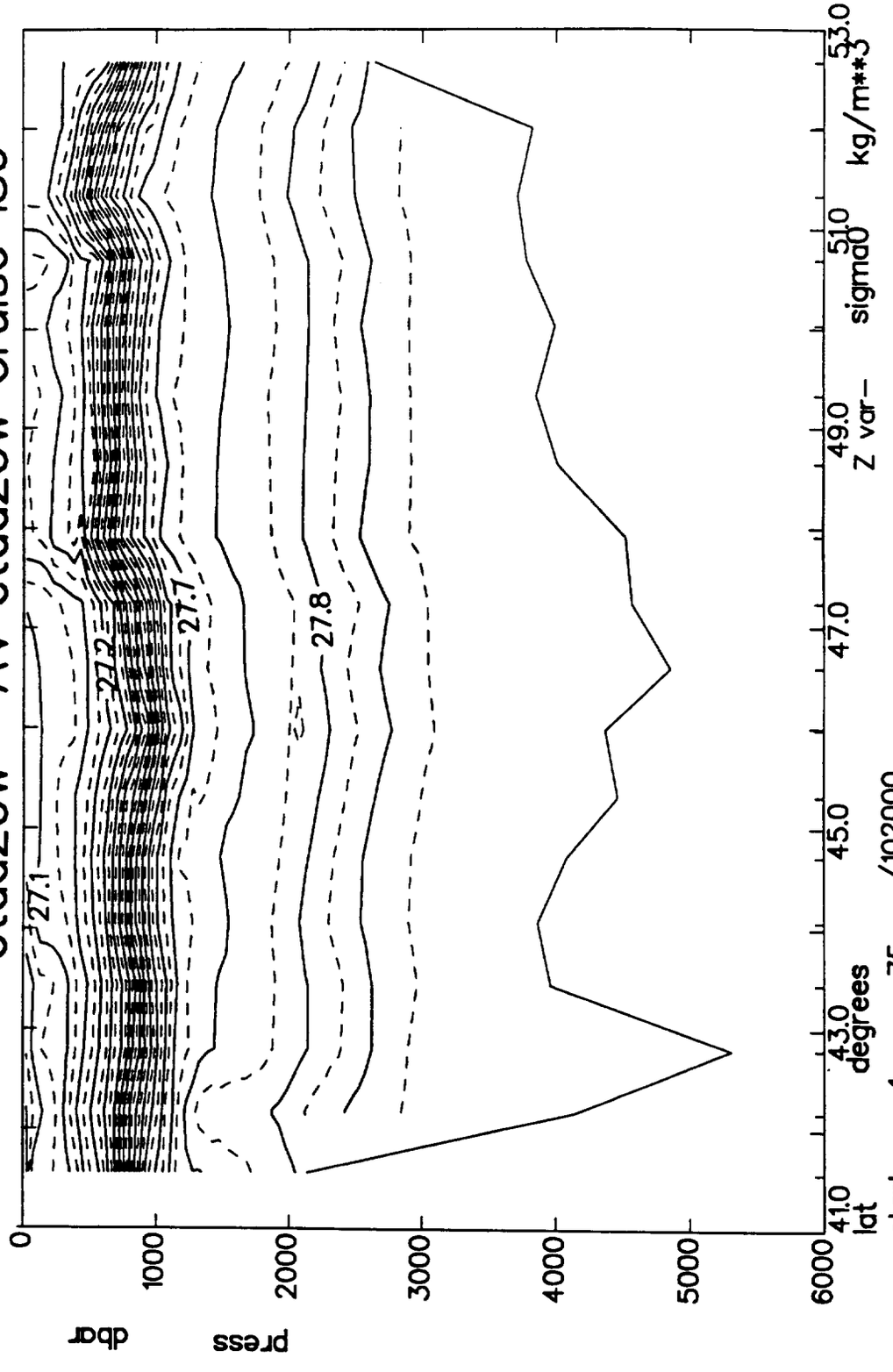
6000
press dbar
-21.0
-19.0
-17.0
-15.0
-13.0
-11.0
-9.0
z var- oxygen ml/l
lon degrees
start 1 71 /102317
stop 1936 75 /105240


ctdd42n AH ctdd42n Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
68.0
68.5
68.6
68.7
68.8
68.9
69.0
lon
start 1 /102317
stop 1936 /105240
−21.0
−19.0
degrees
71
75
−17.0
−15.0
−13.0
z var− potran
−11.0
pc/m
−9.0


ctdd20w AV ctdd20w Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
12
10
8
6
4
41.0 lat
43.0 degrees
45.0
47.0
49.0 Z var– potemp deg.c
51.0
53.0
start 1 75 /102000
stop 2178 81 /115958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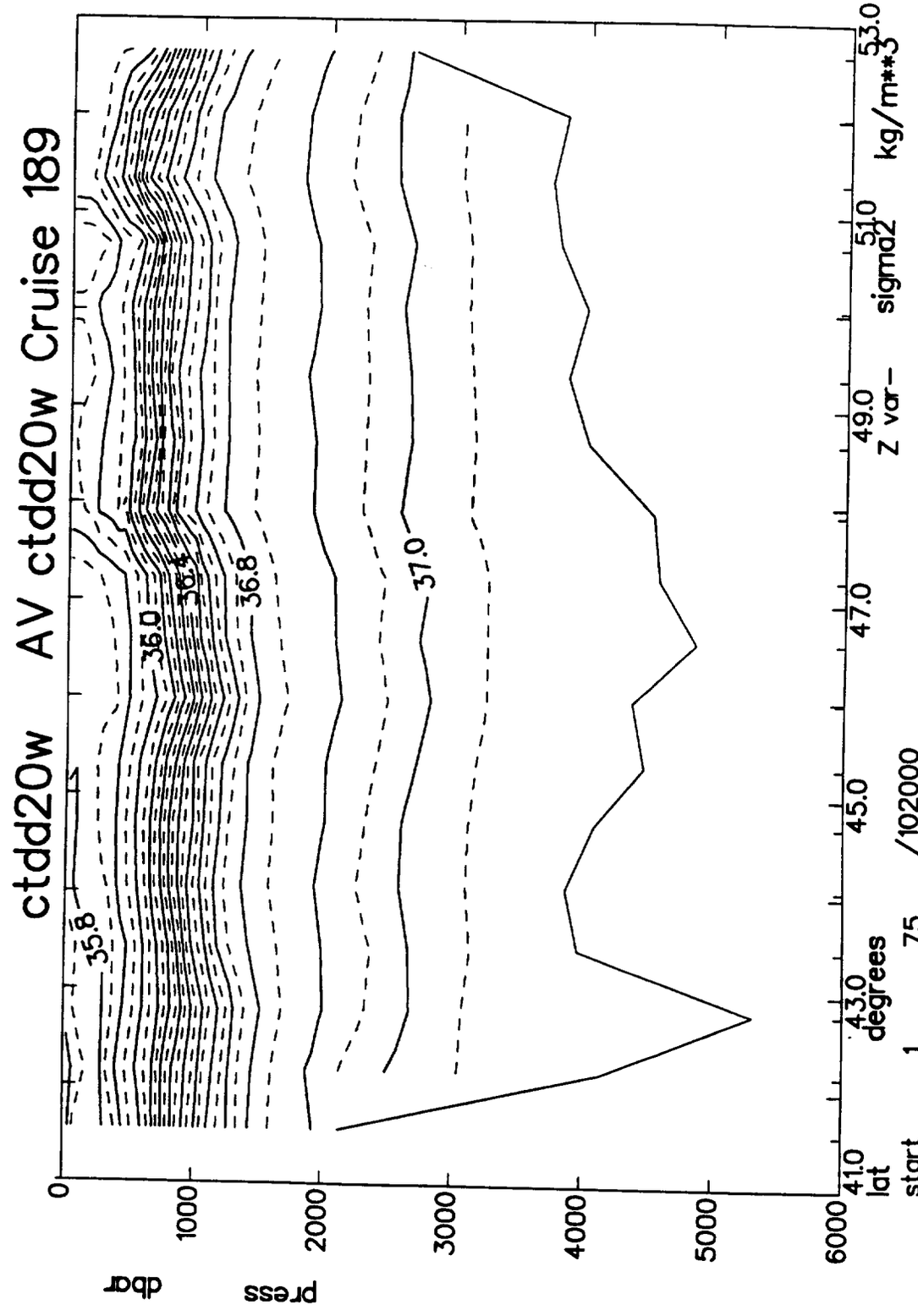
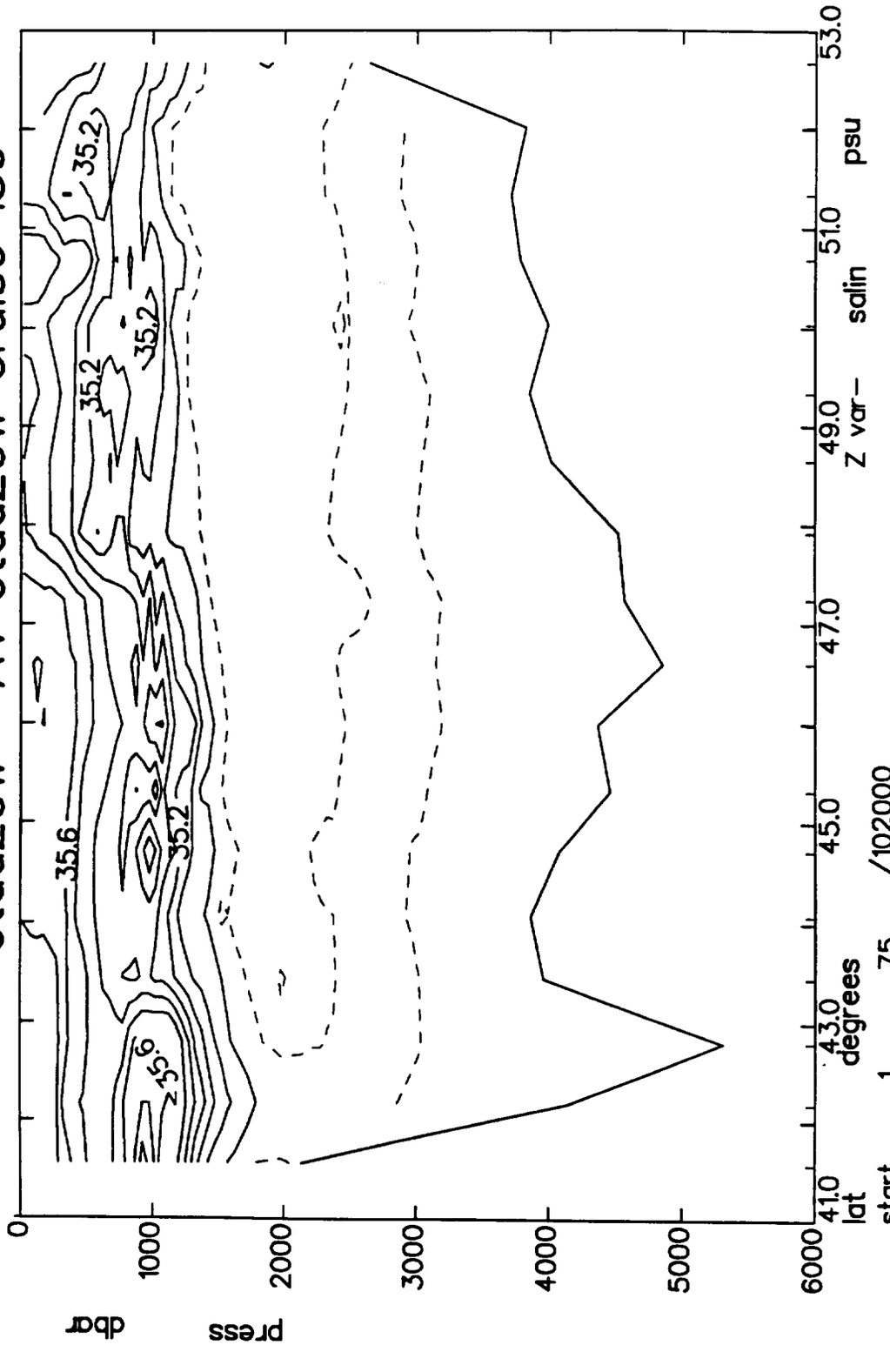
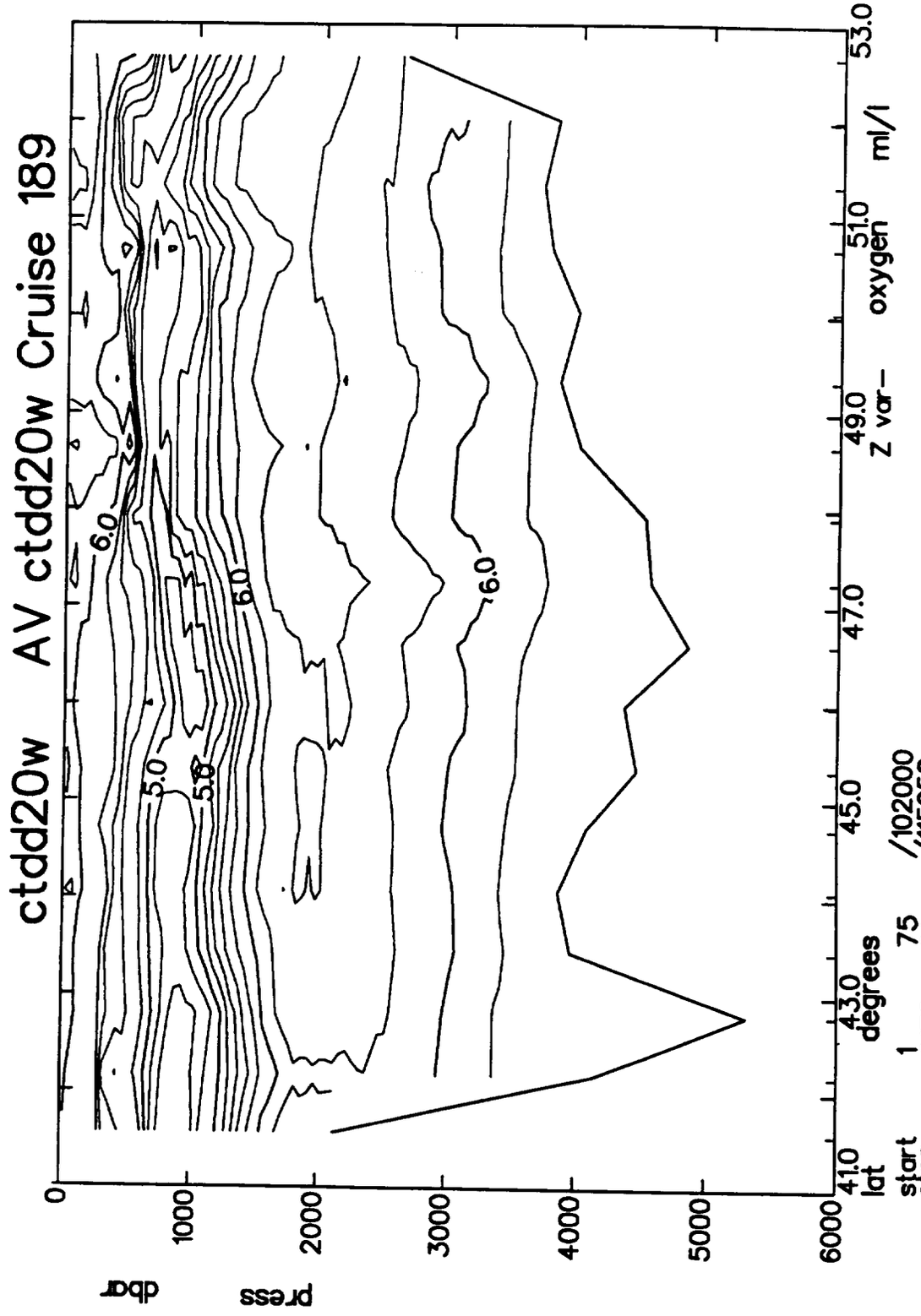
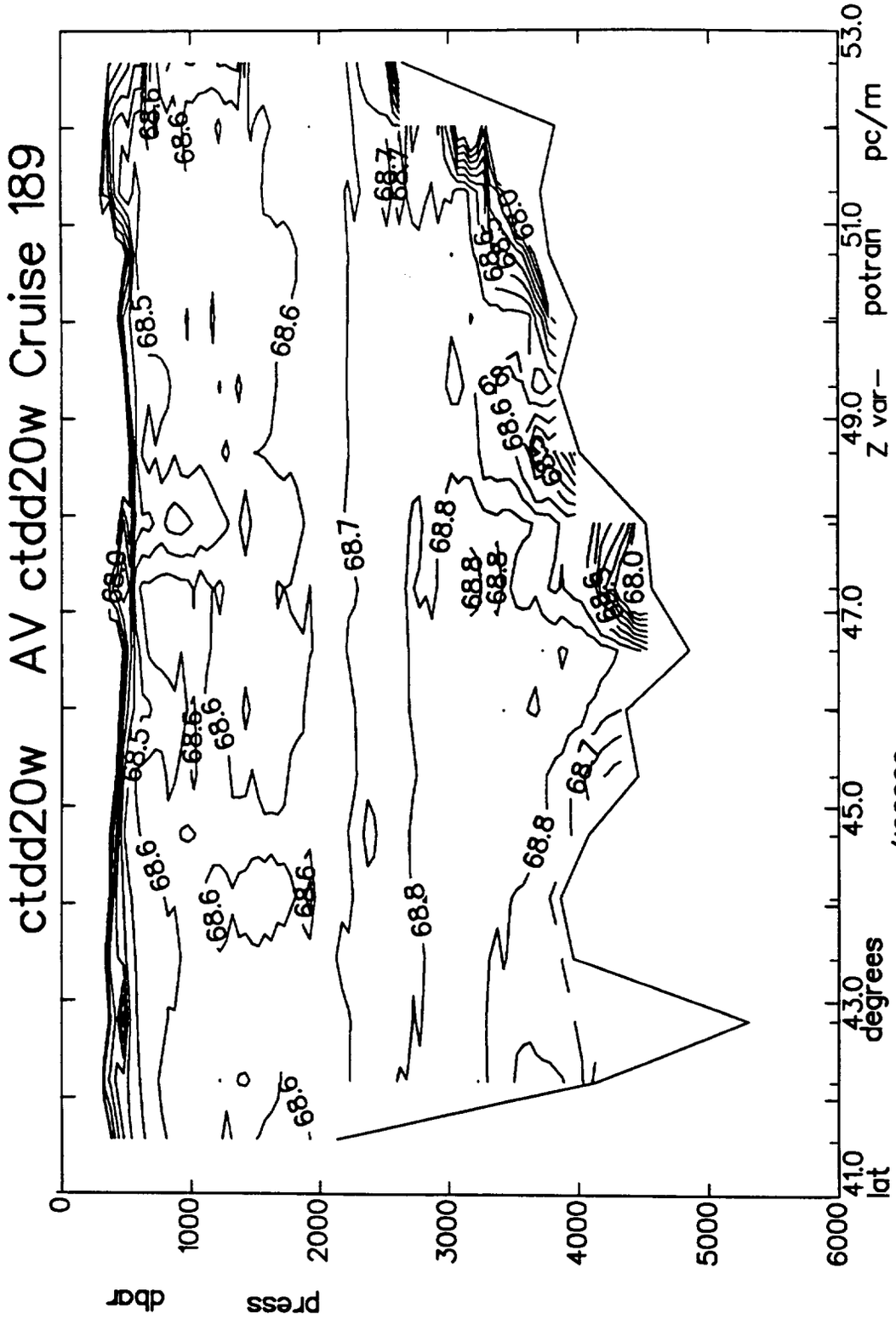
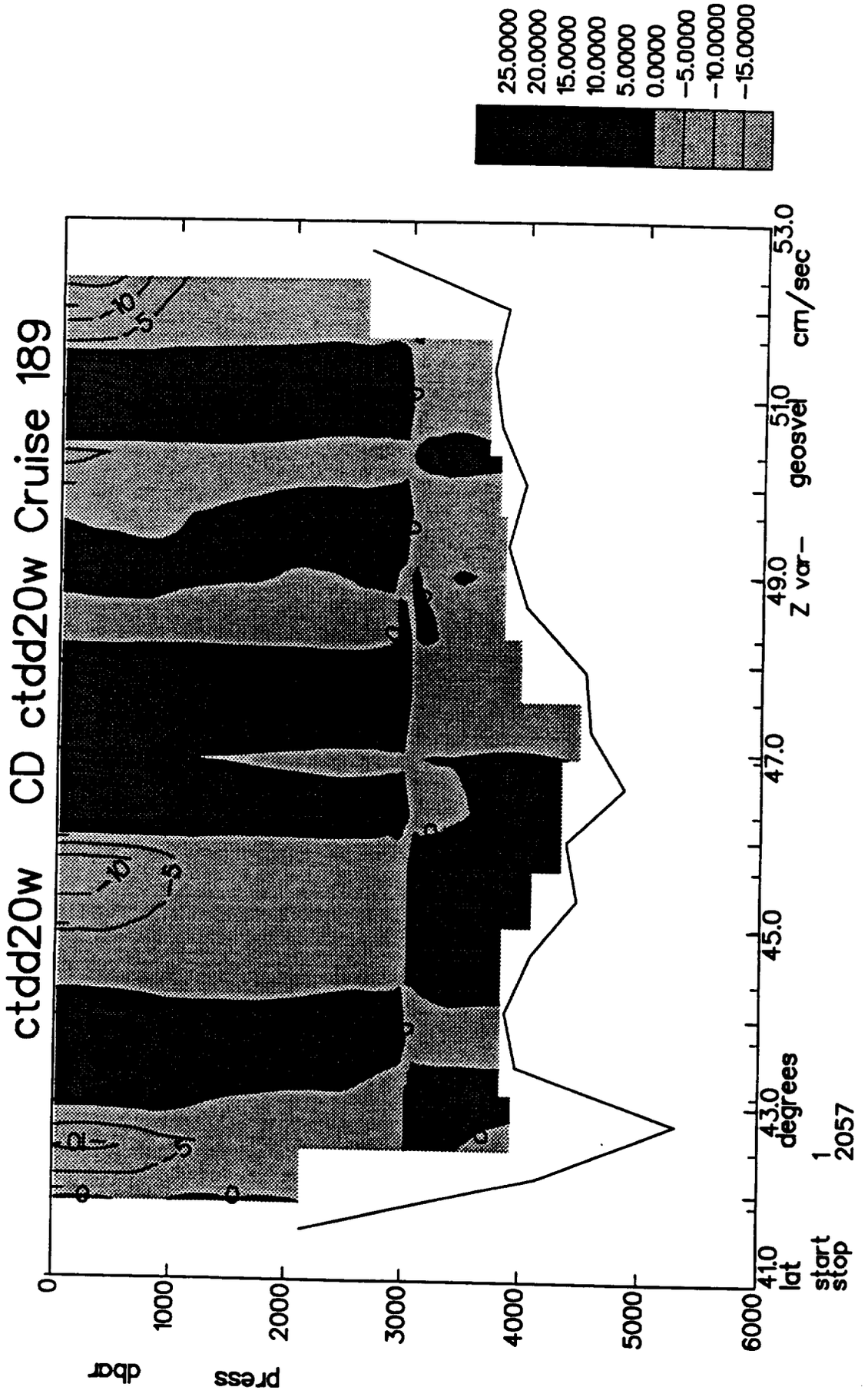
27.1
27.2
27.7
27.8
press dbar
0
1000
2000
3000
4000
5000
6000
41.0
43.0
45.0
47.0
49.0
51.0
53.0
lat degrees
Z var- sigma0 kg/m**3
start 1 75 /102000
stop 2178 81 /115958


ctdd20w AV ctdd20w Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
35.8
36.0
36.4
36.8
37.0
41.0
43.0
45.0
47.0
49.0
51.0
53.0
lat degrees
Z var- sigma2 kg/m**3
start 1 75 /102000
stop 2178 81 /115958


ctdd20w AV ctdd20w Cruise 189
35.6
35.2
35.2
35.2
35.2
35.2
15.6
press dbar
0
1000
2000
3000
4000
5000
6000
41.0
43.0
45.0
47.0
49.0
51.0
53.0
lat degrees
Z var— salin psu
start 1 75 /102000
stop 2178 81 /115958


ctdd20w AV ctdd20w Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
6.0
5.0
5.8
6.0
6.0
41.0
43.0
45.0
47.0
49.0
51.0
53.0
lat degrees
Z var— oxygen ml/l
start 1 75 /102000
stop 2178 81 /115958


ctdd20w AV ctdd20w Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
41.0
43.0
45.0
47.0
49.0
51.0
53.0
lat
degrees
Z var— potran pc/m
start 1 /102000
stop 2178 /115958
75
81
68.6
68.5
68.7
68.8
68.0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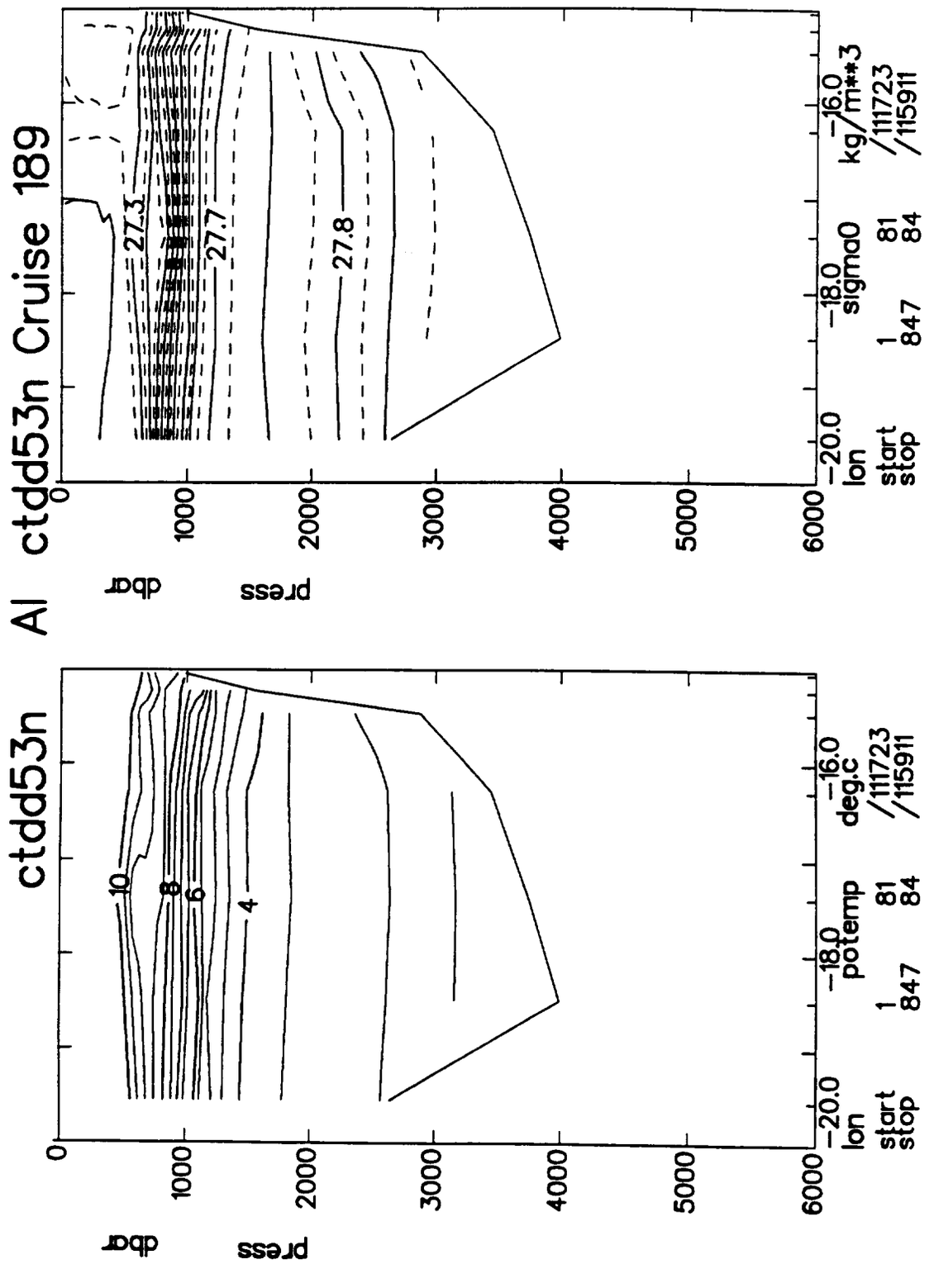
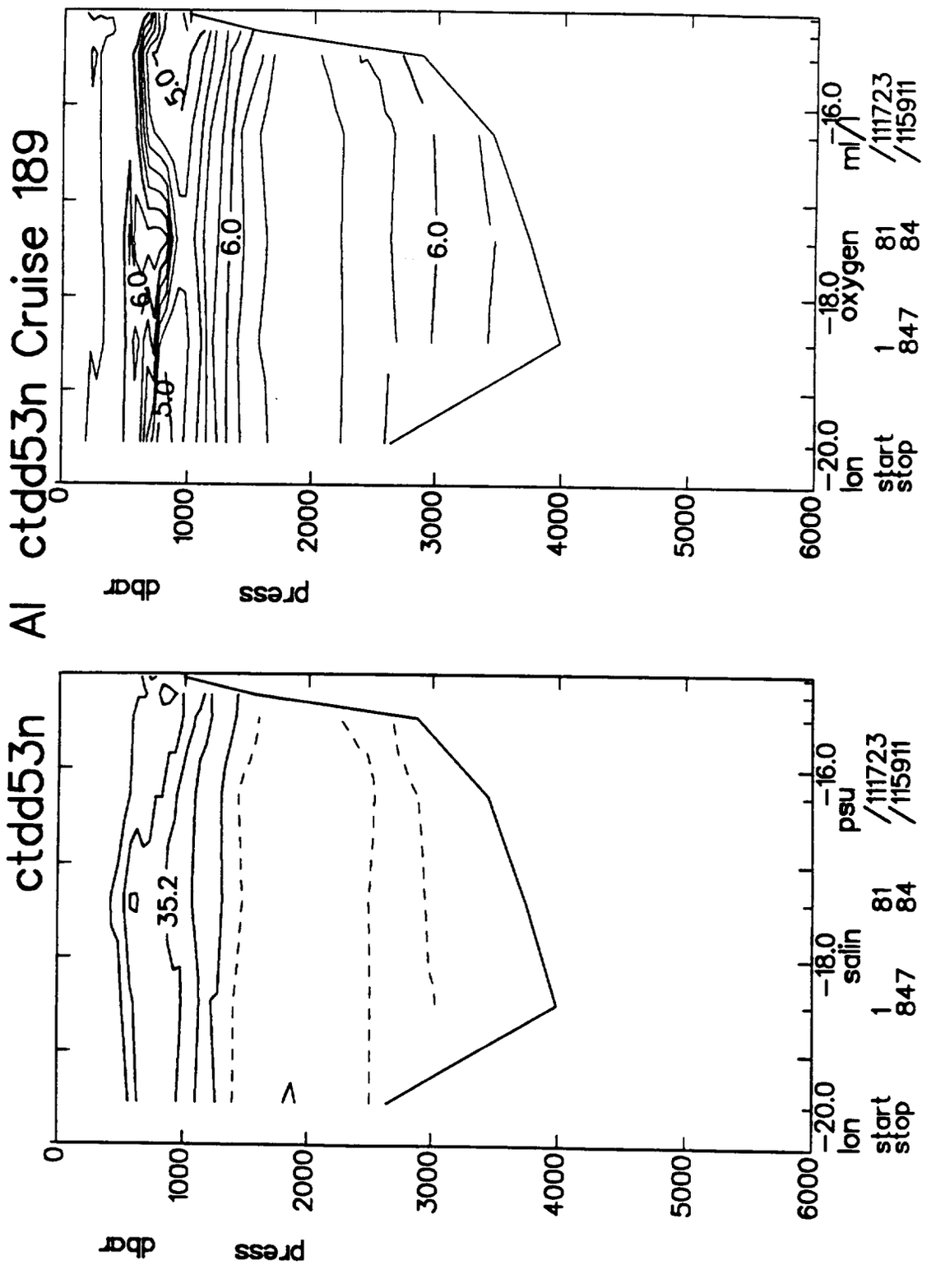
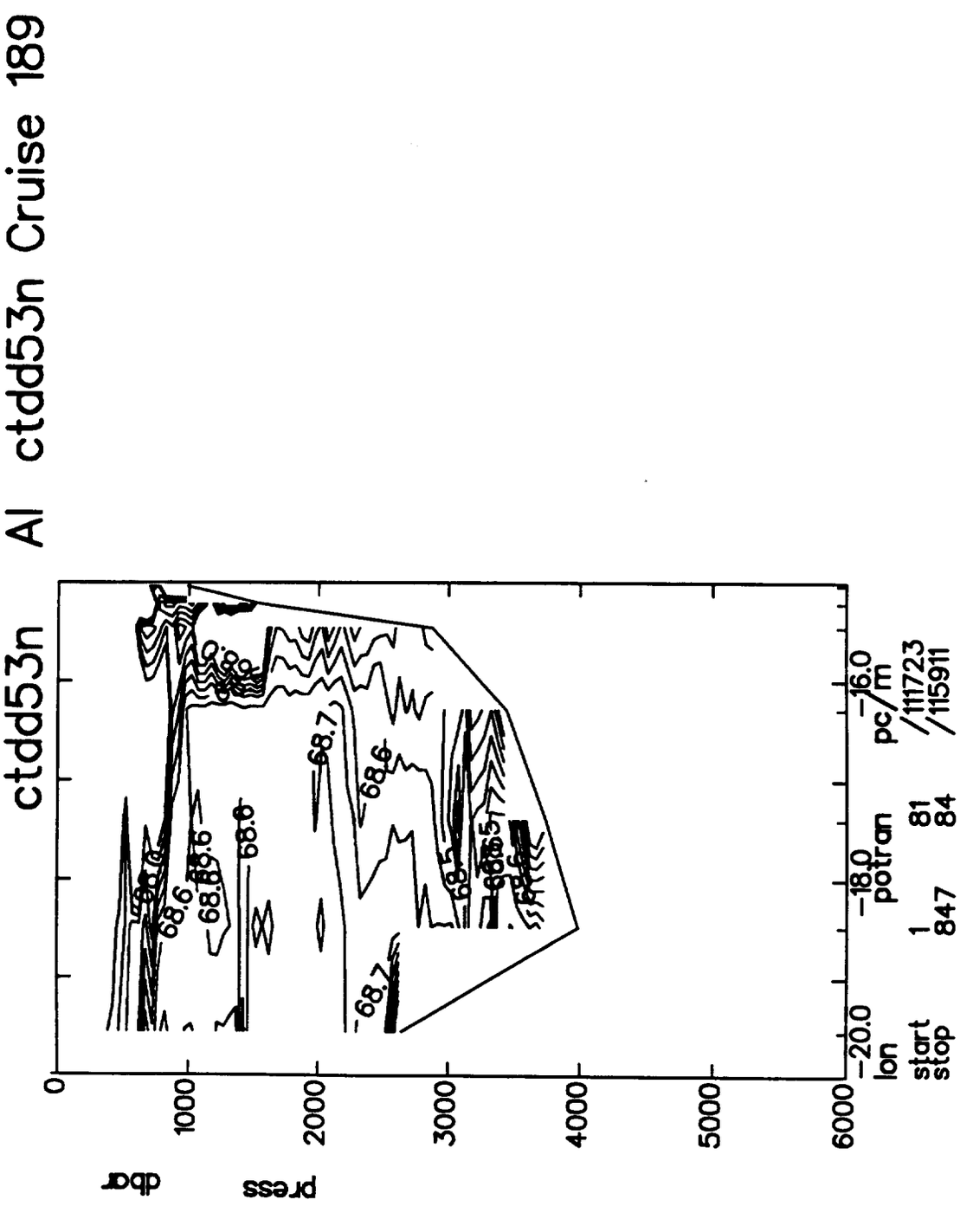
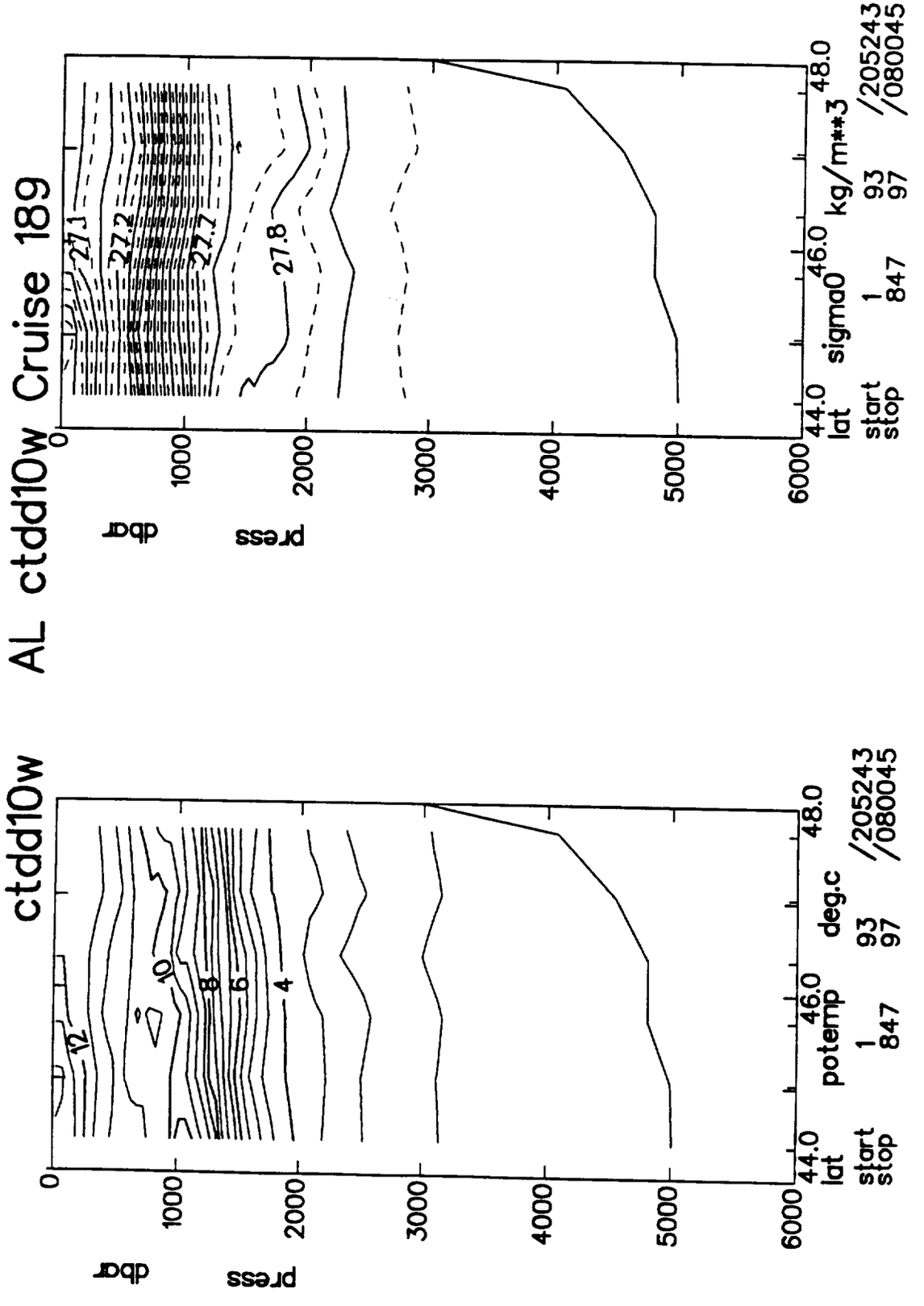
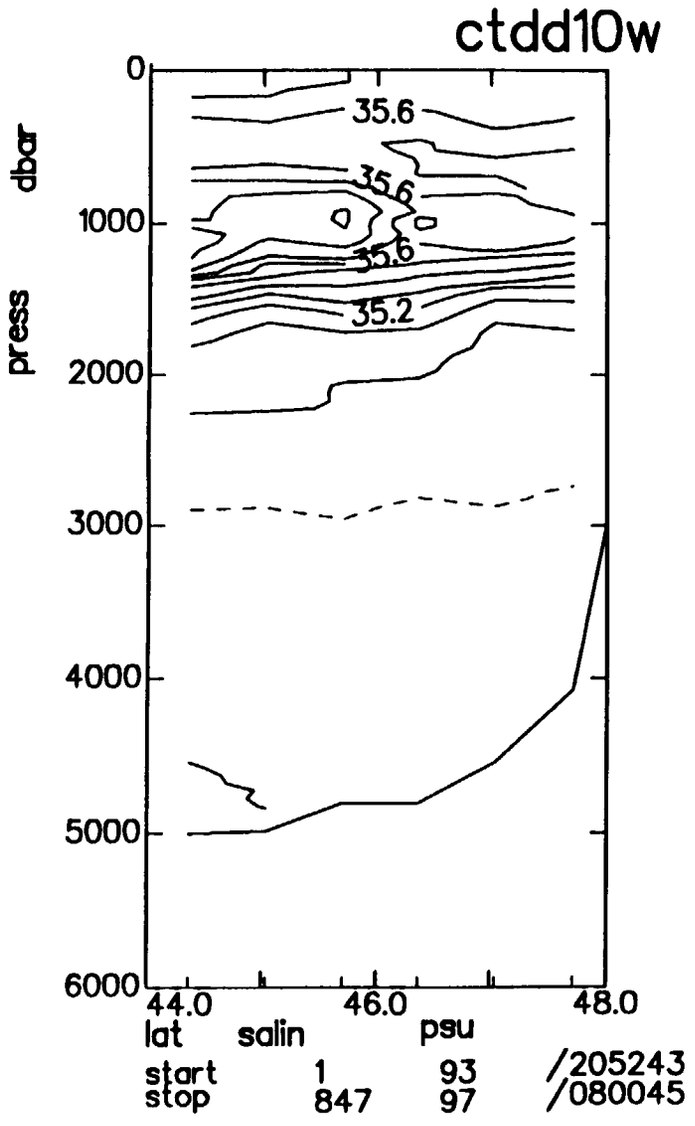
25.0000
20.0000
15.0000
10.0000
5.0000
0.0000
-5.0000
-10.0000
-15.0000
press dbar
0
1000
2000
3000
4000
5000
6000
41.0 lat
43.0 degrees
45.0
47.0
49.0 Z var- geosvel
51.0 cm/sec
53.0
start 1
stop 2057

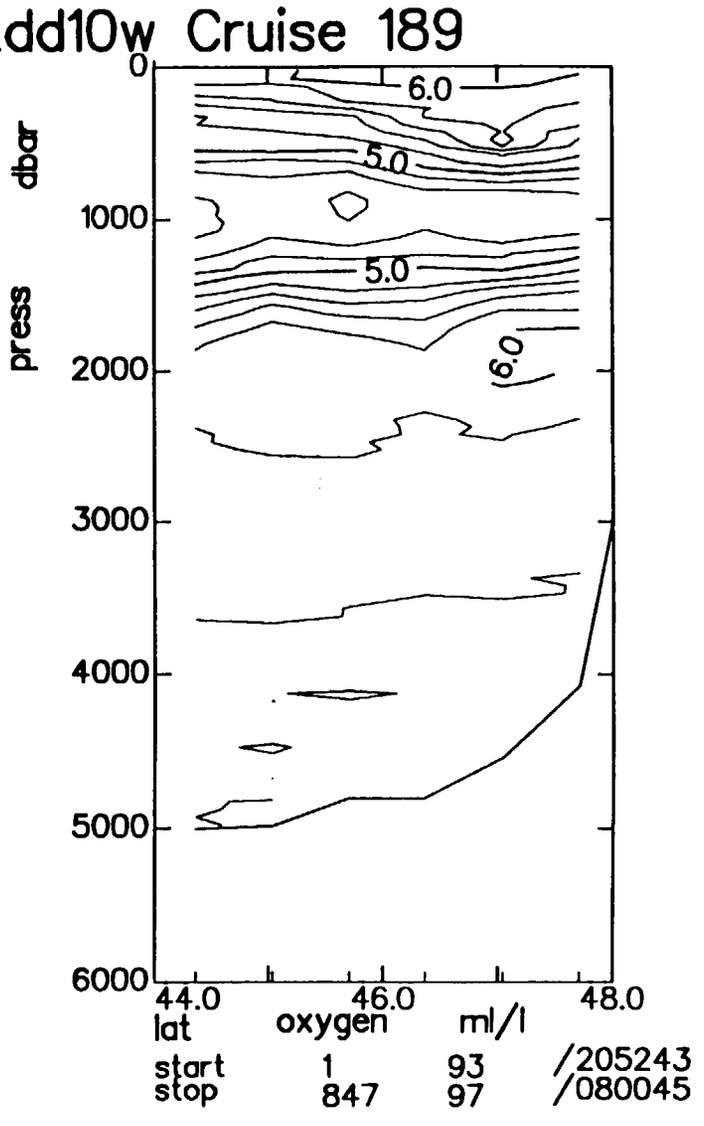

AI ctdd53n Cruise 189
ctdd53n
press dbar
0
1000
2000
3000
4000
5000
6000
10
8
6
4
lon -20.0 -18.0 -16.0
start 1 81 /111723
stop 847 84 /115911
potemp deg.c
27.3
27.7
27.8
sigma0 kg/m**3

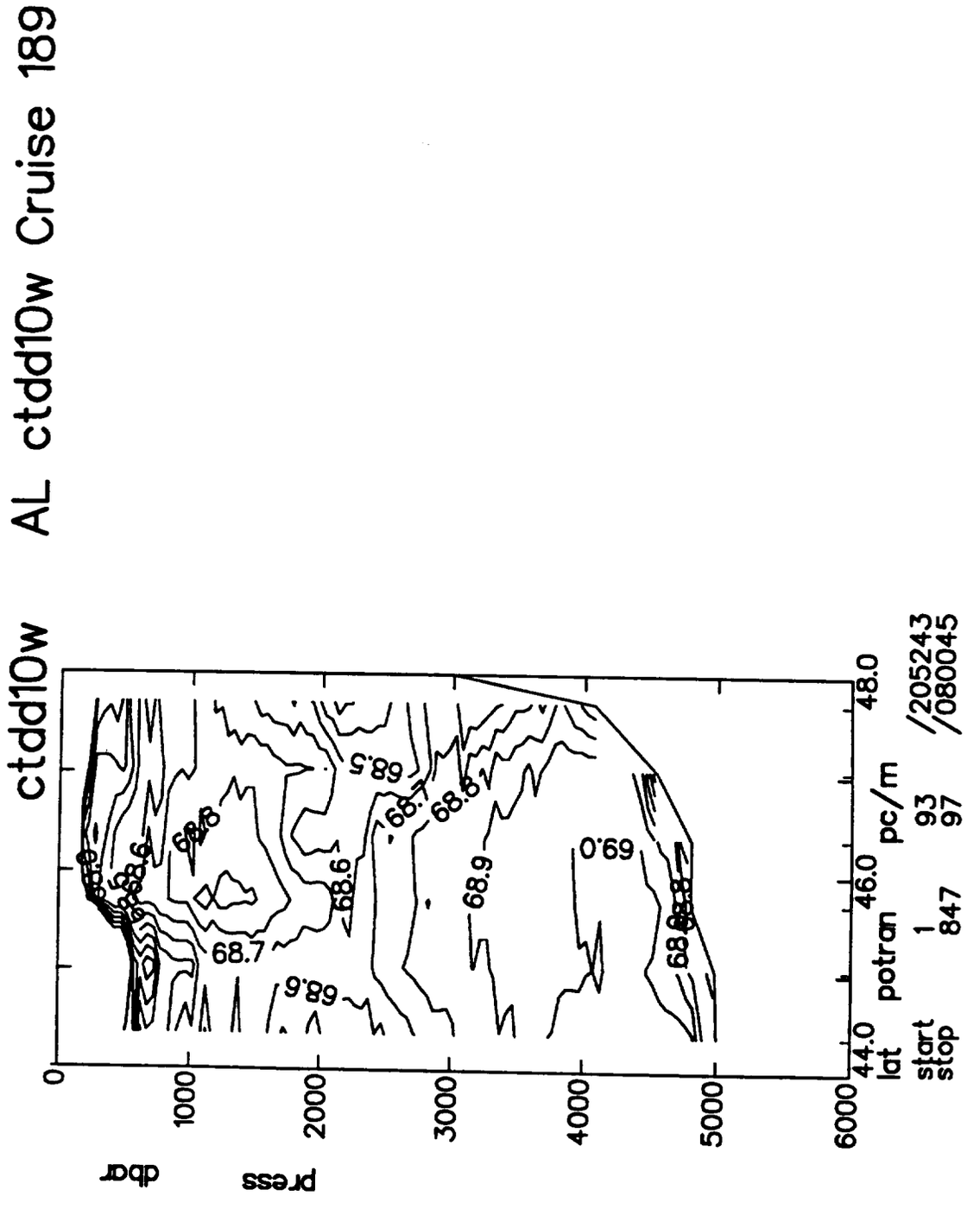

AI ctdd53n Cruise 189
ctdd53n
press dbar
0
1000
2000
3000
4000
5000
6000
6.0
5.0
35.2
lon -20.0 -18.0 -16.0
start 1 81
stop 847 84
salin psu
/111723
/115911
oxygen ml/l
/111723
/115911

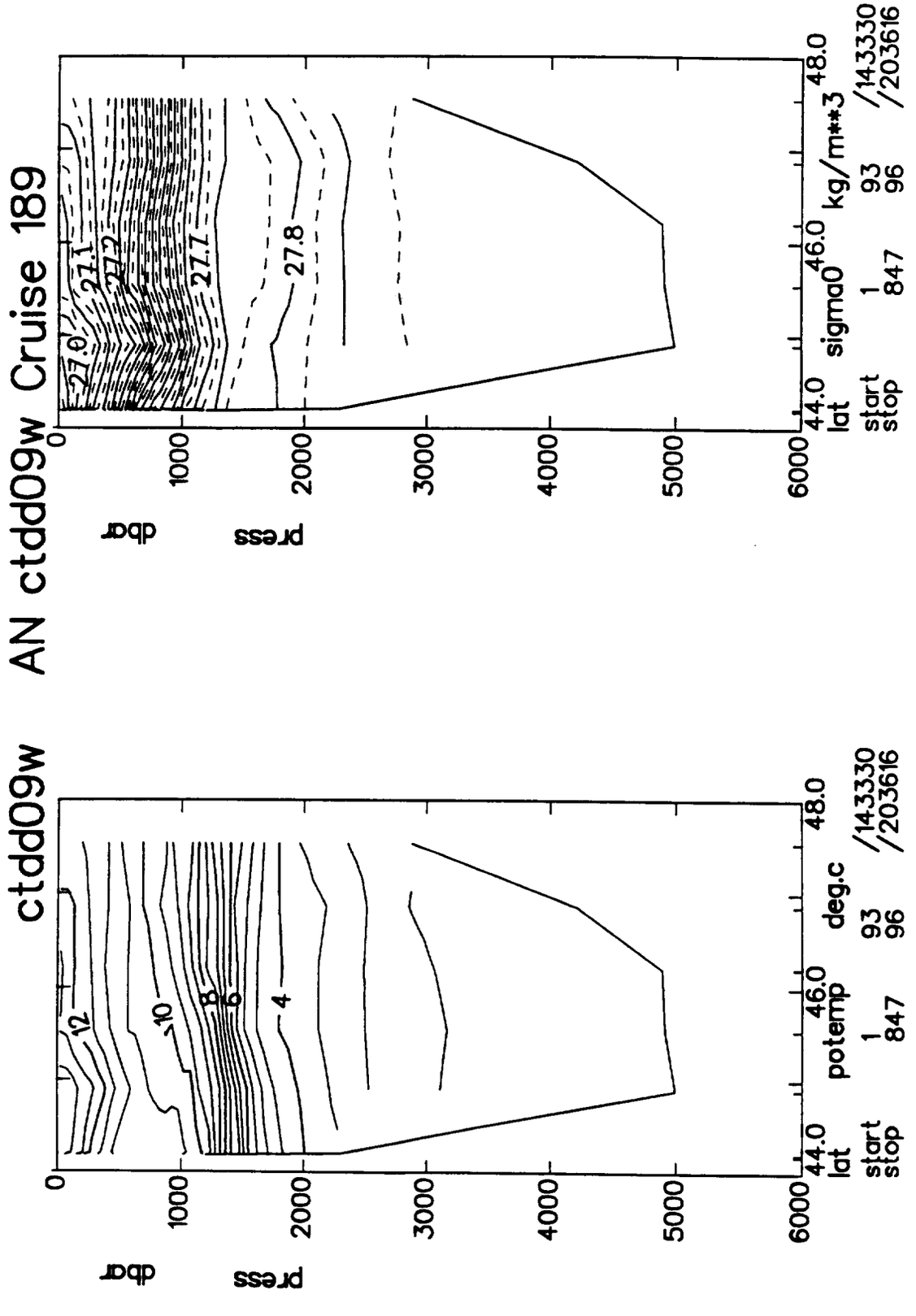

ctdd53n AI ctdd53n Cruise 189
press dbar
0
1000
2000
3000
4000
5000
6000
68.6
68.7
68.5
lon −20.0 −18.0 −16.0
potran
pc/m
start 1 81 /111723
stop 847 84 /115911

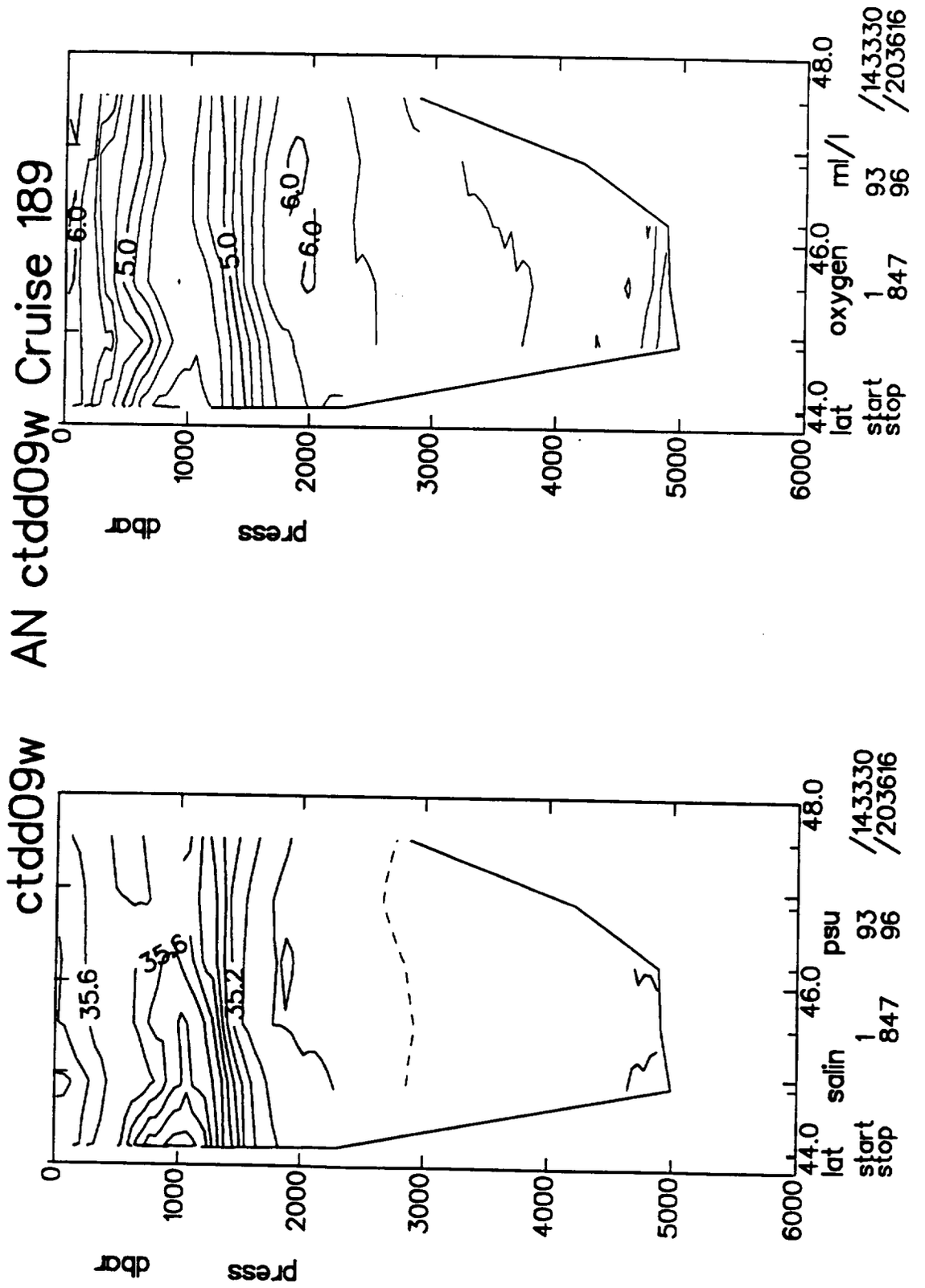

AL ctdd10w Cruise 189
ctdd10w
press
dbar
0
1000
2000
3000
4000
5000
6000
27.1
27.2
27.7
27.8
12
10
8
6
4
44.0
46.0
48.0
lat
start
stop
1
847
93
97
/205243
/080045
sigma0
kg/m**3
potemp
deg.c


ctdd10w
0
1000
2000
3000
4000
5000
6000
press
dbar
35.6
35.6
35.6
35.2
44.0
46.0
48.0
lat
salin
psu
start 1 93 /205243
stop 847 97 /080045


AL ctdd10w Cruise 189
0
1000
2000
3000
4000
5000
6000
press
dbar
6.0
5.0
5.0
6.0
44.0
46.0
48.0
lat
oxygen
ml/l
start 1 93 /205243
stop 847 97 /080045


AL ctdd10w Cruise 189
ctdd10w
press dbar
0
1000
2000
3000
4000
5000
6000
68.5
68.6
68.7
68.8
68.9
69.0
44.0
46.0
48.0
lat
potran 1
pc/m
start 93 /205243
stop 847 97 /080045


ctdd09w
AN ctdd09w Cruise 189
press
dbar
0
1000
2000
3000
4000
5000
6000
12
10
8
6
4
44.0
46.0
48.0
lat
start 1 /14330
stop 847 /20361
potemp deg.c
93 /14330
96 /20361
27.0
27.1
27.2
27.7
27.8
sigma0 kg/m**3
93 /14330
96 /20361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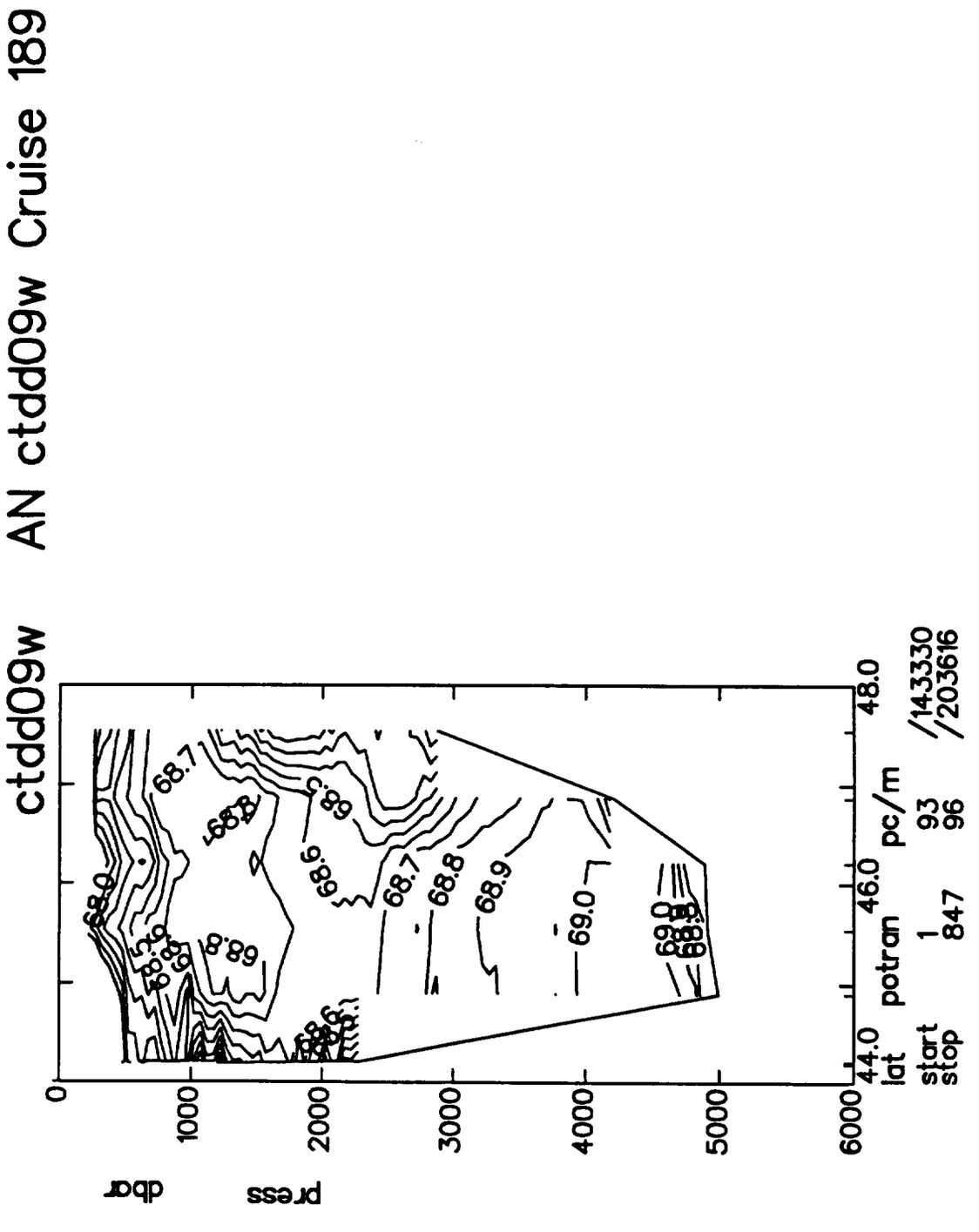
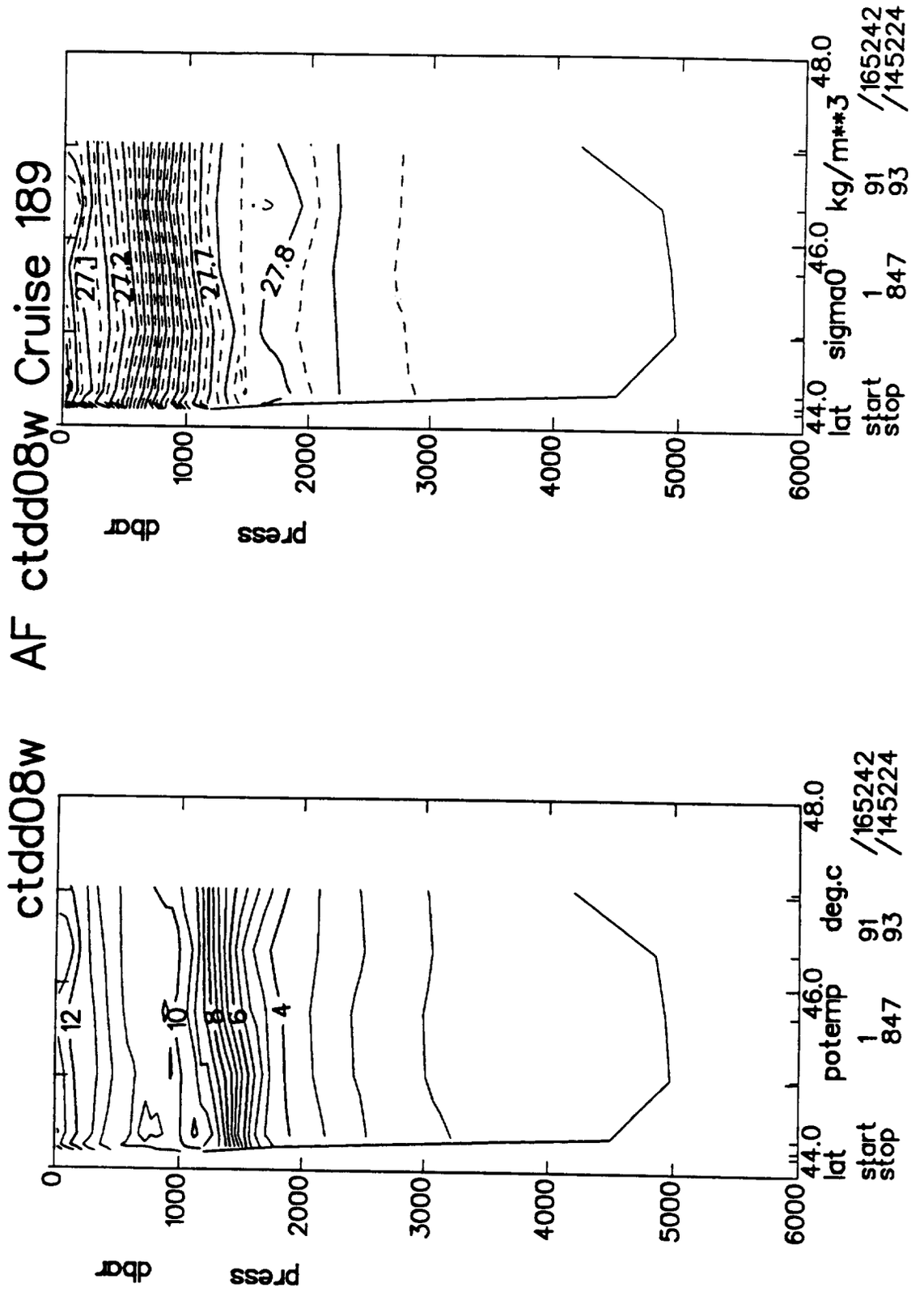
AN ctdd09w Cruise 189
dbar
press
0
1000
2000
3000
4000
5000
6000
35.6
35.6
35.2
6.0
6.0
6.0
5.0
5.0
44.0
46.0
48.0
lat
start
stop
salin
1
847
psu
oxygen
ml/l
93
96
/143330
/203616


ctdd09w AN ctdd09w Cruise 189
ctdd09w
press dbar
0
1000
2000
3000
4000
5000
6000
44.0
lat
46.0
48.0
start 1 93 /143330
stop 847 96 /203616
potran pc/m
68.0
68.7
68.6
68.8
68.9
69.0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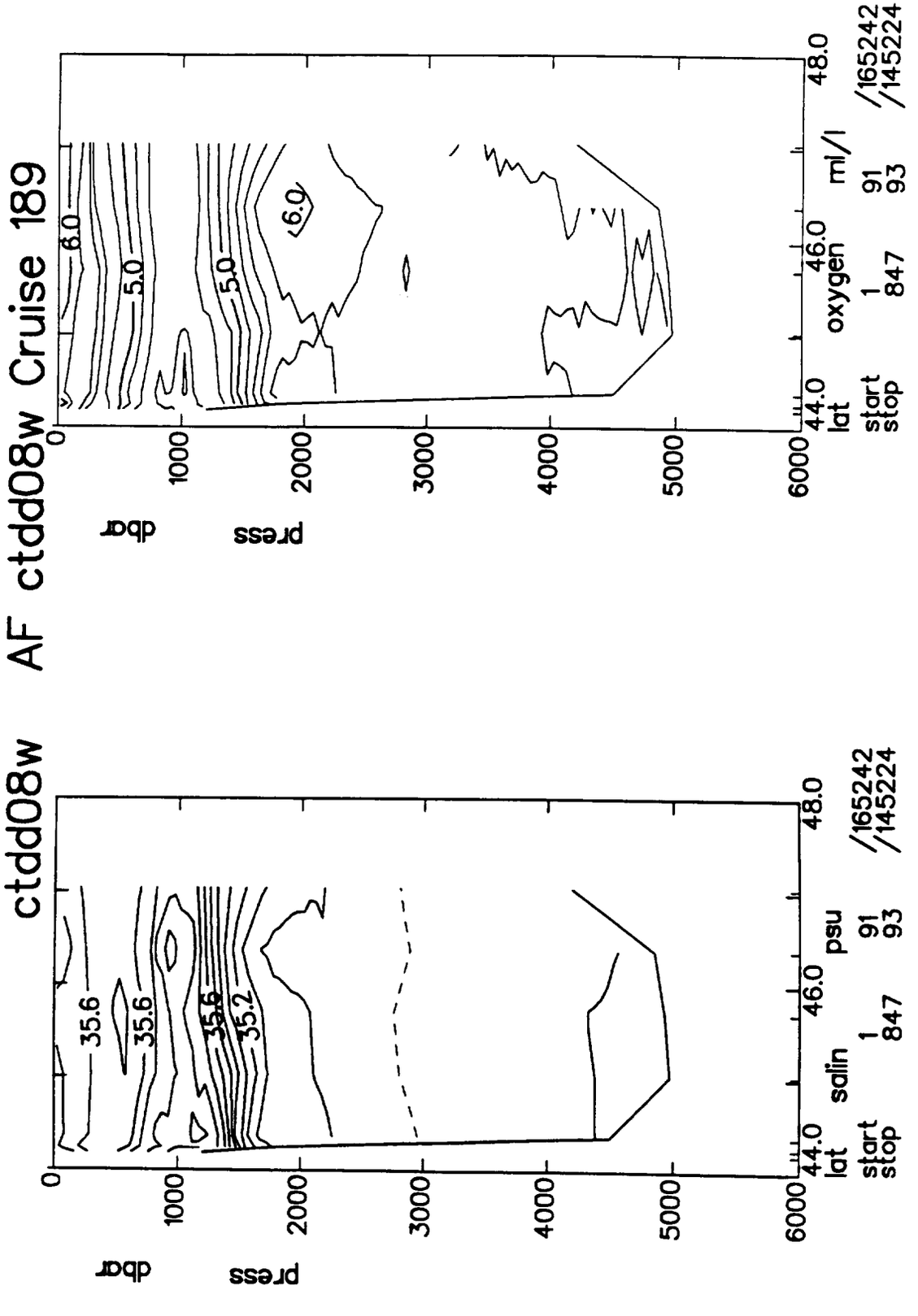
press dbar
0
1000
2000
3000
4000
5000
6000
27.3
27.2
27.1
27.8
44.0
46.0
48.0
lat
sigma0 kg/m**3
start 1 91 /165242
stop 847 93 /145224
12
10
8
6
4
potemp deg.c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dbar
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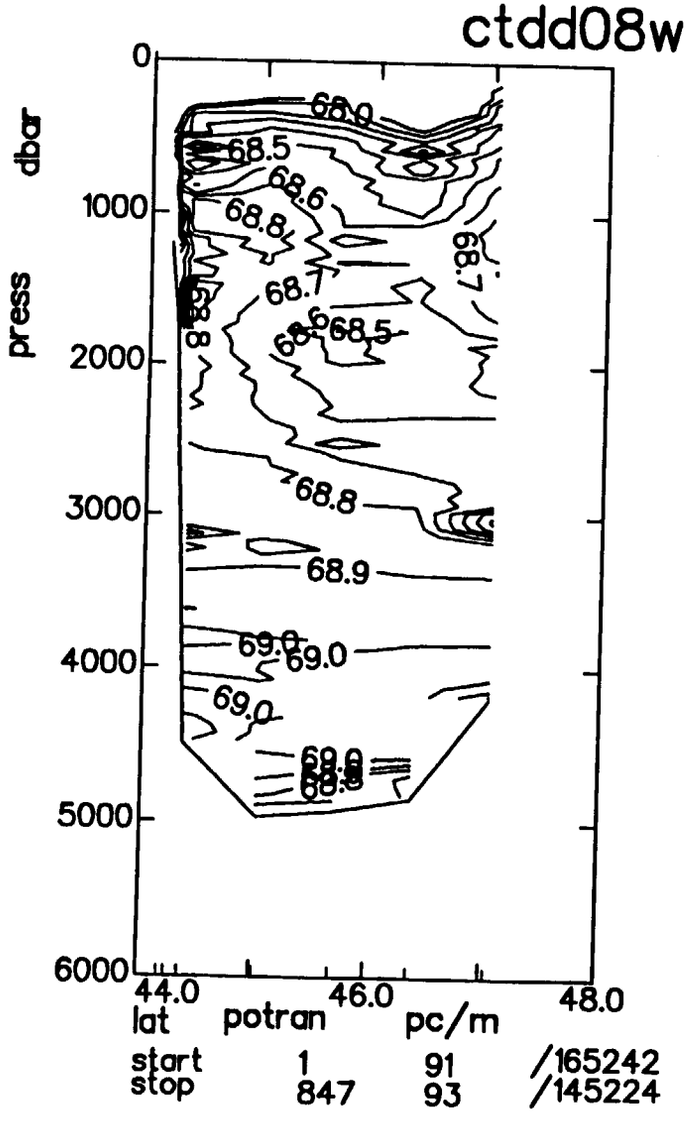
3000
4000
5000
6000
6.0
5.0
5.0
6.0
44.0
46.0
48.0
lat
oxygen
ml/l
start
stop
1
847
91
93
/165242
/145224
dbar
press
35.6
35.6
35.6
35.2
44.0
46.0
48.0
lat
salin
psu
start
stop
1
847
91
93
/165242
/145224


ctdd08w
AF ctdd08w Cruise 189
press dbar
0
1000
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3000
4000
5000
6000
68.0
68.5
68.6
68.8
68.7
68.9
68.8
68.7
68.5
68.8
68.9
69.0
69.0
69.0
44.0
46.0
48.0
lat
potran
pc/m
start 1 91 /165242
stop 847 93 /145224