

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Aug 26, 1999

SHIP: LAURIER

STATION NAME:

F71

CAST NUMBER:

32

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Nominal Sample Depth | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |     |     |    | O <sub>2</sub> End pt Dosage. | O <sub>2</sub> ML/L |
|------------|------------|------------|------------|----------------------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-------------------------------|---------------------|
|            |            |            |            |                      | Trip pressure     | Confirmed Salinity | SAL           | ONY | NUT | CHL | ALK | TCO | C13 | CFC | 018 | 8A |                               |                     |
| 1          | 1          | 3063       | 110        | 5                    |                   |                    | X             | X   | X   |     |     |     |     |     |     |    | 1.082                         | 6.001               |
| 2          | 2          | 3020       | 109        | 10                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.074                         | 6.031               |
| 3          | 3          | 3052       | 108        | 15                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.019                         | 5.940               |
| 4          | 4          | 3075       | 105        | 22                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.031                         | 6.004               |
| 5          | 5          | 3179       | 100        | 30                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.105                         | 6.103               |
| 6          | 6          | 3130       | 80         | 30                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.114                         | 6.174               |
| 7          | 7          | 3040       | 50         | 40                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.120                         | 6.783               |
| 8          | 8          | 3024       | 30         | 40                   |                   |                    |               |     |     |     |     |     |     |     |     |    | 1.558                         | 8.608               |
| 9          | 9          | -          | 20         | 40                   |                   |                    |               |     |     |     |     | X   |     |     |     |    | SAMPLE LOST                   |                     |
| 10         | 10         | 3016       | 15         | 20                   |                   |                    |               |     |     |     |     | X   |     |     |     |    | 1.613                         | 8.957               |
| 11         | 11         | 3123       | 10         | 20                   |                   |                    |               |     |     |     |     | X   |     |     |     |    | 1.512                         | 8.525               |
| 12         | 12         | 3162       | 5          | 20                   |                   |                    |               |     |     |     |     | X   |     |     |     |    | 1.480                         | 8.400               |
| 13         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 14         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 15         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 16         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 17         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 18         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 19         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 20         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 21         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 22         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 23         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |
| 24         |            |            |            |                      |                   |                    |               |     |     |     |     |     |     |     |     |    |                               |                     |

ENTERED BY:

CHECKED BY:

See notes on back (O<sub>2</sub> analysis)

Bottom Depth: 115 + 6 = 121 Metres

Cast # down: 3

Cast # up: 3

Time LOC UTC

Begin: 0808 1408

Bottom: 0816 1416

End: 0820 1420

START POSITION (GPS)

LAT: 71 57.50N

LONG: 96 27.81 W

BOTTOM POSITION (GPS)

LAT: 71 57.54N

LONG: 96 27.64 W

END POSITION (GPS)

LAT: 71 57.53N

LONG: 96 27.50W

check in  
CFO  
RUS  
file  
46 DK

## ROSETTE LOG

MISSION ID: 9924  
STATION NAME: FT3UTC DATE y/m/d: 99/08/26  
CAST NUMBER: 4SHIP: Laurier

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |   |   |   |  |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|---|---|---|--|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |     | NUT | ALK | 200 | BA  |   |   |   |  |
|            |            |            |            |              |                   |                    |               | OXY | PH  | DS  | FRE | 018 |   |   |   |  |
| 1          | 13         |            |            | 470          |                   |                    | X             |     | Y   | XX  |     |     | X | X | X |  |
| 2          | 14         |            |            | 400          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 3          | 15         |            |            | 350          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 4          | 16         |            |            | 300          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 5          | 17         |            |            | 250          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 6          | 18         |            |            | 200          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 7          | 19         |            |            | 150          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 8          | 20         |            |            | 100          |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 9          | 21         |            |            | 75           |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 10         | 22         |            |            | 50           |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 11         | 23         |            |            | 25           |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 12         | 24         |            |            | 5            |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 13         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 14         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 15         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 16         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 17         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 18         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 19         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 20         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 21         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 22         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 23         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |
| 24         |            |            |            |              |                   |                    |               |     |     |     |     |     |   |   |   |  |

NO samples  
Bottles did not trip

ENTERED BY:  
CHECKED BY:Bottom Depth: 478Cast # down: 4  
Cast # up: 4Time LOC UTC  
Begin: 10:12 1612  
Bottom: 10:25 16:25  
End:START POSITION (GPS)  
LAT: 71 57.47N  
LONG: 96 12.85 WBOTTOM POSITION (GPS)  
LAT: 71 57.57N  
LONG: 96 13.04WEND POSITION (GPS)  
LAT: 71 57.63N  
LONG: 96 13.09WComments: BOTTLES DID NOT TRIP ON CAST 4

## ROSETTE LOG

MISSION ID: 9924  
STATION NAME: FT3 (2)UTC DATE y/m/d: 99/08/26  
CAST NUMBER: 5SHIP: LAURIER

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |     |     |    |     | Km Temp<br>End Point<br>Dosage | 25.8°C<br>O <sub>2</sub><br>mL/L |       |       |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|-----|-----|----|-----|--------------------------------|----------------------------------|-------|-------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |     | NUT |     | ALK |     | TCO |     | BA |     |                                |                                  |       |       |
|               |               |               |               |                 |                   |                       |               | OXY |     | CHL |     | C13 |     | CFC |    | 018 |                                |                                  |       |       |
| 1             | 13            | 3118          |               | 450             | slow spigot       | leak                  | X             | X   | X   |     |     |     |     |     | X  | X   | X                              |                                  | 1.023 | 5.786 |
| 2             | 14            | 3148          |               | 400             | leaks             |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.069 | 5.968 |
| 3             | 15            | 3167          |               | 350             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.055 | 5.822 |
| 4             | 16            | 3064          |               | 300             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.044 | 5.790 |
| 5             | 17            | 3174          |               | 250             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.031 | 5.846 |
| 6             | 18            | 3160          |               | 200             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.070 | 5.915 |
| 7             | 19            | 3124          |               | 150             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.070 | 5.928 |
| 8             | 20            | 3163          |               | 100             |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.085 | 6.093 |
| 9             | 21            | 3048          |               | 75              |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.094 | 6.362 |
| 10            | 22            | 3034          |               | 50              |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.167 | 6.752 |
| 11            | 23            | 3116          |               | 25              | LEAKS             |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.509 | 8.513 |
| 12            | 24            | 3168          |               | 5               |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  | 1.530 | 8.489 |
| 13            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 14            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 15            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 16            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 17            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 18            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 19            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 20            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 21            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 22            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 23            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |
| 24            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                                |                                  |       |       |

ENTERED BY:

CHECKED BY:

Bottom Depth: 462.9

Cast # down:

Cast # up:

| Time    | LOC   | UTC   |
|---------|-------|-------|
| Begin:  | 10:49 | 10:49 |
| Bottom: | 10:58 | 16:57 |
| End:    | 11:07 |       |

| START POSITION (GPS) |            |
|----------------------|------------|
| LAT:                 | 71 57.54 N |
| LONG:                | 96 12.93 W |

| BOTTOM POSITION (GPS) |            |
|-----------------------|------------|
| LAT:                  | 71 57.55 N |
| LONG:                 | 96 12.96 W |

| END POSITION (GPS) |            |
|--------------------|------------|
| LAT:               | 71 57.63 N |
| LONG:              | 96 13.02 W |

Comments:

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

99/08/26

SHIP:

Lanset

STATION NAME:

FT3 (3)

CAST NUMBER:

6

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |     |     |    |     | End<br>Point<br>Dosage | O <sub>2</sub><br>mL/L |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|-----|-----|----|-----|------------------------|------------------------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |     | NUT |     | ALK |     | TCO |     | Ba |     |                        |                        |
|               |               |               |               |                 |                   |                       |               | OXY |     | CHL |     | C13 |     | CFC |    | O18 |                        |                        |
| 1             | 25            | 3153          |               | 1450            | 455               |                       |               |     |     |     |     |     |     |     |    |     | 0.988                  | 5.787                  |
| 2             | 26            | 3065          |               | 440             |                   |                       |               |     |     |     |     |     |     | ✓   |    |     | 1.037                  | 5.783                  |
| 3             | 27            | 3121          |               | 430             |                   |                       |               |     |     |     |     |     |     | ✓   |    |     | 1.044                  | 5.800                  |
| 4             | 28            | 3057          |               | 420             |                   |                       |               |     |     |     |     |     |     | ✓   |    |     | 1.003                  | 5.806                  |
| 5             | 29            | 3112          |               | 375             |                   |                       |               |     |     |     |     |     |     | ✓   |    |     | 1.023                  | 5.826                  |
| 6             | 30            | 3094          |               | 325             |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.022                  | 5.852                  |
| 7             | 31            | 3152          |               | 275             |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.010                  | 5.826                  |
| 8             | 32            | 3137          |               | 225             |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.061                  | 5.967                  |
| 9             | 33            | 3003          |               | 30              |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.487                  | 8.324                  |
| 10            | 34            | 3018          |               | 20              |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.646                  | 9.188                  |
| 11            | 35            | 3001          |               | 15              |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.542                  | 8.773                  |
| 12            | 36            | 3104          |               | 10              |                   |                       |               |     |     |     |     |     |     |     |    |     | 1.528                  | 8.561                  |
| 13            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 14            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 15            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 16            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 17            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 18            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 19            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 20            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 21            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 22            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 23            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |
| 24            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |     |                        |                        |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth:

Cast # down: 6

Cast # up: 6

Time LOC UTC

Begin: 12:59 18:59

Bottom: 13:08 19:08

End:

START POSITION (GPS)

LAT: 71 57.5 N

LONG: 96 12.5 W

BOTTOM POSITION (GPS)

LAT: 71 57.6 N

LONG: 96 12.3 N

END POSITION (GPS)

LAT: 71 57.6

LONG: 96 12.7

## ROSETTE LOG

MISSION ID: 9924  
STATION NAME: FTAUTC DATE y/m/d: 99/08/26  
CAST NUMBER: 7SHIP: Lauvet

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |  |  |  | End Point Dosage                     | O <sub>2</sub> mL/L |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|--|--|--|--------------------------------------|---------------------|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |  | NUT |  | ALK |  | TCO |  |  |  |                                      |                     |
| 1          | 37         | 3164       |            | 430 m        | 425               |                    |               |  |     |  |     |  |     |  |  |  | 1.012                                | 5.715               |
| 2          | 38         | 3026       |            | 400          |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.027                                | 5.701               |
| 3          | 39         | 3171       |            | 350          |                   |                    |               |  |     |  |     |  |     |  |  |  | No O <sub>2</sub> → Computer Crashed |                     |
| 4          | 40         | 3100       |            | 300          |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.018                                | 5.687               |
| 5          | 41         | 3037       |            | 250          |                   |                    |               |  |     |  |     |  |     |  |  |  | 0.988                                | 5.743               |
| 6          | 42         | 3007       |            | 200          |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.026                                | 5.780               |
| 7          | 43         | 3067       |            | 150          |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.024                                | 5.798               |
| 8          | 44         | 3109       |            | 100          |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.100                                | 6.115               |
| 9          | 45         | 3025       |            | 75           |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.139                                | 6.399               |
| 10         | 46         | 3119       |            | 50           |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.226                                | 7.48                |
| 11         | 47         | 3009       |            | 25           |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.539                                | 8.768               |
| 12         | 48         | 3023       |            | 5            |                   |                    |               |  |     |  |     |  |     |  |  |  | 1.529                                | 8.478               |
| 13         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 14         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 15         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 16         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 17         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 18         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 19         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 20         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 21         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 22         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 23         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |
| 24         |            |            |            |              |                   |                    |               |  |     |  |     |  |     |  |  |  |                                      |                     |

Comments:

ENTERED BY:  
CHECKED BY:Bottom Depth: 430 mCast # down: 7Cast # up: 7

| Time    | LOC   | UTC   |
|---------|-------|-------|
| Begin:  | 15:28 | 21:28 |
| Bottom: | 1537  | 21:37 |
| End:    | 15:50 | 21:50 |

| START POSITION (GPS) |           |
|----------------------|-----------|
| LAT:                 | 71 57.5 N |
| LONG:                | 95 50.0 W |

| BOTTOM POSITION (GPS) |           |
|-----------------------|-----------|
| LAT:                  | 71 57.5 N |
| LONG:                 | 95 50.7 W |

| END POSITION (GPS) |           |
|--------------------|-----------|
| LAT:               | 71 57.5 N |
| LONG:              | 95 50.7 W |

## ROSETTE LOG

MISSION ID:

0924

UTC DATE y/m/d:

99/08/27

SHIP:

Lawler

STATION NAME:

FT 7

CAST NUMBER:

10

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp.     | Sample Depth     | ROSETTE OPERATION |                    | Samples taken |   |     |  |     |  |     |  |  |  |  |  |
|------------|------------|------------|----------------|------------------|-------------------|--------------------|---------------|---|-----|--|-----|--|-----|--|--|--|--|--|
|            |            |            |                |                  | Trip pressure     | Confirmed Salinity | SAL           |   | NUT |  | ALK |  | TCO |  |  |  |  |  |
| 1          | 49         | 3033       | 5.904<br>1.037 | <del>100</del> 2 | 120               |                    | X             | X | X   |  |     |  |     |  |  |  |  |  |
| 2          | 50         | 3010       | 6.133<br>1.034 | 90               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 3          | 51         | 3061       | 6.453<br>1.153 | 10               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 4          | 52         | 3151       | 7.244<br>1.293 | 50               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 5          | 53         | 3140       | 7.523<br>1.337 | 40               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 6          | 54         | 3047       | 8.163<br>1.378 | 30               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 7          | 55         | 3113       | 8.724<br>1.563 | 20               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 8          | 56         | 3098       | 8.804<br>1.582 | 15               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 9          | 57         | 3166       | 8.821<br>1.603 | 10               |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 10         | 58         | 3055       | 8.634<br>1.513 | 5                |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 11         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 12         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 13         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 14         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 15         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 16         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 17         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 18         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 19         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 20         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 21         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 22         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 23         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |
| 24         |            |            |                |                  |                   |                    |               |   |     |  |     |  |     |  |  |  |  |  |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth: 120 m

Cast # down: 10

Cast # up: 10

Time LOC UTC

Begin: 1855 0055

Bottom: 1858

End: 1900

START POSITION (GPS)

LAT: 71 57.5 N

LONG: 95 14.9 W

BOTTOM POSITION (GPS)

LAT: "

LONG: 95 14.8

END POSITION (GPS)

LAT: "

LONG: 95 14.9

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

1999/08/27

SHIP:

Lampro

STATION NAME:

BS1

CAST NUMBER:

11

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |   |     |   |     |   |    |   |     |     | END POINT<br>Depth | O <sub>2</sub><br>m/l |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|---|-----|---|-----|---|----|---|-----|-----|--------------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |   | NUT |   | ACK |   | DO |   | 018 | CEC |                    |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|            |            |            |            |              |                   |                    | ✓             | ✓ | ✓   | ✓ | ✓   | ✓ | ✓  | ✓ | ✓   | ✓   | ✓                  | ✓                     | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓</ |

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START POSITION (GPS)

LAT: 71 58.45 N

LONG: 95 03.15 W

BOTTOM POSITION (GPS)

LAT: 71 58.47 N

LONG: 95 02.67 W

END POSITION (GPS)

LAT: 71 58.45 N

LONG: 95 02.01 W

## ROSETTE LOG

MISSION ID:

0924

UTC DATE y/m/d:

Aug 27/99

SHIP:

STATION NAME:

BS2

CAST NUMBER:

12

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |  |     |  |     |  |     |  |  |  | End<br>Point<br>Dosage | O <sub>2</sub><br>M/L |       |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|--|-----|--|-----|--|-----|--|--|--|------------------------|-----------------------|-------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |  | NUT |  | ALK |  | TCO |  |  |  |                        |                       |       |
| 1             | 71            | 3171          |               | 100H ~ 180      |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.138                 | 6.737 |
| 2             | 72            | 3026          |               | 170             |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.148                 | 6.375 |
| 3             | 73            | 3119          |               | 150             |                   |                       |               |  |     |  |     |  |     |  |  |  |                        | 1.109                 | 6.346 |
| 4             | 74            | 3100          |               | 125             |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.143                 | 6.388 |
| 5             | 75            | 3164          |               | 100             |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.154                 | 6.449 |
| 6             | 76            | 3067          |               | 80              |                   |                       |               |  |     |  |     |  |     |  |  |  |                        | 1.187                 | 6.724 |
| 7             | 77            | 3010          |               | 60              |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.147                 | 6.806 |
| 8             | 78            | 3061          |               | 40              |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.256                 | 7.035 |
| 9             | 79            | 3151          |               | 20              |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.269                 | 7.110 |
| 10            | 80            | 3033          |               | 15              |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.236                 | 7.110 |
| 11            | 81            | 3037          |               | 10              |                   |                       |               |  |     |  |     |  |     |  |  |  |                        | 1.237                 | 7.115 |
| 12            | 82            | 3109          |               | 5               |                   |                       |               |  |     |  |     |  |     |  |  |  | ✓                      | 1.317                 | 7.325 |
| 13            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 14            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 15            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 16            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 17            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 18            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 19            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 20            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 21            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 22            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 23            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |
| 24            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                        |                       |       |

Comments:

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Bottom Depth: 169.4

Cast # down: 12

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Time LOC UTC

Begin: 10:18 16:18

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START POSITION (GPS)

LAT: 72 00.56 N

LONG: 94 36.69 W

BOTTOM POSITION (GPS)

LAT: 72 00.48 N

LONG: 94 35.97 W

END POSITION (GPS)

LAT: 72 00.38 N

LONG: 94 35.23 W

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Should be 71 00.56 N

Should be 94 36.69 W

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Aug 27/99

SHIP:

SWL

STATION NAME:

BS3-Test

CAST NUMBER:

13

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |   |     |   |     |  |     |  |  |  | End<br>point<br>Doseage. | O <sub>2</sub><br>ML/L |       |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|---|-----|---|-----|--|-----|--|--|--|--------------------------|------------------------|-------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |   | NUT |   | ALK |  | TCO |  |  |  |                          |                        |       |
| 1             | 1 (83)        | 3003          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 50                       | 1.290                  | 7.219 |
| 2             | 2 (84)        | 3161          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 50                       | 1.319                  | 7.289 |
| 3             | 3 (85)        | 3006          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 30                       |                        | 7.763 |
| 4             | 4 (86)        | 3135          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 30                       |                        | 7.285 |
| 5             | 5 (87)        | 3038          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 10                       |                        | 7.508 |
| 6             | 6 (88)        | 3107          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 10                       | 1.346                  | 7.626 |
| 7             | 7 (89)        | 3018          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 50                       | 1.350                  | 7.533 |
| 8             | 8 (90)        | 3167          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 30                       | 1.371                  | 7.571 |
| 9             | 9 (91)        | 3160          |               |                 |                   |                       |               | / | /   | / |     |  |     |  |  |  | 10                       | 1.386                  | 7.667 |
| 10            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 11            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 12            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 13            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 14            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 15            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 16            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 17            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 18            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 19            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 20            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 21            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 22            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 23            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |
| 24            |               |               |               |                 |                   |                       |               |   |     |   |     |  |     |  |  |  |                          |                        |       |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth:

Cast # down:

Cast # up:

Time LOC UTC

Begin: 11:24 17:24

Bottom:

End:

START POSITION (GPS)

LAT: 71 59.19N

LONG: 94 22.08W

BOTTOM POSITION (GPS)

LAT:

LONG:

END POSITION (GPS)

LAT:

LONG:

ROSETTE LOG

MISSION ID: 9924  
STATION NAME: JRL-4 JRL-5

UTC DATE y/m/d: Sep 28  
CAST NUMBER:

SHIP: Laurier

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |  |  |  |       |  |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|--|--|--|-------|--|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |     | NUT |     | ALK |     | TCO |  |  |  |       |  |
|            |            |            |            |              |                   |                    |               | OXY |     | CHL |     | C13 |     |  |  |  |       |  |
| 1          | 92         |            |            | surf         | OK                |                    |               |     |     |     |     |     |     |  |  |  | JRL   |  |
| 2          | 93         |            |            |              | didn't trip       |                    |               |     |     |     |     |     |     |  |  |  | JRL 2 |  |
| 3          | 94         |            |            |              | didn't trip       |                    |               |     |     |     |     |     |     |  |  |  | JRL 3 |  |
| 4          | 95         |            |            |              | OK                |                    |               |     |     |     |     |     |     |  |  |  | JRL 4 |  |
| 5          | 96         |            |            |              | not tripped       |                    |               |     |     |     |     |     |     |  |  |  | JRL 1 |  |
| 6          | 97         |            |            |              | " "               |                    |               |     |     |     |     |     |     |  |  |  | JRL 2 |  |
| 7          | 98         |            |            |              | " "               |                    |               |     |     |     |     |     |     |  |  |  | JRL 3 |  |
| 8          | 99         |            |            |              | sampled by bucket |                    |               |     |     |     |     |     |     |  |  |  | JRL 4 |  |
| 9          | 100        |            |            |              | Cancelled         |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 10         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 11         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 12         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 13         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 14         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 15         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 16         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 17         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 18         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 19         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 20         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 21         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 22         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 23         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |
| 24         |            |            |            |              |                   |                    |               |     |     |     |     |     |     |  |  |  |       |  |

ENTERED BY:  
CHECKED BY:

Bottom Depth:

Cast # down:  
Cast # up:

| Time    | LOC | UTC |
|---------|-----|-----|
| Begin:  |     |     |
| Bottom: |     |     |
| End:    |     |     |

START POSITION (GPS)  
LAT:  
LONG:

BOTTOM POSITION (GPS)  
LAT:  
LONG:

END POSITION (GPS)  
LAT:  
LONG:

Comments:

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

99/08/28

SHIP:

LAURIER

STATION NAME:

JR5

CAST NUMBER:

19

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth   | ROSETTE OPERATION |                    | Samples taken |   |     |  |     |  |     |  |  |  | END POINT DOBAGE | O <sub>2</sub> ML/L |
|------------|------------|------------|------------|----------------|-------------------|--------------------|---------------|---|-----|--|-----|--|-----|--|--|--|------------------|---------------------|
|            |            |            |            |                | Trip pressure     | Confirmed Salinity | SAL           |   | NUT |  | ALK |  | TCO |  |  |  |                  |                     |
| 1          | 101        | 3023       |            | bottom         | est 85m           |                    | X             | X | X   |  |     |  |     |  |  |  | 1.015            | 5.622               |
| 2          | 102        | 3047       |            | 80             |                   |                    |               |   |     |  |     |  |     |  |  |  | 0.941            | 5.568               |
| 3          | 103        | 3164       |            | 80             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.667            | 9.425               |
| 4          | 104        | 3067       |            | 80             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.035            | 5.861               |
| 5          | 105        | 3140       |            | 50             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.129            | 6.350               |
| 6          | 106        | 3010       |            | 40             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.552            | 9.216               |
| *7         | 107        | 3026       | 20         | 30             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.225            | 6.004               |
| *8         | 108        | 3098       | 15         | 20             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.272            | 7.053               |
| *9         | 109        | 3061       | 30         | 15             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.533            | 8.590               |
| 10         | 110        | 3174       |            | 10             |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.661            | 9.429               |
| 11         | 111        | 3124       |            | 5              |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.574            | 8.729               |
| 12         | 112        | 3064       |            | 2              |                   |                    |               |   |     |  |     |  |     |  |  |  | 1.498            | 8.316               |
| 13         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 14         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 15         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 16         |            |            | ORDER      | O <sub>2</sub> |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 17         |            |            | FOR        |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 18         |            |            | NUTS       |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 19         |            |            | BA         |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 20         |            |            | O18        |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 21         |            |            | SAL        |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 22         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 23         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |
| 24         |            |            |            |                |                   |                    |               |   |     |  |     |  |     |  |  |  |                  |                     |

ENTERED BY:

CHECKED BY:

Bottom Depth: 96 m

Cast # down: 19

Cast # up: 19

| Time    | LOC   | UTC   |
|---------|-------|-------|
| Begin:  | 10:34 | 16:34 |
| Bottom: | 10:40 | 16:40 |
| End:    | 10:44 | 16:44 |

START POSITION (GPS)

LAT: 70 15.05 N

LONG: 96 49.01 W

BOTTOM POSITION (GPS)

LAT: 70 15.02 N

LONG: 96 49.19 W

END POSITION (GPS)

LAT: 70 15.01 N

LONG: 96 49.00 N

Comments:

\* See change in order of depth  
BOTTLES 9 AND 10 HAD SLOW LEAKS

NO CFC

\*\* Bottle numbers written over with  
red pen \*\*

8  
9  
7  
\*\*

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

1999/08/28

STATION NAME:

JR6

CAST NUMBER:

24

SHIP: SW Laurier

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |   |     |   |     |     |                 |  |  |  | End Point Dosage | O <sub>2</sub> mL/L |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|---|-----|---|-----|-----|-----------------|--|--|--|------------------|---------------------|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |   | NUT |   | ALK | BAR | CO <sub>2</sub> |  |  |  |                  |                     |
| 1          | 113        | 3010       |            | Bottom -     | 72m               |                    |               | X | X   | X |     | X   | X               |  |  |  | 0.978            | 5.800               |
| 2          | 114        | 3047       |            | 60           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.044            | 6.185               |
| 3          | 115        | 3098       |            | 50           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.142            | 6.381               |
| 4          | 116        | 3164       |            | 40           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.237            | 6.489               |
| 5          | 117        | 3140       |            | 30           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.477            | 8.312               |
| 6          | 118        | 3026       |            | 20           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.625            | 9.031               |
| 7          | 119        | 3174       |            | 15           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.669            | 9.474               |
| 8          | 120        | 3061       |            | 10           |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.720            | 9.640               |
| 9          | 121        | 3124       |            | 5            |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.570            | 8.707               |
| 10         | 122        | 3023       |            | 2            |                   |                    |               |   |     |   |     |     |                 |  |  |  | 1.539            | 8.534               |
| 11         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 12         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 13         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 14         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 15         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 16         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 17         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 18         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 19         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 20         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 21         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 22         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 23         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |
| 24         |            |            |            |              |                   |                    |               |   |     |   |     |     |                 |  |  |  |                  |                     |

ENTERED BY:

CHECKED BY:

Bottom Depth: 78

Cast # down: 24

Cast # up: 24

Time LOC UTC

Begin: 16:16 22 16

Bottom: 16:19 22 19

End: 16:23 22 23

START POSITION (GPS)

LAT: 70 09.46N

LONG: 97 19.97W

BOTTOM POSITION (GPS)

LAT: 70 09.39N

LONG: 97 19.89W

END POSITION (GPS)

LAT: 70 09.40N

LONG: 97 19.98W

Comments:

10, 8 and 9 Leaking when brought up

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

August

Sept 29/99

SHIP:

Laurier

STATION NAME:

Chantry Inter

CAST NUMBER:

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |       |            |  |     |       |     |  |  |  |              |    |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|-------|------------|--|-----|-------|-----|--|--|--|--------------|----|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |       | NUT        |  | ALK |       | TCO |  |  |  |              |    |
| 1             | 123           |               |               |                 |                   |                       | 67            | 15.47 | N          |  | 95  | 19.30 | W   |  |  |  | Russ         | 2' |
| 2             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 3             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 4             | 124           |               |               |                 |                   |                       | 67°47' N      |       | 95°38' W   |  |     |       |     |  |  |  | 11fr.        |    |
| 5             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 6             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 7             | 125           |               |               |                 |                   |                       | 67°40' N      |       | 95°41.24 W |  |     |       |     |  |  |  | dark side    |    |
| 8             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  | of front     |    |
| 9             |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 10            | 126           |               |               |                 |                   |                       | 67°40' N      |       | 95°41.24 W |  |     |       |     |  |  |  | lighter side |    |
| 11            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 12            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 13            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 14            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 15            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 16            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 17            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 18            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 19            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 20            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 21            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 22            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 23            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |
| 24            |               |               |               |                 |                   |                       |               |       |            |  |     |       |     |  |  |  |              |    |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth:

Cast # down:

Cast # up:

Time LOC UTC

Begin:

Bottom:

End:

START POSITION (GPS)

LAT:

LONG:

BOTTOM POSITION (GPS)

LAT:

LONG:

END POSITION (GPS)

LAT:

LONG:

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

990831

SHIP: SWL

STATION NAME:

CC3

CAST NUMBER:

27 27

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |     |     |     |    |    |    |  |  |  | End Pail Dosego | O <sub>2</sub> ML/L |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|-----|-----|-----|----|----|----|--|--|--|-----------------|---------------------|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |     | NUT | ALK | BK | CO |    |  |  |  |                 |                     |
|            |            |            |            |              |                   |                    |               | ONY |     | CHL | 08 | 03 | 12 |  |  |  |                 |                     |
| 1          | 127        | 3047       |            | 60H          | 51m               |                    | ✓             | ✓   | ✓   |     | ✓  | ✓  | ✓  |  |  |  | 1.416           | 8.389               |
| 2          | 128        | 3098       |            | 50           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.459           | 8.093               |
| 3          | 129        | 3023       |            | 40           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.469           | 8.145               |
| 4          | 130        | 3124       |            | 30           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.610           | 8.929               |
| 5          | 131        | 3164       |            | 20           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.570           | 8.876               |
| 6          | 132        | 3061       |            | 15           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.562           | 8.753               |
| 7          | 133        | 3140       |            | 10           |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.529           | 8.606               |
| 8          | 134        | 3010       |            | 5            |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.431           | 8.496               |
| 9          | 135        | 3174       |            | 2            |                   |                    |               |     |     |     |    |    |    |  |  |  | 1.473           | 8.360               |
| 10         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 11         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 12         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 13         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 14         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 15         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 16         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 17         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 18         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 19         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 20         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 21         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 22         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 23         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |
| 24         |            |            |            |              |                   |                    |               |     |     |     |    |    |    |  |  |  |                 |                     |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth: 61m

Cast # down:

27 (0027)

Cast # up:

27

Time . LOC

(UTC)

Begin: 68 415:35

Bottom: 125 11:5:41

End:

15:44

START POSITION (GPS)

LAT: 68 48.56 N

LONG: 105 16.89 W

BOTTOM POSITION (GPS) -

LAT: 68 48.98 N

LONG: 105 16.62 W

END POSITION (GPS)

LAT: 68 48.98 N

LONG: 105 16.55 W

WEC  
1535Updnd 7  
3:51

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Sept 2, 1999

SHIP:

Laver

STATION NAME:

TP 1

CAST NUMBER:

28

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                    | Samples taken |  |           |     |     |    |    |   |   |  | End Point Dosage | O <sub>2</sub> M/L |
|-------------------|--------------------|---------------|--|-----------|-----|-----|----|----|---|---|--|------------------|--------------------|
| Trip pressure     | Confirmed Salinity | SAL           |  | NUT       |     | ALK | OK | DO |   |   |  |                  |                    |
|                   |                    | OXY           |  | CHL       | BAR | 0.3 |    |    |   |   |  |                  |                    |
| 1                 | 136                | 3130          |  | Bottom 30 |     |     |    | ✓  | ✓ | ✓ |  | 1.626            | 9.019              |
| *2                | 137                | 3179          |  | 20        |     |     |    |    |   |   |  | 1.358            | 7.504              |
| 3                 | 138                | 3075          |  | 15        |     |     |    |    |   |   |  | 1.504            | 8.884              |
| 4                 | 139                | 3052          |  | 10        |     |     |    |    |   |   |  | 1.544            | 9.010              |
| 5                 | 140                | 3063          |  | 5         |     |     |    |    |   |   |  | 1.596            | 8.859              |
| 6                 | 141                | 3020          |  | 2         |     |     |    |    |   |   |  | 1.501            | 8.436              |
| 7                 |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 8                 |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 9                 |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 10                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 11                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 12                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 13                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 14                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 15                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 16                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 17                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 18                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 19                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 20                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 21                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 22                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 23                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |
| 24                |                    |               |  |           |     |     |    |    |   |   |  |                  |                    |

ENTERED BY:

CHECKED BY:

Bottom Depth: 29

Cast # down: 28/52

Cast # up: 28/52

Time LOC UTC

Begin: 0615

Bottom:

End: 0633

START POSITION (GPS)

LAT: 68 39.03 N

LONG: 108 16.91 W

BOTTOM POSITION (GPS)

LAT:

LONG:

END POSITION (GPS)

LAT:

LONG:

Comments: \* Bottle 2 leaking before opening valve.

## ROSETTE LOG

MISSION ID:  
STATION NAME:9924  
TP3UTC DATE y/m/d:  
CAST NUMBER:'99 09 02  
30/55

SHIP: SWL

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                       | Samples taken |  |     |  |     |     |     |  |  |  | End<br>Point<br>Dosage | O <sub>2</sub><br>ML/L |
|-------------------|-----------------------|---------------|--|-----|--|-----|-----|-----|--|--|--|------------------------|------------------------|
| Trip<br>pressure  | Confirmed<br>Salinity | SAL           |  | NUT |  | ALK | DO  | PCO |  |  |  |                        |                        |
|                   |                       |               |  | ONY |  | CHL | BAR | 13  |  |  |  |                        |                        |

ENTERED BY:  
CHECKED BY:

|    |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
|----|-----|-----------|--|-----|--|--|--|---|---|---|--|---|---|---------|-------|
| 1  | 142 | 3040      |  | B-5 |  |  |  | ✓ | ✓ | ✓ |  | ✓ | ✓ | 1.292   | 7.827 |
| 2  | 143 | No SAMPLE |  | 100 |  |  |  |   |   |   |  |   |   | leaking | *     |
| 3  | 144 | 3016      |  | 75  |  |  |  |   |   |   |  |   |   | 1.446   | 8.028 |
| 4  | 145 | 3116      |  | 50  |  |  |  |   |   |   |  |   |   | 1.487   | 8.389 |
| 5  | 146 | 3048      |  | 30  |  |  |  |   |   |   |  |   |   | 1.527   | 8.887 |
| 6  | 147 | 3168      |  | 20  |  |  |  |   |   |   |  |   |   | 1.631   | 9.051 |
| 7  | 148 | 3118      |  | 15  |  |  |  |   |   |   |  |   |   | 1.598   | 8.992 |
| 8  | 149 | 3162      |  | 10  |  |  |  |   |   |   |  |   |   | 1.570   | 8.912 |
| 9  | 150 | 3123      |  | 5   |  |  |  | ↓ | ↓ | ↓ |  | ↓ | ↓ | 1.495   | 8.429 |
| 10 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 11 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 12 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 13 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 14 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 15 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 16 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 17 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 18 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 19 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 20 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 21 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 22 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 23 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |
| 24 |     |           |  |     |  |  |  |   |   |   |  |   |   |         |       |

Bottom Depth: 125

Cast # down: 30/55

Cast # up: 30/55

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 0745 |
| Bottom: |     | 0752 |
| End:    |     | 0757 |

| START POSITION (GPS) |             |
|----------------------|-------------|
| LAT:                 | 68 44.05 N  |
| LONG:                | 108 26.13 W |

| BOTTOM POSITION (GPS) |  |
|-----------------------|--|
| LAT:                  |  |
| LONG:                 |  |

| END POSITION (GPS) |  |
|--------------------|--|
| LAT:               |  |
| LONG:              |  |

Comments: \*No samples drawn from #2 - leaking before opening valve

4 min no pressure at 1015 not added of the time the rosette was sampled.

ROSETTE LOG

MISSION ID: 9924  
STATION NAME: TP5

UTC DATE y/m/d: 99 09 02  
CAST NUMBER: 32/57

SHIP: SWL

| Niskin No.    | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth        | ROSETTE OPERATION |                    | Samples taken |   |     |  |     |  |     |  |  |  | End Point<br>Doseg | O2<br>mL/L |
|---------------|------------|------------|------------|---------------------|-------------------|--------------------|---------------|---|-----|--|-----|--|-----|--|--|--|--------------------|------------|
|               |            |            |            |                     | Trip pressure     | Confirmed Salinity | SAL           |   | NUT |  | ALK |  | TCO |  |  |  |                    |            |
| 1             | 151        | 3148       |            | <del>100</del> (78) |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.468              | 8.203      |
| 12            | 152        | 3163       |            | 70                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.461              | 8.210      |
| 3             | 153        | 3067       |            | 50                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.489              | 8.440      |
| 4             | 154        | 3064       |            | 30                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.590              | 8.828      |
| 5             | 155        | 3026       |            | 20                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.594              | 8.858      |
| 6             | 156        | 3061       |            | 15                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.569              | 8.793      |
| * 7           | 157        | 3047       |            | 10                  |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.455              | 8.620      |
| 8             | 158        | 3098       |            | 5                   |                   |                    | /             | / | /   |  |     |  |     |  |  |  | 1.495              | 8.293      |
| 9             |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 10            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 11            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| <del>12</del> |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 13            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 14            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 15            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 16            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 17            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 18            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 19            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 20            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 21            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 22            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 23            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |
| 24            |            |            |            |                     |                   |                    |               |   |     |  |     |  |     |  |  |  |                    |            |

ENTERED BY:  
CHECKED BY:

Bottom Depth: 83

Cast # down: 32

Cast # up: 32

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 0916 |
| Bottom: |     | 0921 |
| End:    |     | 0930 |

START POSITION (GPS)  
LAT: 68 48.98 N  
LONG: 108 35.92 W

BOTTOM POSITION (GPS)  
LAT:  
LONG:

END POSITION (GPS)  
LAT:  
LONG:

Comments:

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Sept 2/99

SHIP:

SWL

STATION NAME:

E11

CAST NUMBER:

33

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |  |     |  |     |  |     |  |  |  | End<br>Point<br>Depth | O <sub>2</sub><br>ml/L |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|--|-----|--|-----|--|-----|--|--|--|-----------------------|------------------------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |  | NUT |  | ALK |  | TCO |  |  |  |                       |                        |
| 1             | 159           | 3167          |               | 307             | 60                |                       |               |  |     |  |     |  |     |  |  |  | 1.350                 | 7.455                  |
| 2             | 160           | 3037          |               | 55              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.310                 | 7.621                  |
| 3             | 161           | 3113          |               | 50              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.378                 | 7.670                  |
| 4             | 162           | 3065          |               | 40              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.437                 | 8.020                  |
| 5             | 163           | 3135          |               | 30              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.483                 | 8.476                  |
| 6             | 164           | 3152          |               | 25              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.448                 | 8.361                  |
| 7             | 165           | 3100          |               | 20              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.572                 | 8.792                  |
| 8             | 166           | 3137          |               | 15              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.559                 | 8.776                  |
| 9             | 167           | 3033          |               | 10              |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.351                 | 7.773                  |
| 10            | 168           | 3166          |               | 7               |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.387                 | 7.630                  |
| 11            | 169           | 3161          |               | 5               |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.375                 | 7.599                  |
| 12            | 170           | 3109          |               | 2               |                   |                       |               |  |     |  |     |  |     |  |  |  | 1.362                 | 7.575                  |
| 13            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 14            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 15            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 16            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 17            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 18            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 19            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 20            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 21            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 22            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 23            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |
| 24            |               |               |               |                 |                   |                       |               |  |     |  |     |  |     |  |  |  |                       |                        |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth:

70

Cast # down:

33

Cast # up:

33

Time LOC UTC

Begin: 08 27 14.67

Bottom: 110 57 14.21

End: 14 24

START POSITION (GPS)

LAT: 68 27.569

LONG: 110 57.08 W

BOTTOM POSITION (GPS)

LAT: 68 27.65 N

LONG: 110 57.30 W

END POSITION (GPS)

LAT: 68 27.60 N

LONG: 110 57.41 W

Sigsbee 743-938

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Sept 2/99

STATION NAME:

E15

CAST NUMBER:

37

SHIP:

SWL

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |  |  |  |  |  |  | End<br>point<br>Doseage. | O2<br>mL |
|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|--|--|--|--|--|--|--------------------------|----------|
| Trip<br>pressure  | Confirmed<br>Salinity | SAL           | ONY | NUT | CHL | ALK | TCO |  |  |  |  |  |  |                          |          |
| 1                 | 171                   | 3112          |     | 210 |     |     |     |  |  |  |  |  |  | 1.079                    | 6.146    |
| 2                 | 172                   | 3119          |     | 200 |     |     |     |  |  |  |  |  |  | 1.087                    | 6.220    |
| 3                 | 173                   | 3160          |     | 175 |     |     |     |  |  |  |  |  |  | 1.123                    | 6.209    |
| 4                 | 174                   | 3001          |     | 150 |     |     |     |  |  |  |  |  |  | 1.108                    | 6.299    |
| 5                 | 175                   | 3006          |     | 125 |     |     |     |  |  |  |  |  |  | 1.147                    | 6.398    |
| 6                 | 176                   | 3151          |     | 100 |     |     |     |  |  |  |  |  |  | 1.185                    | 6.638    |
| 7                 | 177                   | 3018          |     | 80  |     |     |     |  |  |  |  |  |  | 1.227                    | 6.845    |
| 8                 | 178                   | 3121          |     | 60  |     |     |     |  |  |  |  |  |  | 1.305                    | 7.255    |
| 9                 | 179                   | 3003          |     | 40  |     |     |     |  |  |  |  |  |  | 1.486                    | 8.318    |
| X10               | 180                   | 3038          |     | 20  |     |     |     |  |  |  |  |  |  | 1.535                    | 8.688    |
| 11                | 181                   | 3107          |     | 10  |     |     |     |  |  |  |  |  |  | 1.358                    | 7.694    |
| X12               | 182                   | 3171          |     | 5   |     |     |     |  |  |  |  |  |  | 1.353                    | 7.585    |
| 13                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 14                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 15                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 16                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 17                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 18                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 19                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 20                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 21                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 22                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 23                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |
| 24                |                       |               |     |     |     |     |     |  |  |  |  |  |  |                          |          |

ENTERED BY:

CHECKED BY:

Bottom Depth:

220

Cast # down:

37

Cast # up:

37

Time LOC UTC

Begin:

1756

Bottom:

1803

End:

1809

START POSITION (GPS)

LAT: 68

15.96N

LONG: 111

11.86W

BOTTOM POSITION (GPS)

LAT: 68

15.56N

LONG: 111

11.87W

END POSITION (GPS)

LAT: 68

15.95N

LONG: 111

11.79W

Scans 168-169

Comments: \* BOTTLES NOT SEALED - LEAKING

## ROSETTE LOG

MISSION ID:  
STATION NAME:9924  
EIRUTC DATE y/m/d:  
CAST NUMBER:97 02 02  
39

SHIP: SWL

#12

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |     |  |  |  | End<br>Point<br>Dosage | O <sub>2</sub><br>ml/l |
|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|-----|--|--|--|------------------------|------------------------|
| Trip<br>pressure  | Confirmed<br>Salinity | SAL           |     | NUT |     | ALK |     | TCO |  |  |  |                        |                        |
|                   |                       |               | OXY |     | CHL |     | CI3 |     |  |  |  |                        |                        |

|    |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
|----|-----|------|--|-----|-----|--|--|--|--|--|--|--|-------|-------|
| 1  | 183 | 3055 |  | BOT | 300 |  |  |  |  |  |  |  | 1.264 | 7.191 |
| 2  | 184 | 3025 |  | 350 |     |  |  |  |  |  |  |  | 1.300 | 7.306 |
| 3  | 185 | 3153 |  | 300 |     |  |  |  |  |  |  |  | 1.225 | 7.179 |
| 4  | 186 | 3104 |  | 250 |     |  |  |  |  |  |  |  | 1.282 | 7.179 |
| 5  | 187 | 3126 |  | 200 |     |  |  |  |  |  |  |  | 1.245 | 6.862 |
| 6  | 188 | 3108 |  | 150 |     |  |  |  |  |  |  |  | 1.271 | 7.112 |
| 7  | 189 | 3094 |  | 100 |     |  |  |  |  |  |  |  | 1.302 | 7.460 |
| 8  | 190 | 3007 |  | 50  |     |  |  |  |  |  |  |  | 1.391 | 7.843 |
| 9  | 191 | 3057 |  | 30  |     |  |  |  |  |  |  |  | 1.496 | 8.669 |
| 10 | 192 | 3154 |  | 20  |     |  |  |  |  |  |  |  | 1.577 | 8.865 |
| 11 | 193 | 3128 |  | 10  |     |  |  |  |  |  |  |  | 1.486 | 8.297 |
| 12 | 194 | 3097 |  | 5   |     |  |  |  |  |  |  |  | 1.401 | 7.847 |
| 13 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 14 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 15 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 16 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 17 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 18 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 19 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 20 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 21 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 22 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 23 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |
| 24 |     |      |  |     |     |  |  |  |  |  |  |  |       |       |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth: 300

Cast # down: 39

Cast # up: 39

Time LOC UTC

Begin:

Bottom: 2024

End: 2035

START POSITION (GPS)

LAT: 68 02.75N

LONG: 111 17.02W

BOTTOM POSITION (GPS)

LAT: 68 02.75N

LONG: 111 17.04W

END POSITION (GPS)

LAT: 68 02.70N

LONG: 111 17.07W

Scans 1319-2095

## ROSETTE LOG

MISSION ID:

9926

UTC DATE y/m/d:

1999/09/02

SHIP:

STATION NAME:

E19

CAST NUMBER:

41

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth |
|------------|------------|------------|------------|--------------|
|------------|------------|------------|------------|--------------|

## ROSETTE OPERATION

| Trip     | Confirmed |
|----------|-----------|
| pressure | Salinity  |

## Samples taken

| SAL | ONX | NUT | CHL | ALK | CI3 | TCO |
|-----|-----|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|-----|-----|

| End Point |
|-----------|
| Dosage    |

| O <sub>2</sub> |
|----------------|
| mL/L           |

ENTERED BY:

CHECKED BY:

|    |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
|----|-----------------------------------|------|--|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|-------|-------|
| 1  | 195                               | 3091 |  | Bot | 390 |  |  |  |  |  |  |  |  |  |  |  |  | 1.325 | 7.298 |
| 2  | 196                               | 3039 |  | 350 |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.303 | 7.288 |
| 3  | 197                               | 3054 |  | 300 |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.232 | 7.248 |
| 4  | 198                               | 3105 |  | 250 |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.277 | 7.126 |
| 5  | 199                               | 3069 |  | 200 |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.147 | 6.620 |
| 6  | 200                               | 3142 |  | 150 |     |  |  |  |  |  |  |  |  |  |  |  |  |       | 6.090 |
| 7  | 201                               | 3136 |  | 100 |     |  |  |  |  |  |  |  |  |  |  |  |  |       | 6.686 |
| 8  | 202                               | 3058 |  | 50  |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.300 | 7.542 |
| 9  | 203                               | 3169 |  | 30  |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.526 | 8.674 |
| 10 | 204                               | 3178 |  | 20  |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.578 | 8.846 |
| 11 | 205                               | 3004 |  | 10  |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.394 | 8.290 |
| 12 | 206                               | 3043 |  | 5   |     |  |  |  |  |  |  |  |  |  |  |  |  | 1.319 | 7.792 |
| 13 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 14 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 15 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 16 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 17 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 18 | pm flight                         |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 19 | lake on island in Palmarist inlet |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 20 | Hood River sample                 |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 21 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 22 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 23 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |
| 24 |                                   |      |  |     |     |  |  |  |  |  |  |  |  |  |  |  |  |       |       |

Bottom Depth: 397 m

Cast # down: 4'

Cast # up: 41

| Time | LOC | UTC |
|------|-----|-----|
|------|-----|-----|

Begin: 2304

Bottom: 2316

End: 2323

START POSITION (GPS)

LAT: 67 54.10 N

LONG: 111 19.91 W

BOTTOM POSITION (GPS)

LAT: 67 53.92 N

LONG: 111 19.84 W

END POSITION (GPS)

LAT: 67 53.85 N

LONG: 111 19.80 W

Scan 1486-28

Comments:

① bottle leaking badly from spigot.

## ROSETTE LOG

**MISSION ID:****STATION NAME:**

UTC DATE y/m/d:

**CAST NUMBER:****SHIP:**

SWL

[illegible]

**ENTERED BY:**

**CHECKED BY:**

computer crashed.

Bottom Depth:

169-176

**Cast # down:**

42/70

**Cast # up:**

42/12

| Time | LOC |
|------|-----|
|------|-----|

**LOC**

UTC

**Begin:**

00:48

**Bottom:**

0053

**End:**

20 59

**START POSITION (GPS)**

LAT: 67 52.16 N

LONG: III 17.25 W

**BOTTOM POSITION (GPS)**

LAT: 24.45

**LONG:**

**END POSITION (GPS)**

LAT:

**LONG:**

**Comments:**

# ROSETTE LOG

**MISSION ID:****STATION NAME:**

UTC DATE y/m/d:

**CAST NUMBER:**

SHIP: SWL

| Niskin | Sample                  | OXY.  | OXY.  | Sample |
|--------|-------------------------|-------|-------|--------|
| No.    | No.                     | Flask | Temp. | Depth  |
| 1      | Crocker River           |       |       |        |
| 2      |                         |       |       |        |
| 3      |                         |       |       |        |
| 4      |                         |       |       |        |
| 5      |                         |       |       |        |
| 6      | Das Thompson Port River |       |       |        |
| 7      |                         |       |       |        |
| 8      |                         |       |       |        |
| 9      |                         |       |       |        |
| 10     |                         |       |       |        |
| 11     |                         |       |       |        |
| 12     |                         |       |       |        |
| 13     |                         |       |       |        |
| 14     |                         |       |       |        |
| 15     |                         |       |       |        |
| 16     |                         |       |       |        |
| 17     |                         |       |       |        |
| 18     |                         |       |       |        |
| 19     |                         |       |       |        |
| 20     |                         |       |       |        |
| 21     |                         |       |       |        |
| 22     |                         |       |       |        |
| 23     |                         |       |       |        |
| 24     |                         |       |       |        |

**ENTERED BY:**

**CHECKED BY:**

**Bottom Depth:**

**Cast # down:**

**Cast # up:**

| Time | LOC | UTC |
|------|-----|-----|
|------|-----|-----|

## Begin:

**Bottom:**

**End:**

**START POSITION (GPS)**

**LAT:**

**LONG:**

**BOTTOM POSITION (GPS)**

**LAT:**

**LONG:**

[illegible]

LAT:

**LONG:**

**Comments:**

## ROSETTE LOG

MISSION ID: 9924

UTC DATE y/m/d: 09/03/99

SHIP: Sir Wilfred Laurier

STATION NAME: CI 1 / CI 3 / CIS

CAST NUMBER: CI 3 - Cast 49

| Niskin No. | Sample No.                                 | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken    |   |     |   |                   |    |         |      | End point Dosage | O <sub>2</sub> mL/L |  |       |       |
|------------|--------------------------------------------|------------|------------|--------------|-------------------|--------------------|------------------|---|-----|---|-------------------|----|---------|------|------------------|---------------------|--|-------|-------|
|            |                                            |            |            |              | Trip pressure     | Confirmed Salinity | SAL              |   | NUT |   | PER               | OT | CO      |      |                  |                     |  |       |       |
|            |                                            |            |            |              |                   |                    |                  |   | OXY |   | CHL               | Bo | G4      |      |                  |                     |  |       |       |
| 1          | 216                                        |            |            | 5            |                   |                    |                  | ✓ |     | ✓ |                   | ✓  | ✓       |      |                  |                     |  | CI 3  | 7.879 |
| 2          |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  | 1.414 | 7.879 |
| 3          |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       | 8.076 |
| 4          | 217                                        | 3162       |            | bottom       | 40 m              |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  | Cast 49 | CI 3 |                  |                     |  | 1.423 | 7.849 |
| 5          | 218                                        | 3064       |            | 30           |                   |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  |         |      |                  |                     |  | 1.414 | 7.849 |
| 6          | 219                                        | 3047       |            | 20           |                   |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  |         |      |                  |                     |  |       | 7.771 |
| 7          | 220                                        | 3161       |            | 15           |                   |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  |         |      |                  |                     |  | 1.379 | 7.627 |
| 8          | 221                                        | 3051       |            | 10           |                   |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  |         |      |                  |                     |  | 1.335 | 7.616 |
| 9          | 222                                        | 3179       |            | 5            |                   |                    | ✓                | ✓ | ✓   |   | ✓                 | ✓  |         |      |                  |                     |  | 1.370 | 7.571 |
| 10         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 11         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 12         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 13         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 14         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 15         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 16         | Meltare sampling / compass bearings in pm. |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 17         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 18         | 68°                                        | 53.375     |            | 115°         | 38.359            |                    | 240 yr elevation |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 19         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 20         | lake depth                                 |            |            | 6-7 ft       |                   |                    | Surface (~1 m)   |   |     |   | Surface           |    |         |      |                  |                     |  |       |       |
| 21         |                                            |            |            |              |                   |                    | mid (~8 m)       |   |     |   |                   |    |         |      |                  |                     |  |       |       |
| 22         |                                            |            |            |              |                   |                    | Bottom sample    |   |     |   | dragged on rocks  |    |         |      |                  |                     |  |       |       |
| 23         |                                            |            |            |              |                   |                    | didn't keep      |   |     |   | sunscreen, plants |    |         |      |                  |                     |  |       |       |
| 24         |                                            |            |            |              |                   |                    |                  |   |     |   |                   |    |         |      |                  |                     |  |       |       |

Comments: CAST CI 1 - Cast #47  
oxyredo.exe run on file →

ENTERED BY:

CHECKED BY:

check plank entered.

Bottom Depth: 46.5

Cast # down:

Cast # up:

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  |     | 16:26 |
| Bottom: |     | 16:29 |
| End:    |     | 16:33 |

| START POSITION (GPS) |             |
|----------------------|-------------|
| LAT:                 | 68 45.67 N  |
| LONG:                | 114 03.87 W |

| BOTTOM POSITION (GPS) |             |
|-----------------------|-------------|
| LAT:                  | 68 45.59 N  |
| LONG:                 | 114 03.84 W |

| END POSITION (GPS) |             |
|--------------------|-------------|
| LAT:               | 68 45.51 N  |
| LONG:              | 114 03.83 W |

## ROSETTE LOG

MISSION ID:  
STATION NAME:9924  
AGLUTC DATE y/m/d:  
CAST NUMBER:Sept 4/99  
52

SHIP: LAORIER

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                       | Samples taken |  |     |     |     |  |     |  |  |  | End<br>Point<br>Dosep | O <sub>2</sub><br>mL/L |
|-------------------|-----------------------|---------------|--|-----|-----|-----|--|-----|--|--|--|-----------------------|------------------------|
| Trip<br>pressure  | Confirmed<br>Salinity | SAL           |  | NUT |     | ALK |  | TCO |  |  |  |                       |                        |
|                   |                       | ONY           |  | CHL |     | C13 |  |     |  |  |  |                       |                        |
| 1                 | 223                   | 3016          |  | But | 20m |     |  |     |  |  |  | 1.209                 | 6.709                  |
| 2                 | 224                   | 3118          |  | 70  |     |     |  |     |  |  |  |                       | 6.932                  |
| 3                 | 225                   | 3067          |  | 50  |     |     |  |     |  |  |  | 1.326                 | 7.514                  |
| 4                 | 226                   | 3052          |  | 40  |     |     |  |     |  |  |  | 1.435                 | 8.372                  |
| 5                 | 227                   | 3048          |  | 30  |     |     |  |     |  |  |  | 1.514                 | 8.811                  |
| 6                 | 228                   | 3024          |  | 20  |     |     |  |     |  |  |  | 1.551                 | 8.569                  |
| 7                 | 229                   | 3148          |  | 15  |     |     |  |     |  |  |  | 1.531                 | 8.551                  |
| 8                 | 230                   | 3135          |  | 10  |     |     |  |     |  |  |  | 1.462                 | 8.356                  |
| 9                 | 231                   | 3020          |  | 5   |     |     |  |     |  |  |  | 1.373                 | 7.715                  |
| 10                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 11                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 12                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 13                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 14                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 15                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 16                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 17                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 18                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 19                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 20                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 21                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 22                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 23                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |
| 24                |                       |               |  |     |     |     |  |     |  |  |  |                       |                        |

ENTERED BY:  
CHECKED BY:

Bottom Depth: 92m

Cast # down:

Cast # up:

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 1505 |
| Bottom: |     | 1509 |
| End:    |     | 1512 |

| START POSITION (GPS) |            |
|----------------------|------------|
| LAT:                 | 69 52.31N  |
| LONG:                | 122 56.22W |

| BOTTOM POSITION (GPS) |            |
|-----------------------|------------|
| LAT:                  | 69 52.27N  |
| LONG:                 | 122 56.07W |

| END POSITION (GPS) |            |
|--------------------|------------|
| LAT:               | 69 52.26N  |
| LONG:              | 122 56.13W |

Comments:

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Sept. 4/99

SHIP:

LAURIER

STATION NAME:

A94.

CAST NUMBER:

55

| Niskin<br>No. | Sample<br>No.     | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |  |     |     |     |  |  |  |  |  | End<br>Point<br>Dosage | O <sub>2</sub><br>m/L |
|---------------|-------------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|--|-----|-----|-----|--|--|--|--|--|------------------------|-----------------------|
|               |                   |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |  | NUT | ALK | TCO |  |  |  |  |  |                        |                       |
|               |                   |               |               |                 |                   |                       | OXY           |  | CHL | C13 |     |  |  |  |  |  |                        |                       |
| 1             | 244               | 3092          |               | 6016            | -390              |                       |               |  |     |     |     |  |  |  |  |  | 1.006                  | 5.581                 |
| 2             | 245               | 3065          |               | 350             |                   |                       |               |  |     |     |     |  |  |  |  |  | 0.993                  | 5.537                 |
| 3             | -                 |               |               | 350             |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 4             | 246               | 3018          |               | 300             |                   |                       |               |  |     |     |     |  |  |  |  |  | 0.979                  | 5.458                 |
| 5             | 247               | 3054          |               | 250             |                   |                       |               |  |     |     |     |  |  |  |  |  | 0.924                  | 5.432                 |
| 6             | 248               | 3055          |               | 200             |                   |                       |               |  |     |     |     |  |  |  |  |  | 0.946                  | 5.377                 |
| 7             | 249               | 3115          |               | 150             |                   |                       |               |  |     |     |     |  |  |  |  |  | 0.997                  | 5.573                 |
| 8             | 250               | 3119          |               | 100             |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.067                  | 6.105                 |
| 9             | 251               | 3037          |               | 75              |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.121                  | 6.519                 |
| 10            | 252               | 3104          |               | 50              |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.354                  | 7.584                 |
| 11            | 253               | 3063          |               | 25              |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.670                  | 9.358                 |
| 12            | 254               | 3124          |               | 5               |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.333                  | 7.390                 |
| 13            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 14            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 15            | 247 <sup>DP</sup> | 3177          |               | 250             |                   |                       |               |  |     |     |     |  |  |  |  |  |                        | 5.417                 |
| 16            | 248 <sup>DP</sup> | 3167          |               | 200             |                   |                       |               |  |     |     |     |  |  |  |  |  |                        | 5.363                 |
| 17            | 250 <sup>DP</sup> | 3116          |               | 100             |                   |                       |               |  |     |     |     |  |  |  |  |  |                        | 6.099                 |
| 18            | 253 <sup>DP</sup> | 3043          |               | 25              |                   |                       |               |  |     |     |     |  |  |  |  |  | 1.566                  | 9.254                 |
| 19            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 20            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 21            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 22            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 23            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |
| 24            |                   |               |               |                 |                   |                       |               |  |     |     |     |  |  |  |  |  |                        |                       |

ENTERED BY:

CHECKED BY:

Bottom Depth: 397

Cast # down: 55

Cast # up: 55

Time LOC UTC

Begin: 18 52

Bottom: 19 02

End: 19 01

recalculated value is 9.271

START POSITION (GPS)

LAT: 70 10.56 N

LONG: 122 56.36 W

BOTTOM POSITION (GPS)

LAT: 70 10.44 N

LONG: 122 55.91 W

END POSITION (GPS)

LAT: 70 10.4 N

LONG: 122 55.7 W

Comments:

Oxygen redo.exe run → flask # for 253 entered in incorrectly → corrected &amp; correct bottle volume entered

# ROSETTE LOG

MISSION ID: 9924  
STATION NAME: AGE

UTC DATE y/m/d: Sept 4/99  
CAST NUMBER: 56

SHIP: LAURIER.

[illegible]

ENTERED BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

Bottom Depth: 263.4m

Cast # down: 56

Cast # up: 56

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  | 2   | 23:45 |
| Bottom: |     | 00:01 |
| End:    |     | 00:15 |

**START POSITION (GPS)**  
LAT: 70 33.77N  
LONG: 122 56.2W

**BOTTOM POSITION (GPS)**  
LAT: 70 33.67N  
LONG: 122 55.65W

|                                                                                                          |
|----------------------------------------------------------------------------------------------------------|
|  END POSITION (GPS) |
| LAT: 70 33.75N                                                                                           |
| LONG: 122 55.4W                                                                                          |

Comments: ~~Don't~~ tip - caught on frame.

# ROSETTE LOG

**MISSION ID:**

STATION NAME:

UTC DATE y/m/d:

**CAST NUMBER:**

SHIP: LAURIER

[illegible]

ENTERED BY:

**CHECKED BY:**

Bottom Depth: 21 m

Cast # down: 62

Cast # up: 62

| Time | LOC | UTC |
|------|-----|-----|
|------|-----|-----|

Begin: 20.34

Bottom: 20:41

|      |       |
|------|-------|
| End: | 20:47 |
|------|-------|

START POSITION (GPS)

LAT: 71 02.80 N

LONG: 127 59.27 W

BOTTOM POSITION (GPS)

LAT: 71 02.84 N

LONG: 122 59.78 W

**END POSITION (GPS)**

LAT: 02.39N

LONG: 122 00.19 N

Comments: Dry run Run Sept 5/99 1700 - Sept 5/99.

## ROSETTE LOG

MISSION ID:

~~9924~~ 9924

UTC DATE y/m/d:

Sept 6/99.

SHIP: LAURIER

STATION NAME:

JB1

CAST NUMBER:

64

| Niskin<br>No. | Sample<br>No. | OXY.<br>Flask | OXY.<br>Temp. | Sample<br>Depth | ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |     |     |    |  | End<br>Point<br>Doseage    | O <sub>2</sub><br>m/L |
|---------------|---------------|---------------|---------------|-----------------|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|-----|-----|----|--|----------------------------|-----------------------|
|               |               |               |               |                 | Trip<br>pressure  | Confirmed<br>Salinity | SAL           |     | NUT |     | ALK |     | TCO |     | BA |  |                            |                       |
|               |               |               |               |                 |                   |                       |               | ONY |     | CHL |     | C13 |     | OIB |    |  |                            |                       |
| 1             | 262           | 3033          |               | BOT             | 25                |                       | ✓             | ✓   | ✓   |     |     |     |     | ✓   | ✓  |  | 1.560                      | 8.978                 |
| 2             | 262           | 3113          |               | 10              |                   |                       |               |     |     |     |     |     |     |     |    |  | 1.313                      | 7.307                 |
| 3             | 262           | 3098          |               | 5               |                   |                       |               |     |     |     |     |     |     |     |    |  | 1.307                      | 7.248                 |
| 4             | 270           | 3123          |               | 2               |                   |                       |               |     |     |     |     |     |     |     |    |  | O <sub>2</sub> SAMPLE LOST |                       |
| 5             |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 6             |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 7             |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 8             |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 9             |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 10            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 11            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 12            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 13            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 14            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 15            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 16            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 17            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 18            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 19            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 20            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 21            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 22            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 23            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |
| 24            |               |               |               |                 |                   |                       |               |     |     |     |     |     |     |     |    |  |                            |                       |

Comments: #270 Oxygen sample lost - Colson meter reading kept clumping - may have  
lost some water at 11??

ENTERED BY:

CHECKED BY:

Bottom Depth: 28 m

Cast # down: 64

Cast # up: 61

Time LOC UTC

Begin: 13:22

Bottom: 4:25

End: 13:28

START POSITION (GPS)

LAT: 71 58.51N

LONG: 119 01.13W

BOTTOM POSITION (GPS)

LAT: 71 58.3N

LONG: 119 00.92W

END POSITION (GPS)

LAT: 71 58.51N

LONG: 119 00.96W

## ROSETTE LOG

MISSION ID:

STATION NAME:

9924  
JB3

UTC DATE y/m/d:

CAST NUMBER:

Sept 6/99.  
66

SHIP: LAURIER

Niskin Sample OXY. OXY. Sample  
No. No. Flask Temp. Depth

| ROSETTE OPERATION |                       | Samples taken |     |     |     |     |     |  |  |  |  | End<br>Point<br>Depth | O <sub>2</sub><br>ml/L |
|-------------------|-----------------------|---------------|-----|-----|-----|-----|-----|--|--|--|--|-----------------------|------------------------|
| Trip<br>pressure  | Confirmed<br>Salinity | SAL           | OXY | NUT | CHL | ALK | TCO |  |  |  |  |                       |                        |
| 1                 | 271                   | 3092          |     | 110 |     |     |     |  |  |  |  |                       | 5.498                  |
| 2                 | 272                   | 3006          |     | 90  |     |     |     |  |  |  |  | 1.090                 | 6.080                  |
| 3                 | 273                   | 3065          |     | 70  |     |     |     |  |  |  |  | 1.187                 | 6.622                  |
| 4                 | 274                   | 3068          |     | 50  |     |     |     |  |  |  |  | 1.425                 | 7.952                  |
| 5                 | 275                   | 3054          |     | 30  |     |     |     |  |  |  |  | 1.615                 | 9.508                  |
| 6                 | 276                   | 3055          |     | 20  |     |     |     |  |  |  |  | 1.762                 | 9.689                  |
| 7                 | 277                   | 3115          |     | 10  |     |     |     |  |  |  |  | 1.856                 | 10.390                 |
| 8                 | 278                   | 3119          |     | 5   |     |     |     |  |  |  |  |                       | 8.602                  |
| 9                 | 279                   | 3037          |     | 2   |     |     |     |  |  |  |  | 1.494                 | 8.694                  |
| 10                | 280                   | 3104          |     |     |     |     |     |  |  |  |  | 1.538                 | 8.617                  |
| 11                |                       |               |     |     |     |     |     |  |  |  |  |                       |                        |
| 12                | 271                   | 3177          |     | 110 |     |     |     |  |  |  |  | 0.982                 | 5.496                  |
| 13                | 272                   | 3167          |     | 90  |     |     |     |  |  |  |  | 1.102                 | 6.082                  |
| 14                | 273                   | 3116          |     | 70  |     |     |     |  |  |  |  | 1.183                 | 6.670                  |
| 15                | 274                   | 3043          |     | 50  |     |     |     |  |  |  |  | 1.346                 | 7.952                  |
| 16                | 275                   | 3091          |     | 30  |     |     |     |  |  |  |  | 1.725                 | 9.507                  |
| 17                | 276                   | 3164          |     | 20  |     |     |     |  |  |  |  | 1.712                 | 9.680                  |
| 18                | 277                   | 3019          |     | 15  |     |     |     |  |  |  |  | 1.780                 | 10.396                 |
| 19                | 278                   | 3109          |     | 10  |     |     |     |  |  |  |  | 1.544                 | 8.590                  |
| 20                | 279                   | 3058          |     | 5   |     |     |     |  |  |  |  | 1.498                 | 8.694                  |
| 21                | 280                   | 3034          |     | 2   |     |     |     |  |  |  |  | 1.491                 | 8.632                  |
| 22                |                       |               |     |     |     |     |     |  |  |  |  |                       |                        |
| 23                |                       |               |     |     |     |     |     |  |  |  |  |                       |                        |
| 24                |                       |               |     |     |     |     |     |  |  |  |  |                       |                        |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth: 118m

Cast # down: 66

Cast # up: 66

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 1502 |
| Bottom: |     | 1506 |
| End:    |     | 1510 |

| START POSITION (GPS) |            |
|----------------------|------------|
| LAT:                 | 72 02.11N  |
| LONG:                | 119 34.39W |

| BOTTOM POSITION (GPS) |            |
|-----------------------|------------|
| LAT:                  | 72 02.10N  |
| LONG:                 | 119 34.39W |

| END POSITION (GPS) |            |
|--------------------|------------|
| LAT:               | 72 02.11N  |
| LONG:              | 119 34.39W |

## ROSETTE LOG

MISSION ID:

9924

UTC DATE y/m/d:

Sept 6/99.

SHIP: LAURIER

STATION NAME:

JB5

CAST NUMBER:

68

| Niskin No. | Sample No. | OXY. Flask | OXY. Temp. | Sample Depth | ROSETTE OPERATION |                    | Samples taken |   |     |     |     |    |   |   |  |  | End Point Dosage | O <sub>2</sub> M/L |
|------------|------------|------------|------------|--------------|-------------------|--------------------|---------------|---|-----|-----|-----|----|---|---|--|--|------------------|--------------------|
|            |            |            |            |              | Trip pressure     | Confirmed Salinity | SAL           |   | NUT | ALK | TCO | BA |   |   |  |  |                  |                    |
| 1          | 281        | 3010       |            | bot          |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  |                  | 9.352              |
| 2          | 282        | 3174       |            | 20           |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  | 1.602            | 9.093              |
| 3          | 283        | 3023       |            | 15           |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  | 1.632            | 9.051              |
| 4          | 284        | 3137       |            | 10           |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  | 1.592            | 8.962              |
| 5          | 285        | 3100       |            | 5            |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  | 1.610            | 9.005              |
| 6          | 286        | 3061       |            | 2            |                   |                    | ✓             | ✓ | ✓   |     |     |    | ✓ | ✓ |  |  | 1.605            | 8.995              |
| 7          |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 8          |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 9          | 281        | 3152       |            | 44           |                   |                    |               |   |     |     |     |    |   |   |  |  | 1.593            | 9.200              |
| 10         | 282        | 3166       |            | 20           |                   |                    |               |   |     |     |     |    |   |   |  |  | 1.678            | 9.234              |
| 11         | 283        | 3040       |            | 15           |                   |                    |               |   |     |     |     |    |   |   |  |  | 1.494            | 9.054              |
| 12         | 284        | 3168       |            | 10           |                   |                    |               |   |     |     |     |    |   |   |  |  | 1.618            | 8.979              |
| 13         | 285        | 3163       |            | 5            |                   |                    |               |   |     |     |     |    |   |   |  |  | 1.601            | 8.998              |
| 14         | 286        | 3075       |            | 2            |                   |                    |               |   |     |     |     |    |   |   |  |  |                  | 8.973              |
| 15         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 16         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 17         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 18         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 19         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 20         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 21         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 22         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 23         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |
| 24         |            |            |            |              |                   |                    |               |   |     |     |     |    |   |   |  |  |                  |                    |

Comments:

ENTERED BY:

CHECKED BY:

Bottom Depth: 49m

Cast # down:

Cast # up:

Time LOC UTC

Begin: 72 1731

Bottom: 1736.5

End: 1737

START POSITION (GPS)

LAT: 72 05.35

LONG: 120 07.06

BOTTOM POSITION (GPS)

LAT: 72 05.31 N

LONG: 120 06.93 W

END POSITION (GPS)

LAT: 72 05.79 N

LONG: 120 06.02 W

#11