# DAILY LOG BOOK

**MISSION NUMBER** 2005-21

**DATE:** From: 15 AUGUST to: 3 SEPTEMBER 2005

**VESSEL:** JOHN P TULLY

**PROJECT:** LINE P

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

Captain: MURRAY McGREGOR First Officer: KENT R. REID
Second Officer: SHANE LOVELACE Third Officer: SCOTT

Mission Participants / Agencies: IOS - UVIC - CWS - UW

**Scientific Personnel:** Party Chief: MARIE ROBERT 8-12 A

| Name | Watch | Cabin | Name | Watch | Cabin |
|---|---|---|---|---|---|
| MARINA CHONG | | B | | | |
| DOUG ANDERSON | 12-4 | C | | | |
| MIKE ARVCHUK | | D | | | |
| DARREN TUELE | 4-8 | E | | | |
| JANET BARWELL-CLARKE | | F | | | |
| IAN WRDHAN | 8-12 | G | | | |
| TOM PLATH | | G | | | |
| KRISTINA BROWN | 4-8 | H | | | |
| LIA OSSIANDER | 12-4 | H | | | |
| AKASH SASTRI | 12-4 | Up Port | | | |

**Second leg of Mission:** Party Chief:

| Name | Watch | Cabin | Name | Watch | Cabin |
|---|---|---|---|---|---|
| | | | | | |

**Data logging computer:** FS03
**Data acquisition program:** Seasave Win 32 Ver 5.34
CTD deck unit make: Seabird model: 11plus serial number: 0508

**Primary CTD**
Make: Seabird model: 911 plus serial number: 0443
Primary temperature serial number: 4484 19-Mar-05
Primary conductivity serial number: 3038 03-Mar-05
Secondary temperature serial number: 2106 08-Jul-05
Secondary conductivity serial number: 1729 12-Jul-05
Transmissometer: Wetlabs Model: CSTAR s/n: 723DR 22-May-05
Fluorometer: Model Seapoint Cable gain: 10x s/n: 2356 P, (S) or NO pump?
Oxygen sensor: Seabird Model: SBE 43 s/n: 0766 (P) S or NO pump?
PAR sensor: Model: s/n:
Other sensors: Benthos Altimeter - 100m. range s/n: 10241 P, S or (NO) pump?
Other sensors: s/n: P, S or NO pump?
Other sensors: s/n: P, S or NO pump?
Other sensors: s/n: P, S or NO pump?

**Secondary CTD**
Make: model: serial number:
Primary temperature serial number:
Primary conductivity serial number:
Secondary temperature serial number:
Secondary conductivity serial number:
Transmissometer: Model: s/n:
Fluorometer: Model Cable gain: s/n: P, S or NO pump?
Oxygen sensor: Model: s/n: P, S or NO pump?
PAR sensor: Model: s/n:
Other sensors: s/n: P, S or NO pump?
Other sensors: s/n: P, S or NO pump?
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CTD calibration bottle location (height above CTD in metres):

Date of cable termination: 2005/8/18

# Guide to cable terminations:

Please read and complete this form before reterminating cable. We have two standard CTD cables in use, nominal .316" and .322". This form specifically addresses these two cables, however the same considerations apply to using other cables. The specifications for non-standard cables and associated terminations are available at Tom Juhasz's office (room 1221).

**Please identify nominal cable diameter:** .322 **Winch:** 17076

Actual diameter measurements, two locations in triplicate at termination and approximately 5 metres back from termination.

| At cable end: | at 5 metres: |
|---|---|
| 1. .322 | 1. .322 |
| 2. .322 | 2. .322 |
| 3. .322 | 3. .322 |

For comparison, the outer armour measurements of new cable:

Nominal .316" should be .3155 to .3165"

Nominal .322" should be .318 to .326"

Record specifications for other cables: _____ within: _____

The tolerance of the PMI Evergrip termination is tighter and only cables within these limits should be used.

For nominal .316" cable the lowest possible diameter is .309"

For nominal .322" cable the lowest possible diameter is .321"

**Describe cable:**

Kinks: NO

Birdcage NO

Rust flaking off cable NO (flaking, not just looks rusty)

Cable round or oval NO

Does cable have loose outer armour? NO

(Raised wires or space between wires.)

Are outer armour wires flattened? _____

**Remove cable that exhibits these signs of deterioration. To be authorised by Chief Scientist of the cruise, or the winch shop (Tom Juhasz at 250-363-6598).**

**Megger results by conductor (should be greater than 10,000. meg ohms)**

Inner armour to conductor 1 _____

Inner armour to conductor 2 _____

Inner armour to conductor 3 _____

**Please identify PMI sleeve used by checking the appropriate blank:**

For .316" cable, diameter of inner dimension of sleeve should be .3265" _____

part number 9004897–13, cable diameter range .309" to .320".

For .322" cable, diameter of inner dimension of sleeve should be .3400" .340

part number 9004897–14, cable range .321" to .333".

Sliding the sleeve onto the cable should be difficult.

**Evergrip helical Rods:**

The part number is 9005-9002 and covers left hand lay cables of diameter range .309" to .333".

Presence of grit on inner surface (yes / no) _____

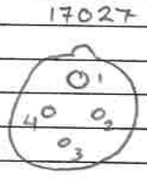
Condition of wires (damaged ends?) _____

Are the wires rusted? _____

**Comments:**

Removed approx 10 m cable. Severe kinks due to cable deployed after rosette hit bottom.

17027



| Sea Cable | | Pigtail | |
|---|---|---|---|
| 1 | Shield | 1 | wht |
| 2 | wht | 2 | Blk |
| 3 | blk | 3 | Grn |
| 4 | Rd | 4 | Rd |

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** JOHN P TULLY **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | SI03 | 2228 | BE | ROS | US | 1 | 48 35.62 | 123 30.05 | 229 | | | | | ✓ | Possibly something inhaled into cond. cell |
| | | 2233 | BO | | | | 48 35 63 | 123 30 05 | | 220 | 1 - 11 | 11 | | | trans spike at 125 ⇒ |
| | | 2248 | EN | | | | 48 35 63 | 123 30 03 | | | | | | | |
| 17 | JF1 | 0406 | BE | USW | | – | 48 15.65 | 123 30.00 | 160 | | | – | | | loop taken |
| 17 | JF2 | 0607 | BE | USW | | – | 48 18 12 | 124 00.00 | 187 | | | – | | | loop taken |
| 17 | JF3 | 0815 | BE | USW | | – | 48 26 86 | 124 30 30 | 234 | | | – | AG/DA | | loop taken |
| 17 | JF4 | 1000 | BE | USW | | | 48 32 38 | 125 00.21 | 59 | | | – | AG/DA | | thermosal sec temp ⇒ |
| 17 | P1 | 1159 | BE | ROS | US | 2 | 48 34 495 | 125 30 056 | 124 | | | | | | |
| | | 1203 | BO | | | | 48 34 482 | 125 30 100 | | 128 | 12 | 1 | | | surface bottle @ 5m |
| | | 1208 | EN | | | | 48 34 456 | 125 30 140 | | | | | | | |
| 17 | P2 | 1431 | BE | ROS | US | 3 | 48 35 872 | 125 59 994 | 117 | | 13-20 | 8 | | ✓ | |
| | | 1435 | BO | | | | 48 35 803 | 125 59 993 | | 116 | | | | | |
| | | 1444 | EN | | | | 48 35 718 | 125 59 958 | | | | | | | |
| 17 | P2 | 1534 | BO | NET | | 4 | 48 36.02 | 126 00.03 | 117 | 100 | | | | | Bongo |
| | | 1536 | EN | | | | 48 36 01 | 126 00 01 | | | | | | | |
| 17 | P3 | 1715 | BE | ROS | US | 5 | 48 37.54 | 126 20.03 | ~760 | | 21 | 1 (7) | MR/IW | ✓ | 6 NISKINS FOR NH4 NO S/N |
| | | 1728 | BO | | | | 48 37 58 | 126 20.02 | 782 | 770 | | | | | |
| | | 1739 | EN | | | | 48 37.55 | 126 19.99 | | | | | | | |
| | | | | | | | | | | | | | | | |

Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
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Transmissometer to be cleaned for each cast, do not use Ammonia products

JELLY FISH TENTACALS ALL OVER THE ROSETTE
Flushed the ducts with MQ & Tritron solution. DA

* Thenmosal sec. temp: turned on water supply at approx 1:40 AM UTC. DA

• Started Sounds @ 1107 local, 17/08/2005 @ ~48'38, 126'25, just after P3

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | P4 | 19:38 | BE | ROS | US | 6 | 48 39.04 | 126 39.85 | | | | | | | |
| | | 1943 | BO | | | | 48 39.07 | 126 39.79 | 1313 | 200 | 22-34 | 13 | DA/L | NO | |
| | | 1959 | EN | | | | 48 39 18 | 126 39 61 | | | | | | | |
| | | 2015 | | GOFlo | | 7 | " | " | | | | | | | |
| | | 2110 | | 1XET | | 8 | " | " | 0-250 | | | | | | |
| | | 00 | | NET | | 9 | " | " | 0-100 | | | | | | |
| 18 | | 12:32 | | NET | | 10 | 48 39 00 | 126 39 977 | 0-50 Bo | | | | | | |
| | | 12:48 | | NET | | 11 | " | " | 0-50R | | | | | | |
| 18 | P4 | 0139 | BE | ROS | US | 12 | 48 39 058 | 126 40 006 | 1316 | | | 19 | | | |
| | | 0157 | BO | | | | 48 39 044 | 126 40 086 | | 1321 | 35-53 | | | ✓ | |
| | | 0238 | EN | | | | 4839 092 | 126 40 110 | | | | | | | |
| 18 | P5 | 0520 | BE | ROS | US | 13 | 48 41.43 | 127 10.02 | 2092 | | | | IW/MR | ✓ | |
| | | 0547 | BO | | | | 48 41.51 | 127 09.97 | | 2005 | 54 | 1 | | | |
| | | 0614 | EN | | | | 48 41.54 | 127 09.93 | | | | | | | |
| 18 | P6 | 0858 | BE | ROS | | 14 | 48 44 65 | 127 39 90 | 2744 | | | | | | |
| | | 0934 | BO | | | | 48 44 58 | 127 39 98 | | 2000 | 55 | 1 | AC/DA | ✓ | |
| | | 0954 | EN | | | | 48 44 .61 | 127 39 .95 | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | P7 | 12:40:37 | BE | ROS | US | 15 | 48°46.638N | 128°9.934W | 2499 | | 56 | 1 | DT/KB | ✓ | |
| | | 13:09:21 | BO | | | | 48°46.579 | 128°10.037W | | 2005.19 | | | | | |
| | | 13:31:02 | EN | | | | 48°46.556 | 128°9.998W | | | | | | | |
| 18 | P8 | 1605 | BE | ROS | US | 16 | 48°48.97 | 128°39.99 | 2513 | | | | | | |
| | | 1630 | BO | | | | 48°48.97 | 128°40.11 | | 2005 | 57-76 | 20 | IW/MR | ✓ | |
| | | 1711 | EN | | | | 48°49.09 | 128°39.97 | | | | | | | |
| | | 1750 | EN | Go. Flow | | 17 | 48.49.? | 128.40.? W | | 60m | | 4 | | | all go-flow in the rising water |
| 18 | P8 | 1818 | BO | NET | | 18 | 48°49.34 | 128°40.28 | 2512 | | | | | | |
| | | 1822 | EN | | | | 48°49.38 | 128°40.31 | | 250 | | | | | Bongo to 250 |
| 18 | P9 | 2052 | BE | ROS | US | 19 | 48°51.40 | 129°09.98 | 2348 | | | | | | |
| | | 2119 | BO | | | | 48°51.42 | 129°10.03 | | 200? | 77 | 1 | LO/DA | ✓ | thems spike at 1600 |
| | | 2139 | EN | | | | 48°51.42 | 129°10.05 | | | | | | | surface temp 16.9°C wind 15 knots |
| 18 | P10 | 0004 | BE | ROS | US | 20 | 48°53.600 | 129°39.864 | 2642 | | | 1 | KB/DT | ✓ | |
| | | 0029 | BO | | | | 48°53.612 | 129°39.977 | | 2005 | 78 | | | | |
| | | 0056 | EN | | | | 48°53.674 | 129°39.902 | | | | | | | |
| 19 | P11 | 0322 | | ROS | US | 21 | 48°56.01 | 130°10.07 | 2747 | | | | | ✓ | |
| | | 0349 | | | | | 48°55.95 | 130°10.10 | | 2005 | 79 | 1 | IW/MR | | Bottle did not close |
| | | 0414 | | | | | 48°56.01 | 130°10.00 | | | | | | | |
| 19 | P11 | 0418 | EN | | | 22 | 48°56.00 | 130°10.00 | | | | | | | Close bottle |

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Aug 18 0730 local - adjusted GTD plumbing & ne set flo 5 l/min

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | P12 | 0636 | BE | ROS | US | 23 | 48 58.22 | 130 39.88 | 3224 | | | | | | |
| | | 0641 | BO | | | | 48 58.24 | 130 39.84 | | 200 | 80-92 | 13 | | ✓ | |
| | | 0657 | EN | | | | 48 58 34 | 130 39 79 | | | | | | | |
| | | | | BOT | | 24 | | | | | | | | | |
| 19 | P12 | 0751 | BE | NET | | 25 | 48 58.17 | 130 39.99 | | 250 | | | | | labelled in samples as event 24 KK |
| | | 1006 | | NET | | 26 | | | | 50 | | | | | |
| | | 1029 | | NET | | 27 | | | | RINGS 50 | | | | | |
| 19 | P12 | | BE | ROS | US | 28 | | | 3014 | | | | KB/DT | ✓ | |
| | | 1135 | BO | | | | 4858168 | 130 40 118 | | 3284 | 93-115 | | | | |
| | | 1234 | EN | | | | 4858224 | 130 39 841 | | | | | | | |
| 19 | P13 | 1656 | BE | ROS | US | 29 | 49 02 56 | 131 39.93 | 2975 | | | | | | → |
| | | 1721 | BO | | | | 49 02.59 | 131 39.94 | | 2005 | 116 | 1 | IW/MR | ✓ | +LOOP |
| | | 1746 | EN | | | | 49 02.57 | 131 39.97 | | | | | | | |
| 19 | P14 | 2307 | BE | ROS | | 30 | 49 07415 | 132 39 918 | 3304 | | | | KB DT | ✓ | |
| | | 2334 | BO | | | | 49 07 410 | 132 39 920 | | 2005 | 117 | 1 | | | |
| | | 2352 | EN | | | | 49 07 372 | 132 39 979 | | | | | | | |
| 20 | P15 | 0434 | BE | ROS | US | 31 | 49 11.98 | 133 39.87 | 3388 | | | | | | |
| | | 0501 | BO | | | | 49 12.02 | 133 39.97 | | 2005 | 118 | 1 | IW/MR | ✓ | |
| | | 0527 | EN | | | | 49 12.00 | 133 39.95 | | | | | | | |

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- P12 deep cast on bottom - Altimeter not working

0700 pulled cable off main CTD winch Port side. Hooked up STB Bioness winch for P13 CTD

1300 Re terminated main CTD winch cable. Switched back to Main CTD winch for Cast P14

P15 2130 local time - power down CTD test "bypass" + "through" solenoids reboot DC supply - Voltage not switching to bypass on Solenoids when speed drops

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | P16 | 1009 | BE | ROS | US | 32 | 49 17.02 | 134 39.90 | 3611 | | | | | | |
| | | 1014 | BO | | | | 49 17.03 | 134 39.91 | | 200 | 119 - 131 | 13 | AC/DA | NO | |
| | | 1028 | EN | | | | 49 17.97 | 134 39.93 | | | | | | | |
| | | 1040 | | BOT | | 33 | | | | | | | | | 10 20 30 40 50 75 |
| | | 1111 | | NET | | 34 | | | | | | | | | 250m Bongo |
| | | 1140 | 1345 | BOT | | 35 | 49 16.909 | 134 39.986 | | | | | | | 100m 150m 200m 300m 500m 3x30m |
| | | 1353 | | NET | | 36 | 16.97 | 39.86 | | | | | | | |
| 20 | P16 | 1432 | BE | ROS | US | 37 | 49.17.082 | 134 39.937 | 3610 | | | | KB/dt | ✓ | |
| | | 1530 | BO | | | | 49° 16.97 | 134° 39.92 | | 3675 | 132 - 155 | 24 | IW/MR | | |
| | | 1631 | EN | | | | 49 16.97 | 134° 40.02 | | | | | | | |
| 20 | P17 | 2121 | BE | ROS | US | 38 | 49 21 05 | 135 40 .04 | 3600 | | 156 | 1 | LO/DA | | |
| | | 2148 | BO | | | | 49 21 15 | 135 40 18 | | 2005 | | | | ✓ | Oxy min @ 450m Surface temp 16.18 °C |
| | | 2208 | EN | | | | 49 21 22 | 135 40 25 | | | | | | | Wind 10 knots |
| 21 | P18 | 0244 | BE | ROS | US | 39 | 49 25 993 | 136 39 912 | 3805 | | | | KB dt | ✓ | |
| | | 0310 | BO | | | | 49° 26.03 | 136° 40.02 | | 2005 | 157 | 1 | IW/MR | | +LOOP |
| | | 0335 | EN | | | | 49 26.02 | 136° 40.04 | | | | | | | |
| 21 | P19 | 0821 | BE | ROS | | 40 | 49 29 98 | 137 40 20 | 3897 | | | | | | |
| | | 0854 | BO | | | | 49 30 02 | 137 39 97 | | | 158 | 1 | DA/AC | ✓ | Surface temp 16.19°C Wind 10 knots |
| | | 0913 | EN | | | | 49 30 03 | 137 40 03 | | | | | | | trans signal a bit noisy. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | P20 | 13:32:52 | BE | ROS | US | 41 | 49°34.104N | 138°40.051W | 3890 | 200m | | | | | shallow cast |
| | | 13:37:59 | BO | | | | 49°34.120N | 138°39.994 | | | 159-171 | 13 | | ✓ | |
| | | 13:56:30 | EN | | | | 49°34.020N | 138°39.814W | | | | | | | |
| 21 | P20 | 1722 | EN | Go-flo | | 42 | 49° 33.65 | 138° 39.60 | 3932 | | | | | | |
| | | 1734 | Bo | NET | | 43 | 49° 33.98 | 138° 40.01 | | 50 | | | | | Bongo 0-50 |
| | | 1754 | Bo | NET | | 44 | 49° 33.95 | 138° 39.86 | | 250 | | | | | Bongo 0-250 |
| | | 1758 | EN | | | | 49° 33.97 | 138° 39.80 | | | | | | | |
| | | 1815 | Bo | NET | | 45 | 49° 33.99 | 138° 39.88 | | 50 | | | | | Ring net |
| 21 | P20 | 1835 | BE | ROS | US | 46 | 49° 33.99 | 138° 39.87 | 3933 | | | | | | |
| | | 1934 | Bo | | | | 49° 33.98 | 138° 40.02 | | 4010 | 172-195 | 24 | | ✓ | Surface temp 15.8°C |
| | | 2046 | EN | | | | 49° 34.00 | 138° 40.02 | | | | | | | Rinsed latch assembly |
| 22 | P21 | 1:16:28 | BE | ROS | US | 47 | 49°37.961 | 139°40.008 | 3810 | | 196 | 1 | KB/DT | ✓ | CTD + 5m bot. |
| | | 1:42:21 | BO | | | | 49° 37.962 | 139° 40.054 | | 2005 | | | | | |
| | | 2:08:30 | EN | | | | 49° 37.979 | 139° 40.217 | | | | | | | |
| 22 | H-04 | 0609 | BE | ROS | US | 48 | 49° 09.95 | 140° 14.98 | 3864 | | | | | ✓ | |
| | | 0635 | Bo | | | | 49° 09.97 | 140° 15.03 | | 2005 | 197-216 | 20 | | | |
| | | 0720 | EN | | | | 49° 10.000 | 140° 15.02 | | | | | | | |
| 22 | H-04 | 0825 | | NET | | 49 | 49° 10.03 | 140° 14.98 | | 50 | | | | | Bongo 0-50 |
| 22 | H-04 | 0836 | | NET | | 50 | 49° 10.08 | 140° 14.97 | | 250 | | | | | Bongo 0-250 |

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P20: currents pushing the ship to the N-E

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | H-04 | | | NET | | 51 | | | | 50 | | | | | RING NET |
| 22 | | 0912 | | GO HO | | 52 | 4909943 | 140 14 807 | | | | | | | done @ 1140 UTC |
| 22 | H-04 | 10:54 1159 | DE | ARGO | | 53 | 4909939 | 140 14 984 | | | | | | | Deploy Argo 1397 |
| 22 | P22 | 1446 | BE | ROS | US | 54 | 49 42.01 | 140 40.00 | 3860? | | | | | ✓ | → |
| | | 1518 | BO | | | | 49 42.01 | 140 39.91 | | 2016 | 217 | 1 | IW/MR | | |
| | | 1537 | EN | | | | 49 41.98 | 140 39 97 | | | | | | | |
| 22 | P23 | 2000 | | ROS | US | 55 | 49 45 98 | 141 40 . 14 | 2679 | | | | | | |
| | | 20 25 | | | | | 49 45 99 | 141 40 19 | | 2006 | 218 | 1 | KO/DA | ✓ | |
| | | 20 50 | | | | | 49 45 90 | 141 40. 19 | | | | | | | |
| 23 | P24 | 1:11:56 | BE | ROS | US | 56 | 49 50.146 | 142 39.962 | 3954 | 2005 | 219 | 1 | KB dt | ✓ | 2000m + 5m bot |
| | | 1:39:17 | BO | | | | 49 50, 147 | 142 40. 034 | | | | | | | |
| | | 2:00:10 | EN | | | | 49 50.170 | 142 39.932 | | | | | | | |
| 23 | P25 | 0612 | BE | ROS | US | 57 | 49.59.88 | 143 36. 27 | 4100 | | | | IW/MR | ✓ | |
| | | 0640 | BO | | | | 49 59.97 | 143 36.33 | | 2005 | 220 | 1 | | | surface temp 14.9°C |
| | | 0700 | EN | | | | 49 59 91 | 143 36 23 | | | | | | | |
| 23 | P35 | 1001 | BE | ROS | US | 58 | 49 59 99 | 144 18 . 21 | 4000? | | | | AS/DA | — | surface temp 14.6 °C |
| | | 1031 | BO | | | | 49 59 99 | 144 18 . 18 | | 2005 | 220 | 1 | | | sky min @ 1100 |
| | | 1050 | EN | | | | 50 00 02 | 144 18 21 | | | | | | | |
| | | | | | | | | | | | | | | | |

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@ P22: currents are pushing the ship towards the north

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUG **Year** 2005 **Ship** Tully **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | P26 | 1345 | BE | BOT | | 59 | 50 00 059 | 144 59 872 | 4210 | | / | | KB dt | / | |
| | | 1900 | EN | | | | 49 59 98 | 145 00 03 | | | | | | | |
| 23 | P26 | 1909 | BE | ROS | US | 60 | 49 59 98 | 145 00 09 | 4211 | | | | 40 / DA | – | |
| | | 1914 | BO | | | | 49 59 98 | 145 00 16 | | | 222-234 | 13 | | | |
| | | 1931 | EN | | | | 49 59 99 | 145 00 20 | | | | | | | |
| 23 | P26 | 2101 | BE | ROS | US | 61 | 50 00.02 | 145 00.17 | 4211 | | | | | | |
| | | 2156 | BO | | | | 50 00 00 | 145 00 06 | | 4310 | 235-258 | 24 | 40/DA | ✓ | Surface temp: 14.5°C wind: 15 knots |
| | | 2315 | EN | | | | 5000072 | 145 00 118 | | | | | | | |
| 23 | P26 | | | NET | | 62 | | | | 50 | | | | | Ring net |
| | P26 | | | NET | | 63 | | | | 50 | | | | | Bongo |
| 24 | P26 | 0008 | | NET | | 64 | 49 59.98 | 145 00.15 | | 250 | | | | | Bongo |
| | P26 | ~0103 | BO | NET | | 65 | 49 59.97 | 144 59.91 | | 1000 | | | | | Bongo |
| | | | EN | | | | | | | | | | | | |
| 24 | P26 | 0142 | BE | ROS | US | 66 | 49 59 980 | 144 59 900 | 4211 | | | | | ✓ | |
| | | 0146 | BO | | | | 49 59 980 | 144 59 939 | | 200 | 259-271 | 13 | KB dt | | |
| | | 0209 | EN | | | | 49 59.99 | 144 59.98 | | | | | | | |
| 24 | P26 | 0700 | BE | ROS | US | 67 | 50 00 .02 | 145 00 00 | 4208 | | | | | | |
| | | 0705 | BO | | | | 50 00.01 | 144 59 99 | | 200 | 272-284 | 13 | AS/DA | ✓ | Bottle 11 problematic |
| | | 0716 | EN | | | | 50 00.02 | 145 00.03 | | | | | | | Did not trip. |

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0645/1345

P26 Go Flo 1 – 10m 20m iron 50m 50m Carboy 0710/1410

2 –

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** JOHN P TULLY **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | LOOP 1 | 1050 | | USW | | | 4959670 | 145 50 310 | | | | | DT | | 0350 local time |
| 24 | LOOP 2 | 1500 | | USW | | | 49 59.62 | 146 54.36 | ~4270 | | | | MR | | |
| 24 | LOOP 3 | 1900 | | USW | | | 49 59.88 | 147 55 63 | ? | | | 3 | LO/DA | | SAL, NUT, CHL |
| 24 | LOOP 4 | 2300 | | USW | | | 50 05 095 | 148 27 372 | ~3968 | | | 3 | KB | | |
| 25 | LOOP 5 | 0300 | | USW | | | 50 1.451 | 149 27.662 | ~4557 | | | 3 | MA | | 20:00 LOCAL TIME |
| 25 | ARGO | 0534 | BE | ROS | US | 68 | 49 59.977 | 149 59.816 | | 4788 | 285-303 | 19 | MA/IW | ✓ | |
| | | 0604 | BO | | | | 49. 59.983 | 149. 59.908 | | | | | | | |
| | | 0652 | EN | | | | 49. 59.987 | 149. 59.981 | | | | | | | |
| 25 | ARGO | 0731 | | DRF | | | 49 59.92 | 149 59.95 | | | | | | | Deploy Argo 1406 |
| 25 | 1 | 1232 | BE | ROS | US | 69 | 50 28.093 | 149 59.970 | 4595 | | 304 | 1 | DT/KB | ✓ | CTD + 5M bot |
| | | 1304 | BO | | | | 50 28.044 | 149 0.006 | | 2005 | | | | | |
| | | 1325 | EN | | | | 50 28.24 | 149 0.024 | | | | | | | |
| 25 | 2 | 1817 | BE | ROS | US | 70 | 50 56.041 | 147 59.862 | 3476 | | 305 | 1 | MA/IW | ✓ | CTD & 5M BOTTLE |
| | | 1846 | BO | | | | 50 55.986 | 147 59.951 | | 2005 | | | | | |
| | | 1907 | EN | | | | 50 56 07 | 147 59 92 | | | | | | | |
| 25 | 3 | 2357 | BE | ROS | | 71 | 51 24 978 | 146 59 932 | 4170 | | | | KB dt | ✓ | |
| 26 | | 0028 | BO | | | | 51 25 008 | 147 00 020 | | 2005 | 306-324 | 19 | | | |
| 26 | | 0111 | EN | | | | 51 24 980 | 146 59 935 | | | | | | | |
| | | | | | | | | | | | | | | | |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** JP TULLY **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 4 | 0558 | BE | ROS | US | 72 | 51 52.004 | 145 59.987 | 3880 | | 325 | 1 | MA/IW | ✓ | BOT 1 @ 5m |
| | | 0624 | BO | | | | 51.918 | 145 59.921 | | 2005 | | | | | |
| | | 0649 | EN | | | | 51 51.833 | 145 59.978 | | | | | | | |
| 26 | 5 | 1135 | BE | ROS | US | 73 | 52 20.009 | 144 59.992 | 4036 | | 326-344 | 19 | DT/KB | ✓ | ROS |
| | | 1204 | BO | | | | 52 19.967 | 145 00.070 | | 2005 | | | | | |
| | | 1237 | EN | | | | 52 19.973 | 144 59.971 | | | | | | | |
| 26 | 6 | 1933 | BE | ROS | US | 74 | 52 24.07 | 143 15 05 | 3715 | | | | | | |
| | | 1958 | BO | | | | 52 24.04 | 143 15 21 | | | 345-368 | 24 | LO/DA | ✓ | Calibration Cast to 2000m |
| | | 2032 | EN | | | | 52 23 91 | 143 15 41 | | | | | | | Occasional big swells |
| 26 | LOOP 6 | 2040 | | USW | | | 52 24.03 | 143 15 52 | ~3683 | | | 3 | | | SAL, NUT, CHL |
| 27 | 7 | 0311 | BE | ROS | US | 75 | 52 28.103 | 141 32.940 | 3738 | 2005 | 369-387 | 19 | MA/IW | ✓ | |
| | | 0337 | BO | | | | 52 28.025 | 141 32.947 | | | | | | | |
| | | 0423 | EN | | | | 52 27.887 | 141 32.998 | | | | | | | |
| 27 | 8 | 0618 | BE | ROS | US | 76 | 52 29.004 | 141 8.899 | 3664 | 2005 | 388 | 1 | MA/IW | ✓ | SAL/NUT/CHL |
| | | 0646 | BO | | | | 52 28.92 | 141 09.08 | | | | | | | |
| | | 0706 | EN | | | | 52 28 97 | 141 09 99 | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

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STN 7: Niskin trip for Niskin 19 is questionable due to swell hitting rosette @ precisely the time it was tripped. tf

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** Aug **Year** 2005 **Ship** Tully **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | S-05 | 0855 | BE | ROS | | 77 | 52 30.02 | 140 43.96 | 3654 | | | | | | |
| | | 0928 | BO | | | | 52 29.99 | 140 44.01 | | 2000 | 389-407 | 19 | | ✓ | |
| | | 10 11 | EN | | | | 52 30 00 | 140 43 93 | | | | | | | |
| | | | | BOT | | 78 | 52 30 042 | 140 44 000 | | | 0-600M | | | | 0400-0530 local |
| | | 1245 | | NET | | 79 | 52 30 081 | 140 43.390 | | | | | | | |
| 27 | 9 | 1444 | BE | ROS | US | 80 | 52 31 408 | 140 19 158 | 3651 | | 408 | 1 | RT MA/IW RB IW | ✓ | CTD-1 5m bot |
| | | 1513 | BO | | | | 52 31.484 | 140 19.063 | | 2005 | | | | | → |
| | | 1532 | EN | | | | 52° 31.55 | 140° 19.06 | | | | | | | |
| 27 | 10 | 1721 | BE | ROS | US | 81 | 52 32.516 | 139 55.099 | 3632 | | 409-427 | 19 | MA/IW | ✓ | |
| | | 1752 | BO | | | | 52 32.478 | 139 55.036 | | 2005 | | | | | |
| | | 1835 | EN | | | | 52 32.501 | 139 54.937 | | | | | | | |
| | 11 | | | ROS | | 82 | | | | | | | | | Cancelled STN |
| 28 | Loop 7 | 0115 | | | USW | | 52 40 283 | 138 14 972 | 3547 | | — | | | | Loop Sample |
| 28 | 12 | 0726 | BE | ROS | USW | 83 | 52 50 01 | 136 39 05 | 3428 | | | | | | |
| | | 0756 | BO | | | | 52 50 12 | 136 38 91 | | | 428-446 | 19 | AS/DA | NO | trans went → 90% |
| | | | EN | | | | 52 49 74 | 136 38 84 | | | | | | | ~ 200-250 m |
| 28 | 13 | 1022 | BE | ROS | | 84 | 52 49 97 | 136 14 75 | 3421 | | | | | | |
| | | 1051 | BO | | | | 52 50 07 | 136 14 66 | | 2005 | 447 | | AS DA | - | |
| | | 1111 | EN | | | | 5250046 | 136 14 502 | | | | | | | |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUG **Year** 2005 **Ship** TULLY **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | H-05 | 12:56 | BE | ROS | US | 85 | 5249.887 | 135 52.352 | 3443 | | 448-466 | 19 | DT/KB | ✓ | |
| | | 13:25 | BO | | | | 5249.903 | 13552.396 | | 2005 | | | | | |
| | | 14:18 | EN | | | | 5249.907 | 13552.286 | | | | | | | |
| 28 | H-05 | 1530 | BO | NET | | 86 | 52.49.926 | 135 52.308 | 4158 | 250 | | | MA/IW | | |
| | | 1541 | EN | | | | 5249 966 | 135 52, 176 | | | | | | | |
| 28 | H-05 | 1542 | BE | GO-FLO | | 87 | 52 49.974 | 135 52.221 | 4280 | | | | MA/IW | | |
| | | 1832 | EN | | | | 52 50.166 | 135 53.693 | | 600 | | | | | |
| 28 | 14 | 2043 | BE | ROS | | 88 | 52 49 87 | 135 25 32 | 4358 | | | | | | Wind / Waves |
| | | 2109 | BO | | | | 52 49 93 | 135 25 29 | | 2005 | 467 | 1 | KO/DA | ✓ | |
| | | 2132 | EN | | | | 52 49 92 | 135 25 21 | | | | | | | |
| 28 | 15 | 2335 | BE | ROS | | 89 | 5250 371 | 135 00 286 | 2845 | | 468-486 | 19 | KB d7 | ✓ | |
| 29 | | 0003 | BO | | | | 5250 498 | 135 00 232 | | 2000 | | | | | |
| | | 0054 | EN | | | | 52 50 48 | 135 00.23 | | | | | | | |
| 29 | 16 | 0416 | BE | ROS | US | 90 | 52 51.01 | 134 10 21 | 2827 | | 487 | 1 | Iw/MA | ✓ | |
| | | 0442 | BO | | | | 5251.16 | 134 10.041 | | 2005 | | | | | |
| | | 0508 | EN | | | | 5251.18 | 134 10.02 | | | | | | | |
| 29 | 17 | 0800 | BE | ROS | | 91 | 52 54 45 | 133 30 03 | 2900 | | | | | | |
| | | 0827 | BO | | | | 52 54.56 | 133 29 96 | | | 488 - 507 | 20 | DA/AS | ✓ | little wind / small waves |
| | | 0905 | EN | | | | 52 54 43 | 133 29 96 | | | | | | | |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** J.P TULLY **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Latitude | Longitude | | | | | | | |
| 29 | 18 | 1051 | BE | ROS | | 92 | 52 57 484 | 133 05 470 | 2593 | | 508 | 1 | KB dt | — | |
| | | 1120 | BO | | | | 52 57 534 | 133 05 402 | | 2005 | | | | | |
| | | 1139 | EN | | | | 5257 395 | 133 05 526 | | | | | | | |
| 29 | 19 | 1247 | BE | ROS | | 93 | 52 58 556 | 132 50 964 | 1006 | | | | | | |
| | | 1302 | BO | | | | 5258 625 | 132 50 906 | | 1023 | 509-526 | 18 | | ✓ | |
| | | 1337 | EN | | | | | | | | | | | | |
| 29 | 20 | 1437 | BE | ROS | VS | 94 | 52 59 57 | 132 39.99 | 1289 | | 527 | 1 | | ✓ | 5m bot + CTD |
| | | 1458 | BO | | | | 52 59.64 | 132 40.00 | | 1286 | | | | | |
| | | 1512 | EN | | | | 52 59.55 | 132 40.11 | | | | | | | |
| 29 | 21 | 1603 | BE | ROS | VS | 95 | 53 0.036 | 132 29.948 | 380 | | 528-541 | 14 | MA/IW | ✓ | |
| | | 1611 | BO | | | | 53 0.035 | 132 29.970 | | 368 | | | | | |
| | | 1633 | EN | | | | 53. 0.035 | 132 29.935 | | | | | | | |
| 30 | ARGO 2 | 0511 | BE | ROS | VS | 96 | 50 59.958 | 131 59.930 | 2601 | | | | MA/IW | ✓ | |
| | | 0539 | BO | | | | 51 0.008 | 132 0.055 | | 2005 | 542-561 | 20 | | | |
| | | 0625 | EN | | | | 50 59.76 | 132 00 50 | | | | | | | |
| 30 | Argo 2 | 0703 | BE | BOT | | 97 | 50 59.97 | 132 00. 16 | 2602 | | | | | | |
| 30 | Argo 2 | 0922 | BE | FLOAT | | 98 | 51 00 00 | 132 00 07 | 2600 | | | | AS/DA | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

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2054 UTC, 29 Aug: 52° 16. 57 132° 18 89:

Stopped acoustic sounder.
Changed settings to average = 1
Re-started sounder.

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

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| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | S5Ø | 1341 | BE | ROS | US | 99 | 50 59.977 | 130 49.897 | 2635 | | | | | | CTD +5m bot |
| | | 1409 | BO | | | | 51 00.014 | 130 49.926 | | 2005 | 562 | 1 | | | |
| | | 1428 | EN | | | | 50 59.963 | 130 49.943 | | | | | | | |
| 30 | SS1 | 1804 | BE | ROS | US | 100 | 51 11.993 | 129 59.930 | 490 | | | | MA/IW | ✓ | |
| | | 1813 | BO | | | | 51 11.994 | 129 59.956 | | 475 | 563-576 | | | | |
| | | 1836 | EN | | | | 51 12.019 | 130 0.034 | | | | 14 | | | |
| 30 | SS1 | | BE | GO-FLO | | 101 | | | | | | | DA | | |
| | | | EN | | | | | | | | | | | | |
| 30 | SS2 | 2202 | BE | ROS | | 102 | 51 13 01 | 129 42 98 | 385 | | | | | | |
| | | 2213 | BO | | | | 51 13 00 | 129 43 03 | | 585 | 577 | 1 | MO/DA | – | |
| | | 2218 | EN | | | | 51 12 99 | 129 43 06 | | | | | | | |
| 30 | SS3 | 0010 | BE | ROS | US | 103 | 51 15 180 | 129 21 306 | 292 | 570 | 578 | 13 | DT/KB | ✓ | |
| | | 0015 | BO | | | | 5115 191 | 129 21 349 | | 291 | 578-590 | | | | |
| | | 0031 | EN | | | | 51 15 326 | 129 21 415 | | | | | | | |
| 30 | SS3 | 0045 | BE | GOFLO | | 104 | 51 14 863 | 129 21 085 | 292 | | | | | | |
| 31 | SSA | 0323 | BE | ROS | US | 105 | 51 21.155 | 129 0.031 | 238 | | 591 | 10 | | | off chains |
| | | 0328 | BO | | | | 51 21.262 | 128 59.960 | | 224 | | 1 | MA/IW | ✓ | |
| | | 0333 | EN | | | | 51 21.376 | 128 59.884 | | | | | | | |
| | | | | | | | | | | | | | | | |

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## INSTITUTE OF OCEAN SCIENCES

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| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | GI02 | 22:08 | BE | ROS | | 106 | 51 30.28 | 129 37.48 | 146 | | | | | | |
| | | 22:11 | BO | | | | 51 30.27 | 129 37.47 | | 136 | 592 | 1 | AS/LO OA | ✓ | |
| | | 22 14 | EN | | | | 51 30.26 | 129 37 45 | | | | | | | |
| 31 | GI02 | 22:40 | EN | BONGO | | 107 | 51 30.93 | 129 37.38 | 146 | | | | AS/LO DA | | |
| 01 | 47 | 0516 | BE | ROS | US | 108 | 51 15.672 | 128 42.955 | 198 | | | | MA/IW | ✓ | |
| | | 0521 | BO | | | | 51 15.734 | 128 43.093 | | 194 | 593-604 | | | | |
| | | 0536 | EN | | | | 5115.986 | 128 43.219 | | | | | | | |
| 01 | SSS | 0717 | BE | | | 109 | 51 27.99 | 128 29.95 | 200 | | | | | – | |
| | | 0722 | BO | | | | 51 27.93 | 128 29.99 | | 193 | 605-614 | | | | |
| | | 0733 | EN | | | | 51 28 02 | 129 29.90 | | | | | | | |
| 01 | SS6 | 0953 | BE | ROS | | 110 | 51 19.87 | 128 00.07 | 178 | | | | | | |
| | | 0958 | BO | | | | 51 19 88 | 128 00 11 | | 168 | 615 | 1 | AS/DA | ✓ | |
| | | 1001 | EN | | | | 51 19 89 | 128 00 11 | | | | | | | |
| 01 | SS7 | 11:10 | BE | ROS | US | 111 | 5124 659 | 128 47 719 | 121 | 110 | 616-622 | 7 | KB/DT | ✓ | 11 Niskins closed |
| | | 11:15 | BO | | | | 5124 619 | 128 47 719 | | | | | | | |
| | | 11:23 | EN | | | | 51 24 593 | 128 47 750 | | | | | | | |
| 01 | RIS | 14:22 | BE | ROS | US | 112 | 51 40 708 | 128 19 921 | 199 | | 623 | 1 | KB/DT | ✓ | CTD + 5m bot |
| | | 14:28 | BO | | | | 51 40 710 | 128 19 892 | | 190 | | | | | |
| | | 14:35 | EN | | | | 51 40 967 | 128 19 828 | | | | | | | 13 NISKINS CLOSED |

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127

STN 47/CAST 108

Niskin 11 didn't trip. ?o Salinity & Chl. sample taken from that bottle were changed to bottle 12

SS7/cast 111 -rigged bottle 11 lanyard on left side - didn't trip
-rigged bottle 11 lanyard on Right side (on deck) - didn't trip

STN Ri5/cast 112
- bottle 1 didn't trip @ 5m
- bottle 11 didn't trip @ surface
- sent Rosette back to 5m & tripped bottle 13 for 5m sample.

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** SEPT. **Year** 2005 **Ship** JP Tully **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | R14 | 1517 | BE | ROS | US | 113 | 51 38.88 | 127 26.71 | 300 | | 624-638 | 14 | MA/IW | ✓ | One bottle not |
| | | 1524 | BO | | | | 51 38.90 | 127 26.75 | | 295 | | | | | Fired, rosette malfu |
| | | 1540 | EN | | | | 51 38.92 | 127 26.72 | | | | | | | see reverse |
| 01 | R13 | 1621 | BE | ROS | US | 114 | 51 35.83 | 127 32.04 | 325 | | 639 | 1 | MA/IW | ✓ | |
| | | 1630 | BO | | | | 51 35.82 | 127 32.01 | | 318 | | | | | |
| | | 1635 | EN | | | | 51 35.80 | 127 32.00 | | | | | | | |
| 01 | R12 | 1713 | BE | ROS | US | 115 | 51 31.16 | 127 33.60 | 330 | | 640 | 1 | MA/IW | ✓ | Rosette malfunction |
| | | 1720 | BO | | | | 51 31.06 | 127 33.71 | | 324 | | | | | See reverse |
| | | 1724 | EN | | | | 51 31.01 | 127 33.76 | | | | | | | |
| 01 | R11 | 1812 | BE | ROS | US | 116 | 51 26.44 | 127 38 10 | 334 | | 641-657 | 17 | MA/IW | ✓ | Rosette malFunctio |
| | | 1819 | BO | | | | 51 26.50 | 127 38.08 | | 325 | | | | | |
| | | 1838 | EN | | | | 51 26.50 | 127 38.00 | | | | | | | |
| 01 | S3 | 2203 | BE | ROS | US | 117 | 51 04 34 | 128 05.02 | 165 | | 658-670 | 13 | LO/DA | | Changed ECR (pylon) |
| | | 2207 | BO | | | | 51 04 32 | 128 05 00 | | | | | | | Bottle 3 tripped at |
| | | 2218 | EN | | | | 51 04 36 | 128 04 98 | | | | | | | surface → shortened lanyard |
| 01 | CPE1 | 2340 | BE | ROS | US | 118 | 51 00 602 | 127 50 099 | 146 | | | | KB/DT | ✓ | CTD + 5m bot |
| | | 2343 | BO | | | | 50 59 969 | 127 50 098 | | | 671 | 1 | | | |
| | | 2347 | EN | | | | 50 59 992 | 127 50 066 | | | | | | | 5 NISK closed |
| | | | | | | | | | | | | | | | |

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STN R:4 / Cast 113
- Forgot to trip bottle at bottom depth, see Rosette log For new numbers
- Niskin 11 didn't trip (latch still closed) - no samples From Nish 11
- heavy rain - rain water contamination possible in all samples

STN R:2 / Cast 115
- Niskin 1 didn't trip (latch open, but wire got snagged) - no samples collected

STN R:1 / Cast 116
- Niskin 11 didn't Fire (latch closed)

⇒ Changed Electronic Carousel Release (Pylon). Upon inspection solenoid #11 was found to be suspect on original pylon. Sm 0269 Epoxy was delaminating. Replaced with ECR from spare rosette

⇒ Set sounder for frequency = 5 @ end of CPE1 stn

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** | **Year** | **Ship** | **Cruise ID**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | Go Ch | 0108 | BE | ROS | | 119 | 5054083 | 12738460 | 448 | | | | | | |
| | | 0115 | BO | | | | 5054091 | 12738470 | | 432 | 672-688 | 17 | KB | ✓ | |
| | | 0136 | EN | | | | 5054024 | 12738588 | | | | | | | |
| 02 | QCS4 | 0309 | BE | ROS | US | 120 | 50 46.644 | 127 24.226 | 420 | | 689 | 1 | MA/IW | ✓ | 2 NISK. FIRED |
| | | 0318 | BO | | | | 50 46.646 | 127.24.187 | | 415 | | | | | |
| | | 0325 | EN | | | | 50 46.634 | 127 24.227 | 223 | | | | | | |
| 02 | QCS2 | 0509 | BE | ROS | US | 121 | 50 46.634 | 127 2.374 | | | | | MA/IW | ✓ | |
| | | 0514 | BO | | | | 50 46.655 | 127 2.376 | | 213 | 690-702 | | | | |
| | | 0530 | EN | | | | 50 46.652 | 127 2.366 | | | | | | | |
| 02 | WP | 0631 | BE | ROS | VS | 122 | 50 50.768 | 126 56.484 | 181 | | 703 | | MA/IW | ✓ | 2 NISKINS CLOSED |
| | | 0636 | BO | | | | 50 50.768 | 126 56.480 | | 172 | | | | | |
| | | 0644 | EN | | | | 50 50.765 | 126 56.459 | | | | | | | |
| 02 | SC | 0757 | BE | ROS | | 123 | 50 53 35 | 126 45 73 | 217 | | | | | | |
| | | 0802 | BO | | | | 50 53 36 | 126 45 76 | | 225 | 704 | 1 | AS/DA | ✓ | |
| | | 0805 | EN | | | | 50 53 36 | 126 45 78 | | | | | | | |
| 02 | Knol | 0900 | BE | ROS | | 124 | 50 51 72 | 126 57.15 | 399 | | | | | | |
| | | 0909 | BO | | | | 50 51 71 | 126 37 19 | | 396 | 705-719 | | AS/DA | ✓ | |
| | | 0929 | EN | | | | 50 51 63 | 126 37 20 | | | | | | | |
| | | | | | | | | | | | | | | | |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

**Month** Sept **Year** 2005 **Ship** Tully **Cruise ID** 2005-21

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02 | PP1 | 1013 | BE | ROS | | 125 | 50 48 83 | 126 31.56 | 148 | | | | | | |
| | | 1015 | BO | | | | 50 48 82 | 126 31 57 | | 135 | 720 | 1 | AS/DO | ✓ | |
| | | 1018 | EN | | | | 50 48 83 | 126 31 58 | | | | | | | |
| 02 | TrC 3.0 | 1056 | BE | ROS | US | 126 | 50 48 943 | 126 25 494 | 233 | | 721-733 | 13 | KB/DT | V | |
| | | 1101 | BO | | | 1 | 50 48 918 | 126 25 730 | | 218 | | | | | |
| | | 1117 | EN | | | | 50 48 732 | 126 26 031 | | | | | | | |
| 02 | TrC 2.5 | 12:00 | BE | ROS | US | 127 | 50 50 455 | 126 19 681 | 270 | 250 | 734 | 1 | KB/DT | | CTD + 5m bot |
| | | 12:09 | BO | | | | 50 50 434 | 126 19 754 | | | | | | | |
| | | 12:13 | EN | | | | 50 50 436 | 126 19 787 | | | | | | | |
| 02 | QCS1 | 14:40 | BE | ROS | US | 128 | 50 39 997 | 126 46 282 | 151 | | 735-744 | 10 | KB/DT | V | |
| | | 14:44 | BO | | | | 50 40 020 | 126 46 271 | | 140 | | | | | |
| | | 14:55 | EN | | | | 50 40 034 | 126 46 290 | | | | | | | |

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