

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2010 - 19

DATE:

From: 18 APRIL 2010 to:

VESSEL: VECTOR

PROJECT(S): STRAIT OF GEORGIA

JUAN DE FUCA

VESSEL:

PROJECT(S):

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
Sidney, BC, Canada

WaterProperties.ca

Captain: Mike Corbald First Officer: Radenya
 Second Officer: John Rose Third Officer: _____
 Fishing Master: _____

Mission Participants / Agencies: _____

| Scientific Personnel: | Chief Scientist: | | Watch | Cabin | Name | Watch | Cabin |
|-----------------------|------------------|----------------|-------|-------|--------|-------|-------|
| Name | SCOTT ROSE | PETER CHANDLER | 1 | 3 | SHED | | |
| | CHRISGA STANLEY | | 1 | 4 | JAMILI | | |
| | THOMAS GRIME | | 1 | 2 | LES | | |
| | DAVE TIMOTHY | | 2 | 2 | MAT | | |
| | NELISSA HENNEKES | | 2 | 4 | | | |
| | THOMAS VANMANHON | | 2 | 3 | | | |
| | | | | | | | |
| | | | | | | | |

| Second leg of Mission: | Chief Scientist: | | Watch | Cabin | Name | Watch | Cabin |
|------------------------|------------------|--|-------|-------|------|-------|-------|
| Name | | | | | | | |
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Data logging computer: _____

Data acquisition program: SEASAVE V7
 CTD deck unit make: SBE model: 11 serial number: 0425

Primary CTD

Make: SBE model: 9+ serial number: 0550
 Primary temperature serial number: 4883
 Primary conductivity serial number: 1763
 Secondary temperature serial number: 2095
 Secondary conductivity serial number: 2754
 Transmissometer: WETLABS Model: CST s/n: 1005DR
 Fluorometer: Model SEAPoint Cable gain: 30x, 10, 3x s/n: 2356 P S or NO pump?
 Oxygen sensor: SBE Model: 43 s/n: 1119 P S or NO pump?
 PAR sensor: BIOSPHERICAL Model: QSP200L45 s/n: 4565
 Other sensors: Altimeter - Benthos PSA-916D s/n: 1024 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: SBE model: 9+ serial number: 0443
 Primary temperature serial number: 4752
 Primary conductivity serial number: 2173
 Secondary temperature serial number: 2968
 Secondary conductivity serial number: 2399
 Transmissometer: WETLABS Model: CST s/n: 1005DR
 Fluorometer: Model SEAPoint Cable gain: 3x s/n: 2356 P, S or NO pump?
 Oxygen sensor: SBE Model: 43 s/n: 1483 P, S or NO pump?
 PAR sensor: Bio-sphere Model: QSP200L45 s/n: 4565
 Other sensors: Altimeter Benthos PSA-916D s/n: 1024 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?

CTD calibration bottle location (height above CTD in metres): _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month | | | Year | | | Ship | | | Cruise ID | | | | | | |
|-------|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------|--------------|-----------|----------------|--------------|---------------|----------------|---------------------------|
| APRIL | | | 2010 | | | VECTOR | | | 2010-19 | | | | | | |
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 18 | 51 | 20:46 | BE | Rosette | US | 1 | 48 39.146 | 123 30.156 | 185 | 100 | 0 → 7 | 8 | DT/MH/TV | ✓ | test cast |
| | | 20:52 | BO | | | | 48 39.131 | 123 30.133 | | | | | | | |
| | | 21:02 | EN | | | | 48 39.134 | 123 30.145 | | | | | | | |
| 18 | 58 | 22:50 | BE | ROS | | 2 | 48 43.009 | 123 14.368 | 335 | 332 | | | DT/MH/TV | ✓ | |
| | | 22:57 | BO | | | | 48 42.994 | 123 14.440 | | | | | | | |
| | | 23:04 | EN | | | | 48 41.064 | 123 14.463 | | | | | | | |
| 19 | 59 | 1:30 | BE | Rosette | US | 3 | 48 37.871 | 123 14.654 | 231 | 227 | 8 → 20 | 13 | DT/MH/TV | ✓ | - cast redone |
| | | 1:40 | BO | | | | 48 37.930 | 123 14.734 | | | | | | | - bottle 7 spigot leaking |
| | | 1:58 | EN | | | | 48 38.302 | 123 15.017 | | | | | | | " 3 " |
| | | | | | | | | | | | | | | | (user error) |
| 19 | 60 | 2:54 | BE | ROS | | 4 | 48 33.938 | 123 12.732 | 288 | 282 | | | DT/MH/TV | ✓ | |
| | | 3:00 | BO | | | | 48 34.072 | 123 12.715 | | | | | | | |
| | | 3:05 | EN | | | | 48 34.168 | 123 12.683 | | | | | | | |
| 19 | 61 | 4:03 | BE | ROS | | 5 | 48 29.273 | 123 9.152 | 240 | 230 | | | DT/MH/TV | ✓ | |
| | | 4:09 | BO | | | | 48 29.333 | 123 9.257 | | | | | | | |
| | | 4:14 | EN | | | | 48 29.454 | 123 9.414 | | | | | | | |
| 19 | 101 | 11:38 | BE | ROS | | 6 | 48° 25.40 | 124 45.21 | 238 | | | | SR | ✓ | |
| | | 11:44 | BO | | | | 48° 25.41 | 124 45.23 | 2 | 232 | | | | | |
| | | 11:50 | EN | | | | 48° 25.34 | 124 45.20 | | | | | | | |

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Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

- DEPART ~~2~~ PAT BAY 13:05 - WEATHER CLEAR

- cast #3 re done as dawn find water CTD at surface with pumps on. Scott demand CTD connection
@ 23:50

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month <u>April</u> | | Year <u>2010</u> | | | Ship <u>Vector</u> | | | Cruise ID <u>2010-19</u> | | | | | | | |
|--------------------|--------------|------------------|-----------|-----------|--------------------|--------------|------------------------|--------------------------|--------------|-----------|----------------|--------------|---------------|----------------|-------------------|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 19 | 102 | 1238 | BE | ROS | US | 7 | 48°30.00 | 124°44.08 | 257 | | 21-34 | 14 | SR | ✓ | |
| | | 1242 | BO | | | | 48°30.04 | 124°44.12 | | | | | | | |
| | | 1259 | EN | | | | 48°30.05 | 124°44.10 | | | | | | | |
| 19 | 103 | 1331 | BE | ROS | US | 8 | 48°33.02 | 124°43.05 | 120 | | | | SR | ✓ | |
| | | 1336 | BO | | | | 48°33.04 | 124°43.11 | | 114 | | | | | |
| | | 1338 | EN | | | | 48°33.04 | 124°43.12 | | | | | | | |
| 19 | 76 | 1443 | BE | ROS | | 9 | 48°31.38 | 124°30.00 | 91 | | | | SR | | |
| | | 1447 | BO | | | | 48°31.37 | 124°30.01 | | 85 | | | | | |
| | | 1449 | EN | | | | 48°31.35 | 124°29.99 | | | | | | | |
| 19 | 75 | 1521 | BE | ROS | US | 10 | 48°28.27 | 124°32.94 | 227 | | 35-47 | 13 | SR | ✓ | |
| | | 1530 | BO | | | | 48°28.16 | 124°32.93 | | 221 | | | | | |
| | | 1547 | EN | | | | 48°28.20 | 124°32.82 | | | | | | | |
| 19 | 74 | 1617 | BE | ROS | | 11 | 48°25.02 | 124°35.70 | 185 | | | | SR | | SeaSave Locked up |
| | | 1622 | BO | | | | 48°25.11 | 124°35.70 | | 180 | | | | | on the up cast → |
| | | 1626 | EN | | | | 48°25.12 | 124°35.70 | | | | | | | |
| 19 | 73 | 1920 | BE | ROS | | 12 | 48°15.098 | 124°6.746 | 162 | 158 | | | DT/MH/TV | ✓ | |
| | | 1925 | BO | | | | 48°15.100 | 124°6.812 | | | | | | | |
| | | 1928 | EN | | | | 48°15.106 | 124°6.850 | | | | | | | |

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Notes:

This page is for any notes or observations

Event #7 Error blip @ surface unsupported modem message 00FC C8 from carousel

Cast was stopped as we were on the upcast

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month <u>Apr</u> | | | | Year <u>2010</u> | | | Ship <u>Vector</u> | | | | Cruise ID <u>2010-19</u> | | | | |
|------------------|-----------------------------|------------|-----------|------------------|---------------|--------------|------------------------|------------|--------------|-----------|--------------------------|--------------|---------------|----------------|---|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 19 | 72 | 20:03 | BE | Rosette | US | 13 | 48 18.547 | 124 4.177 | 188 | 184 | 48 → 59 | 12 | DT/MH/TV | ✓ | altimeter OK |
| | | 20:07 | BO | | | | 48 18.550 | 124 4.272 | | | | | | | |
| | | 20:20 | EN | | | | 48 18.637 | 124 4.676 | | | | | | | |
| 19 | 71 | 21:07 | BE | Rosette | | 14 | 48 22.249 | 123 59.500 | 109 | 100 | | | DT/MH/TV | ✓ | altimeter was not working |
| | | 21:11 | BO | | | | 48 22.266 | 123 59.572 | | | | | | | |
| | | 21:13 | EN | | | | 48 22.264 | 123 59.584 | | | | | | | |
| 19 | 70 | 22:33 | BE | Rosette | | 15 | 48 18.964 | 123 42.937 | 158 | 150 | | | DT/MH/TV | ✓ | altimeter still malfunctioning |
| | | 22:36 | BO | | | | 48 18.929 | 123 42.860 | | | | | | | |
| | | 22:39 | EN | | | | 48 18.901 | 123 42.781 | | | | | | | |
| 19 | 69 | 23:08 | BE | Rosette | US | 16 | 48 15.660 | 123 43.264 | 178 | 169 | 60 → 71 | 12 | DT/MH/TV | ✓✓ | altimeter malfunction |
| | | 23:13 | BO | | | | 48 15.722 | 123 43.319 | | | | | | | |
| | | 23:27 | EN | | | | 48 15.906 | 123 43.214 | | | | | | | |
| 20 | 68 68 | 00:02 | BE | Rosette | | 17 | 48 12.212 | 123 43.078 | 139 | 135 | | | DT/MH/TV | ✓ | ^{new} altimeter failed going down but good coming up |
| | | 00:05 | BO | | | | 48 12.210 | 123 43.063 | | | | | | | |
| | | 00:07 | EN | | | | 48 12.206 | 123 43.009 | | | | | | | |
| 20 | 105 | 154 | BE | Rosette | | 18 | 48 10.824 | 123 18.780 | 83 | 80 | | | DT/MH/TV | ✓ | altimeter failed |
| | | 156 | BO | | | | 48 10.825 | 123 18.719 | | | | | | | |
| | | 158 | EN | | | | 48 10.842 | 123 18.694 | | | | | | | |

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April Year 2010 Ship Vector Cruise ID 2010-19

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
|-----|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------|--------------|-----------|----------------|--------------|---------------|----------------|--|
| | | | | | | | Latitude | Longitude | | | | | | | |
| 20 | ADCP | 2:27 | BE | Rosette | US | 19 | 48 13.896 | 123 17.995 | 118 | 114 | 72→80 | 9 | DT/MH/TV | ✓ | hard to hold depth w/ large wire angle especially at ≥100m |
| | | 2:33 | BO | | | | 48 13.720 | 123 17.753 | | | | | | | |
| | | 2:43 | EN | | | | 48 13.597 | 123 17.566 | | | | | | | |
| 20 | 104 | 5:29 | BE | Rosette | | 20 | 48 20.083 | 123 17.951 | 84 | 80 | | | DT/MH/TV | ✓ | Altimeter not working fritz until otherwise noted |
| | | 5:31 | BO | | | | 48 20.087 | 123 17.926 | | | | | | | |
| | | 5:33 | EN | | | | 48 20.098 | 123 17.897 | | | | | | | |
| 20 | 67 | 5:59 | BE | Rosette | | 21 | 48 22.751 | 123 18.091 | 111 | 107 | | | DT/MH/TV | ✓ | |
| | | 6:01 | BO | | | | 48 22.738 | 123 18.097 | | | | | | | |
| | | 6:03 | EN | | | | 48 22.717 | 123 18.090 | | | | | | | |
| 20 | 66 | 6:38 | BE | Rosette | | 22 | 48 19.265 | 123 14.032 | 105 | 101 | | | DT/MH/TV | ✓ | |
| | | 6:41 | BO | | | | 48 19.256 | 123 14.014 | | | | | | | |
| | | 6:42 | EN | | | | 48 19.24 | 123 13.99 | | | | | | | |
| 20 | 65 | 0721 | BE | ROS | | 23 | 48 15.90 | 123 9.78 | | | 81→89 | 9 | SR | ✓ | |
| | | 0726 | BO | | | | 48 15.92 | 123 9.81 | 127 | | | | | | |
| | | 0737 | EN | | | | 48 15.92 | 123 9.78 | | 121 | | | | | |
| 20 | 64 | 0817 | BE | ROS | | 24 | 48 12.81 | 123 5.80 | 110 | | | | SR | ✓ | |
| | | 0820 | BO | | | | 48 12.80 | 123 5.80 | | 103 | | | | | |
| | | 0822 | EN | | | | 48 12.81 | 123 5.80 | | | | | | | |

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Notes: _____

Produced by the Water Properties Group, IOS
 WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month <u>APRIL</u> | | Year <u>2010</u> | | | Ship <u>Vector</u> | | | Cruise ID <u>2010-19</u> | | | | | | | |
|--------------------|--------------|------------------|-----------|-----------|--------------------|--------------|------------------------|--------------------------|--------------|-----------|----------------|--------------|---------------|----------------|----------|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 20 | 63 | 0909 | BE | ROS | | 25 | 48° 14.61 | 122° 58.51 | 154 | | | | SR | ✓ | |
| | | 0914 | BO | | | | 48° 14.60 | 122° 58.53 | | 147 | | | | | |
| | | 0917 | EN | | | | 48° 14.60 | 122° 58.52 | | | | | | | |
| 20 | 62 | 1019 | BE | ROS | US | 26 | 48° 22.79 | 123° 2.65 | 147 | | | | SR | ✓ | |
| | | 1025 | BO | | | | 48° 22.83 | 123° 2.60 | | 142 | | | | | |
| | | 1037 | EN | | | | 48° 22.80 | 123° 2.60 | | | | | | | |
| 20 | 54 | 1210 | BE | ROS | | 27 | 48° 26.57 | 122° 44.26 | 79 | | | | SR | | |
| | | 1215 | BO | | | | 48° 26.59 | 122° 44.27 | | 72 | | | | | |
| | | 1217 | EN | | | | 48° 26.59 | 122° 44.29 | | | | | | | |
| 20 | 53 | 1306 | BE | ROS | | 28 | 48° 33.16 | 122° 44.97 | 62 | | | | SR | ✓ | |
| | | 1308 | BO | | | | 48° 33.14 | 122° 44.99 | | 55 | | | | | |
| | | 1309 | EN | | | | 48° 33.14 | 122° 45.01 | | | | | | | |
| 20 | 52 | 1353 | BE | ROS | | 29 | 48° 38.84 | 122° 43.30 | 85 | | | | SR | ✓ | |
| | | 1357 | BO | | | | 48° 38.86 | 122° 43.30 | | 75 | | | | | |
| | | 1358 | EN | | | | 48° 38.85 | 122° 43.30 | | | | | | | |
| 20 | 51 | 1515 | BE | ROS | | 30 | 48° 46.69 | 122° 51.49 | 162 | | | | SR | ✓ | |
| | | 1520 | BO | | | | 48° 46.68 | 122° 51.55 | | 155 | | | | | |
| | | 1523 | EN | | | | 48° 46.68 | 122° 51.55 | | | | | | | |

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Notes:

DAILY SCIENCE LOG

| Month | | | | Year | | | Ship | | | | Cruise ID | | | | |
|-------|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------|--------------|-----------|----------------|--------------|---------------|----------------|--|
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| | | | | | | | Latitude | Longitude | | | | | | | |
| 20 | 57 | 1643 | BE | | | 31 | 48° 43.99 | 123° 8.10 | 160 | | | | SR | ✓ | |
| | | 1648 | BO | | | | 48° 43.98 | 123° 8.08 | | 150 | | | | | |
| | | 1651 | EN | | | | 48° 44.01 | 123° 8.06 | | | | | | | |
| 20 | 56 | 1728 | BE | ROS | | 32 | 48° 46.23 | 123° 1.53 | 219 | | 100-112 | | | | #7 didn't fire |
| | | 1735 | BO | | | | 48° 46. | 123° 1. | | | | | | | |
| | | 1753 | EN | | | | 48° 46.227 | 123 1.496 | | | | | | | |
| 20 | 47 | 1840 | BE | ROS | | 33 | 48 49.198 | 123 6.160 | 183 | 175 | | | R | ✓ | |
| | | 1844 | BO | | | | 48 49.224 | 123 6.148 | | | | | | | |
| | | 1848 | EN | | | | 48 49.242 | 123 6.108 | | | | | | | |
| 20 | 48 | 19:15 | BE | ROS | | 34 | 48 51.712 | 123 3.146 | 228 | | | | DTMHTV | ✓ | Alarm sounded @ 159 m |
| | | | BO | | | | 48 51. | 123 3. | | | | | | | |
| | | | EN | | | | | | | | | | | | |
| 20 | 48 | 19:51 | BE | ROS | | 35 | 48 51.628 | 123 3.091 | 205 | | | | R/SR | ✓ | clean connections + recast, ok, no altimeter |
| | | 19:55 | BO | | | | 48 51.598 | 123 3.066 | | 196 | | | | | |
| | | 19:59 | EN | | | | 48 51.590 | 123 3.040 | | | | | | | |
| 20 | 49 | 2034 | BE | ROS | | 36 | 48 54.990 | 122 59.646 | 132 | 127 | | | DTMHTV | ✓ | altimeter worked from 30 mab to bottom |
| | | 20:37 | BO | | | | 48 54.994 | 122 59.638 | | | | | | | |
| | | 20:40 | EN | | | | 48 55.006 | 122 59.639 | | | | | | | |

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| | | | | | | | Latitude | Longitude | | | | | | | |
| 20 | 50 | 21:09 | BE | Rosette | | 37 | 48 57.626 | 122 56.104 | 27 | 20 | | | DT/MH/TV | ✓ | |
| | | 21:10 | BO | | | | 48 57.635 | 122 56.093 | | | | | | | |
| | | 21:11 | EN | | | | 48 57.637 | 122 56.084 | | | | | | | |
| 20 | 44 | 22:08 | BE | Rosette | | 38 | 48 56.760 | 123 5.888 | 120 | 117 | | | DT/MH/TV | ✓ | |
| | | 22:11 | BO | | | | 48 56.740 | 123 5.874 | | | | | | | |
| | | 22:13 | EN | | | | 48 56.726 | 123 5.886 | | | | | | | |
| 20 | 45 | 22:41 | BE | Rosette | | 39 | 48 53.870 | 123 8.362 | 127 | 124 | | | DT/MH/TV | ✓ | |
| | | 22:44 | BO | | | | 48 53.878 | 123 8.344 | | | | | | | |
| | | 22:46 | EN | | | | 48 53.875 | 123 8.358 | | | | | | | |
| 20 | 46 | 23:13 | BE | Rosette | US | 40 | 48 51.323 | 123 10.849 | 189 | 184 | 113→123 | 11 | DT/MH/TV | ✓ | |
| | | 23:17 | BO | | | | 48 51.298 | 123 10.892 | | | | | | | |
| | | 23:29 | EN | | | | 48 51.146 | 123 11.208 | | | | | | | |
| 21 | 43 | 01:17 | BE | Rosette | | 41 | 49 0.180 | 123 30.248 | 186 | 182 | | | DT/MH/TV | ✓ | |
| | | 01:20 | BO | | | | 49 0.193 | 123 30.232 | | | | | | | |
| | | 01:24 | EN | | | | 49 0.209 | 123 30.244 | | | | | | | |
| 21 | 42 | 02:06 | BE | Rosette | US | 42 | 49 1.861 | 123 26.502 | 322 | 318 | 124→138 | 15 | DT/MH/TV | ✓ | bottle 15 leaking |
| | | 02:13 | BO | | | | 49 1.836 | 123 26.549 | | | | | | | |
| | | 02:30 | EN | | | | 49 1.817 | 123 26.564 | | | | | | | |

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month | | Year | | Ship | | | Cruise ID | | | | | | | | |
|-------|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------|--------------|-----------|----------------|--------------|---------------|----------------|------------------------------|
| APRIL | | 2010 | | VECTOR | | | 2010-19 | | | | | | | | |
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 21 | 41 | 03:02 | BE | Rosette | | 43 | 49 3.253 | 123 22.430 | 247 | 242 | | | DT MHTV | ✓ | |
| | | 03:07 | BO | | | | 49 3.272 | 123 22.465 | | | | | | | |
| | | 03:12 | EN | | | | 49 3.289 | 123 22.489 | | | | | | | |
| 21 | 37 | 04:33 | BE | Rosette | | 44 | 49 13.625 | 123 20.730 | 216 | 212 | | | DT MHTV | ✓ | |
| | | 04:38 | BO | | | | 49 13.602 | 123 20.731 | | | | | | | |
| | | 04:42 | EN | | | | 49 13.58 | 123 20.72 | | | | | | | |
| 21 | 38 | 05:24 | BE | Rosette | | 45 | 49 11.910 | 123 26.244 | 298 | 294 | | | DT MHTV | ✓ | |
| | | 05:30 | BO | | | | 49 11.849 | 123 26.224 | | | | | | | |
| | | 05:35 | EN | | | | 49 11.809 | 123 26.250 | | | | | | | |
| 21 | 39 | 06:24 | BE | Rosette | | 46 | 49 9.826 | 123 32.941 | 376 | | 139-154 | | DT MHTV | ✓ | |
| | | 06:30 | BO | | | | 49 9.818 | 123 32.993 | | | | | | | |
| | | 06:50 | EN | | | | 49 9.770 | 123 33.031 | | | | | | | surface bottle in prop wash. |
| 21 | 40 | 07:52 | BE | ROS | | 47 | 49 8.611 | 123 36.698 | | | | | CS SR TG | ✓ | |
| | | 07:56 | BO | | | | 49 8.617 | 123 36.705 | 150 | 142 | | | | | |
| | | 08:00 | EN | | | | 49 8.594 | 123 36.757 | | | | | | | |
| 21 | 26 | 09:32 | BE | ROS | | 48 | 49 14.291 | 123 50.815 | | | | | CS SR TG | ✓ | |
| | | 09:41 | BO | | | | 49 14.294 | 123 50.767 | 250 | 248 | | | | | |
| | | 09:45 | EN | | | | 49 14.287 | 123 50.779 | | | | | | | |

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 Produced by the Water Properties Group, IOS
 WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month <u>April</u> | | Year <u>2010</u> | | | | Ship <u>VECTOR</u> | | Cruise ID <u>2010-19</u> | | | | | | | |
|--------------------|--------------|------------------|-----------|-----------|---------------|--------------------|------------------------|--------------------------|--------------|-----------|----------------|--------------|---------------|----------------|----------------------------------|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 21 | 27 | 10:35 | BE | ROS | | 49 | 49° 19.082 | 123° 47.994 | | | 155-169 | 15 | CSSETB | ✓ | Winch Problem @ 90 m on Downcast |
| | | 10:47 | BO | | | | 49° 19.110 | 123° 48.053 | 347 | 340 | | | | | |
| | | 11:07 | EN | | | | 49° 19.085 | 123° 47.920 | | | | | | | |
| 21 | 28 | 12:15 | BE | ROS | | 50 | 49° 24.142 | 123° 45.357 | | | | | | | |
| | | 12:19 | BO | | | | 49° 24.130 | 123° 45.242 | 135 | | | | CSSETB | ✓ | |
| | | 12:22 | EN | | | | 49° 24.188 | 123° 45.247 | | 125 | | | | | |
| 21 | 24 | 14:13 | BE | ROS | | 51 | 49° 30.268 | 124° 06.001 | | | | | | | |
| | | 14:22 | BO | | | | 49° 30.222 | 124° 06.053 | 426 | 415 | | | CSSETB | ✓ | |
| | | 14:29 | EN | | | | 49° 30.168 | 124° 06.109 | | | | | | | |
| 21 | 25 | 15:03 | BE | ROS | | 52 | 49° 27.671 | 124° 07.681 | 313 | 305 | | | CSSETB | ✓ | |
| | | 15:10 | BO | | | | 49° 27.682 | 124° 07.666 | | | | | | | |
| | | 15:16 | EN | | | | 49° 27.680 | 124° 07.628 | | | | | | | |
| 21 | 2 | 15:45 | BE | ROS | | 53 | 49° 24.079 | 124° 09.370 | | | | | | | |
| | | | BO | | | | 49 | 124 | 268 | 280 | 170-183 | 14 | | | |
| | | | EN | | | | 49 | 124 | | | | | | | |
| 21 | 1 | 16:58 | BE | ROS | | 54 | 49° 20.280 | 124° 11.989 | | | | | | | |
| | | 17:04 | BO | | | | 49° 20.282 | 124° 11.912 | 248 | | | | CSSETB | ✓ | |
| | | 17:08 | EN | | | | 49° 20.280 | 124° 11.916 | | 238 | | | | | |

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month <u>April</u> | | Year <u>2010</u> | | | Ship <u>Victor</u> | | | Cruise ID <u>2010-19</u> | | | | | | | |
|--------------------|--------------|------------------|-----------|-----------|--------------------|--------------|------------------------|--------------------------|--------------|-----------|----------------|--------------|---------------|----------------|-------------------------|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 21 | 4 | 1819 | BE | ROS | | 55 | 49°24.286 | 124°22.155 | 335 | | | | CS SETS | ✓ | |
| | | 1827 | BO | | | | 49°24.266 | 124°22.220 | | 325 | | | | | |
| | | 1835 | EN | | | | | 49°24.269 | 124°22.282 | | | | | | |
| 21 | 3 | 1948 | BE | ROS | US | 56 | 49.26.624 | 124°20.195 | 320 | | | | BS DT TV | ✓ | |
| | | 1955 | BO | | | | 49.26.620 | 124°20.177 | | 315 | 184-198 | 15 | | | |
| | | 2015 | EN | | | | 49.26.634 | 124°20.116 | | | | | | | |
| 21 | 5 | 2109 | BE | Rosette | | 57 | 49°27.420 | 124°30.836 | 314 | | | | PC DT TV | ✓ | system freeze on upcast |
| | | 2116 | BO | | | | 49 27.440 | 124 30.886 | | 309 | | | | | |
| | | 2122 | EN | | | | 49 27.500 | 124 30.889 | | | | | | | |
| 21 | 6 | 21:53 | BE | ROS | US | 58 | 49 30.598 | 124 27.796 | 192 | | 199-210 | 12 | DT MH TV | ✓ | |
| | | 21:57 | BO | | | | 49 30.601 | 124 27.786 | | 188 | | | | | |
| | | 22:08 | EN | | | | 49 30.608 | 124 27.772 | | | | | | | |
| 21 | 7 | 22:42 | BE | Rosette | | 59 | 49 34.390 | 124 24.253 | 350 | | | | DT MH TV | ✓ | |
| | | 22:48 | BO | | | | 49 34.446 | 124 24.277 | | 346 | | | | | |
| | | 22:54 | EN | | | | 49 34.474 | 124 24.305 | | | | | | | |
| 21 | 8 | 23:48 | | Rosette | | 60 | 49 39.304 | 124 33.030 | 337 | 332 | | | DT MH TV | ✓ | |
| | | 23:54 | | | | | 49 39.348 | 124 33.023 | | | | | | | |
| | | 23:59 | | | | | 49 39.382 | 124 32.996 | | | | | | | |

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Notes: _____

Event 64 mid-way up on upcast, read-out began to spike (pressure only?), continued cast to five niskins - was able to get proper depths for all except 30m. Down cast should be fine.

DAILY SCIENCE LOG

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| Month <u>APRIL</u> | | Year <u>2010</u> | | | Ship <u>VECTOR</u> | | | Cruise ID <u>2010-19</u> | | | | | | | |
|--------------------|--------------|------------------|-----------|-----------|--------------------|--------------|------------------------|--------------------------|--------------|-----------|----------------|--------------|---------------|----------------|---------------------------|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
| | | | | | | | Latitude | Longitude | | | | | | | |
| 22 | 9 | 00:42 | BE | Rosette | US | 61 | 49 35.507 | 124 38.321 | 168 | 163 | 211-221 | 11 | DTMHTV | ✓ | |
| | | 00:46 | BO | | | | 49 35.506 | 124 38.299 | | | | | | | |
| | | 00:57 | EN | | | | 49 35.504 | 124 38.262 | | | | | | | |
| 22 | 10 | 01:55 | BE | Rosette | | 62 | 49 40.739 | 124 47.296 | 100 | 97 | | | DTMHTV | ✓ | |
| | | 01:56 | BO | | | | 49 40.745 | 124 47.282 | | | | | | | |
| | | 01:58 | EN | | | | 49 40.742 | 124 47.268 | | | | | | | |
| 22 | 11 | 02:23 | BE | Rosette | | 63 | 49 42.416 | 124 43.405 | 300 | 296 | | | DTMHTV | ✓ | |
| | | 02:29 | BO | | | | 49 42.444 | 124 43.403 | | | | | | | |
| | | 02:33 | EN | | | | 49 42.457 | 124 43.396 | | | | | | | |
| 22 | 12 | 02:53 | BE | Rosette | US | 64 | 49 43.614 | 124 40.786 | 354 | 350 | 222-236 | 15 | DTMHTV | we forgot! | → |
| | | 02:59 | BO | | | | 49 43.607 | 124 40.787 | | | | | | | |
| | | 03:15 | EN | | | | 49 43.571 | 124 40.733 | | | | | | | |
| 22 | 17 | 05:51 | BE | Rosette | | 65 | 49 58.802 | 125 4.295 | 268 | 262 | | | DTMHTV | ✓ | |
| | | 05:56 | BO | | | | 49 58.801 | 125 4.372 | | | | | | | |
| | | 06:00 | EN | | | | 49 58.774 | 125 4.366 | | | | | | | |
| 22 | 21 | 07:31 | BE | ROS | | 66 | 50° 1.66 | 125° 12.96 | 78 | | | | SR | ✓ | Fluorometer cable swapped |
| | | 07:36 | BO | | | | 50° 1.71 | 125° 12.97 | | | | | | | out (3x cables) but |
| | | 07:37 | EN | | | | 50° 1.72 | 125° 12.96 | | | | | | | still saturating |

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System froze approx 100 m depth during ascent - bottles continued to be fired

DAILY SCIENCE LOG

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Month APR Year 2010 Ship Vector Cruise ID 2010-19

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|-----|--------------|------------|-----------|-----------|---------------|--------------|------------------------|-------------|--------------|-----------|----------------|--------------|---------------|----------------|-------------------------|
| | | | | | | | Latitude | Longitude | | | | | | | |
| 22 | 16 | 0822 | BE | ROS | | 67 | 49°57.69 | 125° 8.76 | 158 | | 237-246 | 10 | SLCSTG | ✓ | → |
| | | 0825 | BO | | | | 49°57.72 | 125° 8.78 | | 153 | | | | | |
| | | 0838 | EN | | | | 49°57.69 | 125° 8.81 | | | | | | | |
| 22 | 15 | 1019 | BE | ROS | | 68 | 49°51.61 | 125° 1.60 | 129 | | | | CS+TG STR | ✓ | } REDO! SWITCH WINCH |
| | | 1021 | BO | | | | 49°51.58 | 125° 1.58 | | 121 | | | | | |
| | | 1023 | EN | | | | 49°51.58 | 125° 1.58 | | | | | | | |
| 22 | 15 | 11:14 | BE | ROS | | 68A | 49°51.595 | 125° 1.63 | 12 | | | | CS+TG SL | ✓ | → |
| | | 11:19 | BO | | | | 49°51.59 | 125° 1.59 | | | | | | | |
| | | 11:22 | EN | | | | 49°51.60 | 125° 1.59 | | | | | | | |
| 22 | 14 | 11:39 | BE | ROS | | 69 | 49°53.01 | 124° 59.59 | 315 | 306 | 247-260 | 14 | CSTBSE | ✓ | Pumps off on up cast |
| | | 11:44 | BO | | | | 49°52.95 | 124° 59.64 | | 306 | | | | | |
| | | 12:14 | EN | | | | 49°52.988 | 124° 59.584 | | | | | | | |
| 22 | 13 | 12:46 | BE | ROS | | 70 | 49°55.312 | 124°55.22 | 240 | | | | CSTBSE | ✓ | |
| | | 12:54 | BO | | | | 49°55.308 | 124°55.211 | | 230 | | | | | |
| | | 12:58 | EN | | | | 49°55.306 | 124°55.233 | | | | | | | |
| 22 | 18 | 1335 | BE | ROS | | 71 | 49°59.11 | 124°58.88 | 149 | | | | SLCSTG | ✓ | Sal spike @ 118m |
| | | 1338 | BO | | | | 49°59.14 | 124°58.91 | | 140 | | | | | |
| | | 1341 | EN | | | | 49°59.12 | 124°58.91 | | | | | | | |

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Ros stn 16 Major spikes, but tripped bottles on the way up just fine. Suspected pressure problems and decided to swap out the CTD #550 for CTD #443

Spikes persisted, decided to switch winches as Hugh M had just reterminated winch S/N 1483

Completed down cast but the new con file would not allow bottles to be fired, a restart was needed and event 69 is the upcast and bottle tripping file. Chelsea thinks the CTD hit bottom, mud may be clogging the Sal, temp, and Fluorometer line. Spikes returned when the rosette returned to the surface

→ Bottle 11 leaking from bottom plug O-ring

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|-----|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------|--------------|-----------|----------------|--------------|---------------|----------------|-------------------------|
| | | | | | | | Latitude | Longitude | | | | | | | |
| 22 | 19 | 1418 | BE | ROS | | 72 | 50° 1.11 | 124° 52.99 | 265 | | | | | | |
| | | 1424 | BO | | | | 50° 1.07 | 124° 53.03 | | 255 | | | SR CS | ✓ | |
| | | 1429 | EN | | | | 50° 1.07 | 124° 53.07 | | | | | | | |
| 22 | 20 | 1646 | BE | ROS | | 73 | 49° 46.96 | 124° 32.41 | 319 | | | | | | |
| | | 1654 | BO | | | | 49° 46.95 | 124° 32.34 | | 314 | | | SR CS TG | ✓ | |
| | | 1659 | EN | | | | 49° 46.92 | 124° 32.37 | | | | | | | |
| 22 | 22 | 1820 | BE | ROS | | 74 | 49° 40.21 | 124° 16.28 | 351 | | | | | | |
| | | 1827 | BO | | | | 49° 40.18 | 124° 16.30 | | 344 | | | | ✓ | The winch paused @ 300m |
| | | 1833 | EN | | | | 49° 40.21 | 124° 16.32 | | | | | | | |

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