

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS17 F Event #: 022 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 16 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 92       | 50                | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 93       | 40                | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 94       | 25                | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 95       | 15                | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 96       | 10                | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 97       | 5                 | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 98       | 2                 | ✓                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetIRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: 52 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 22:04 | 15:04 |
| Bottom (BO) | 22:07 | :     |
| End (EN)    | 22:13 | :     |

Positional Information

|        |      |              |   |
|--------|------|--------------|---|
| Start  | Lat: | 49° 29 . 05  | N |
|        | Lon: | 124° 46 . 20 | W |
| Bottom | Lat: | 49° 29 . 05  | N |
|        | Lon: | 124° 46 . 20 | W |
| Finish | Lat: | 49° 29 . 05  | N |
|        | Lon: | 124° 40 . 20 | W |

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS17-G Event #: 023 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 16 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 98A      | 50                | ✓                    | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 99       | 40                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 100      | 25                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 101      | 15                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 102      | 10                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 103      | 5                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 104      | 2                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetIRos | X-Niskin

Watchkeeper(s):  
H.M.

Bottom Depth: 52 m

Transmisso Cleaned: Y / N

Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 23:02 | 16:02 |
| Bottom (BO) | 23:04 | :     |
| End (EN)    | 23:11 | :     |

Positional Information

Start

Lat: 49° 29.05 N

Lon: 124° 46.19 W

Bottom

Lat: 49° 29.05 N

Lon: 124° 46.18 W

Finish

Lat: 49° 29.05 N

Lon: 124° 46.20 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS17 H Event #: 025 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 105      | 50                | ✓                    | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 106      | 40                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 107      | 25                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 108      | 15                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 109      | 10                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 110      | 5                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 111      | 2                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s): H.M.

Bottom Depth: 52 m  
Transmisso Cleaned: (Y) / N  
Fluorometer Cleaned: (Y) / N  
Time UTC Local  
Start (BE) 01:04 18:04  
Bottom (BO) 01:06 :  
End (EN) 01:14 :

Positional Information  
Start Lat: 49° 29.05' N  
Lon: 124° 46.20' W  
Bottom Lat: 49° 29.05' N  
Lon: 124° 46.20' W  
Finish Lat: 49° 29.05' N  
Lon: 124° 46.19' W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS23-A Event #: 028 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 112      | B-5               | ✓ 55                 | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 113      | 40                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 114      | 25                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 115      | 15                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 116      | 10                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 117      | 5                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 118      | 2                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetiRos | X-Niskin  
Watchkeeper(s):  
H-m

Bottom Depth: 59 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N  
Time UTC Local  
Start (BE) 17 : 02 10 : 02  
Bottom (BO) 17 : 03 :  
End (EN) 17 : 08 :

Positional Information  
Start Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 99 W  
Bottom Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 99 W  
Finish Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 99 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS23 B Event #: 030 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17|4|17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 119      | 55                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 120      | 40                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 121      | 25                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 122      | 15                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 123      | 10                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 124      | 5                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 125      | 2                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: 59 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 18:00 | 11:00 |
| Bottom (BO) | 18:01 | :     |
| End (EN)    | 18:08 | :     |

Positional Information

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.78  | N |
| Lon: | 124° 39.99 | W |

Start

▼

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.78  | N |
| Lon: | 124° 39.99 | W |

Bottom

▼

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.78  | N |
| Lon: | 124° 39.99 | W |

Finish

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS23-C Event #: 031 Vessel: NECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 126      | 55                | ✓                    | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 127      | 40                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 128      | 25                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 129      | 15                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 130      | 10                | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 131      | 5                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 132      | 2                 | ✓                    | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin

Watchkeeper(s):  
H.M.

Bottom Depth: 59 m

Transmisso Cleaned: Y / N

Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 19:00 | 12:00 |
| Bottom (BO) | 19:03 | :     |
| End (EN)    | 19:09 | :     |

Positional Information

Start

Lat: 49 ° 27 . 78 N

Lon: 124 ° 39 . 99 W

▼

Bottom

Lat: 49 ° 27 . 78 N

Lon: 124 ° 39 . 99 W

▼

Finish

Lat: 49 ° 27 . 78 N

Lon: 124 ° 39 . 99 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS23D Event #: 033 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                      | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|----------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed ✓ Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 133      | 55                | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 134      | 40                | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 135      | 25                | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 136      | 15                | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 137      | 10                | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 138      | 5                 | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 139      | 2                 | ✓                    |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                      |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin

Watchkeeper(s):  
H.M.

Bottom Depth: 59 m

Transmisso Cleaned: Y / N

Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 19:55 | 12:55 |
| Bottom (BO) | 19:57 | :     |
| End (EN)    | 20:04 | 13:04 |

Positional Information

Start

Lat: 49° 27.78 N

Lon: 124° 39.98 W

Bottom

Lat: 49° 27.78 N

Lon: 124° 39.97 W

Finish

Lat: 49° 27.78 N

Lon: 124° 39.97 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS 236 Event #: 034 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17|4|17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 140      | 55                | ✓                  | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 141      | 40                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 142      | 25                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 143      | 15                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 144      | 10                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 145      | 5                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 146      | 2                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M.

Bottom Depth: 59 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N  

|             |         |         |
|-------------|---------|---------|
| Time        | UTC     | Local   |
| Start (BE)  | 21 : 00 | 14 : 00 |
| Bottom (BO) | 21 : 03 | :       |
| End (EN)    | 21 : 09 | :       |

Positional Information  
Start  
Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 97 W  
▼  
Bottom  
Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 97 W  
▼  
Finish  
Lat: 49 ° 27 . 77 N  
Lon: 124 ° 39 . 97 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS 23 F Event #: 036 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 147      | 50                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 148      | 40                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 149      | 25                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 150      | 15                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 151      | 10                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 152      | 5                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 153      | 2                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M.

Bottom Depth: 58 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 22:01 | :     |
| Bottom (BO) | 22:02 | :     |
| End (EN)    | 22:09 | :     |

Positional Information

|      |               |   |
|------|---------------|---|
| Lat: | 49 ° 27 . 79  | N |
| Lon: | 124 ° 40 . 03 | W |

▼

|      |               |   |
|------|---------------|---|
| Lat: | 49 ° 27 . 79  | N |
| Lon: | 124 ° 40 . 03 | W |

▼

|      |               |   |
|------|---------------|---|
| Lat: | 49 ° 27 . 79  | N |
| Lon: | 124 ° 40 . 03 | W |

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS23-G Event #: 037 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17|4|17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 154      | 50                | ✓                  | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 155      | 40                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 156      | 25                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 157      | 15                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 158      | 10                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 159      | 5                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 160      | 2                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: 56 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 23:03 | 16:03 |
| Bottom (BO) | 23:04 | :     |
| End (EN)    | 23:11 | :     |

Positional Information  
Start  
Lat: 49° 27.79 N  
Lon: 124° 40.04 W

Bottom  
Lat: 49° 27.79 N  
Lon: 124° 40.03 W

Finish  
Lat: 49° 27.79 N  
Lon: 124° 40.04 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS 23-H Event #: 039 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 17 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |  |          |
| 1                 |          | 161      | 50                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 2                 |          | 162      | 40                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 3                 |          | 163      | 25                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 4                 |          | 164      | 15                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 5                 |          | 165      | 10                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 6                 |          | 166      | 5                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 7                 |          | 167      | 2                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: 56 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N  
Time UTC Local  
Start (BE) 23:57 16:57  
Bottom (BO) 23:59 :  
End (EN) 00:06 17:06

Positional Information  
Start Lat: 49° 27. 79 N  
Lon: 124° 40 . 09 W  
Bottom Lat: 49° 27. 81 N  
Lon: 124° 40 . 03 W  
Finish Lat: 49° 27. 81 N  
Lon: 124° 40 . 03 W

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)

Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: BS 23 I Event #: 040 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 18 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 168      | 50                | ✓                  | ✓                                                                 | ✓   | ✓   |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 169      | 40                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 170      | 25                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 171      | 15                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 172      | 10                | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 173      | 5                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 174      | 2                 | ✓                  | ✓                                                                 | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: 56 m  
Transmisso Cleaned: Y / N  
Fluorometer Cleaned: Y / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 01:02 | 18:03 |
| Bottom (BO) | 01:04 | :     |
| End (EN)    | 01:13 | :     |

Positional Information

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.81  | N |
| Lon: | 124° 40.03 | W |

▼

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.80  | N |
| Lon: | 124° 40.04 | W |

▼

|      |            |   |
|------|------------|---|
| Lat: | 49° 27.79  | N |
| Lon: | 124° 40.04 | W |

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)



Water Properties Group

Sampling/Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division

Cruise ID: 2017-03 Station: RM-1 Event #: 053 Vessel: VECTOR UTC Date (dd|mmm|yyyy): 18 | 4 | 17

| Bottles & Samples |          |          | Rosette Operation |                    | Samples Taken (↓ write samplers' initials under each sample type) |     |     |       |  |  |  |  |  |  |  |  | Comments |
|-------------------|----------|----------|-------------------|--------------------|-------------------------------------------------------------------|-----|-----|-------|--|--|--|--|--|--|--|--|----------|
| Niskin #          | Firing # | Sample # | Target Pressure   | Confirmed Pressure | Oxy                                                               | Nut | Sal | Chl a |  |  |  |  |  |  |  |  |          |
| 1                 |          | 175      | B-5               | ✓ 38               |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 2                 |          | 176      | 30                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 3                 |          | 177      | 25                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 4                 |          | 178      | 15                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 5                 |          | 179      | 10                | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 6                 |          | 180      | 5                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 7                 |          | 181      | 2                 | ✓                  |                                                                   | ✓   |     |       |  |  |  |  |  |  |  |  |          |
| 8                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 9                 |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 10                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 11                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 12                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 13                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 14                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 15                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 16                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 17                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 18                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 19                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 20                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 21                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 22                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 23                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |
| 24                |          |          |                   |                    |                                                                   |     |     |       |  |  |  |  |  |  |  |  |          |

Profile type:  
Ros (default) | TrMetlRos | X-Niskin  
Watchkeeper(s):  
H.M

Bottom Depth: \_\_\_\_\_ m  
Transmisso Cleaned: ☒ / N  
Fluorometer Cleaned: ☒ / N

| Time        | UTC   | Local |
|-------------|-------|-------|
| Start (BE)  | 20:48 | 13:43 |
| Bottom (BO) | 20:49 | :     |
| End (EN)    | 20:57 | :     |

Positional Information

|        |                   |
|--------|-------------------|
| Start  | Lat: 49° 31.30 N  |
|        | Lon: 124° 49.22 W |
| Bottom | Lat: 49° 31.30 N  |
|        | Lon: 124° 49.22 W |
| Finish | Lat: 49° 31.31 N  |
|        | Lon: 124° 49.20 W |

Extra comments: (e.g., DMS cast, PAR on, Heavy Rain, Niskins out of order, etc)