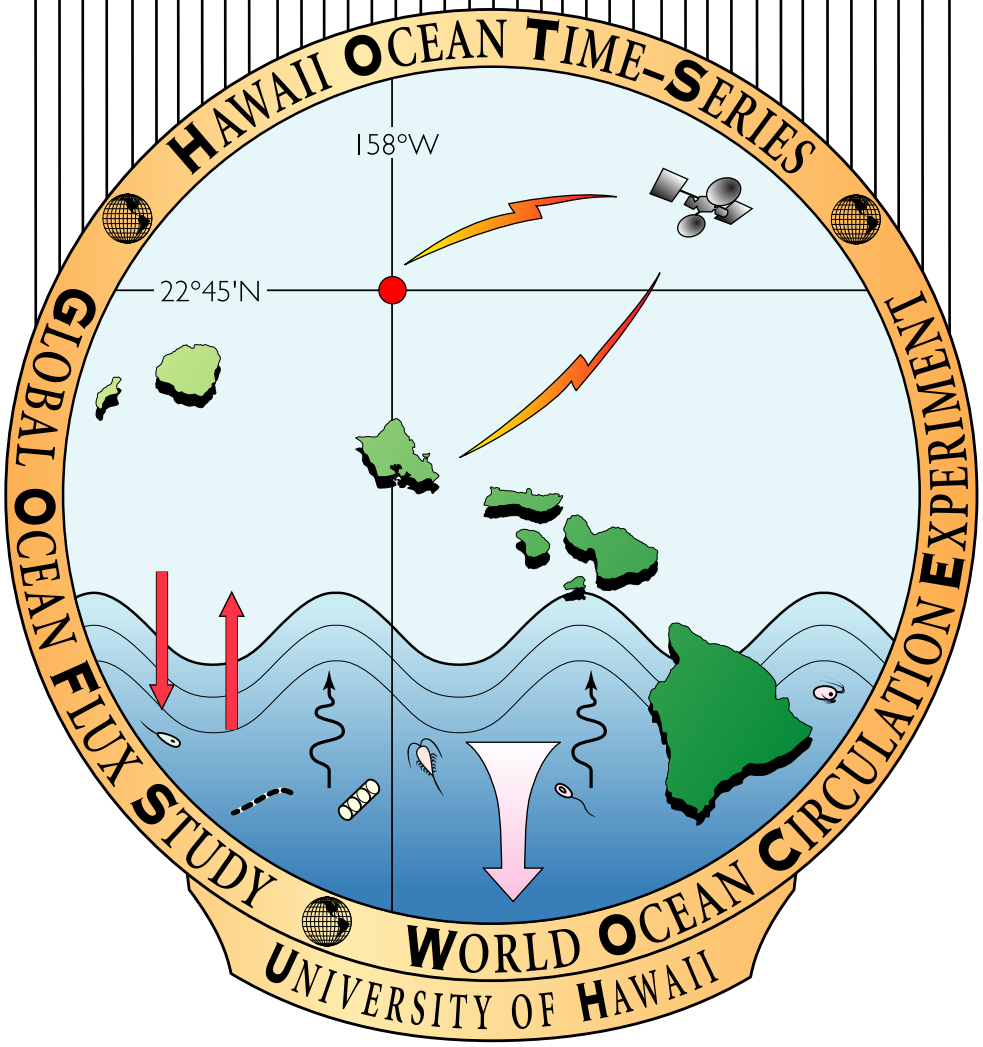
# Hawaii Ocean Time-series Program

# HOT 306



# Hawaii Ocean Time-Series

## HOT-**306**

## KAHE Station Data Sheet

Station # 1 Date: 10/11/2018 (HST)

Cast # 1 Time: 14:57 (HST)

Operator(s): KKB, ES, CF

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | Nuts | LLN/ LLP | Chl *a* | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | 1 | 6.4 | | | | | | |
| 2 | **750** | 2,3,4 | 7.8 | | | | | | |
| 3 | **500** | 5 | 9.0 | | | | | | |
| 4 | **350** | 6 | 11.8 | | | 4 | | | |
| 5 | **250** | 7 | 14.9 | | | 5 | | | |
| 6 | **200** | | | | | | | | |
| 7 | **175** | | | | | | | 7 | |
| 8 | **150** | 8 | 19.4 | | | 8 | 8 | 8 | |
| 9 | **125** | | | | | | | 9 | |
| 10 | **100** | 9,10,11 | 22.3 | | | 10 | 10 | 10A-B | |
| 11 | **75** | | | | | | | 11 | |
| 12 | **45** | 12 | 27.0 | 12 | | 12 | 12 | 12 | |
| 13 | **25** | 13 | 27.5 | 13 | | | | 13A-B | |
| 14 | **5** | 14 | 27.8 | 14 | | 14 | 14 | 14 | |
| 15 | **5** | QC | 27.8 | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
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| 24 | | | | | | | | | |

**Notes: Spec. for pH not working. No pHs taken.**

# Hawaii Ocean Time-Series
## HOT-**306**
## KAHE Station Data Sheet

Station # 1
Cast # 1
Operator(s): ~~DS,TC,EG~~ KKB,CF,RT,ES

Date: 10/11/2018 (HST)
Time: 14:57 (HST)

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | Nuts | LLN/ LLP | Chl *a* | Salts |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | 1 | 6.4 | | | | | | |
| 2 | **750** | 2,3,4 | 7.8 | | | | | | |
| 3 | **500** | 5 | 9.0 | | | | | | |
| 4 | **350** | 6 | 11.8 | | | 4 | | | |
| 5 | **250** | 7 | 14.9 | | | 5 | | | |
| 6 | **200** | | | | | | | | |
| 7 | **175** | | | | | | | 7 | |
| 8 | **150** | 8 | 19.4 | | | 8 | 8 | 8 | |
| 9 | **125** | | | | | | | 9 | |
| 10 | **100** | 9,10,11 | 22.3 | | | 10 | 10 | 10A-B | |
| 11 | **75** | | | | | | | 11 | |
| 12 | **45** | 12 | 27.0 | 12 | 1 | 12 | 12 | 12 | |
| 13 | **25** | 13 | 27.5 | 13 | 2 | | | 13A-B | |
| 14 | **5** | 14 | 27.8 | 14 | 3,4,5 | 14 | 14 | 14 | |
| 15 | **5** | QC | 27.8 | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
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| 21 | | | | | | | | | |
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| 23 | | | | | | | | | |
| 24 | | | | | | | | | |

**Notes:** Spec. not working. :(

# Hawaii Ocean Time-series
## HOT-**306**
## Primary Production Data Sheet

Station # 2 Date: 10/12/2018 (HST)
Cast # 1 Time: 0230 (HST)
Operator(s): DS,TC,EG,MB

| Rosette Position | Desired Depth | Light Bottle | Chl *a* FCM | Chloro Bottle # | SFS | SF-S O2 | Temp |
|---|---|---|---|---|---|---|---|
| 1 | **200** | | | | | | |
| 2 | **Sal min** | | | | | | |
| 3 | **175** | | 3A-B | 1,2 | | | |
| 4 | **150** | | 4A-B | 3,4 | | | |
| 5 | **125** | 3-1 | 5 | 5 | X | | |
| 6 | **125** | 3-2 | 6 | 6 | X | | |
| 7 | **125** | 3-3 | 7 | 7 | X | | |
| 8 | **100** | 4-1 | 8 | 8 | X | | |
| 9 | **100** | 4-2 | 9 | 9 | X | | |
| 10 | **100** | 4-3 | 10 | 10 | X | | |
| 11 | **75** | 5-1 | 11 | 11 | X | | |
| 12 | **75** | 5-2 | 12 | 12 | X | | |
| 13 | **75** | 5-3 | 13 | 13 | X | | |
| 14 | **45** | 6-1 | 14 | 14 | X | | |
| 15 | **45** | 6-2 | 15 | 15 | X | | |
| 16 | **45** | 6-3 | 16 | 16 | X | | |
| 17 | **25** | 7-1 | 17 | 17 | X | | |
| 18 | **25** | 7-2 | 18 | 18 | X | | |
| 19 | **25** | 7-3 | 19 | 19 | X | | |
| 20 | **15** | | | | | 121,122,123 | 26.2 |
| 21 | **5** | 8-1 | 21 | 21 | X | | |
| 22 | **5** | 8-2 | 22 | 22 | X | | |
| 23 | **5** | 8-3 | 23 | 23 | X | | |
| 24 | **5** | | | | | | |

**Notes:**

# Hawaii Ocean Time-series

## HOT-**306** Primary Production Data Sheet

Station # 2
Cast # 1
Operator(s):

Date: 10/12/2018 (HST)
Time: (HST)

| Rosette Position | Desired Depth | Light Bottle | Chl *a* FCM | Chloro Bottle # | SFS | SF-S O2 | Temp |
|---|---|---|---|---|---|---|---|
| 1 | **200** | | | | | | |
| 2 | **Sal min** | | | | | | |
| 3 | **175** | | 3A-B | 1 / 2 | | | |
| 4 | **150** | | 4A-B | 3 / 4 | | | |
| 5 | **125** | 3-1 | 5 | 5 | X | | |
| 6 | **125** | 3-2 | 6 | 6 | X | | |
| 7 | **125** | 3-3 | 7 | 7 | X | | |
| 8 | **100** | 4-1 | 8 | 8 | X | | |
| 9 | **100** | 4-2 | 9 | 9 | X | | |
| 10 | **100** | 4-3 | 10 | 10 | X | | |
| 11 | **75** | 5-1 | 11 | 11 | X | | |
| 12 | **75** | 5-2 | 12 | 12 | X | | |
| 13 | **75** | 5-3 | 13 | 13 | X | | |
| 14 | **45** | 6-1 | 14 | 14 | X | | |
| 15 | **45** | 6-2 | 15 | 15 | X | | |
| 16 | **45** | 6-3 | 16 | 16 | X | | |
| 17 | **25** | 7-1 | 17 | 17 | X | | |
| 18 | **25** | 7-2 | 18 | 18 | X | | |
| 19 | **25** | 7-3 | 19 | 19 | X | | |
| 20 | **15** | | | | | 121,122,123 | 26.2 |
| 21 | **5** | 8-1 | 21 | 21 | X | | |
| 22 | **5** | 8-2 | 22 | 22 | X | | |
| 23 | **5** | 8-3 | 23 | 23 | X | | |
| 24 | **5** | | | | | | |

**Notes:**

# Hawaii Ocean Time-series

## HOT-**306**

## WOCE Deep Data Sheet

Station # 2 Date: 10/12/2018 (HST)

Cast # 2 Time: 0700 (HST)

Operator(s): DS,TC,EG,MB

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | DOC | Nutrient | Refrig. Si | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **4800** | 15 | 3.9 | | | | 1 | 1 | |
| 2 | **4600** | 16 | 4.1 | | | | 2 | 2 | |
| 3 | **4500** | 17,18,19 | 4.5 | 3A-B | 1,2,3 | 3ABC | 3A-B | 3A-B | |
| 4 | **4400** | 20 | 4.1 | | | | 4 | 4 | |
| 5 | **4200** | 21 | 4.1 | | | | 5 | 5 | |
| 6 | **4000** | 22 | 4.1 | | | | 6 | 6 | |
| 7 | **3800** | 23,24,25 | 4.7 | | | 7ABC | 7A-B | 7A-B | |
| 8 | **3600** | 26 | 4.1 | | | | 8 | 8 | |
| 9 | **3400** | 27 | 4.2 | | | | 9 | 9 | |
| 10 | **3200** | 28 | 4.2 | | | | 10 | 10 | |
| 11 | **3000** | 29,30,31 | 4.7 | 11 | 4 | 11ABC | 11A-B | 11A-B | |
| 12 | **2800** | 32 | 4.3 | | | | 12 | 12 | |
| 13 | **2600** | 33 | 4.5 | | | | 13 | 13 | |
| 14 | **2400** | 34 | 4.5 | | | | 14 | 14 | |
| 15 | **2200** | 35 | 4.7 | | | | 15 | 15 | |
| 16 | **2000** | 36 | 5.0 | 16 | 5 | 16ABC | 16A-B | 16A-B | |
| 17 | **1800** | 37,38,39 | 5.6 | | | | 17 | 17 | |
| 18 | **1600** | 150 | 5.2 | | | | 18 | 18 | |
| 19 | **1400** | 41 | 5.5 | | | | 19 | 19 | |
| 20 | **1200** | 42 | 5.9 | | | | 20 | 20 | |
| 21 | **1000** | 43 | 6.4 | | | | 21 | 21 | |
| 22 | **750** | 44 | 7.1 | | | | 22 | 22 | |
| 23 | **500** | 45 | 8.9 | | | | 23 | 23 | |
| 24 | **5** | 46 | 26.0 | | | | 24 | | |

**Notes: Samples 28 and 30 for oxygens was deleted (did not titrate properly).**

# Hawaii Ocean Time-series
## HOT-**306**
## WOCE Deep Data Sheet

Station # 2
Cast # 2
Operator(s): DS, TG, EG, MB

Date: 10/12/18 (HST)
Time: 0700 (HST)

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | DOC | Nutrient | Refrig. Si | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **4800** | 15 | 3.9 | | | | 1 | 1 | |
| 2 | **4600** | 16 | 4.1 | | | | 2 | 2 | |
| 3 | **4500** | 17,18,19 | 4.5 | 3A-B | 1,2,3 | 3ABC | 3A-B | 3A-B | |
| 4 | **4400** | 20 | 4.1 | | | | 4 | 4 | |
| 5 | **4200** | 21 | 4.1 | | | | 5 | 5 | |
| 6 | **4000** | 22 | 4.1 | | | | 6 | 6 | |
| 7 | **3800** | 23,24,25 | 4.7 | | | 7ABC | 7A-B | 7A-B | |
| 8 | **3600** | 26 | 4.1 | | | | 8 | 8 | |
| 9 | **3400** | 27 | 4.2 | | | | 9 | 9 | |
| 10 | **3200** | 28 | 4.2 | | | | 10 | 10 | |
| 11 | **3000** | 29,30,31 | 4.7 | 11 | 4 | 11ABC | 11A-B | 11A-B | |
| 12 | **2800** | 32 | 4.3 | | | | 12 | 12 | |
| 13 | **2600** | 33 | 4.5 | | | | 13 | 13 | |
| 14 | **2400** | 34 | 4.5 | | | | 14 | 14 | |
| 15 | **2200** | 35 | 4.7 | | | | 15 | 15 | |
| 16 | **2000** | 36 | 5.0 | 16 | 5 | 16ABC | 16A-B | 16A-B | |
| 17 | **1800** | 37,38,39 | 5.6 | | | | 17 | 17 | |
| 18 | **1600** | 150 | 5.2 | | | | 18 | 18 | |
| 19 | **1400** | 41 | 5.5 | | | | 19 | 19 | |
| 20 | **1200** | 42 | 5.9 | | | | 20 | 20 | |
| 21 | **1000** | 43 | 6.4 | | | | 21 | 21 | |
| 22 | **750** | 44 | 7.1 | | | | 22 | 22 | |
| 23 | **500** | 45 | 8.9 | | | | 23 | 23 | |
| 24 | **5** | 46 | 26.0 | | | | 24 | | |

**Notes:** SAMPLE 28 WAS deleted

# Hawaii Ocean Time-series
## HOT-**306**
## PO Shallow Data Sheet

| | | | |
|---|---|---|---|
| Station # | 2 | Date: | 10/12/2018 (HST) |
| Cast # | 3 | Time: | 1300 (HST) |
| Operator(s): | DS, EG,TC,MB | | |

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | DOC | Nutrient | Refrig. Si | Replicate Depths |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1080** | 47,48,49 | 7.0 | 1 | | 1 | 1A-B | 1A-B | **1020** |
| 2 | **1007** | 50 | 6.9 | | | | 2 | 2 | |
| 3 | **827** | 51 | 6.8 | | | | 3 | 3 | |
| 4 | **770** | 52,53,54 | 7.1 | 4 | | 4 | 4 | 4 | **750** |
| 5 | **713** | 55 | 7.1 | | | | 5 | 5 | |
| 6 | **685** | 56 | 7.7 | | | | 6 | 6 | |
| 7 | **652** | 57 | 7.6 | | | | 7 | 7 | |
| 8 | **605** | 58 | 7.7 | 8 | | 8 | 8 | 8 | **600** |
| 9 | **565** | 59 | 8.2 | | | | 9 | 9 | |
| 10 | **518** | 60 | 8.8 | 10 | | 10 | 10A-B | 10A-B | **525** |
| 11 | **482** | 61 | 9.2 | 11 | | 11 | 11 | 11 | **500** |
| 12 | **465** | 62,63,64 | 10.0 | | | | 12 | 12 | |
| 13 | **401** | 65 | 10.5 | | | | 13 | | |
| 14 | **347** | 66 | 12.0 | 14AB | | 14 | 14 | | **350** |
| 15 | **275** | 67 | 13.0 | 15 | | 15 | 15 | | |
| 16 | **193** | 68,69,70 | 15.1 | | | | 16 | | **250** |
| 17 | **137** | 71 | 16.8 | | | | 17 | | **150** |
| 18 | **117** | 72 | 19.3 | | | | 18 A-B | | |
| 19 | **95** | 73 | 21.2 | | | | 19 | | |
| 20 | **85** | 74 | 23.0 | | | | 20 | | |
| 21 | **71** | 75 | 24.3 | | | | 21 | | |
| 22 | **54** | 76 | 25.2 | | | | 22 | | |
| 23 | **42** | 77 | 26.9 | | | | 23 | | |
| 24 | **5** | 78 | 27.0 | | | | 24 | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT-**305**
## PO Shallow Data Sheet

Station # 2
Cast # 3
Operator(s): DS, EG,TC,MB

Date: 10/12/2018 (HST)
Time: 1300 (HST)

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ Alk | pH | DOC | Nutrient | Refrig. Si | Replicate Depths |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1080** | 47,48,49 | 7.0 | 1 | | 1 | 1A-B | 1A-B | **1020** |
| 2 | **1007** | 50 | 6.9 | | | | 2 | 2 | |
| 3 | **827** | 51 | 6.8 | | | | 3 | 3 | |
| 4 | **770** | 52,53,54 | 7.1 | 4 | | 4 | 4 | 4 | **750** |
| 5 | **713** | 55 | 7.1 | | | | 5 | 5 | |
| 6 | **685** | 56 | 7.7 | | | | 6 | 6 | |
| 7 | **652** | 57 | 7.6 | | | | 7 | 7 | |
| 8 | **605** | 58 | 7.7 | 8 | | 8 | 8 | 8 | **600** |
| 9 | **565** | 59 | 8.2 | | | | 9 | 9 | |
| 10 | **518** | 60 | 8.8 | 10 | | 10 | 10A-B | 10A-B | **525** |
| 11 | **482** | 61 | 9.2 | ~~11~~ | | ~~11~~ | 11 | 11 | **500** |
| 12 | **465** | 62,63,64 | 10.0 | | | | 12 | 12 | |
| 13 | **401** | 65 | 10.5 | | | | 13 | | |
| 14 | **347** | 66 | 12.0 | 14AB | | 14 | 14 | | **350** |
| 15 | **275** | 67 | 13.0 | 15 | | 15 | 15 | | |
| 16 | **193** | 68,69,70 | 15.1 | | | | 16 | | **250** |
| 17 | **137** | 71 | 16.8 | | | | 17 | | **150** |
| 18 | **117** | 72 | 19.3 | | | | 18 A-B | | |
| 19 | **95** | 73 | 21.2 | | | | 19 | | |
| 20 | **85** | 74 | 23.0 | | | | 20 | | |
| 21 | **71** | 75 | 24.3 | | | | 21 | | |
| 22 | **54** | 76 | 25.2 | | | | 22 | | |
| 23 | **42** | 77 | 26.9 | | | | 23 | | |
| 24 | **5** | 78 | 27.0 | | | | 24 | | |

7.2
6.8
7.0
7.7
7.3
7.4
7.6
7.8
8.2
8.7
9.4
9.9
10.7
12.1
13.4
16.6
19.7
20.8
21.8
22.3
23.1
25.2
26.3
26.5

**Notes:**

# Hawaii Ocean Time-series

## HOT- **306**

## PC/PN Data Sheet

| | | | | | |
|---|---|---|---|---|---|
| Station # | 2 | | Date: | 10/12/2018 | (HST) |
| Cast # | 4 | | Time: | 15:39 | (HST) |
| Operator(s): | CF, KKB, ES, RT | Pre-screen mesh size: | | 202 um | |
| Blank #'s | **___B1___** | **___B2___** | **___B3___** | | |

| Rosette Position | Desired Depth | Carboy # | Total Volume | Sample # | DNA | | |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | |
| 2 | **700** | | | | | | |
| 3 | **Sal Min** | | | | | | |
| 4 | **350** | 1 | 10 | 4 | | | |
| 5 | **350** | 2 | 10 | 5 | | | |
| 6 | **250** | 3 | 10 | 6 | | | |
| 7 | **200** | 4 | 10 | 7 | | | |
| 8 | **175** | 5 | 10 | 8 | | | |
| 9 | **150** | 6 | 10 | 9 | | | |
| 10 | **125** | 7,8 | 4,4 | 10A-B | | | |
| 11 | **100** | 9 | 4 | 11 | | | |
| 12 | **75** | 10 | 4 | 12 | | | |
| 13 | **75** | | | | X | | |
| 14 | **45** | 11 | 4 | 14 | | | |
| 15 | **45** | | | | X | | |
| 16 | **25** | 12,13 | 4,4 | 16A-B | | | |
| 17 | **25** | | | | X | | |
| 18 | **5** | 14 | 4 | 18 | | | |
| 19 | **5** | | | | X | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes: Carboy 8 (rosette #10 filtering went very fast),**
**306-2-4-4 filter ripped**

# Hawaii Ocean Time-series
## HOT- **306**
## PC/PN Data Sheet

Station # 2 Date: 10/12/2018 (HST)
Cast # 4 Time: 15:31 (HST)
Operator(s): CF, KKB, ES, RT Pre-screen mesh size: 202 um
Blank #'s **B1** **B2** **B3**

| Rosette Position | Desired Depth | Carboy # | Total Volume | Sample # | DNA | | |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | |
| 2 | **700** | | | | | | |
| 3 | **Sal Min** | | | | | | |
| 4 | **350** | 1 | 10 | 4 | | | |
| 5 | **350** | 2 | 10 | 5 | | | |
| 6 | **250** | 3 | 10 | 6 | | | |
| 7 | **200** | 4 | 10 | 7 | | | |
| 8 | **175** | 5 | 10 | 8 | | | |
| 9 | **150** | 6 | 10 | 9 | | | |
| 10 | **125** | 7,8 | 4,4 | 10A-B | | | |
| 11 | **100** | 9 | 4 | 11 | | | |
| 12 | **75** | 10 | 4 | 12 | | | |
| 13 | **75** | | | | X | | |
| 14 | **45** | 11 | 4 | 14 | | | |
| 15 | **45** | | | | X | | |
| 16 | **25** | 12,13 | 4,4 | 16A-B | | | |
| 17 | **25** | | | | X | | |
| 18 | **5** | 14 | 4 | 18 | | | |
| 19 | **5** | | | | X | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes:** 306-2-24 filter ripped

# Hawaii Ocean Time-series

## HOT- **306**

## Particulate Phosphorus Data Sheet

Station # 2 Date: 10/12/2018 (HST)

Cast # 5 Time: 19:09 (HST)

Operator(s): KKB, RT, ES, CF Pre-screen mesh size: 202 um

Blank #'s **___B1___ ___B2___ ___B3___**

| Rosette Position | Desired Depth | Carboy # | Total Volume | Sample # | SF-S | O2 SF-S | Temp | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **Sal min** | | | | | | | |
| 3 | **350** | 1 | 10 | 3 | | | | |
| 4 | **350** | 2 | 10 | 4 | | | | |
| 5 | **250** | 3 | 10 | 5 | | | | |
| 6 | **200** | 4 | 10 | 6 | | | | |
| 7 | **175** | 5 | 10 | 7 | | | | |
| 8 | **150** | 6 | 10 | 8 | | | | |
| 9 | **125** | 7,8 | 4,4 | 9A-B | | | | |
| 10 | **100** | 9 | 4 | 10 | | | | |
| 11 | **75** | 10 | 4 | 11 | | | | |
| 12 | **45** | 11 | 4 | 12 | | | | |
| 13 | **25** | 12,13 | 4,4 | 13A-B | | | | |
| 14 | **25** | | | | 18 A,B | | | |
| 15 | **15** | | | | | 124,125,126 | 26.3 | |
| 16 | **5** | 14 | 4 | 16 | | | | |
| 17 | **5** | | | | 21 A,B | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes: Carboy # 6,9,10,and11 filters were slightly ripped.**

# Hawaii Ocean Time-series
## HOT- **306**
## Particulate Phosphorus Data Sheet

Station # 2
Cast # 5
Operator(s): KKB, RT, ES, CF
Blank #'s **B1** **B2** **B3**

Date: 10/12/2018 (HST)
Time: 19:09 (HST)
Pre-screen mesh size: 202 um

| Rosette Position | Desired Depth | Carboy # | Total Volume | Sample # | SF-S | O2 SF-S | Temp | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **Sal min** | | | | | | | |
| 3 | **350** | 1 | 10 | 3 | | | | |
| 4 | **350** | 2 | 10 | 4 | | | | |
| 5 | **250** | 3 | 10 | 5 | | | | |
| 6 | **200** | 4 | 10 | 6 | | | | |
| 7 | **175** | 5 | 10 | 7 | | | | |
| 8 | **150** | 6 | 10 | 8 | | | | |
| 9 | **125** | 7,8 | 4,4 | 9A-B | | | | |
| 10 | **100** | 9 | 4 | 10 | | | | |
| 11 | **75** | 10 | 4 | 11 | | | | |
| 12 | **45** | 11 | 4 | 12 | | | | |
| 13 | **25** | 12,13 | 4,4 | 13A-B | | | | |
| 14 | **25** | | | | 18 A,B | | | |
| 15 | **15** | | | | | 124,125,126 | 26.3°C | |
| 16 | **5** | 14 | 4 | 16 | | | | |
| 17 | **5** | | | | 21 A,B | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:** Carboy #10 & 11 filters ripped. Used #9 & 16

# Hawaii Ocean Time-series
## HOT-**306**
## BEACH Shallow Data Sheet (1/2)

Station # 2 Date: 10/12/2018 (HST)
Cast # 6 Time: 22:18 (HST)
Operator(s): KKB, RT, ES, CF

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ ALK | Quay DIC | Keeling DIC | SF-S | pH | DOC |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | 79 | 6.9 | | | | | | |
| 2 | **$O_2$ min** | 80 | 7.3 | | | | | | |
| 3 | **Sal min** | 81 | 5.8 | | | | | | |
| 4 | **200** | 82 | 16.7 | 4 | | | | | 4 |
| 5 | **175** | 83 | 18.1 | | | | | | 5 |
| 6 | **165** | 84 | 18.5 | | | | | | |
| 7 | **150** | 85 | 18.8 | 7 | | | | | 7 |
| 8 | **130** | | | | | | | | |
| 9 | **125** | 86 | 20.1 | | | | | | 9 |
| 10 | **115** | 87 | 20.4 | | | | | | |
| 11 | **110** | | | | | | | | |
| 12 | **100** | 88,89,90 | 21.1 | 12 | | | | | 12 |
| 13 | **90** | | | | | | | | |
| 14 | **85** | 91 | 22.1 | | | | | | |
| 15 | **75** | 92 | 22.5 | 15 | | | | | 15 |
| 16 | **60** | | | | | | | | 16 |
| 17 | **45** | 93 | 25.9 | 17 | | | | | 17 |
| 18 | **35** | | | | | | | | 18 |
| 19 | **25** | 94 | 26.1 | 19 | | | | | 19 |
| 20 | **25** | | | | 20 | | 20A-B | | |
| 21 | **15** | | | | | | | | 21 |
| 22 | **5** | 95 | 26.2 | 22A-B | | | | | 22 |
| 23 | **5** | | | | 23 | 23A-B | | | |
| 24 | **5** | | | | | | 24A-B | | |

**Notes: Keeling**
**No pH samples taken –spec broken**

# Hawaii Ocean Time-series
## HOT-**306**
## BEACH Shallow Data Sheet (1/2)

Station # 2
Cast # 6
Operator(s): KKB, RT, ES, CF

Date: 10/12/2018 (HST)
Time: 22:18 (HST)

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DIC/ ALK | Quay DIC | Keeling DIC | SF-S | pH | DOC |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | 79 | 6.9 | | | | | | |
| 2 | **$O_2$ min** | 80 | 7.3 | | | | | | |
| 3 | **Sal min** | 81 | 5.0 | | | | | | |
| 4 | **200** | 82 | 16.7 | 4 | | | | | 4 |
| 5 | **175** | 83 | 18.1 | | | | | | 5 |
| 6 | **165** | 84 | 18.5 | | | | | | |
| 7 | **150** | 85 | 18.8 | 7 | | | | | 7 |
| 8 | **130** | | | | | | | | |
| 9 | **125** | 86 | 20.1 | | | | | | 9 |
| 10 | **115** | 87 | 20.4 | | | | | | |
| 11 | **110** | | | | | | | | |
| 12 | **100** | 88,89,90 | 21.1 | 12 | | | | | 12 |
| 13 | **90** | | | | | | | | |
| 14 | **85** | 91 | 22.1 | | | | | | |
| 15 | **75** | 92 | 22.5 | 15 | | | | | 15 |
| 16 | **60** | | | | | | | | 16 |
| 17 | **45** | 93 | 25.9 | 17 | | | | | 17 |
| 18 | **35** | | | | | | | | 18 |
| 19 | **25** | 94 | 26.1 | 19 | | | | | 19 |
| 20 | **25** | | | | 20 | | 20A-B | | |
| 21 | **15** | | | | | | | | 21 |
| 22 | **5** | 95 | 26.2 | 22A-B | | | | | 22 |
| 23 | **5** | | | | 23 | 23A-B | | | |
| 24 | **5** | | | | | | 24A-B | | |

**Notes: Keeling**
**No pH samples taken –spec broken**

# Hawaii Ocean Time-series
## HOT-**306**
## BEACH Shallow Data Sheet (2/2)

Station # 2 Date: 10/12/2018 (HST)
Cast # 6 Time: 22:18 (HST)
Operator(s): KKB, ES, CF

| Rosette Position | Desired Depth | Nutrient | Refrig. Si | LLN | LLP | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **$O_2$ min** | | | | | | | |
| 3 | **Sal min** | | | | | | | |
| 4 | **200** | 4 | 4 | | | | | |
| 5 | **175** | 5 | | 5 | 5 | | | |
| 6 | **165** | | | 6 | | | | |
| 7 | **150** | 7 | | 7A-B | 7 | | | |
| 8 | **130** | | | 8 | | | | |
| 9 | **125** | 9A-B | | 9 | 9 | | | |
| 10 | **115** | | | 10 | 10 | | | |
| 11 | **110** | | | 11 | | | | |
| 12 | **100** | 12 | | 12A-B | 12 | | | |
| 13 | **90** | | | 13 | | | | |
| 14 | **85** | | | 14 | 14 | | | |
| 15 | **75** | 15 | | 15 | 15 | | | |
| 16 | **60** | 16 | | 16 | 16 | | | |
| 17 | **45** | 17A-B | | 17 | 17 | | | |
| 18 | **35** | 18 | | 18 | | | | |
| 19 | **25** | 19 | | 19 | 19 | | | |
| 20 | **25** | | | | | | | |
| 21 | **15** | 21 | | 21 | | | | |
| 22 | **5** | 22 | | 22A-B | 22 | | | |
| 23 | **5** | | | | | | | |
| 24 | **5** | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT-**306**
## BEACH Shallow Data Sheet (2/2)

Station # 2
Cast # 6
Operator(s): KKB, RT, ES, CF

Date: 10/12/2018 (HST)
Time: _____ (HST)

| Rosette Position | Desired Depth | Nutrient | Refrig. Si | LLN | LLP | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **$O_2$ min** | | | | | | | |
| 3 | **Sal min** | | | | | | | |
| 4 | **200** | 4 | 4 | | | | | |
| 5 | **175** | 5 | | 5 | 5 | | | |
| 6 | **165** | | | 6 | | | | |
| 7 | **150** | 7 | | 7A-B | 7 | | | |
| 8 | **130** | | | 8 | | | | |
| 9 | **125** | 9A-B | | 9 | 9 | | | |
| 10 | **115** | | | 10 | 10 | | | |
| 11 | **110** | | | 11 | | | | |
| 12 | **100** | 12 | | 12A-B | 12 | | | |
| 13 | **90** | | | 13 | | | | |
| 14 | **85** | | | 14 | 14 | | | |
| 15 | **75** | 15 | | 15 | 15 | | | |
| 16 | **60** | 16 | | 16 | 16 | | | |
| 17 | **45** | 17A-B | | 17 | 17 | | | |
| 18 | **35** | 18 | | 18 | | | | |
| 19 | **25** | 19 | | 19 | 19 | | | |
| 20 | **25** | | | | | | | |
| 21 | **15** | 21 | | 21 | | | | |
| 22 | **5** | 22 | | 22A-B | 22 | | | |
| 23 | **5** | | | | | | | |
| 24 | **5** | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT-**306**
## PUR Data Sheet

Station # 2 Date: 10/12/2018 (HST)
Cast # 7 Time: 23:58 (HST)
Operator(s): KKB, ES, RT, CF

| Rosette Position | Desired Depth | Carboy # | Total Volume | PUR | SF-S | DNA | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **775** | 5 | 10 | 2 | | | | |
| 3 | **250** | | | | | | | |
| 4 | **175** | 1 | 10 | 4 | | | | |
| 5 | **175** | | | | | X | | |
| 6 | **150** | 2 | 10 | 6 | | | | |
| 7 | **150** | | | | | X | | |
| 8 | **125** | 7,8 | 4,4 | 8A-B | | | | |
| 9 | **125** | | | | | X | | |
| 10 | **100** | 9 | 4 | 10 | | | | |
| 11 | **100** | | | | | X | | |
| 12 | **75** | 10 | 4 | 12 | | | | |
| 13 | **45** | 11,12 | 4,4 | 13A-B | | | | |
| 14 | **25** | 3 | 10 | 14 | | | | |
| 15 | **25** | | | | 15A,B | | | |
| 16 | **5** | 4 | 10 | 16 | | | | |
| 17 | **5** | | | | 17A,B | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes: filter from carboy #7 torn, filter from carboy #11 very torn**

# Hawaii Ocean Time-series
## HOT-**306**
## PUR Data Sheet

Station # 2
Cast # 7
Operator(s): KKB, ES, RT, CF

Date: 10/12/2018 (HST)
Time: 2358 (HST)

| Rosette Position | Desired Depth | Carboy # | Total Volume | PUR | SF-S | DNA | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **775** | 5 | 10 | 2 | | | | |
| 3 | **250** | | | | | | | |
| 4 | **175** | 1 | 10 | 4 | | | | |
| 5 | **175** | | | | | X | | |
| 6 | **150** | 2 | 10 | 6 | | | | |
| 7 | **150** | | | | | X | | |
| 8 | **125** | 7,8 | 4,4 | 8A-B | | | | |
| 9 | **125** | | | | | X | | |
| 10 | **100** | 9 | 4 | 10 | | | | |
| 11 | **100** | | | | | X | | |
| 12 | **75** | 10 | 4 | 12 | | | | |
| 13 | **45** | 11,12 | 4,4 | 13A-B | | | | |
| 14 | **25** | 3 | 10 | 14 | | | | |
| 15 | **25** | | | | 15A,B | | | |
| 16 | **5** | 4 | 10 | 16 | | | | |
| 17 | **5** | | | | 17A,B | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:** Filter from Carboy 11 ripped
Filter from Carboy 7 torn

# Hawaii Ocean Time-series

## HOT- **306**

## Gas Array Experiment Data Sheet

| | | | |
|---|---|---|---|
| Station # | 2 | Date: | 10/13/2018 (HST) |
| Cast # | 8 | Time: | 0206 (HST) |
| Operator(s): | KKB, RT, ES, CF | | |

| Rosette Position | Desired Depth | 15N2 | SF-S | Salts | | | |
|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | X | | | |
| 2 | **Sal min** | | | X | | | |
| 3 | **125** | X | | | | | |
| 4 | **125** | X | | | | | |
| 5 | **125** | X | | | | | |
| 6 | **100** | X | | | | | |
| 7 | **100** | X | | | | | |
| 8 | **100** | X | | | | | |
| 9 | **75** | X | | | | | |
| 10 | **75** | X | | | | | |
| 11 | **75** | X | | | | | |
| 12 | **45** | X | | | | | |
| 13 | **45** | X | | | | | |
| 14 | **45** | X | | | | | |
| 15 | **25** | X | | | | | |
| 16 | **25** | X | | | | | |
| 17 | **25** | X | | | | | |
| 18 | **25** | | 18A,B | | | | |
| 19 | **5** | X | | | | | |
| 20 | **5** | X | | | | | |
| 21 | **5** | X | | | | | |
| 22 | **5** | | 22 A,B | X | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
# *HOT-306*

## Gas Array Experiment Data Sheet

Station # 2
Cast # 8
Operator(s): KKB, RT, ES, CF

Date: 10/13/2018 (HST)
Time: 0206 (HST)

| Rosette Position | Desired Depth | 15N2 | SF-S | Salts | | | |
|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | X | | | |
| 2 | **Sal min** | | | X | | | |
| 3 | **125** | X | | | | | |
| 4 | **125** | X | | | | | |
| 5 | **125** | X | | | | | |
| 6 | **100** | X | | | | | |
| 7 | **100** | X | | | | | |
| 8 | **100** | X | | | | | |
| 9 | **75** | X | | | | | |
| 10 | **75** | X | | | | | |
| 11 | **75** | X | | | | | |
| 12 | **45** | X | | | | | |
| 13 | **45** | X | | | | | |
| 14 | **45** | X | | | | | |
| 15 | **25** | X | | | | | |
| 16 | **25** | X | | | | | |
| 17 | **25** | X | | | | | |
| 18 | **25** | | 18A,B | | | | |
| 19 | **5** | X | | | | | |
| 20 | **5** | X | | | | | |
| 21 | **5** | X | | | | | |
| 22 | **5** | | 22 A,B | X | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT- **306**
## OPEN Data Sheet

Station # 2 Date: 10/13/2018 (HST)
Cast # 9 Time: 0545 (HST)
Operator(s): DS,TC,EG

| Rosette Position | Desired Depth | DNA | SFS | MC | Salts | O2 SF-S | Temp. | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | | X | | | |
| 2 | **Sal min** | | | | X | | | |
| 3 | **275** | X | | | | | | |
| 4 | **250** | X | | | | | | |
| 5 | **225** | X | | | | | | |
| 6 | **200** | X | | | | | | |
| 7 | **175** | | | X | | | | |
| 8 | **150** | | | X | | | | |
| 9 | **125** | | | X | | | | |
| 10 | **100** | | | X | | | | |
| 11 | **75** | | | X | | | | |
| 12 | **45** | | | X | | | | |
| 13 | **25** | | | X | | | | |
| 14 | **25** | | 14AB | | | | | |
| 15 | **15** | | | | | | | |
| 16 | **5** | | 16AB | | X | | | |
| 17 | **5** | | | X | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes: Forgot to sample O2, moved to S2C11**

# Hawaii Ocean Time-series
## HOT- **306**
## OPEN Data Sheet

Station # 2
Cast # 9
Operator(s): DS,TC,EG

Date: 10/13/2018 (HST)
Time: (HST)

| Rosette Position | Desired Depth | DNA | SFS | MC | Salts | O2 SF-S | Temp. | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | | X | | | |
| 2 | **Sal min** | | | | X | | | |
| 3 | **275** | X | | | | | | |
| 4 | **250** | X | | | | | | |
| 5 | **225** | X | | | | | | |
| 6 | **200** | X | | | | | | |
| 7 | **175** | | | X | | | | |
| 8 | **150** | | | X | | | | |
| 9 | **125** | | | X | | | | |
| 10 | **100** | | | X | | | | |
| 11 | **75** | | | X | | | | |
| 12 | **45** | | | X | | | | |
| 13 | **25** | | | X | | | | |
| 14 | **25** | | 14AB | | | | | |
| 15 | **15** | | | | | 127,128,129 | | |
| 16 | **5** | | 16AB | | X | | | |
| 17 | **5** | | | X | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:** FORGOT TO TAKE O2

# Hawaii Ocean Time-series

## HOT- **306**

## Particulate Silica Data Sheet

| | | | | | |
|---|---|---|---|---|---|
| Station # | 2 | | Date: | 10/13/18 | (HST) |
| Cast # | 10 | | Time: | 0800 | (HST) |
| Operator(s): | DS,EG,MB,TC | Pre-screen mesh size: | | none | |
| Blank # | **B1, B2, B3** | | | | |

| Rosette Position | Desired Depth | Carboy # | Total Volume | Sample # | SF-S | Salts | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | X | | |
| 2 | **Sal min** | | | | | X | | |
| 3 | **175** | 7 | 4 | 3 | | | | |
| 4 | **150** | 8 | 4 | 4 | | | | |
| 5 | **125** | 9,10 | 4,4 | 5A-B | | | | |
| 6 | **100** | 11 | 4 | 6 | | | | |
| 7 | **75** | 12 | 4 | 7 | | | | |
| 8 | **45** | 13 | 4 | 8 | | | | |
| 9 | **25** | 14,15 | 4,4 | 9A-B | | | | |
| 10 | **25** | | | | 10AB | | | |
| 11 | **5** | | | | 11AB | | | |
| 12 | **5** | 16 | 4 | 12 | | X | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT- **306**
## OPEN Data Sheet

Station # 2 Date: 10/13/18 (HST)
Cast # 11 Time: 1100 (HST)
Operator(s): DS,EG

| Rosette Position | Desired Depth | Salts | SF-S Gas | SFS O2 | Temp. | | |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | X | | | | | |
| 2 | **Sal Min** | X | | | | | |
| 3 | **25** | | 3AB | | | | |
| 4 | **15** | | | 127,128,129 | 26.4 | | |
| 5 | **5** | X | 4AB | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT- **306**
## OPEN Data Sheet

Station # 2
Cast # 11
Operator(s):

Date: 10/13/18 (HST)
Time: 1100 (HST)

| Rosette Position | Desired Depth | Salts | SF-S Gas | SFS O2 | Temp. | | |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | X | | | | | |
| 2 | **Sal Min** | X | | | | | |
| 3 | **25** | | 3AB | | | | |
| 4 | **15** | | | 127,128,129 | 26.4 | | |
| 5 | **5** | X | 4AB | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series

## HOT- **306**

## ATP Data Sheet

Station # 2 Date: 10/13/18 (HST)

Cast # 12 Time: 1400 (HST)

Operator(s): KKB,CF,RT,ES Pre-screen mesh size: 202um

Blank #'s 28, 29, 30

| Rosette Position | Desired Depth | ATP Tube #'s | Volume Filtered | Carboy # | SF-S | DNA | ML |
|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | | | | |
| 2 | **770** | | | | | X | |
| 3 | **500** | | | | | X | |
| 4 | **Sal min** | | | | | | |
| 5 | **400** | | | | | X | |
| 6 | **350** | 1 – 3 | 3x2 | 1 | | | |
| 7 | **300** | | | | | X | |
| 8 | **250** | 4 – 6 | 3x2 | 2 | | | |
| 9 | **150** | 7 – 9 | 3x1 | 7 | | | |
| 10 | **125** | 10 – 12 | 3x1 | 8 | | | |
| 11 | **100** | 13 – 15 | 3x1 | 9 | | | |
| 12 | **75** | 16 – 18 | 3x1 | 10 | | | |
| 13 | **45** | 19 – 21 | 3x1 | 11 | | | |
| 14 | **25** | 22 – 24 | 3x1 | 12 | | | |
| 15 | **25** | | | | 16A,B | | |
| 16 | **5** | 25 - 27 | 3x1 | 13 | | | |
| 17 | **5** | | | | 18AB | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT- **306**
## ATP Data Sheet

Station # 2
Cast # 12
Operator(s): KKB,CF,RT,ES
Blank #'s 28, 29, 30

Date: 10/13/18 (HST)
Time: 1400 (HST)
Pre-screen mesh size: 202um

| Rosette Position | Desired Depth | ATP Tube #'s | Volume Filtered | Carboy # | SF-S | DNA | ML |
|---|---|---|---|---|---|---|---|
| 1 | **1020** | | | | | | |
| 2 | **770** | | | | | X | |
| 3 | **500** | | | | | X | |
| 4 | **Sal min** | | | | | | |
| 5 | **400** | | | | | X | |
| 6 | **350** | 1 – 3 | 3x2 | 1 | | | |
| 7 | **300** | | | | | X | |
| 8 | **250** | 4 – 6 | 3x2 | 2 | | | |
| 9 | **150** | 7 – 9 | 3x1 | 7 | | | |
| 10 | **125** | 10 – 12 | 3x1 | 8 | | | |
| 11 | **100** | 13 – 15 | 3x1 | 9 | | | |
| 12 | **75** | 16 – 18 | 3x1 | 10 | | | |
| 13 | **45** | 19 – 21 | 3x1 | 11 | | | |
| 14 | **25** | 22 – 24 | 3x1 | 12 | | | |
| 15 | **25** | | | | 16A,B | | |
| 16 | **5** | 25 - 27 | 3x1 | 13 | | | |
| 17 | **5** | | | | 18AB | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes:** original & final

# Hawaii Ocean Time-series
## HOT-**306**
## OPEN CAST Data Sheet

Station # 2 Date: 10/13/2018 (HST)
Cast # 13 Time: 17:59 (HST)
Operator(s): KKB, ES, RT, CF

| Rosette Position | Desired Depth | SW | SF-S | O2 SF-S | Temp | | SALTS |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | 1 | | | | | X |
| 2 | **800** | 2 | | | | | |
| 3 | **600** | 3 | | | | | |
| 4 | **Sal Min** | | | | | | X |
| 5 | **400** | 5 | | | | | |
| 6 | **300** | 6 | | | | | |
| 7 | **250** | 7 | | | | | |
| 8 | **175** | 8 | | | | | |
| 9 | **150** | 9 | | | | | |
| 10 | **125** | 10 | | | | | |
| 11 | **100** | 11 | | | | | |
| 12 | **75** | 12 | | | | | X |
| 13 | **45** | 13 | | | | | |
| 14 | **25** | 14 A, B | | | | | |
| 15 | **25** | | 15A,B | | | | |
| 16 | **15** | | | 130,131,132 | 26.5 | | |
| 17 | **5** | 17 A,B | 17A,B | | | | |
| 18 | **5** | | | | | | X |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

**Notes: SF-S 15 A-B, 17 A,B used Sam Wilson's rubber stopper. Ran out..**

# Hawaii Ocean Time-series
## HOT-**306**
## OPEN CAST Data Sheet

Station # 2
Cast # 13
Operator(s): KKB, ES, RT, CF

Date: 10/13/2018 (HST)
Time: 17:59 (HST)

| Rosette Position | Desired Depth | SW | SF-S | O2 SF-S | Temp | | SALTS |
|---|---|---|---|---|---|---|---|
| 1 | **1000** | 1 | | | | | X |
| 2 | **800** | 2 | | | | | |
| 3 | **600** | 3 | | | | | |
| 4 | **Sal Min** | | | | | | X |
| 5 | **400** | 5 | | | | | |
| 6 | **300** | 6 | | | | | |
| 7 | **250** | 7 | | | | | |
| 8 | **175** | 8 | | | | | |
| 9 | **150** | 9 | | | | | |
| 10 | **125** | 10 | | | | | |
| 11 | **100** | 11 | | | | | |
| 12 | **75** | 12 | | | | | X |
| 13 | **45** | 13 | | | | | |
| 14 | **25** | 14 A, B | | | | | |
| 15 | **25** | | 15A,B | | | | |
| 16 | **15** | | | 130,131,132 | 26.5 | | |
| 17 | **5** | 17 A,B | 17A,B | | | | |
| 18 | **5** | | | | | | X |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

SF-S 15A-B, 17A-B — used Sam W.'s rubber stoppers, ran out of SF-S ones

**Notes:**

# Hawaii Ocean Time-series
## HOT-**306**
## HPLC & Chl *a*. Bottle Data Sheet

Station # 2 Date: 10/13/2018 (HST)
Cast # 14 Time: 20:02 (HST)
Operator(s): KKB, RT, ES, CF

| Rosette Position | Desired Depth | Carboy # | Total Volume | HPLC | Chl *a*. | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **Sal min** | | | | | | | |
| 3 | **175** | 1 | 10 | 3 | 3 | | | |
| 4 | **175** | | | | | | | |
| 5 | **150** | 2 | 10 | 5 | 5 | | | |
| 6 | **150** | | | | | | | |
| 7 | **135** | 7 | 4 | 7 | 7A-B | | | |
| 8 | **125** | 8,9 | 4,4 | 8A-B | 8 | | | |
| 9 | **125** | | | | | | | |
| 10 | **115** | 10 | 4 | 10 | 10 | | | |
| 11 | **100** | 11 | 4 | 11 | 11 | | | |
| 12 | **100** | | | | | | | |
| 13 | **85** | 12 | 4 | 13 | 13 | | | |
| 14 | **75** | 13 | 4 | 14 | 14 | | | |
| 15 | **60** | 14 | 4 | 15 | 15A-B | | | |
| 16 | **45** | 15,16 | 4,4 | 16A-B | 16 | | | |
| 17 | **25** | 3 | 10 | 17 | 17 | | | |
| 18 | **5** | 4 | 10 | 18 | 18 | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes: Carboy #11 filter ripped. Lost some volume in carboy #9 ~ 100 mL. Carboy #4 -300 mL of volume filtered.**

# Hawaii Ocean Time-series
## HOT-**306**
## HPLC & Chl *a*. Bottle Data Sheet

Station # 2
Cast # 14
Operator(s): KKB, RT, ES, CF

Date: 10/13/2018 (HST)
Time: 20:02 (HST)

| Rosette Position | Desired Depth | Carboy # | Total Volume | HPLC | Chl *a*. | DNA | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **1000** | | | | | | | |
| 2 | **Sal min** | | | | | | | |
| 3 | **175** | 1 | 10 | 3 | 3 | | | |
| 4 | **175** | | | | | X | | |
| 5 | **150** | 2 | 10 | 5 | 5 | | | |
| 6 | **150** | | | | | X | | |
| 7 | **135** | 7 | 4 | 7 | 7A-B | | | |
| 8 | **125** | 8,9 | 4,4 | 8A-B | 8 | | | |
| 9 | **125** | | | | | X | | |
| 10 | **115** | 10 | 4 | 10 | 10 | | | |
| 11 | **100** | 11 | 4 | 11 | 11 | | | |
| 12 | **100** | | | | | X | | |
| 13 | **85** | 12 | 4 | 13 | 13 | | | |
| 14 | **75** | 13 | 4 | 14 | 14 | | | |
| 15 | **60** | 14 | 4 | 15 | 15A-B | | | |
| 16 | **45** | 15,16 | 4,4 | 16A-B | 16 | | | |
| 17 | **25** | 3 | 10 | 17 | 17 | | | |
| 18 | **5** | 4 | 10 | 18 | 18 | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes** Carboy #11 Filter ripped
Lost some volume in Carboy #9 ~ 100mL
Carboy #9 & 4 - 300mL of volume filtered.

# Hawaii Ocean Time-series

## HOT-**306** WOCE Deep 2 Data Sheet

Station # 2 Date: 10/13/2018 (HST)

Cast # 15 Time: 23:00 (HST)

Operator(s): KKB, ES, RT, CF

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DNA | Dan TA Carboy | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **4800** | 96 | 3.2 | | | | | |
| 2 | **4000** | 97 | 3.4 | | | | | |
| 3 | **4000** | | | X | | | | |
| 4 | **3000** | 98 | 3.6 | | | | | |
| 5 | **3000** | | | X | | | | |
| 6 | **3000** | | | | X | | | |
| 7 | **3000** | | | | X | | | |
| 8 | **3000** | | | | X | | | |
| 9 | **2000** | 99 | 4.0 | | | | | |
| 10 | **2000** | | | X | | | | |
| 11 | **1000** | | | X | | | | |
| 12 | **O2 min** | 100 | 6.1 | | | | | |
| 13 | **Sal min** | 91 | 9.1 | | | | | |
| 14 | **Sal min** | | | | X | | | |
| 15 | **Sal min** | | | | X | | | |
| 16 | **Sal min** | | | | X | | | |
| 17 | **O2 max** | 92 | 21.8 | | | | | |
| 18 | **5** | 93 | 26.2 | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT-**306** WOCE Deep 2 Data Sheet

Station # 2
Cast # 15
Operator(s): KKB, ES, RT, CF

Date: 10/13/2018 (HST)
Time: 23:00 (HST)

| Rosette Position | Desired Depth | Oxygen | Sample Temp. | DNA | Dan TA Carboy | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **4800** | 96 | 3.2 | | | | | |
| 2 | **4000** | 97 | 3.4 | | | | | |
| 3 | **4000** | | | X | | | | |
| 4 | **3000** | 98 | 3.6 | | | | | |
| 5 | **3000** | | | X | | | | |
| 6 | **3000** | | | | X | | | |
| 7 | **3000** | | | | X | | | |
| 8 | **3000** | | | | X | | | |
| 9 | **2000** | 99 | 4.0 | | | | | |
| 10 | **2000** | | | X | | | | |
| 11 | **1000** | | | X | | | | |
| 12 | **O2 min** | 100 | 6.1 | | | | | |
| 13 | **Sal min** | 91 | 9.1 | | | | | |
| 14 | **Sal min** | | | | X | | | |
| 15 | **Sal min** | | | | X | | | |
| 16 | **Sal min** | | | | X | | | |
| 17 | **O2 max** | 92 | 21.8 | | | | | |
| 18 | **5** | 93 | 26.2 | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |

**Notes:**

# Hawaii Ocean Time-series
## HOT- **306**
## STATION 50 Data Sheet

Station # 50
Cast # 1
Operator(s): Ds,tc,eg

Date: 10/14/18 (HST)
Time: 1350 (HST)

| Rosette Position | Desired Depth | DIC/TA | pH | | EM | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | **15** | | | | X | | | |
| 2 | **15** | | | | X | | | |
| 3 | **5** | 1A,B | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Notes:** No pHs taken

# Hawaii Ocean Time-series
## HOT-306 Sediment Trap Data Sheet

| | | | |
|---|---|---|---|
| Type of traps: | PIT for HOT | Date: | 10/12/2018 |
| Operator(s): | ES, BW, RT KKB, CF | Wind: | |
| Position in: | 22°44.935 N, 158°01.013W | Sea State: | |

| | | |
|---|---|---|
| Time in: | 150 m | 01:56 |
| (HST) | 150m McCarthy | 01:55 |
| | 175 m | 01:45 |

Time released: 02:08
Time started: 01:23

| | | | |
|---|---|---|---|
| Operator(s): | DS, TC, EG, BW | Date: | 10/14/2018 |
| Position out: | 22°35.972 N, 158°02.383W | Wind: | |
| Overall sea state: | | Sea state: | |

| | | |
|---|---|---|
| Time Out: | 150 m | 07:45 |
| (HST) | 150 m McCarthy | 07:48 |
| | 175 m | 07:50 |

Notes: Start recovery: 07:26
Traps Out: 07:45
Weight on board: 07:58

# Hawaii Ocean Time-series
## HOT-306 Sediment Trap Data Sheet

| | | | |
|---|---|---|---|
| Type of traps: | PIT for HOT | Date: | Oct 12, 2018 |
| Operator(s): | ES, BW, RT, KKB, CF | Wind: | 10 knots |
| Position in: | 22°44.935'N 158°01.0131'W | Sea State: | |

Time released: 2:08
Time started: 1:23

| | | |
|---|---|---|
| Time in: | 150 m | |
| (HST) | 150m | 1:56 |
| | 150m | 1:55 |
| | 175m | 1:45 |

| | | | |
|---|---|---|---|
| Operator(s): | DS, TC, | Date: | |
| Position out: | 22° ' 158° | Wind: | |
| Overall sea state: | | Sea state: | |

Time Out:

Notes:

| | | |
|---|---|---|
| (HST) | 150m | |
| | 150m | |
| | 175m | |

Data Sheet for Sediment Trap Volumes - Grabowski

Cruise #: 306
Analyst: TC,DS

Directions: 1) Mark the traps with 2 lines
a) Line #1 is at the interface

| Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) |
|---|---|---|
| | | |
| 300M A-L | 150 | 36.0 |
| 300M B-L | 150 | 37.3 |
| 300M C-L | 150 | 35.8 |
| 300M D-L | 150 | 37.0 |
| 300M E-L | 150 | 36.6 |
| 300M F-L | 150 | 37.6 |
| 200M G-L | 150 | 37.5 |
| 300M H-L | 150 | 38.0 |
| 500M I-L | 150 | 39.3 |
| 200M H-L | 150 | 35.6 |
| 300M G-L | 150 | 35.6 |
| 500M L | 150 | 37.5 |
| | | |

Data Sheet for Sediment Trap Volumes Grabowski

Cruise #: 306
Analyst: TC,DS

Directions: 1) Mark the traps with 2 lines
a) Line #1 is at the interface

| | Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) |
|---|---|---|---|
| | | | |
| 300M | A-L | 150 | 36.0 |
| 300M | B-L | 150 | 37.3 |
| 300M | C-L | 150 | 35.8 |
| 300M | D-L | 150 | 37.0 |
| 300M | E-L | 150 | 36.6 |
| 300M | F-L | 150 | 37.6 |
| 200M | G-L | 150 | 37.5 |
| 300M | H-L | 150 | 38.0 |
| 500M | I | 150 | 39.3 |
| | J | 150 | |
| | K | 150 | |
| 500M | L | 150 | 37.5 |
| 200M | H-L | | 35.6 |
| 300M | G-L | | 35.6 |

Data Sheet for Sediment Trap Volumes

Cruise #: 306
Analyst: TC,DS

Directions: 1) Mark the traps with 2 lines
a) Line #1 is at the interface

| Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) |
|---|---|---|
| | | |
| A | 150 | 39.0 |
| B | 150 | 39.0 |
| C | 150 | 38.2 |
| D | 150 | 37.5 |
| E | 150 | 38.3 |
| F | 150 | 38.2 |
| G | 150 | 37.0 |
| H | 150 | 39.2 |
| I | 150 | 37.5 |
| J | 150 | 34.0 |
| K | 150 | 38.1 |
| L | 150 | 36.5 |
| | | |

Data Sheet for Sediment Trap Volumes

Cruise #: 305
Analyst: TC,DS

Directions: 1) Mark the traps with 2 lines
a) Line #1 is at the interface

| Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) |
|---|---|---|
| | | |
| A | 150 | 39 0 |
| B | 150 | 39 0 |
| C | 150 | 38 2 |
| D | 150 | 37 5 |
| E | 150 | 38 3 |
| F | 150 | 38 2 |
| G | 150 | 37 0 |
| H | 150 | 39 2 |
| I | 150 | 37 5 |
| J | 150 | 34 0 |
| K | 150 | 38 1 |
| L | 150 | 36 5 |
| | | |

Data Sheet for Sediment Trap Volumes

Cruise #: 306 - McCarthy

Analyst: _____

Directions: 1) Mark the traps with 2 lines
   a) Line #1 is at the interface
   b) Line #2 is 2" (5 cm) above the interface
2) Siphon off the top of the trap to Line #2 - 2" above the interface
3) Measure the distance from the bottom of the trap to Line #2 2" above the interface and record the result in this table.

| Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) | |
|---|---|---|---|
| | | | |
| A | 150 | 39.3 | |
| B | 150 | 39.0 | |
| C | 150 | 36.8 | |
| D | 150 | 36.5 | |
| E | 150 | 36.7 | |
| F | 150 | 39.4 | |
| G | 150 | 40.4 | |
| H | 150 | 40.7 | |
| I | 150 | 39.6 | |
| J | 150 | 36.0 | |
| K | 150 | 38.0 | |
| L | 150 | 39.5 | |
| | | | |

Data Sheet for Sediment Trap Volumes

Cruise #: 306 - McCarthy
Analyst: _____

Directions: 1) Mark the traps with 2 lines
a) Line #1 is at the interface
b) Line #2 is 2" (5 cm) above the interface
2) Siphon off the top of the trap to Line #2 - 2" above the interface
3) Measure the distance from the bottom of the trap to Line #2 2" above the interface and record the result in this table.

| Trap Name | Depth (m) | Height (cm) at Line #2 (Top Line) | |
|---|---|---|---|
| | | | |
| A | 150 | 391 | |
| B | 150 | 390 | |
| C | 150 | 368 | |
| D | 150 | 365 | |
| E | 150 | 367 | |
| F | 150 | 374 | |
| G | 150 | 404 | |
| H | 150 | 407 | |
| I | 150 | 396 | |
| J | 150 | 360 | |
| K | 150 | 380 | |
| L | 150 | 395 | |
| | | | |

# Hawaii Ocean Time-series
## HOT-306
## In Situ Primary Production Data Sheet

Operators in: BW, EG, DS, TC Out: KKB, CF
Date in: 10/12/2018 Time in: Start 05:11 (HST)
Release 05:27

Date out: 10/12/2018 Time out: 16:52 (HST)

| Incubation Depth | ✓ | Insertion Depth | Owner |
|---|---|---|---|
| *175* | ✓ | | |
| *150* | ✓ | | |
| *125* | ✓ | X | |
| *100* | ✓ | X | |
| *75* | ✓ | X | |
| *45* | ✓ | X | |
| *25* | ✓ | X | |
| *5* | ✓ | X | |

Position in: 22° 46.0486 ' N 158° 01.4886'W
Position out: 22° 44.6011 ' N 158° 01.4557'W

Average weather condition during incubation: flat
Average sea state during incubation: 10-6 knots

Notes: The B-phenylethylamine in the scintillation vials, all except 3-1 and 3-2 were white and crystallized. Kendra and Carolina remade new scinitillatin vials with 0.5 mL of B-phenylethylamine to replace the bad vials (all except 3-1 and 3-2).

Begin Inoculation 4:00 End Inoculation 4:10
Filtration time 19:06 →19:23

# Hawaii Ocean Time-series
## HOT-306
## In Situ Primary Production Data Sheet

Operators: BW, EG, DS, TC
Date in: 10/12/2018 Time in: Start 05:11 (HST)
Release 05:27

Date out: 10/12/2018 Time out: 16:52 (HST)

| Incubation Depth | ✓ | Insertion Depth | Owner |
|---|---|---|---|
| *175* | ✓ | | |
| *150* | ✓ | | |
| *125* | ✓ | X | |
| *100* | ✓ | X | |
| *75* | ✓ | X | |
| *45* | ✓ | X | |
| *25* | ✓ | X | |
| *5* | ✓ | X | |

Position in: 22° 46.0486 ' N 158° 01.4886'W
Position out: 22° 44.6011'N 158° 01.4557'W

Average weather condition during incubation: flat
Average sea state during incubation: 10-6 knots

Notes: The B-phenylethylamine in the scintillation vials all except for (3-1 & 3-2) were white & crystalized. Kendra & Carolina remade/relabeled new scintillation w/ 0.5mL of [illegible] in each of the bad vials

Begin Inoculation 04:00 End Inoculation ~~03~~ 4:10
Filtration time 19:06 → 19:23

B-phenylethylamine

# Hawaii Ocean Time-series
## HOT-305
## In Situ Gas Array Data Sheet

| | |
|---|---|
| **Operators: ds,tc,eg** | **Operators: eg,tc,mb,** |
| **Date Deployed : 10/13/18** | **Date Recovered: 10/14/18** |
| **Time (HST): 0451** | **Time (HST): 0600** |
| **Position: 22° 43.748 158° 02.705** | **Position: 22 37.318 158 02.733** |

## Nitrogen Fixation Sample Processing Sheet

| | Sample ID | Date Spiked | Time Spiked | Date filtered | Time Filtered | 15N Batch | Comments |
|---|---|---|---|---|---|---|---|
| 1 | 3-1 | 10/13/18 | Start 0345 | 10/14/18 | 6:23 | | START |
| 2 | 3-2 | | | | ↓ | | |
| 3 | 3-3 | | | | | | |
| 4 | 4-1 | | | | | | |
| 5 | 4-2 | | | | | | |
| 6 | 4-3 | | | | | | |
| 7 | 5-1 | | | | ↓ | | END |
| 8 | 5-2 | | | | 7:01 | | |
| 1 | 5-3 | | | | 7:06 | | START |
| 2 | 6-1 | | | | ↓ | | |
| 3 | 6-2 | | | | | | |
| 4 | 6-3 | | | | | | |
| 5 | 7-1 | | | | | | |
| 6 | 7-2 | | | | | | |
| 7 | 7-3 | | | | ↓ | | |
| 8 | 8-1 | | | | 7:39 | | END |
| 1 | 8-2 | | | | 7:34 (start) | 8:30 (END) | |
| 2 | 8-3 | 10/13/18 | Finish 0357 | | [illegible] | | |

# Hawaii Ocean Time-series
## HOT 306
## Chlorophyll Grab Sample Sheet

| Date | Time (HST) | Location | GS # |
|---|---|---|---|
| 10/11/2018 | 15:33 | Kahae | 1 |
| | 20:27 | Transit to Stn Aloha | 2 |
| 10/12/2018 | 2:29 | Stn Aloha | 3 |
| | 8:45 | Stn Aloha | 4 |
| | 15:13 | Stn Aloha | 5 |
| 10/13/2018 | 2:06 | Stn Aloha | 6 |
| | 8:47 | Stn Aloha | 7 |
| | 18:41 | Stn Aloha | 8 |
| 10/14/2018 | 2:25 | Stn Aloha | 9 |
| | 15:23 | Stn Aloha | 10 |
| | 21:37 | Stn Aloha→Home | 11 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Hawaii Ocean Time-series
## HOT 306
## Chlorophyll Grab Sample Sheet

| Date | Time (HST) | Location | GS # |
|---|---|---|---|
| 10/11/2018 | 15:33 | Kahe | 1 |
| | 20:27 | Transit to Aloha | 2 |
| 10/12/2018 | 2:29 | Aloha | 3 |
| " | 8:45 | " | 4 |
| " | 15:13 | Aloha | 5 |
| 10/13/2018 | 2:06 | " | 6 |
| " | 8:47 | " | 7 |
| | 18:41 | " | 8 |
| 10/14/2018 | 2:25 | " | 9 |
| | 15:23 | " | 10 |
| | 21:37 | Aloha → home | 11 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Oct 12
@ 21:00 : 78 Xeos still firing, ready for Gas Array Deploy.
@ 00:00

# Hawaii Ocean Time-series
# HOT 306
# Argos Fix Log Sheet

22° 43.0687' N
158° 01.9723' W

| Array | Platform # | Platform # |
|---|---|---|
| Sediment Trap | 84857 | IR 100 |
| PP/Gas Array | 60484 | IR 200 |
| WW | | |
| SHIP | | |

XEOS
—
78–
77
79

HST

| | Date | Time | Platform | Position | Initials | Array Name | XEOS |
|---|---|---|---|---|---|---|---|
| | 10/12/18 | 1030 | XEOS 77 | 22°44.224 158°2.436W | TC | WW | 77 |
| | 10/12/18 | 1000 | XEOS 78 | 22°46.527 158°1.330W | TC | PP | 78 |
| | 10/12/18 | 1000 | XEOS 79 | 22°44.994 158°0.034W | TC | SHIP | 79 |
| | 10/12/18 | 1050 | IR100 | 22°44.764 158 1.015 | TC | ST | |
| WW2 | 10/12/18 | 1300 | 77 | 22°43.829N 158 2.303W | TC | WW | 77 |
| PP2 | 10/12/18 | 1300 | 78 | 22°46.117N 158 1.172W | TC | PP | 78 |
| ST2 | 10/12/18 | 1254 | IR100 | 22°44.332N 158 0.875W | TC | ST | |
| WW3 | 10/12/18 | 15:30 | 77 | 22° 22 43.160'N 158° 2.563'W | EMS | WW | 77 |
| PP3 | 10/12/18 | 15:00 | 78 | 22° 22 45.464'N 158° 1.389'W | EMS | PP | 78 |
| ST3 | 10/12/18 | 15:34 | IR100 | 22°43.474'N 158° 1.262'W | EMS | ST | |
| WW4 | 10/12/18 | 18:00 | X77 | 22° 42.702'N 158° 02.786'W | EMS | WW | |
| PP4 | 10/12/18 | 18:40 | X78 | 22° 44.6580'N 158° 01.6351'W | EMS | PP | Recovery |
| ST4 | 10/12/18 | 18:28 | IR100 | 22° 43.066'N 158° 01.455'W | EMS | ST | |
| WW5 | 10/12/18 | 21:00 | X77 | 22° 42.229'N 158° 02.697'W | EMS | WW | |
| ST5 | 10/12/18 | 21:18 | IR100 | 22° 42.721'N 158° 01.337'W | EMS | ST | |
| WW6 | 10/13/18 | 00:00 | X77 | 22° 41.776'N 158° 02.710'W | EMS | WW | |
| ST6 | 10/13/18 | 00:36 | IR100 | 22° 42.331'N 158° 01.395'W | EMS | ST | |
| WW7 | 10/13/18 | 02:30 | X77 | 22° 41.362'N 158° 02.850'W | EMS | WW | |
| ST7 | 10/13/18 | 02:34 | IR100 | 22° 41.876'N 158° 01.561'W | EMS | ST | |

XEOS PAGE Direct: hahana.soest.hawaii.edu/nowcast/xeostable.html?tabNum=1 (Xeos 77 = WW)
=2 (Xeos 78 = PP/Gas Array)

IR Page Direct: hahana-soest.hawaii.edu/nowcast/beacontable.html?tabNum=1

# Hawaii Ocean Time-series
# HOT 306
# Argos Fix Log Sheet

ZZ 38.3543
158 05.6823

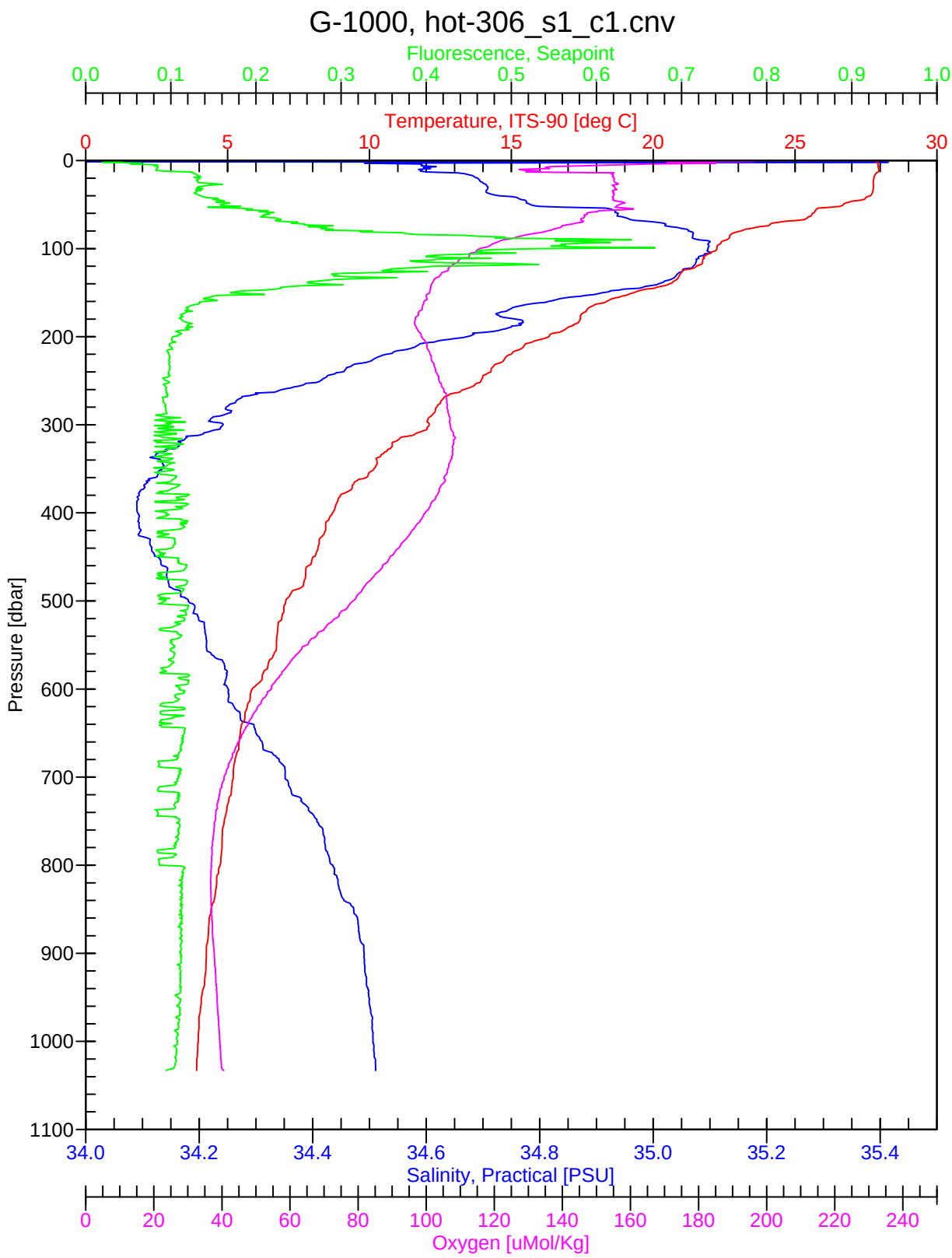
DEPLOY GAS @ 0451
22° 43.748N
158° 2.705W

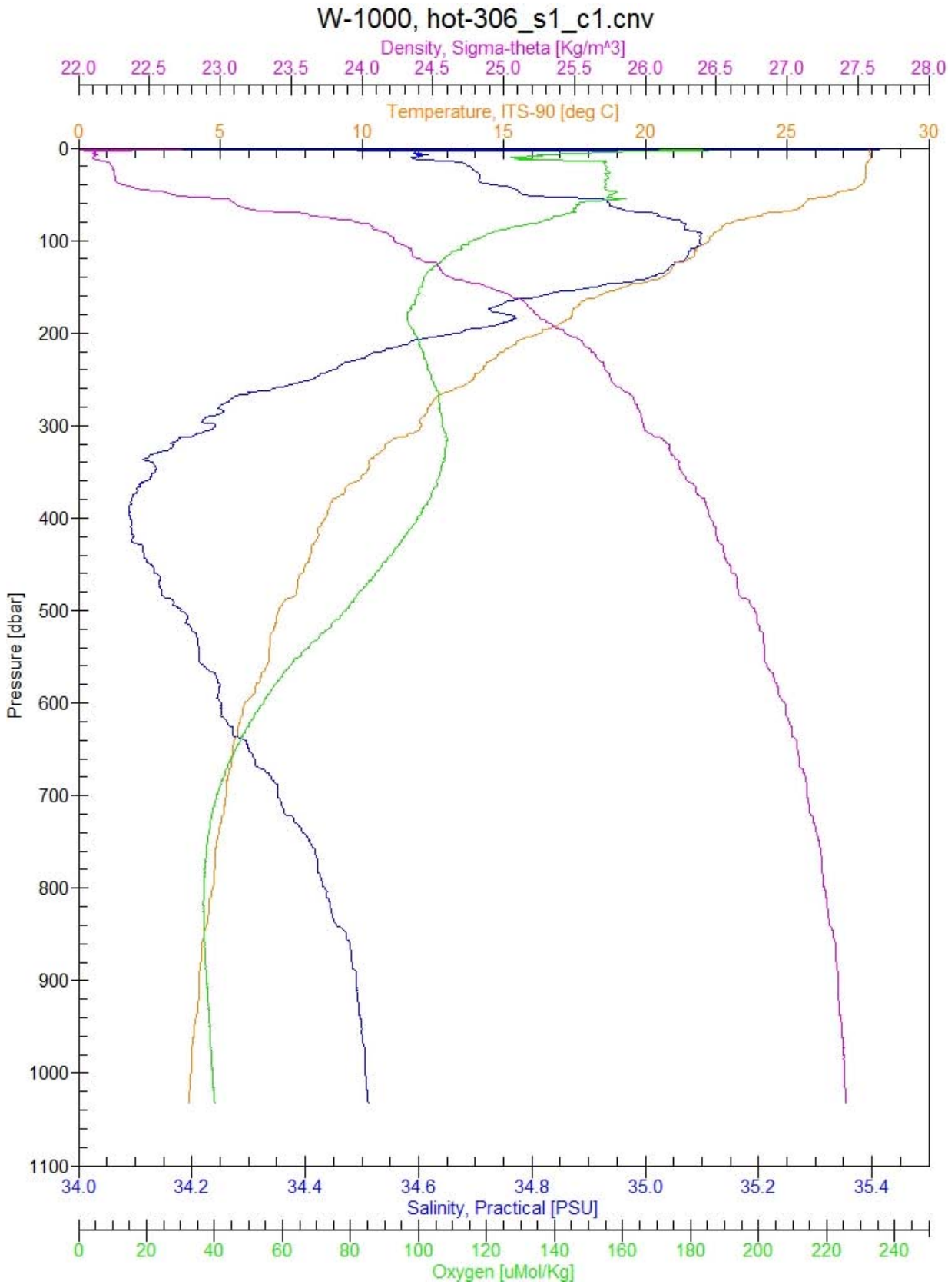
| Array | Platform # | Platform # |
|---|---|---|
| Sediment Trap | 84857 | IR 100 |
| PP/Gas Array | 60484 | IR 200 |
| WW | | |
| | | |

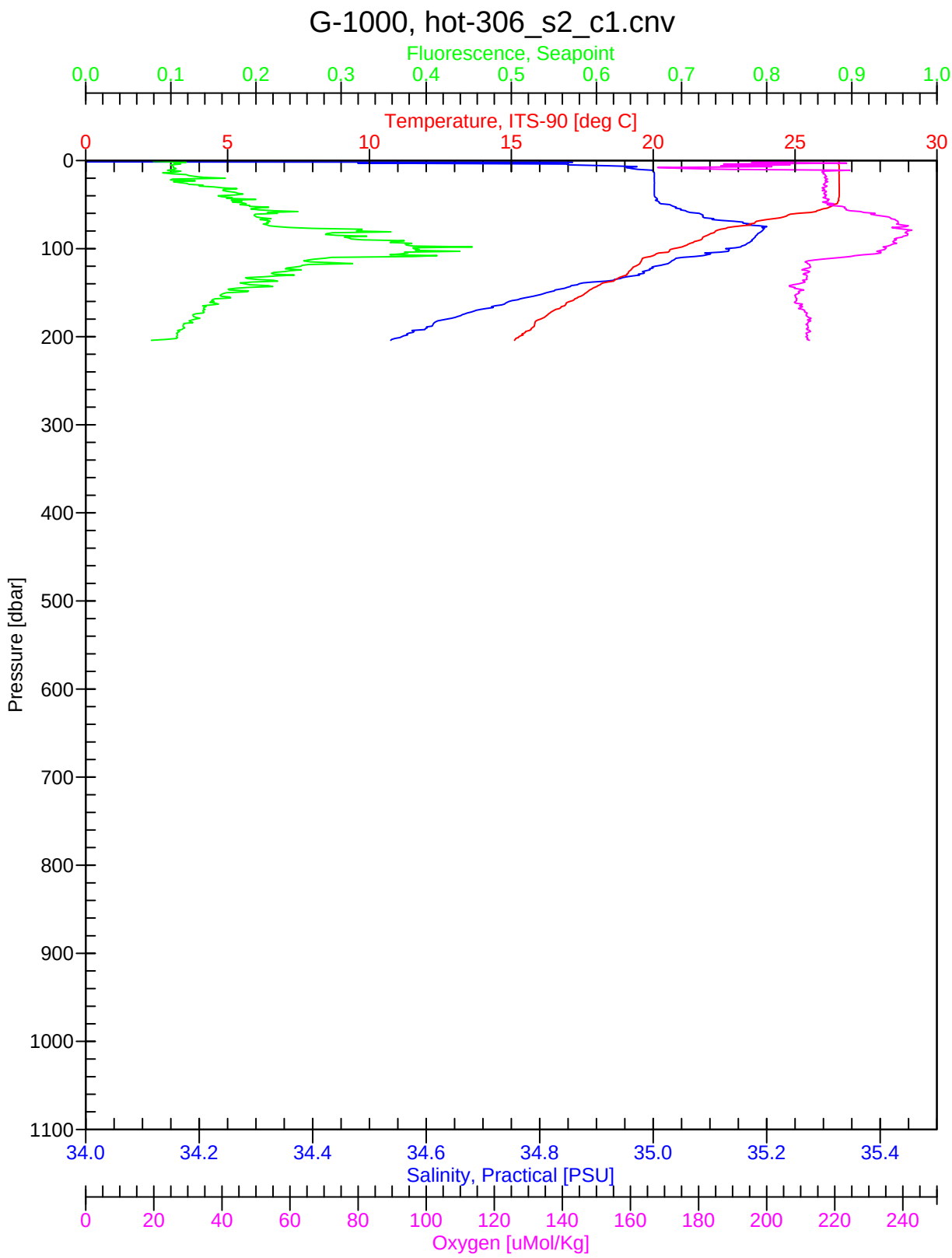
XEOS
78
77

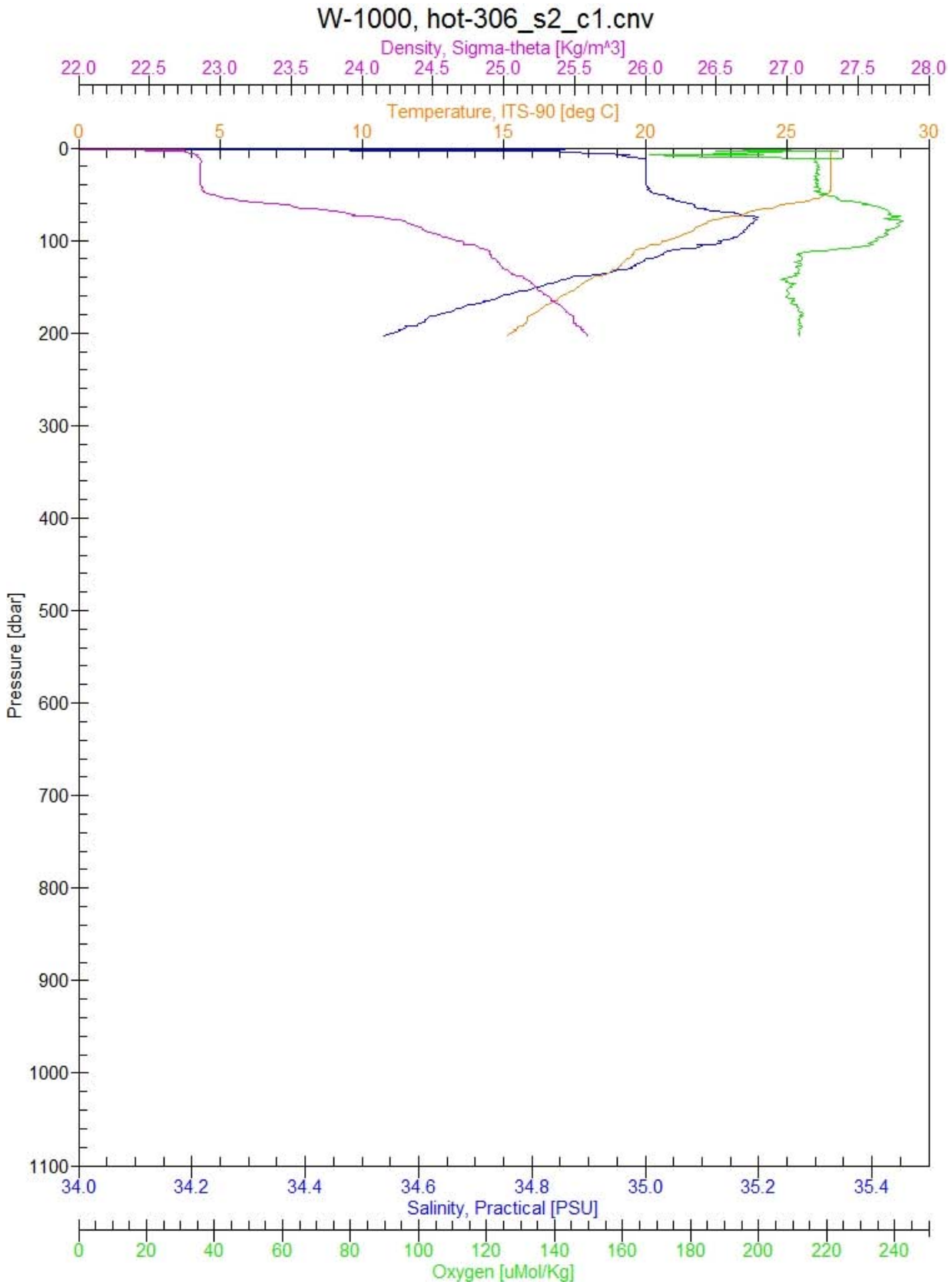
| | Date | Time | Platform | Position | Initials | Array Name |
|---|---|---|---|---|---|---|
| ST8 | 10/13/18 | 09:28 | IR100 | 22° 40.710N 158° 1.630W | TC | ST |
| WW8 | 10/13/18 | 0900 | XEOS 77 | 22° 40.403N 158° 2.842W | TC | WW |
| G1 | 10/13/18 | 0900 | XEOS 78 | 22° 43.022N 158° 2.747W | TC | GAS |
| ST9 | 10/13/18 | 1314 | IR100 | 22° 39.810 N 158° 1.676W | TC | ST |
| WW9 | 10/13/18 | 1300 | XEOS 77 | 22° 39.605 N 158° 2.900W | TC | WW |
| G2 | 10/13/18 | 1300 | XEOS 78 | 22° 42.053 N 158° 2.747W | TC | GAS |
| ST10 | | 16:00 | IR100 | 22° 39.059 N 158° 2.237'W | EMS | ST |
| WW10 | | 16:00 | X77 | 22° 38.837'N 158° 3.599'W | EMS | WW |
| G3 | ↓ | 16:00 | X78 | 22° 40.940'N 158° 3.327'W | EMS | GAS |
| ST11 | 10/13/18 | 19:34 | IR100 | 22° 38.575' N 158° 2.442'W | EMS | ST |
| WW11 | 10/13/18 | 19:30 | X77 | 22° 38.613' N 158° 3.835'W | EMS | WW |
| G4* | 10/13/18 | 19:00 | X78 | 22° 40.580' N 158° 3.463'W | EMS | GAS |
| ST12 | 10/14/18 | 00:28 | IR100 | 22° 37.594' N 158° 2.175'W | EMS | ST |
| WW12 | 10/14/18 | 00:30 | X77 | 22° 37.874'N 158° 3.581'W | EMS | WW |
| G5 | 10/14/18 | 00:00 | X78 | 22° 39.603' N 158° 2.738'W | EMS | GAS |
| ST13 | 10/14/18 | 02:02 | IR100 | 22° 37.127'N 158° 2.383'W | EMS | ST |
| WW13 | | 02:00 | X77 | 22° 37.500'N 158° 3.743'W | EMS | WW |
| G6 | ↓ | 02:00 | X78 | 22° 38.776'N 158° 2.801'W | EMS | GAS |
| | | | | | | |

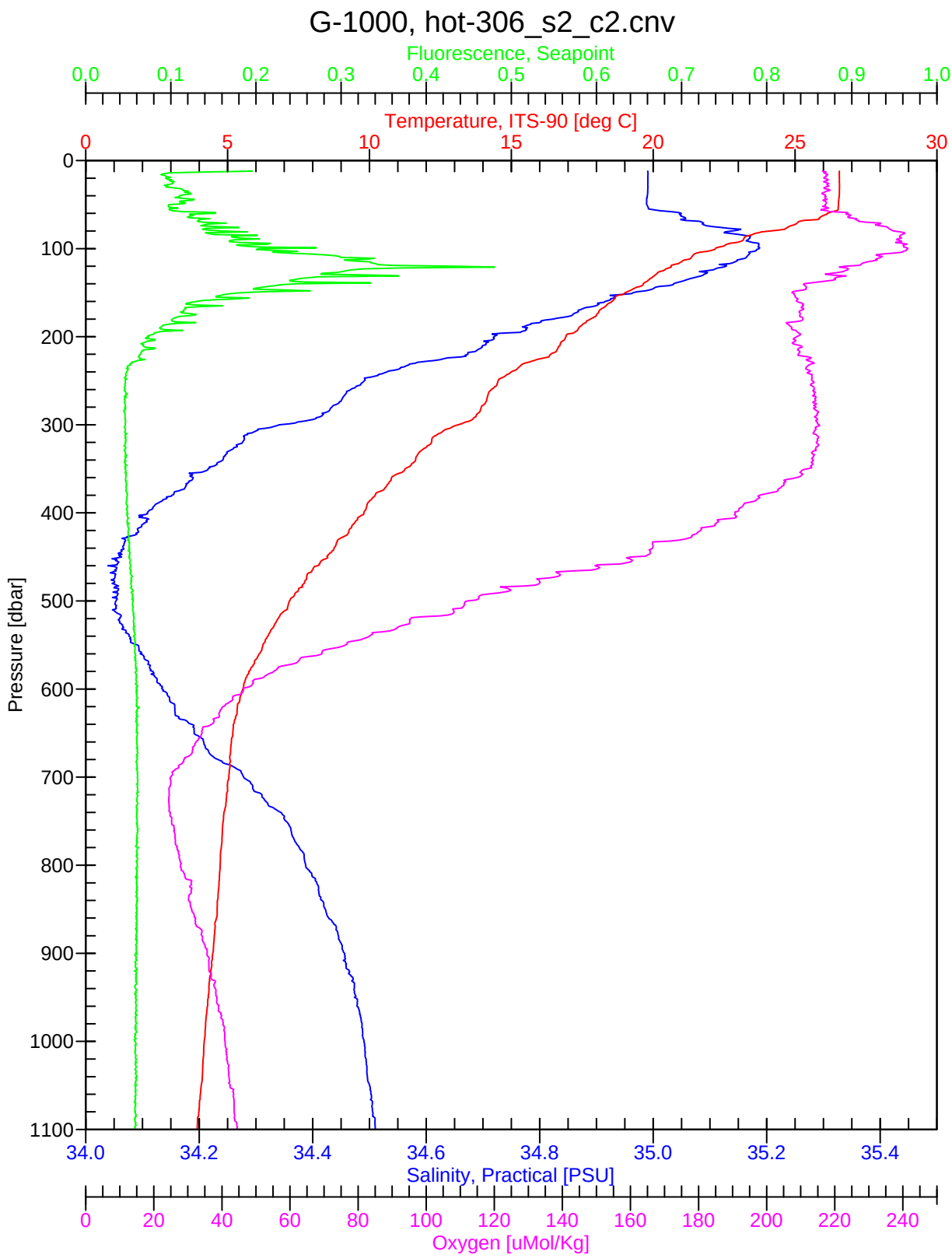
*Text on /xeostable page was red. loaded voltage: 2.85V, unloaded: 3.51V, voltages were holding since

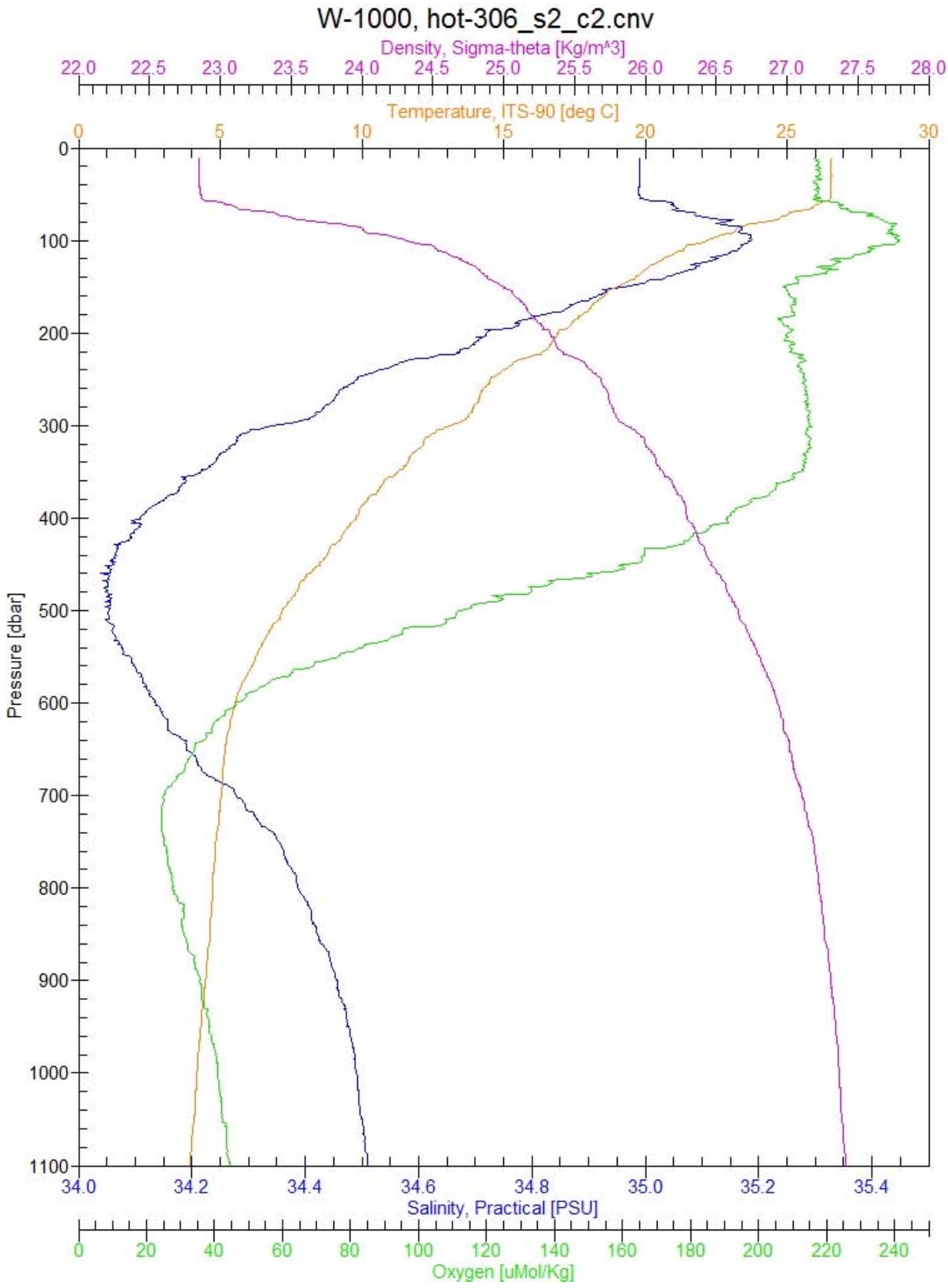

G-1000, hot-306_s1_c1.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

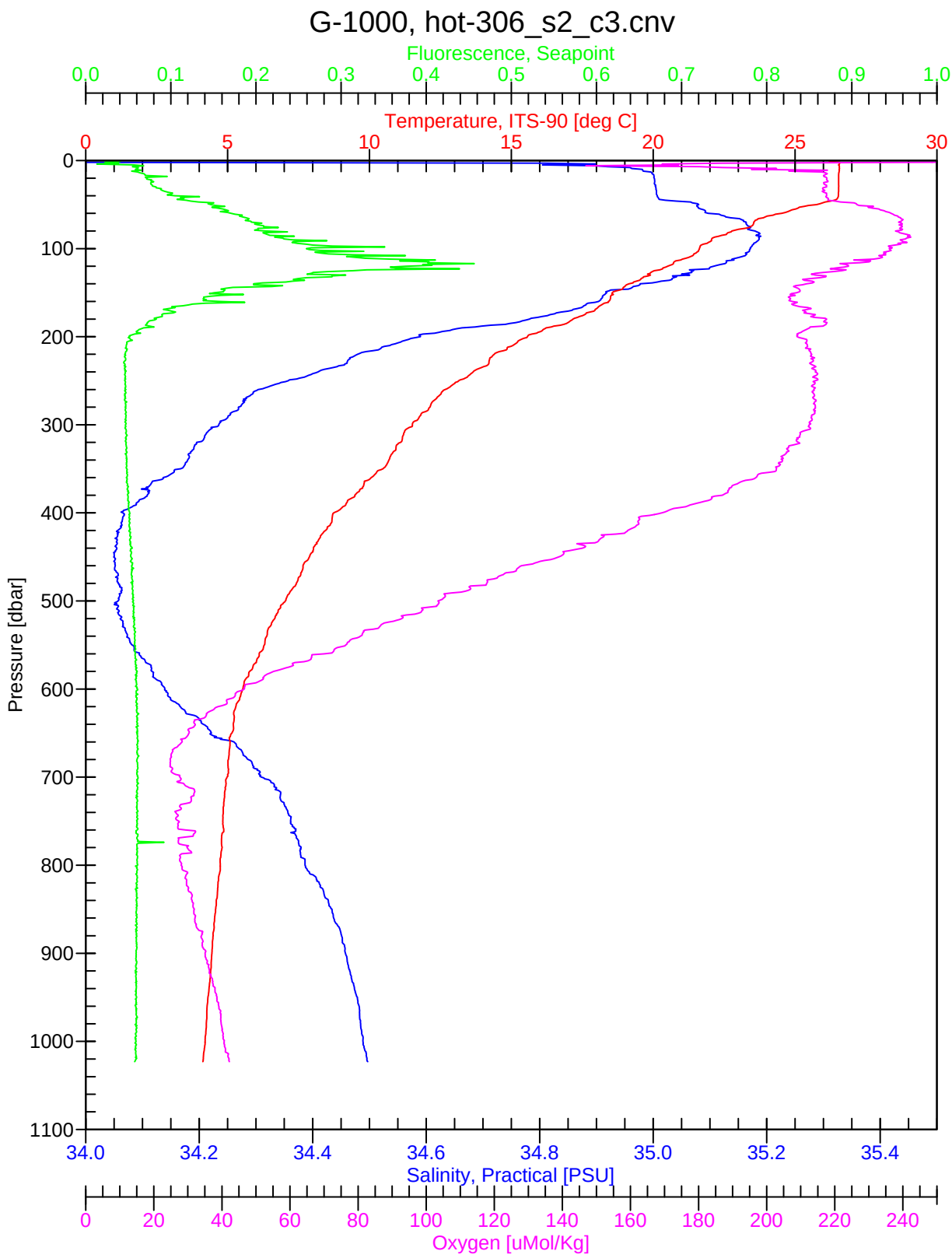

W-1000, hot-306_s1_c1.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]

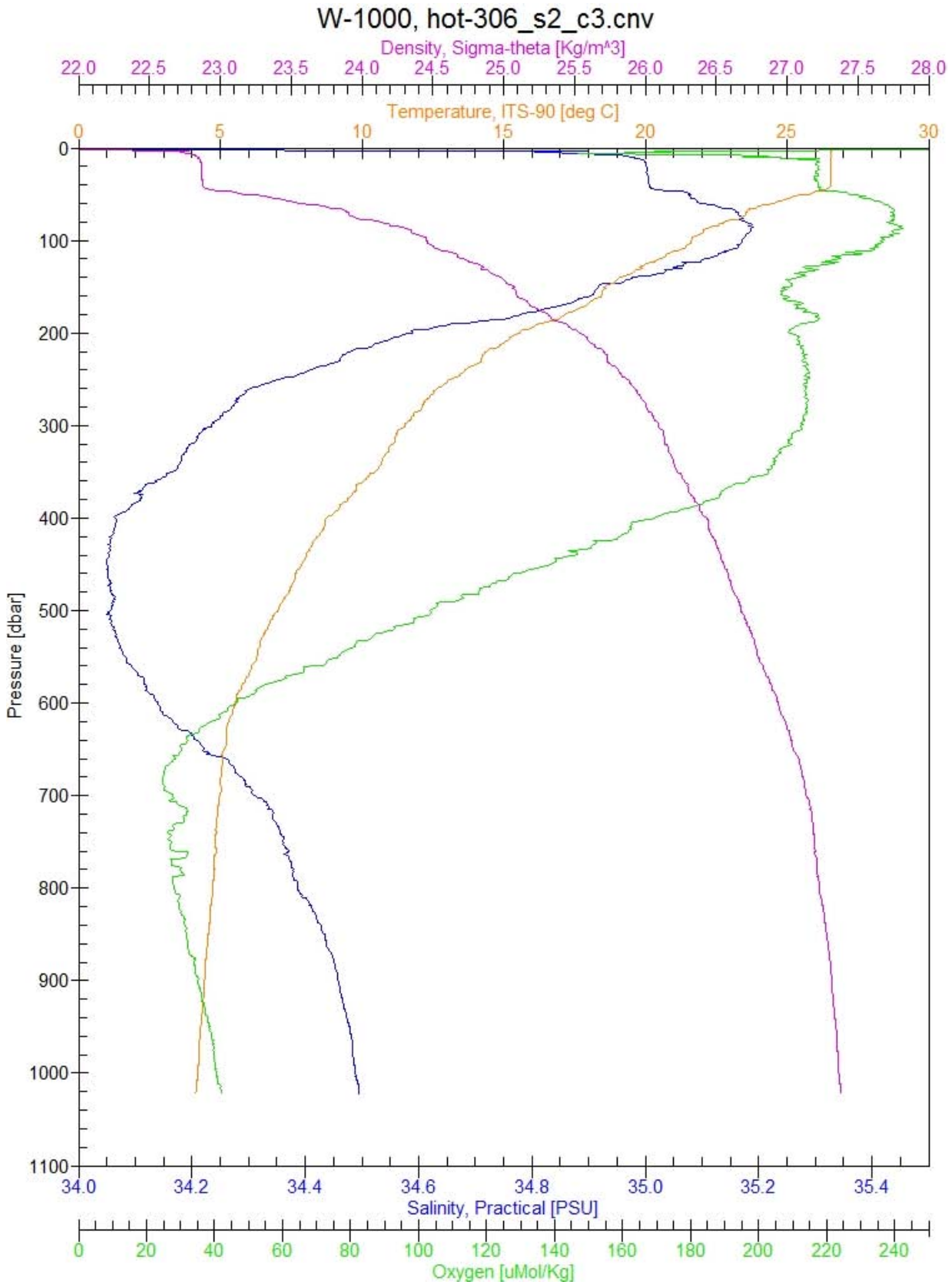

G-1000, hot-306_s2_c1.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

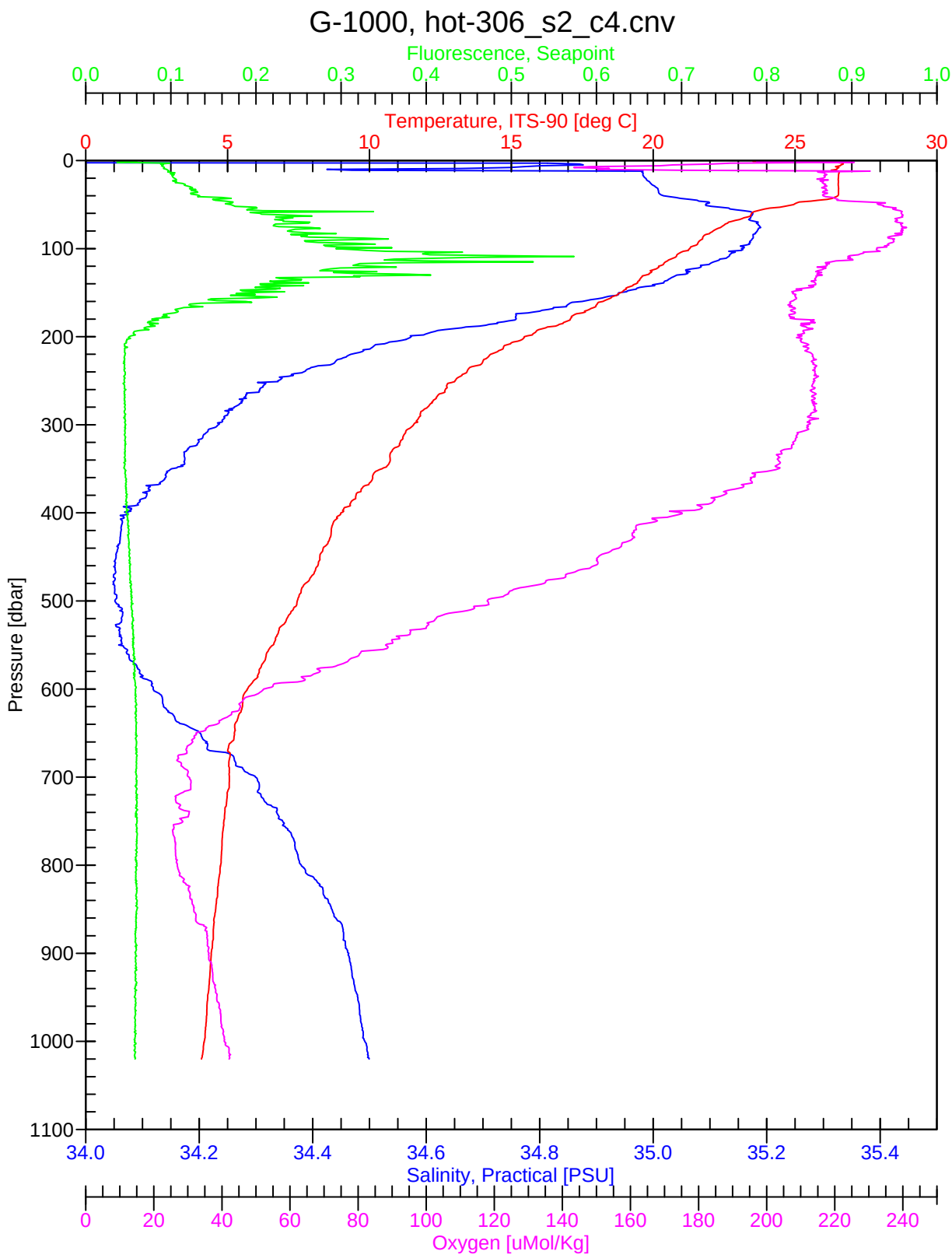

W-1000, hot-306_s2_c1.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]

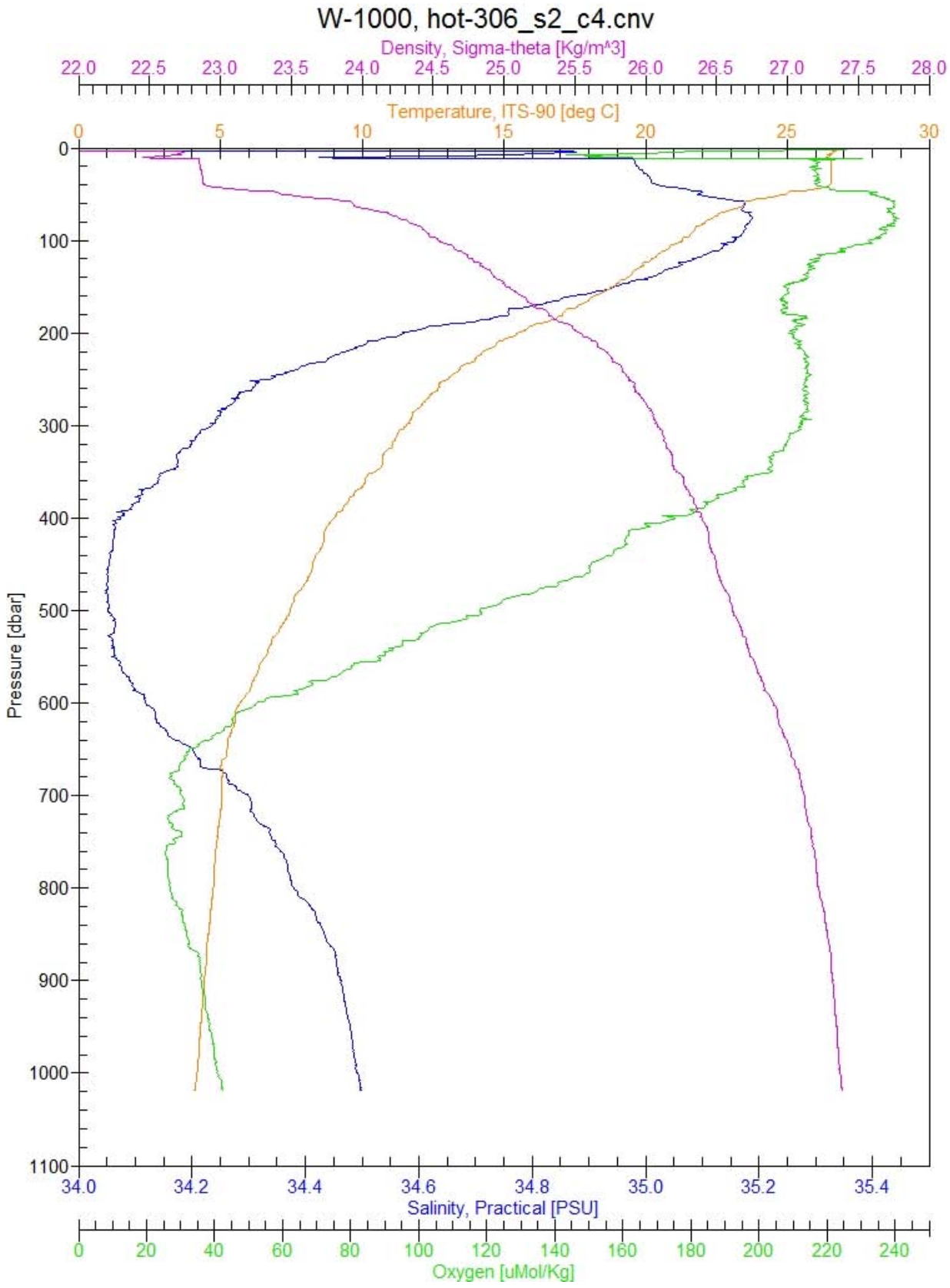

G-1000, hot-306_s2_c2.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

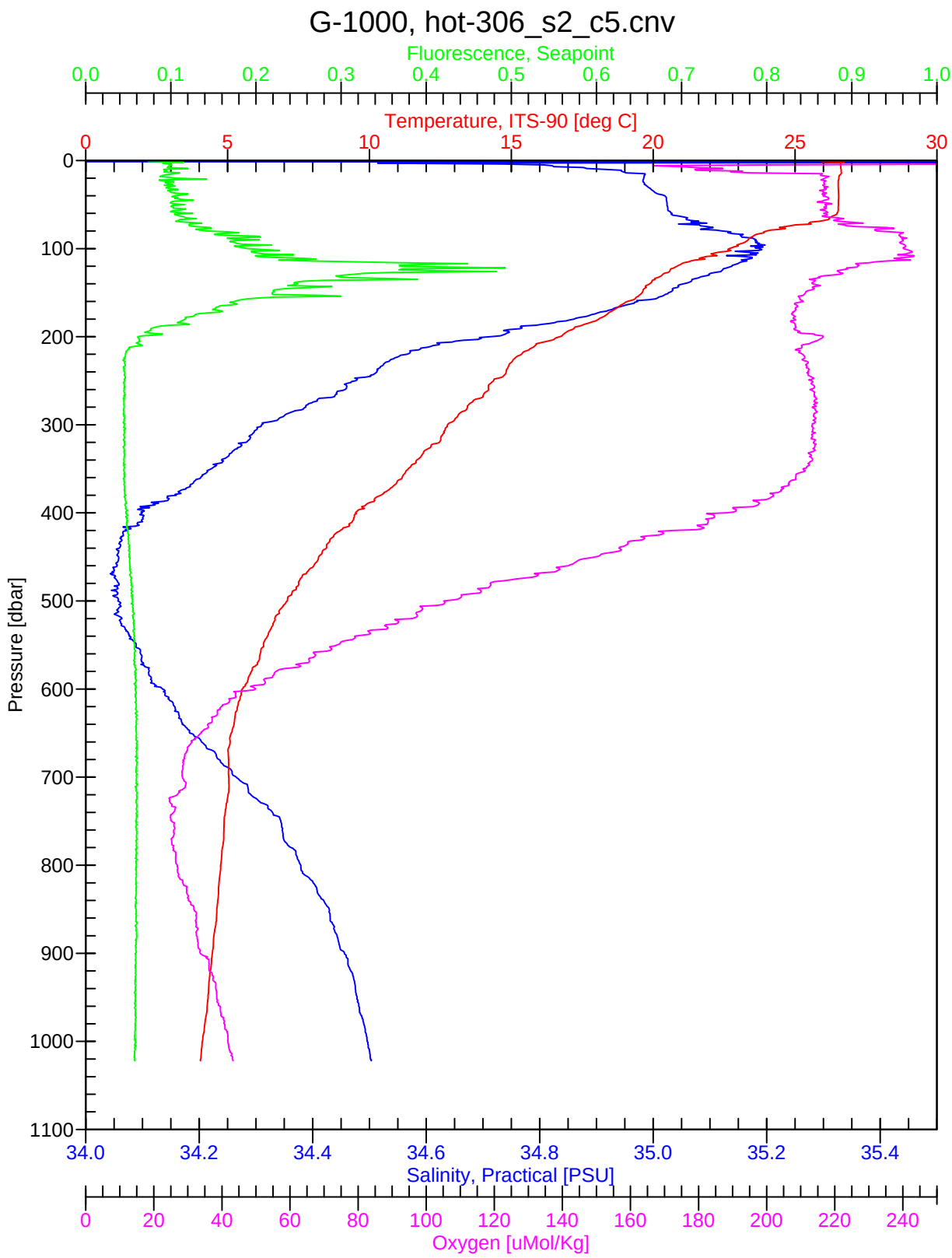

W-1000, hot-306_s2_c2.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]

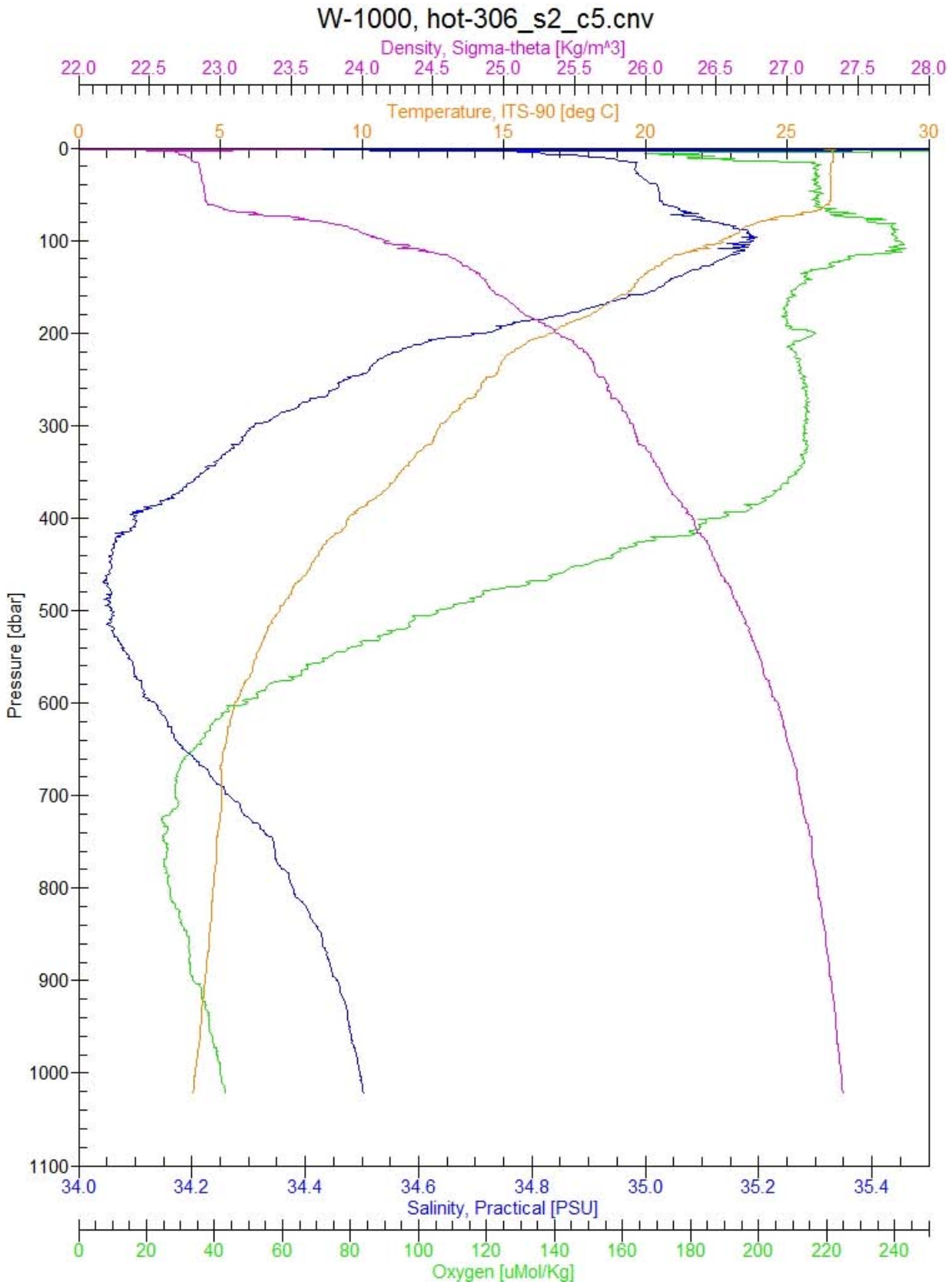

G-1000, hot-306_s2_c3.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s2_c3.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240


G-1000, hot-306_s2_c4.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s2_c4.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]


G-1000, hot-306_s2_c5.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]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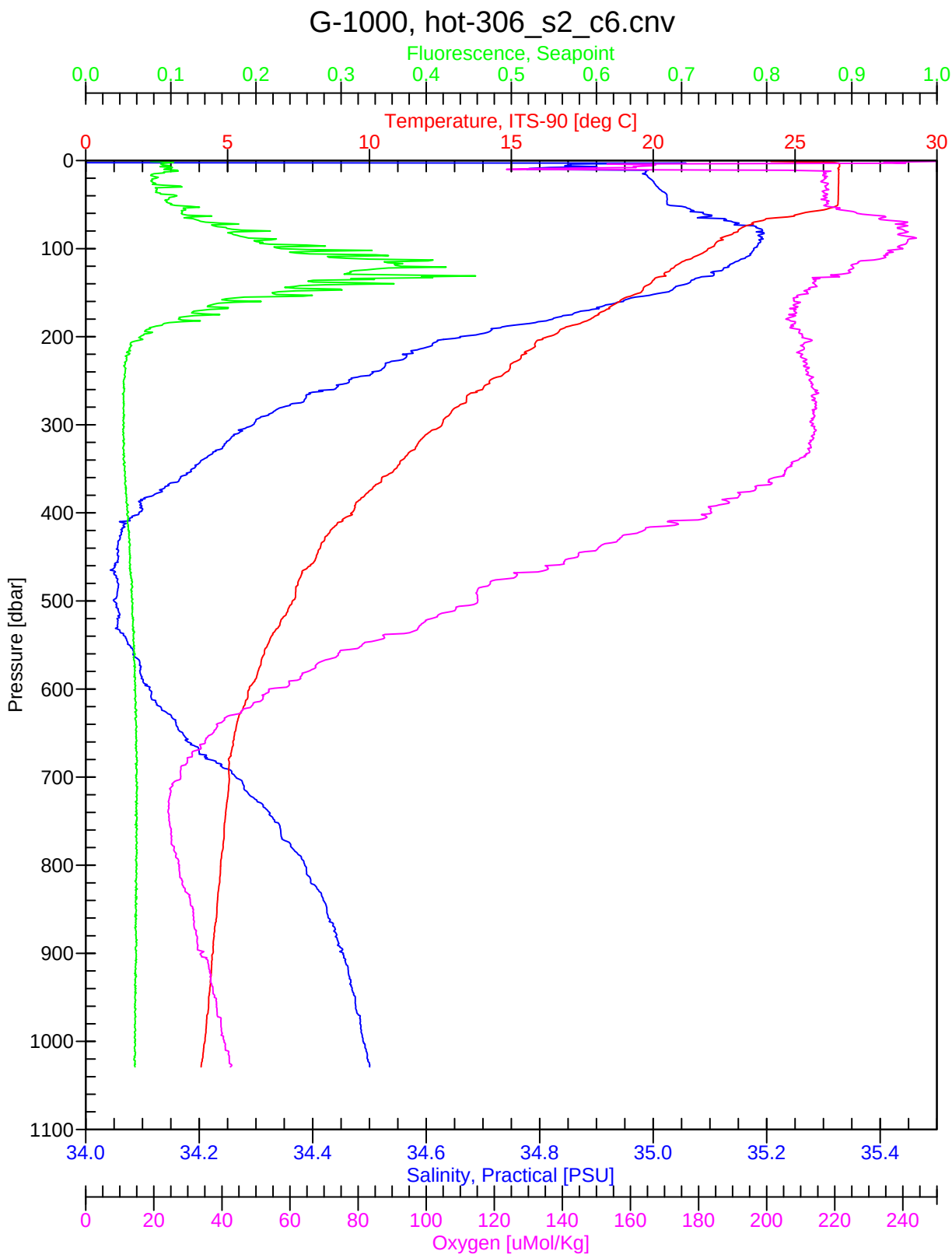
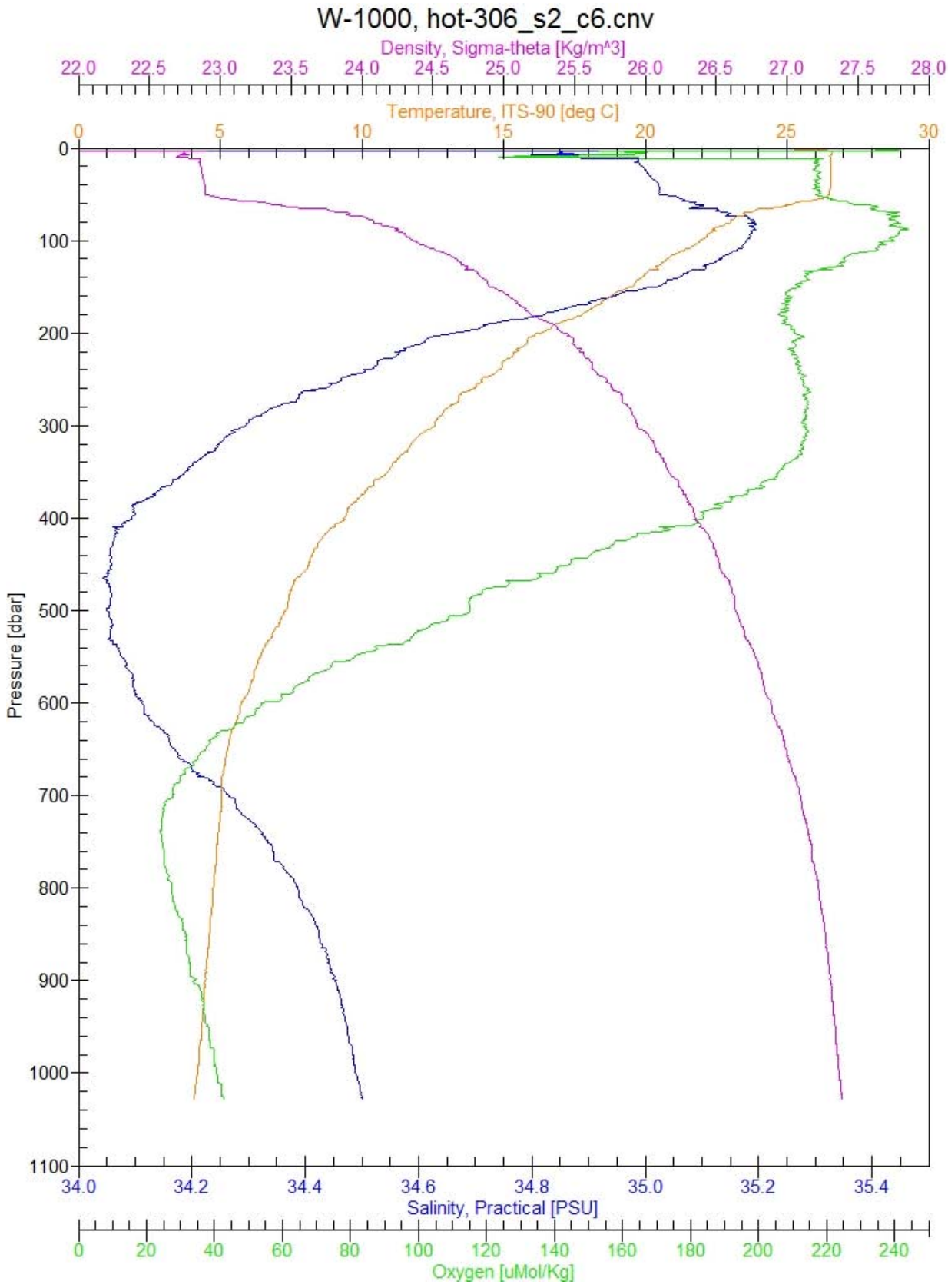
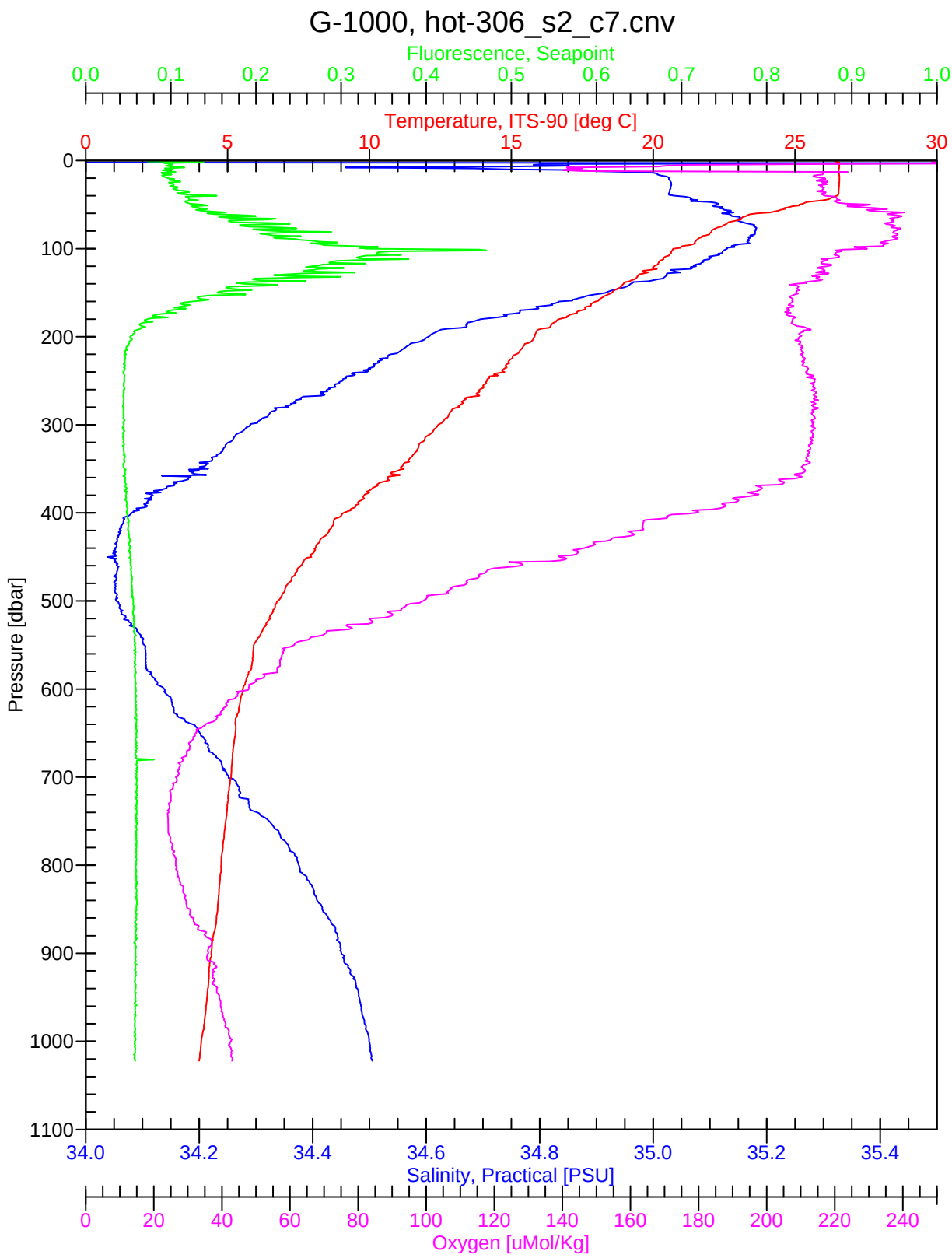
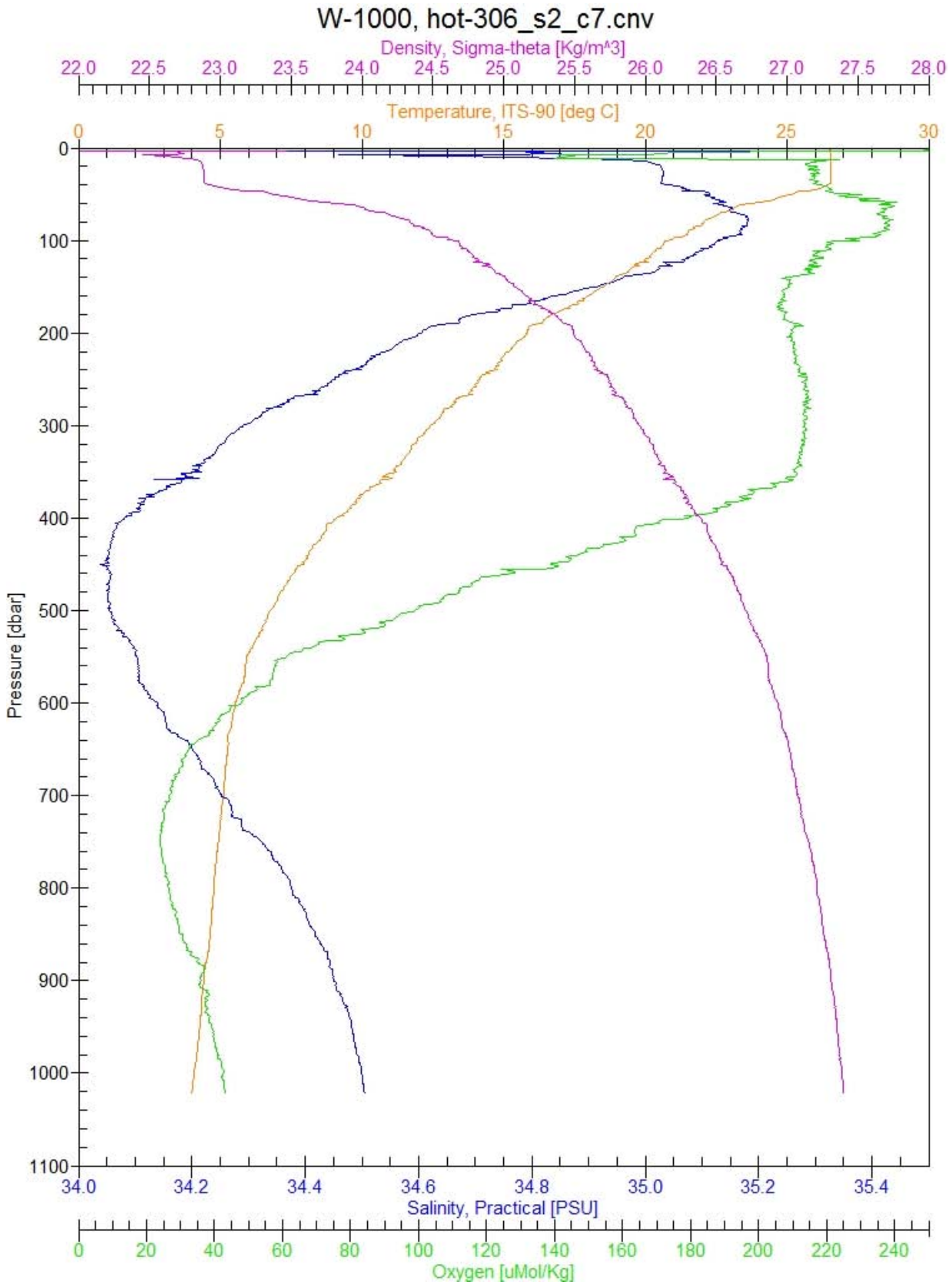
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]


G-1000, hot-306_s2_c6.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s2_c6.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240


G-1000, hot-306_s2_c7.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]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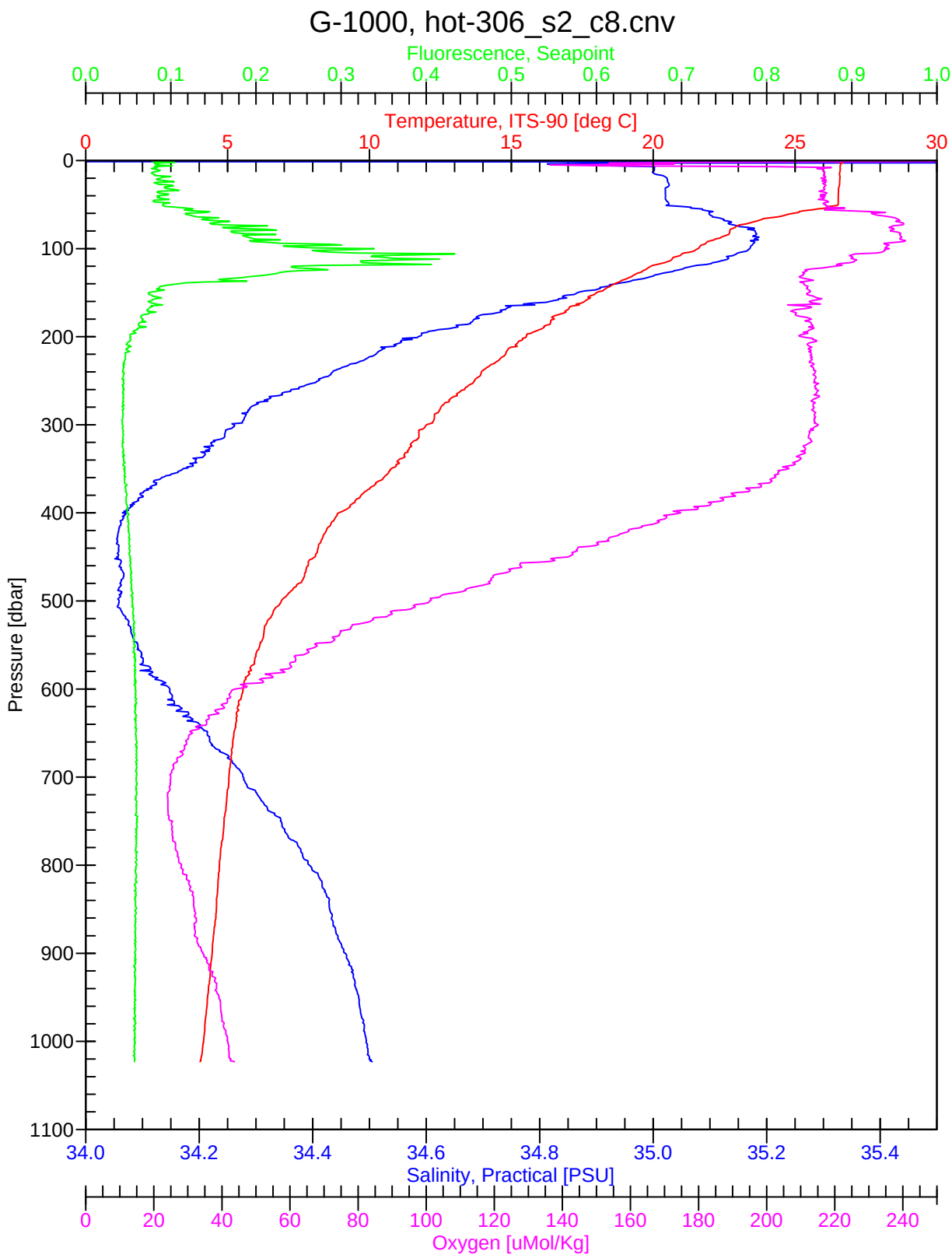
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]


G-1000, hot-306_s2_c8.cnv
Fluorescence, Seapoint
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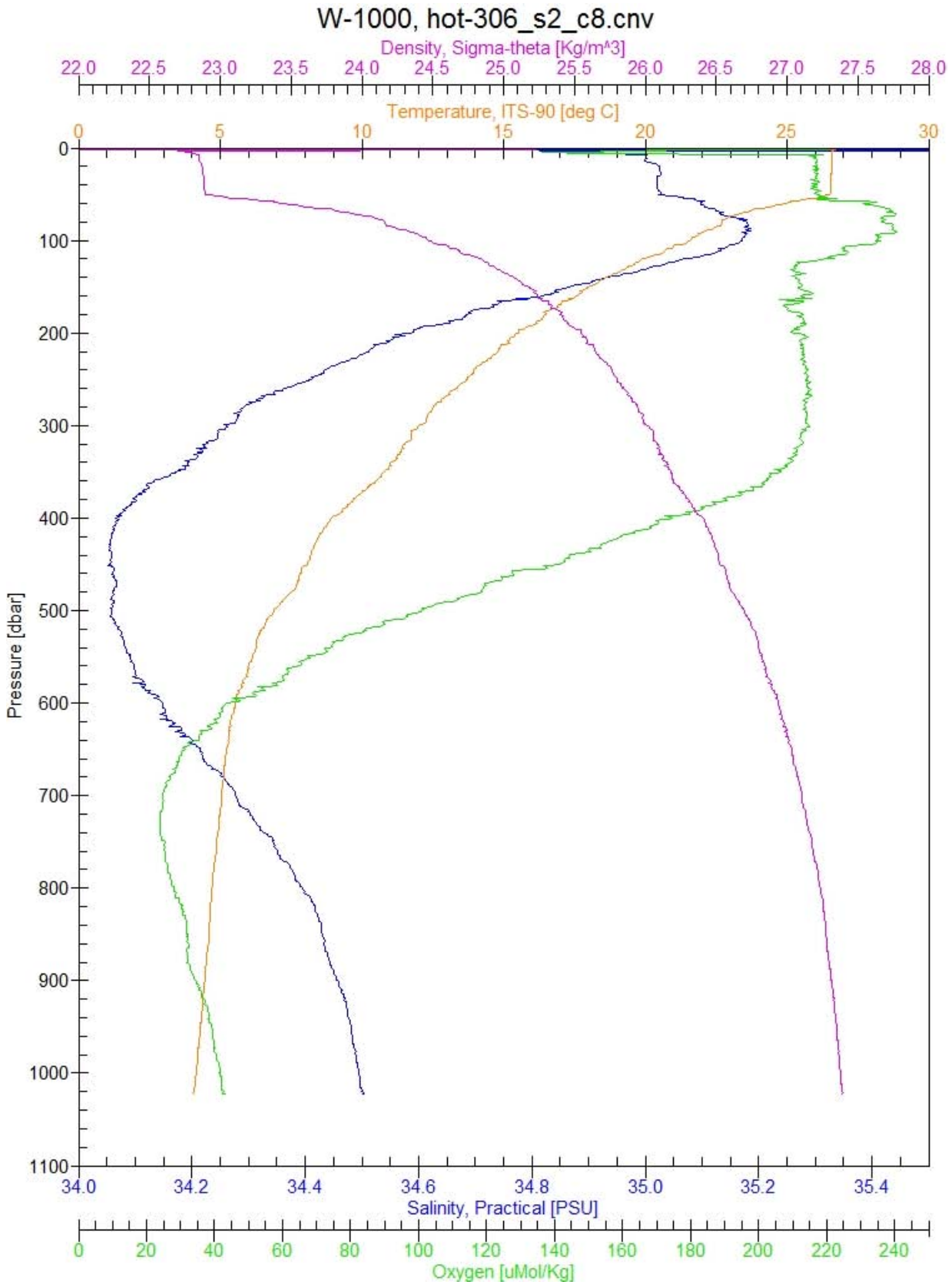
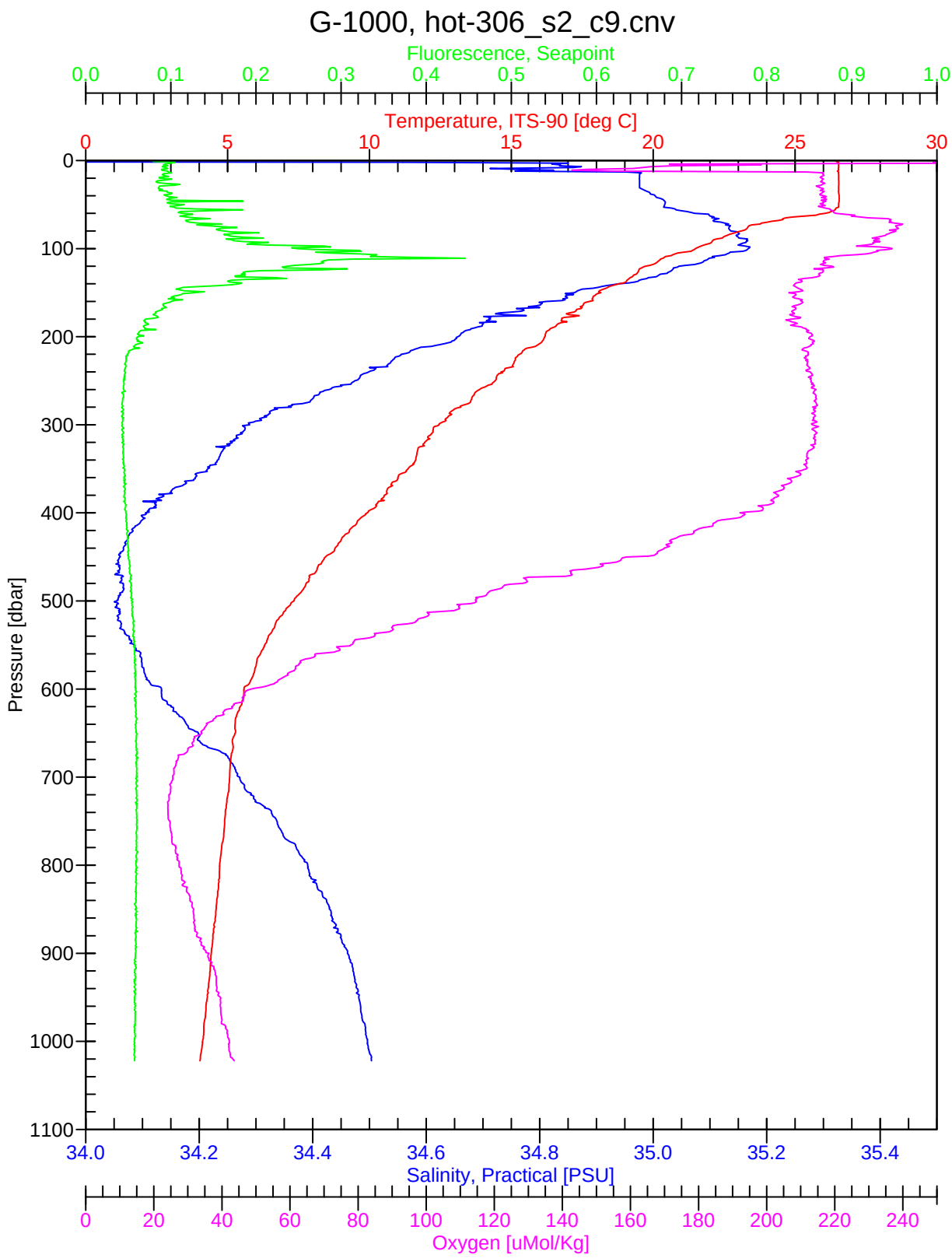
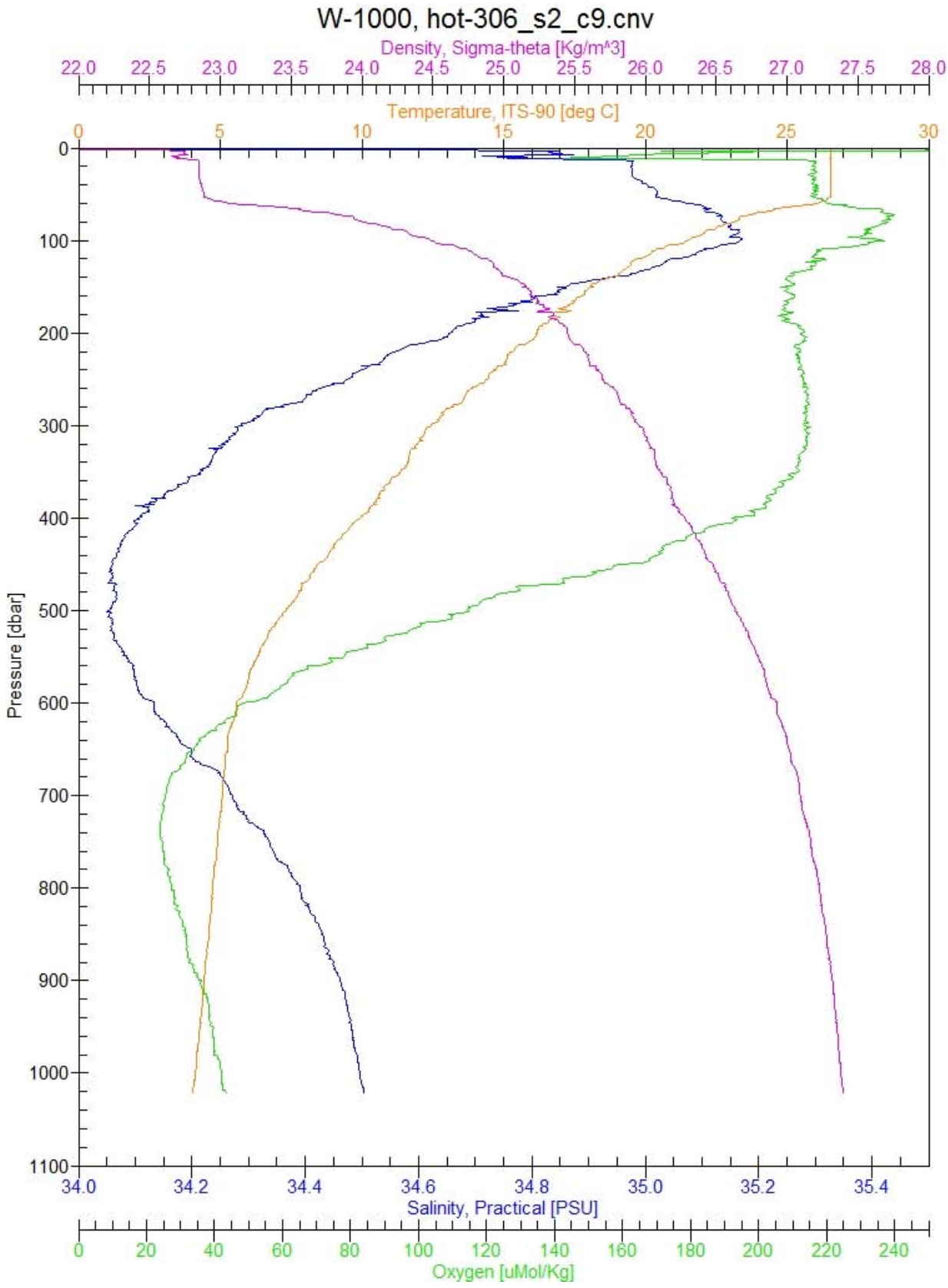
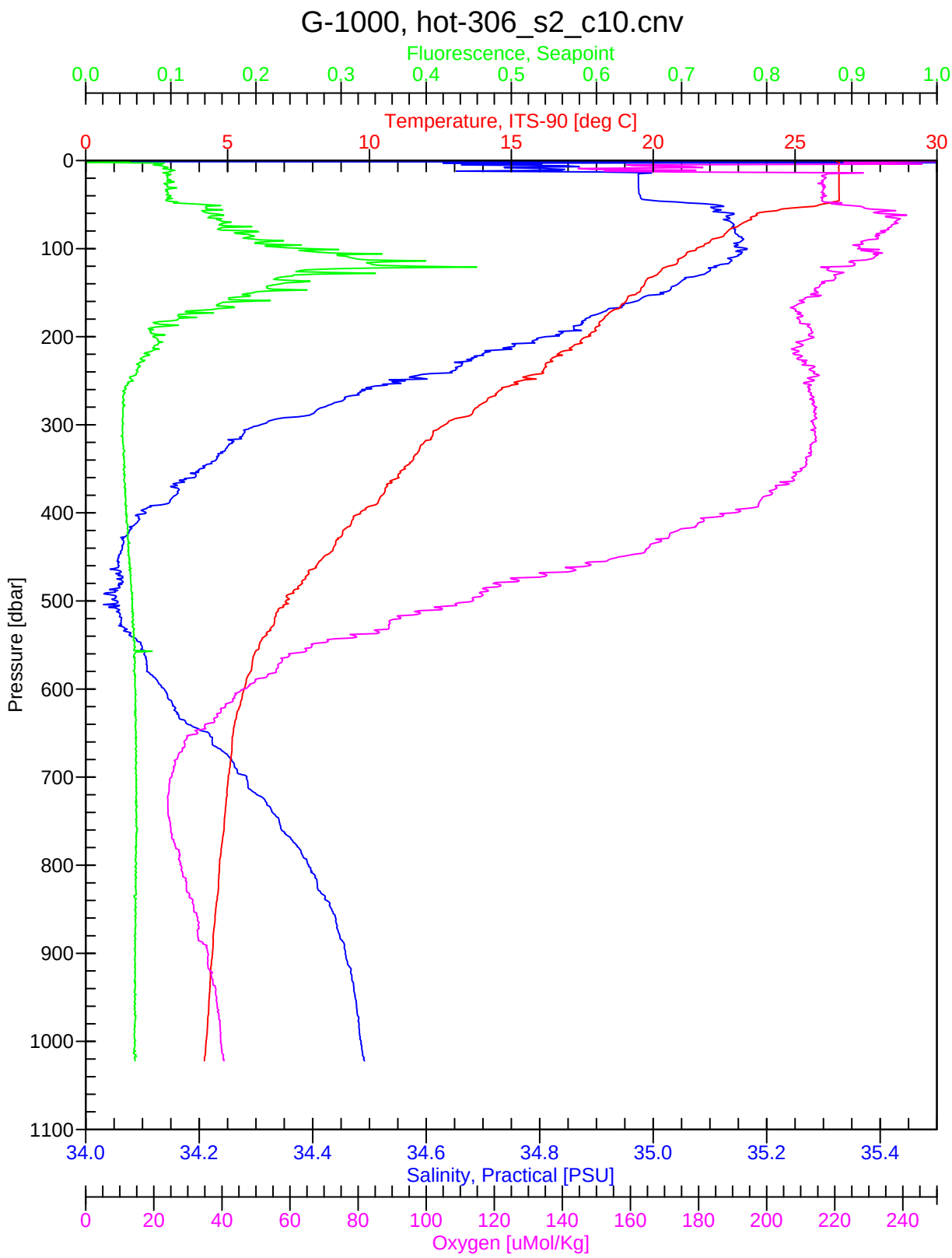
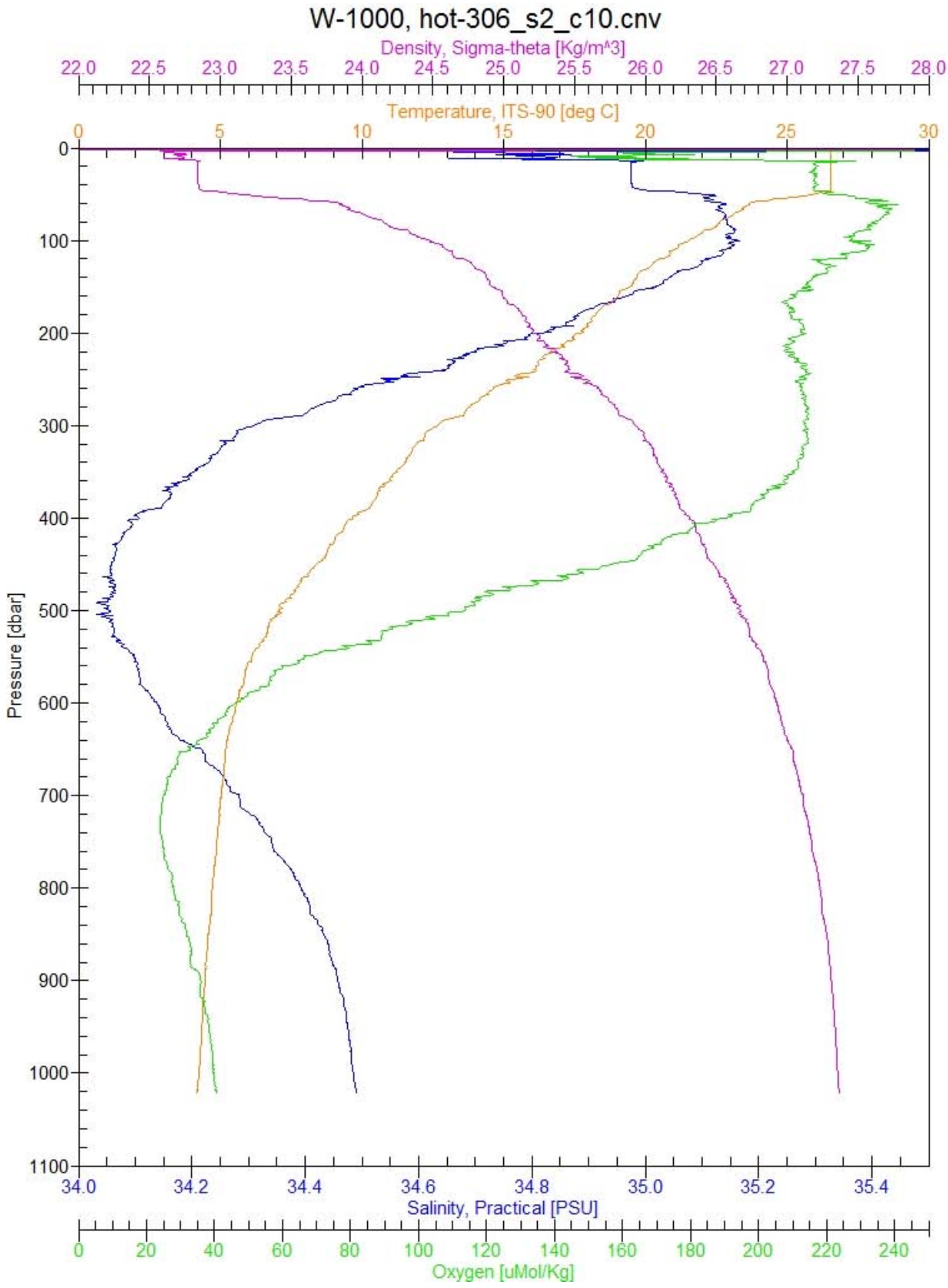
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

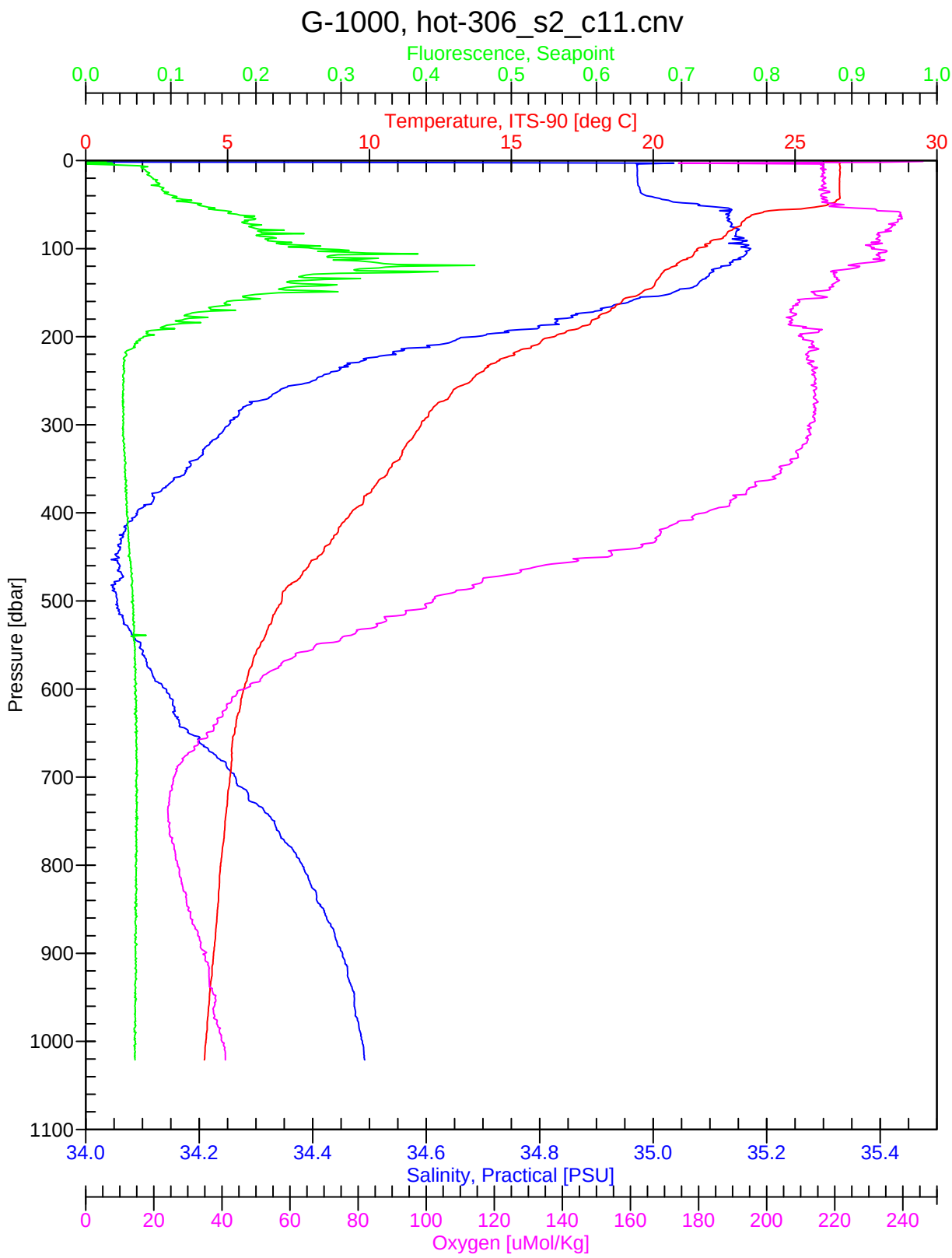

W-1000, hot-306_s2_c8.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]

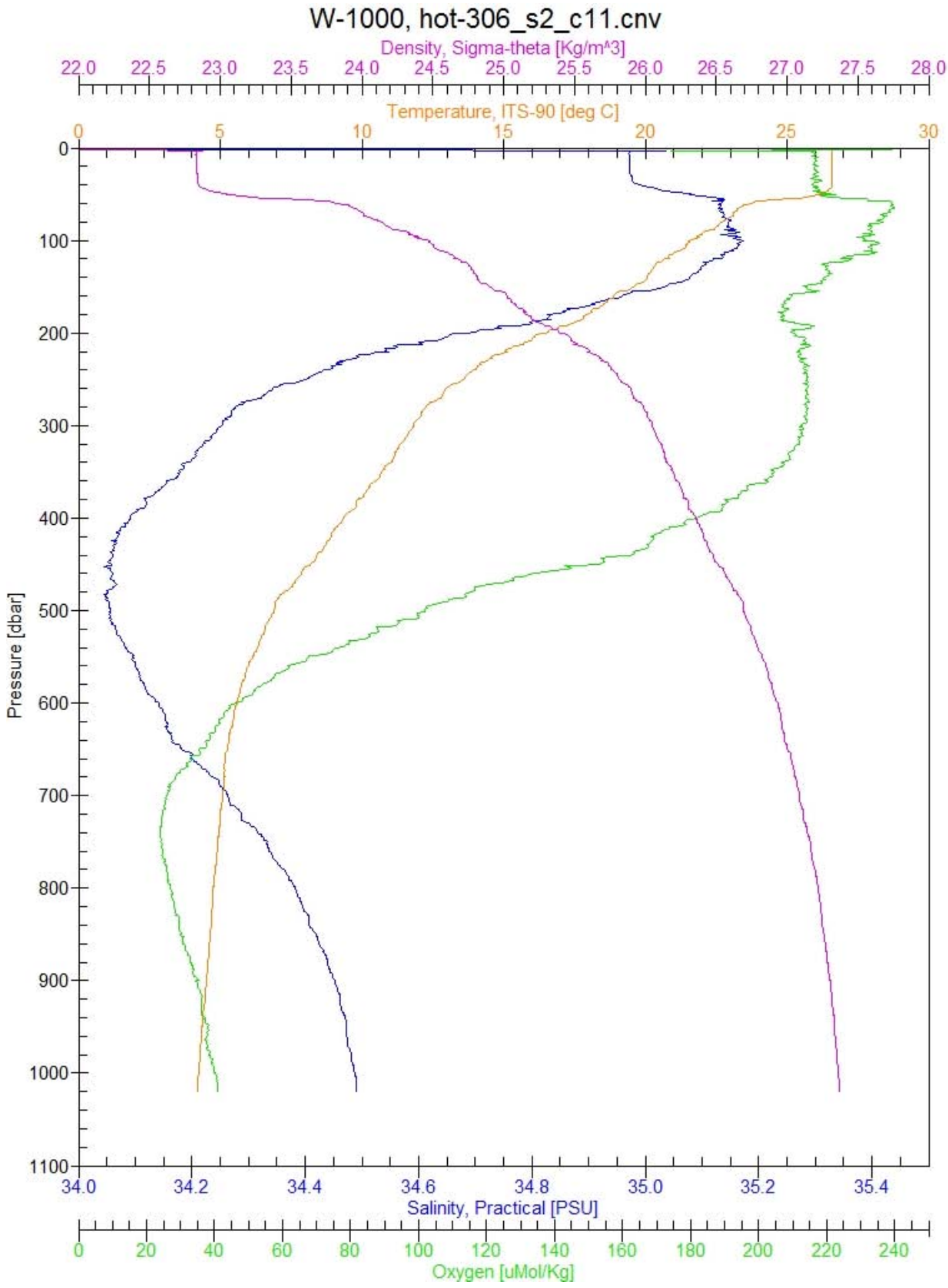

G-1000, hot-306_s2_c9.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

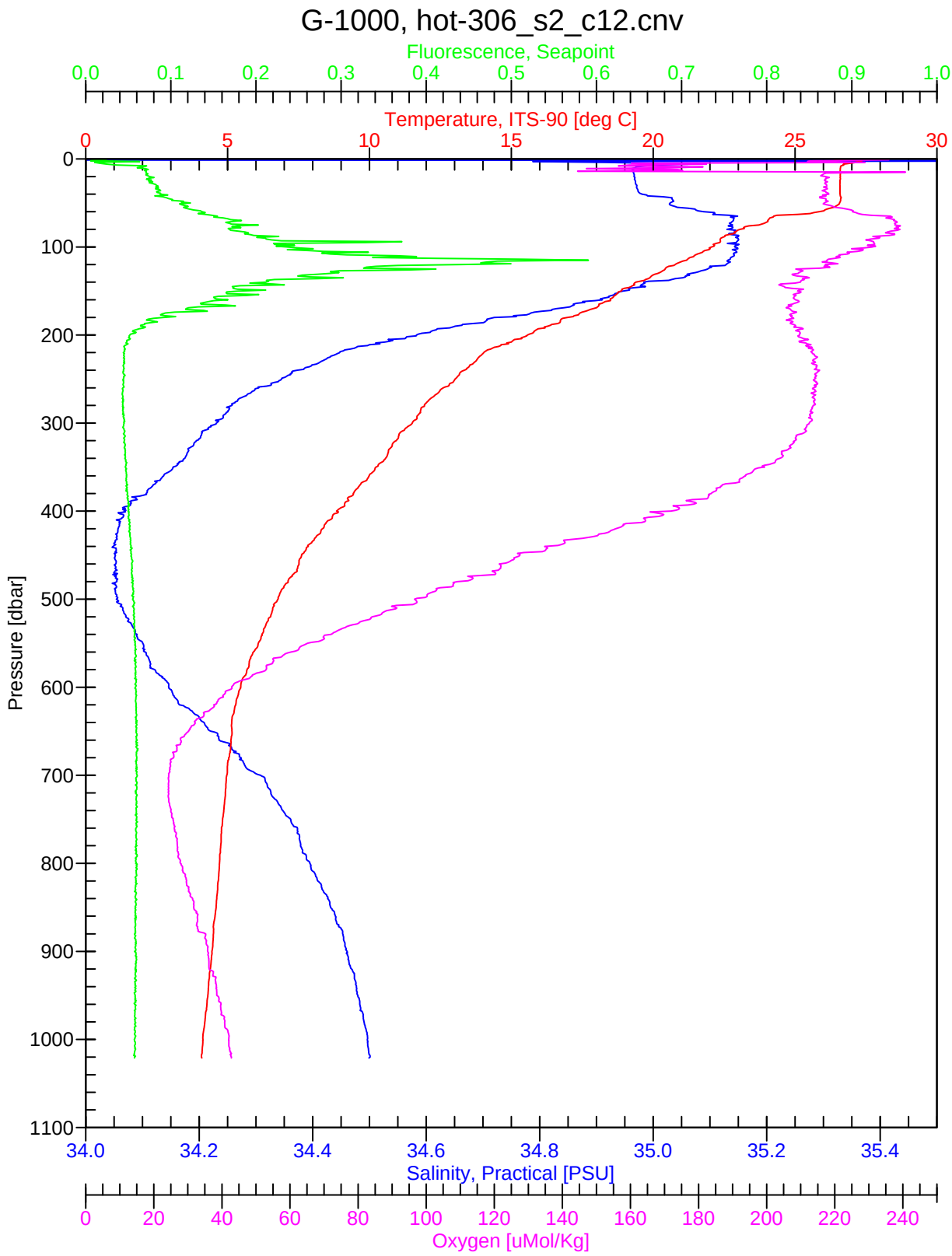

W-1000, hot-306_s2_c9.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]

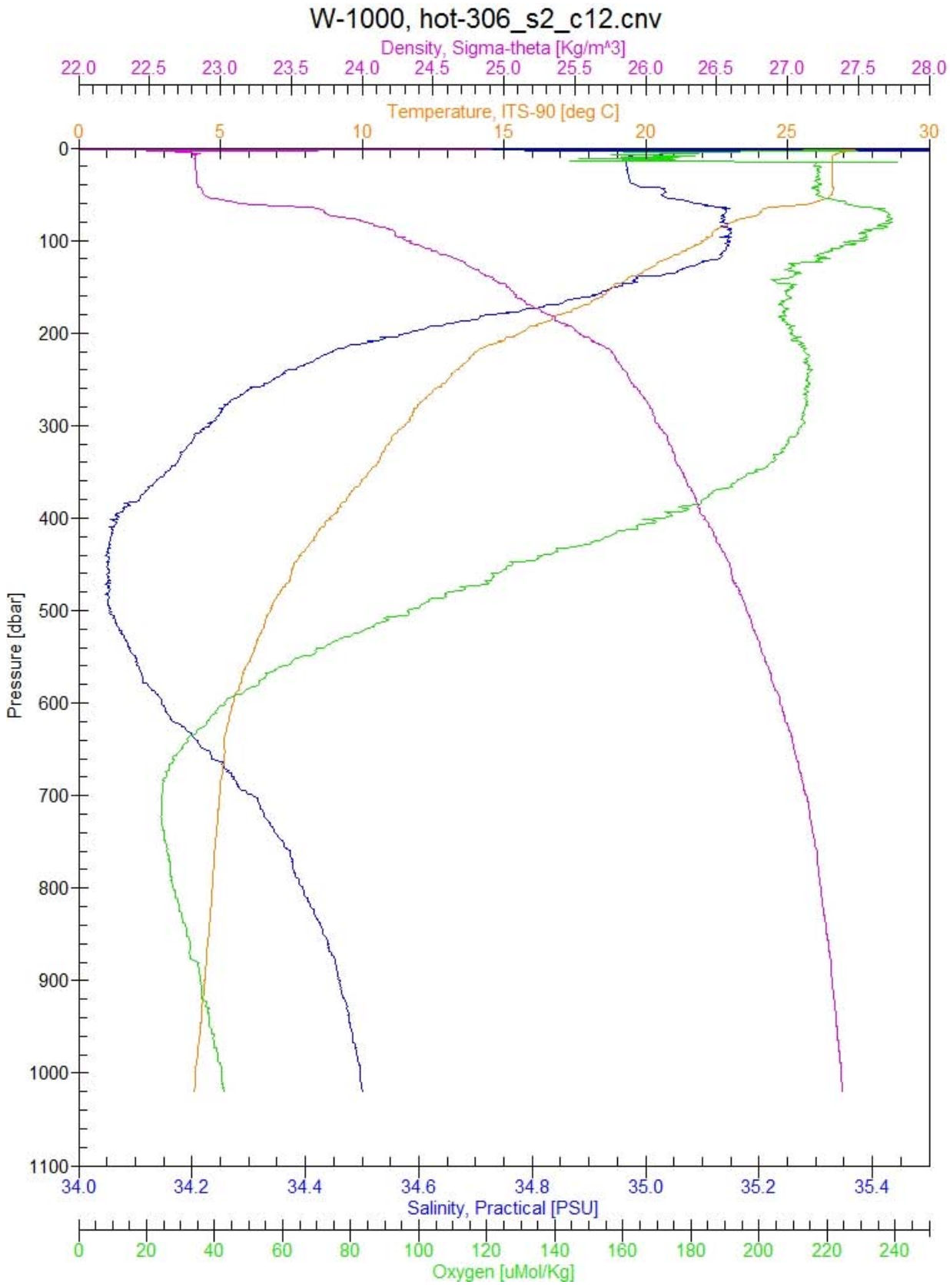

G-1000, hot-306_s2_c10.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

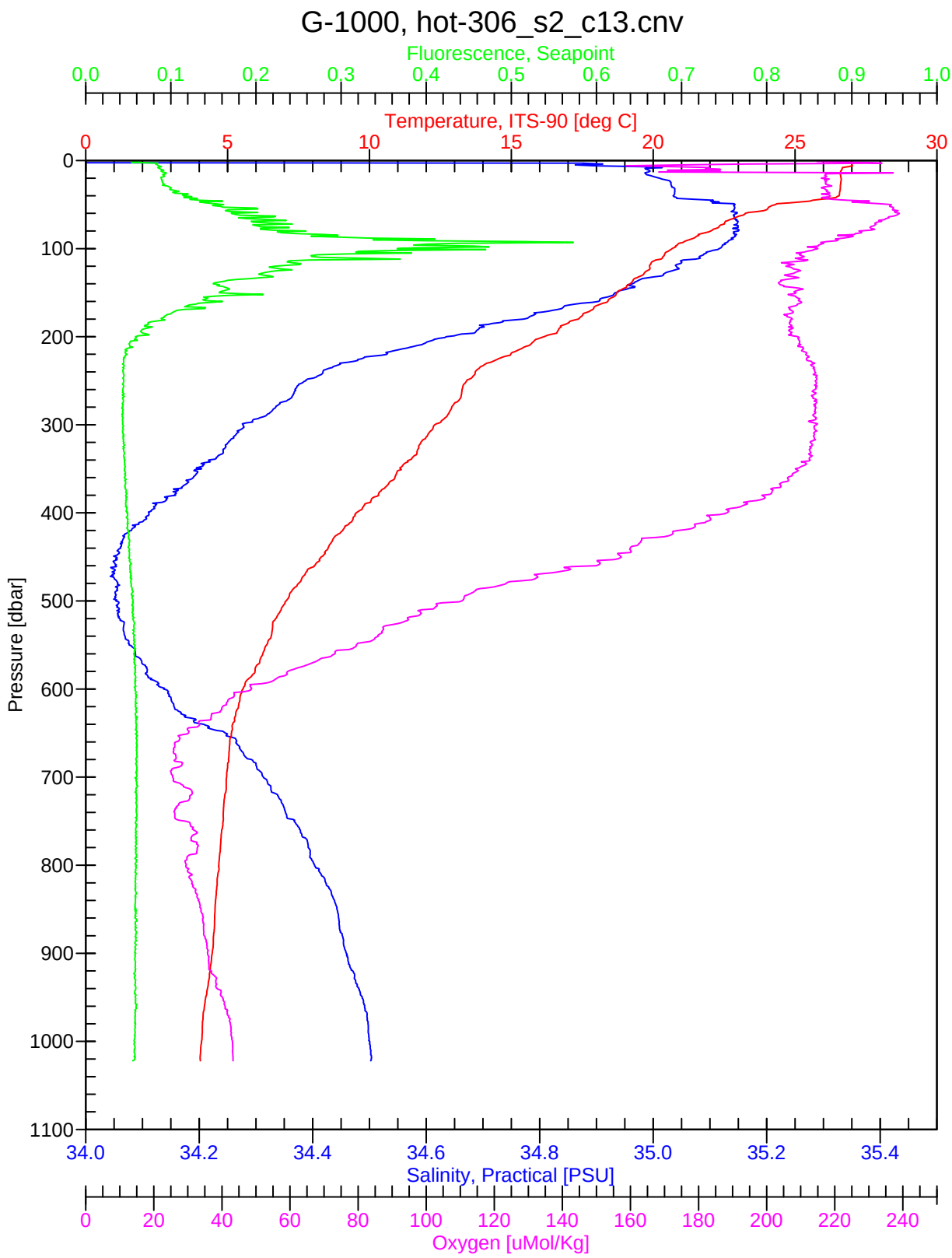

W-1000, hot-306_s2_c10.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240

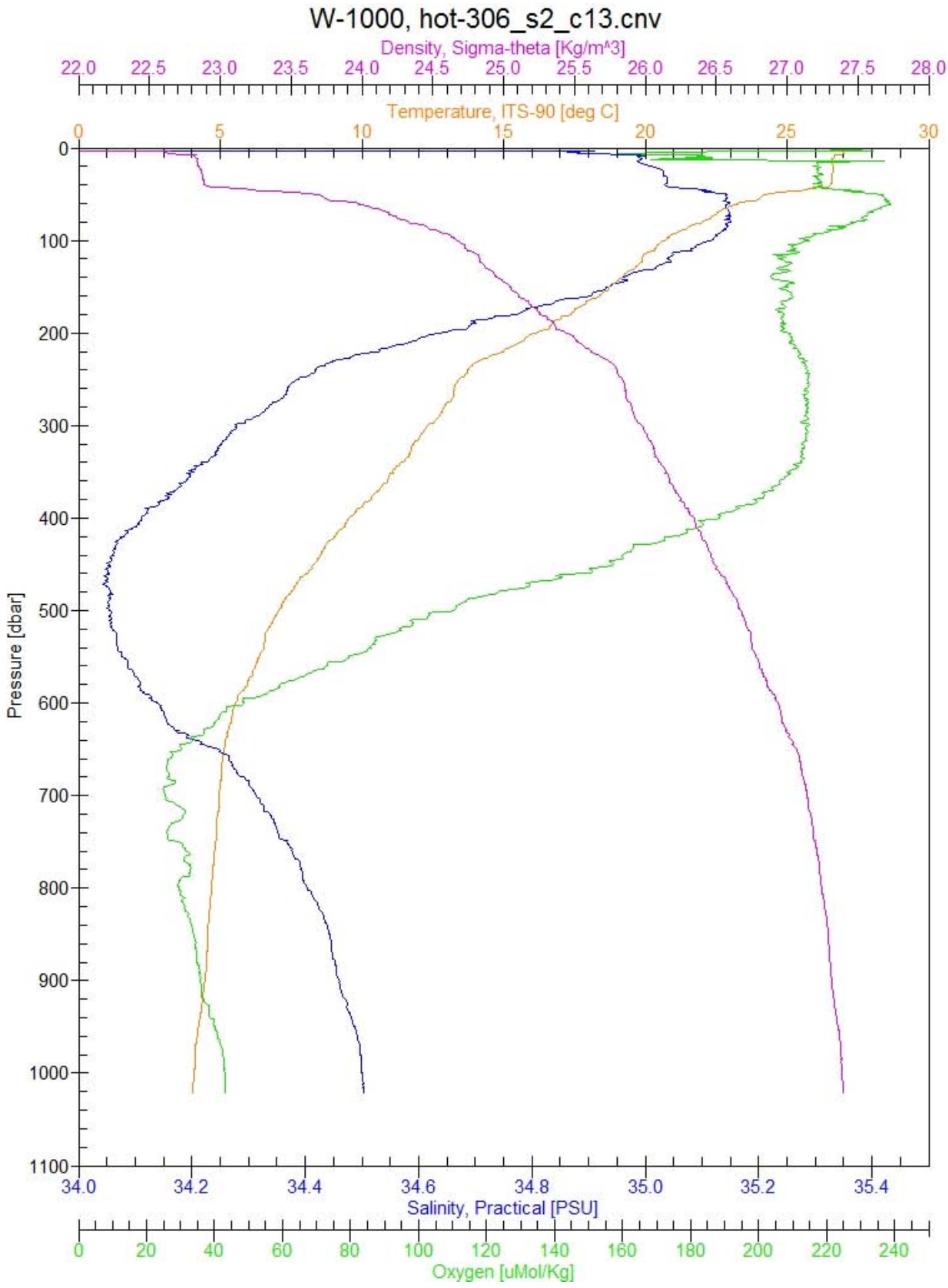

G-1000, hot-306_s2_c11.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

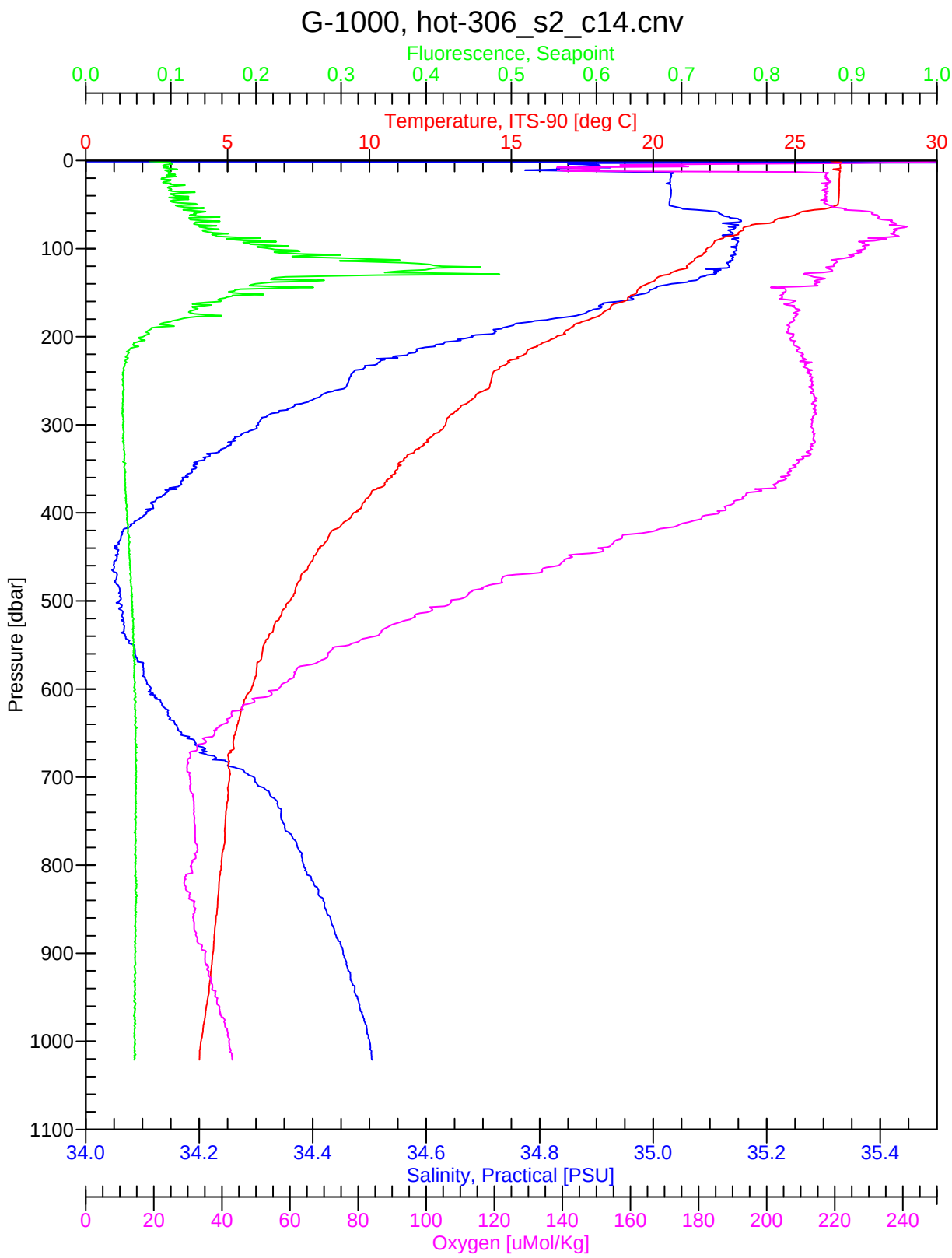

W-1000, hot-306_s2_c11.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240

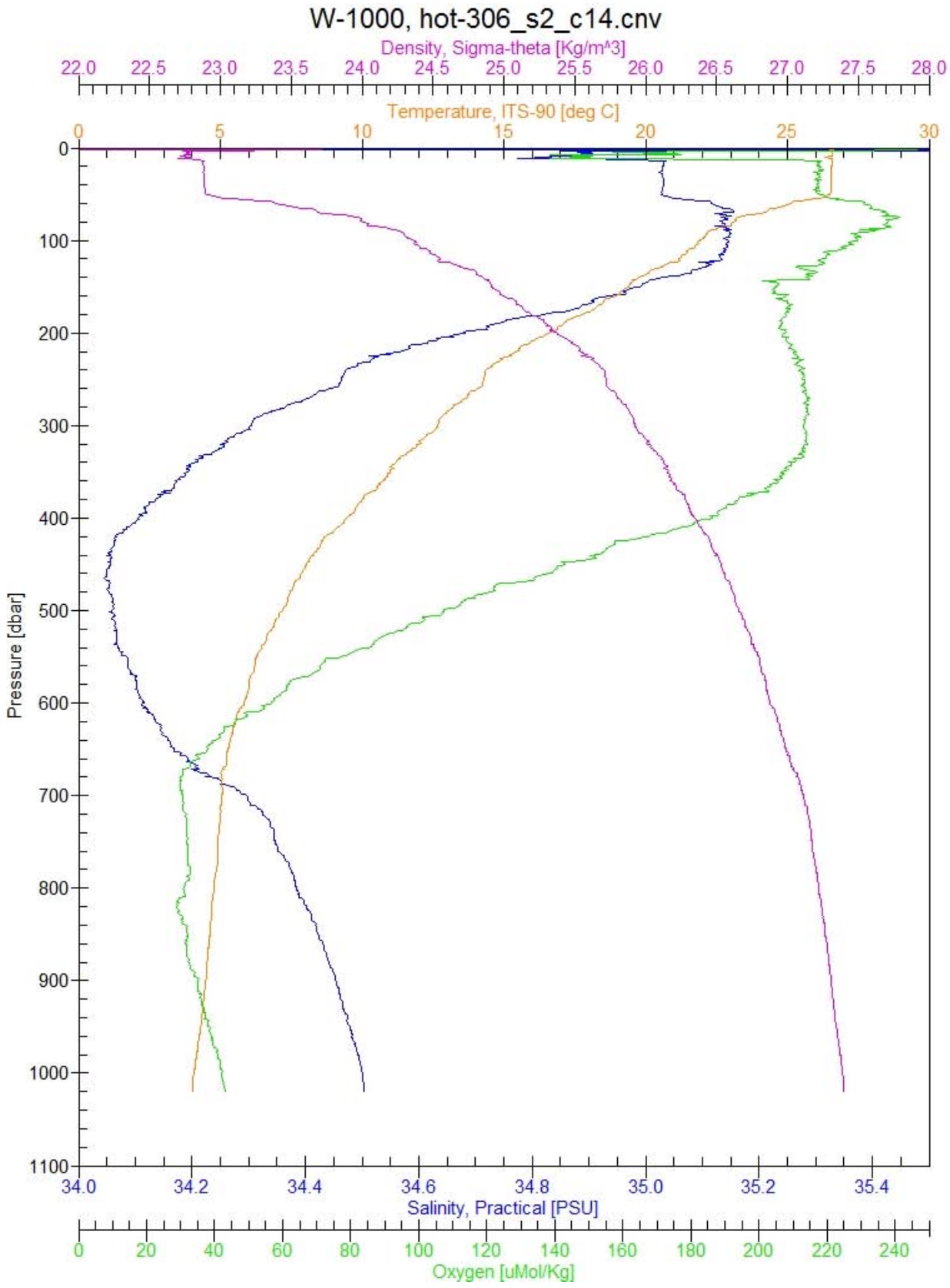

G-1000, hot-306_s2_c12.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

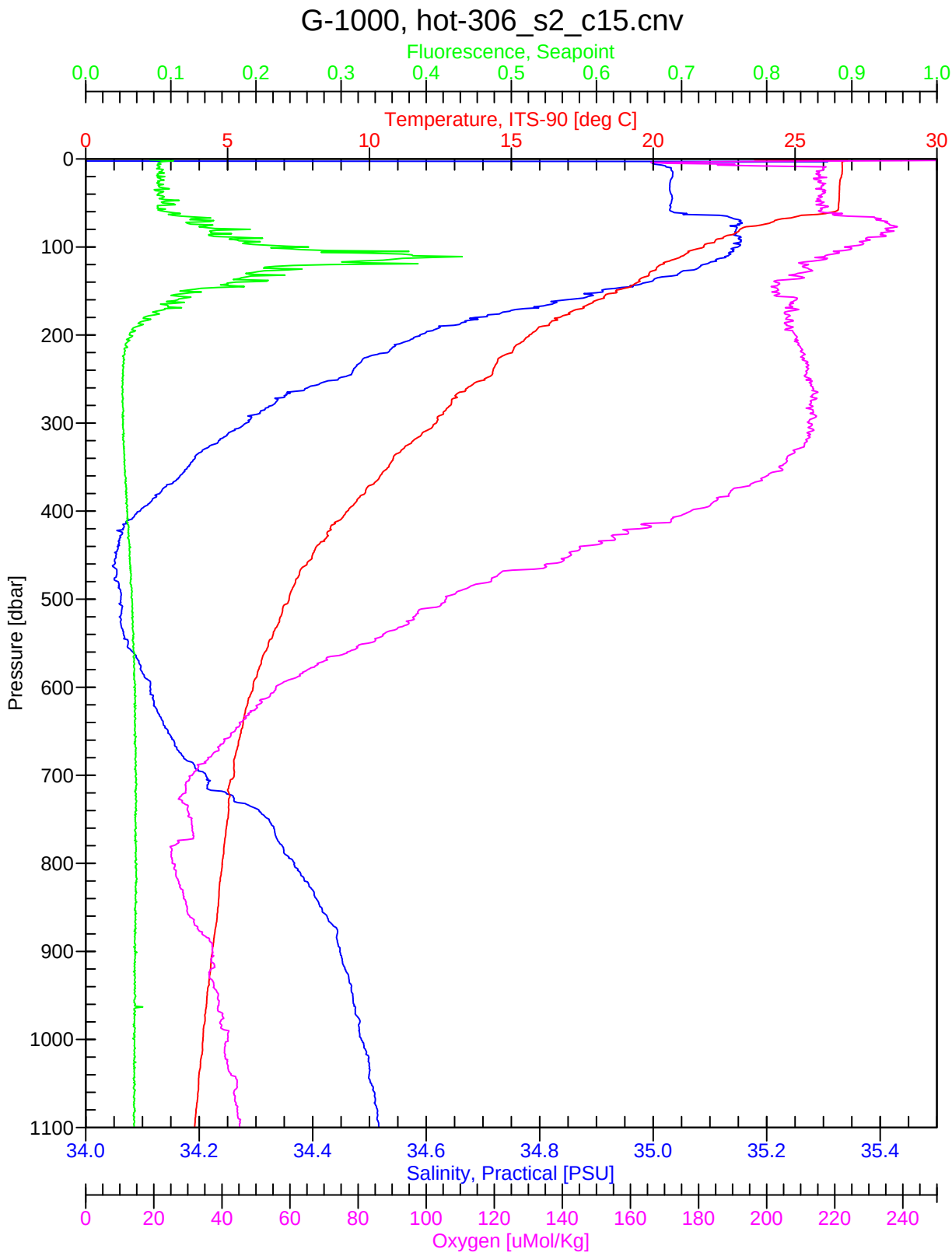

W-1000, hot-306_s2_c12.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240

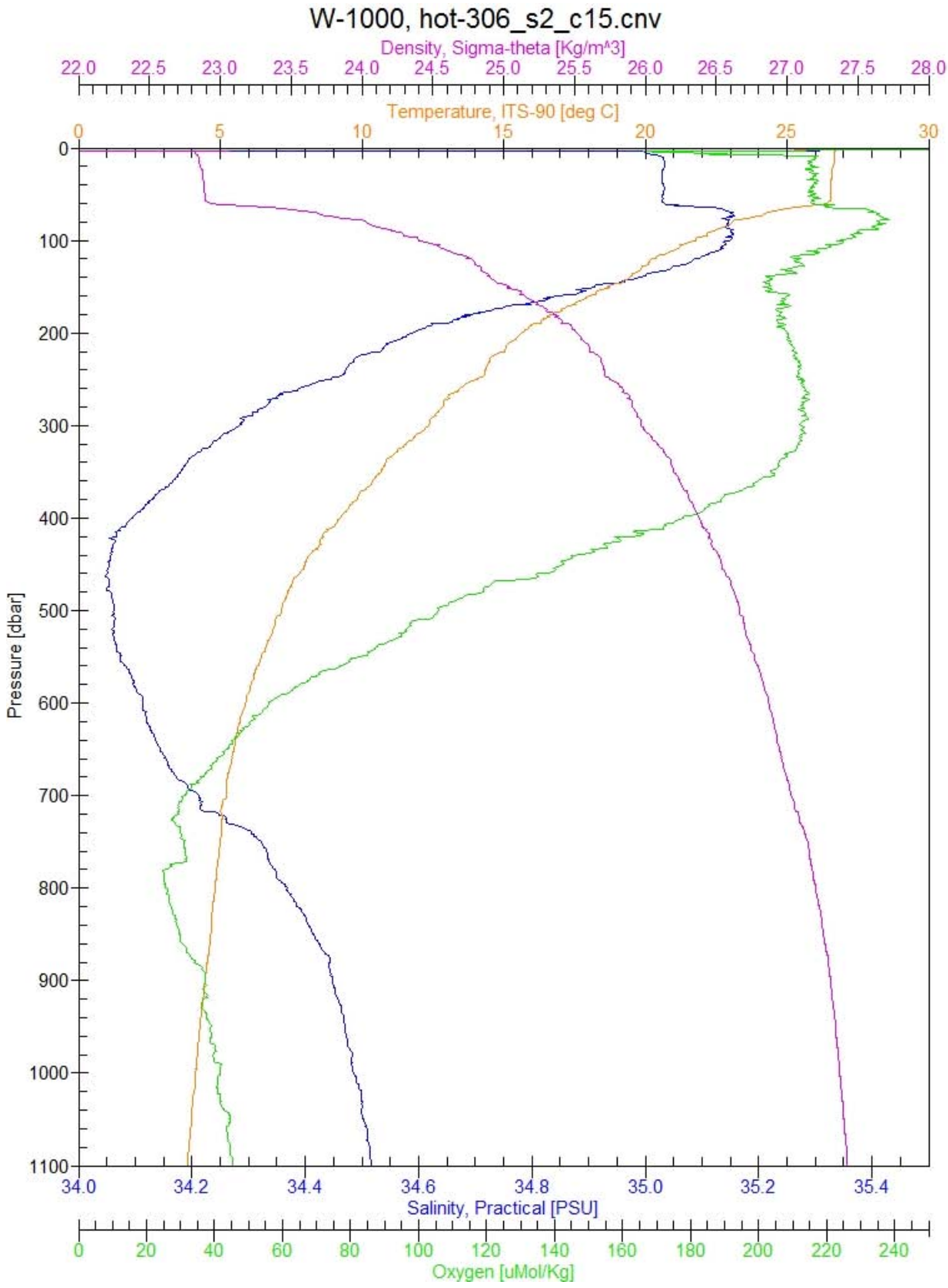

G-1000, hot-306_s2_c13.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]

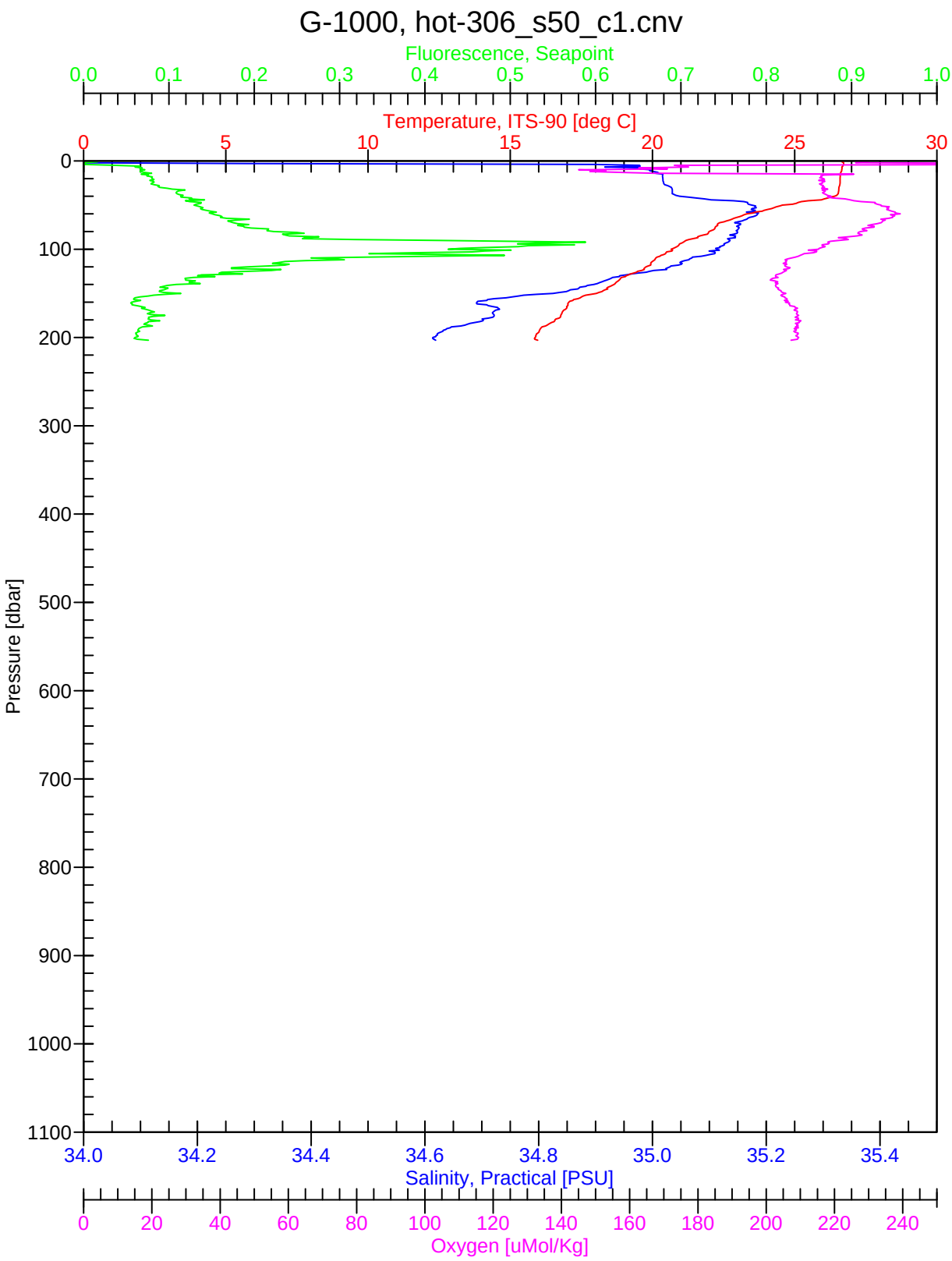

W-1000, hot-306_s2_c13.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240

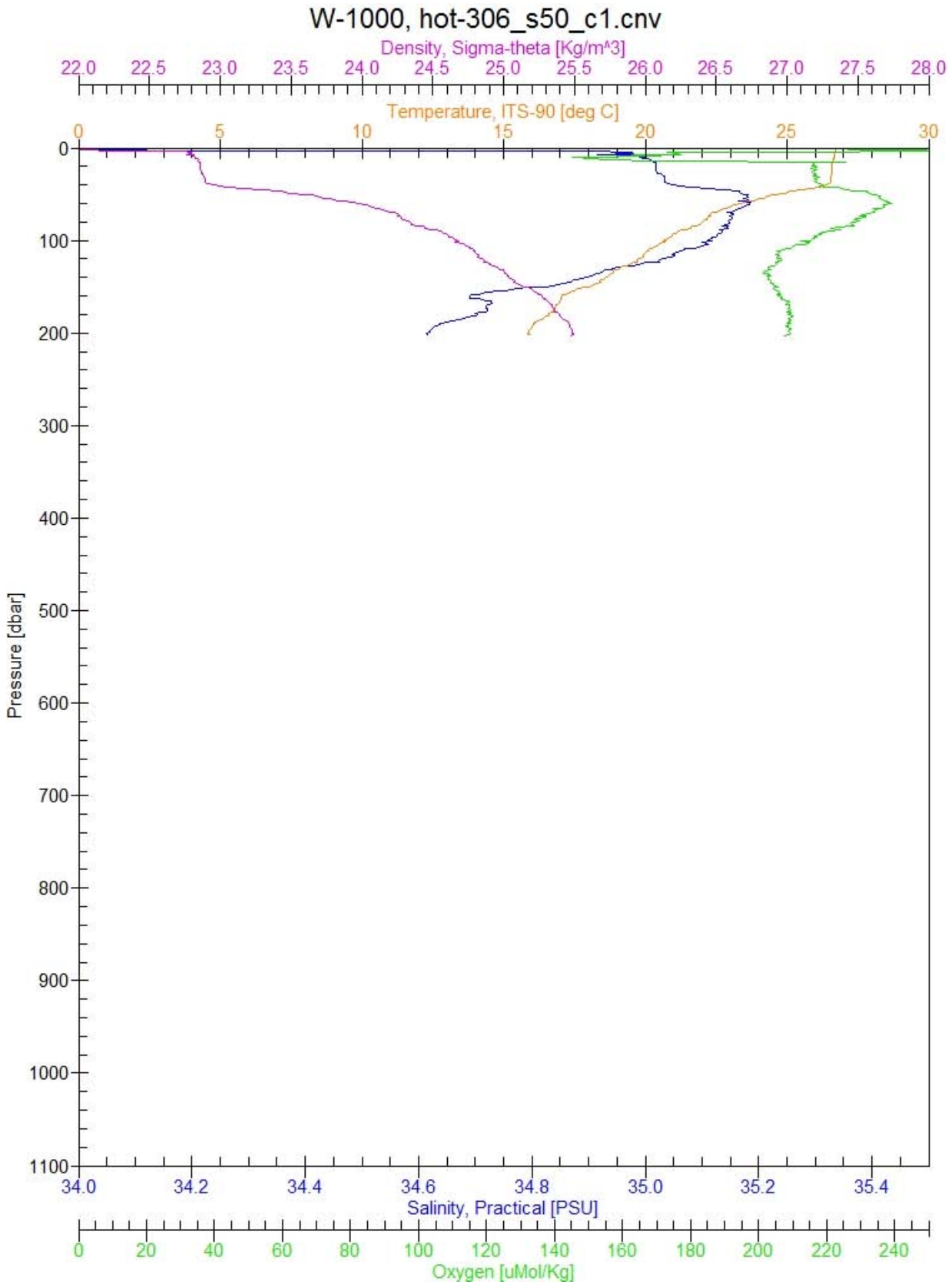

G-1000, hot-306_s2_c14.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s2_c14.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240


G-1000, hot-306_s2_c15.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s2_c15.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Salinity, Practical [PSU]
0 20 40 60 80 100 120 140 160 180 200 220 240
Oxygen [uMol/Kg]


G-1000, hot-306_s50_c1.cnv
Fluorescence, Seapoint
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Temperature, ITS-90 [deg C]
0
5
10
15
20
25
30
Pressure [dbar]
0
100
200
300
400
500
600
700
800
900
1000
1100
34.0
34.2
34.4
34.6
34.8
35.0
35.2
35.4
Salinity, Practical [PSU]
0
20
40
60
80
100
120
140
160
180
200
220
240
Oxygen [uMol/Kg]


W-1000, hot-306_s50_c1.cnv
Density, Sigma-theta [Kg/m^3]
22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0
Temperature, ITS-90 [deg C]
0 5 10 15 20 25 30
Pressure [dbar]
0 100 200 300 400 500 600 700 800 900 1000 1100
Salinity, Practical [PSU]
34.0 34.2 34.4 34.6 34.8 35.0 35.2 35.4
Oxygen [uMol/Kg]
0 20 40 60 80 100 120 140 160 180 200 220 240

HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000 GPS | 12L | 28.10 | SN/KT ♡ |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

MLD: ≈40 db.
S-min: ≈400 db
DCM: ≈90 db.

| Station: 1 | Cast: 1 |
|---|---|
| Latitude start: 21° 20.5995 end: 21° 20.5982 | Longitude start: 158° 16.3632 end: 158° 16.4127 |
| Depth of water: 1558 meters | Date (GMT): 10 / 12 / 18 |
| Pressure on Deck | Time: |
| Begin: -0.1 End: -0.32 | Start Log: 00:57 In Water: 01:00:11 |
| Max cast pressure: 1029 dbar | Out of Water: 02:01:45 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 01:25:30 | 01:25:55 | 1029 | 1020 | |
| 2 | | 01:32:45 | 750 | 750 | |
| 3 | | 38:45 | 500 | 500 | |
| 4 | | 42:25 | 351 | 350 | |
| 5 | | 45:10 | 249 | 250 | |
| 6 | | 47:00 | 201 | 200 | |
| 7 | | 48:15 | 176 | 175 | |
| 8 | | 49:45 | 149 | 150 | |
| 9 | | 51:10 | 124 | 125 | |
| 10 | | 52:35 | 99 | 100 | |
| 11 | | 54:00 | 75 | 75 | |
| 12 | | 55:30 | 44 | 45 | |
| 13 | | 56:45 | 24 | 25 | |
| 14 | | 58:10 | 5 | 5 | |
| 15 | | 58:30 | 5 | 5 | |
| 16 | | | | 5 | |
| 17 | | | | 5 | |
| 18 | | | | 5 | |
| 19 | | | | 5 | |
| 20 | | | | 5 | |
| 21 | | | | 5 | |
| 22 | | | | 5 | |
| 23 | | | | 5 | |
| 24 | | | | 5 | |

TEST

| Hawaii Ocean Time Series | | | Station #: 1 | Cast #: 1 | Box #: 2 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: F, T, S, S | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 25 | | | |
| 2 | 750 | 26 | | | |
| 3 | 500 | 27 | | | |
| 4 | 350 | 28 | | | |
| 5 | 250 | 29 | | | |
| 6 | 200 | 30 | | | |
| 7 | 175 | 31 | | | |
| 8 | 150 | 32 | | | |
| 9 | 125 | 33 | | | |
| 10 | 100 | 34 | | | |
| 11 | 75 | 35 | | | |
| 12 | 45 | 36 | | | |
| 13 | 25 | 37 | | | |
| 14 | 5 | 38 | | | |
| 15 | 5 | 39 | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G200 GPS | 12L | 26.45 | SN/KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

MLD: 48
Smin: NA
DCM: 100

| Station: 2 | Cast: 1 |
|---|---|
| Latitude start: 22° 45.9714 end: 22° 45.9774 | Longitude start: 158° 01.5958 end: 158° 01.6141 |
| Depth of water: 4742 meters | Date (GMT): 10 / 12 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.23 End: 0.10 | Start Log: 12:45 In Water: 12:53:58 |
| Max cast pressure: 201 dbar | Out of Water: 13:22:10 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 13:03:00 | 13:03:30 | 201 | 200 | |
| 2 | 04:40 | 05:00 | 187 | 190 | |
| 3 | 06:00 | 06:20 | 177 | 175 | |
| 4 | 07:50 | 08:10 | 150 | 150 | |
| 5 | 09:05 | 09:25 | 125 | 125 | |
| 6 | | 35 | 125 | 125 | |
| 7 | | 45 | 126 | 125 | |
| 8 | 11:10 | 11:30 | 98 | 100 | |
| 9 | | 40 | 98 | 100 | |
| 10 | | 50 | 100 | 100 | |
| 11 | 13:00 | 13:20 | 72 | 75 | |
| 12 | | 30 | 73 | 75 | |
| 13 | | 40 | 74 | 75 | |
| 14 | 15:10 | 15:30 | 44 | 45 | |
| 15 | | 40 | 43 | 45 | |
| 16 | | 50 | 44 | 45 | |
| 17 | 16:50 | 17:10 | 24 | 25 | |
| 18 | | 20 | 23 | 25 | |
| 19 | | 30 | 23 | 25 | |
| 20 | 18:05 | 18:25 | 13 | 15 | |
| 21 | 19:10 | 19:30 | 4 | 5 | |
| 22 | | 40 | 4 | 5 | |
| 23 | | 50 | 4 | 5 | |
| 24 | | 20:00 | 5 | 5 | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 1 | Box #: 3 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT-306 | Sampler: | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 200 | 49 | | | |
| 2 | 190 | 50 | | | |
| 3 | 175 | 51 | | | |
| 4 | 150 | 52 | | | |
| 5 | 125 | 53 | | | |
| 6 | 125 | 54 | | | |
| 7 | 125 | 55 | | | |
| 8 | 100 | 56 | | | |
| 9 | 100 | 57 | | | |
| 10 | 100 | 58 | | | |
| 11 | 75 | 59 | | | |
| 12 | 75 | 60 | | | |
| 13 | 75 | 61 | | | |
| 14 | 45 | 62 | | | |
| 15 | 45 | 63 | | | |
| 16 | 45 | 64 | | | |
| 17 | 25 | 65 | | | |
| 18 | 25 | 66 | | | |
| 19 | 25 | 67 | | | |
| 20 | 15 | 68 | | | |
| 21 | 5 | 69 | | | |
| 22 | 5 | 70 | | | |
| 23 | 5 | 71 | | | |
| 24 | 5 | 72 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G5000 (no GPS) | 12 L | 26.39 | KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

PO - 1

MLD = 55
DCM = 120
S-min = 475

| | |
|---|---|
| Station: 2 | Cast: 2 |
| Latitude start: 22° 45.0272 end: 22° 44.9886 | Longitude start: 158° 00.0037 end: 158° 00.0137 |
| Depth of water: 4738 meters | Date (GMT): 10 / 12 / 18 |
| Pressure on Deck | Time: |
| Begin: 0.28 End: −0.37 | Start Log: 17:01 In Water: 17:01 |
| Max cast pressure: 4809 dbar | Out of Water: 21:08:08 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 18:44:40 | 4809 | 4800 | 5m off the bottom |
| 2 | | 52:00 | 4602 | 4600 | |
| 3 | | 57:30 | 4501 | 4500 | |
| 4 | | 19:02:20 | 4401 | 4400 | |
| 5 | | 09:50 | 4201 | 4200 | |
| 6 | | 17:30 | 4000 | 4000 | |
| 7 | | 23:30 | 3800 | 3800 | |
| 8 | | 28:50 | 3600 | 3600 | |
| 9 | | 34:30 | 3400 | 3400 | |
| 10 | | 40:00 | 3199 | 3200 | |
| 11 | | 45:10 | 2999 | 3000 | |
| 12 | | 51:10 | 2799 | 2800 | |
| 13 | | 56:30 | 2599 | 2600 | |
| 14 | | 20:01:50 | 2400 | 2400 | |
| 15 | | 07:40 | 2199 | 2200 | |
| 16 | | 13:10 | 1999 | 2000 | |
| 17 | | 18:15 | 1800 | 1800 | |
| 18 | | 28:45 | 1599 | 1600 | |
| 19 | | 29:05 | 1398 | 1400 | |
| 20 | | 24:10 | 1200 | 1200 | |
| 21 | | 39:20 | 999 | 1000 | |
| 22 | | 45:20 | 751 | 750 | |
| 23 | | 51:40 | 501 | 500 | |
| 24 | | 21:03:20 | 5 | 5 | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 2 | Box #: 4 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: KT, JS, ST | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 4800 | 73 | | | |
| 2 | 4600 | 74 | | | |
| 3 | 4500 | 75 | | | |
| 4 | 4400 | 76 | | | |
| 5 | 4200 | 77 | | | |
| 6 | 4000 | 78 | | | |
| 7 | 3800 | 79 | | | |
| 8 | 3600 | 80 | | | |
| 9 | 3400 | 81 | | | |
| 10 | 3200 | 82 | | | |
| 11 | 3000 | 83 | | | |
| 12 | 2800 | 84 | | | |
| 13 | 2600 | 85 | | | |
| 14 | 2400 | 86 | | | |
| 15 | 2200 | 87 | | | |
| 16 | 2000 | 88 | | | |
| 17 | 1800 | 89 | | | |
| 18 | 1600 | 90 | | | |
| 19 | 1400 | 91 | | | |
| 20 | 1200 | 92 | | | |
| 21 | 1000 | 93 | | | |
| 22 | 750 | 94 | | | |
| 23 | 500 | 95 | | | |
| 24 | 5 | 96 | | | |
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| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 2 | Box #: 5 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: KT, KS, ST, CM | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | | 97 | Duplicates | | |
| 2 | | 98 | | | |
| 3 | | 99 | | | |
| 4 | | 100 | | | |
| 5 | | 101 | | | |
| 6 | | 102 | | | |
| 7 | | 103 | | | |
| 8 | | 104 | | | |
| 9 | | 105 | | | |
| 10 | | 106 | | | |
| 11 | | 107 | | | |
| 12 | | 108 | | | |
| 13 | | 109 | | | |
| 14 | | 110 | | | |
| 15 | | 111 | | | |
| 16 | | 112 | | | |
| 17 | | 113 | | | |
| 18 | | 114 | | | |
| 19 | | 115 | | | |
| 20 | | 116 | | | |
| 21 | | 117 | | | |
| 22 | | 118 | | | |
| 23 | | 119 | | | |
| 24 | | 120 | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GPS | 12L | 26.80 | KT |

- ☐ Pinger
- ☐ Altimeter
- ☐ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☐ PO Fluorometer
- ☐

PO-2

MLD 42
DCM 117
5min

| Station: 8 | Cast: 3 |
|---|---|
| Latitude start: 22° 44.9827 end: 22° 44.9973 | Longitude start: 158° 00.0348 end: 158° 00.0192 |
| Depth of water: 4741 meters | Date (GMT): 10/12/18 |
| Pressure on Deck | Time: |
| Begin: -0.39 | Start Log: 23:06 |
| End: -0.11 | In Water: 23:09 |
| Max cast pressure: 1020 dbar | Out of Water: 00:26 (10/13/18) |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 23:37:10 | 1018 | 1020 | |
| 2 | | 39:55 | 1008 | 1007 | |
| 3 | | 44:50 | 826 | 827 | |
| 4 | | 47:20 | 767 | 770 | |
| 5 | | 49:30 | 714 | 713 | |
| 6 | | 51:00 | 685 | 685 | |
| 7 | | 52:40 | 651 | 652 | |
| 8 | | 54:40 | 605 | 605 | |
| 9 | | 56:40 | 564 | 565 | |
| 10 | | 59:10 | 517 | 518 | |
| 11 | | 00:01:00 | 482 | 482 | |
| 12 | | 02:40 | 464 | 465 | |
| 13 | | 05:00 | 399 | 401 | |
| 14 | | 07:00 | 345 | 347 | |
| 15 | | 09:40 | 274 | 275 | |
| 16 | | 12:15 | 191 | 193 | |
| 17 | | 14:50 | 134 | 137 | |
| 18 | | 16:30 | 117 | 117 | |
| 19 | | 17:55 | 94 | 95 | |
| 20 | | 19:10 | 84 | 85 | |
| 21 | | 20:20 | 70 | 71 | |
| 22 | | 21:40 | 52 | 54 | |
| 23 | | 22:50 | 40 | 42 | |
| 24 | | 24:40 | 6 | 5 | |

# Hawaii Ocean Time-Series

HOT - 306

| | | | |
|---|---|---|---|
| Station: | 2 | Cast: | 3 |
| Latitude: | 22° 44.98 | Longitude: | 158° 00.04 |
| Date: | 10/12/18 | Time (GMT): | 23:06 |
| Operator: | KT | | |

| $\delta_\theta$ | $\sigma_\theta$ | Depth |
|---|---|---|
| 700 | 20.76 | |
| 650 | 21.28 | |
| 600 | 21.80 | |
| 550 | 22.33 | |
| 500 | 22.85 | 5 |
| 450 | 23.37 | 54 |
| 400 | 23.90 | 71 |
| 350 | 24.42 | 95 |
| 300 | 24.95 | 137 |
| 250 | 25.47 | 193 |
| 200 | 26.00 | 275 |
| 180 | 26.21 | 347 |
| 160 | 26.42 | 401 |
| 140 | 26.63 | 482 |
| 130 | 26.73 | 518 |
| 120 | 26.84 | 565 |
| 110 | 26.94 | 605 |
| 100 | 27.05 | 652 |
| 90 | 27.16 | 713 |
| 80 | 27.26 | 827 |
| 70 | 27.37 | 1007 |

| | |
|---|---|
| $S_{max}$ | 85 |
| $S_{min}$ | 465 |
| $S_{max}$ | |
| $S_{min}$ | |

| | |
|---|---|
| $O_{max}$ | 87 |
| $O_{min}$ | 685 |
| $O_{max}$ | |
| $O_{min}$ | |
| $O_{max}$ | |

| | |
|---|---|
| $F_{max}$ | |
| $F_{min}$ | |
| $F_{max}$ | |
| $F_{min}$ | |
| $F_{max}$ | |

| Bottle | Depth |
|---|---|
| 1 | 1020 |
| 2 | 1007 |
| 3 | 827 |
| 4 | 770 |
| 5 | 713 |
| 6 | 685 |
| 7 | 652 |
| 8 | 605 |
| 9 | 565 |
| 10 | 518 |
| 11 | 482 |
| 12 | 465 |
| 13 | 401 |
| 14 | 347 |
| 15 | 275 |
| 16 | 193 |
| 17 | 137 |
| 18 | 117 |
| 19 | 95 |
| 20 | 85 |
| 21 | 71 |
| 22 | 54 |
| 23 | 42 |
| 24 | 5 |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 3 | Box #: 6 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 121 | | | |
| 2 | 1007 | 122 | | | |
| 3 | 827 | 123 | | | |
| 4 | 770 | 124 | | | |
| 5 | 713 | 125 | | | |
| 6 | 685 | 126 | | | |
| 7 | 652 | 127 | | | |
| 8 | 605 | 128 | | | |
| 9 | 565 | 129 | | | |
| 10 | 518 | 130 | | | |
| 11 | 482 | 131 | | | |
| 12 | 465 | 132 | | | |
| 13 | 401 | 133 | | | |
| 14 | 347 | 134 | | | |
| 15 | 275 | 135 | | | |
| 16 | 193 | 136 | | | |
| 17 | 137 | 137 | | | |
| 18 | 117 | 138 | | | |
| 19 | 95 | 139 | | | |
| 20 | 85 | 140 | | | |
| 21 | 71 | 141 | | | |
| 22 | 54 | 142 | | | |
| 23 | 42 | 143 | | | |
| 24 | 5 | 144 | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GAS | 12L | 26.90 | SN |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

PC/PN

MLD 40 db
DCM 110 db
S-min 450 db

| Station: 2 | Cast: 4 |
|---|---|
| Latitude start: 22° 44.9887 end: 22° 44.9976 | Longitude start: 158° 00.0082 end: 158° 00.0293 |
| Depth of water: 4743 meters | Date (GMT): 10 / 13 / 18 |
| Pressure on Deck | Time: |
| Begin: 0.65 End: -0.26 | Start Log: 01:25 In Water: 01:39:50 |
| Max cast pressure: 1019 dbar | Out of Water: 02:41:58 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 02:09:20 | 1019 | 1020 | |
| 2 | | 16:05 | 699 | 700 | |
| 3 | | 21:35 | 452 | 450 | Smin |
| 4 | | 24:10 | 351 | 350 | |
| 5 | | :15 | 351 | 350 | |
| 6 | | 27:00 | 252 | 250 | |
| 7 | | 28:45 | 199 | 200 | |
| 8 | | 30:00 | 173 | 175 | |
| 9 | | 31:20 | 149 | 150 | |
| 10 | | 32:40 | 125 | 125 | |
| 11 | | 34:00 | 100 | 100 | |
| 12 | | 35:30 | 74 | 75 | |
| * 13 | | :35 | 73 | 75 | |
| 14 | | 37:10 | 44 | 45 | |
| * 15 | | :15 | 46 | 45 | |
| 16 | | 39:45 | 25 | 25 | |
| * 17 | | :50 | 25 | 25 | |
| 18 | | 40:05 | 5 | 5 | |
| * 19 | | :10 | 5 | 5 | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 4 | Box #: 7 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: C, M, F, S | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 145 | | | |
| 2 | 700 | 146 | | | |
| 3 | 450 | 147 | 5 min | | |
| 4 | 350 | 148 | | | |
| 5 | 350 | 149 | | | |
| 6 | 250 | 150 | | | |
| 7 | 200 | 151 | | | |
| 8 | 175 | 152 | | | |
| 9 | 150 | 153 | | | |
| 10 | 125 | 154 | | | |
| 11 | 100 | 155 | | | |
| 12 | 75 | 156 | | | |
| 13 | | | | | |
| 14 | 45 | 157 | | | |
| 15 | | | | | |
| 16 | 25 | 158 | | | |
| 17 | | | | | |
| 18 | 5 | 159 | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| 9 1000 GPS | 12L | 22.50 | SN |

- ☐ Pinger
- ☑ Altimeter
- ☐ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer $PPO_4$
- ☐

MLD: 60 db.
DCM: 120 db
Smin. 450 db

| Station: 2 | Cast: 5 |
|---|---|
| Latitude start: 22° 44.5573 end: 22° 44.5594 | Longitude start: 158° 01.4282 end: 158° 01.4340 |
| Depth of water: 4747 meters | Date (GMT): 10 / 13 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.23 End: -0.07 | Start Log: 05:01 In Water: 05:09:50 |
| Max cast pressure: 1020 dbar | Out of Water: 06:15:10 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 05:35:35 | 1020 | 1020 | |
| 2 | | 49:10 | 448 | 450 | Smin |
| 3 | | 52:20 | 350 | 350 | |
| 4 | | :25 | 349 | 350 | |
| 5 | | 55:40 | 251 | 250 | |
| 6 | | 58:05 | 200 | 200 | |
| 7 | | 59:35 | 174 | 175 | |
| 8 | | 06:01:05 | 149 | 150 | |
| 9 | | 02:35 | 126 | 125 | |
| 10 | | 04:05 | 99 | 100 | |
| 11 | | 05:40 | 76 | 75 | |
| 12 | | 07:20 | 45 | 45 | |
| 13 | | 09:00 | 23 | 25 | |
| X X 14 | | :05 | 24 | 25 | |
| X 15 | | 10:20 | 15 | 15 | |
| 16 | | 11:30 | 4 | 5 | |
| X 17 | | :35 | 4 | 5 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 5 | Box #: 7, 8 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: F, C, S, M | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 160 | | | |
| 2 | | 161 | S mix | | |
| 3 | 350 | 162 | | | |
| 4 | 300 | 163 | | | |
| 5 | 250 | 164 | | | |
| 6 | 200 | 165 | | | |
| 7 | 175 | 166 | | | |
| 8 | 150 | 167 | | | |
| 9 | 125 | 168 | | | |
| 10 | 100 | 169 | | | |
| 11 | 75 | 170 | | | |
| 12 | 45 | 171 | | | |
| 13 | 25 | 172 | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | 5 | 173 | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GPS | 12 L | 26.50 | SN |

- ☐ Binger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

Beach

MLD: 50 db
Smin: 450 db
DCM: 130 db

| Station: 2 | Cast: 6 |
|---|---|
| Latitude start: 22° 44.6674 end: 22° 44.6630 | Longitude start: 158° 01.4429 end: 158° 01.4273 |
| Depth of water: 4743 meters | Date (GMT): 10 / 13 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.39 End: 0.04 | Start Log: 07:09 In Water: 07:18:00 |
| Max cast pressure: 1022 dbar | Out of Water: 08:24:55 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 07:44:45 | 1022 | 1020 | |
| 2 | | 51:15 | 750 | 750 | 2 min |
| 3 | | 58:00 | 449 | 450 | 5 min |
| 4 | | 08:03:30 | 198 | 200 | |
| 5 | | 04:55 | 175 | 175 | |
| 6 | | 05:55 | 164 | 165 | |
| 7 | | 06:55 | 149 | 150 | |
| 8 | | 08:05 | 130 | 130 | |
| 9 | | 09:00 | 125 | 125 | |
| 10 | | 10:10 | 114 | 115 | |
| 11 | | 11:20 | 111 | 110 | |
| 12 | | 12:35 | 99 | 100 | |
| 13 | | 13:45 | 90 | 90 | |
| 14 | | 14:50 | 84 | 85 | |
| 15 | | 16:10 | 74 | 75 | |
| 16 | | 17:25 | 60 | 60 | |
| 17 | | 18:45 | 45 | 45 | |
| 18 | | 19:45 | 35 | 35 | |
| 19 | | 21:00 | 25 | 25 | |
| X 20 | | :05 | 25 | 25 | |
| 21 | | 22:05 | 24 | 15 | |
| 22 | | 23:15 | 5 | 5 | |
| X 23 | | :20 | 5 | 5 | |
| X 24 | | :25 | 5 | 5 | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 6 | Box #: 8, 9 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT-306 | Sampler: F, C, M, S | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 174 | | | |
| 2 | 750 | 175 | $O_2$ min | | |
| 3 | 450 | 176 | S min | | |
| 4 | 200 | 177 | | | |
| 5 | 175 | 178 | | | |
| 6 | 165 | 179 | | | |
| 7 | 150 | 180 | | | |
| 8 | 130 | 181 | | | |
| 9 | 125 | 182 | | | |
| 10 | 115 | 183 | | | |
| 11 | 110 | 184 | | | |
| 12 | 100 | 185 | | | |
| 13 | 90 | 186 | | | |
| 14 | 85 | 187 | | | |
| 15 | 75 | 188 | | | |
| 16 | 60 | 189 | | | |
| 17 | 45 | 190 | | | |
| 18 | 35 | 191 | | | |
| 19 | 25 | 192 | | | |
| 20 | | | | | |
| 21 | 15 | 193 | | | |
| 22 | 5 | 194 | | | |
| 23 | | | | | |
| 24 | | | | | |
| | | | | | |
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| | | | | | |

HOT-306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000 GPS | 12L | 26.50 | SN |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☑ OTG Seapoint Fluorometer
- ☐ ISUS
- ☐ PO Fluorometer
- ☐

PUR

MLD: 40 db
DCM: 100 db.
Smin: 450 db

| Station: 2 | Cast: 7 |
|---|---|
| Latitude start: 22° 45.6297 end: 22° | Longitude start: 158° 01.2607 end: 158° |
| Depth of water: 4744 meters | Date (GMT): 10 / 13 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.34 End: -0.17 | Start Log: 09:50 In Water: 09:58:40 |
| Max cast pressure: 1019. dbar | Out of Water: 10:57:10 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 10:26:20 | 1019 | 1020 | |
| 2 | | 32:15 | ~~774~~ | ~~775~~ | |
| 3 | | 42:30 | 250 | 250 | |
| 4 | | 43:00 | 174 | 175 | |
| 5 | | :05 | ~~171~~ | 175 | |
| 6 | | 46:30 | 148 | 150 | |
| 7 | | :35 | 148 | 150 | |
| 8 | | 47:55 | 124 | 125 | |
| 9 | | 48:00 | 123 | 125 | |
| 10 | | 49:20 | 100 | 100 | |
| 11 | | :25 | 99 | 100 | |
| 12 | | 50:45 | ~~73~~ | ~~75~~ | |
| 13 | | 52:00 | 45 | 45 | |
| 14 | | 53:10 | ~~25~~ | ~~25~~ | |
| 15 | | :15 | 24 | 25 | |
| 16 | | 54:45 | 5 | 5 | |
| 17 | | :50 | 5 | 5 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 7 | Box #: 9 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: F, M, S | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 195 | | | |
| 2 | 775 | 196 | | | |
| 3 | 250 | 197 | | | |
| 4 | 175 | 198 | | | |
| 5 | 175 | 199 | | | |
| 6 | 150 | 200 | | | |
| 7 | 150 | 201 | | | |
| 8 | 125 | 202 | | | |
| 9 | 125 | 203 | | | |
| 10 | 100 | 204 | | | |
| 11 | 100 | 205 | | | |
| 12 | 75 | 206 | | | |
| 13 | 45 | 207 | | | |
| 14 | 25 | 208 | | | |
| 15 | | | | | |
| 16 | 5 | 209 | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000 GPS | 12L | 26.50 | SM / KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

MLD: 50 db
DCM: 110 db
Smin 450 db

| Station: 2 | Cast: 8 |
|---|---|
| Latitude start: 22° 43.6792 end: 22° 43.6908 | Longitude start: 158° 02.5962 end: 158° 02.6971 |
| Depth of water: 4761 meters | Date (GMT): 10 / 13 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.41 End: -0.12 | Start Log: 12:00 In Water: 12:06:08 |
| Max cast pressure: 1020 dbar | Out of Water: 13:10:00 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 12:35:45 | 1019 | 1020 | |
| 2 | | 49:30 | 449 | 450 | Smin |
| 3 | | 56:30 | 124 | 125 | |
| 4 | | 40 | 125 | 125 | |
| 5 | | 50 | 124 | 125 | |
| 6 | | 58:20 | 97 | 100 | |
| 7 | | 30 | 97 | 100 | |
| 8 | | 40 | 97 | 100 | |
| 9 | | 13:00:00 | 73 | 75 | |
| 10 | | 10 | 73 | 75 | |
| 11 | | 20 | 74 | 75 | |
| 12 | | 01:40 | 45 | 45 | |
| 13 | | 50 | 44 | 45 | |
| 14 | | 02:00 | 43 | 45 | |
| 15 | | 03:10 | 20 | 25 | |
| 16 | | 20 | 25 | 25 | |
| 17 | | 30 | 23 | 25 | |
| 18 | | 40 | 24 | 25 | |
| 19 | | 20 | 5 | 5 | |
| 20 | | 30 | 6 | 5 | |
| 21 | | 40 | 5 | 5 | |
| 22 | | 50 | 6 | 5 | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 8 | Box #: 9,10 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | | Sampler: KT, ST, JS |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 210 | | | |
| 2 | 450 | 211 | | | |
| 3 | 125 | 212 | | | |
| 4 | 125 | 213 | | | |
| 5 | 125 | 214 | | | |
| 6 | 100 | 215 | | | |
| 7 | 100 | 216 | | | |
| 8 | 100 | 217 | | | |
| 9 | 75 | 218 | | | |
| 10 | 75 | 219 | | | |
| 11 | 75 | 220 | | | |
| 12 | 45 | 221 | | | |
| 13 | 45 | 222 | | | |
| 14 | 45 | 223 | | | |
| 15 | 25 | 224 | | | |
| 16 | 25 | 225 | | | |
| 17 | 25 | 226 | | | |
| 18 | | | | | |
| 19 | 5 | 227 | | | |
| 20 | 5 | 228 | | | |
| 21 | 5 | 229 | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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NOT VALID

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 8 | Box #: 9 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: KT, ST | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 210 | | | |
| 2 | 450 | 211 | 8 min | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | 5 | 212 | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GRS | 12L | 26.51 | KT |

- ☐ Pinger
- ☒ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☒ PO Fluorometer
- ☐

OPEN

MLD 54
OCM 110
S-min 505

| Station: 2 | Cast: 9 |
|---|---|
| Latitude start: 22° 44.0170 end: 22° 44.0137 | Longitude start: 158° 02.6505 end: 158° 02.6477 |
| Depth of water: 4760 meters | Date (GMT): 10 / 13 / 18 |
| Pressure on Deck | Time: |
| Begin: 0.27 End: -0.06 | Start Log: 15:12 In Water: 15:15 |
| Max cast pressure: 1020 dbar | Out of Water: 16:19 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 15:40:30 | 15:40:50 | 1019 | 1020 | |
| 2 | 53:50 | 54:10 | 506 | 505 | S-min |
| 3 | 59:40 | 16:00:00 | 276 | 275 | |
| 4 | 01:30 | 01:50 | 248 | 250 | |
| 5 | 02:50 | 03:10 | 225 | 225 | |
| 6 | 04:20 | 04:40 | 198 | 200 | |
| 7 | 06:00 | 06:20 | 176 | 175 | |
| 8 | 07:45 | 08:05 | 150 | 150 | |
| 9 | 09:15 | 09:35 | 124 | 125 | |
| 10 | 10:35 | 10:55 | 100 | 100 | |
| 11 | 12:00 | 12:20 | 76 | 75 | |
| 12 | 13:40 | 14:00 | 46 | 45 | |
| 13 | 15:05 | 15:25 | 24 | 25 | |
| 14 | | 35 | 22 | 25 | |
| 15 | 16:30 | 16:50 | 16 | 15 | |
| 16 | 17:40 | 18:00 | 6 | 5 | |
| 17 | | 10 | 5 | 5 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 9 | Box #: 10 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: KT, ST, JS | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 230 | | | |
| 2 | 505 | 231 | 5min | | |
| 3 | 275 | — | | | |
| 4 | 250 | — | | | |
| 5 | 225 | — | | | |
| 6 | 200 | — | | | |
| 7 | 175 | — | | | |
| 8 | 150 | — | | | |
| 9 | 125 | — | | | |
| 10 | 100 | — | | | |
| 11 | 75 | — | | | |
| 12 | 45 | — | | | |
| 13 | 25 | — | | | |
| 14 | 25 | — | | | |
| 15 | 15 | — | | | |
| 16 | 5 | 232 | | | |
| 17 | 5 | — | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT-306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GPS | 12L | 26.54 | KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

PSI

MLD 45
DCM 120
S-min 495

| Station: 2 | Cast: 10 |
|---|---|
| Latitude start: 22° 44.2258 end: 22° 44.22257 | Longitude start: 158° 02.5845 end: 158° 02.5882 |
| Depth of water: 4755 meters | Date (GMT): 10 / 13 / 18 |
| Pressure on Deck | Time: |
| Begin: 0.25 End: −0.05 | Start Log: 18:02 In Water: 18:06:20 |
| Max cast pressure: 1020 dbar | Out of Water: 19:12:40 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 18:35:10 | 18:35:30 | 1020 | 1020 | |
| 2 | 47:40 | 48:00 | 495 | 495 | S-min |
| 3 | 56:20 | 56:40 | 175 | 175 | |
| 4 | 58:20 | 58:40 | 149 | 150 | |
| 5 | 19:00:10 | 19:00:30 | 126 | 125 | |
| 6 | 02:00 | 02:20 | 99 | 100 | |
| 7 | 03:50 | 04:10 | 75 | 75 | |
| 8 | 05:40 | 06:00 | 45 | 45 | |
| 9 | 07:20 | 07:40 | 25 | 25 | |
| 10 | | 50 | 25 | 25 | |
| 11 | 08:45 | 09:05 | 6 | 5 | |
| 12 | | 15 | 5 | 5 | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 10 | Box #: 10+11 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: KT, ST, JS, CM, TR | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 233 | | | |
| 2 | 495 | 234 | 5-min | | |
| 3 | 175 | 235 | | | |
| 4 | 150 | 236 | | | |
| 5 | 125 | 237 | | | |
| 6 | 100 | 238 | | | |
| 7 | 75 | 239 | | | |
| 8 | 45 | 240 | | | |
| 9 | 25 | 241 | | | |
| 10 | 25 | —— | | | |
| 11 | 5 | —— | | | |
| 12 | 5 | 242 | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
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| 22 | | | | | |
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HOT-806

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1200GPS | 12L | 26.75 | KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer OPEN
- ☐

MLD 45
DCM 120
5-min

| | |
|---|---|
| Station: 2 | Cast: 11 |
| Latitude start: 22° 45.0462 end: 22° 45.0468 | Longitude start: 158° 03.1128 end: 158° 03.1238 |
| Depth of water: 4752 meters | Date (GMT): 10 / 13 / 18 |
| Pressure on Deck | Time: |
| Begin: 0.38 End: −0.40 | Start Log: 20:57 In Water: 21:02 |
| Max cast pressure: 1020 dbar | Out of Water: 21:57 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 21:27:55 | 1020 | 1020 | |
| 2 | | 41:55 | 484 | 484 | 5-min |
| 3 | | 51:50 | 25 | 25 | |
| 4 | | 52:40 | 13 | 15 | |
| 5 | | 53:45 | 4 | 5 | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 11 | Box #: 11 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 243 | | | |
| 2 | | 244 | 5-min | | |
| 3 | 25 | — | | | |
| 4 | 15 | — | | | |
| 5 | 5 | 245 | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
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| 22 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000GPS | 12L | 27.25 | KT<br>SN |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

ATP

MLD 41
DCM 115
S-min 470

| Station: 2 | Cast: 12 |
|---|---|
| Latitude start: 22° 46.0604 end: 22° 46.0561 | Longitude start: 158° 02.5759 end: 158° 02.5168 |
| Depth of water: 4748 meters | Date (GMT): 10/13/18 |
| Pressure on Deck | Time: |
| Begin: 0.39 End: -0.20 | Start Log: 23:57 In Water: 00:06 (10/14/18) |
| Max cast pressure: 1021 dbar | Out of Water: 01:12:26 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 00:33:00 | 00:33:20 | 1019 | 1020 | |
| 2 | 38:40 | 39:00 | 768 | 770 | |
| 3 | 45:40 | 46:00 | 500 | 500 | |
| 4 | 47:30 | 47:50 | 468 | 470 | S-min |
| 5 | 51:00 | 51:20 | 399 | 400 | |
| 6 | | 53:30 | 348 | 350 | |
| 7 | | 55:30 | 298 | 300 | |
| 8 | | 57:30 | 248 | 250 | |
| 9 | | 00:30 | 146 | 150 | |
| 10 | | 02:00 | 124 | 125 | |
| 11 | | 03:20 | 99 | 100 | |
| 12 | | 04:55 | 74 | 75 | |
| 13 | | 06:30 | 44 | 45 | |
| 14 | | 07:55 | 24 | [ 25 | |
| 15 | | 08:00 | 25 | [ 25 | |
| 16 | | 10:00 | 4 | [ 5 | |
| 17 | | :05 | 4 | [ 5 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 12 | Box #: 11 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT-806 | Sampler: | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 246 | | | |
| 2 | 770 | — | | | |
| 3 | 500 | — | | | |
| 4 | 470 | 247 | S-min | | |
| 5 | 400 | — | | | |
| 6 | 350 | 248 | | | |
| 7 | 300 | — | | | |
| 8 | 250 | 249 | | | |
| 9 | 150 | 250 | | | |
| 10 | 125 | 251 | | | |
| 11 | 100 | 252 | | | |
| 12 | 75 | 253 | | | |
| 13 | 45 | 254 | | | |
| 14 | 25 | 255 | | | |
| 15 | 25 | — | | | |
| 16 | 5 | 256 | | | |
| 17 | 5 | — | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT- 306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G 1000 gps | 12L | 27.25 | SN / FSM |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer — open
- ☐

MLD: 40
DCM: 100
Smin: 470

| Station: 2 | Cast: 13 |
|---|---|
| Latitude start: 22° 45.5168 end: 22° 45.5128 | Longitude start: 158° 02.5946 end: 158° 02.5790 |
| Depth of water: 4752 meters | Date (GMT): 10 / 14 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.49 End: -0.19 | Start Log: 2:46 In Water: 02:59:10 |
| Max cast pressure: 1018 dbar | Out of Water: 04:01:10 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 3:25:20 | 25:50 | 1018 | 1020 | |
| 2 | 30:20 | 30:50 | 799 | 800 | |
| 3 | 34:45 | 35:15 | 601 | 600 | |
| 4 | 37:45 | 38:15 | 480 | 480 | 5 min |
| 5 | 40:15 | 40:45 | 399 | 400 | |
| 6 | 47:05 | 43:35 | 300 | 300 | |
| 7 | 44:50 | 44:20 | 252 | 250 | |
| 8 | 47:05 | 47:35 | 174 | 175 | |
| 9 | 48:30 | 49:00 | 148 | 150 | |
| 10 | 49:50 | 50:20 | 124 | 125 | |
| 11 | 51:25 | 51:55 | 98 | 100 | |
| 12 | 53:00 | 53:30 | 76 | 75 | |
| 13 | 54:55 | 55:25 | 44 | 45 | |
| 14 | 56:15 | 56:45 | 24 | 25 | |
| 15 | | 55 | 24 | 25 | |
| 16 | | 57:55 | 16 | 15 | |
| 17 | | 58:45 | 4 | 5 | |
| 18 | | :50 | 6 | 5 | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 13 | Box #: 11 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | Sampler: C, F, T, S, M | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 257 | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | 258 | 5 mik | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | 75 | 259 | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | 5 | 260 | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT-306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G1000 gps | 12L | 26.60 | SN |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

HPLC

MLD: 50 db
DCM: 120 db
S min: 450 db

| Station: 2 | Cast: 14 |
|---|---|
| Latitude start: 22° 44.6365 end: 22° 44.6694 | Longitude start: 158° 00.6628 end: 158° 00.6500 |
| Depth of water: 4740 meters | Date (GMT): 10 / 14 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.34 End: -0.02 | Start Log: 05:54 In Water: 06:02:20 |
| Max cast pressure: 1021 dbar | Out of Water: 07:07:52 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 06:29:45 | 1021 | 1020 | |
| 2 | | 43:05 | 448 | 450 | S min |
| 3 | | 50:20 | 175 | 175 | |
| X 4 | | :25 | 174 | 175 | |
| 5 | | 52:10 | 149 | 150 | |
| X 6 | | :15 | 149 | 150 | |
| 7 | | 53:30 | 135 | 135 | |
| 8 | | 54:35 | 124 | 125 | |
| X 9 | | :40 | 124 | 125 | |
| 10 | | 55:50 | 115 | 115 | |
| 11 | | 57:30 | 100 | 100 | |
| X 12 | | :35 | 100 | 100 | |
| 13 | | 59:05 | 85 | 85 | |
| 14 | | 07:00:25 | 74 | 75 | |
| 15 | | 07:01:50 | 60 | 60 | |
| 16 | | 03:10 | 46 | 45 | |
| 17 | | 04:55 | 24 | 25 | |
| 18 | | 06:30 | 6 | 5 | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 14 | Box #: 11, 15 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT- 306 | | Sampler: FSM, S, M |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 1020 | 261 | | | |
| 2 | | 262 | 5 min | | |
| 3 | 175 | 263 | | | |
| 4 | — | — | | | |
| 5 | 150 | 264 | | | |
| 6 | — | — | | | |
| 7 | 135 | 337 | | | |
| 8 | 125 | 338 | | | |
| 9 | — | — | | | |
| 10 | 115 | 339 | | | |
| 11 | 100 | 340 | | | |
| 12 | — | — | | | |
| 13 | 85 | 341 | | | |
| 14 | 75 | 342 | | | |
| 15 | 60 | 343 | | | |
| 16 | 45 | 344 | | | |
| 17 | 25 | 345 | | | |
| 18 | 5 | 346 | | | |
| 19 | — | — | | | |
| 20 | — | — | | | |
| 21 | — | — | | | |
| 22 | — | — | | | |
| 23 | — | — | | | |
| 24 | — | — | | | |
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| | | | | | |
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HOT-306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G5000gps | 12L | 26.60 | SM/FSM |

- ✓ Pinger
- ✓ Altimeter
- ✓ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ✓ PO Fluorometer
- ☐

MLD: 60 $O_2$ min: 800
DCM: 110 $O_2$ max: 75
Smin: 450

| Station: 2 | Cast: 15 |
|---|---|
| Latitude start: 22° 45.0016 end: 22° 44.9961 | Longitude start: 158° 59.9808 end: 158° 00.0128 |
| Depth of water: 4740 meters | Date (GMT): 10 / 14 / 2018 |
| Pressure on Deck | Time: |
| Begin: 0.94 End: -0.35 | Start Log: 08:54. In Water: 09:00:15 |
| Max cast pressure: 4807 dbar | Out of Water: 12:35:35 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | | 10:50 | 4807 | 4800 | |
| 2 | 11:06.10 | 40 | 4000 | 4000 | |
| ~~3~~ | | 50 | 4000 | 4000 | |
| 4 | | 26:00 | 3000 | 3000 | |
| ~~5~~ | | :05 | 3001 | 3000 | |
| ~~6~~ | | :10 | 3001 | 3000 | |
| ~~7~~ | | :15 | 2999 | 3000 | |
| ~~8~~ | | :20 | 2999 | 3000 | |
| 9. | | 11:47 | 2000 | 2000 | |
| ~~10~~ | | ~~47~~ | 1999 | 2000 | |
| ~~11~~ | | 06:00 | 1000 | 1000 | |
| 12 | | 12:12 | 800 | 800 | $O_2$ min |
| 13 | | 20:00 | 451 | 450 | S min |
| ~~14~~ | | 05 | 451 | 450 | S min |
| ~~15~~ | | 10 | | 450 | S min |
| ~~16~~ | | 15 | | 450 | S min |
| 17 | | 30:10 | 74 | 75 | $O_2$ max |
| 18 | | 33:45 | 4 | 5 | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

| Hawaii Ocean Time Series | | | Station #: 2 | Cast #: 15 | Box #: 15 |
|---|---|---|---|---|---|
| Salinity Sample Log Sheet | | | Cruise #: HOT-306 | Sampler: K, J, S | |
| Niskin # | Depth | Serial # | Comments | | |
| 1 | 4800 | 347 | | | |
| 2 | 4000 | 348 | | | |
| 3 | | | | | |
| 4 | 3000 | 349 | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | 2000 | 350 | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | 351 | $O_2$ min | | |
| 13 | | 352 | 5 min | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | 353 | $O_2$ max | | |
| 18 | 5 | 354 | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
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HOT-306

# Hawaii Ocean Time-Series CONSOLE LOG

| Cast type | Bottle type | SST | Operator |
|---|---|---|---|
| G200GPS | 12L | 26.76 | KT |

- ☐ Pinger
- ☑ Altimeter
- ☑ Transmissometer
- ☐ BEACH Sea Tech Fluorometer
- ☐ OTG Seapoint Fluorometer
- ☐ ISUS
- ☑ PO Fluorometer
- ☐

YOYO

MLD 27/38
DCM 95

| | |
|---|---|
| **Station:** 50 | **Cast:** 1 |
| **Latitude** start: 22° 44.3385 end: 22° 44.6173 | **Longitude** start: 157° 55.1898 end: 157° 55.1486 |
| **Depth of water:** 4741 meters | **Date (GMT):** 10 / 14 / 18 |
| **Pressure on Deck** | **Time:** |
| Begin: 0.21 | Start Log: 23:31 |
| End: 0.11 | In Water: 23:42 |
| **Max cast pressure:** 201 dbar | Out of Water: 00:45 |

| Trip/ Niskin | Time stopped | Confirm tripped | Pressure | Target Depth | Comments |
|---|---|---|---|---|---|
| 1 | 00:41:10 | 00:41:40 | 13 | 15 | |
| 2 | | 50 | 13 | 15 | |
| 3 | 42:40 | 43:00 | 5 | 5 | |
| 4 | | | | | |
| 5 | | | | | |
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| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |

HOT-306 KM 18-17

CTD configuration:

CTD: 91361 (Beta)
Deck Unit: 112060 (secondary)
Pressure: 75434
Carousel: 518
$T_1$: 1416 $T_2$: 5519
$C_1$: 3162 $C_2$: 2218
$O_1$: 1601 $O_2$: 43918
$Pump_1$: 968 $pump_2$: 494
Flurometer: SCF 3831
Altimeter: 7769
Bucket Thermometer: 3622
Transmissometer: 1192

Cruise Participants:

Tara Clemente — Avery Tatters (USC/Scripps)
E. Grabowski — Vivian Mert (UCSB/Scripps)
D. Sadler — Lisa Megrup (UCSB/Scripps)
J. Snyder — David Caron (USC/Scripps)
K. Trifonova — Emily Aguirre (USC/Scripps)
M. Burgos
Sara Turner (UH, undergrad)
K. Babcock
E. Shimabukuro
C. Funkey
S. Nataraj
F. Santiago-Mandujano
A. Tabata
Mariam Moreno (UH undergrad)
Tully Kohnen UH
Courtney Morgan (UH undergrad)
J. ~~Dreh~~ OTG
J. Koch - OTG

10 October 2018
Loading equipment

Cut ~30m of CTD wire

195m label in winch wire.
(wire is spooled backwards on winch)
270 SL

Workhorse 300 KHz ADCP
one transducer was replaced with
one from the KOK's ADCP.
Jocler recommended wing bottom
track in shallow water.

weight cast

dry : / (winch readout wasn't working)
wet : 1380 lbs

# HOT-306 11 OCT 2018

19:22 Depart Snug Harbor

20:15 Fire Drill

20:50 Abandon Ship Drill

(ich) 22:02 Arrive Station Kahe

22:18 Winch & hydraulics in A-frame problems to be solved before weight cast

2:38 Start weight cast
3:15 End weight cast

23:36 Start HyperPro
21° 20.6361' N 158° 16.4008' W

en 0:08 End HyperPro 12 October, 2018
21° 20.3713' N 158° 16.1252' W

0:11 Start NET TOW (D. Caron)
21° 20.3841' N 158° 16.1270' W

0:32 End NET TOW
21° 20.3914' N 158° 16.1292' W

00:~~39~~ Start Station 1 cast 1, G1000 GPS.
21° 20.5996 158° 16.3632

Flurometer readings are suspicious between 300 db and 800 db down cast.

Primary $O_2$ sensor bad on whole cast.

Transmissometer not working
Voltage shows 5 V.

HOT-306 12 Oct 2018

0201 End of cast. 15 marks OK.

Transit to ALOHA Sta

Raining.

REPLACE PRIMARY $O_2$ 1601 WITH 43982

REPLACE SPLITTER CABLE CHANNELS 6-7, TEST O.K.

Ran updcon for all con files in both computers

0926 Arrives at Station ALOHA

1056 Deploy Wire walker
22° 45.0024
158° 02.1350

1208 Deploy Sed traps.
22° 44.9384
158° 01.0162

1253 Start station 2 cast 1, GZ00GPS.

13:24 End Station 2 cast 1, 24 Marks OK!

# HOT-306 12 Oct 2018

15:11 Start PP array Deployment
22° 45.9907' N 158° 01.6223' W

15:27 End PP array Deployment
22° 46.0426' N 158° 01.4886' N

16:04 Start handheld Net Tow
22° 156491' N 158° 00.4340' N

16:40 End Net Tow
22° 45.2300' N 158° 00.2408' N

16:52 Start Station 2 Cast 2 - G5000 GPS

16:58 No GPS, try reload cast configurations, no luck

17:01 Start Station 2 Cast 2 - G5000 (no GPS)
22° 45.0272' N 158° 00.0037' W

18:48 Reached target depth at 4808 dbar - 5m off the botton
22° 44.9982' N 158° 00.0110' W

21:09 End Station 2 Cast 2, 24 marks OK!

22:15 start net tow

22:42 End net tow

23:06 Start Station 2 Cast 3 - G1000 GPS
22° 44.9827' N 158° 00.0348' W

13 October 2018

00:26 End Station 2 Cast 3, 24 marks OK!
22° 44.9943' N 158° 00.0192' W

00:39 Start HyperPro
22° 44.9896' N 158° 00.0082' W

HOT-306 13 October 2018

0111 End hyperpro cast

0139 start station 2 CAST 4
G1000 GPS (PC/PN).

0241 End station 2 cast 4
G1000 GPS. 19 MARKS OK.

0250 Transit to pump ship's tanks

0430 Recovering PP array
22 44.655'N, 158 01.625'W

0452 End recovery PP array
22° 44.6011
158° 01.4557

0509 Start station 2 CAST 5
G1000 GPS.

0615 End Station 2 cast 5 (G1000 GPS)
17 marks ok.

0623 Start Hand Held NET TOW

0656 End Hand Held NET TOW

# HOT 306 13 October 2018

0718 Start station 2 cast 6 (G1000 GPS)

0824 End station 2 cast 6 (G1000 GPS)
24 marks OK.

0840 start net tow

908 End net tow

911 Stat net tow

0940 End net tow.

0958 Start station 2 cast 7 (G1000 gps)

1057 End Station 2 cast 7 (G1000 gps)

UPS started beeping when vacuum cleaner was ~~started~~ by AB.
UPS giving warning.
Connecting CTD to wall before cast.

12:04 Start station 2 cast 8
G 1000 GPS 22° 43.6792' N 158° 02.6962' W

13:11 End Station 2 Cast 8 - 22 Marks OK!
22° 43.6908' N 158° 02.6971

# HOT-306

13 Oct 2018

13:19 Transit to pump waste tanks

14:31 **Start Gas** Array Deployment
22° 43.7172' N 158° 02.7008' W

14:51 **End Gas Array Deployment**
22° 43.7318' N 158° 02.7081' W

15:12 Start Station 2 Cast 9 - G1000GPS
22° 44.0080' N 158° 02.6505' W

16:20 End Station 2 Cast 9, 17 marks ok!
22° 44.0137' N 158° 02.6477' W

16:34 Start handheld net tow
22° 44.3399' N 158° 02.5726' W

17:03 End handheld net tow
22° 43.9609' N 158° 02.5571' W

18:02 Start Station 2 Cast 10 - G1000 GPS
22° 44.2258' N 158° 02.5845' W

19:12 End Station 2 Cast 10, 12 marks OK!
22° 44.2257' N 158° 02.5882' N

19:25 Transit to pump waste tanks

20:30 Start handheld net tow
22° 45.1580' N 158° 03.2227' W

20:50 End handheld net tow
— " —

# Hot-306

13 Oct 2018

20:57 Start Station 2 Cast 11 - G1000 GPS
22° 45.0459' N 158° 03.1091

21:58 End Station 2 Cast 11, 5 marks OK!
22° 45.0468' N 158° 03.1238' W

22:11 Start Net Tow 1
22° 45.1650' N 158° 03.0798' W

22:18 Clouds of Trichodesmium observed around vessel

22:40 End Net Tow 1
22° 45.5996' N 158° 02.8244' W

22:44 Start Net Tow 2
22° 45.6644' N 158° 02.7832' W

23:12 End Net Tow 2
22° 46.0402' N 158° 02.5250' W

23:57 Start Station 2 Cast 12 - G1000 GPS
22° 46.0604' N 158° 02.5159' W

14 Oct 2018

0112 End of cast.

0200 Start hand held net tow

0220 end hand held net tow.

0246 Start Sta 2 cast 13
VCR recordes started late, 700 m upcast.

- Need to add AAA batteries in the admin. supplies box

- Add section of "Loading day procedures" in the "At Sea Console Procedures..." binder."

HOT-306 14 October 2018

0400 End station 2 cast 13.
18 marks OK.

0410 Transit to pump ship's tanks

0602 Start station 2 cast 14
@ 1000 gps.

0707 End station 2 cast 14.
18 marks OK

0720 Start hand-held net tow

0750 End of net tow

0803 Start net tow

0831 End net tow

0900 start station 2 cast 15
@ 5000 gps.

1030 O2 glitch at 4200 dbar downcast.

1050 7 m off the bottom
22 44.989'N, 157 59.994'W

1236 End station 2 cast 15 @ 5000 gps.
One mark missing.
→ all marks OK!

HOT-306 14 Oct 2018

12:51 Start Optics
22° 44.9947 'N 158° 00.0082 'W

14:23 End Optics
22° 44.2556 'N 158° 00.4012 'W

16:00 Start Gas Array Recovery
22° 37.4250 'N 158° 02.8445 'W

16:21 End Gas Array Recovery
22° 36.9551 'N 158° 02.8381 'W

16:45 Start Wire Walker Recovery
22° 36.5702 'N 158° 04.0950 'W

17:00 End WW Recovery
22° 36.6388 'N 158° 04.1080 'W

17:26 Start Sediment Trap Recovery
22° 36.0382 'N 158° 02.5690 'W

17:58 End ST Recovery
22° 35.9715 'N 158° 02.8881 'W

18:00 Transit to Station 50, WHOTS-15

19:20 Arrival at Station 50

19:35 Safety Briefing for going on WHOTS buoy

19:44 Jeffrey Snyder jumps on mooring buoy to do work / calibrate the partial $CO_2$ equilibrator

Transmissometer calibration:

dark: 0.06838
Light: 4.68132.

# HOT-306

14 Oct 2018

20:56 Crew and J.S. back on board from mooring buoy

22:09 Start HyperPro 1
22° 44.7471 'N 157° 55.0992 'W

22:26 Start HyperPro 2
22° 44.7509 'N 157° 55.1111 'W

22:44 Start handheld net tows
22° 44.7533 'N 157° 55.1285 'W

End handheld net tows
22° 44.6212 'N 157° 55.

23:31 Start Station 50 Cast 1 - G200 GPS (4040)
22° 44.3385 'N 154° 55.1898 'W

cycle 1: 23:42 - 23:57

15 Oct 2018

cycle 2: 23:57 - 00:07

cycle 3: 00:07 - 00:19

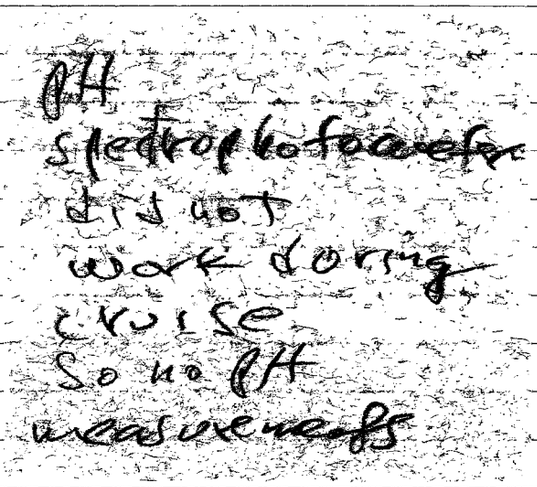
cycle 4: 00:19 - 00:30

cycle 5: 00:30 - 00:45

00:39 Secondary Fluorescence maximum @ 170 dbar

0045 End Station 50 cast 1, G200 gps.
3 marks OK.

0050 Transit to sed trap mooring


pH
Electrochemical
DIY
Work during
Cruise
Soil pH
measurements

HOT-306 15 October 2018

0230 Arrived at deep sediment trap mooring location

ADCP secured
Interrogating acoustic releases

0340 Recovering deep sediment traps.

0450 Recovered traps, all equipment on board.

0455 Transit back to Pier 35

0458 ADCP running again

0745 Arrived at Pier 35, first line.