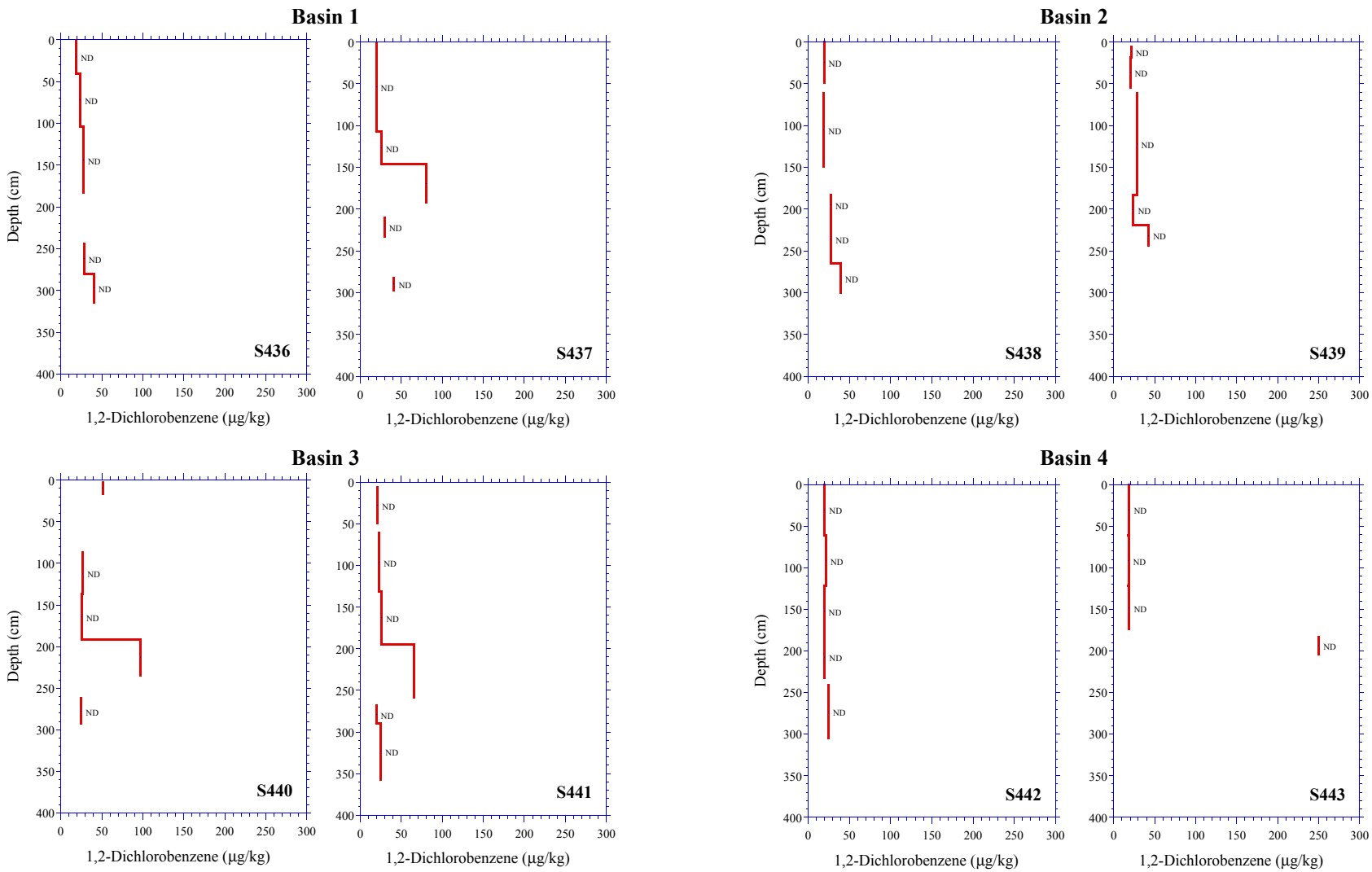
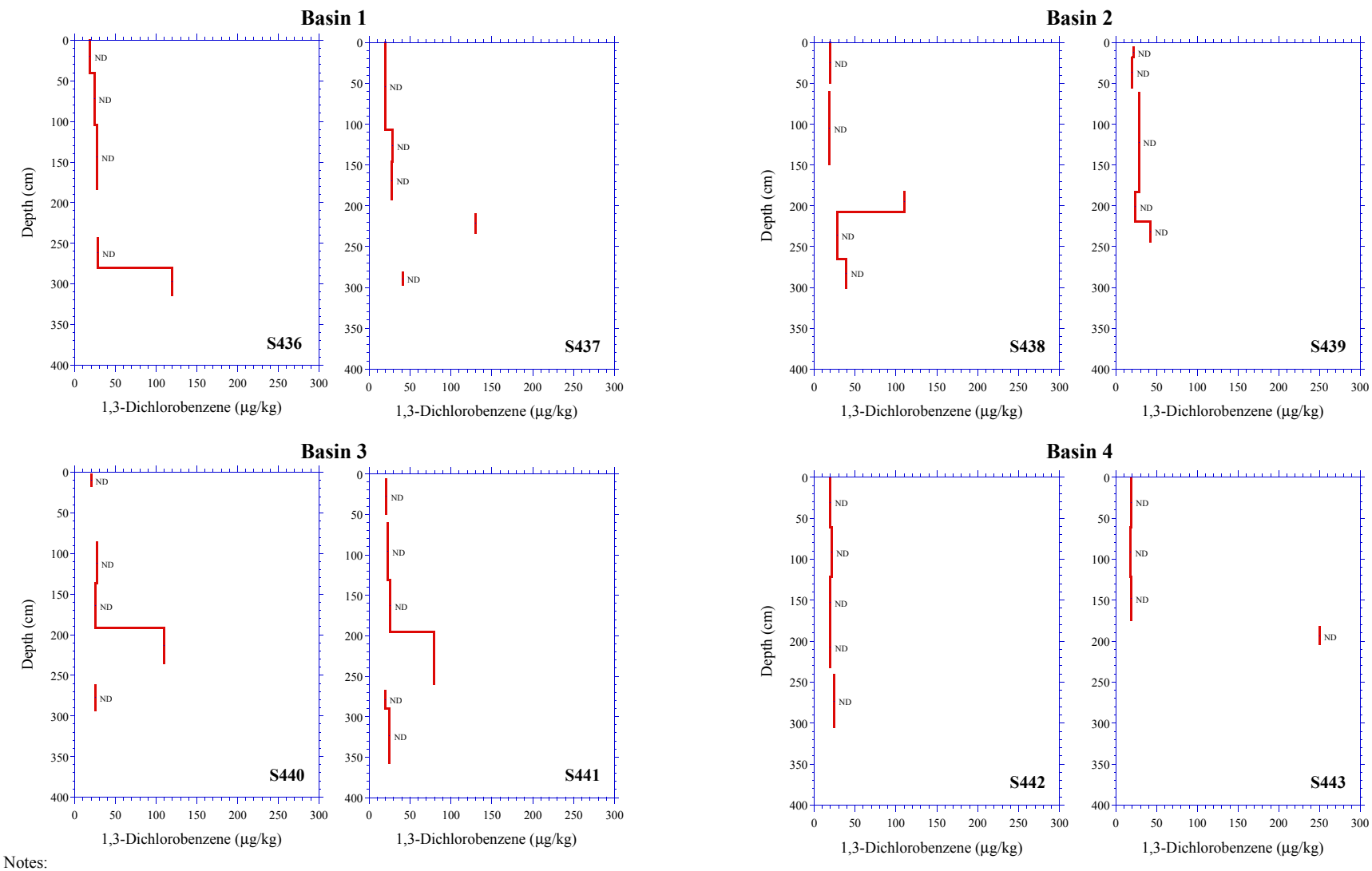


Notes:
1. Breaks indicate no data are available for the interval.
2. ND indicated a non-detect. Half the detection limits are shown for non-detects.
3. NYSDEC TAGM # 4046: Groundwater Protection and the Recommended Soil Cleanup Objective are both 7,900 µg/kg.

TAMS

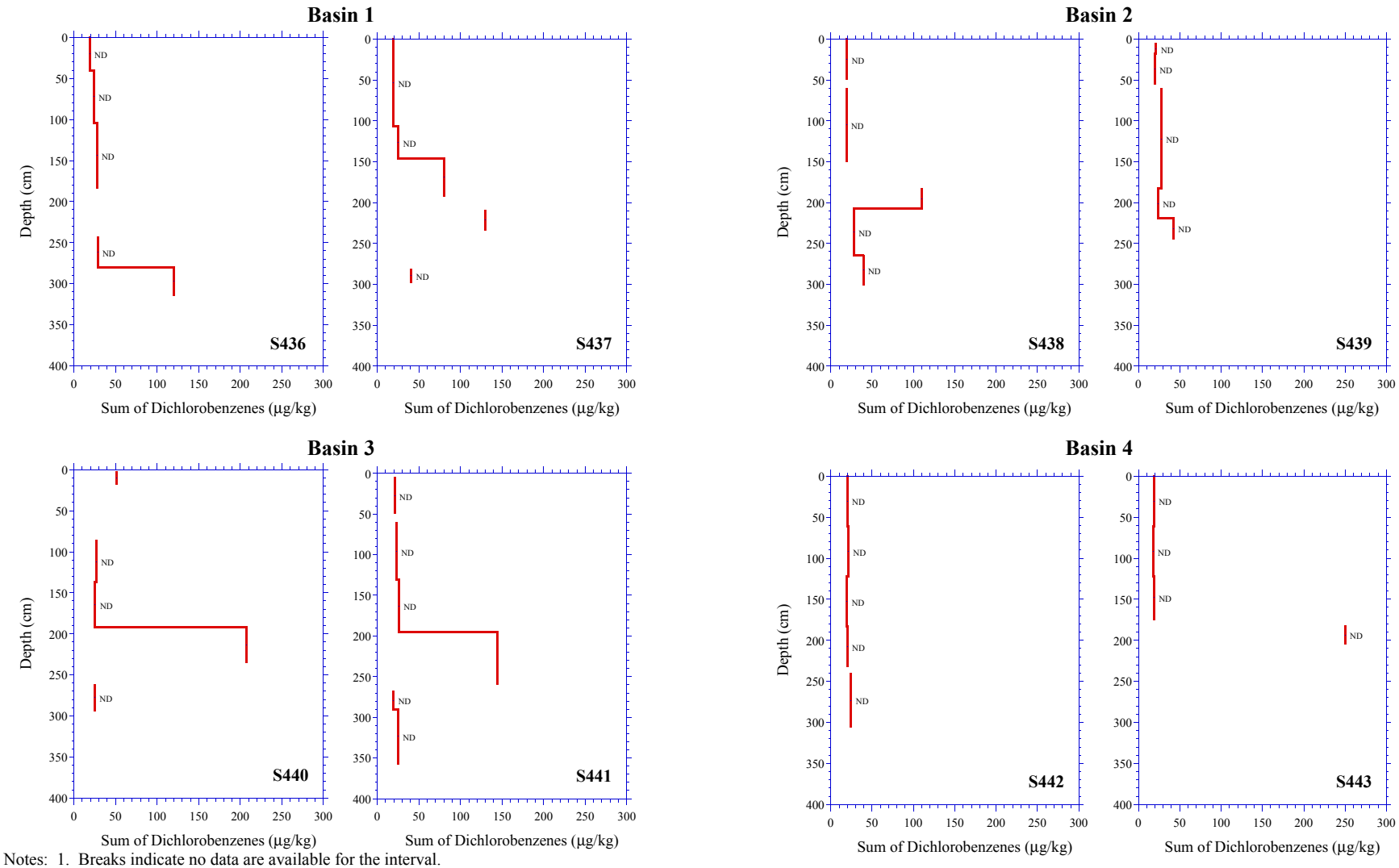
Figure 5-113
1,2-Dichlorobenzene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval.
2. ND indicated a non-detect. Half the detection limits are shown for non-detects.
3. NYSDEC TAGM # 4046: Groundwater Protection is 1,550 µg/kg, and the Recommended Soil Cleanup Objective is 1,600 µg/kg.

TAMS

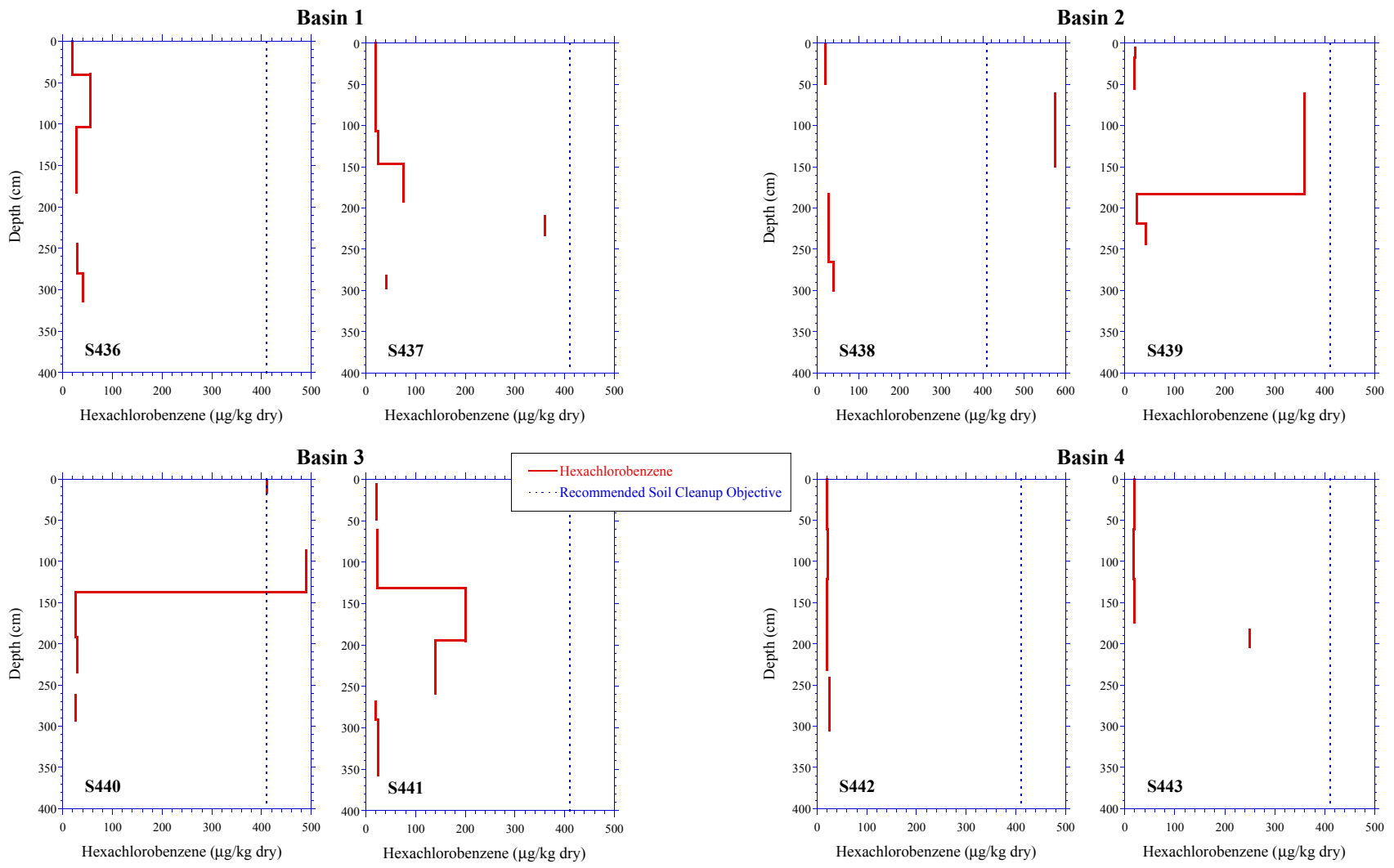
Figure 5-114
1,3-Dichlorobenzene in Onondaga Lake
Dredge Basin Soils in 2000



Notes: 1. Breaks indicate no data are available for the interval.
2. ND indicated a non-detect. Half the detection limits are shown for non-detects.
3. NYSDEC TAGM # 4046: Recommended Soil Cleanup Objectives for the individual dichlorobenzene congeners range from 850 to 7,900 µg/kg.
4. The sum is calculated as the sum of detected values or the minimum detection limit.

TAMS

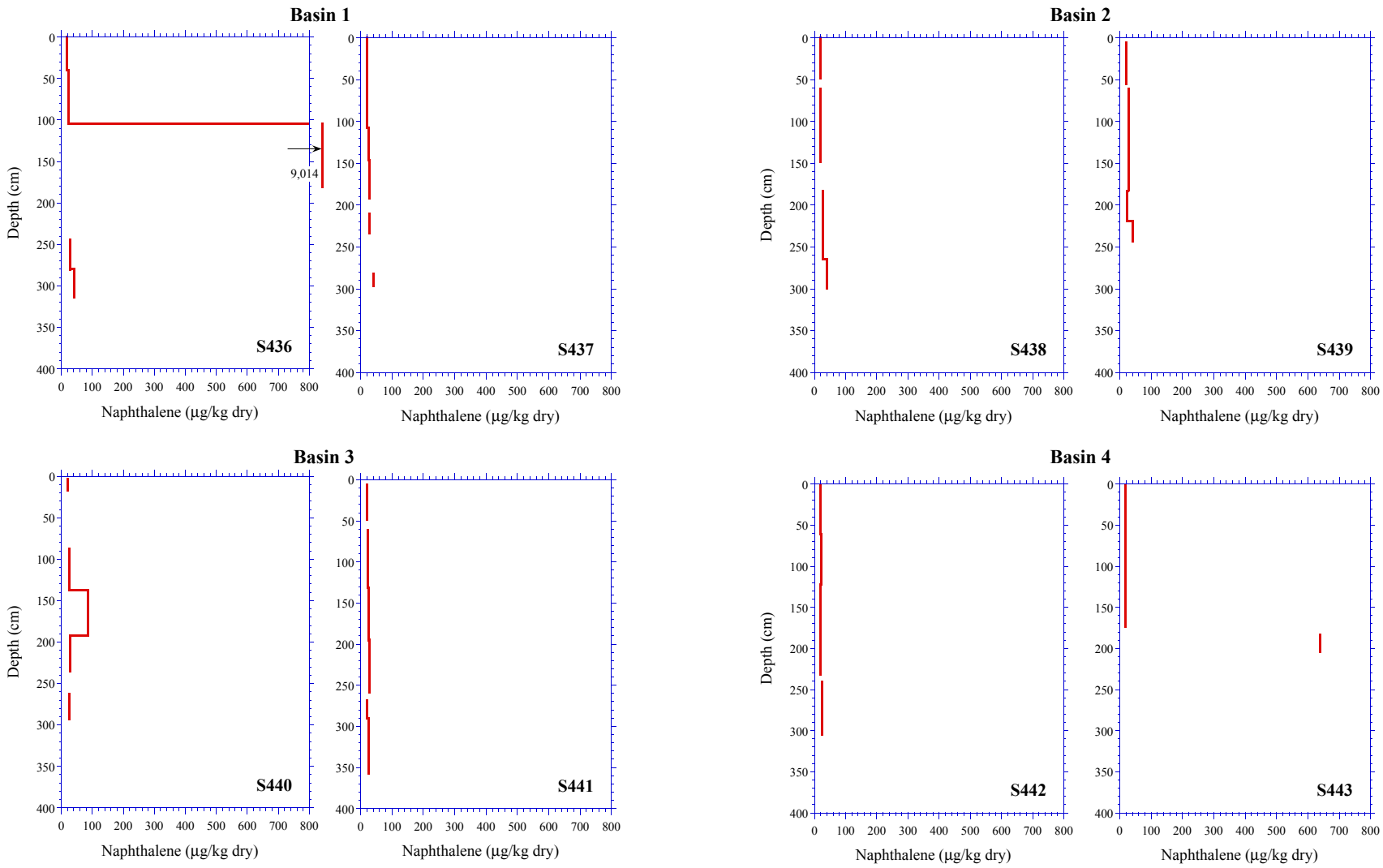
Figure 5-115
Sum of Dichlorobenzenes in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 1,400 µg/kg, and the Recommended Soil Cleanup Objective is 410 µg/kg.

TAMS

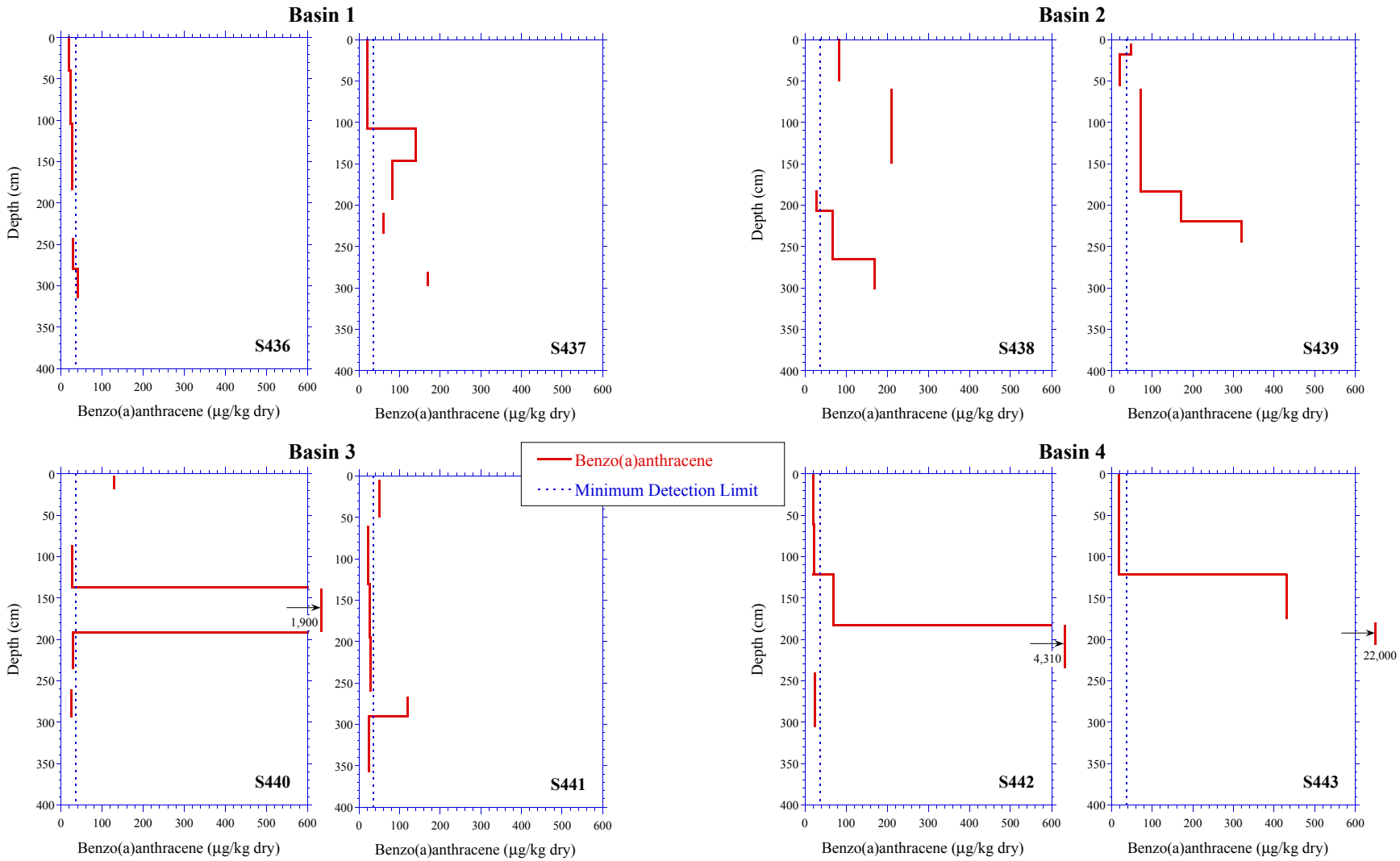
Figure 5-116
Hexachlorobenzene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection and the Recommended Soil Cleanup Objective are both 13,000 µg/kg.

TAMS

Figure 5-117
Naphthalene in Onondaga Lake
Dredge Basin Soils in 2000

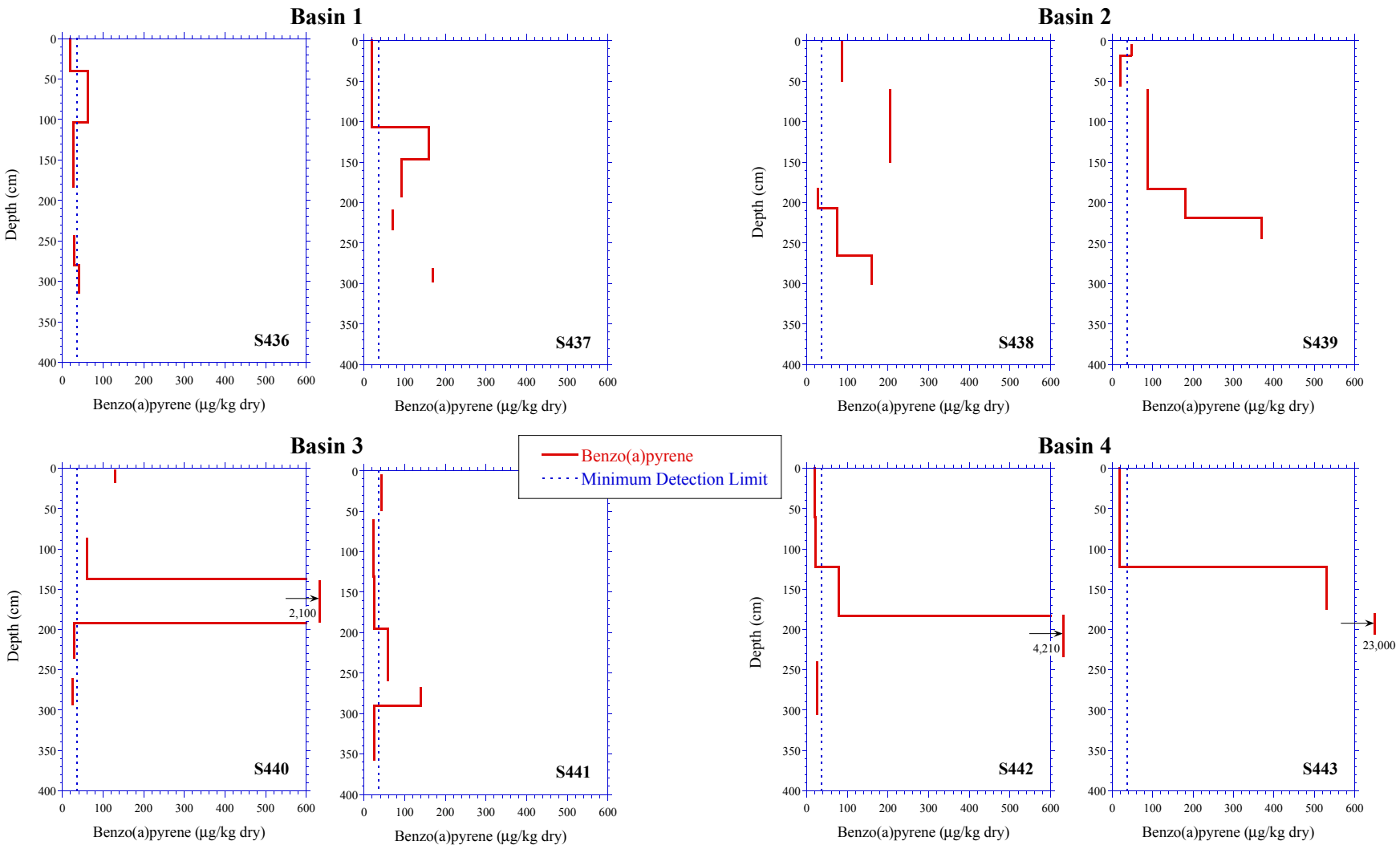


Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 3,000 µg/kg, and the Recommended Soil Cleanup Objective is 224 µg/kg or the Method Detection Limit.

Depth (cm)

TAMS

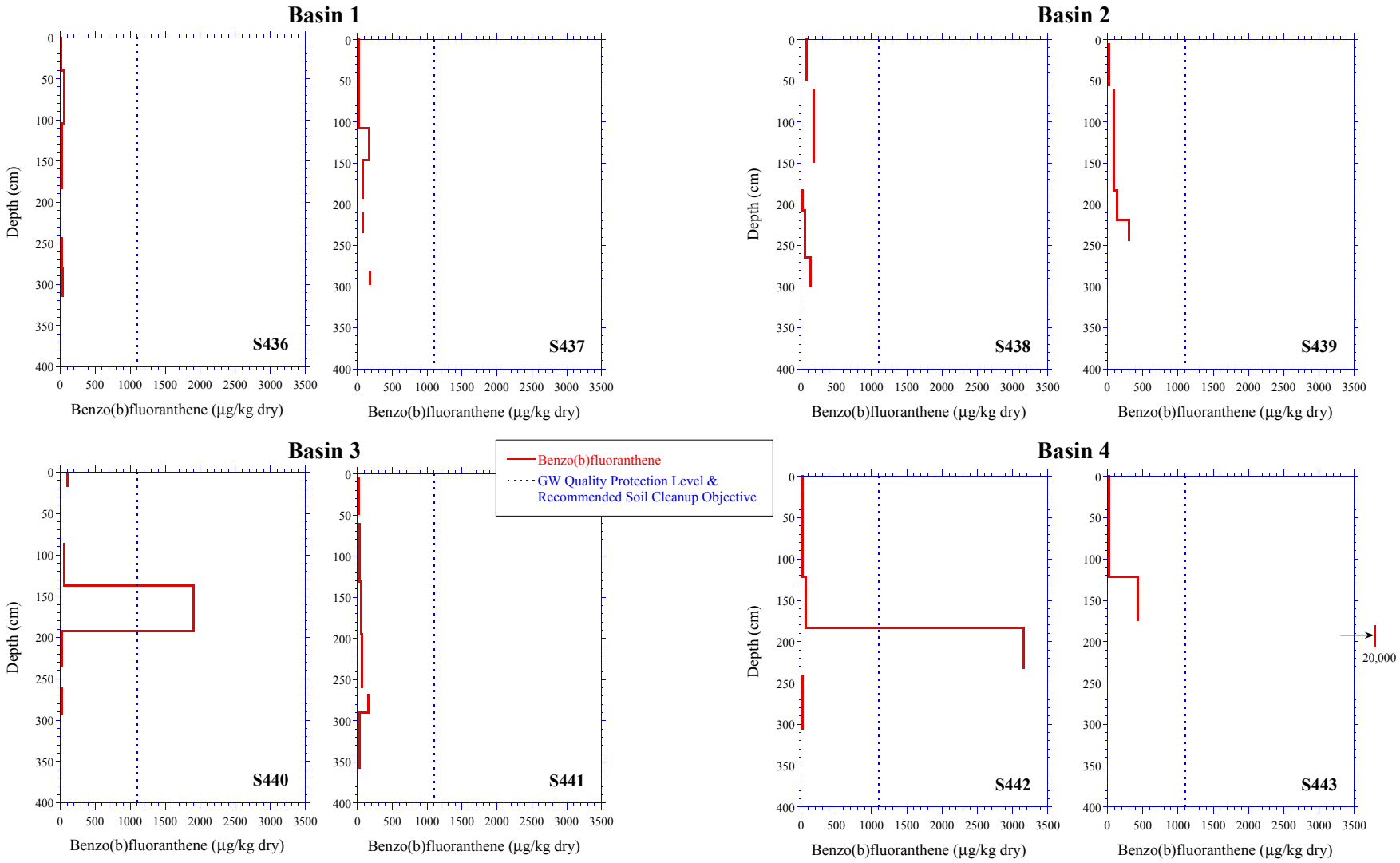
Figure 5-118
Benz(a)anthracene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 11,000 µg/kg, and the Recommended Soil Cleanup Objective is 61 µg/kg or the Method Detection Limit.

TAMS

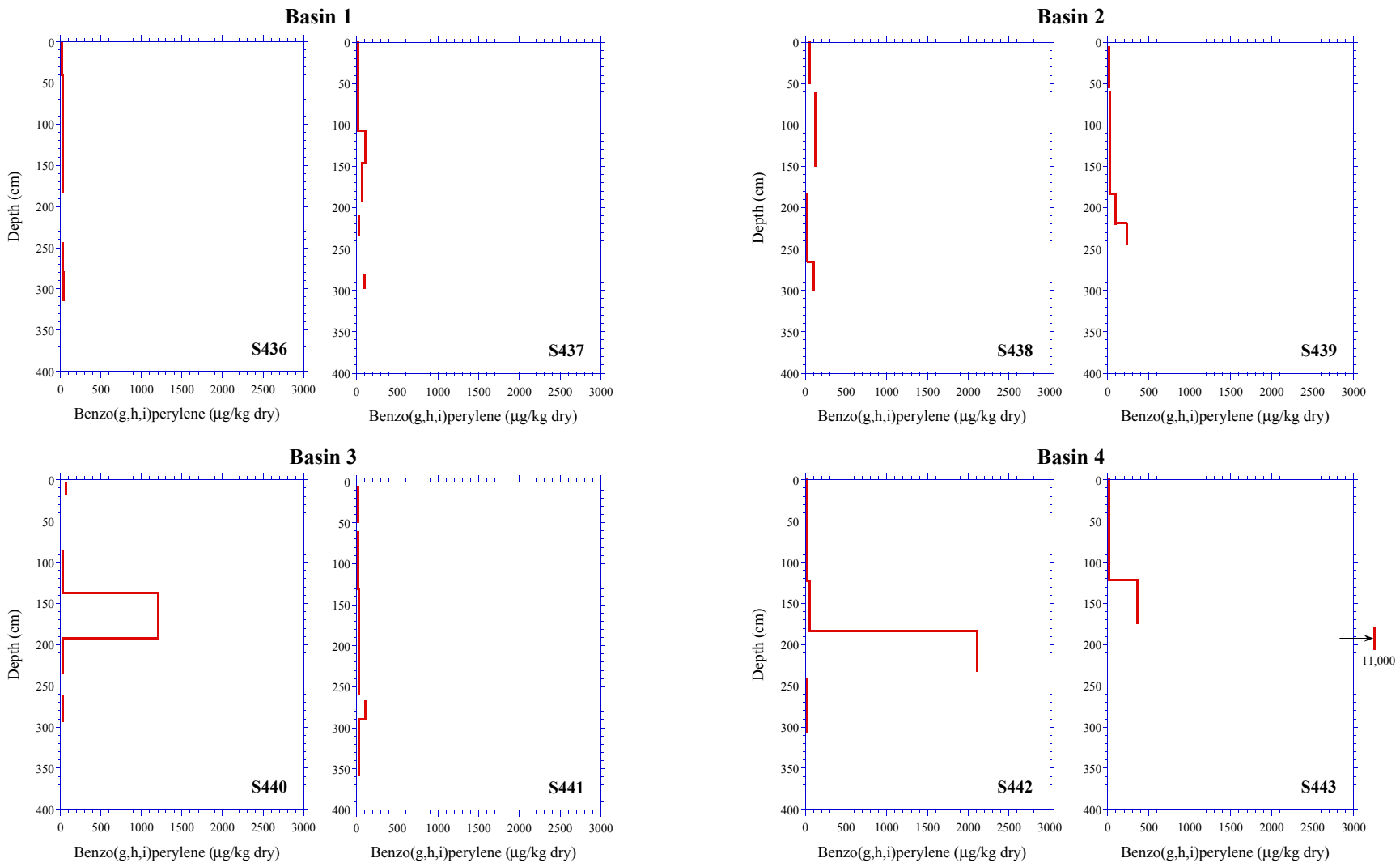
Figure 5-119
Benzo(a)pyrene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection and the Recommended Soil Cleanup Objective are both 1,100 µg/kg.

TAMS

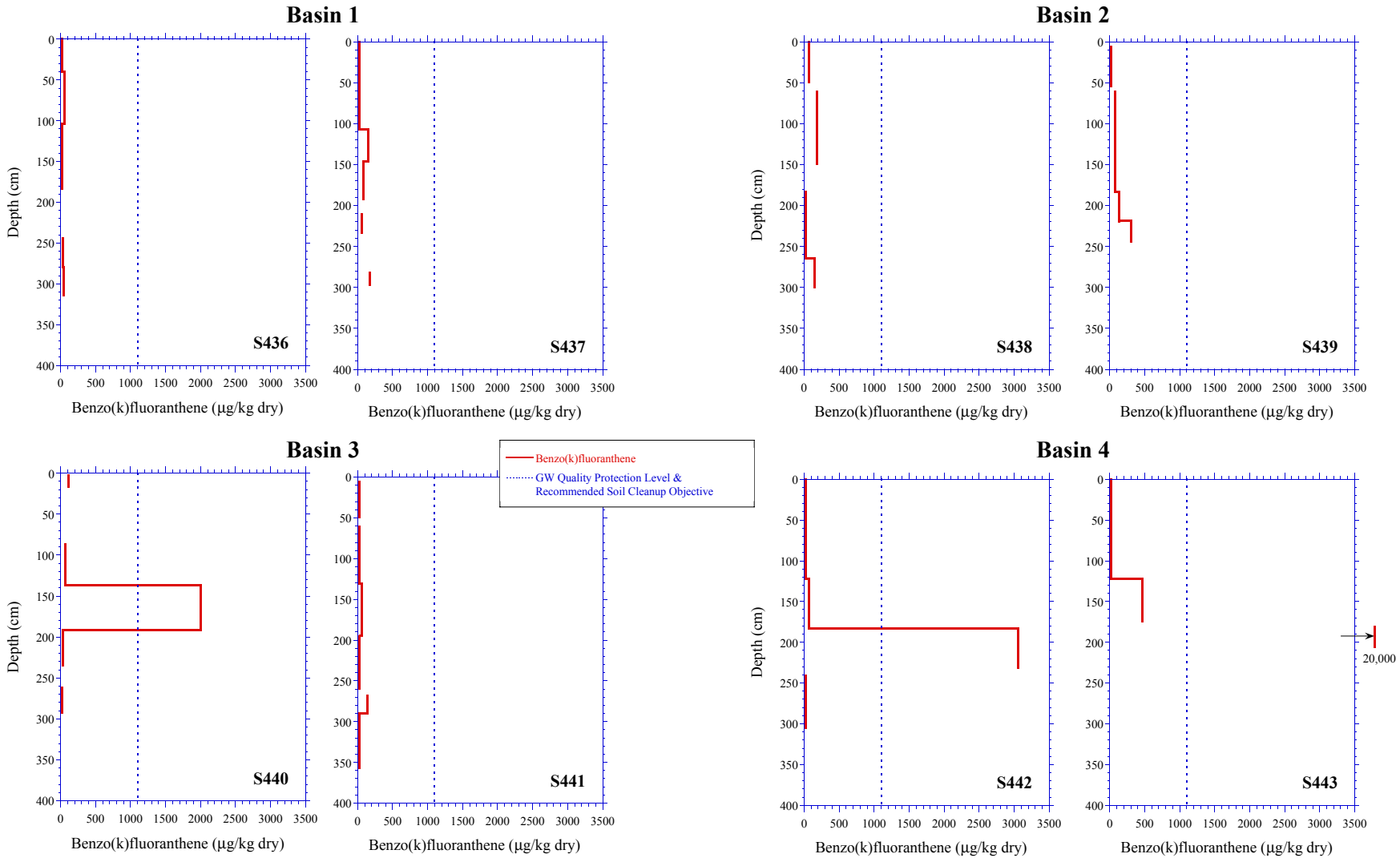
Figure 5-120
Benzo(b)fluoranthene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 5,000 µg/kg, and the Recommended Soil Cleanup Objective is 50,000 µg/kg.

TAMS

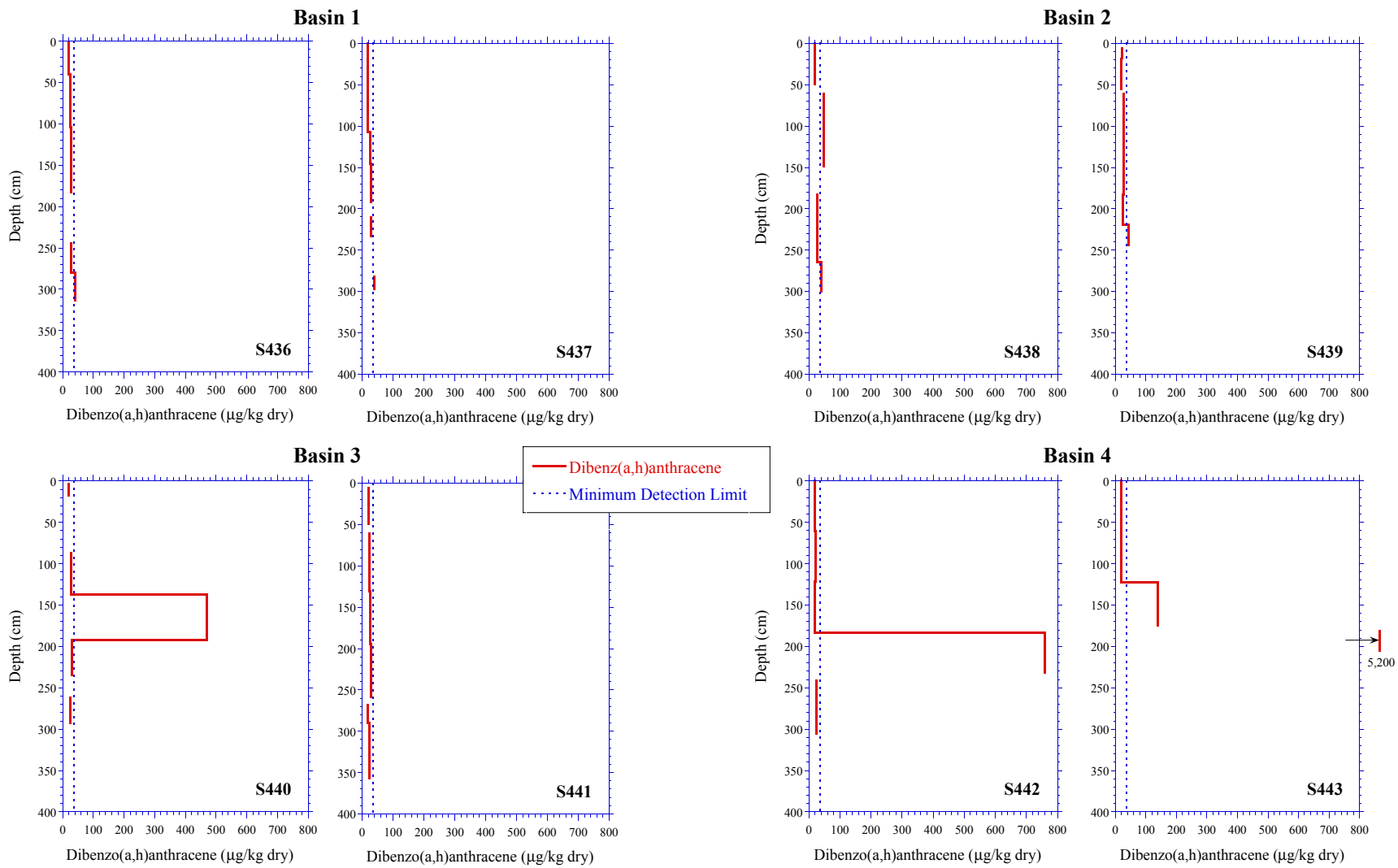
Figure 5-121
Benzo(g,h,i)perylene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection and the Recommended Soil Cleanup Objective are both 1,100 µg/kg.

TAMS

Figure 5-122
Benzo(k)fluoranthene in Onondaga Lake
Dredge Basin Soils in 2000

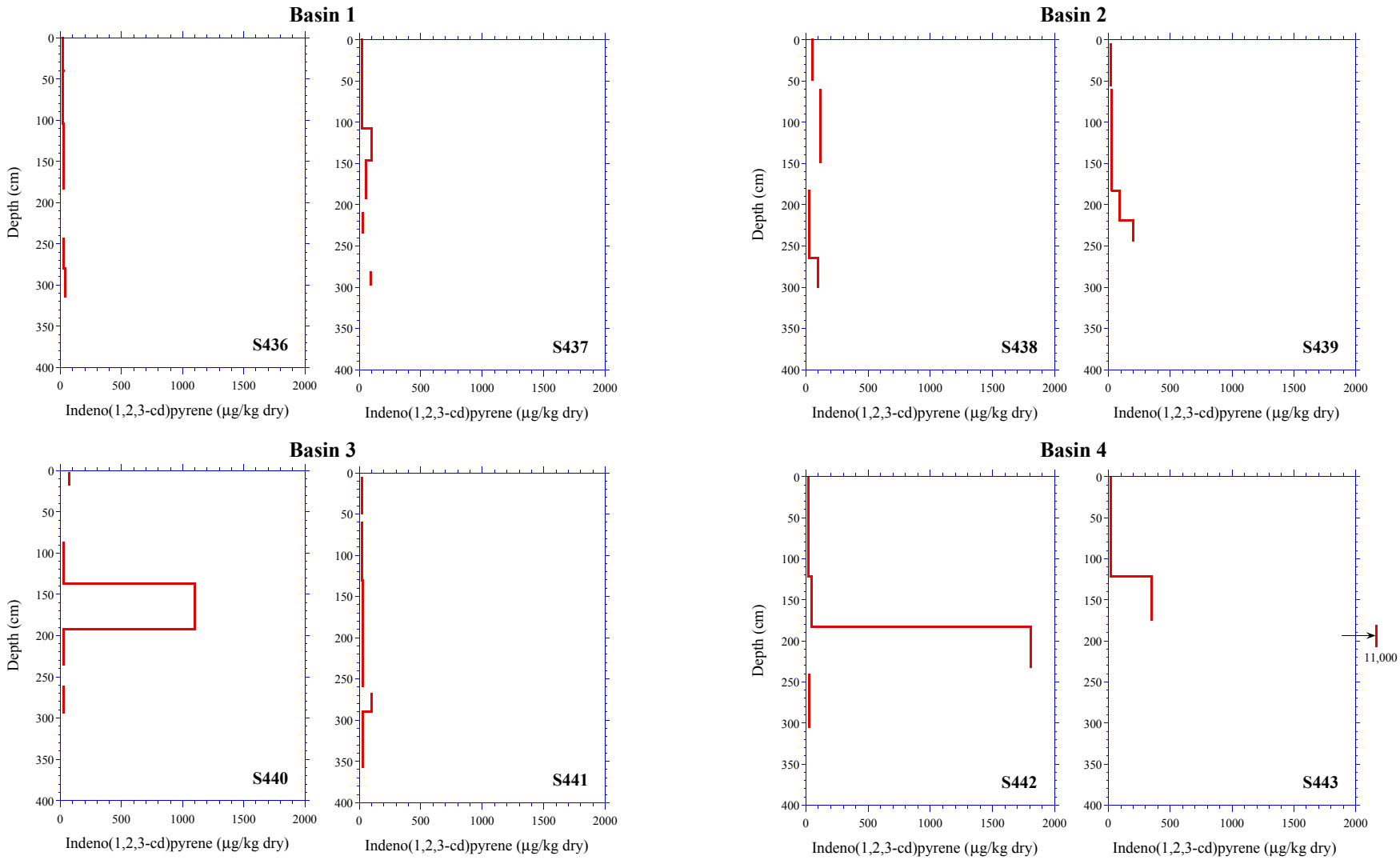


Notes:

1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 1.65 x 10^8 µg/kg, and the Recommended Soil Cleanup Objective is 14 µg/kg or the Method Detection Limit.

TAMS

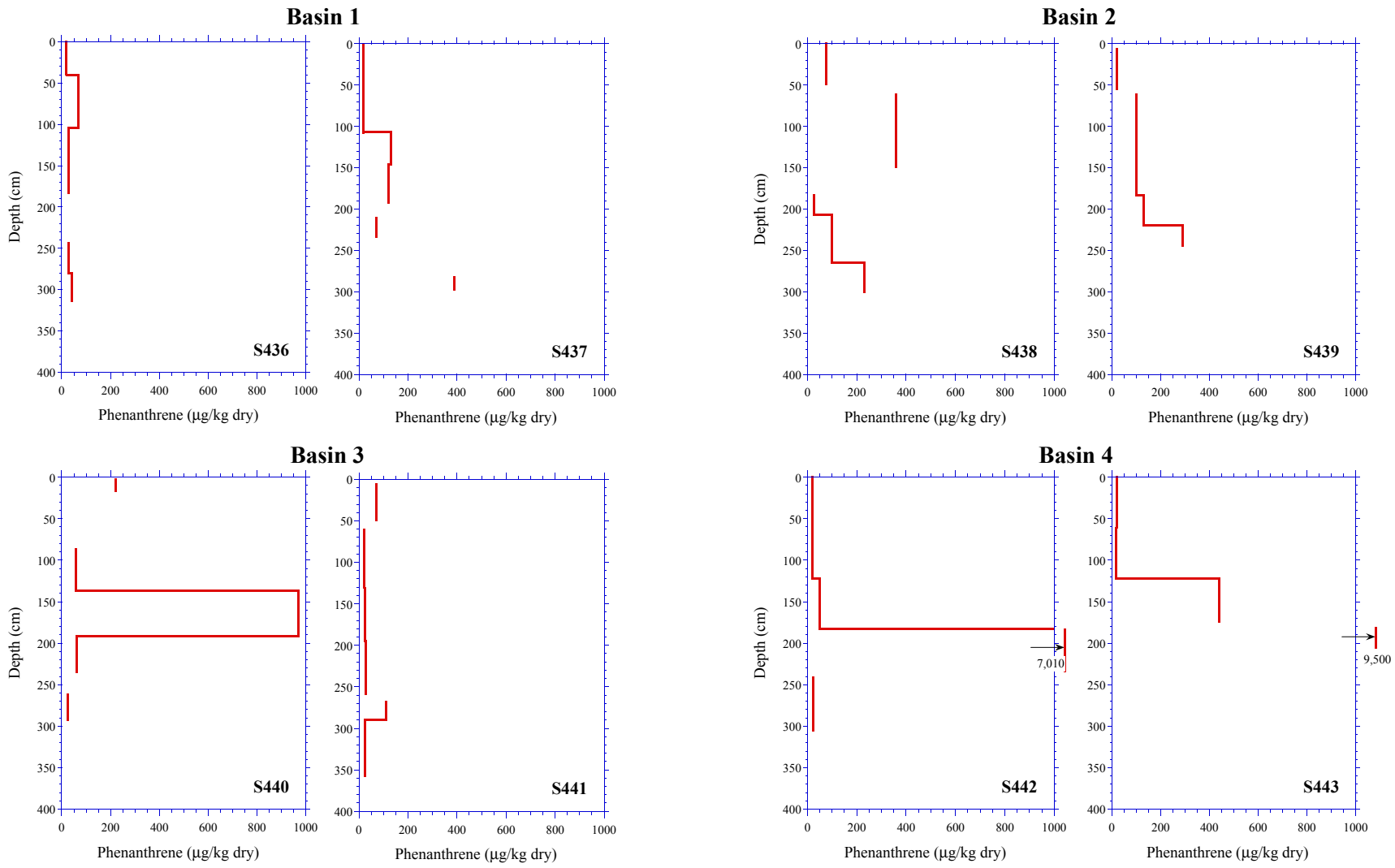
Figure 5-123
Dibenz(a,h)anthracene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection and the Recommended Soil Cleanup Objective are both 3,200 µg/kg.

TAMS

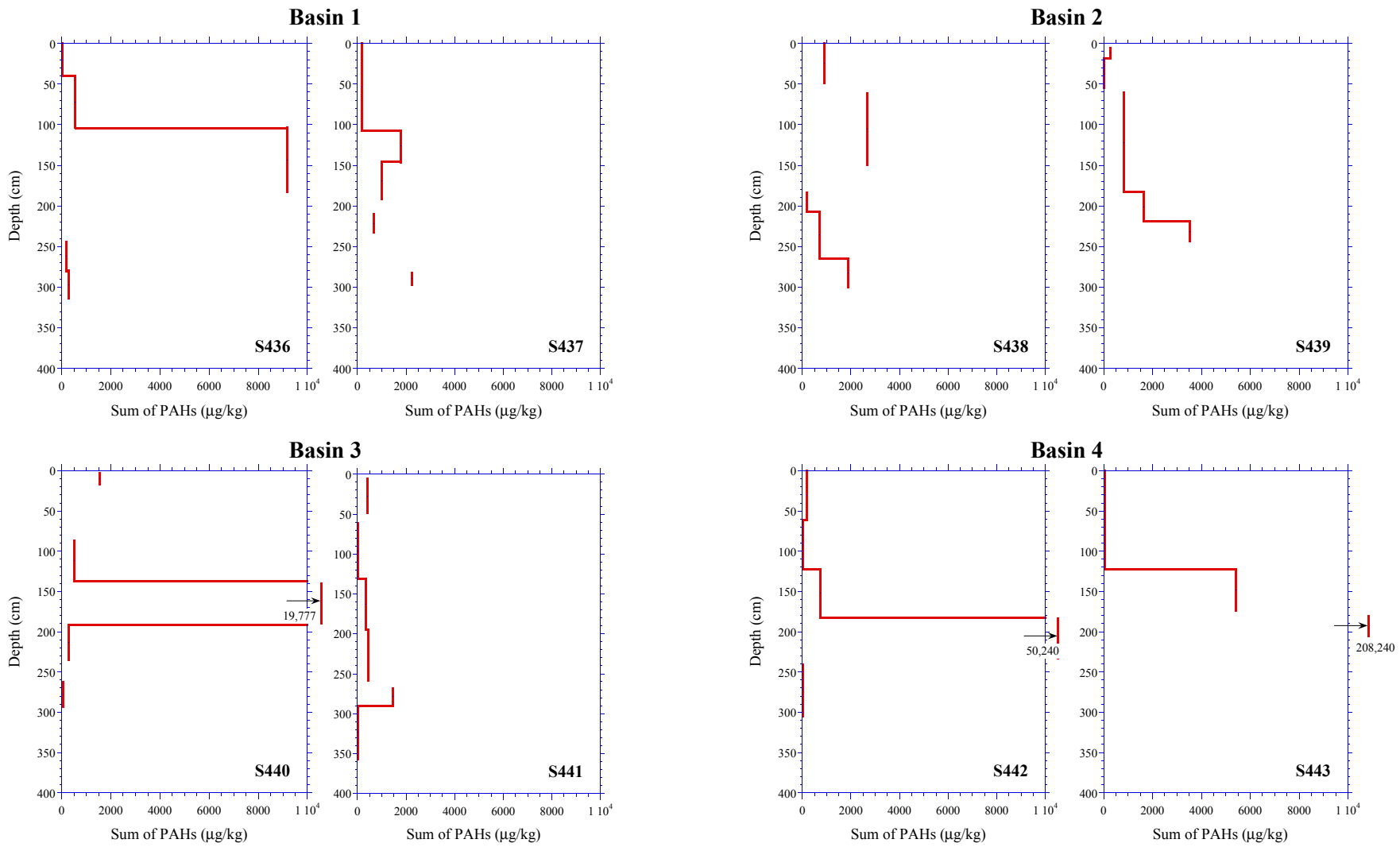
Figure 5-124
Indeno(1,2,3-cd)perylene in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Groundwater Protection is 220,000 µg/kg, and the Recommended Soil Cleanup Objective is 50,000 µg/kg.

TAMS

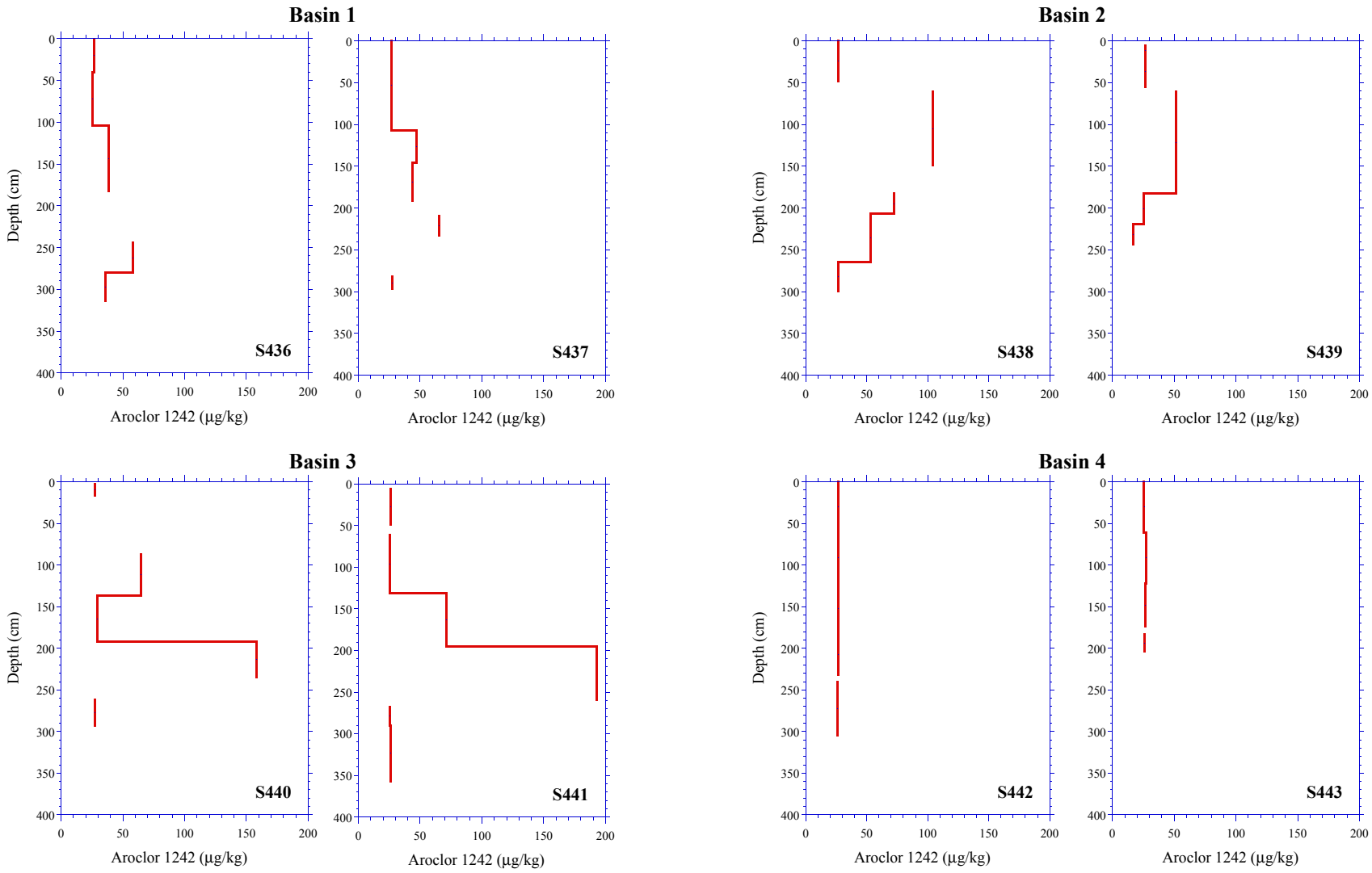
Figure 5-125
Phenanthrene in Onondaga Lake
Dredge Basin Soils in 2000



Notes: 1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. Recommended Soil Cleanup Objective (NYSDEC TAGM # 4046) are assigned for the individual PAHs.
3. The sum is calculated as the sum of detected values or the minimum detection limit.

TAMS

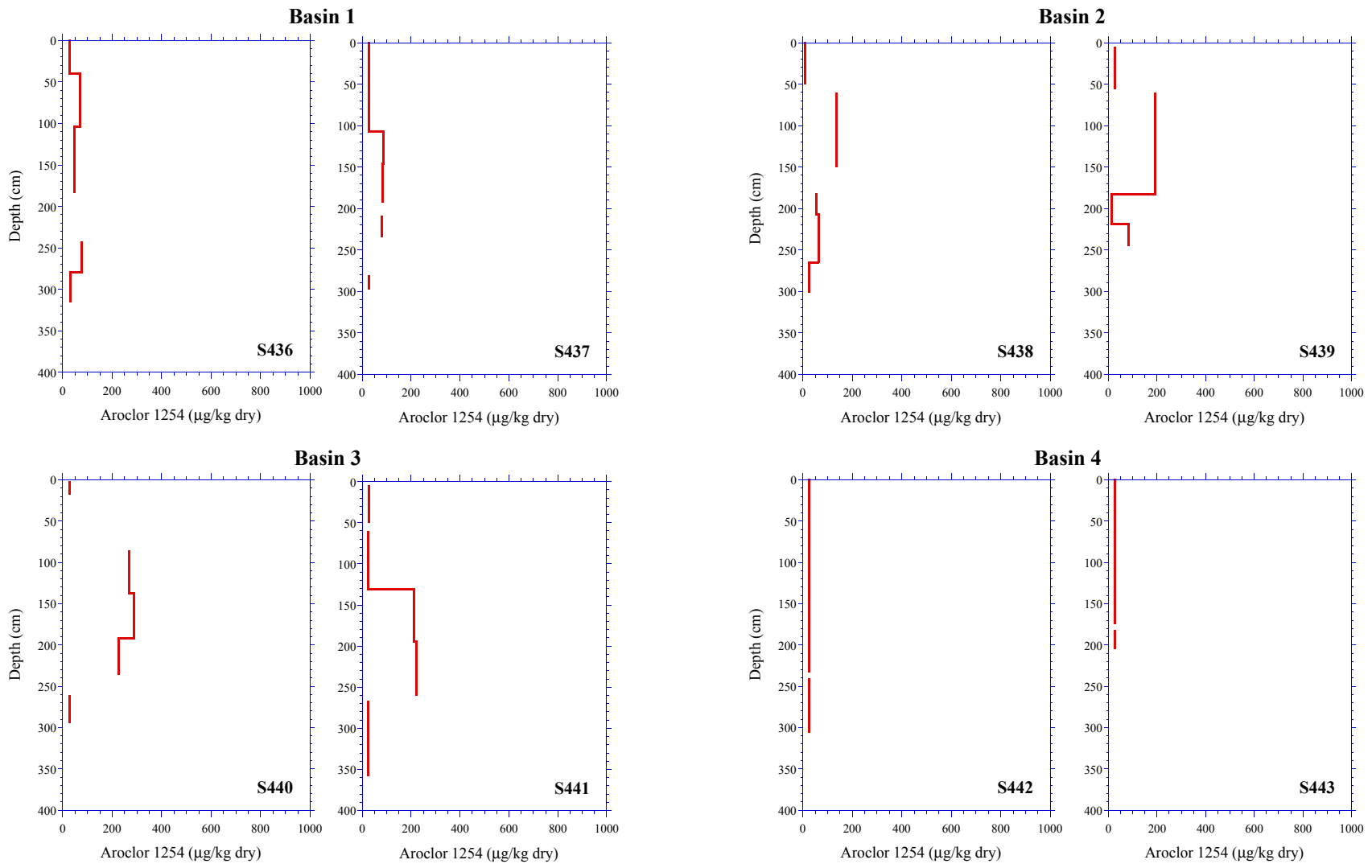
Figure 5-126
Sum of PAHs in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. The Recommended Soil Cleanup Objectives (NYSDEC TAGM # 4046) are 1000 ppb for surface soil and 10,000 ppb for subsurface.

TAMS

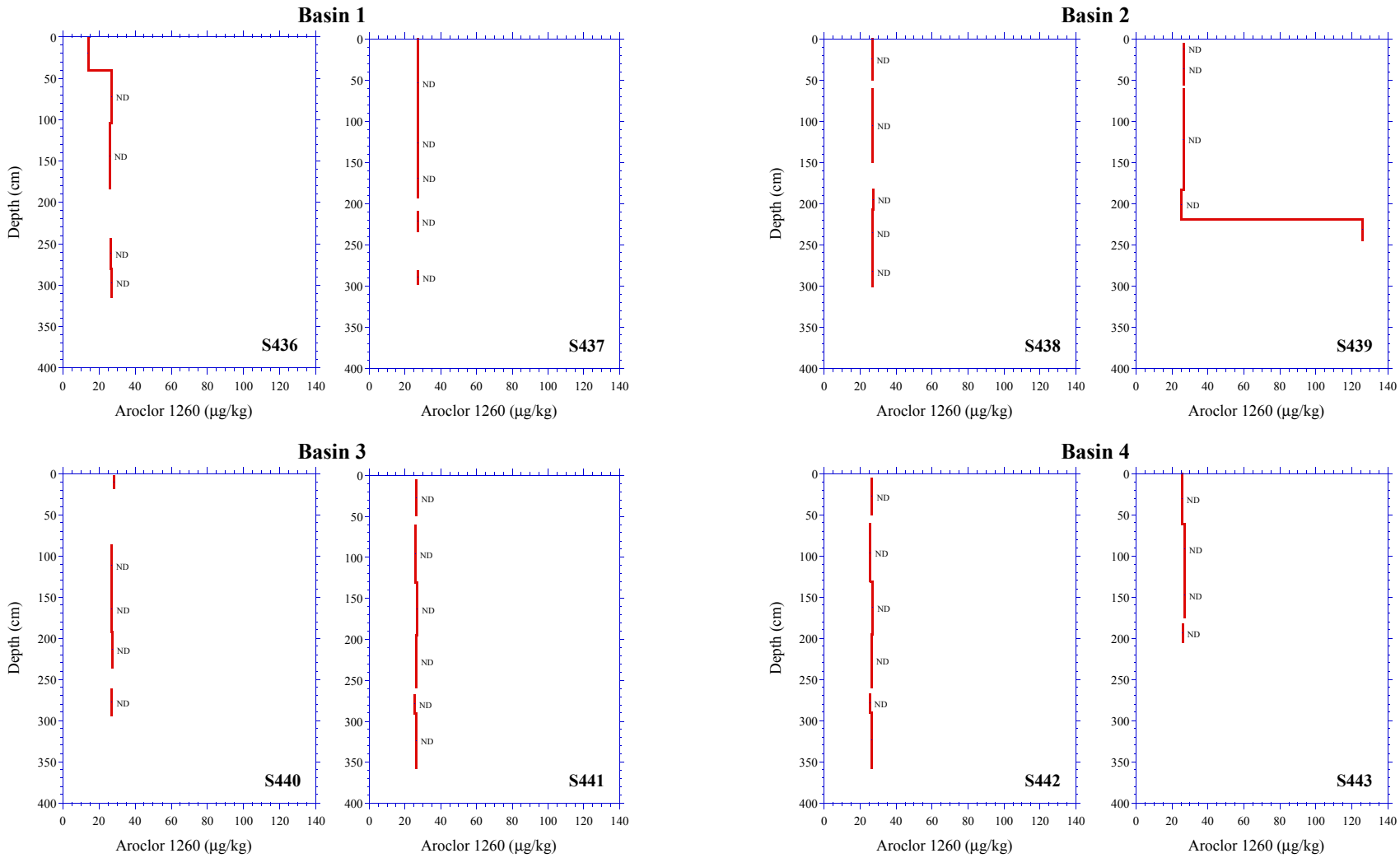
Figure 5-127
Aroclor 1242 in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. The Recommended Soil Cleanup Objectives (NYSDEC TAGM # 4046) are 1000 µg/kg for surface soil and 10,000 µg/kg for subsurface.

TAMS

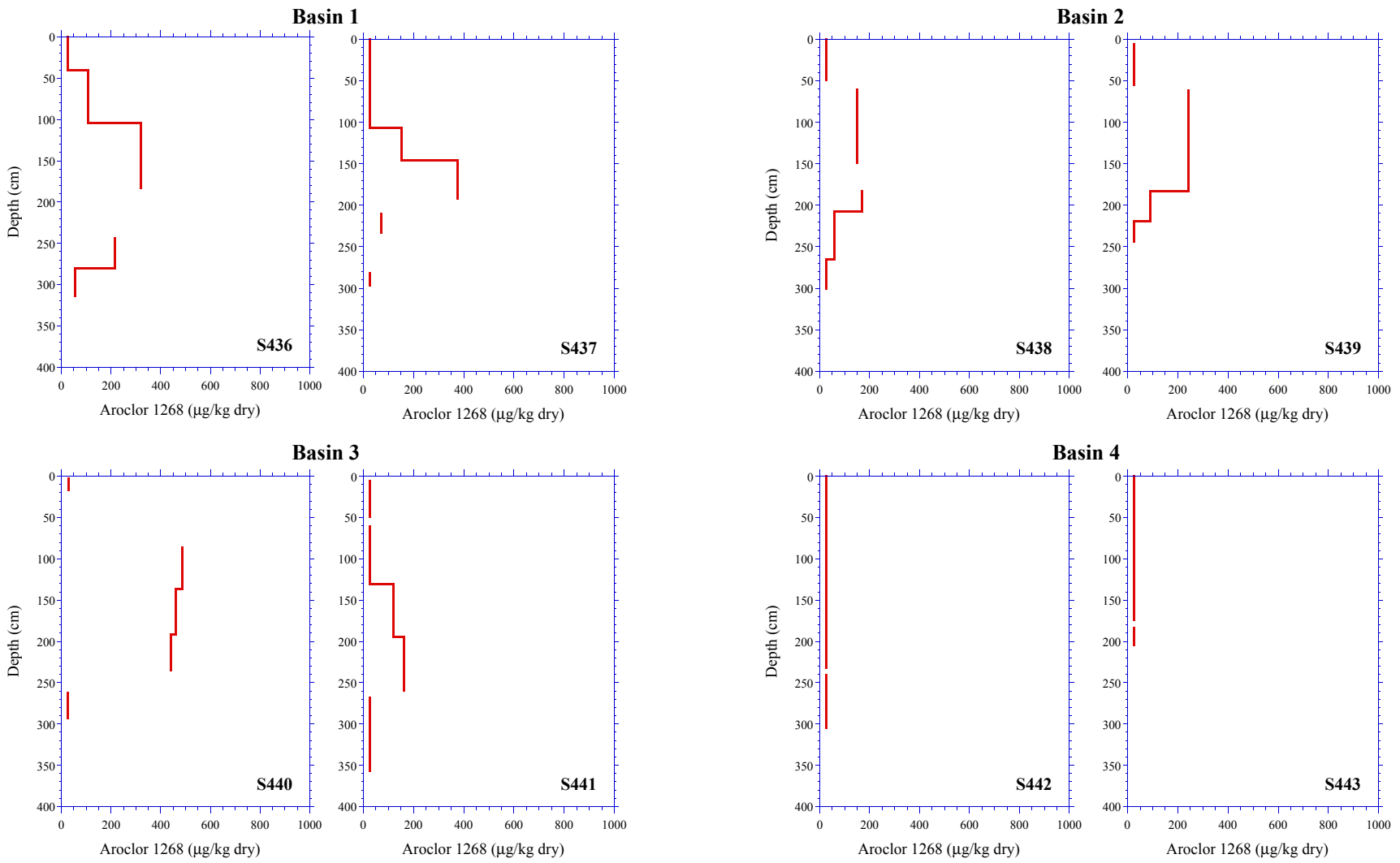
Figure 5-128
Aroclor 1254 in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval.
2. ND indicated a non-detect. Half the detection limits are shown for non-detects.
3. The Recommended Soil Cleanup Objectives (NYSDEC TAGM # 4046) are 1000 µg/kg for surface soil and 10,000 µg/kg for subsurface.

TAMS

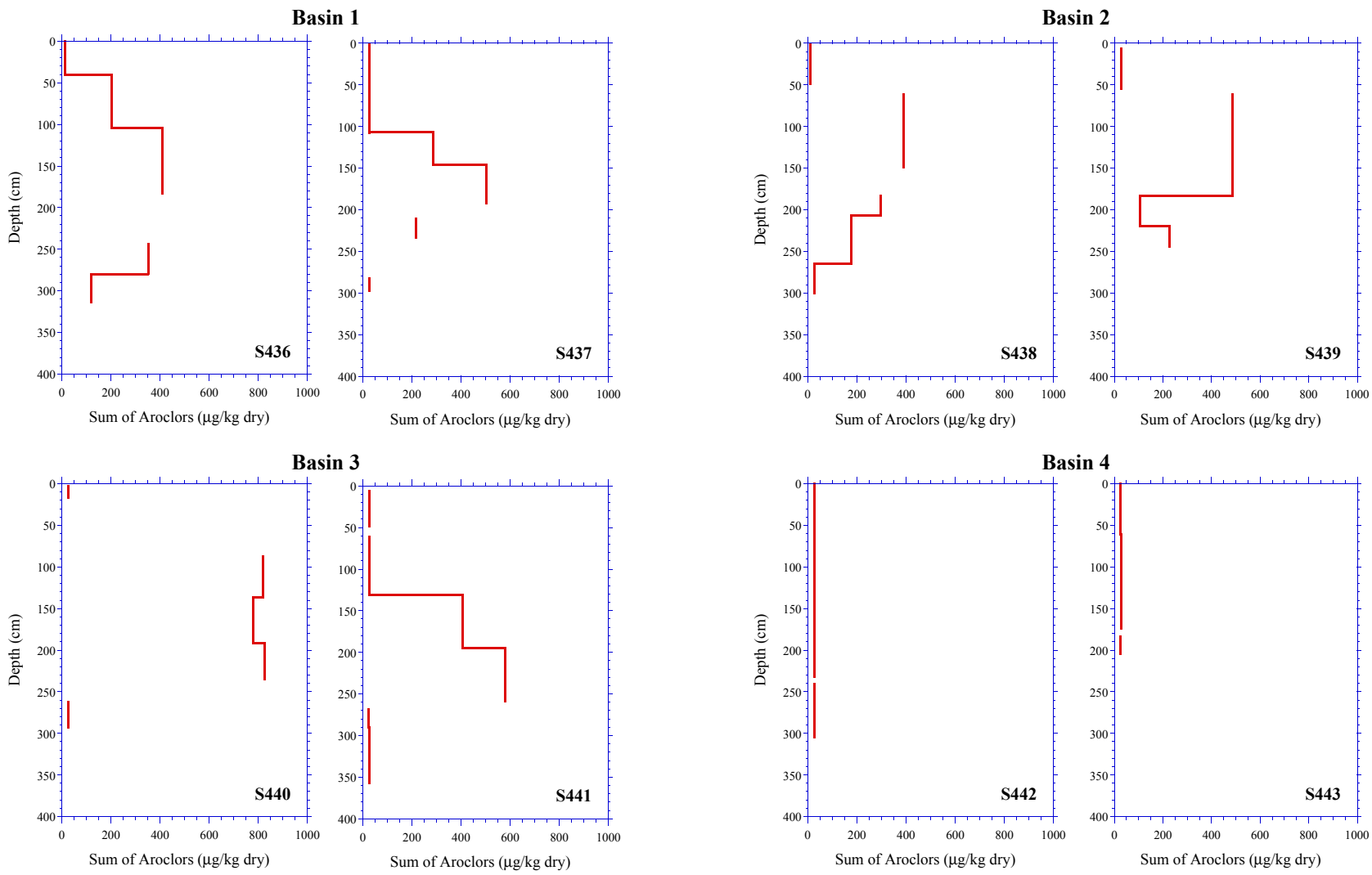
Figure 5-129
Aroclor 1260 in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. The Recommended Soil Cleanup Objectives (NYSDEC TAGM # 4046) are 1000 µg/kg for surface soil and 10,000 µg/kg for subsurface.

TAMS

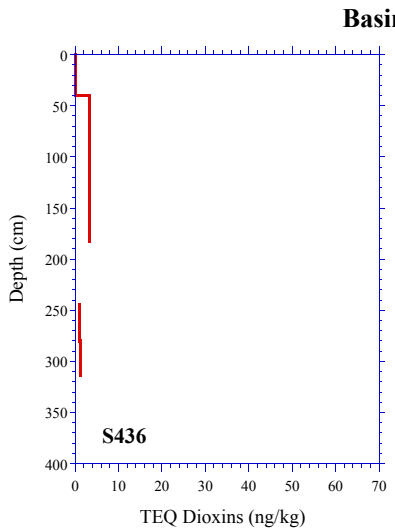
Figure 5-130
Aroclor 1268 in Onondaga Lake
Dredge Basin Soils in 2000



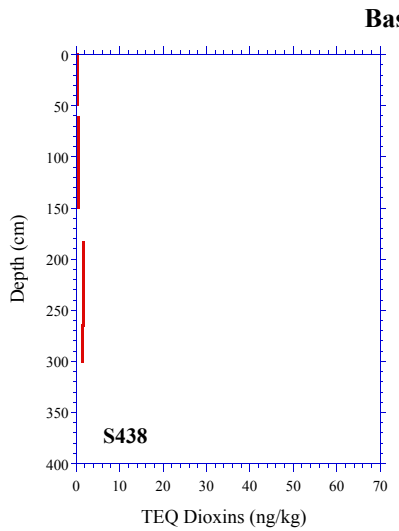
Notes: 1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. The Recommended Soil Cleanup Objectives (NYSDEC TAGM # 4046) are 1000 µg/kg for surface soil and 10,000 µg/kg for subsurface.
3. The sum is calculated as the sum of detected values or the minimum detection limit.

TAMS

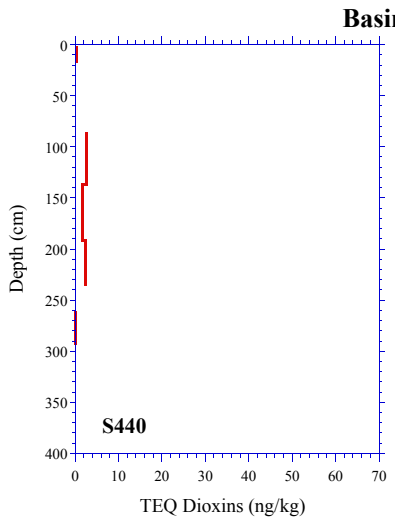
Figure 5-131
Sum of Aroclors in Onondaga Lake
Dredge Basin Soils in 2000



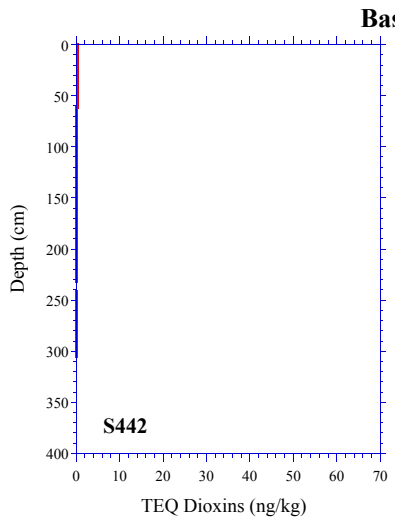
Dioxins and Furans were not analyzed in samples from S437.



Dioxins and Furans were not analyzed in samples from S439.



Dioxins and Furans were not analyzed in samples from S441.

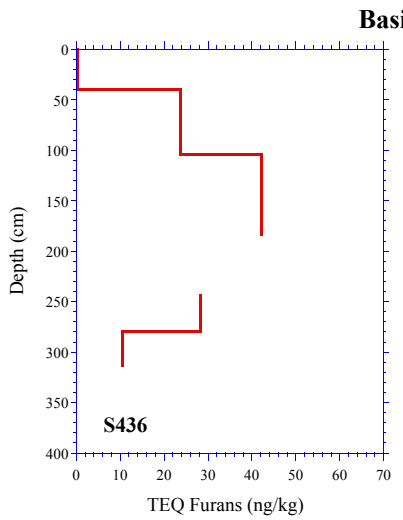


Dioxins and Furans were not analyzed in samples from S443.

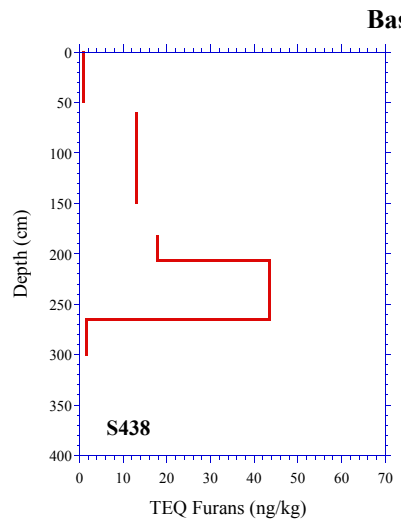
Notes:
1. The toxic equivalent (TEQ) is calculated using WHO TEFs and half the detection limit for non-detects.
2. NYSDEC TAGM # 4046 (2,3,7,8-TCDD): Groundwater Protection is 60 µg/kg.

Figure 5-132
TEQ Dioxins Only in Onondaga Lake
Dredge Basin Soils in 2000

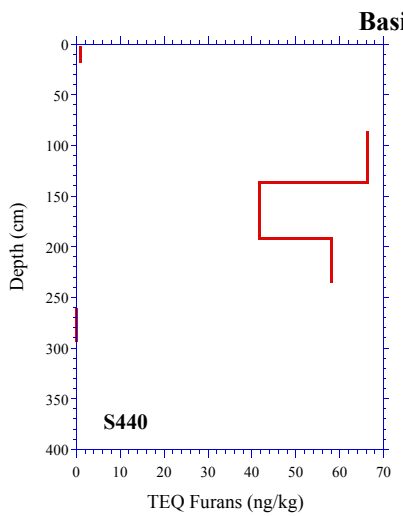
TAMS



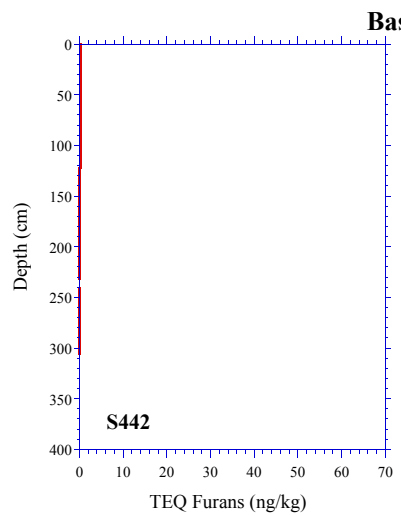
Dioxins and Furans were not analyzed in samples from S437.



Dioxins and Furans were not analyzed in samples from S439.



Dioxins and Furans were not analyzed in samples from S441.

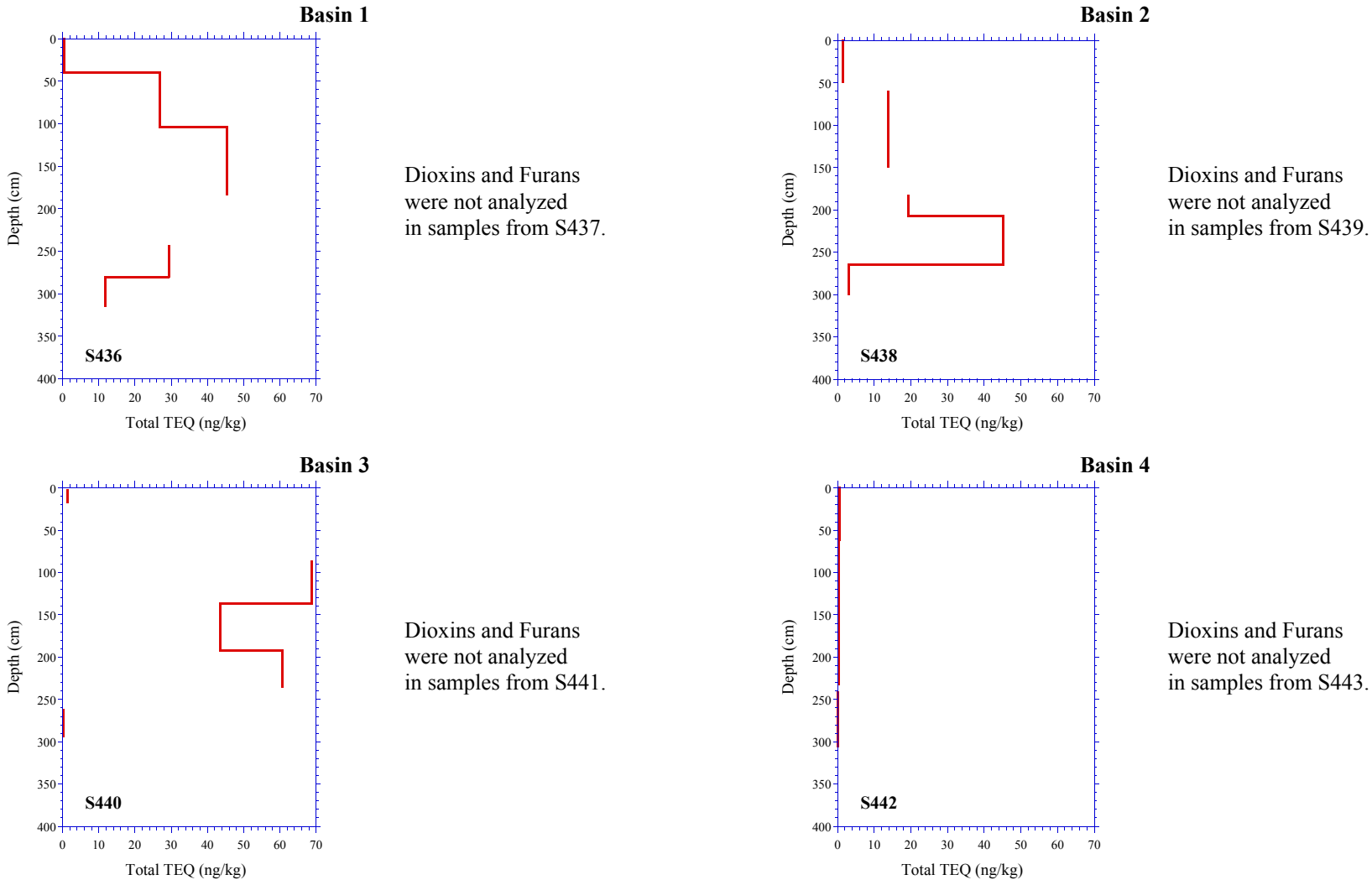


Dioxins and Furans were not analyzed in samples from S443.

Notes:
1. The toxic equivalent (TEQ) is calculated using WHO TEFs and half the detection limit for non-detects.
2. NYSDEC TAGM # 4046 (2,3,7,8-TCDD): Groundwater Protection is 60 ug/kg.

TAMS

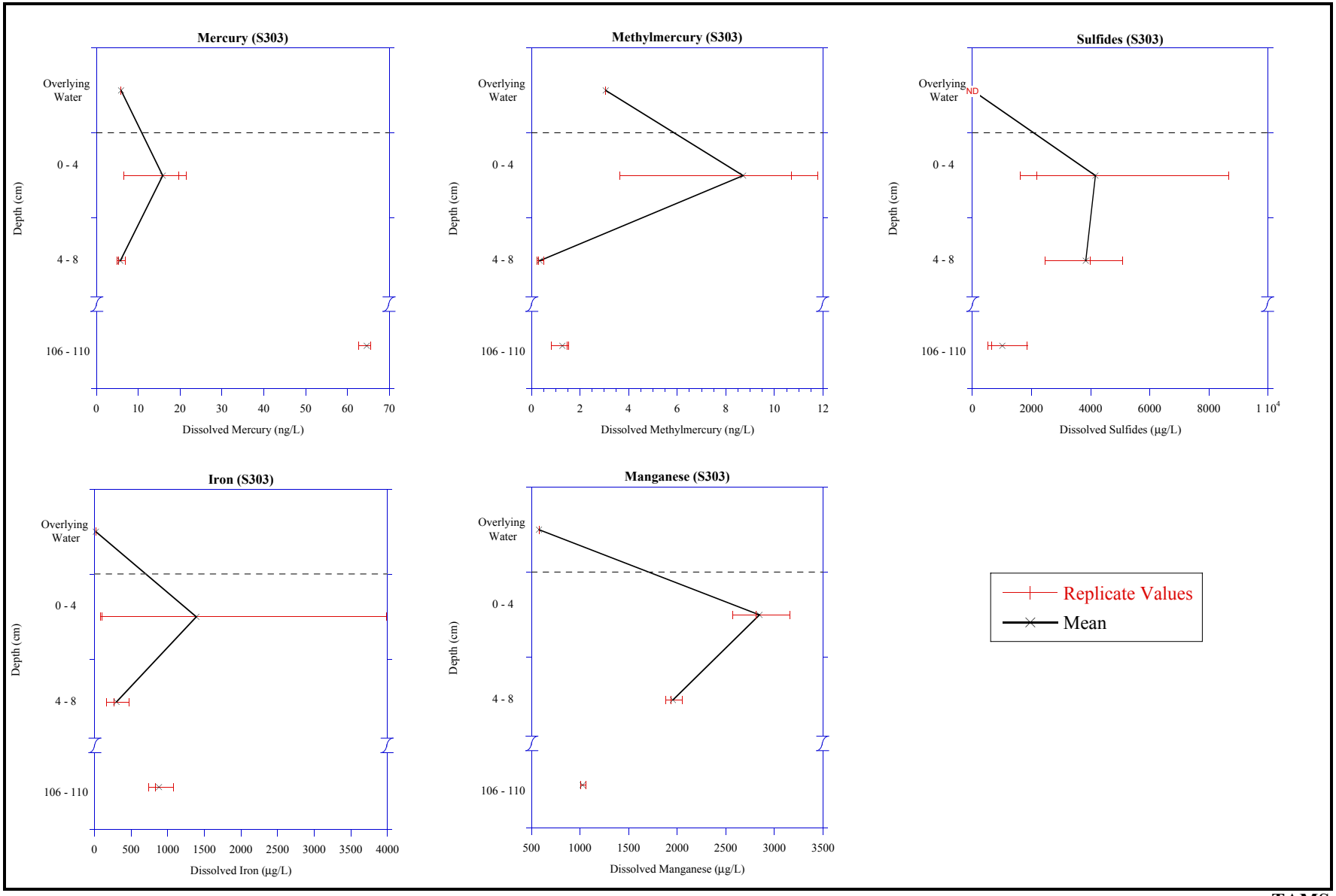
Figure 5-133
TEQ Furans Only in Onondaga Lake
Dredge Basin Soils in 2000



Notes:
1. The toxic equivalent (TEQ) is calculated using WHO TEFs and half the detection limit for non-detects.
2. NYSDEC TAGM # 4046 (2,3,7,8-TCDD): Groundwater Protection is 60 µg/kg.

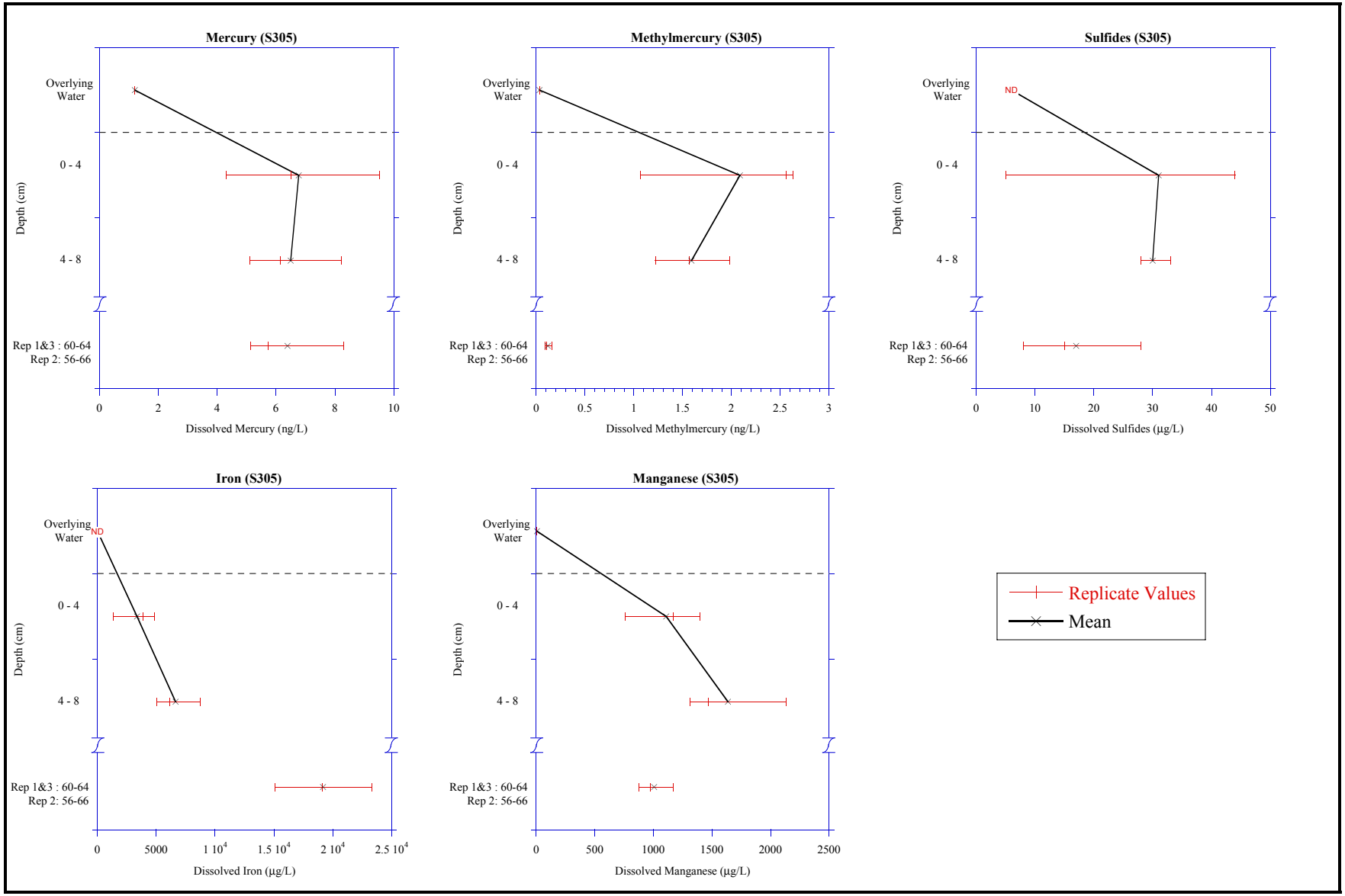
TAMS

Figure 5-134
Total TEQ in Onondaga Lake
Dredge Basin Soils in 2000



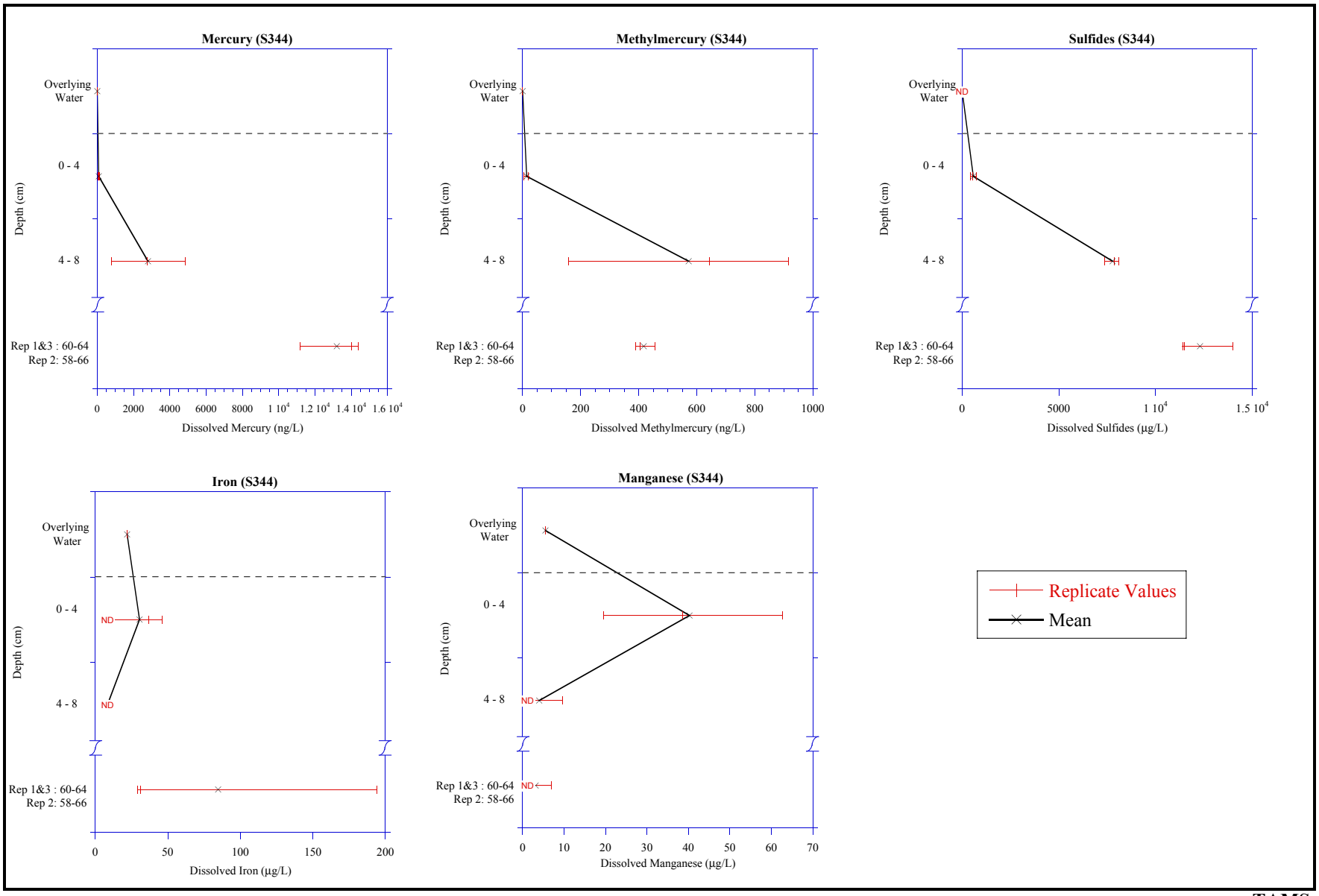
TAMS

Figure 5-135
Porewater Extract in S303
From Onondaga Lake in 2000



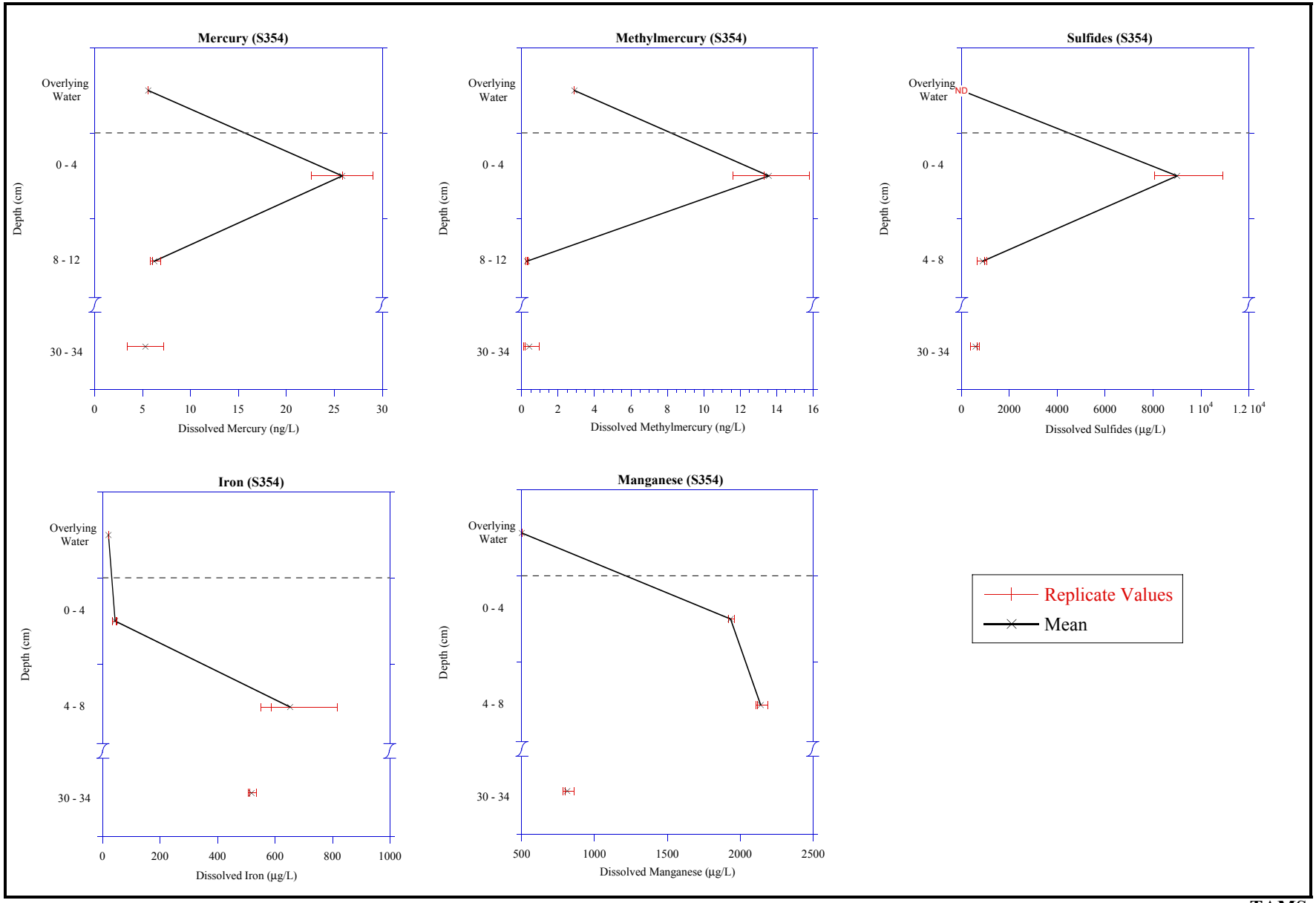
TAMS

Figure 5-136
Porewater Extract in S305
From Onondaga Lake in 2000



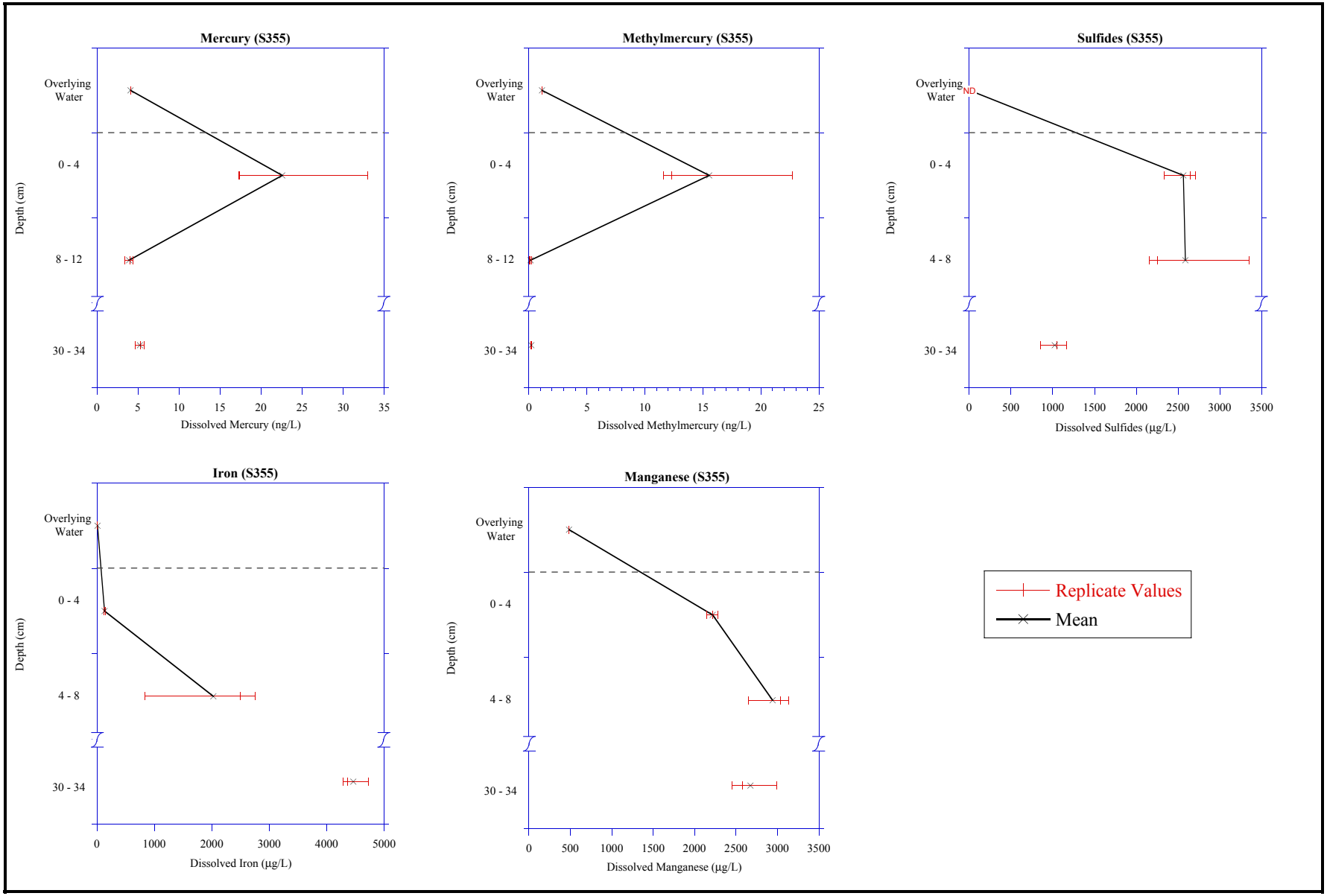
TAMS

Figure 5-137
Porewater Extract in S344
From Onondaga Lake in 2000



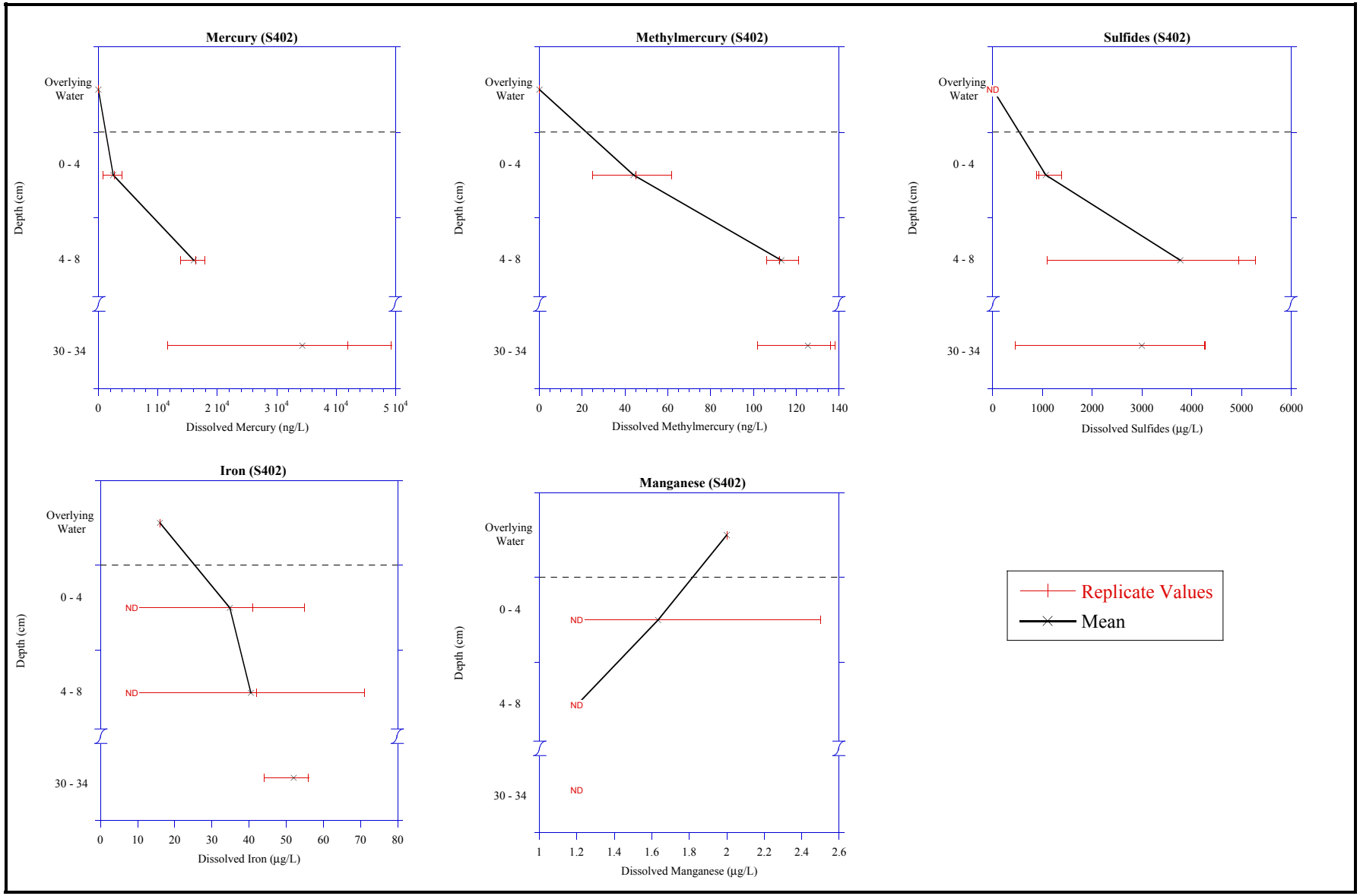
TAMS

Figure 5-138
Porewater Extract in S354
From Onondaga Lake in 2000



TAMS

Figure 5-139
Porewater Extract in S355
From Onondaga Lake in 2000



TAMS

Figure 5-140
Porewater Extract in S402
From Onondaga Lake in 2000

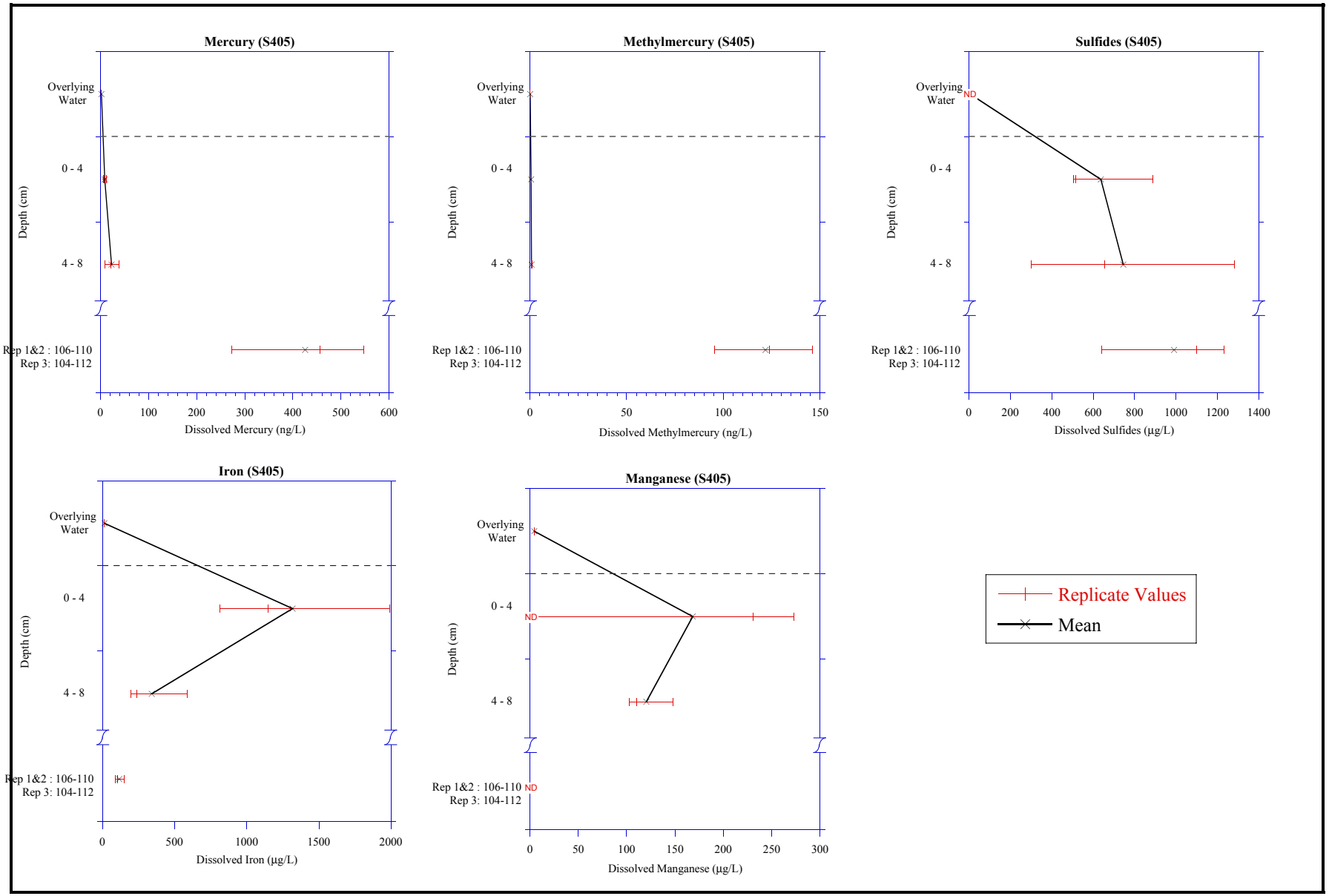
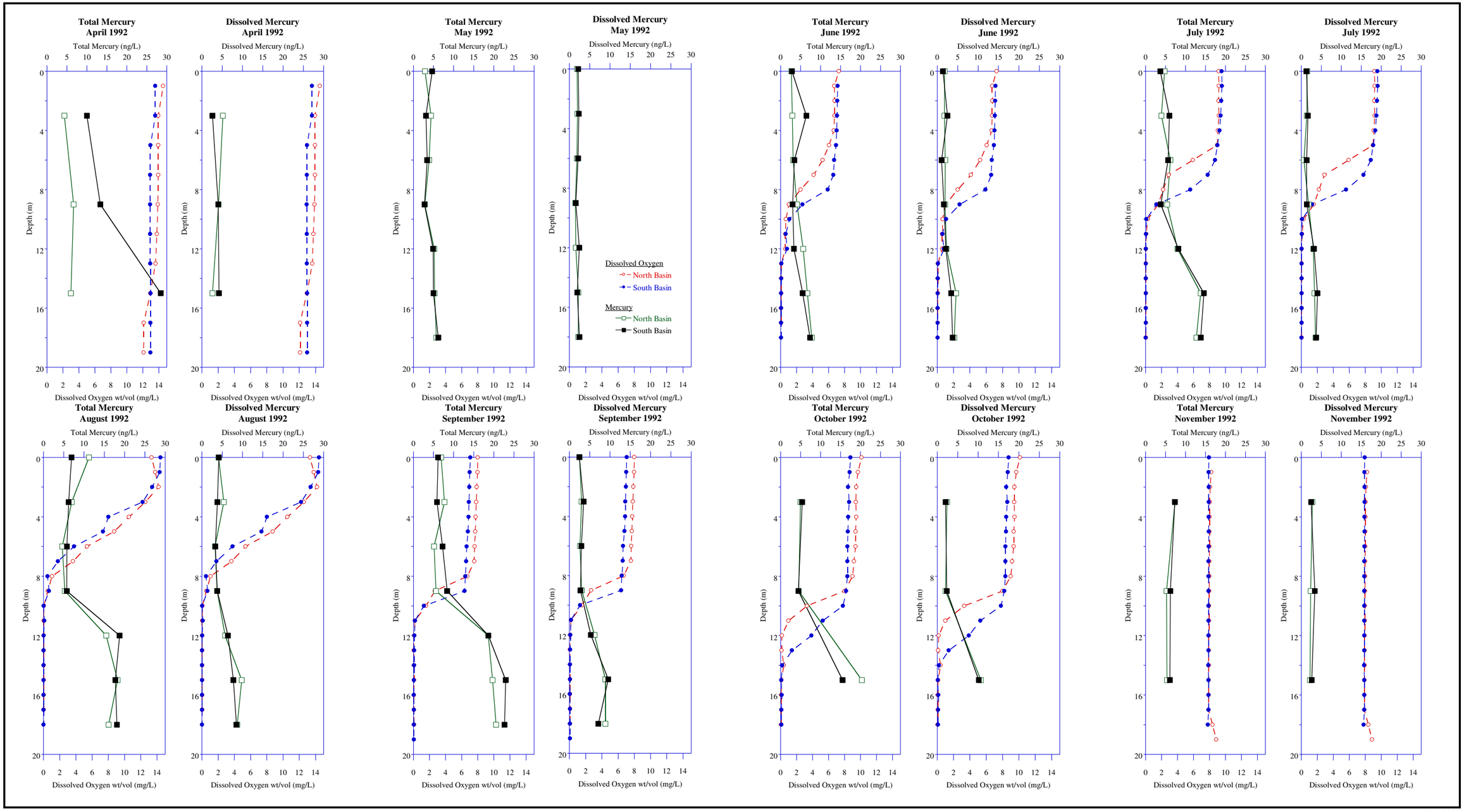


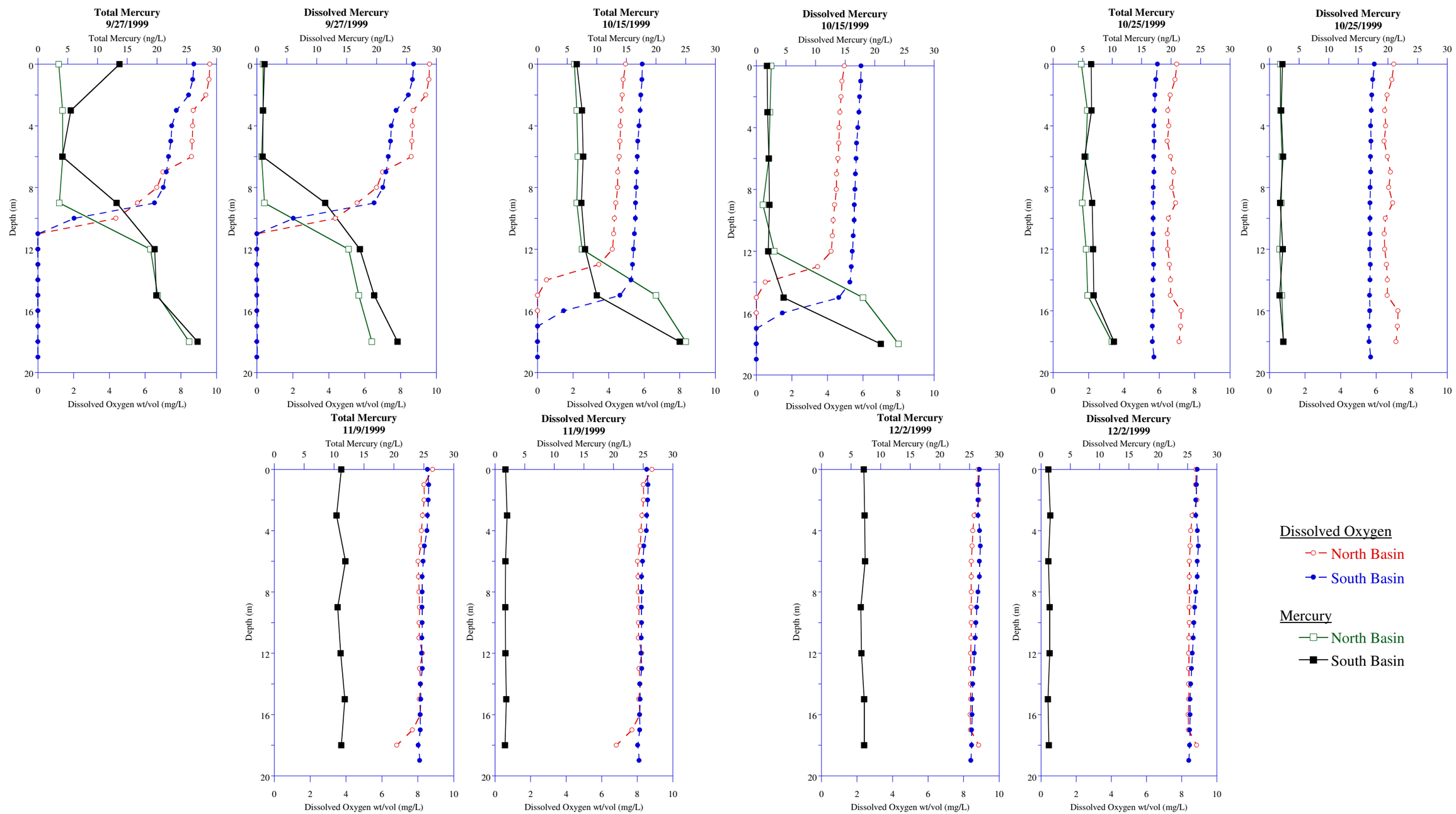
Figure 5-141
Porewater Extract in S405
From Onondaga Lake in 2000

TAMS



TAMS

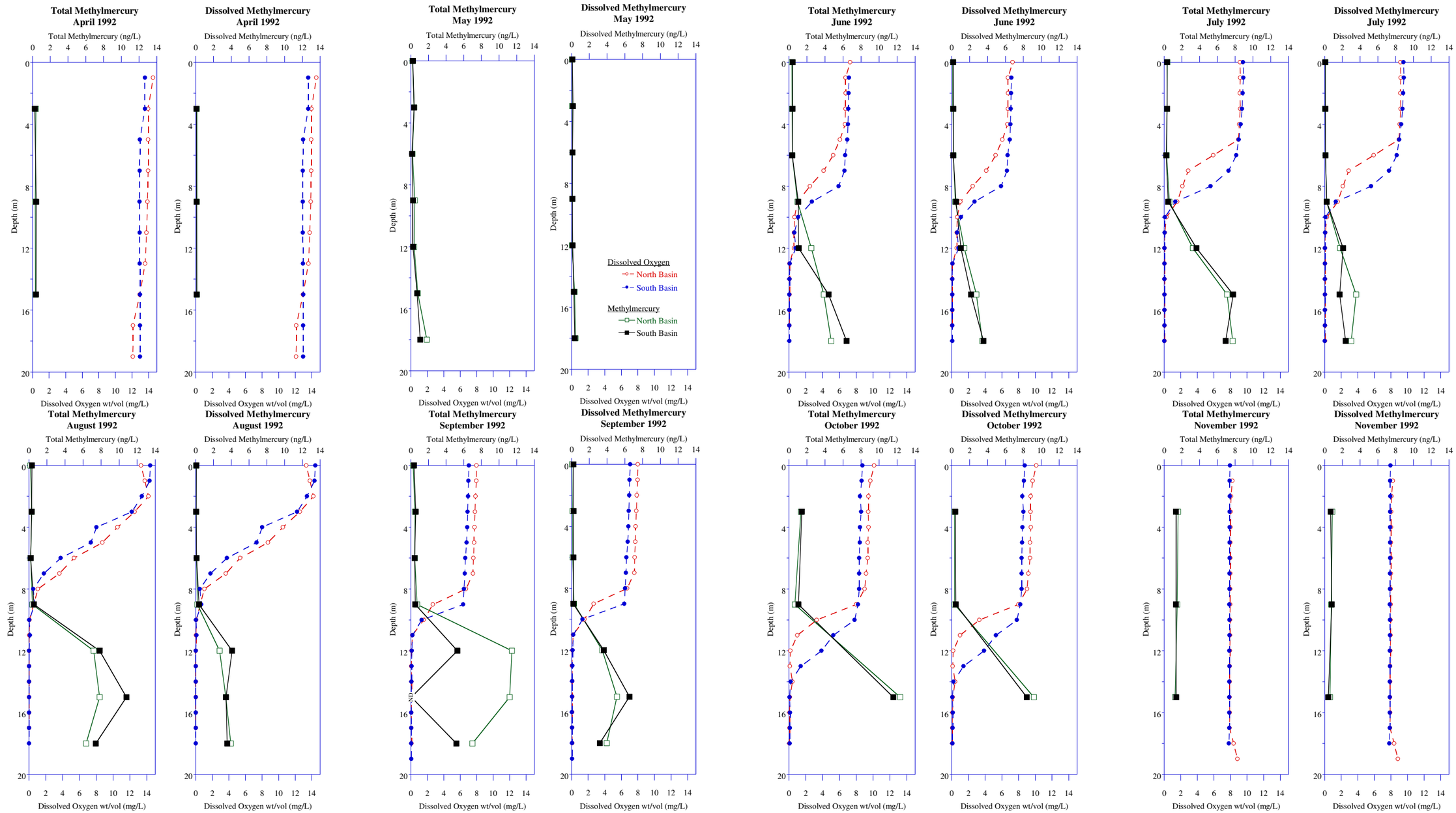
Figure 5-142
Mercury and Dissolved Oxygen in the Surface Water of Onondaga Lake during 1992



Note: The north basin was not analyzed for mercury for 11/9/99 or 12/2/99.

Figure 5-143
Mercury and Dissolved Oxygen in the Surface Water of Onondaga Lake during the Fall of 1999

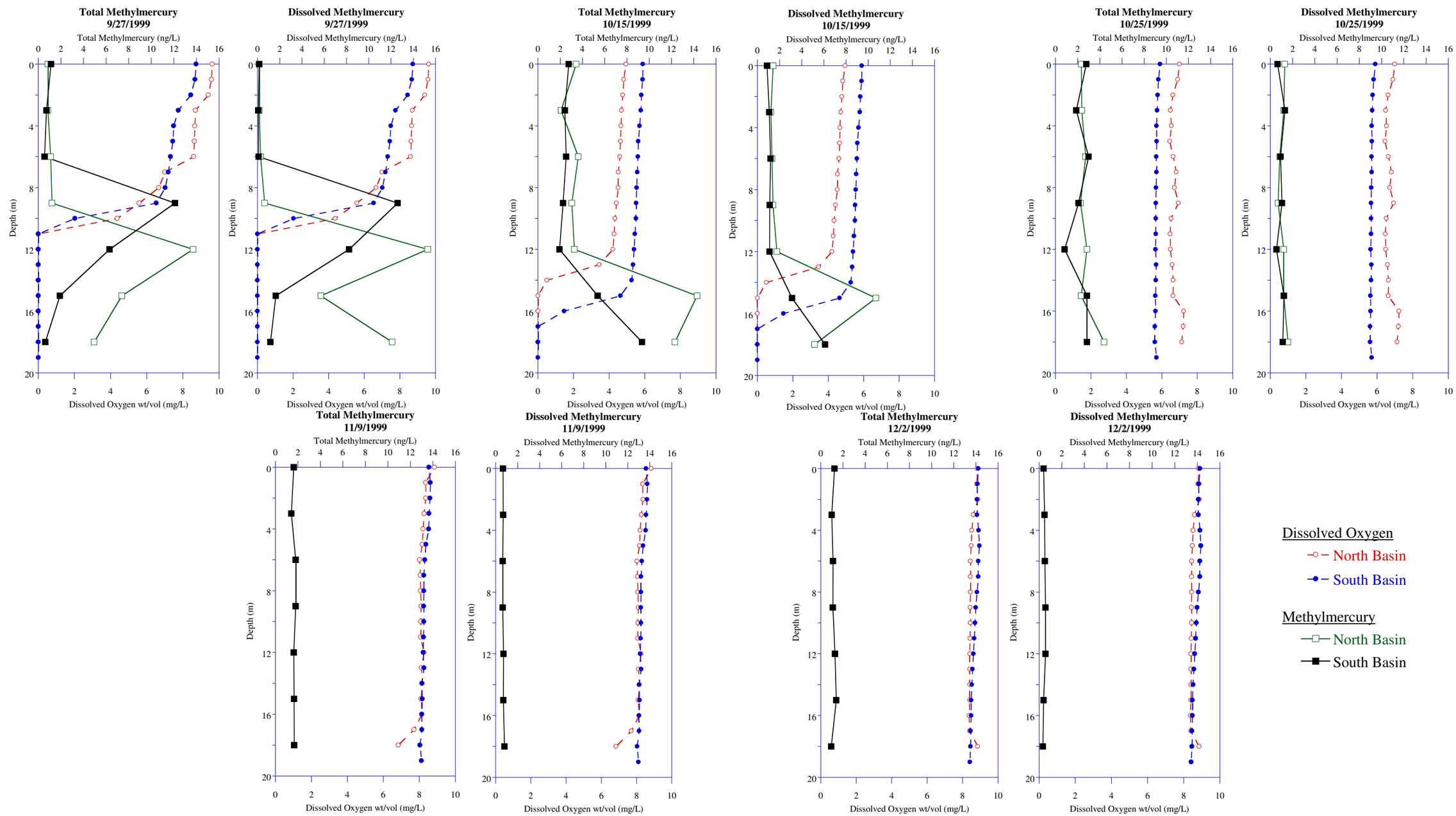
TAMS



Note: ND indicates the analyte was not detected, half the detection limit is shown.

TAMS

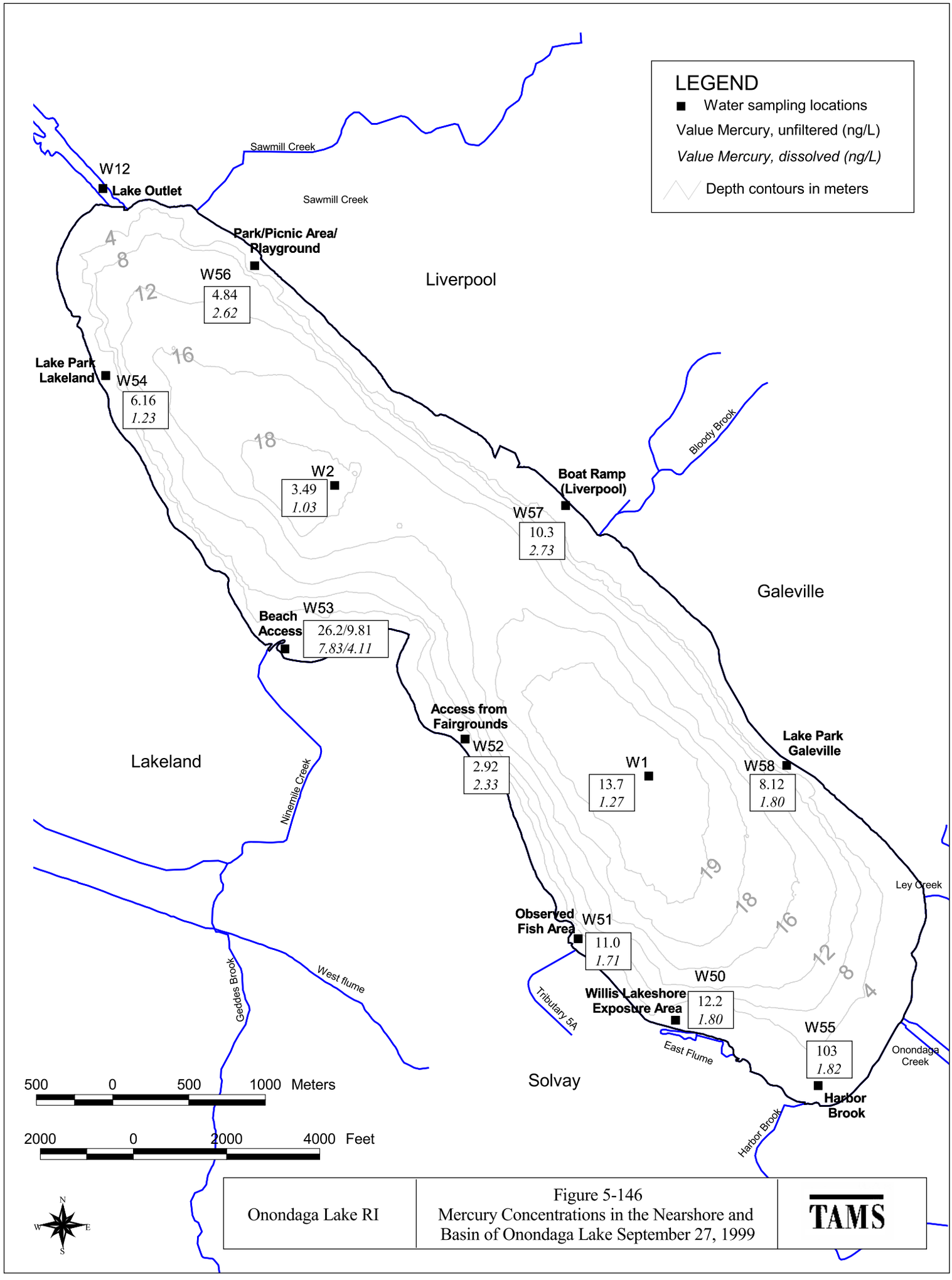
Figure 5-144
Methylmercury and Dissolved Oxygen in the Surface Water of Onondaga Lake during 1992



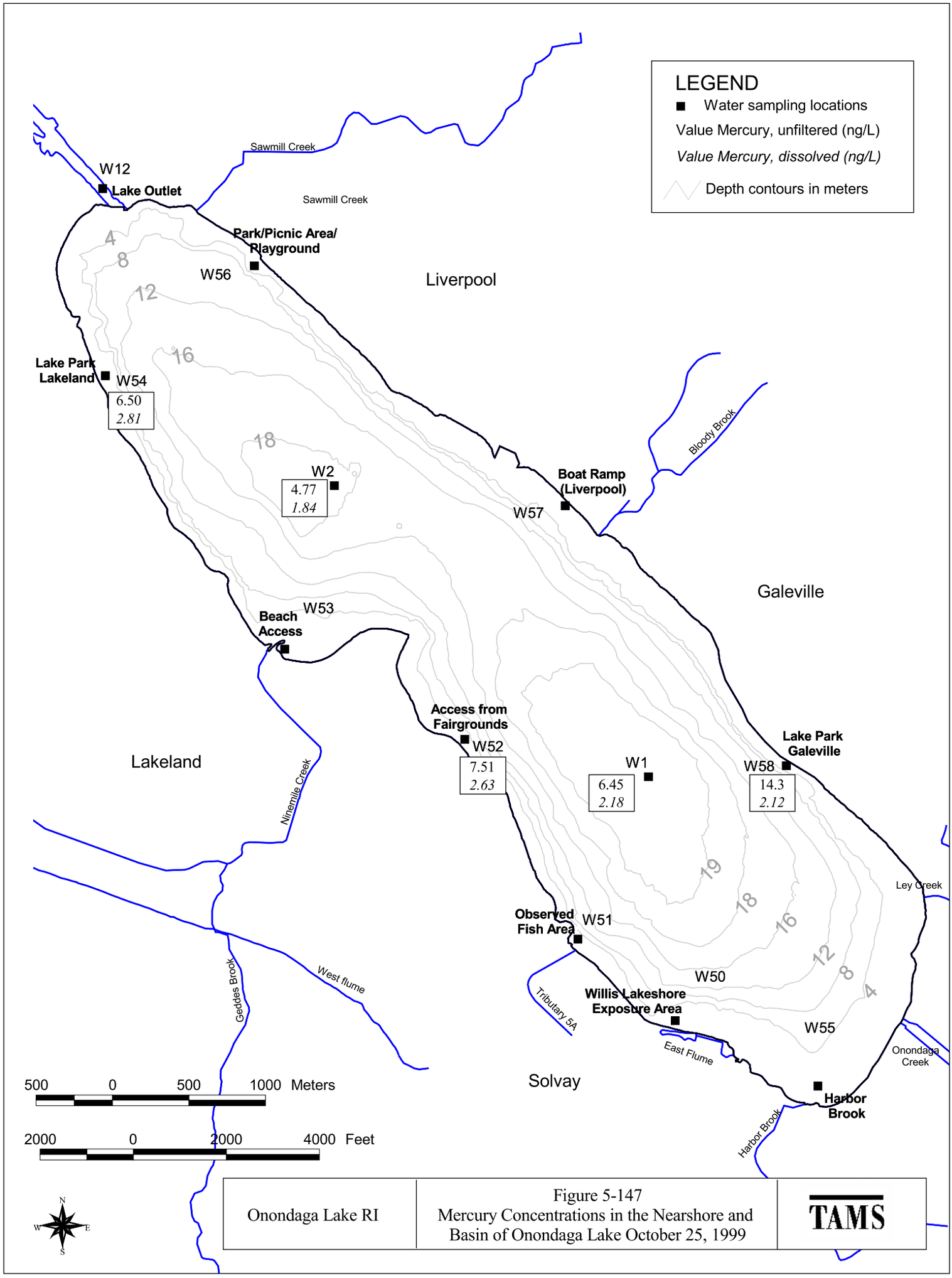
Note: The north basin was not analyzed for methyl mercury for 11/9/99 or 12/2/99.

TAMS

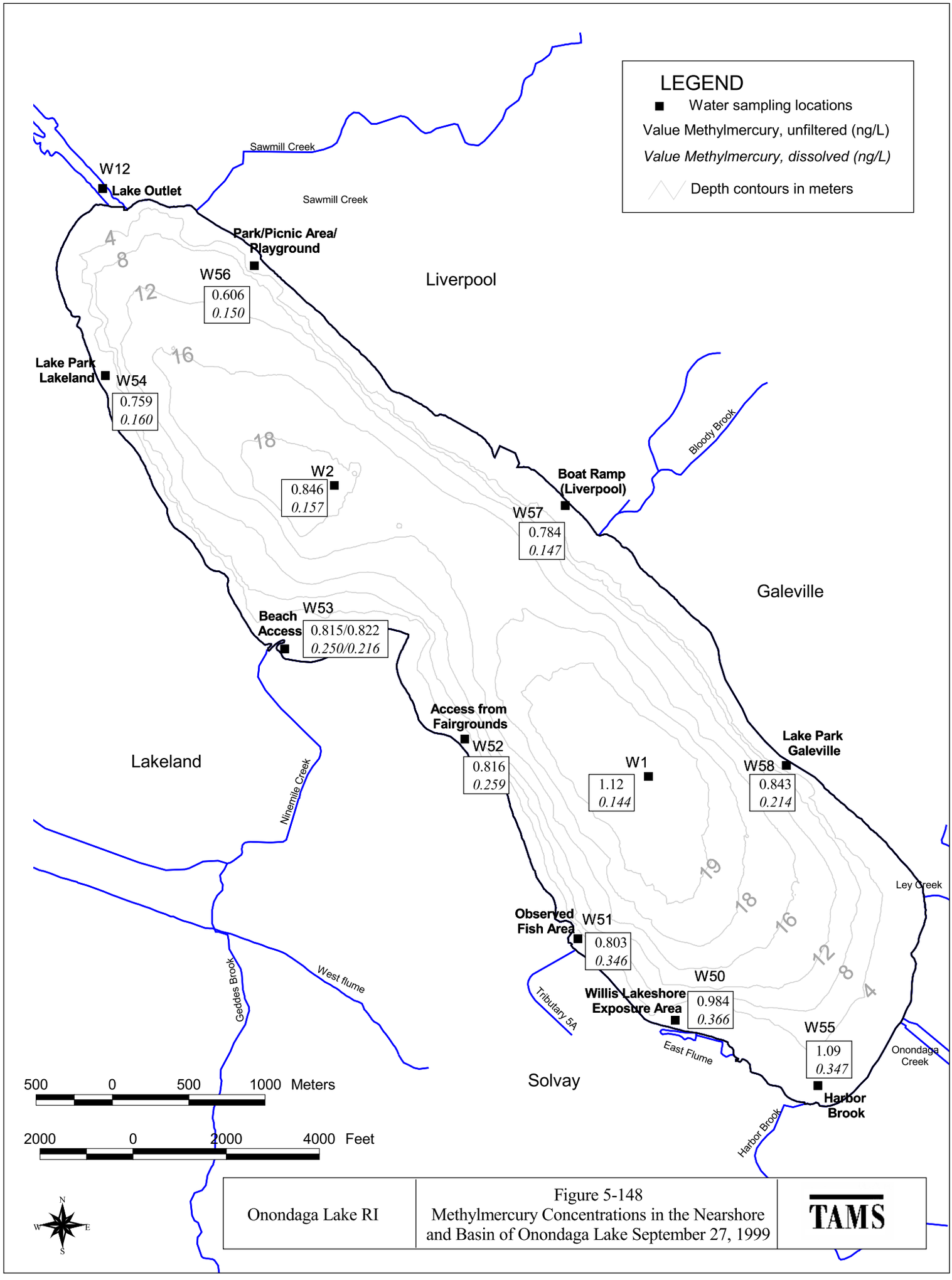
Figure 5-145
Methylmercury and Dissolved Oxygen in the Surface Water of Onondaga Lake during the Fall of 1999



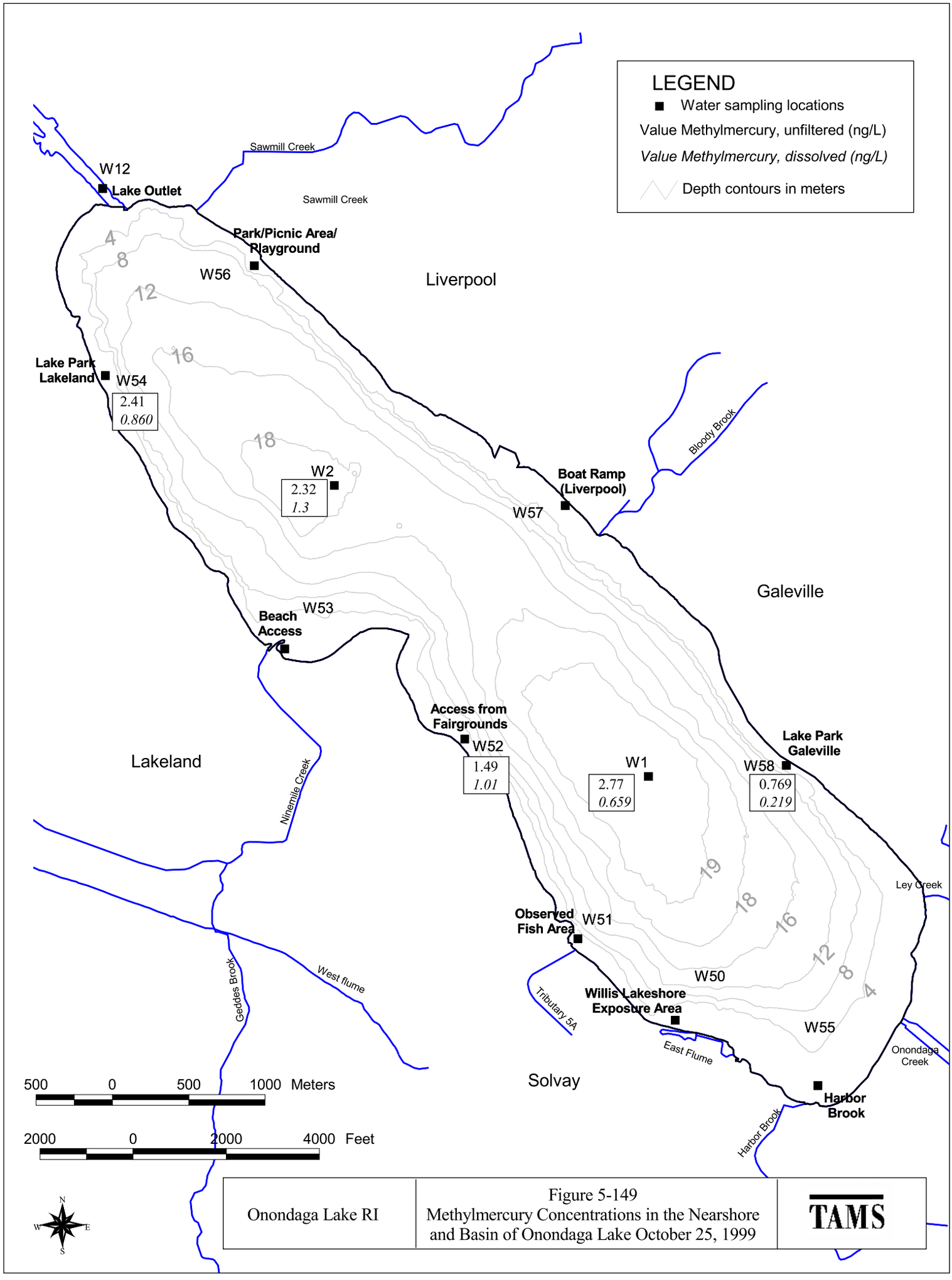
Onondaga Lake RI	Figure 5-146 Mercury Concentrations in the Nearshore and Basin of Onondaga Lake September 27, 1999	TAMS



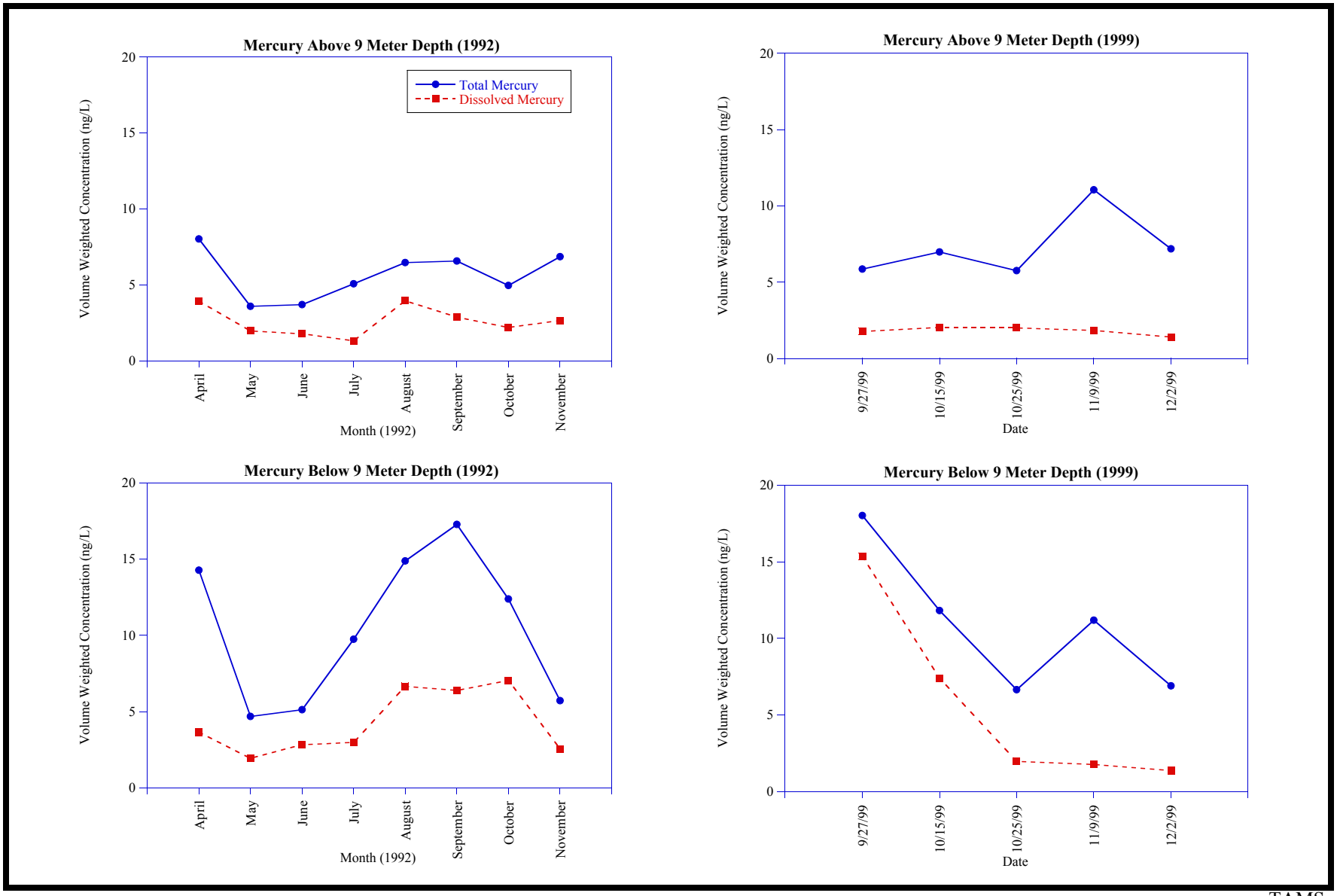
Onondaga Lake RI	Figure 5-147 Mercury Concentrations in the Nearshore and Basin of Onondaga Lake October 25, 1999	TAMS



Onondaga Lake RI	Figure 5-148 Methylmercury Concentrations in the Nearshore and Basin of Onondaga Lake September 27, 1999	TAMS

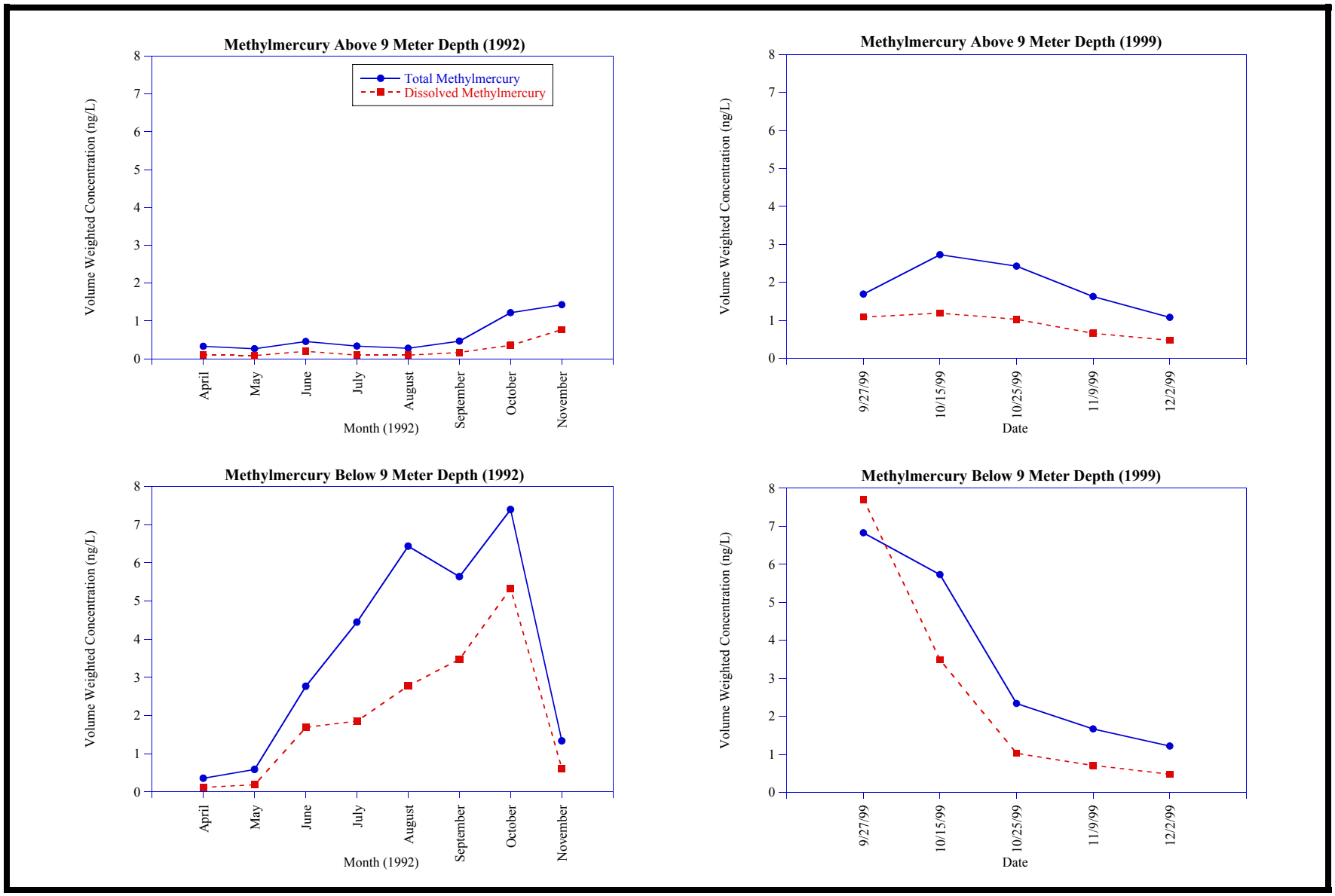


Onondaga Lake RI	Figure 5-149 Methylmercury Concentrations in the Nearshore and Basin of Onondaga Lake October 25, 1999	TAMS



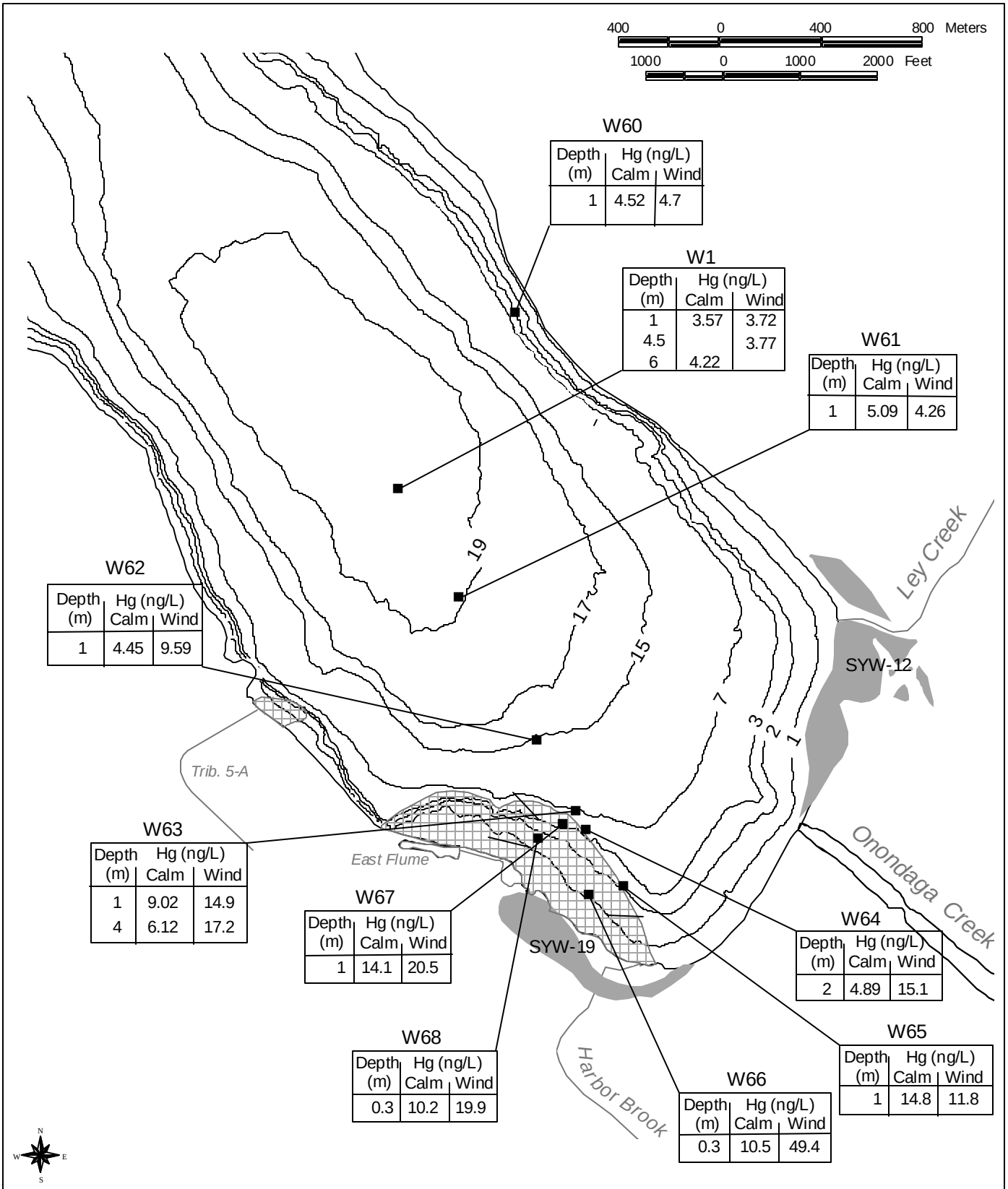
TAMS

Figure 5-150
Mercury Concentrations in Surface Water of Onondaga Lake



TAMS

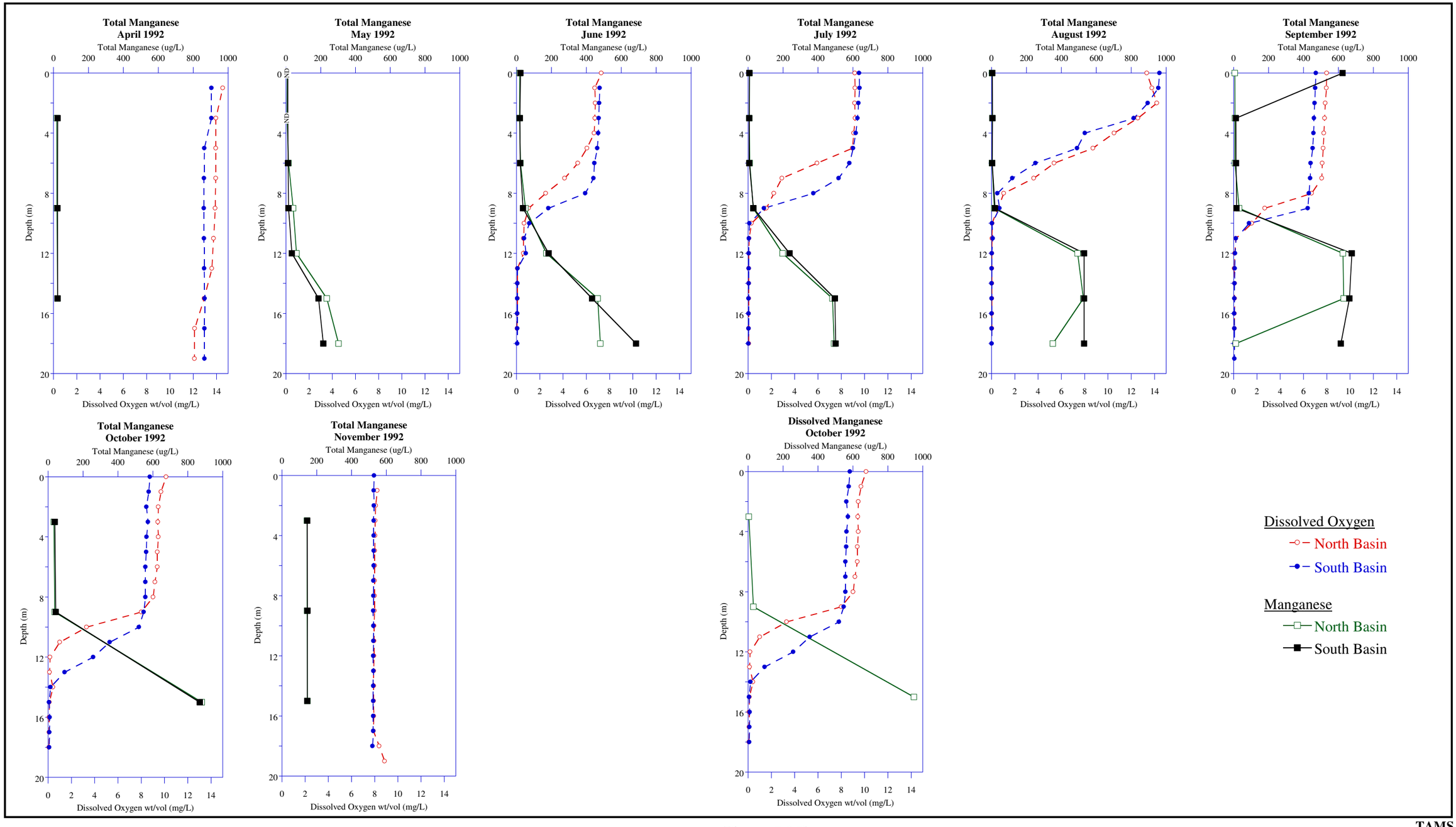
Figure 5-151
Methylmercury Concentrations in Surface Water of Onondaga Lake



■ Sample location (approximate)
Location of in lake waste deposit (approximate)
Selected NYSDEC wetlands
Bathymetry in meters

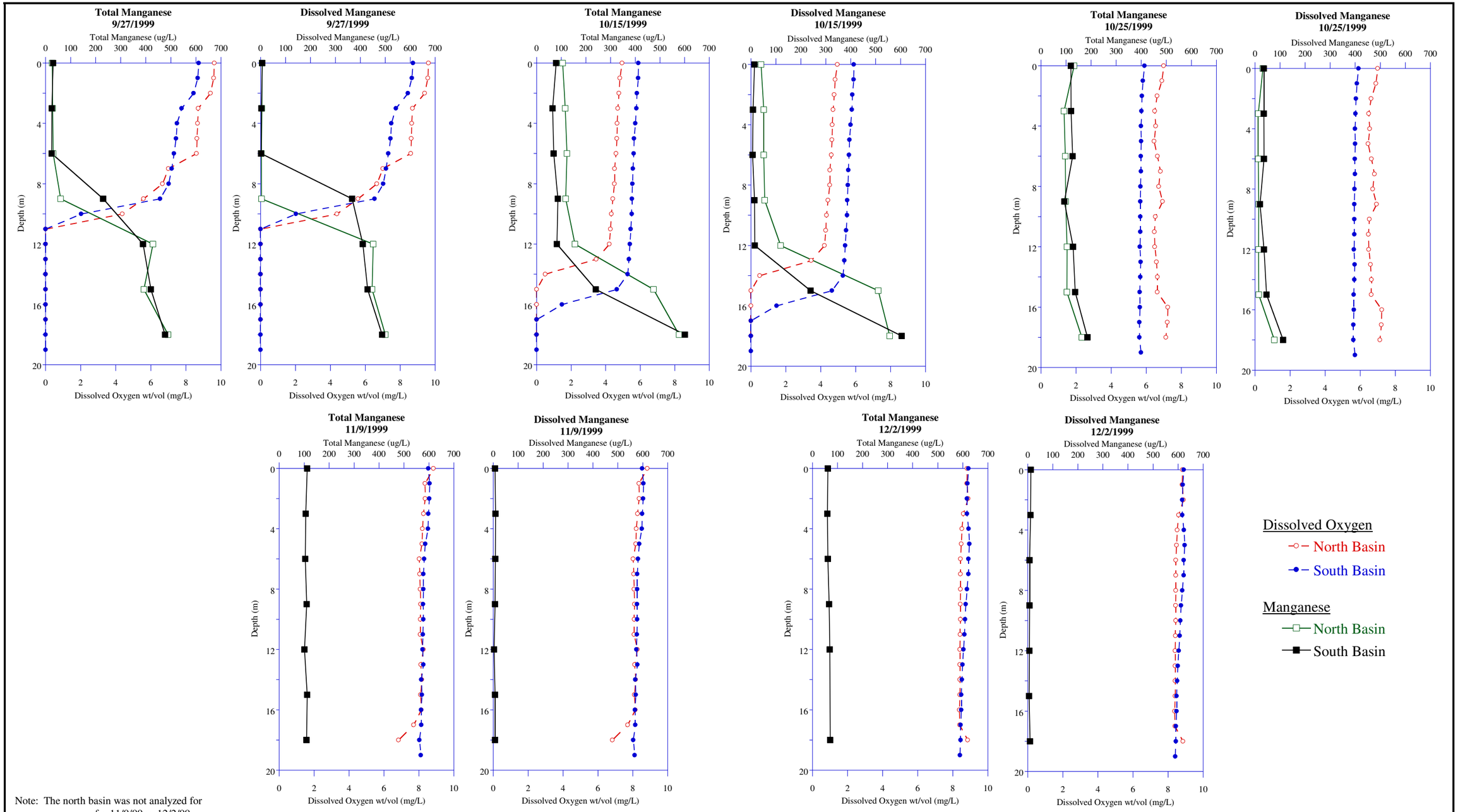
Figure 5-152
Concentrations of Total Mercury Under Calm and Windy Conditions in Onondaga Lake December 2001

TAMS



TAMS

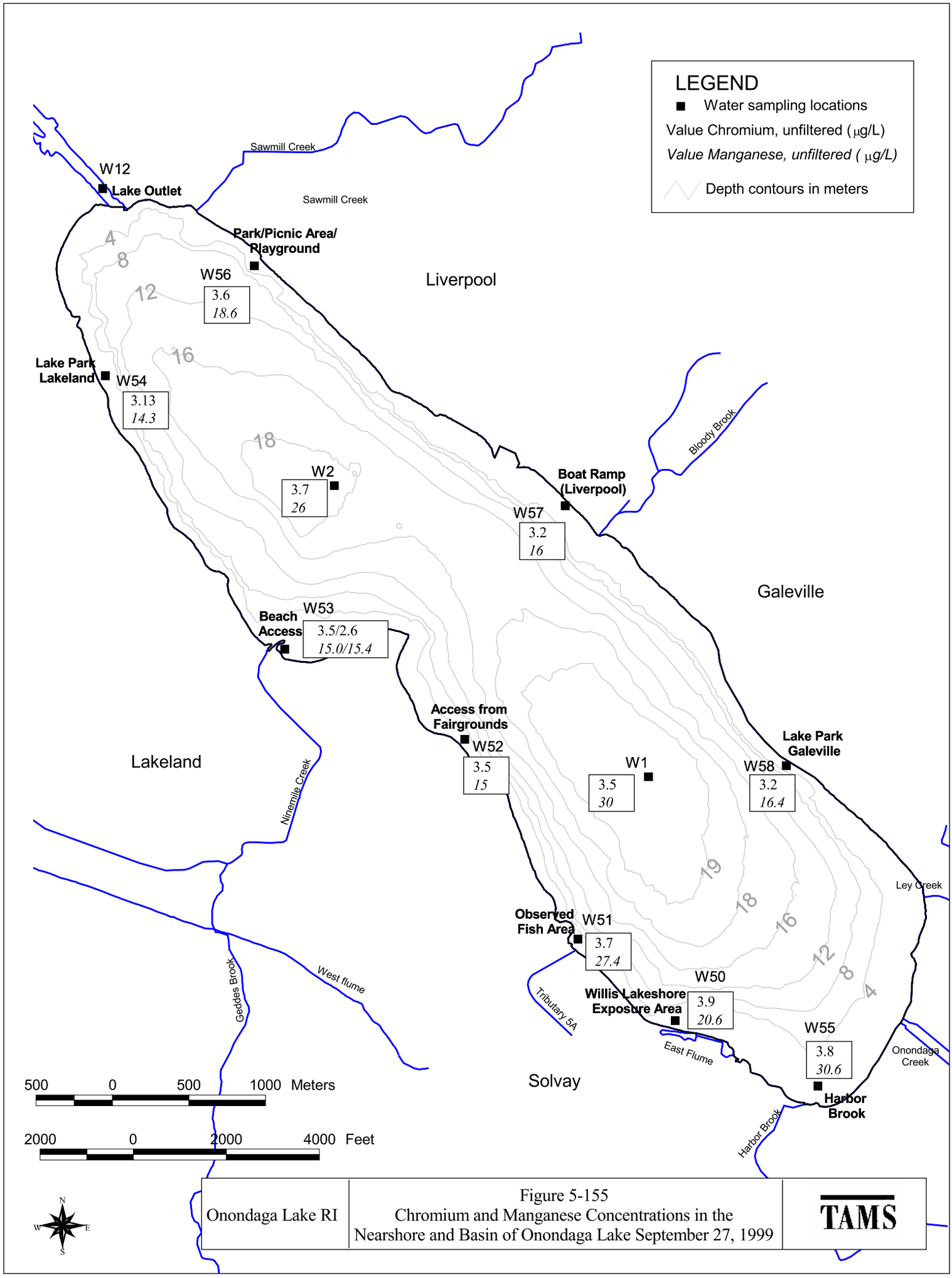
Figure 5-153
Manganese and Dissolved Oxygen in the Surface Water of Onondaga Lake during 1992



Note: The north basin was not analyzed for manganese for 11/9/99 or 12/2/99.

TAMS

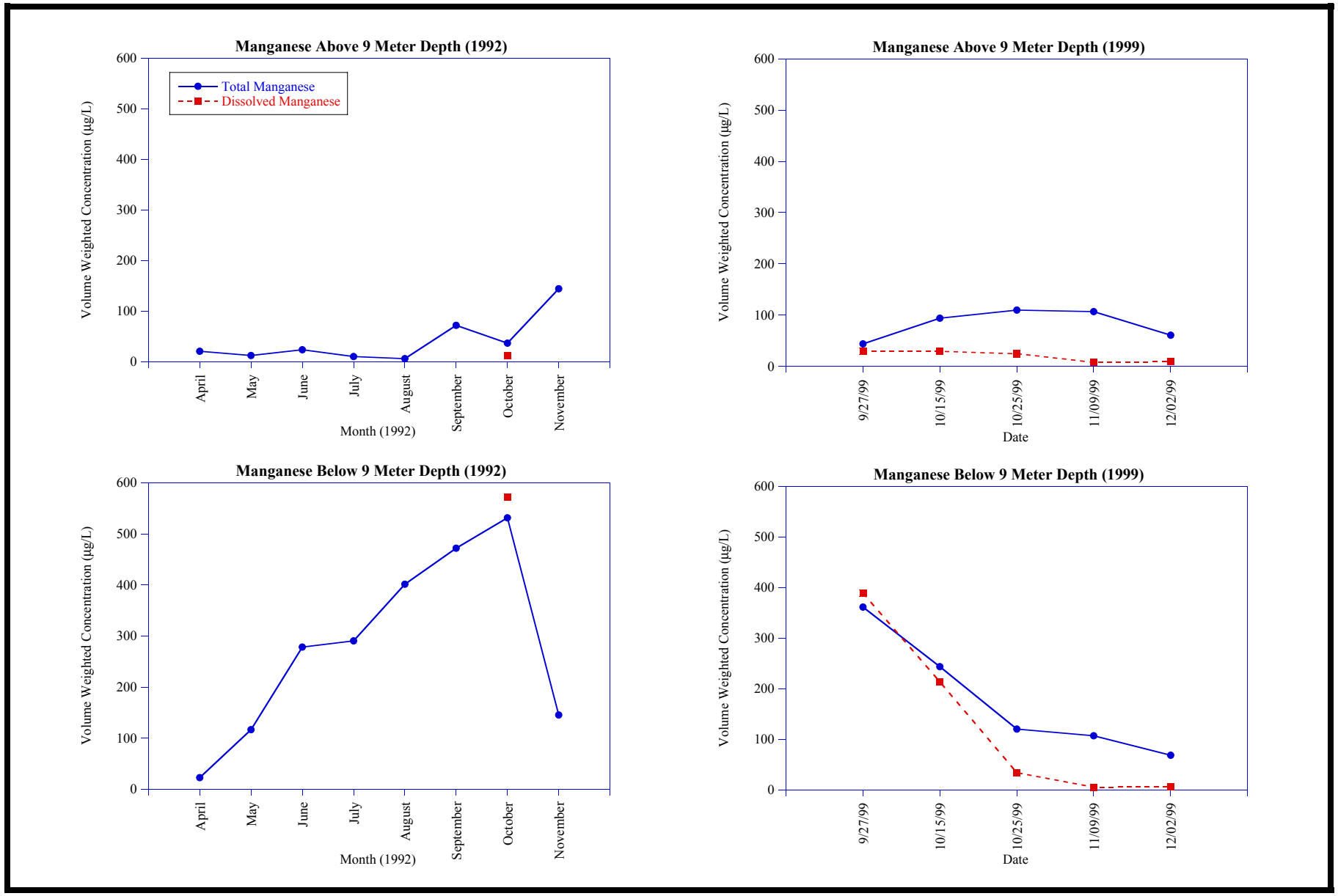
Figure 5-154
Manganese and Dissolved Oxygen in the Surface Water of Onondaga Lake during the Fall of 1999



Onondaga Lake RI

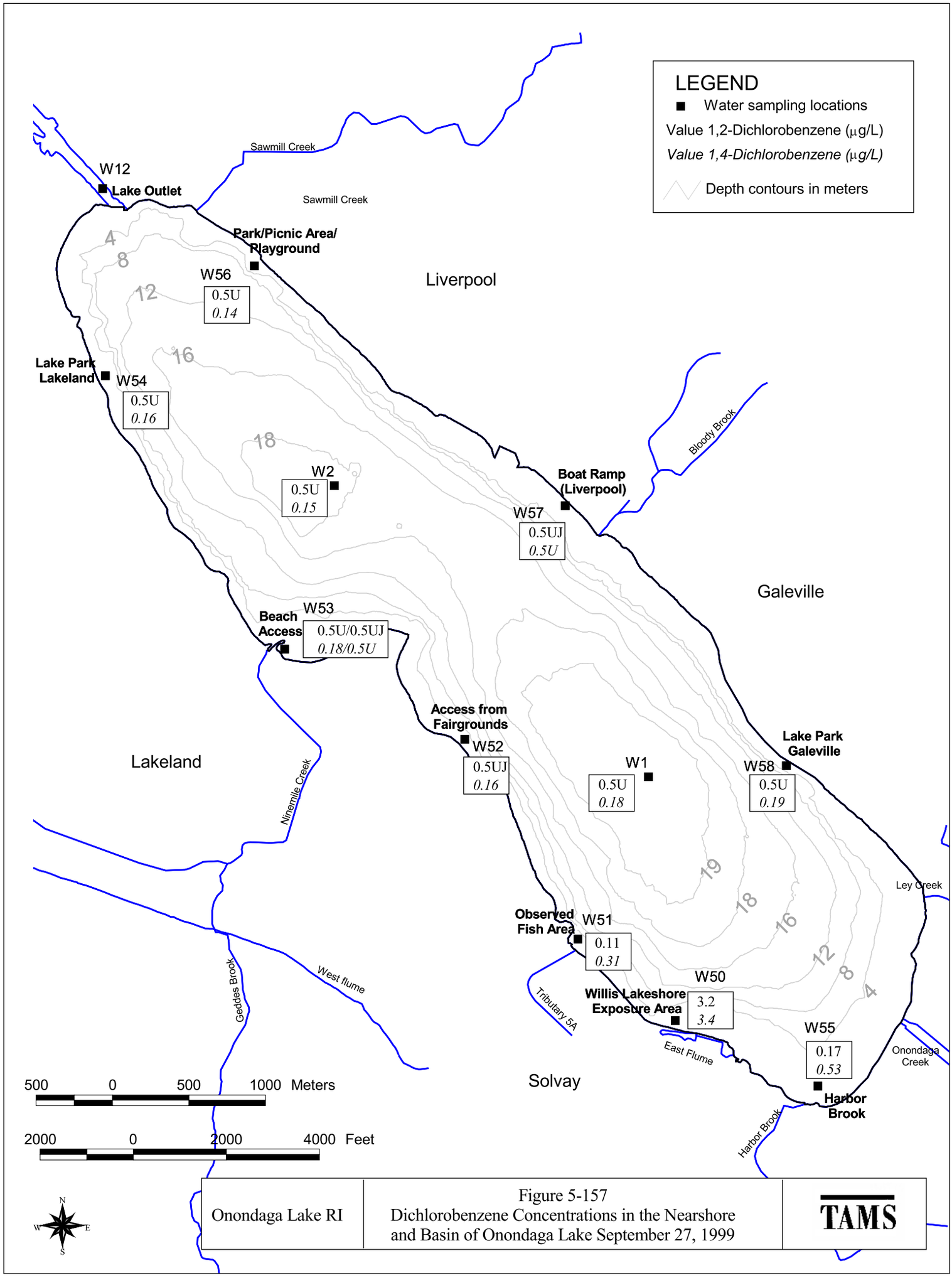
Figure 5-155
Chromium and Manganese Concentrations in the Nearshore and Basin of Onondaga Lake September 27, 1999

TAMS



TAMS

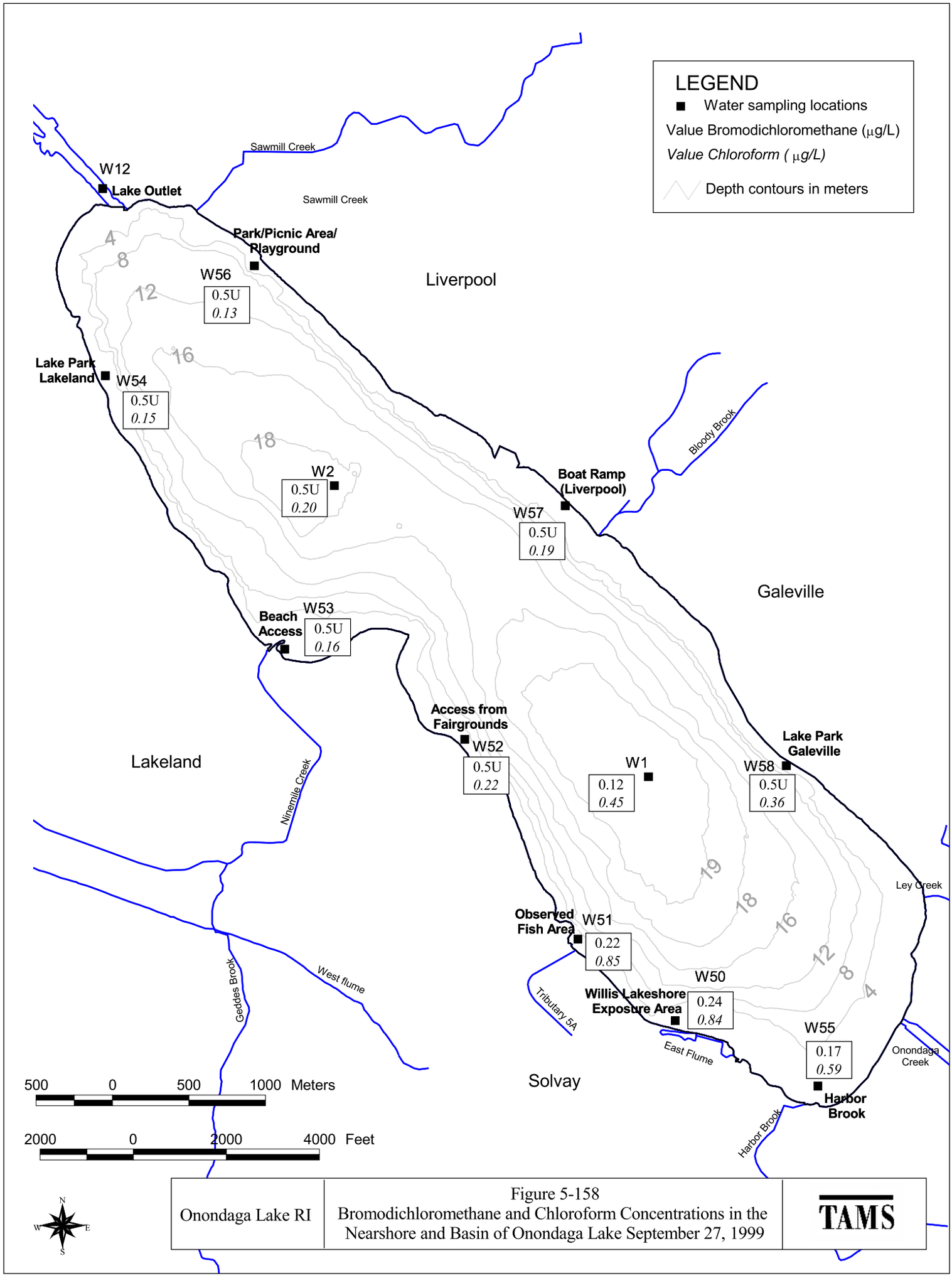
Figure 5-156
Manganese Concentrations in Surface Water of Onondaga Lake



Onondaga Lake RI

Figure 5-157
Dichlorobenzene Concentrations in the Nearshore and Basin of Onondaga Lake September 27, 1999

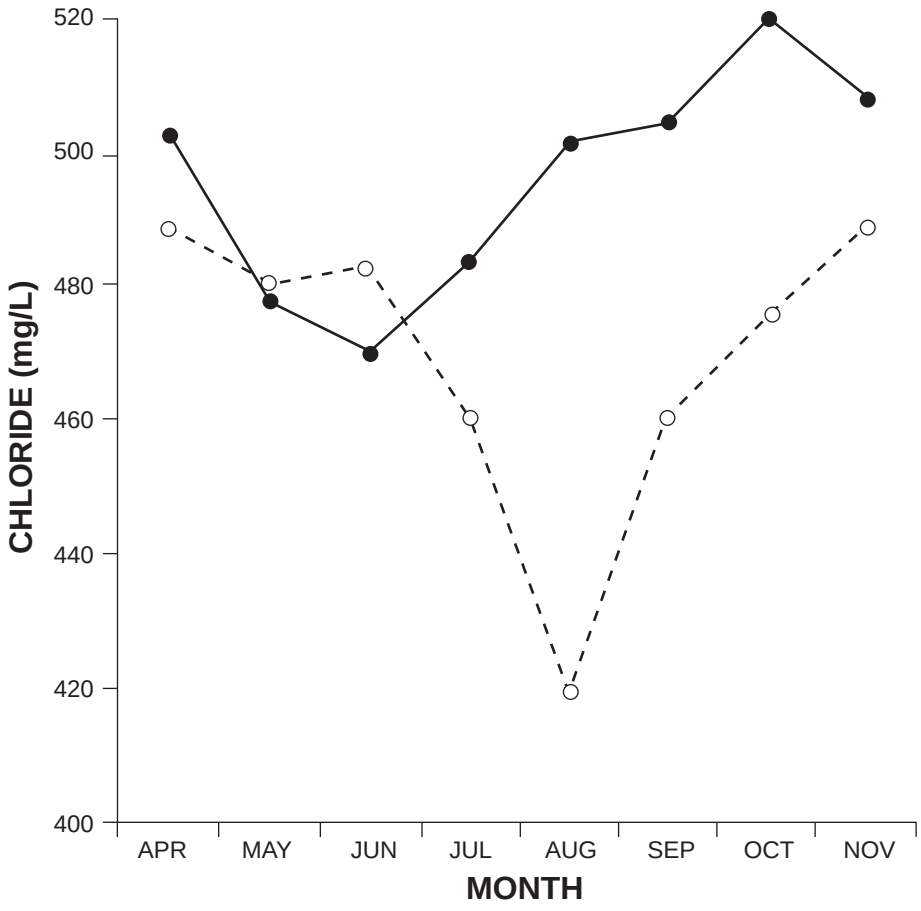
TAMS



Onondaga Lake RI

Figure 5-158
Bromodichloromethane and Chloroform Concentrations in the Nearshore and Basin of Onondaga Lake September 27, 1999

TAMS

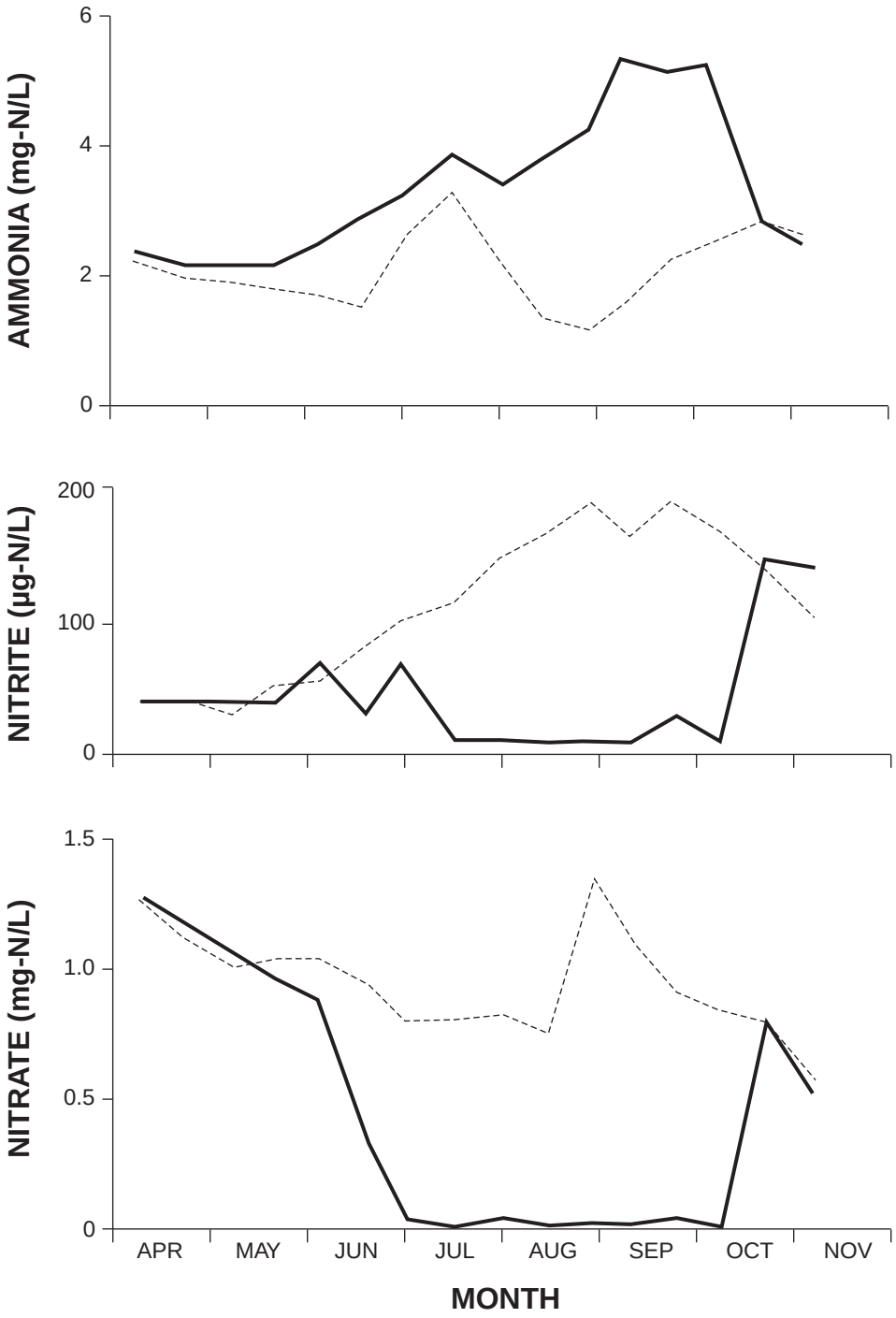


Source: Stearns & Wheler (1994)
Exponent, 2001c

LEGEND

- - - - - Epilimnion (3 m depth)
——— Hypolimnion (15 m depth)

Figure 5-159. Concentrations of Chloride in the South Basin of Onondaga Lake in 1992



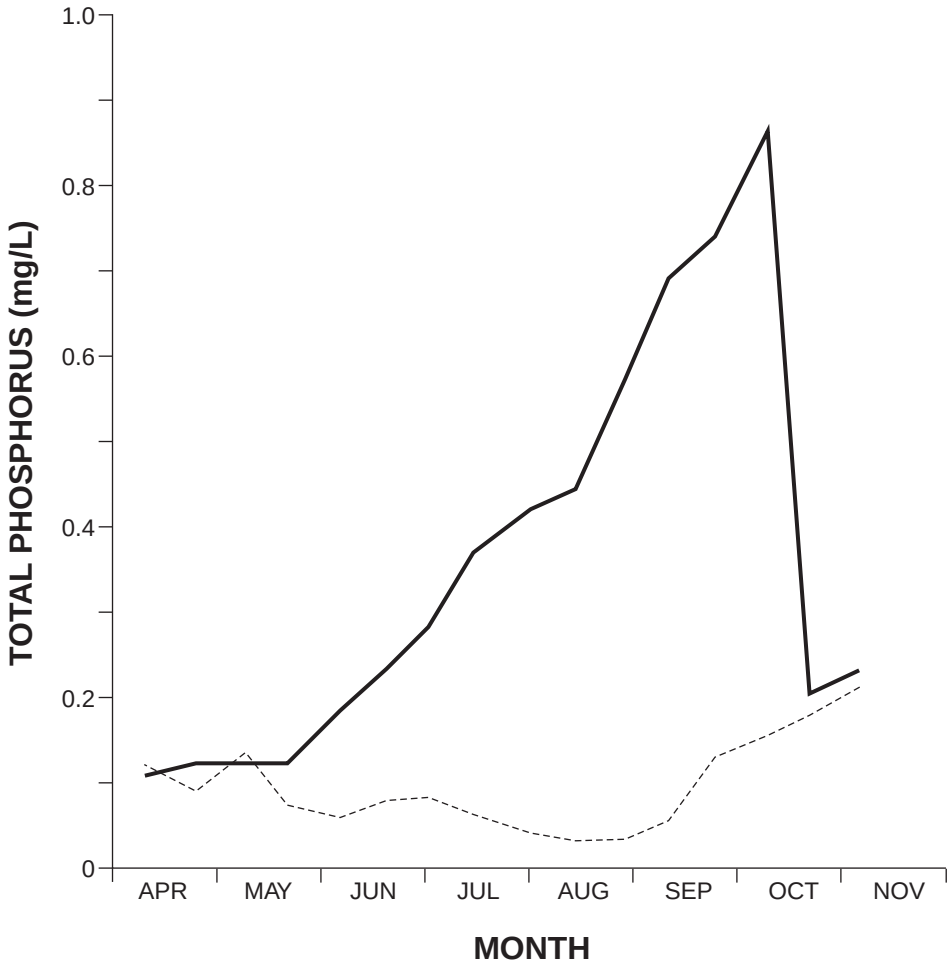
Source: Stearns & Wheler (1994)
Exponent, 2001c

LEGEND

Epilimnion (3 m depth)

Hypolimnion (15 m depth)

Figure 5-160. Concentrations of ammonia, nitrite, and nitrate in the south basin of Onondaga Lake in 1992



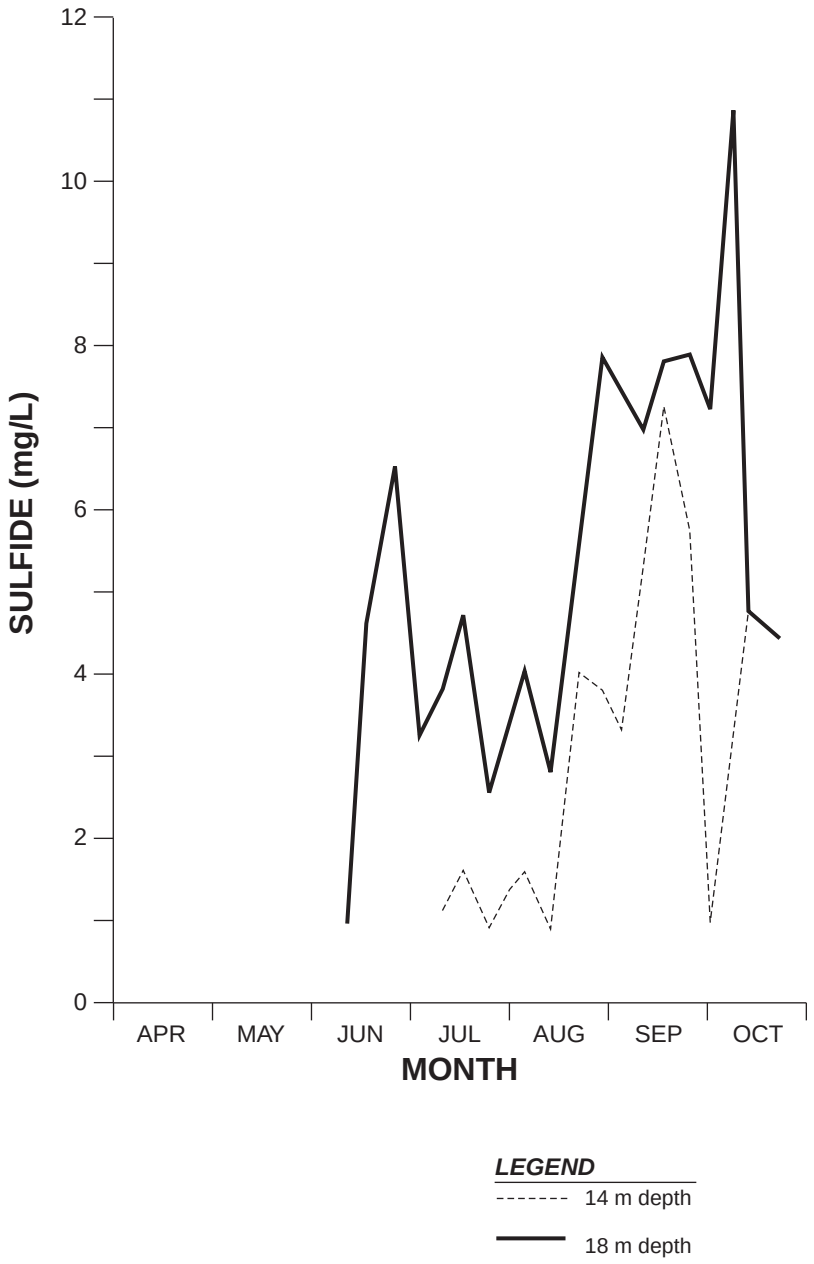
LEGEND

- - - - - - - - Epilimnion (3 m depth)

——— Hypolimnion (15 m depth)

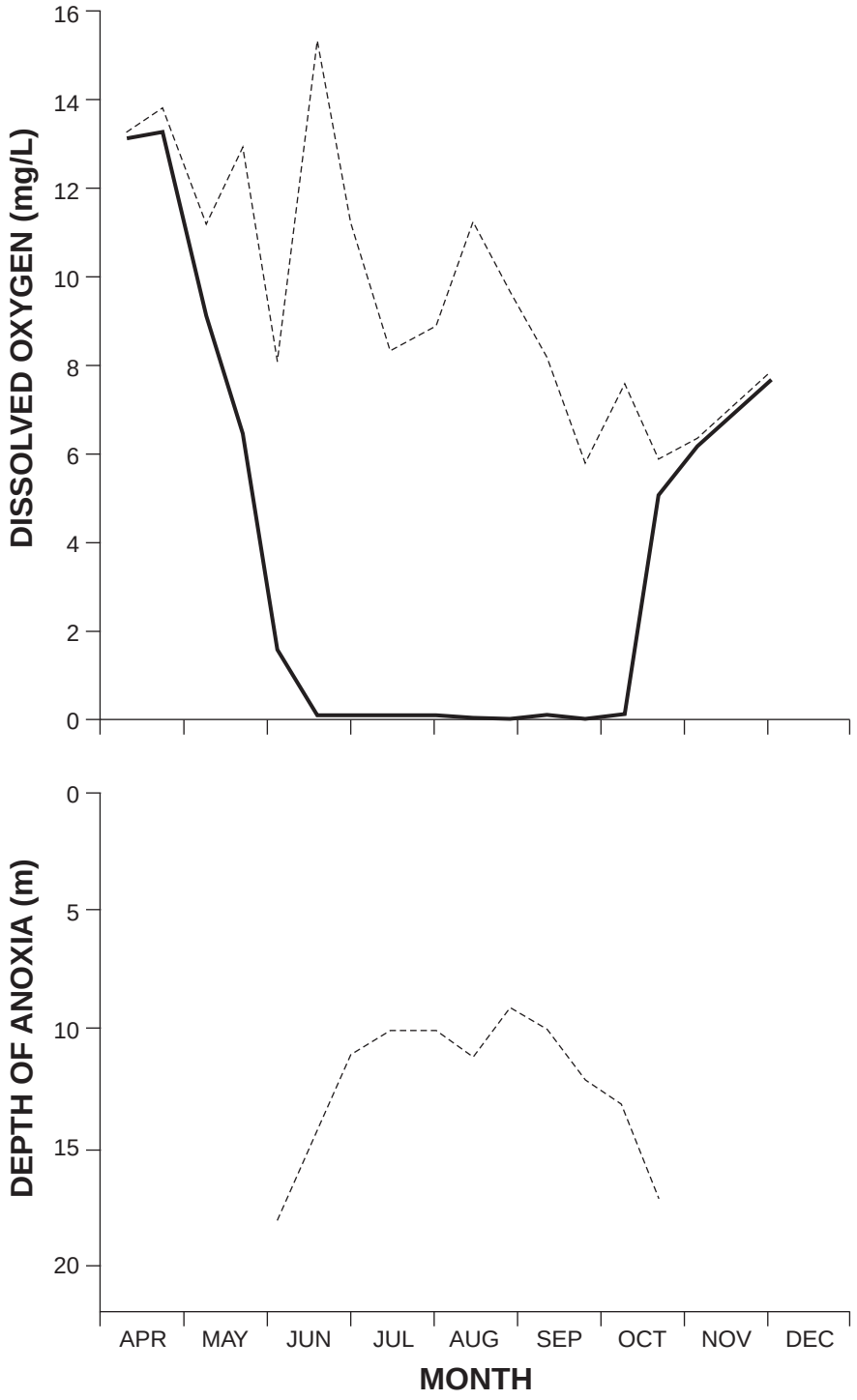
Source: Stearns & Wheler (1994)
Exponent, 2001c

Figure 5-161. Concentrations of Total Phosphorus in Onondaga Lake in 1992



Source: Stearns & Wheler (1994)
Exponent, 2001c

Figure 5-162. Concentrations of sulfide in the south basin of Onondaga Lake in 1992



Note: The depth of anoxia is defined as the depth at which the concentration of dissolved oxygen is <0.5 mg/L.

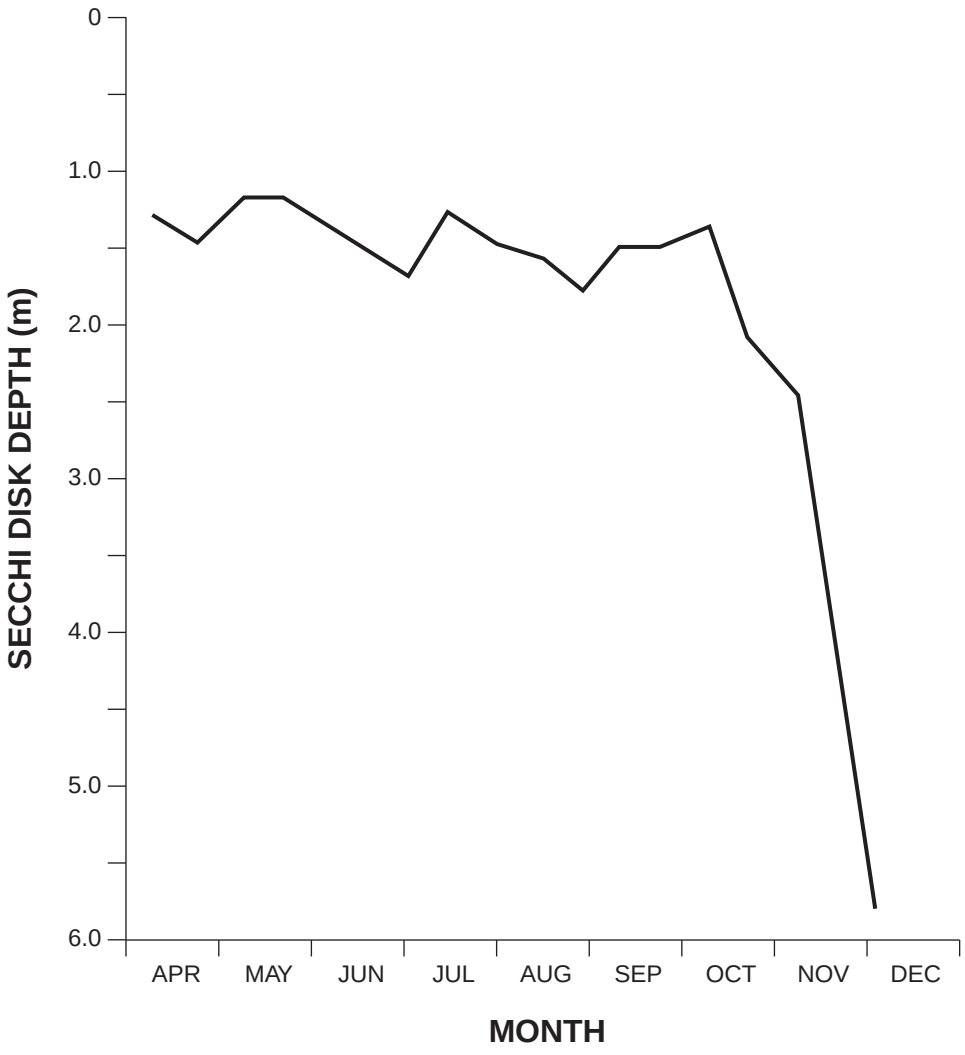
Source: Stearns & Wheler (1994)
Exponent, 2001c

LEGEND

- - - - - - - Epilimnion (3 m depth)

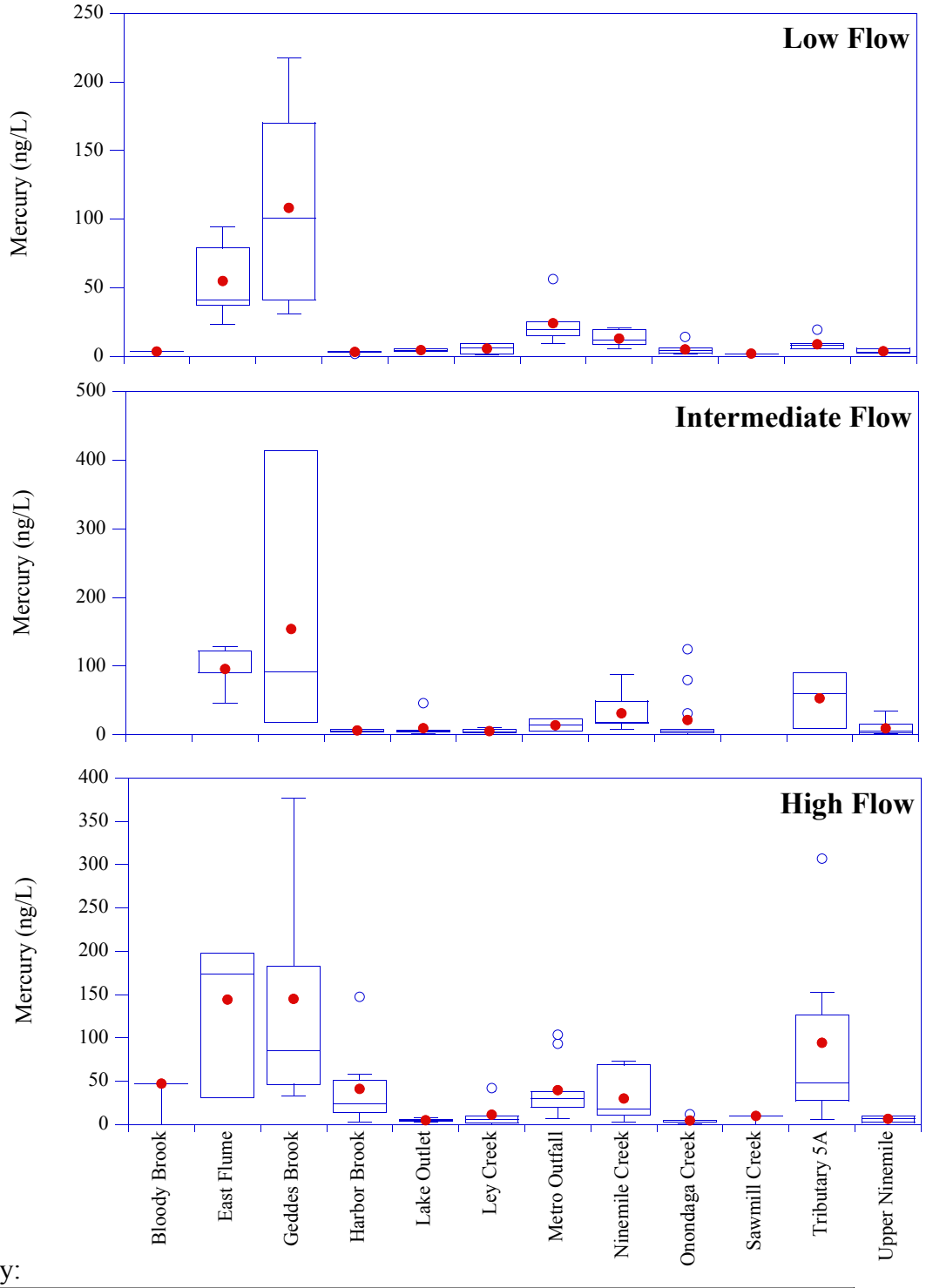
——— Hypolimnion (15 m depth)

Figure 5-163. Concentrations of dissolved oxygen and depths of anoxia in the south basin of Onondaga Lake in 1992

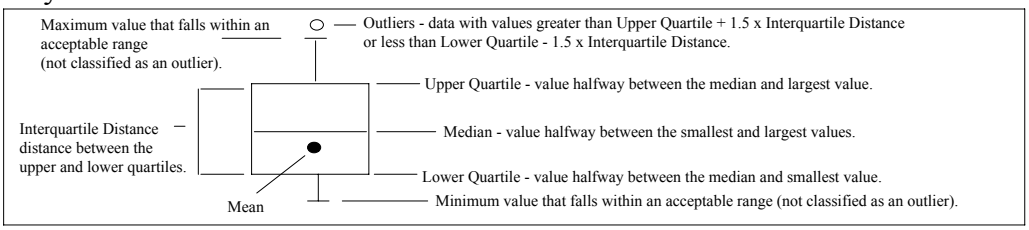


Source: Stearns & Wheler (1994)
Exponent, 2001c

Figure 5-164. Secchi disk depths in the south basin of Onondaga Lake in 1992



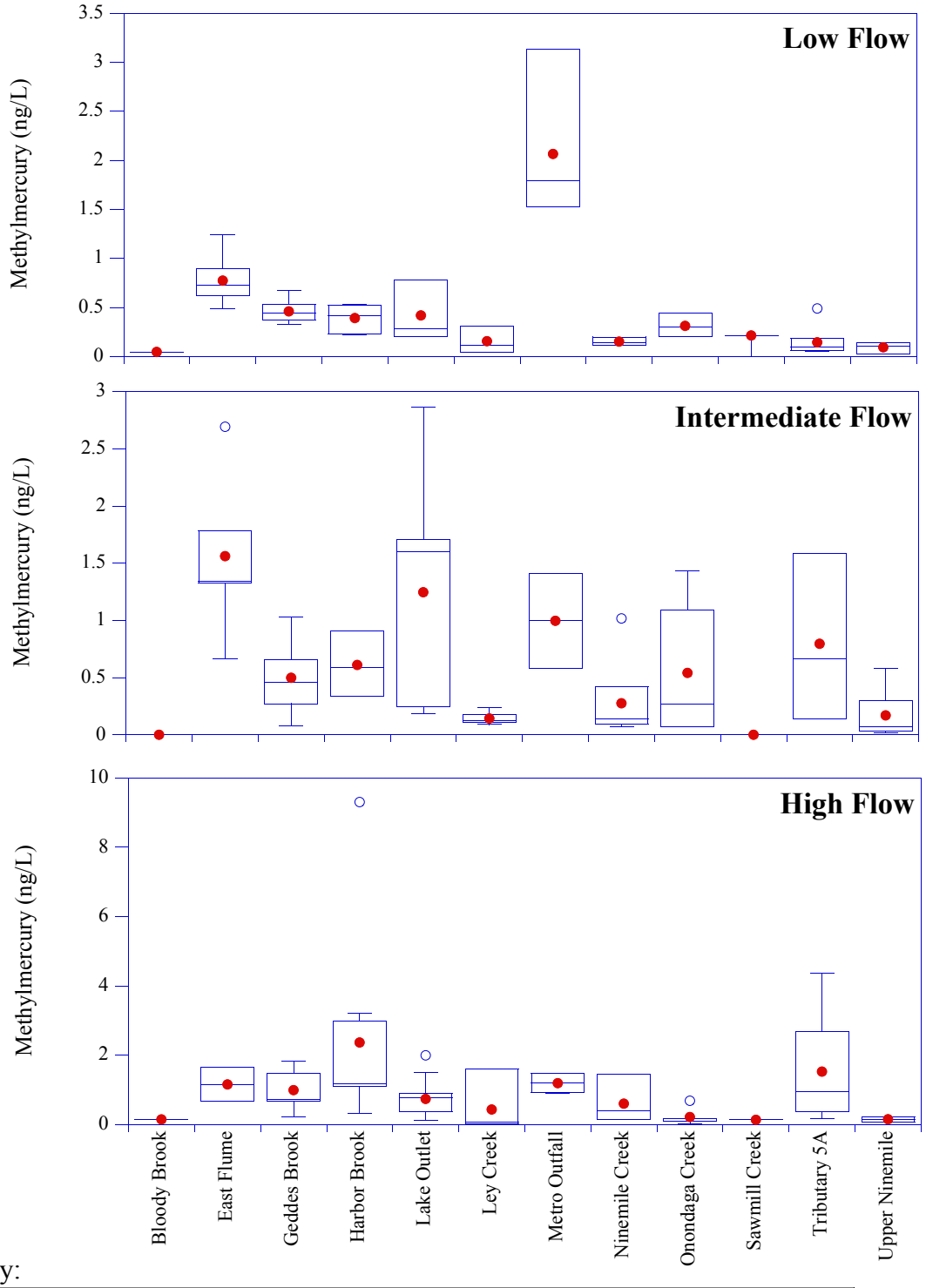
Key:



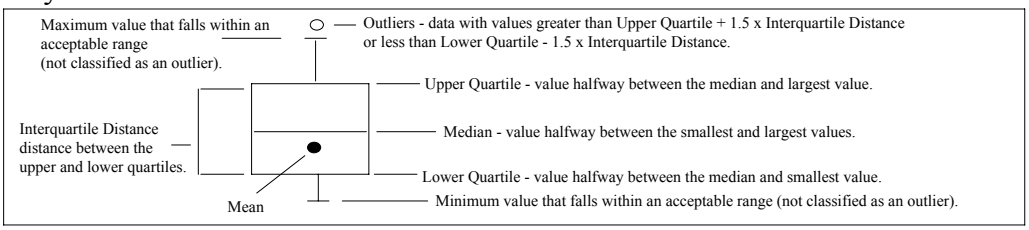
Note: Half the detection limits were used for non-detects.

Figure 5-165
Total Mercury in Metro Discharge and Tributary Water During 1992

TAMS



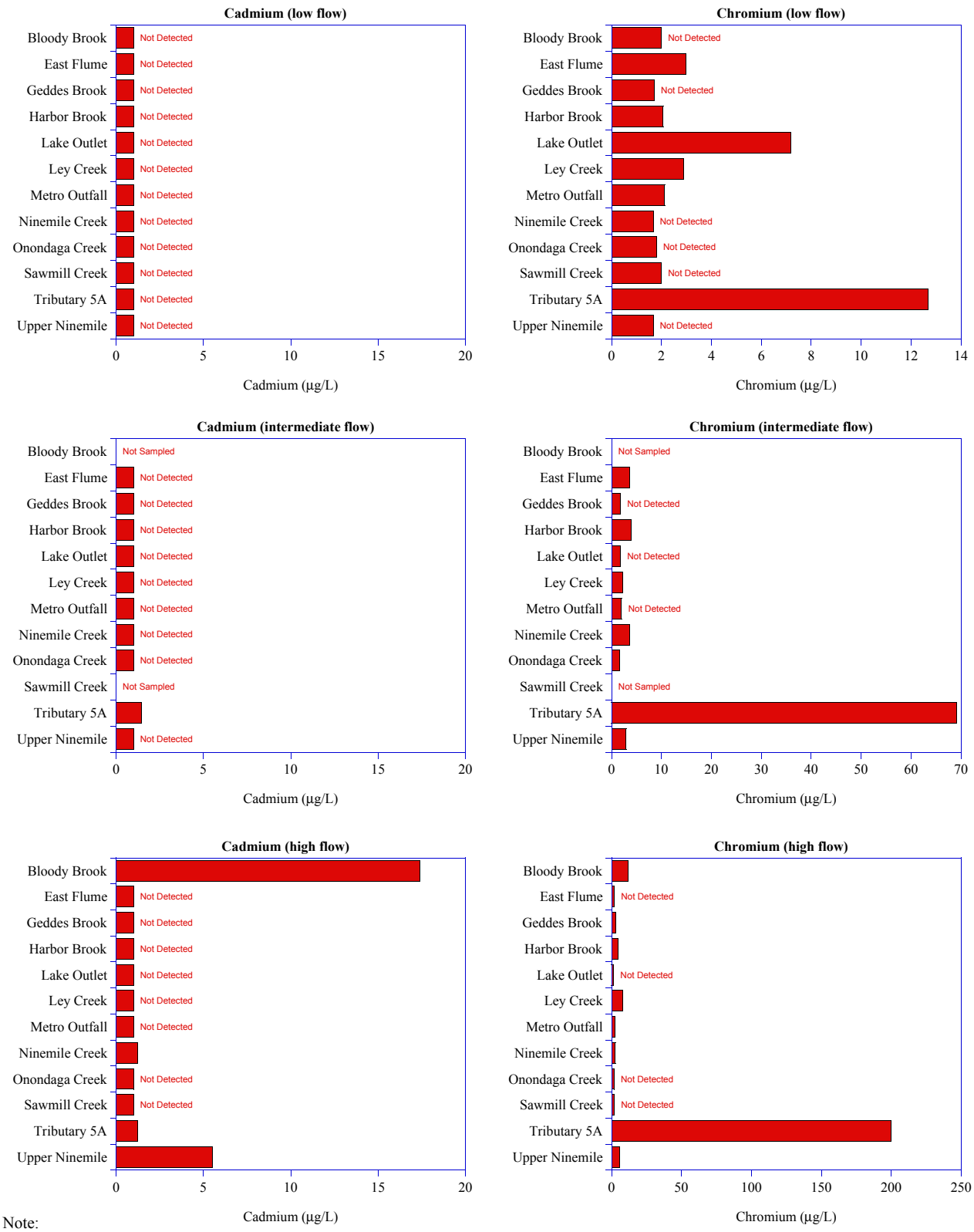
Key:



Note: Half the detection limits were used for non-detects.

Figure 5-166
Total Methylmercury in Metro Discharge and Tributary Water During 1992

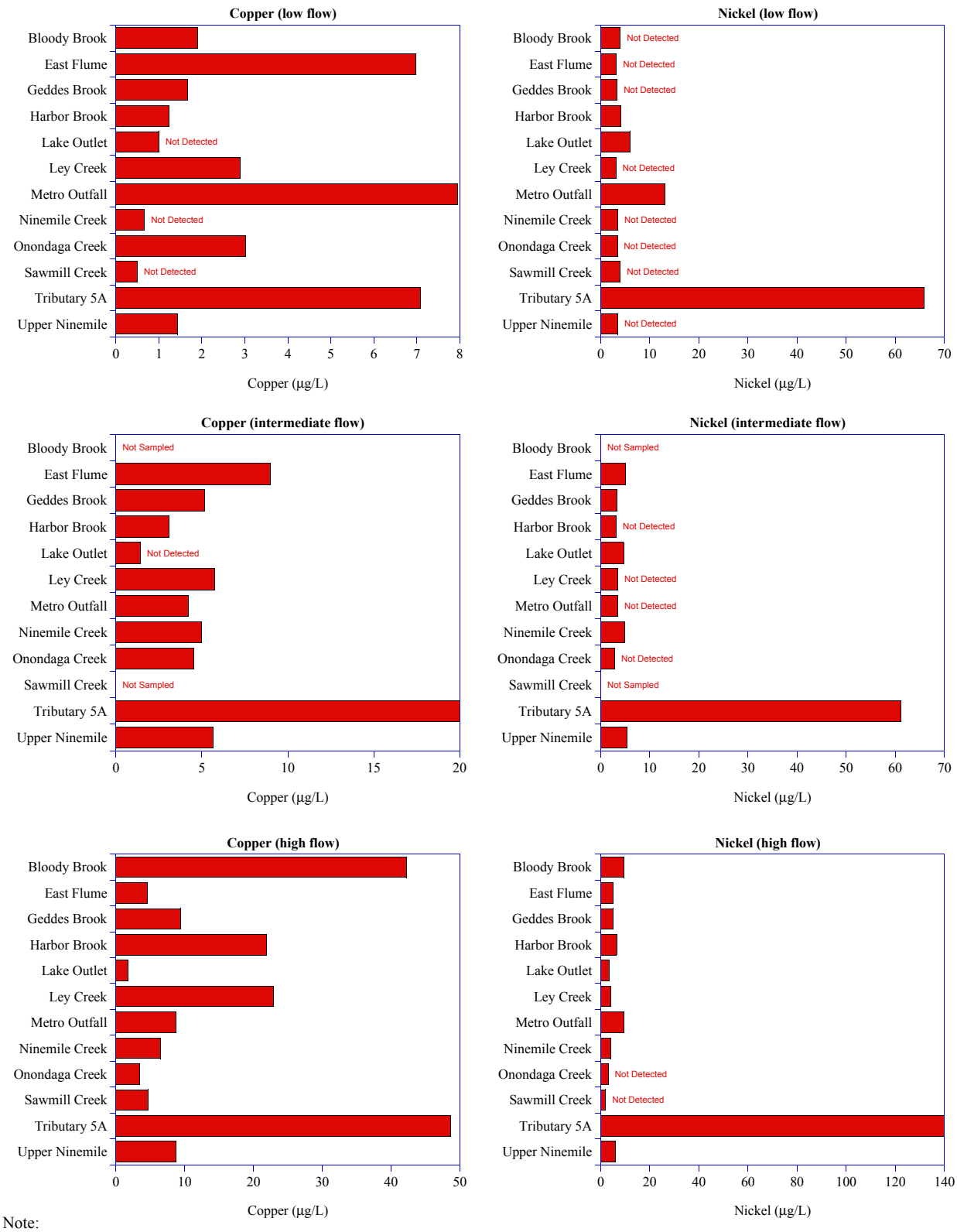
TAMS



Note:
1. Half the detection limits were used for non-detects.

TAMS

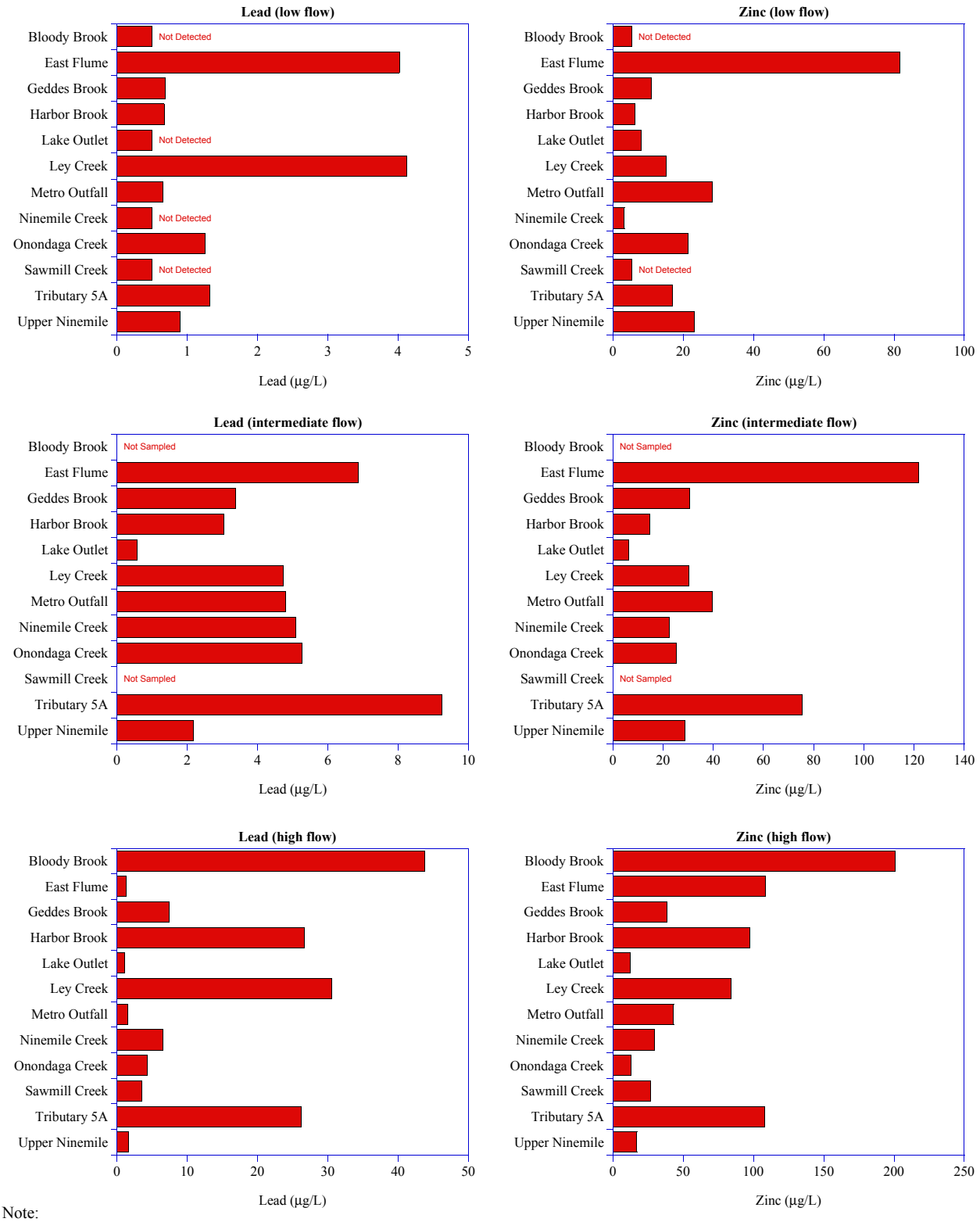
Figure 5-167
Mean Concentrations of Cadmium and Chromium in Metro Discharge and Tributary Water During 1992



Note:
1. Half the detection limits were used for non-detects.

TAMS

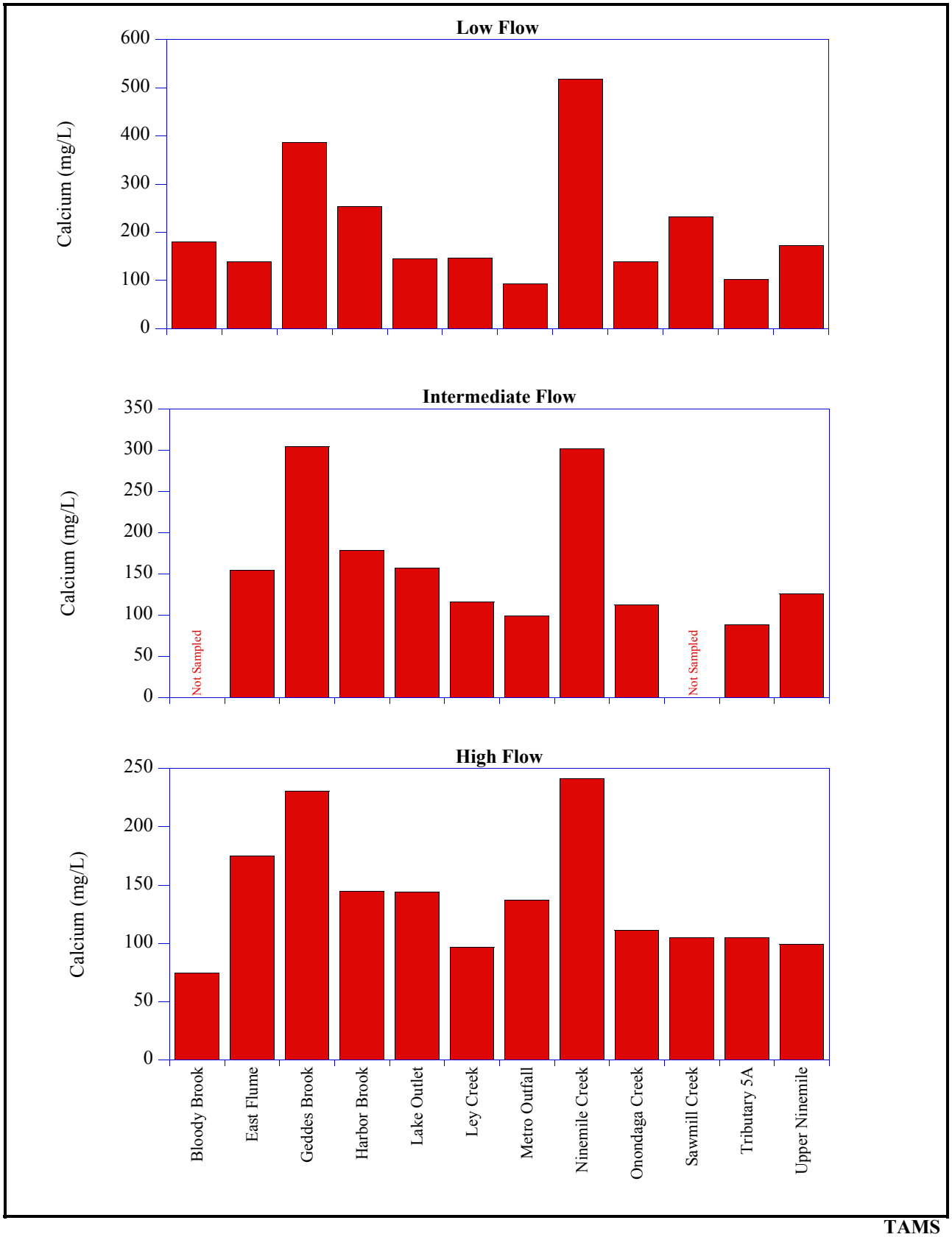
Figure 5-168
Mean Concentrations of Copper and Nickel in Metro Discharge and Tributary Water During 1992



Note:
1. Half the detection limits were used for non-detects.

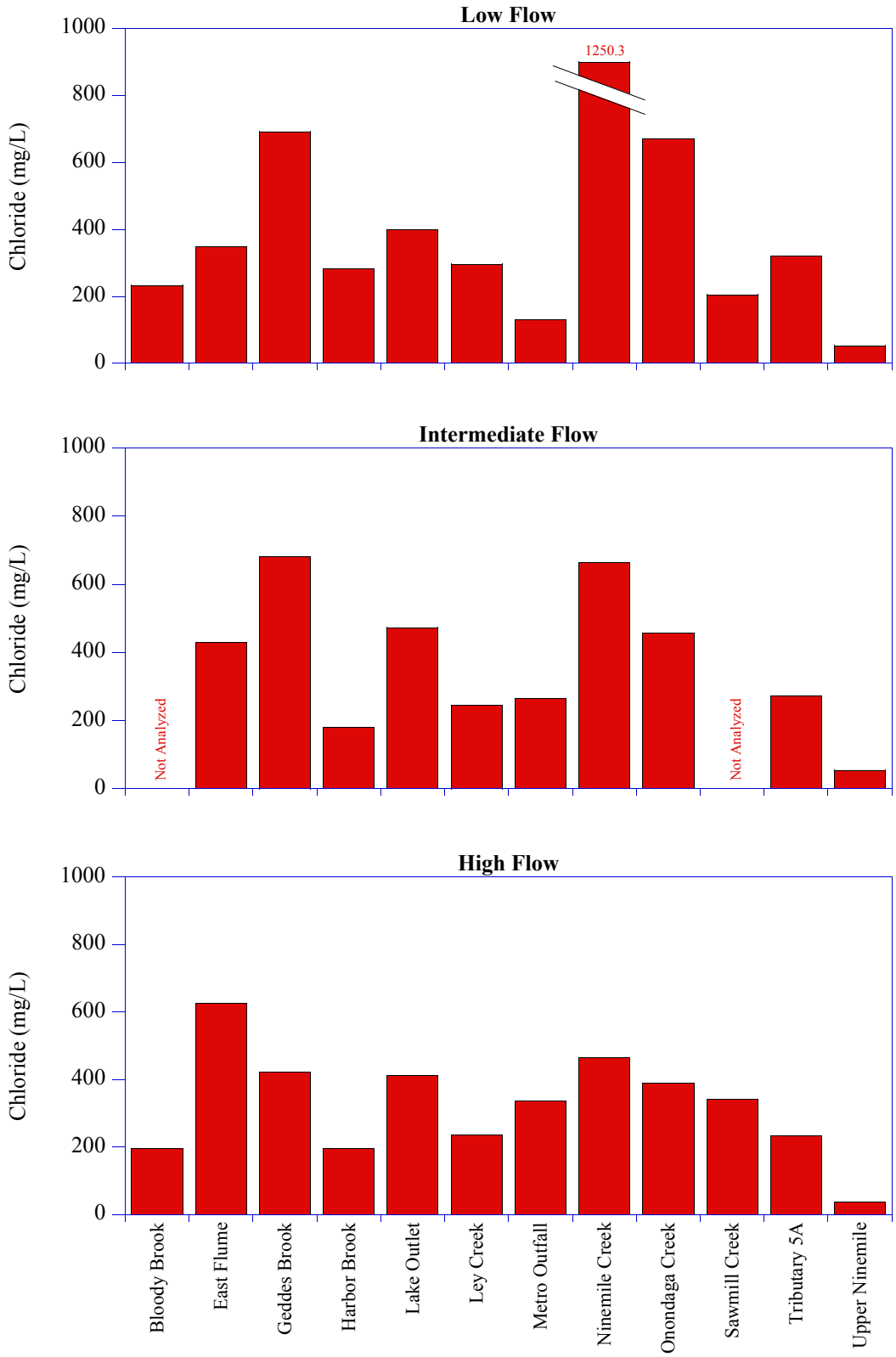
TAMS

Figure 5-169
Mean Concentrations of Lead and Zinc
in Metro Discharge and Tributary Water During 1992



TAMS

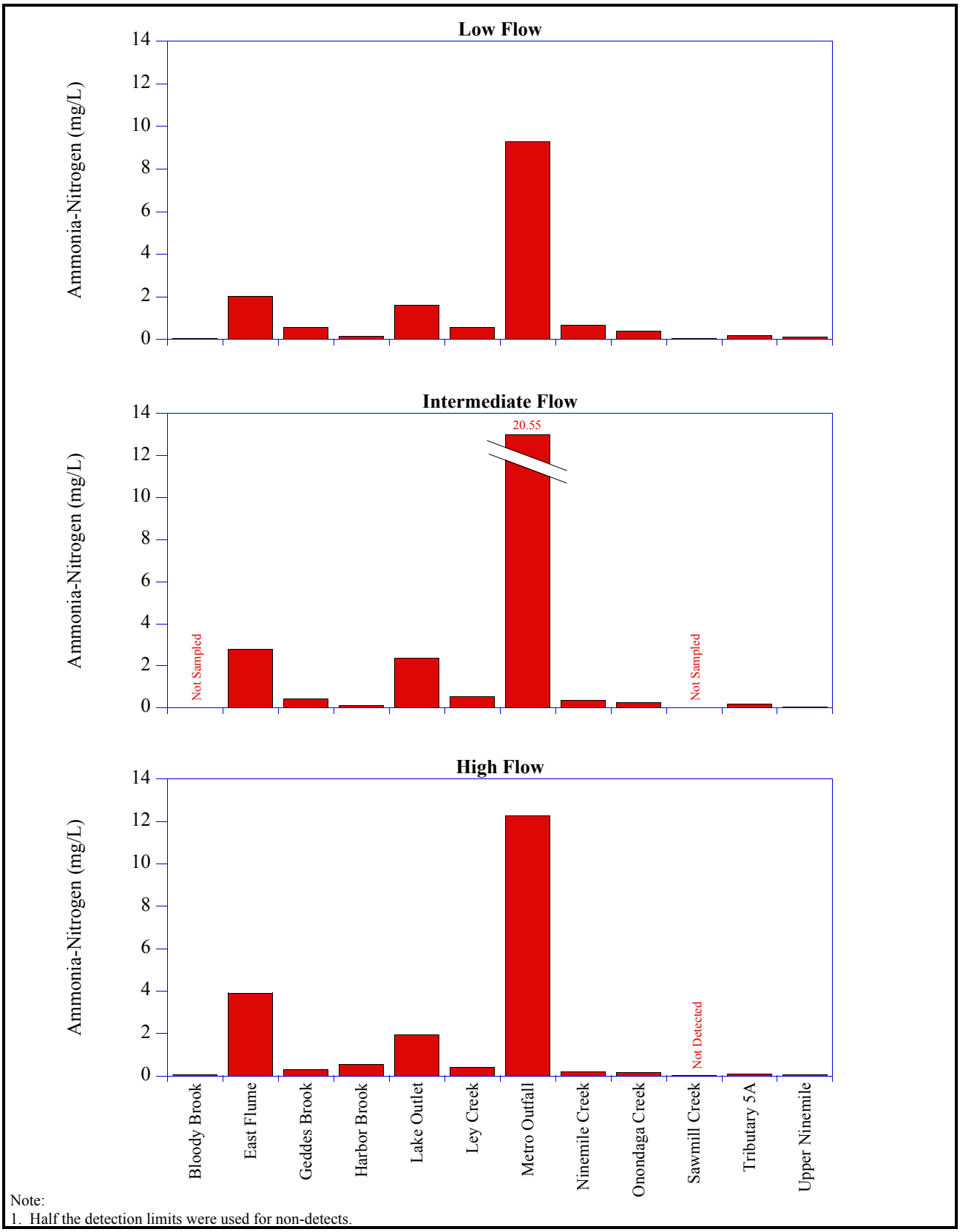
Figure 5-170
Mean Concentrations of Calcium
in Metro Discharge and Tributary Water During 1992



Note:
1. Half the detection limits were used for non-detects.

TAMS

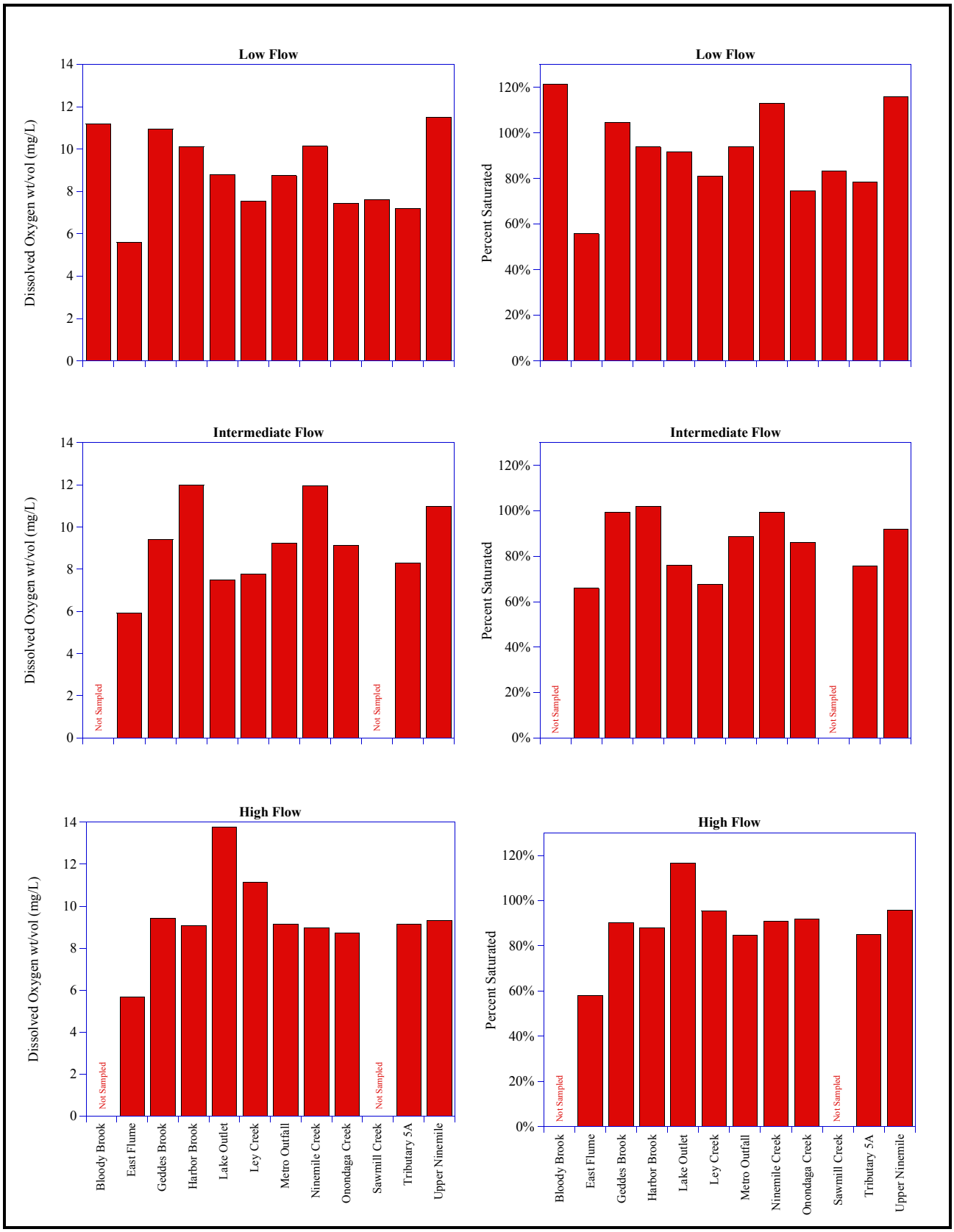
Figure 5-171
Mean Concentrations of Chloride
in Metro Discharge and Tributary Water During 1992



Note:
1. Half the detection limits were used for non-detects.

TAMS

Figure 5-172
Mean Concentrations of Ammonia-Nitrogen
in Metro Discharge and Tributary Water During 1992



TAMS

Figure 5-173
Mean Dissolved Oxygen Concentrations and Percent Saturation in Metro Discharge and Tributary Water During 1992