

Figure 5-30
Mercury in Onondaga Lake
Wetland Sediment in 2000

TAMS

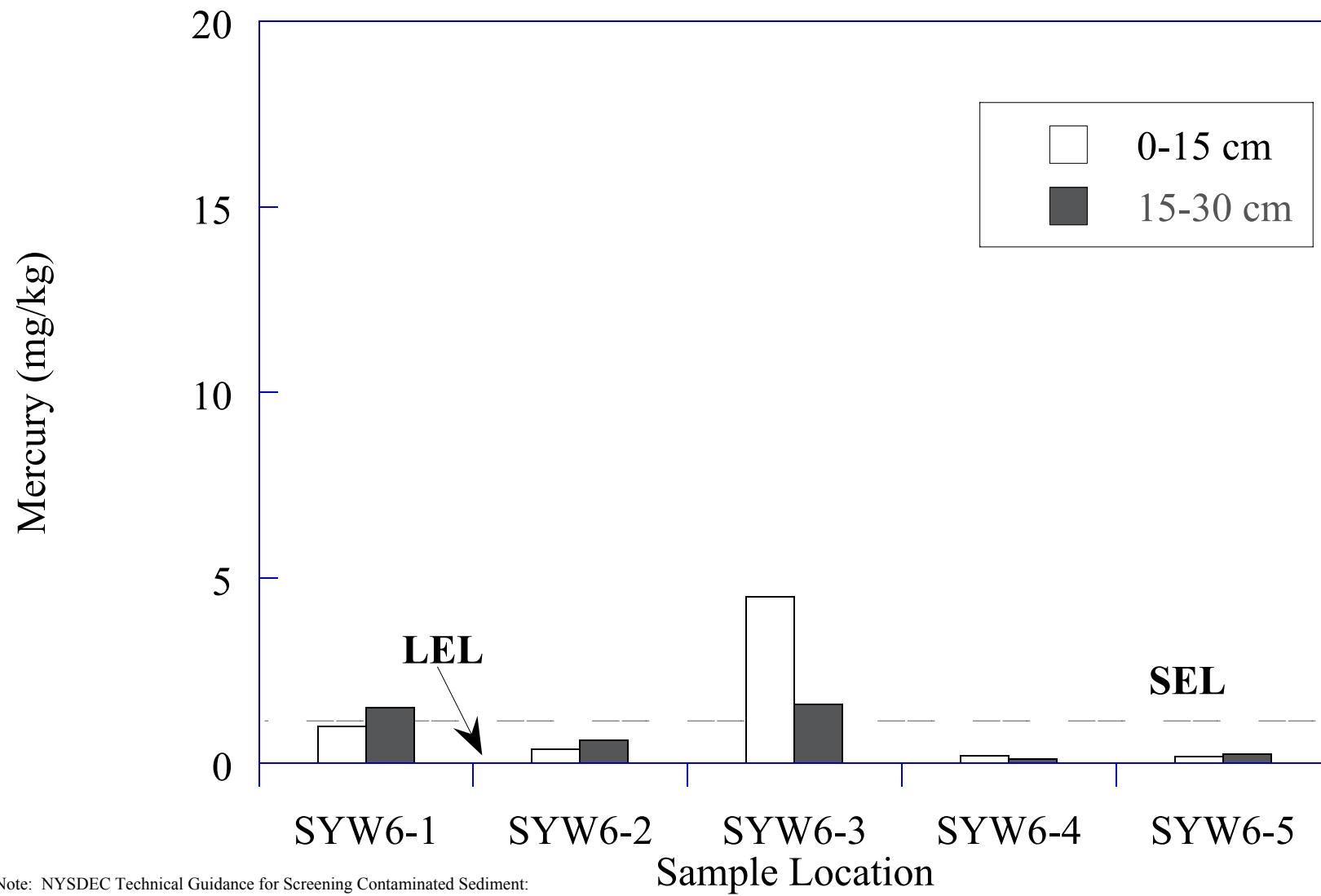
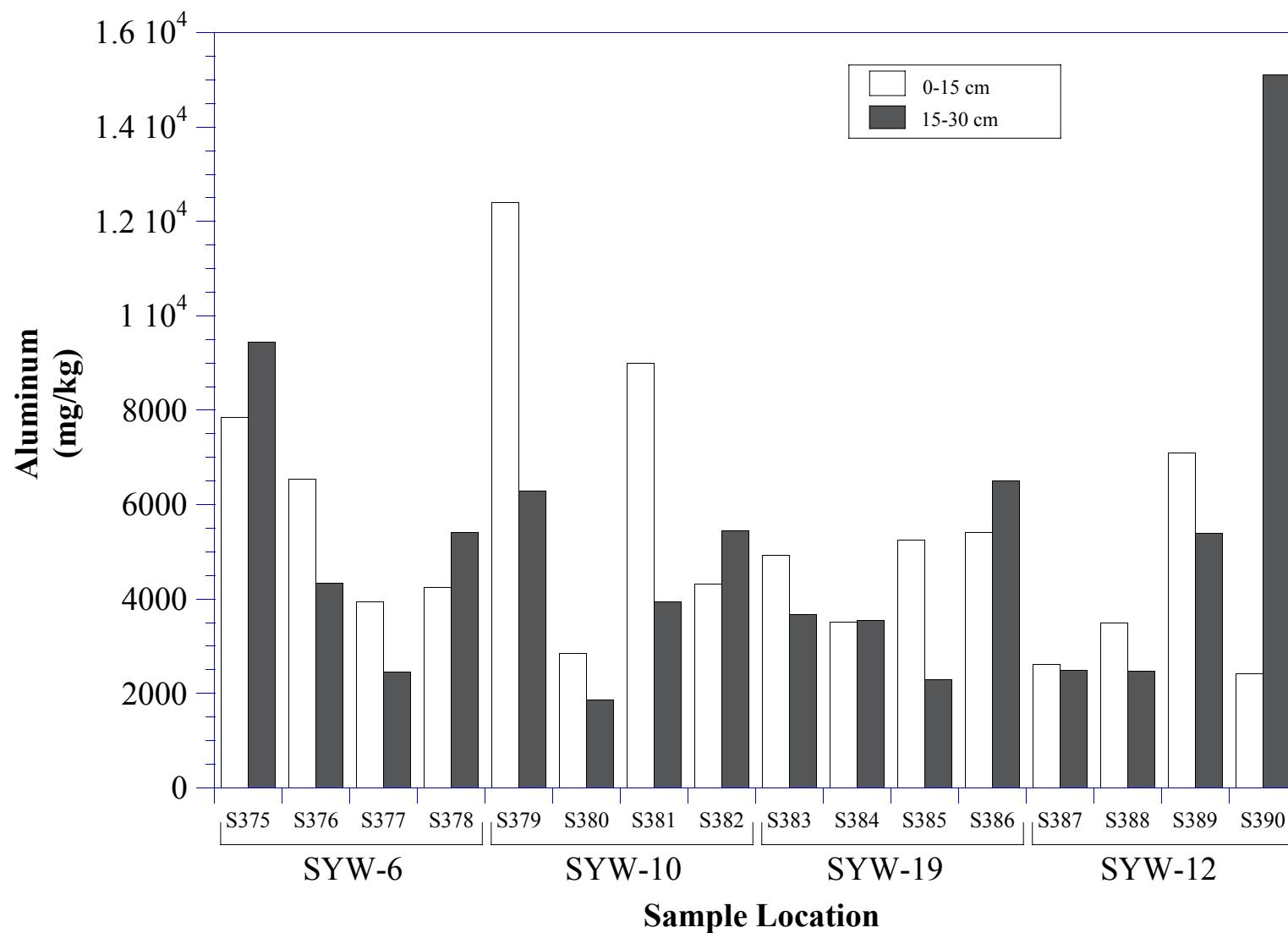


Figure 5-31
Mercury in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Note: Sediment samples from the reference lake (Otisco) ranged from 2,250 to 13,700 mg/kg.

Figure 5-32
Aluminum in Onondaga Lake
Wetland Sediment in 2000

TAMS

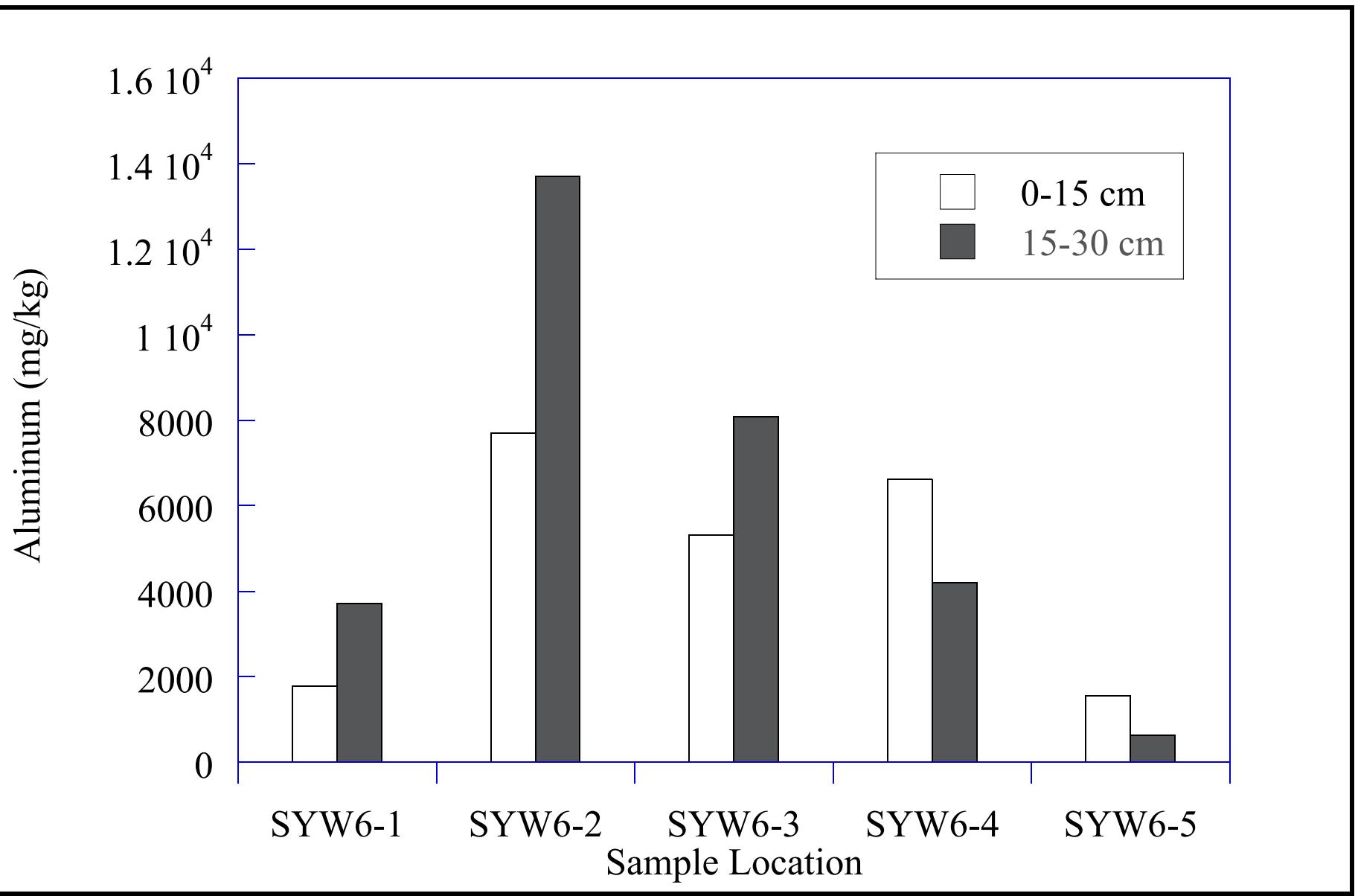


Figure 5-33
Aluminum in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

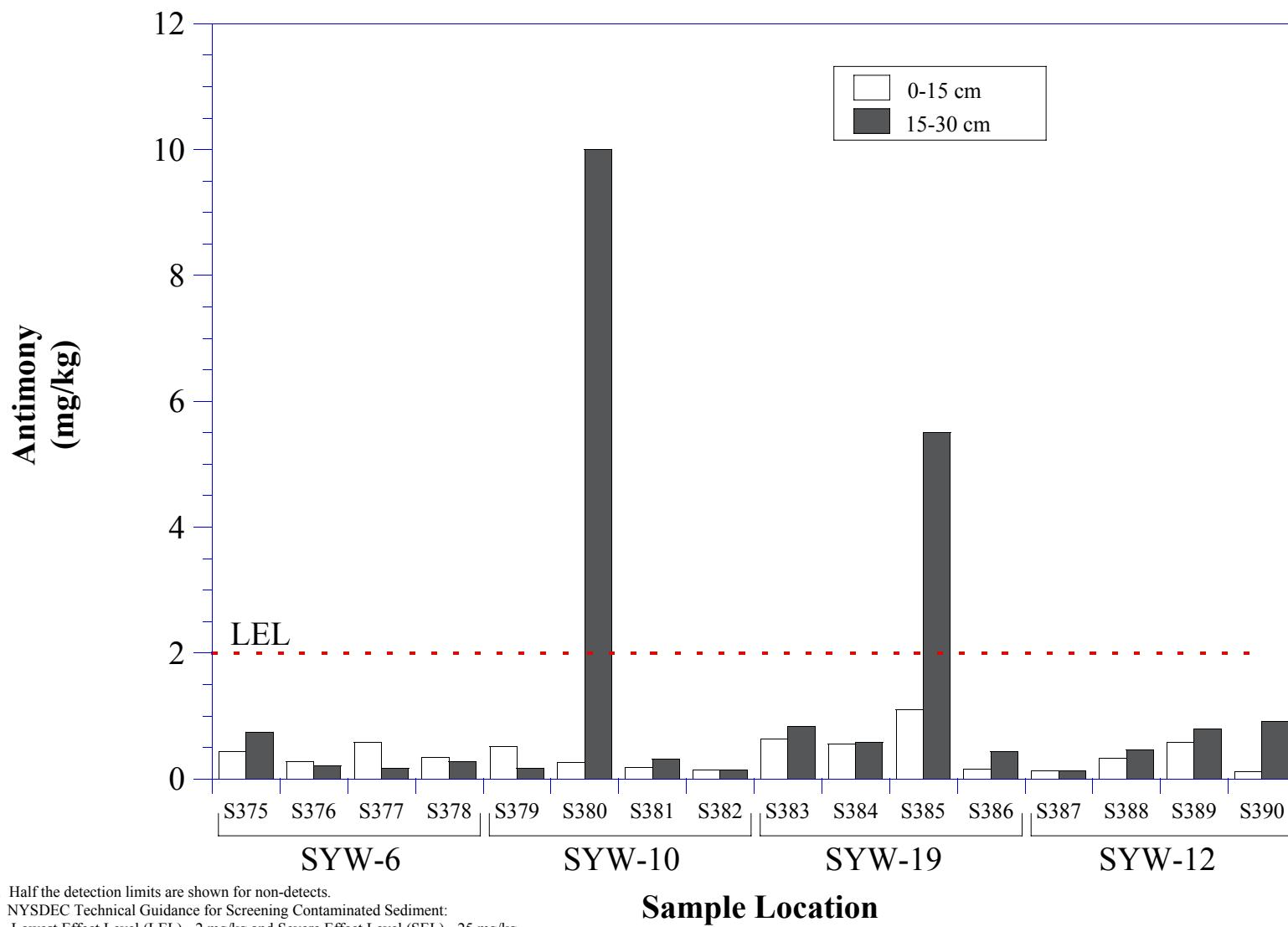


Figure 5-34
Antimony in Onondaga Lake
Wetland Sediment in 2000

TAMS

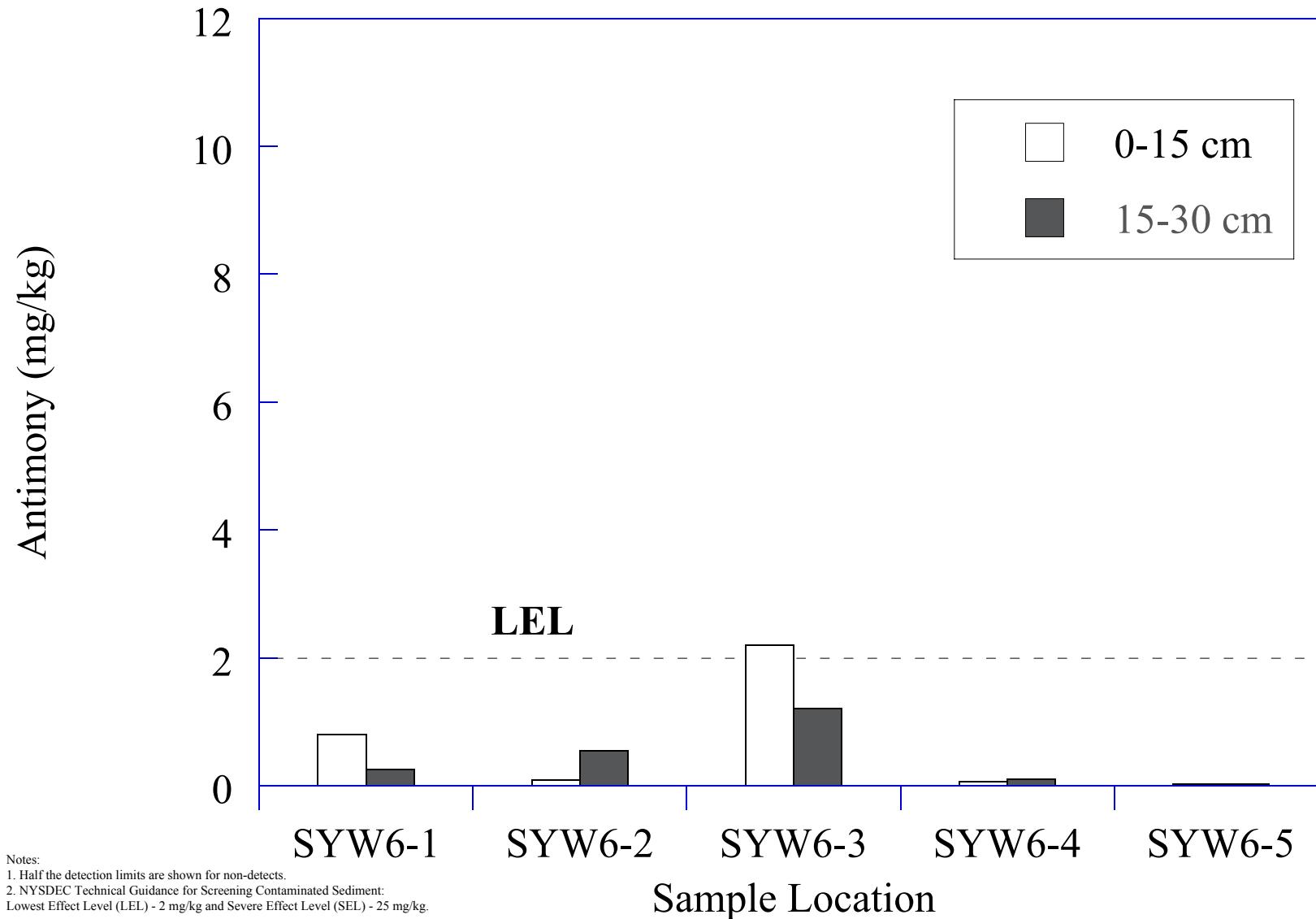


Figure 5-35
Antimony in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

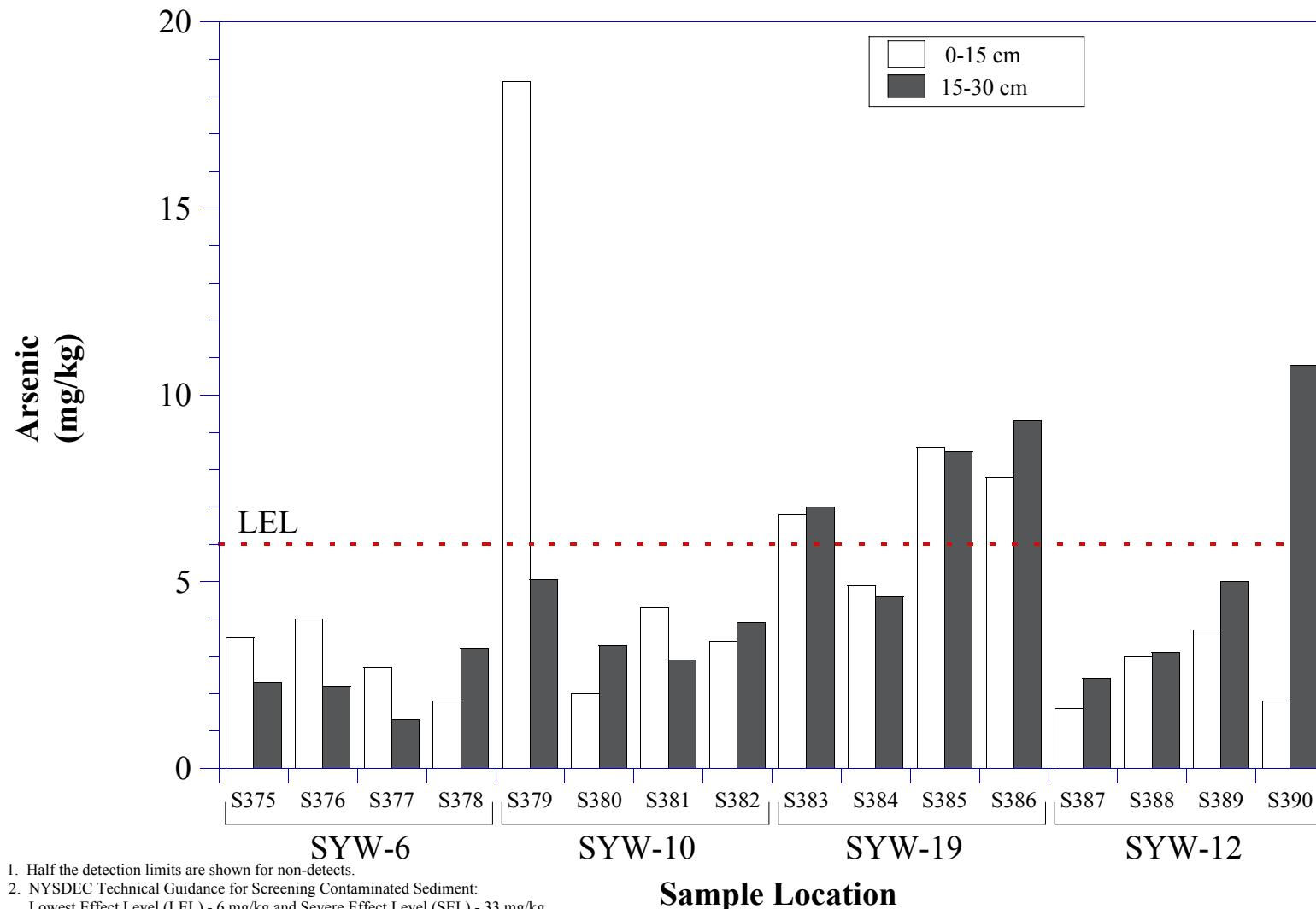


Figure 5-36
Arsenic in Onondaga Lake
Wetland Sediment in 2000

TAMS

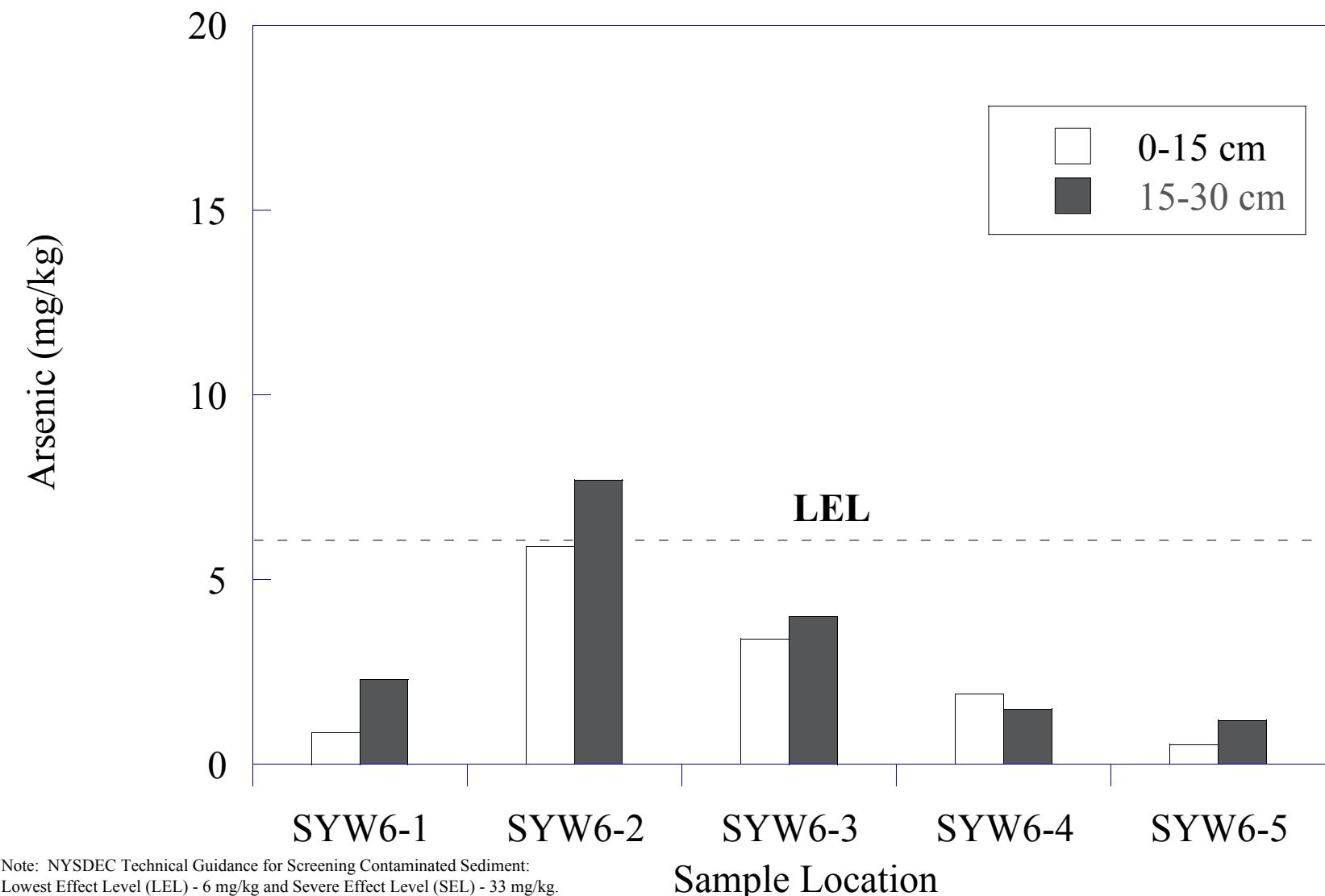
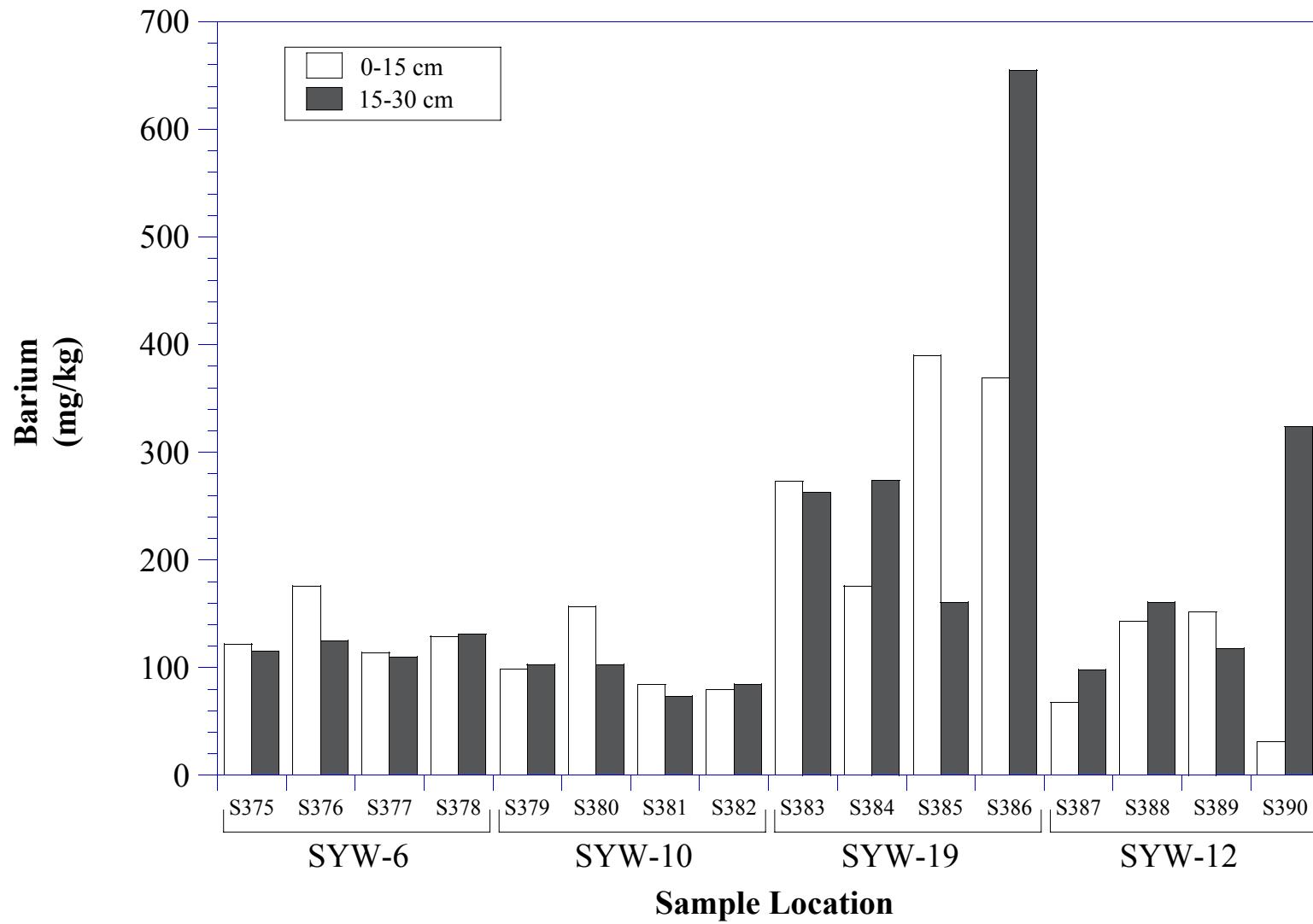


Figure 5-37
Arsenic in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Note: Sediment samples from the reference lake (Otisco) ranged from 11.4 to 189 mg/kg.

TAMS

Figure 5-38
Barium in Onondaga Lake
Wetland Sediment in 2000

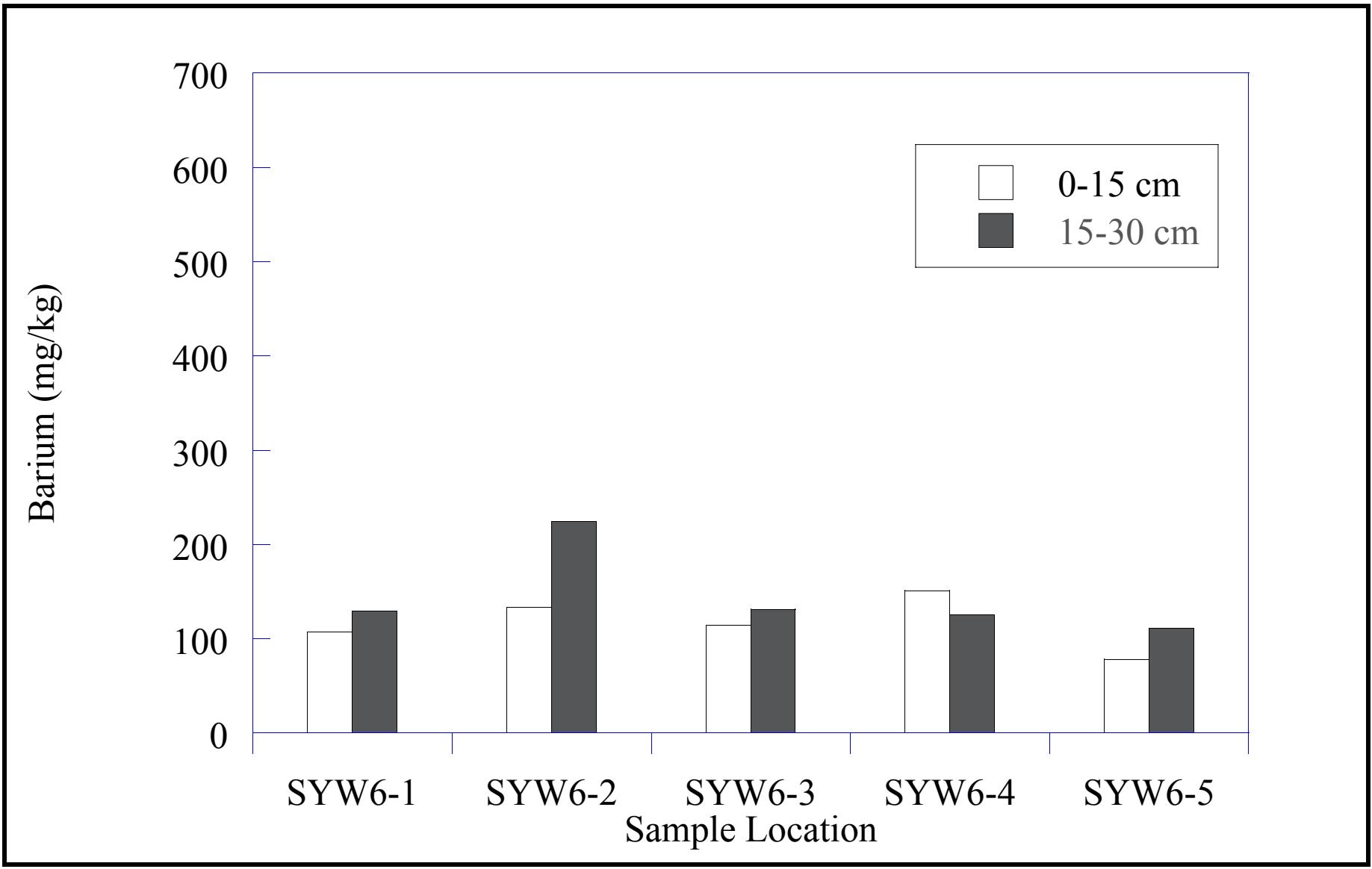
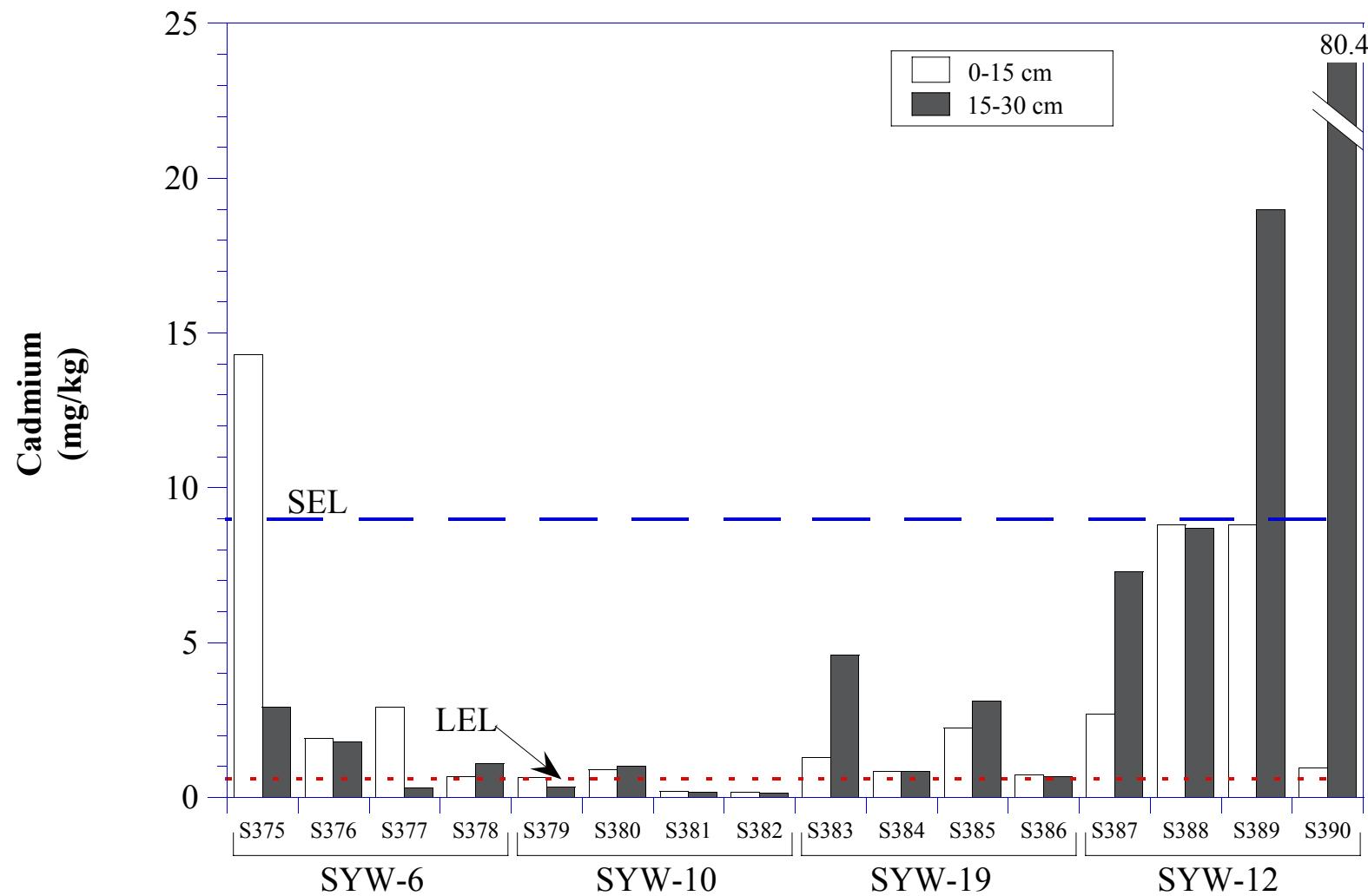


Figure 5-39
Barium in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



TAMS

Figure 5-40
Cadmium in Onondaga Lake
Wetland Sediment in 2000

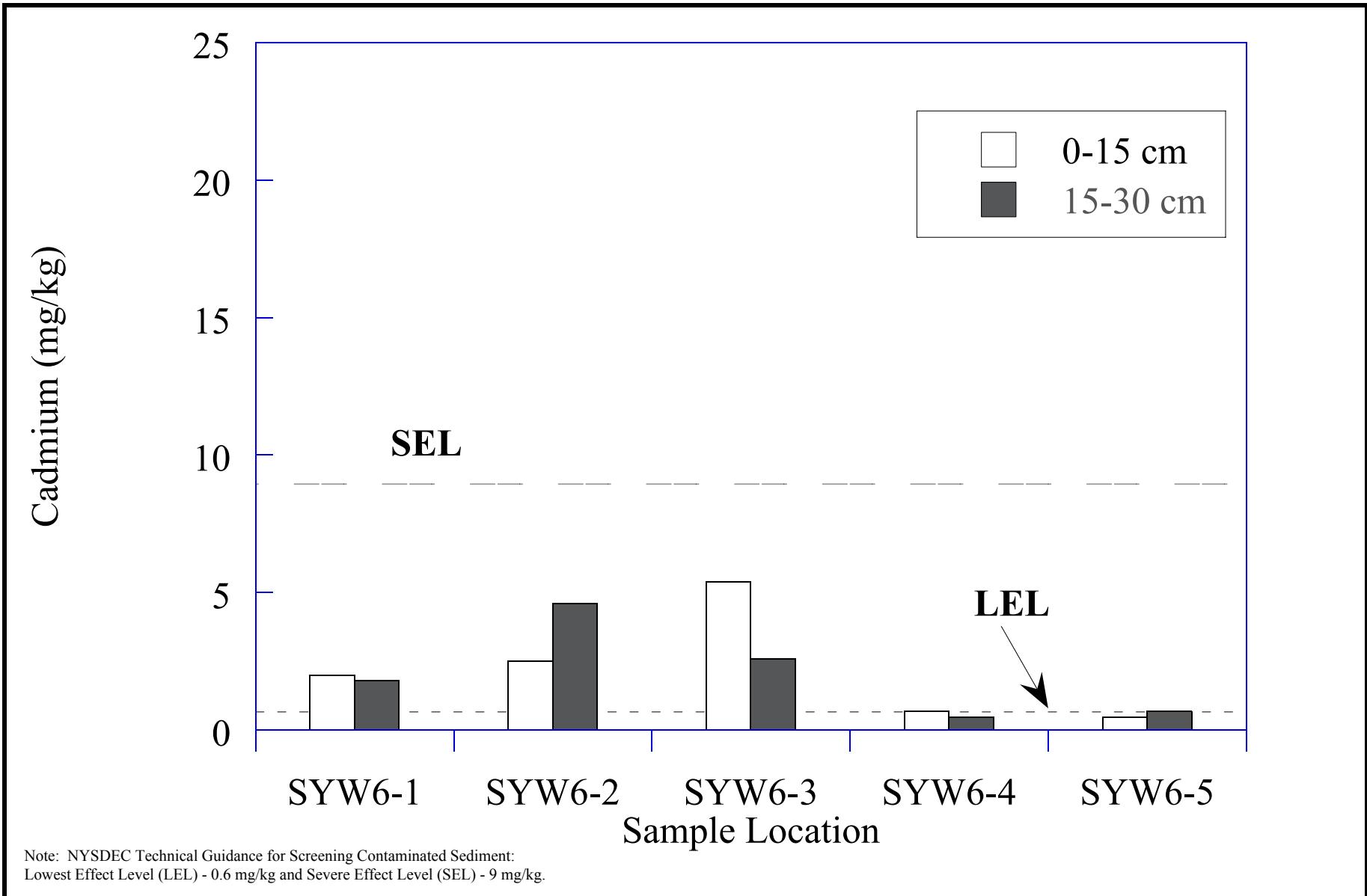


Figure 5-41
Cadmium in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

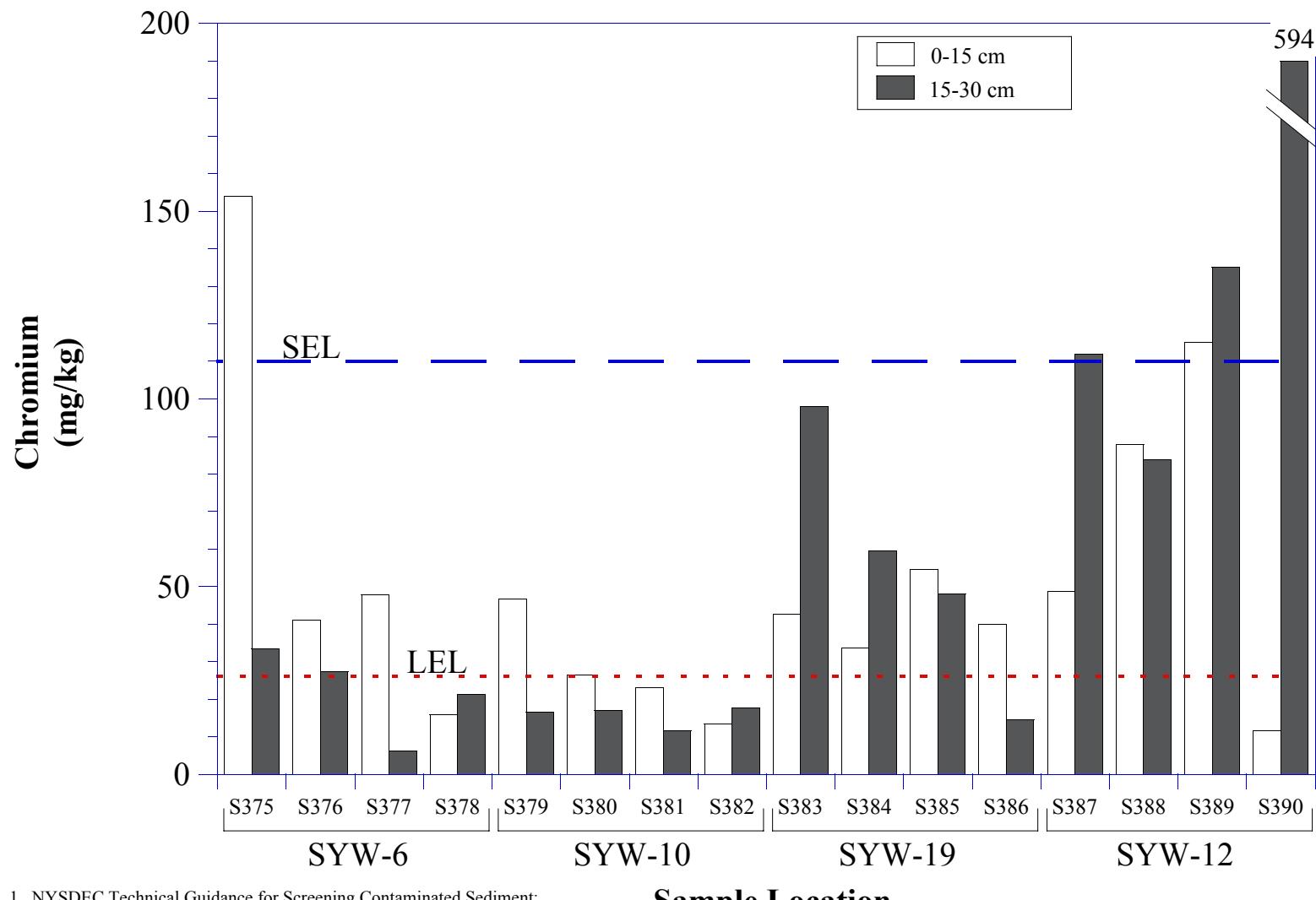


Figure 5-42
Chromium in Onondaga Lake
Wetland Sediment in 2000

TAMS

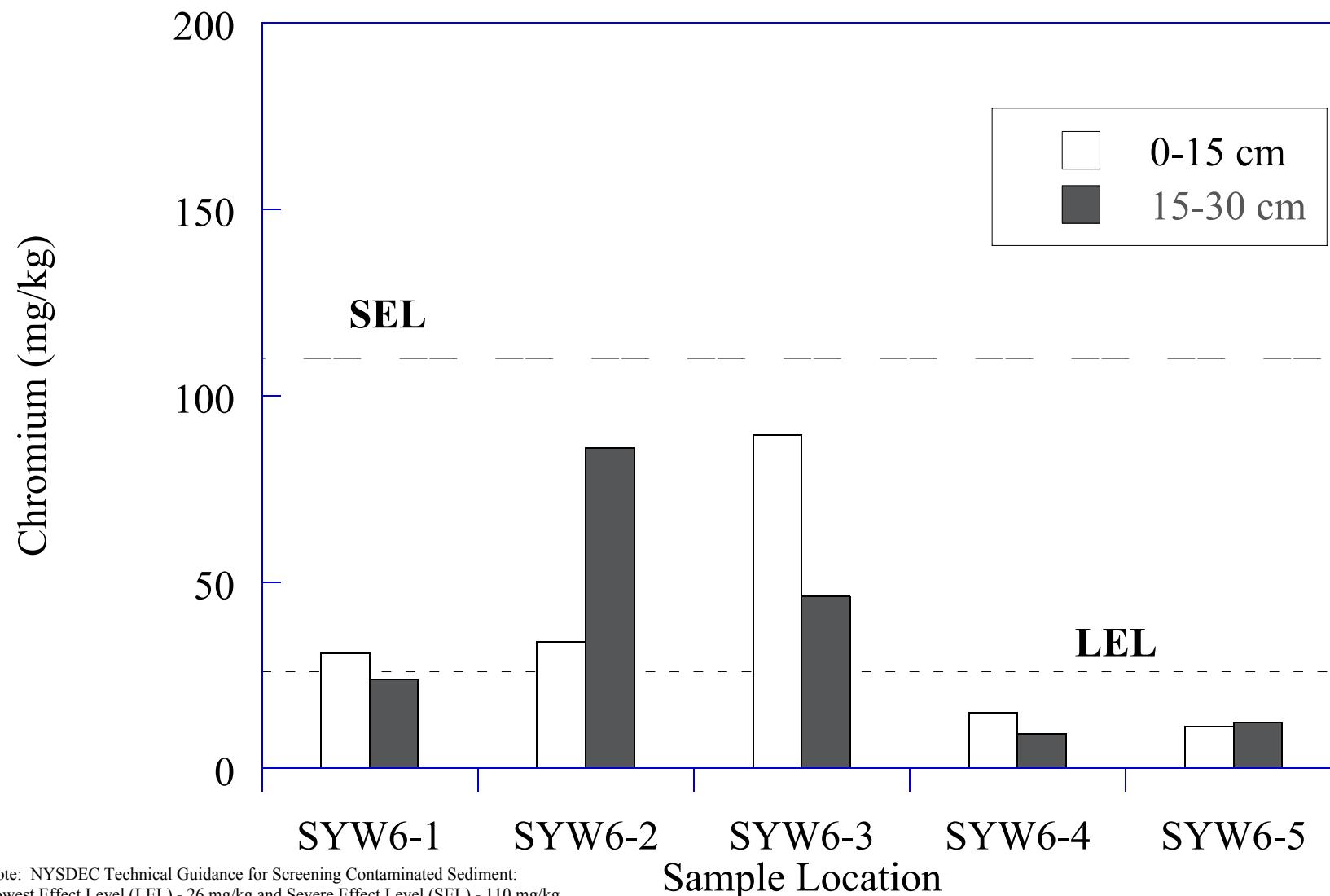


Figure 5-43
Chromium in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

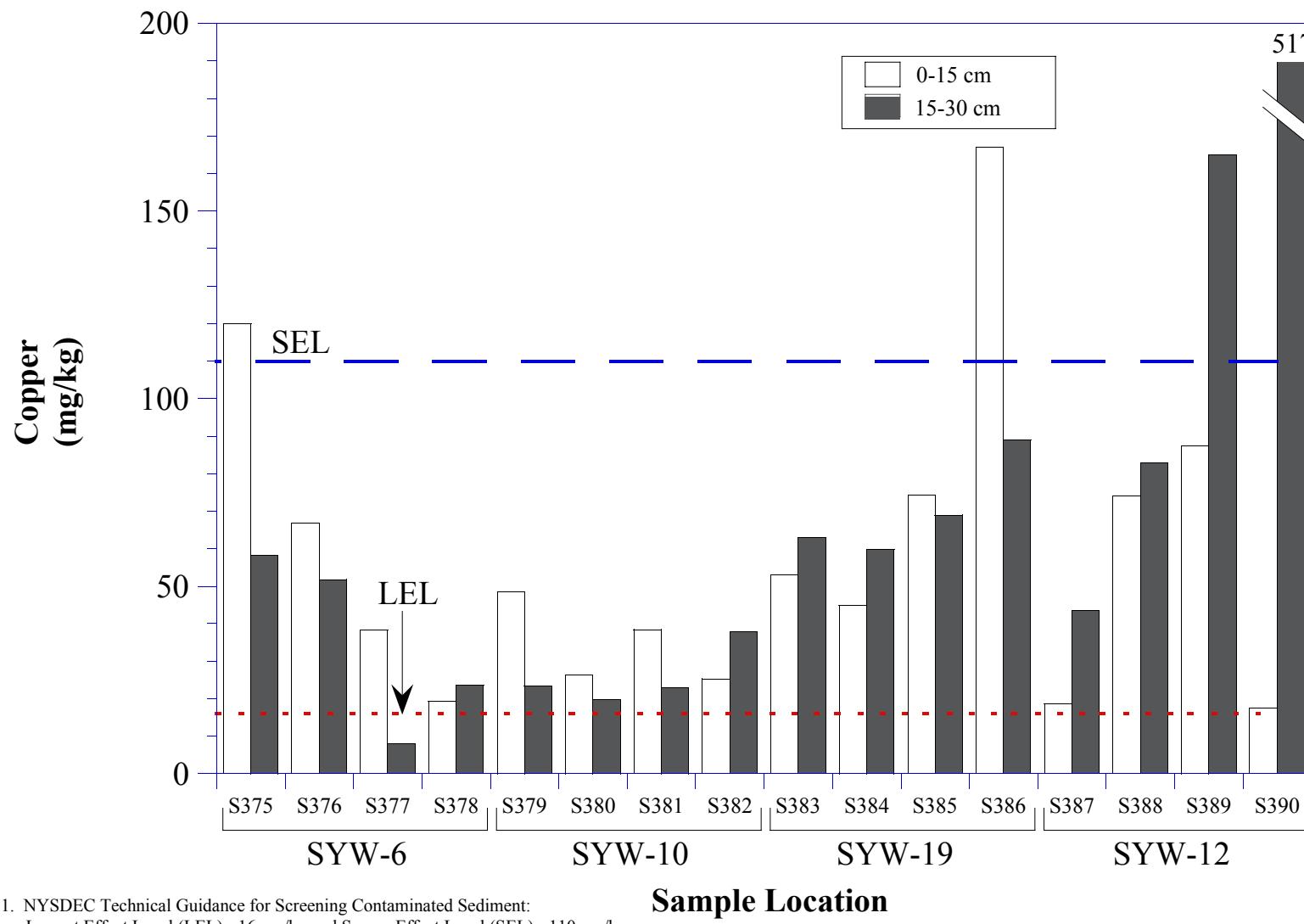


Figure 5-44
Copper in Onondaga Lake
Wetland Sediment in 2000

TAMS

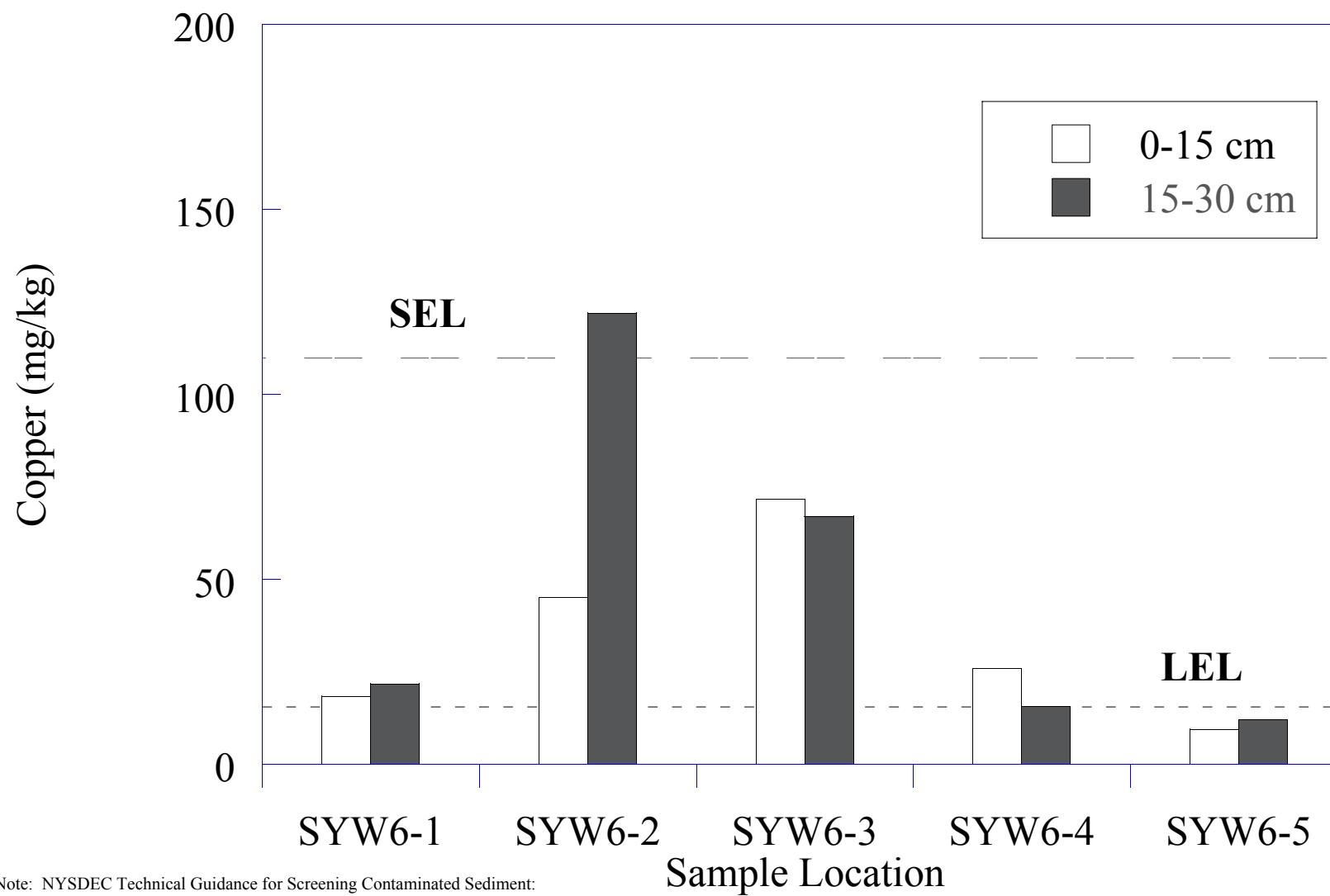
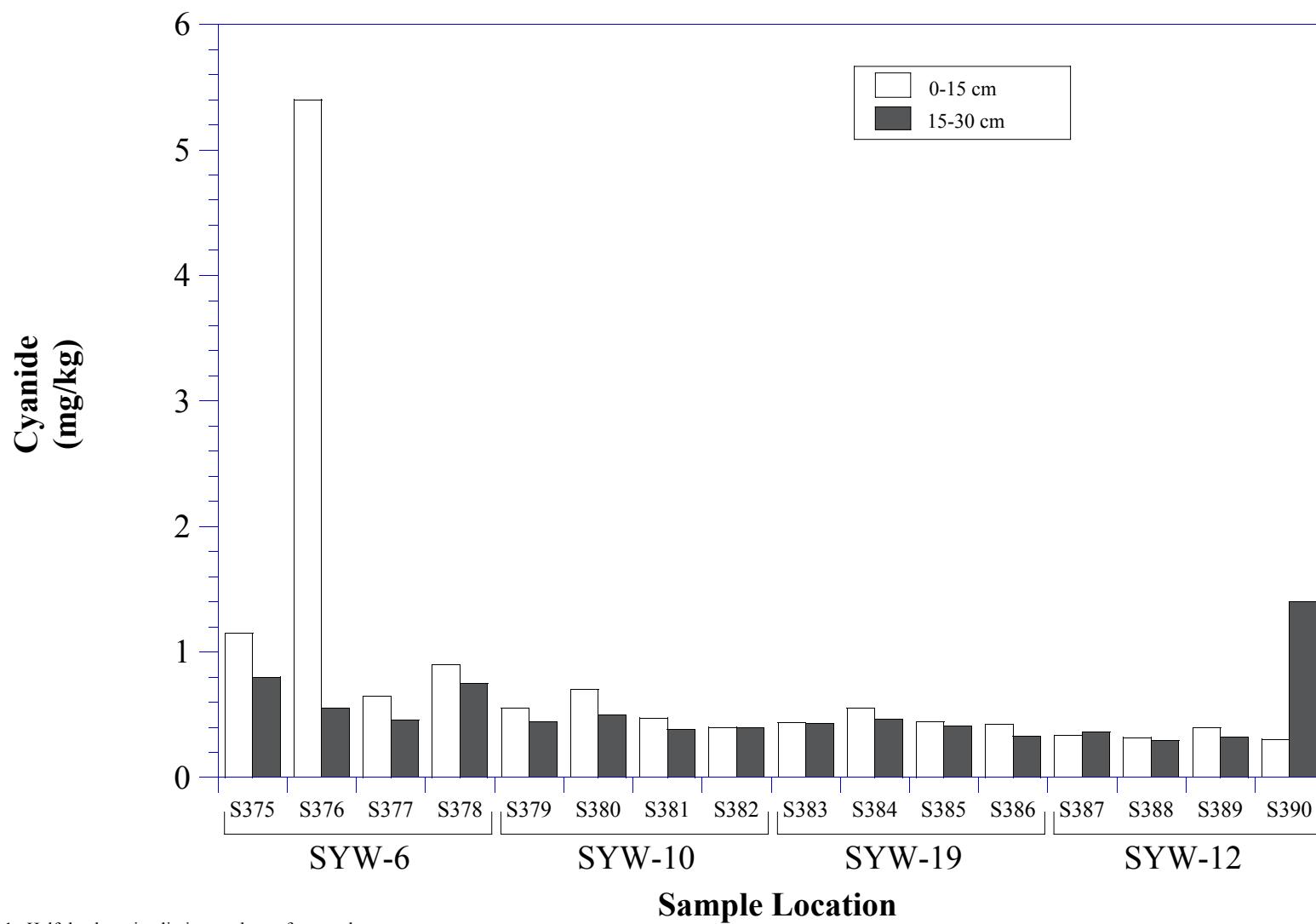


Figure 5-45
Copper in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Notes:

1. Half the detection limits are shown for non-detects.
2. Sediment samples from the reference lake (Otisco) were non-detects with detection limits ranging from 0.9 to 3.1 mg/kg.

Figure 5-46
Cyanide in Onondaga Lake
Wetland Sediment in 2000

TAMS

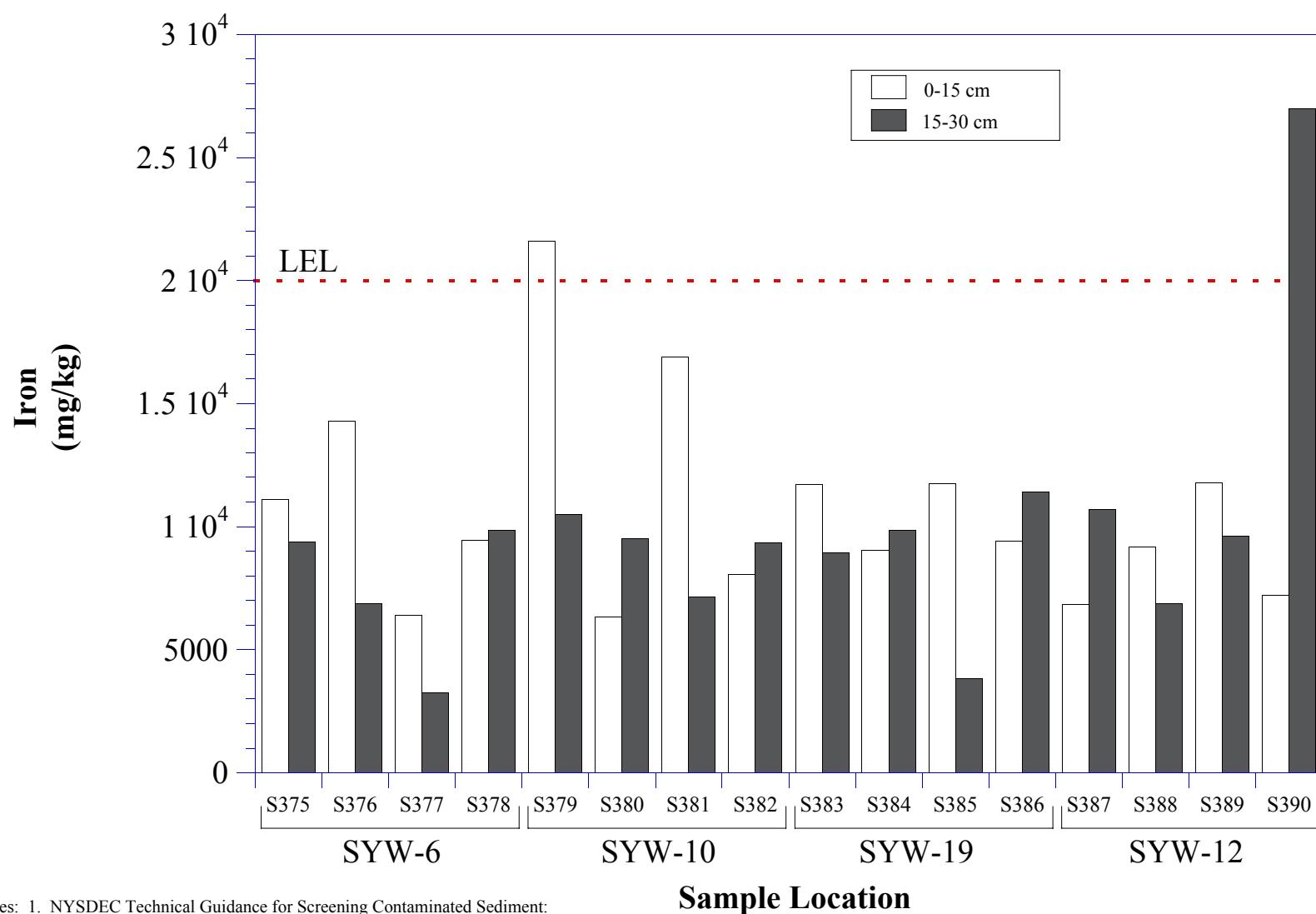


Figure 5-47

Iron in Onondaga Lake
Wetland Sediment in 2000

TAMS

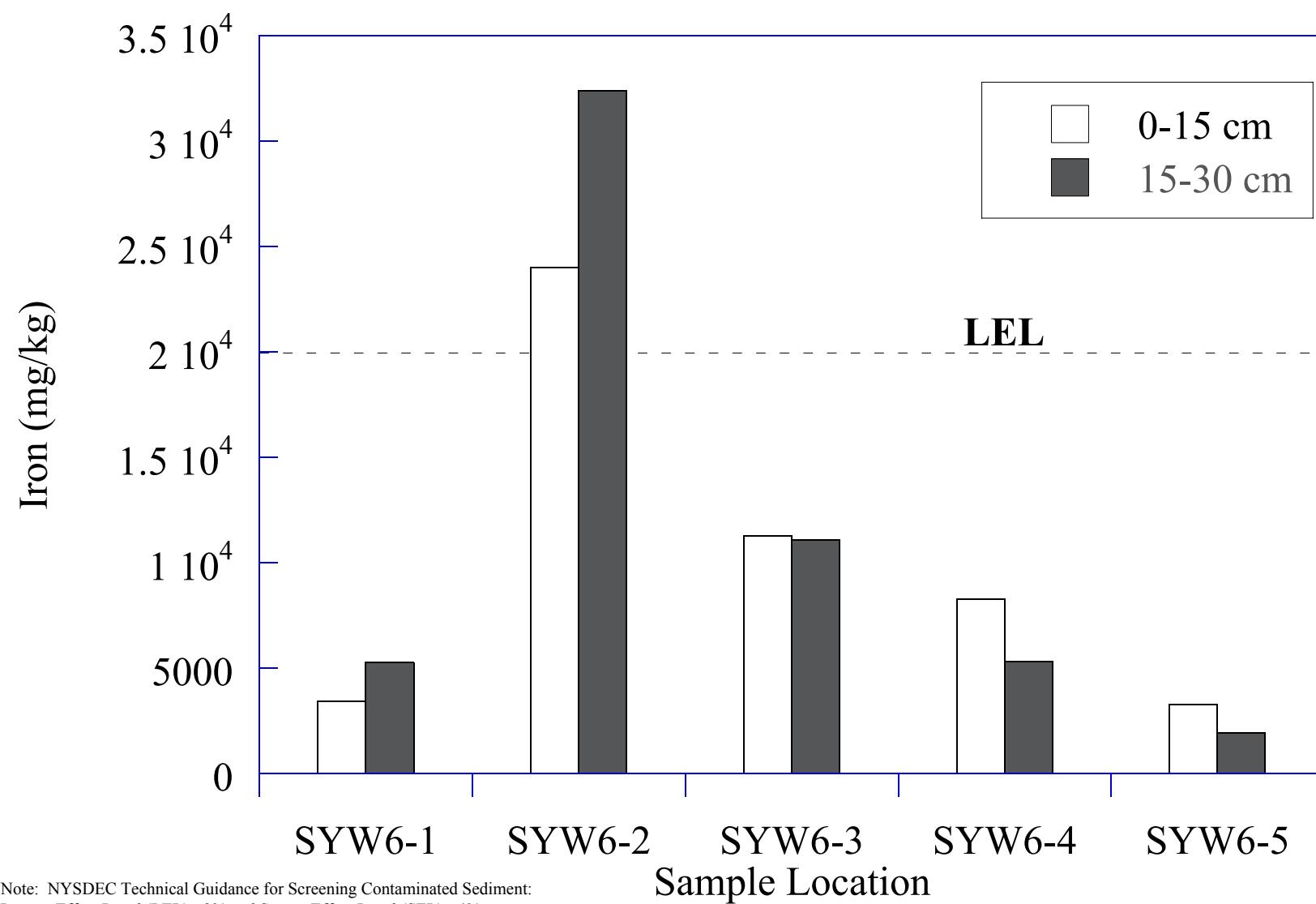
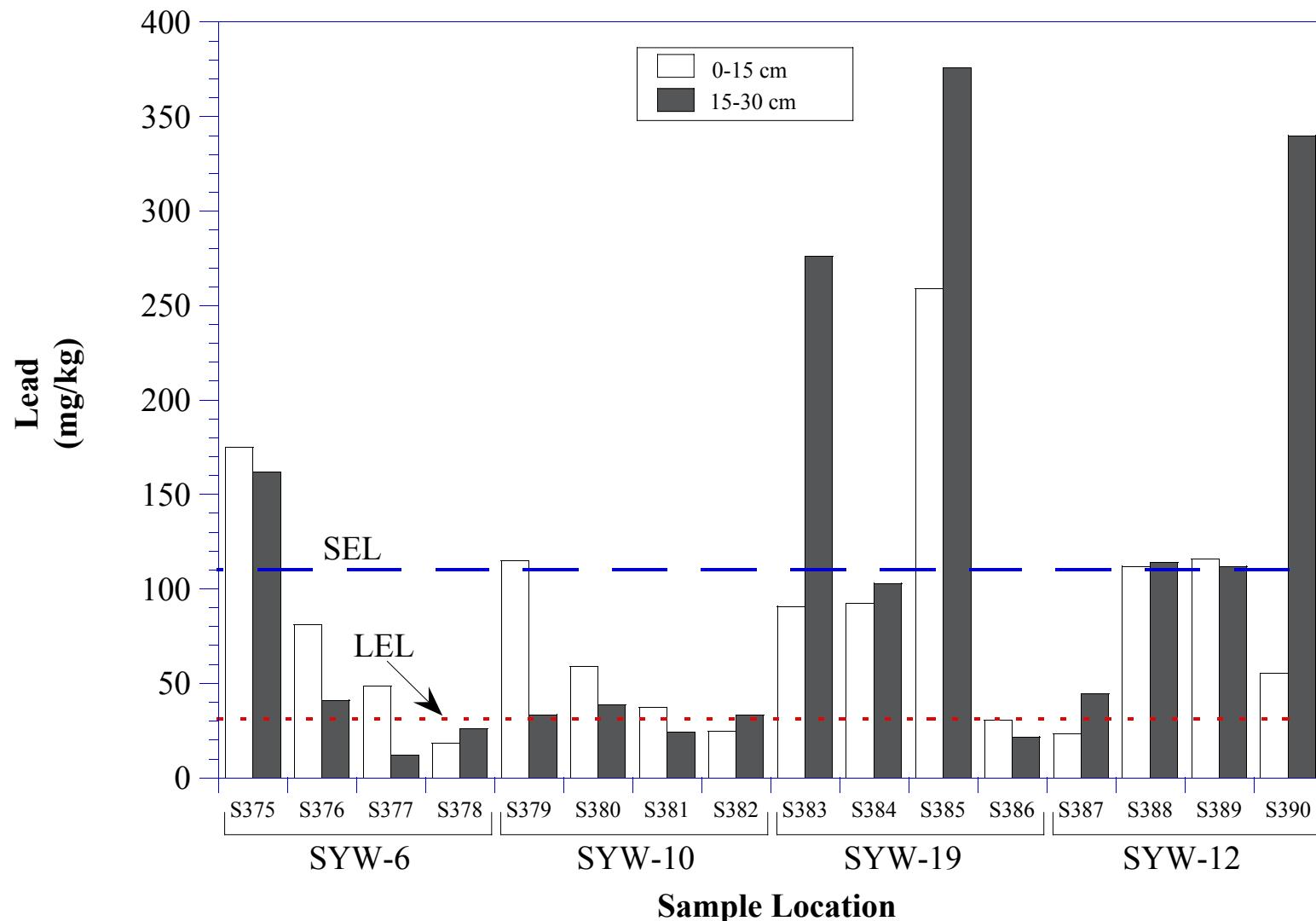


Figure 5-48
Iron in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Notes: 1. NYSDEC Technical Guidance for Screening Contaminated Sediment:
Lowest Effect Level (LEL) - 31 mg/kg and Severe Effect Level (SEL) - 110 mg/kg.
2. Sediment samples from the reference lake (Otisco) ranged from 1.3 to 32.1 mg/kg.

TAMS

Figure 5-49
Lead in Onondaga Lake
Wetland Sediment in 2000

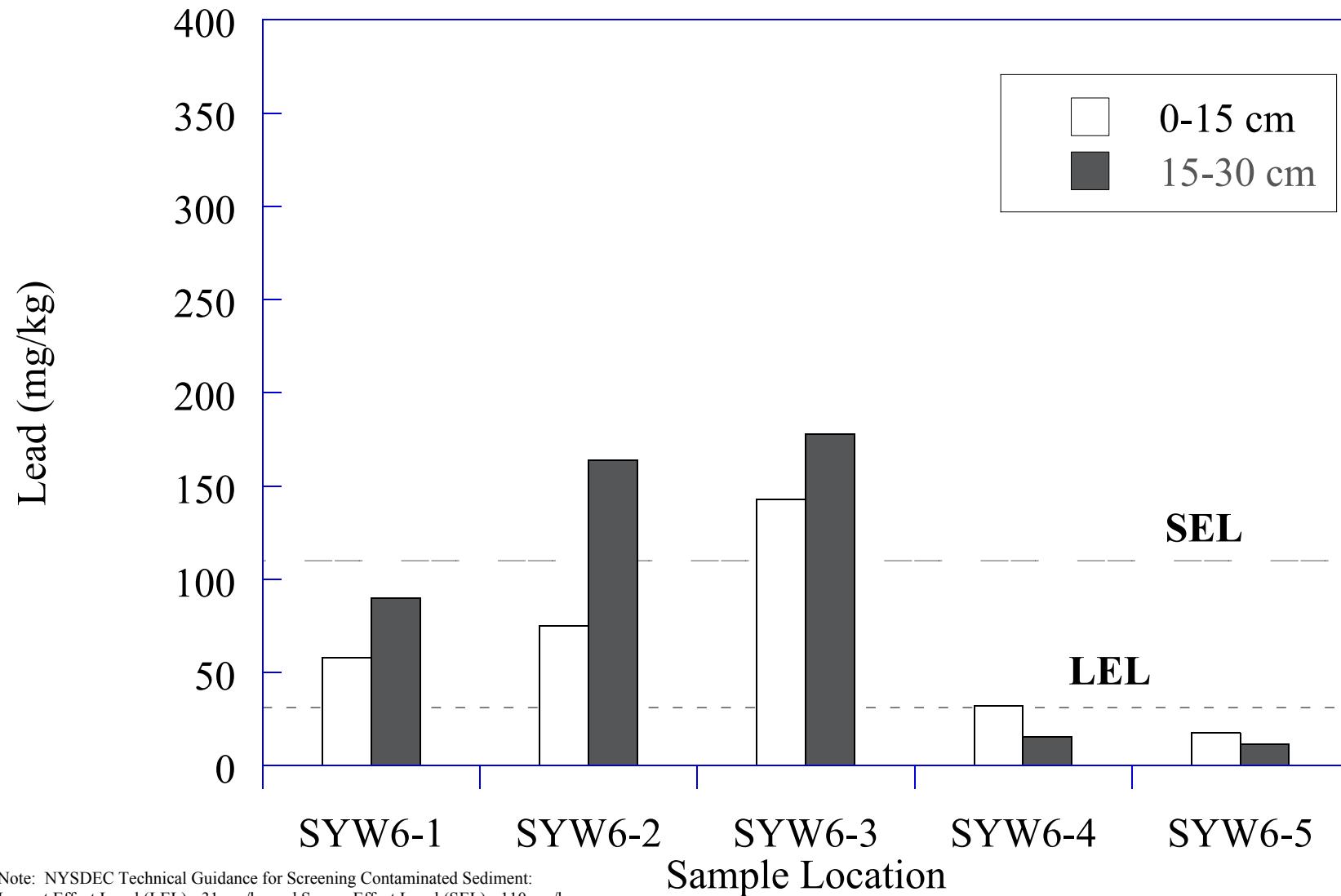
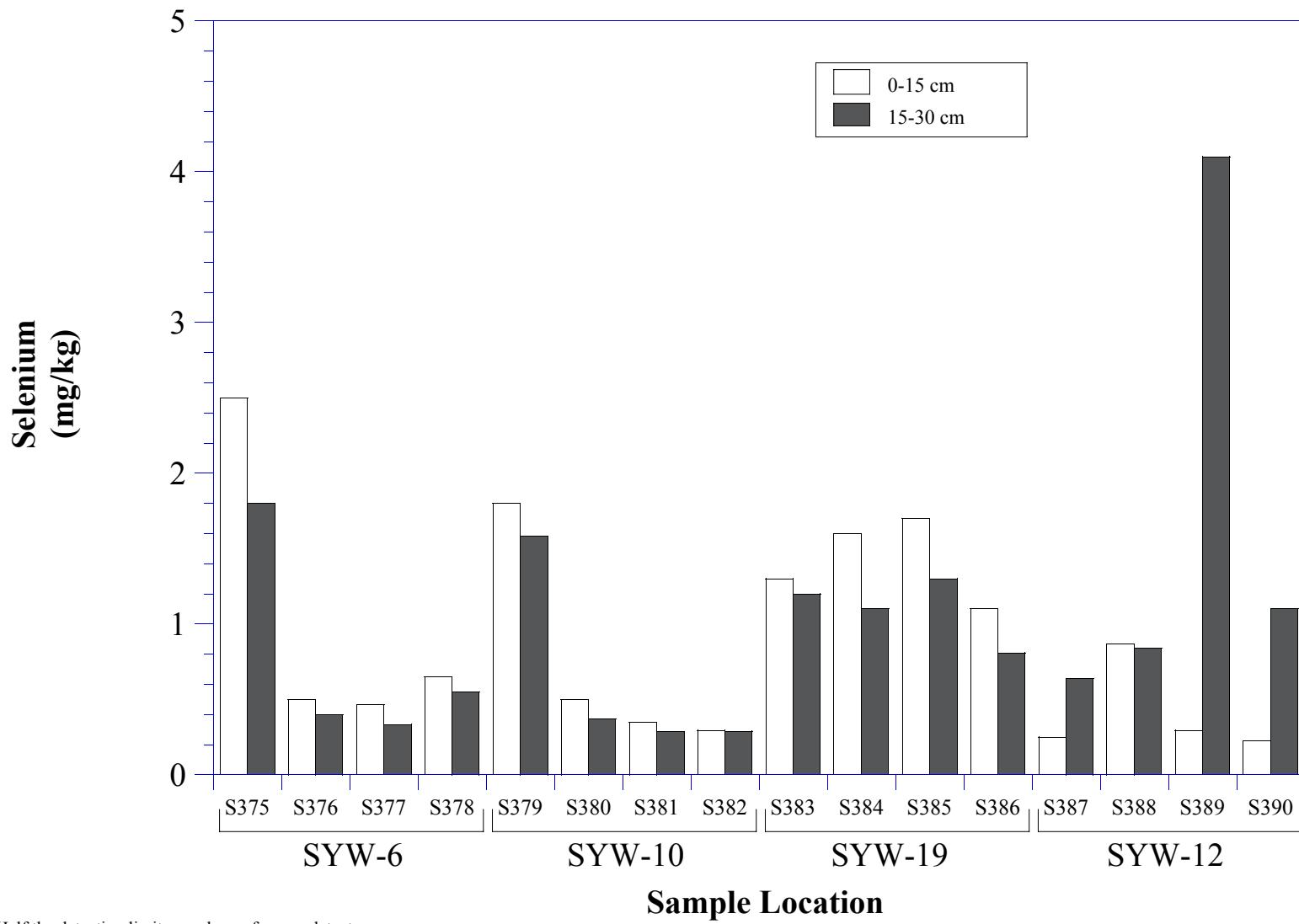


Figure 5-50
Lead in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Notes: 1. Half the detection limits are shown for non-detects.
 2. In seven sediment samples from the reference lake (Otisco), four were non-detects with detection limits ranging from 0.15 to 1.5 mg/kg, and three samples were detected with a maximum of 3.2 mg/kg.

TAMS

Figure 5-51
Selenium in Onondaga Lake
Wetland Sediment in 2000

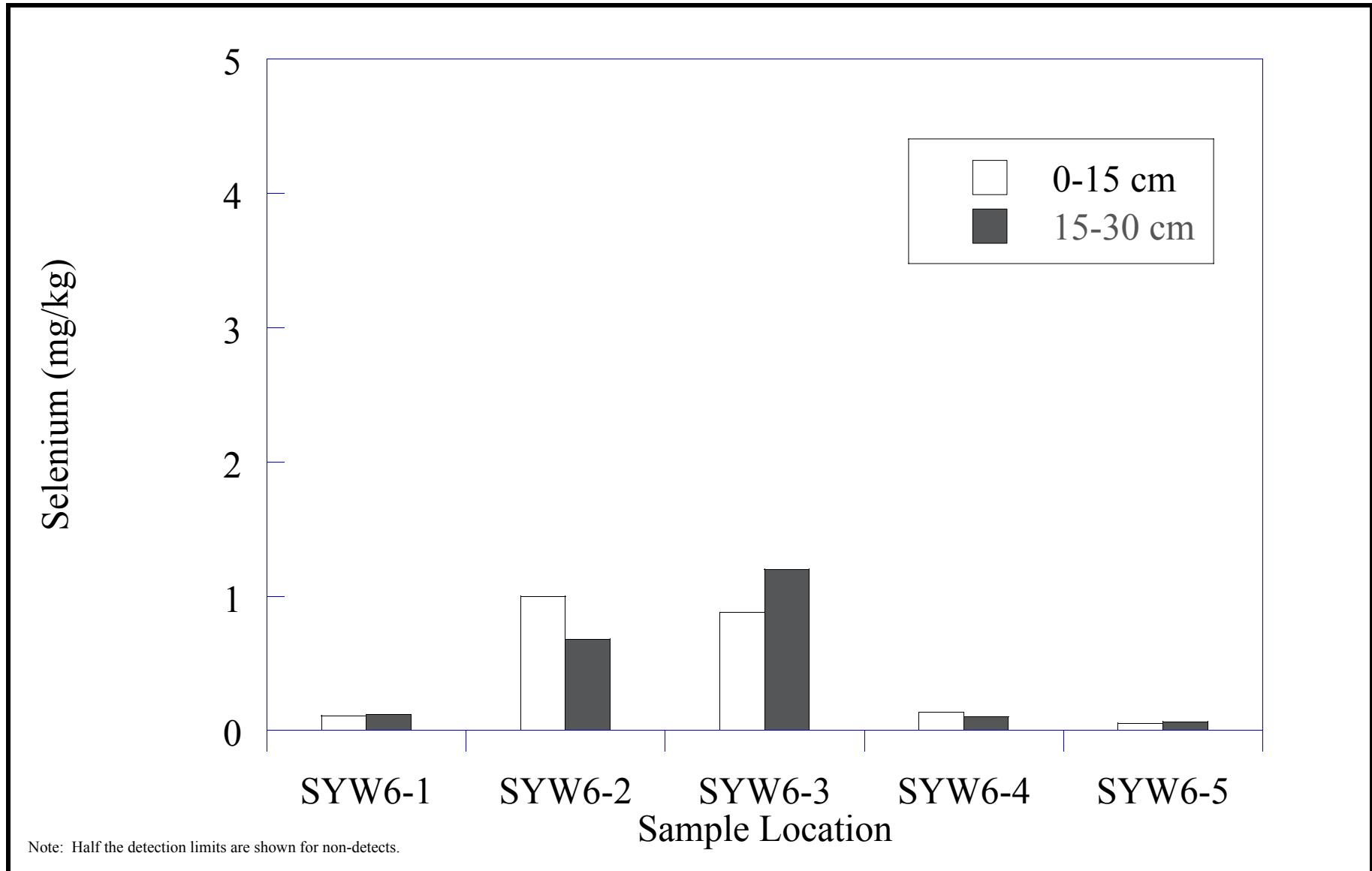
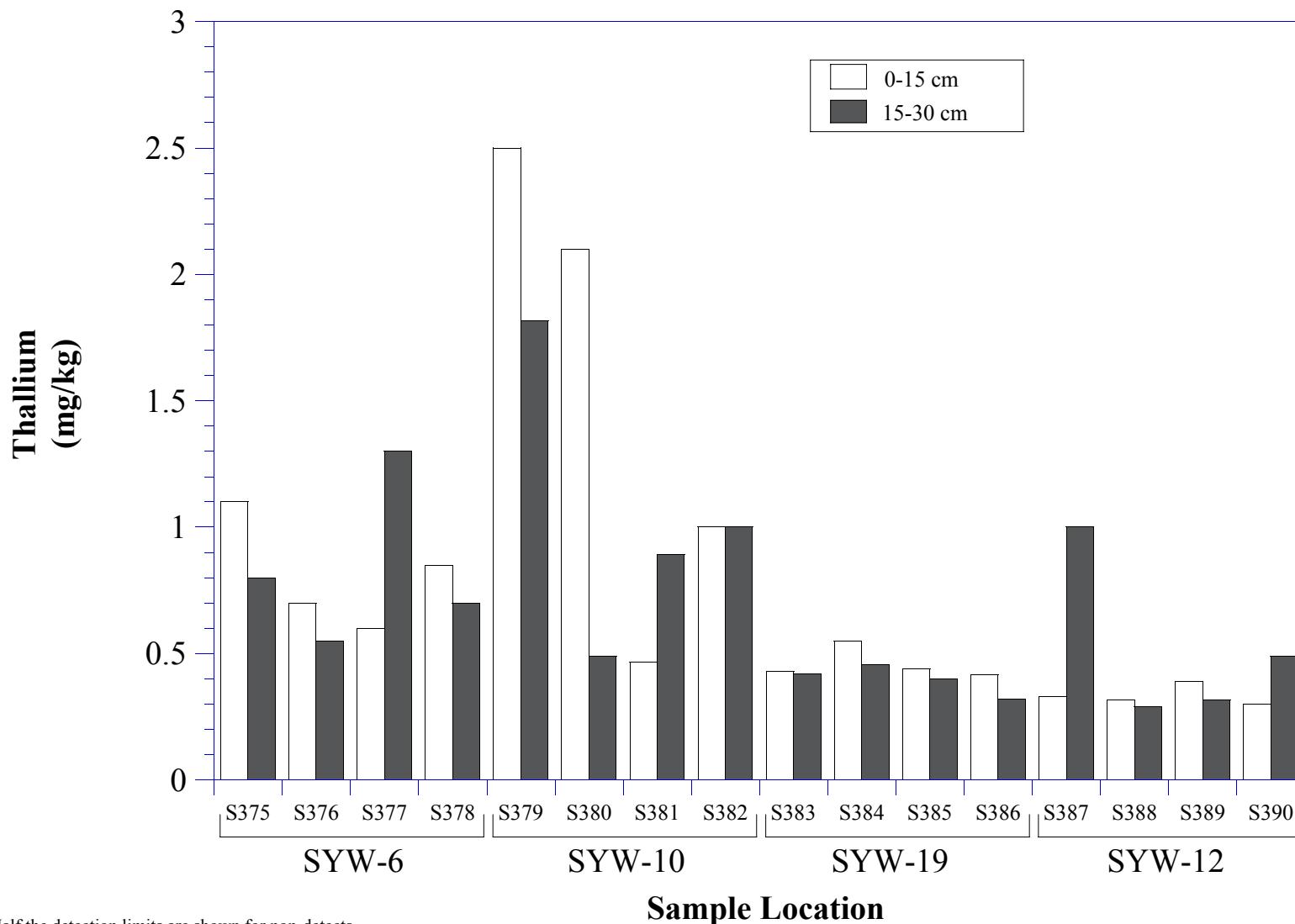


Figure 5-52
Selenium in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Notes: 1. Half the detection limits are shown for non-detects.
 2. Sediment samples from the reference lake (Otisco) were non-detects with detection limits ranging from 0.15 to 2.0 mg/kg.

Figure 5-53
Thallium in Onondaga Lake
Wetland Sediment in 2000

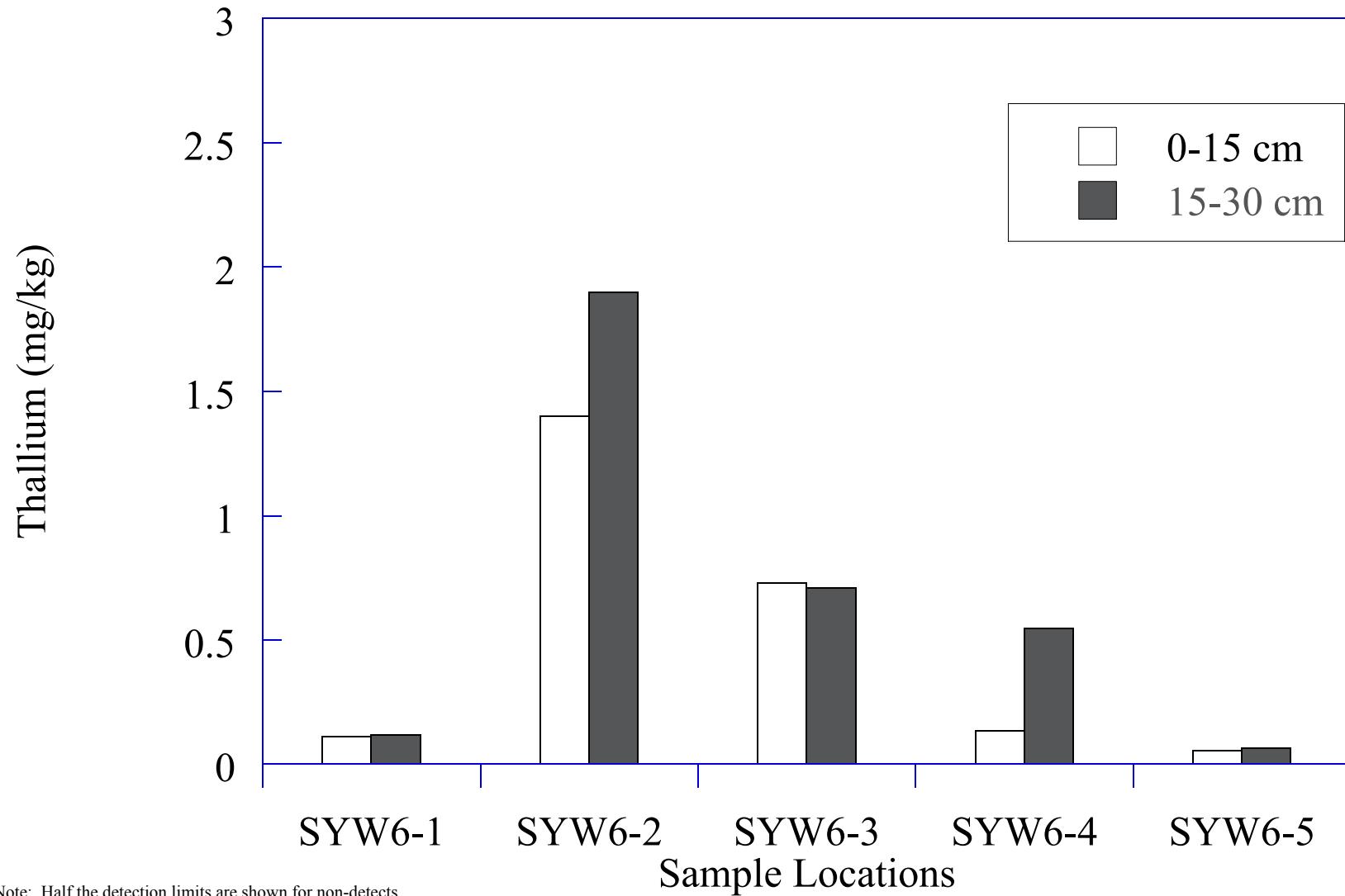


Figure 5-54
Thallium in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

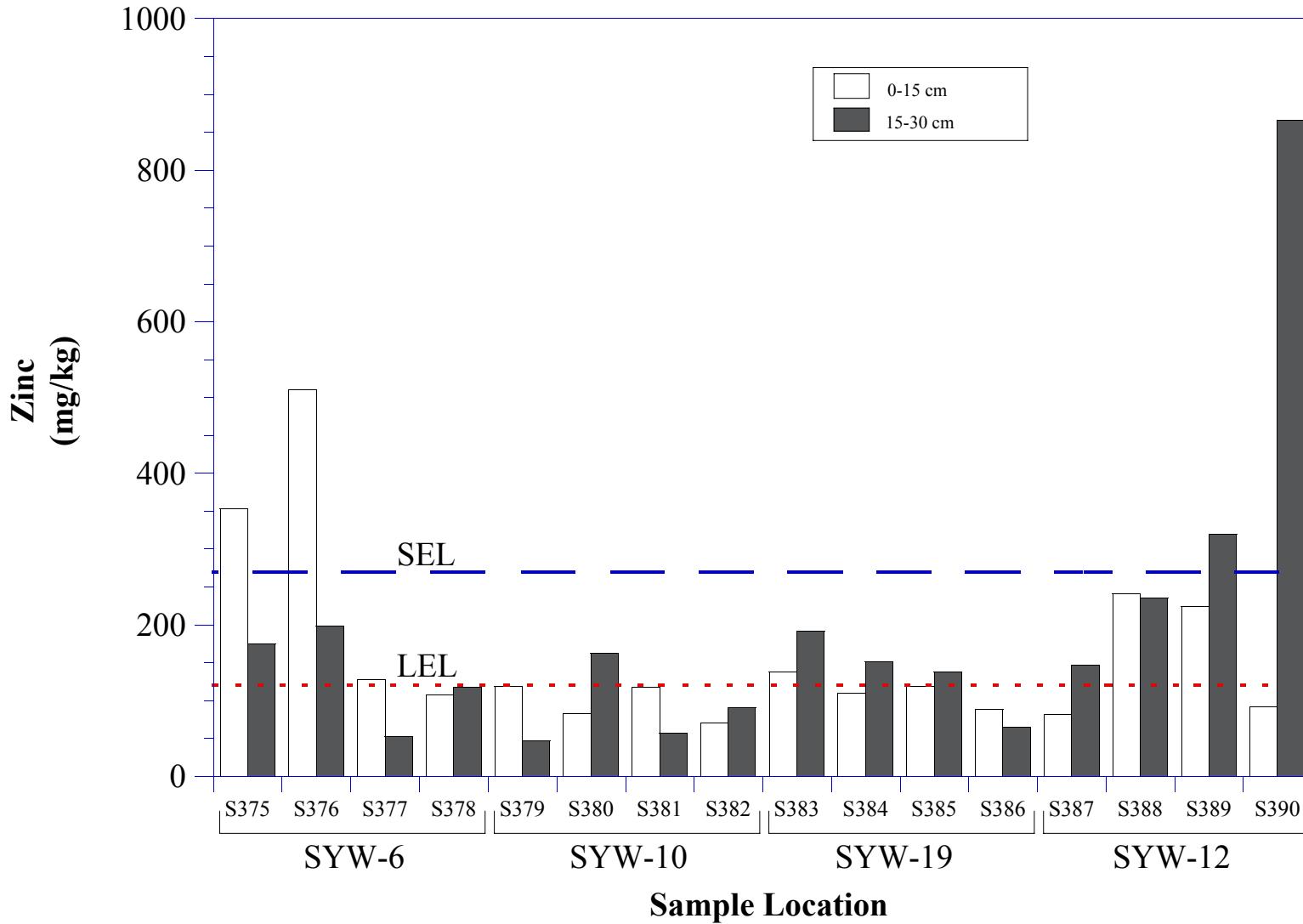


Figure 5-55
Zinc in Onondaga Lake
Wetland Sediment in 2000

TAMS

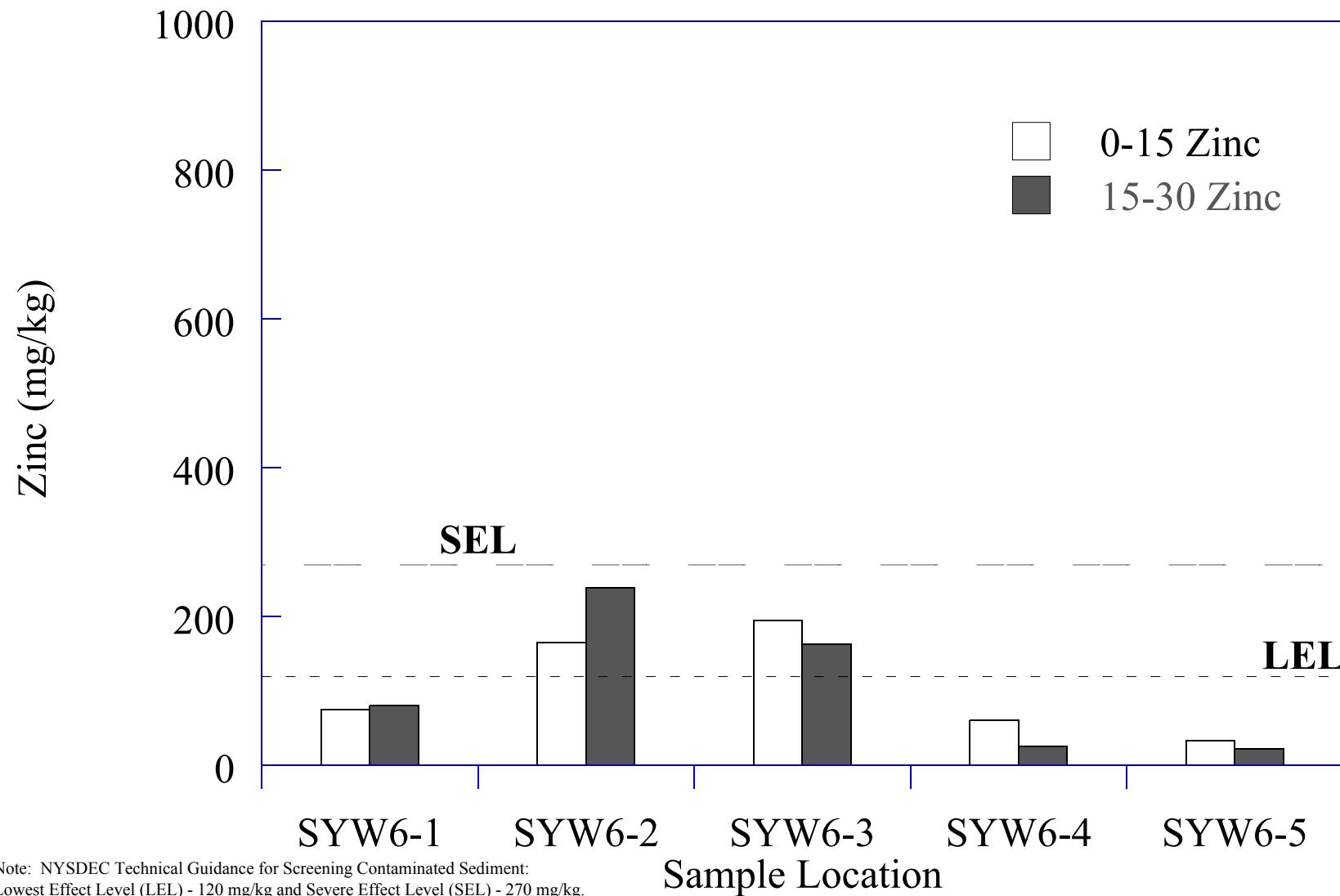
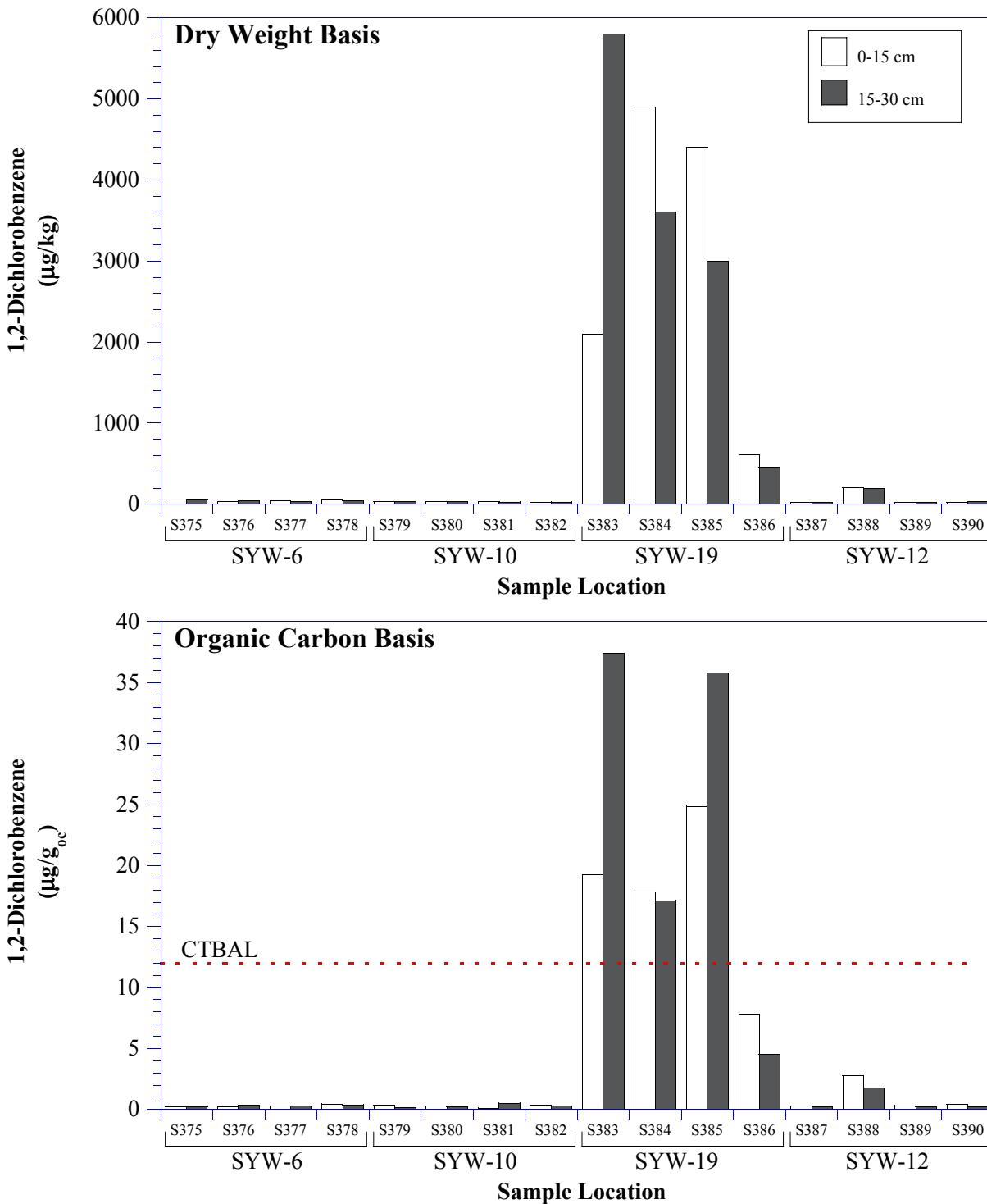


Figure 5-56
Zinc in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

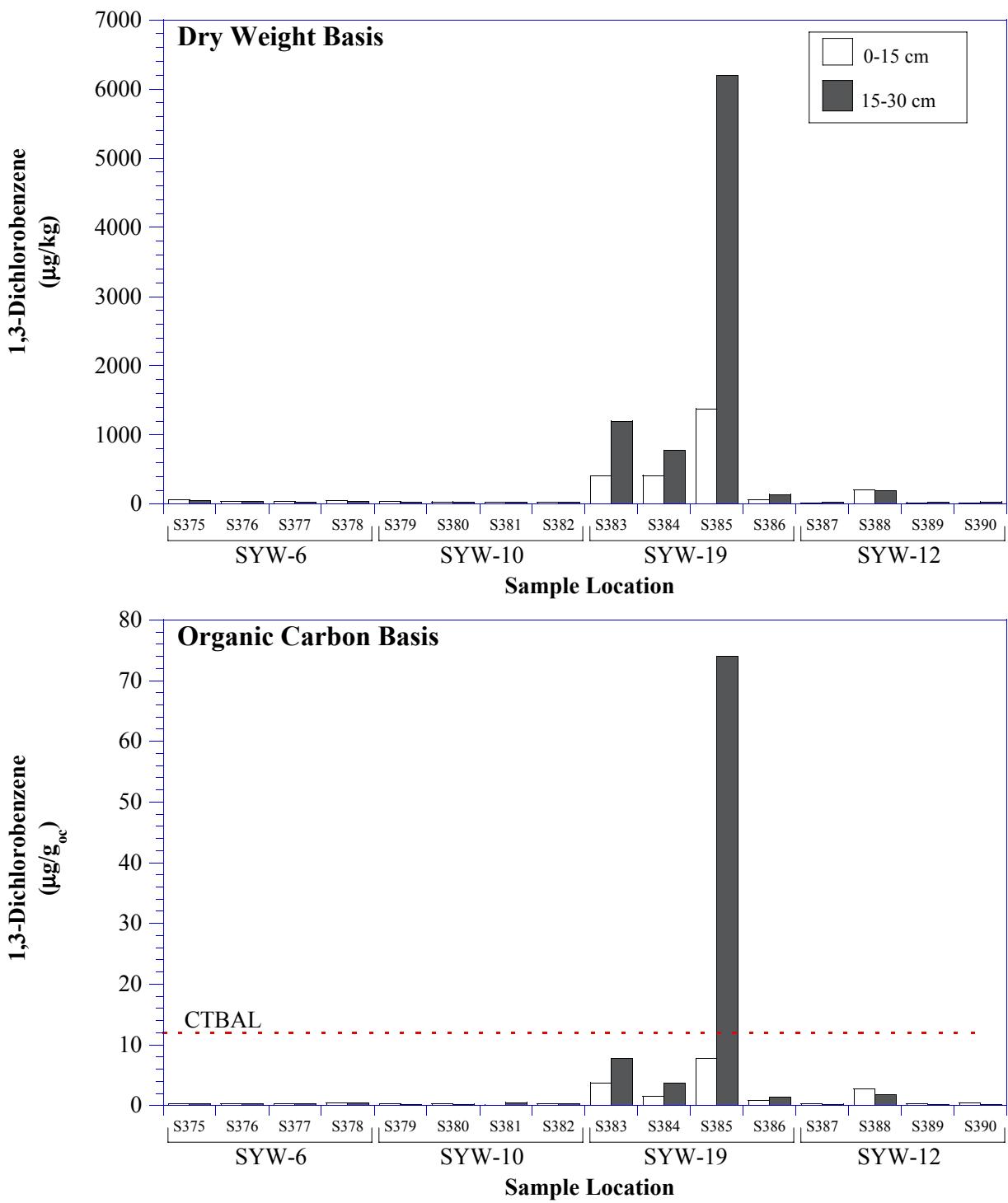


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment for Dichlorobenzenes:
Acute Toxicity Benthic Aquatic Life - 120 $\mu\text{g/g}_{\text{oc}}$, Chronic Toxicity Benthic Aquatic Life - 12 $\mu\text{g/g}_{\text{oc}}$.

TAMS

Figure 5-57
1,2-Dichlorobenzene in Onondaga Lake
Wetland Sediment in 2000

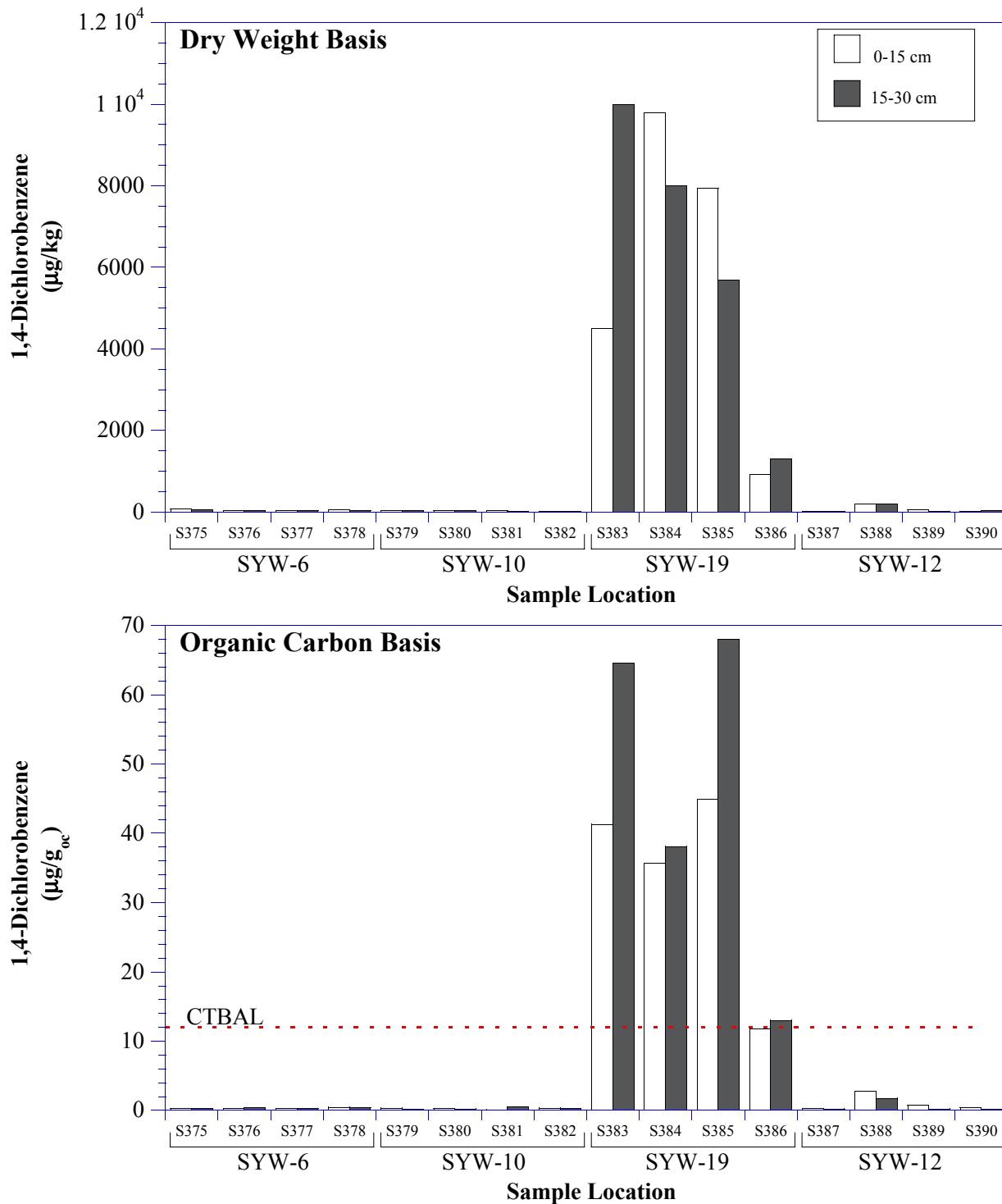


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment for Dichlorobenzenes:
Acute Toxicity Benthic Aquatic Life - 120 µg/g_{oc}, Chronic Toxicity Benthic Aquatic Life - 12 µg/g_{oc}.

TAMS

Figure 5-58
1,3-Dichlorobenzene in Onondaga Lake
Wetland Sediment in 2000

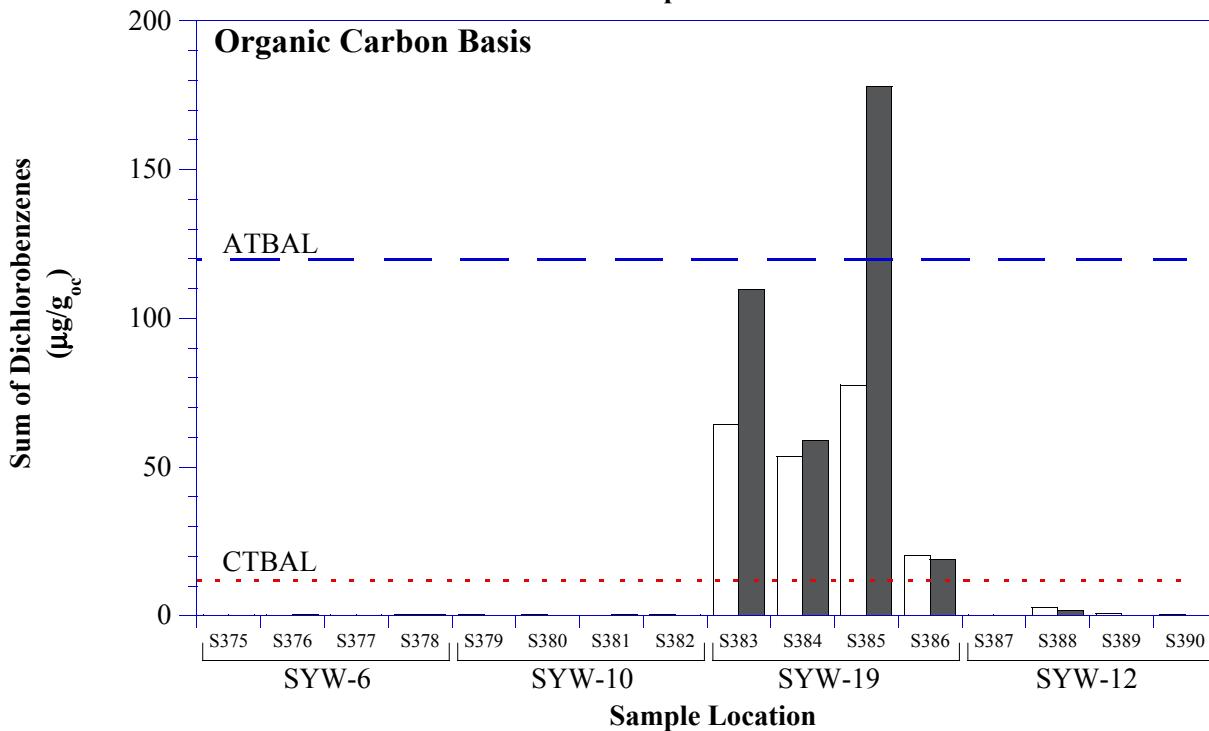
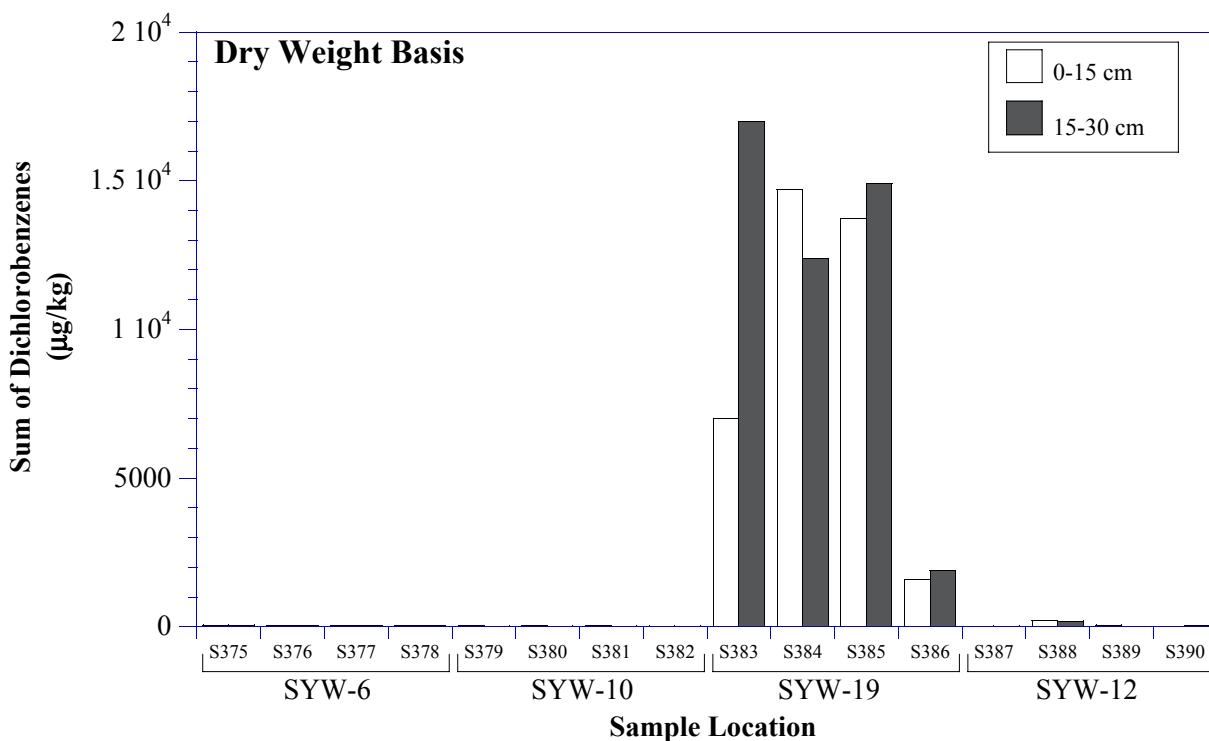


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment for Dichlorobenzenes:
Acute Toxicity Benthic Aquatic Life - 120 µg/g_{oc}, Chronic Toxicity Benthic Aquatic Life - 12 µg/g_{oc}.

TAMS

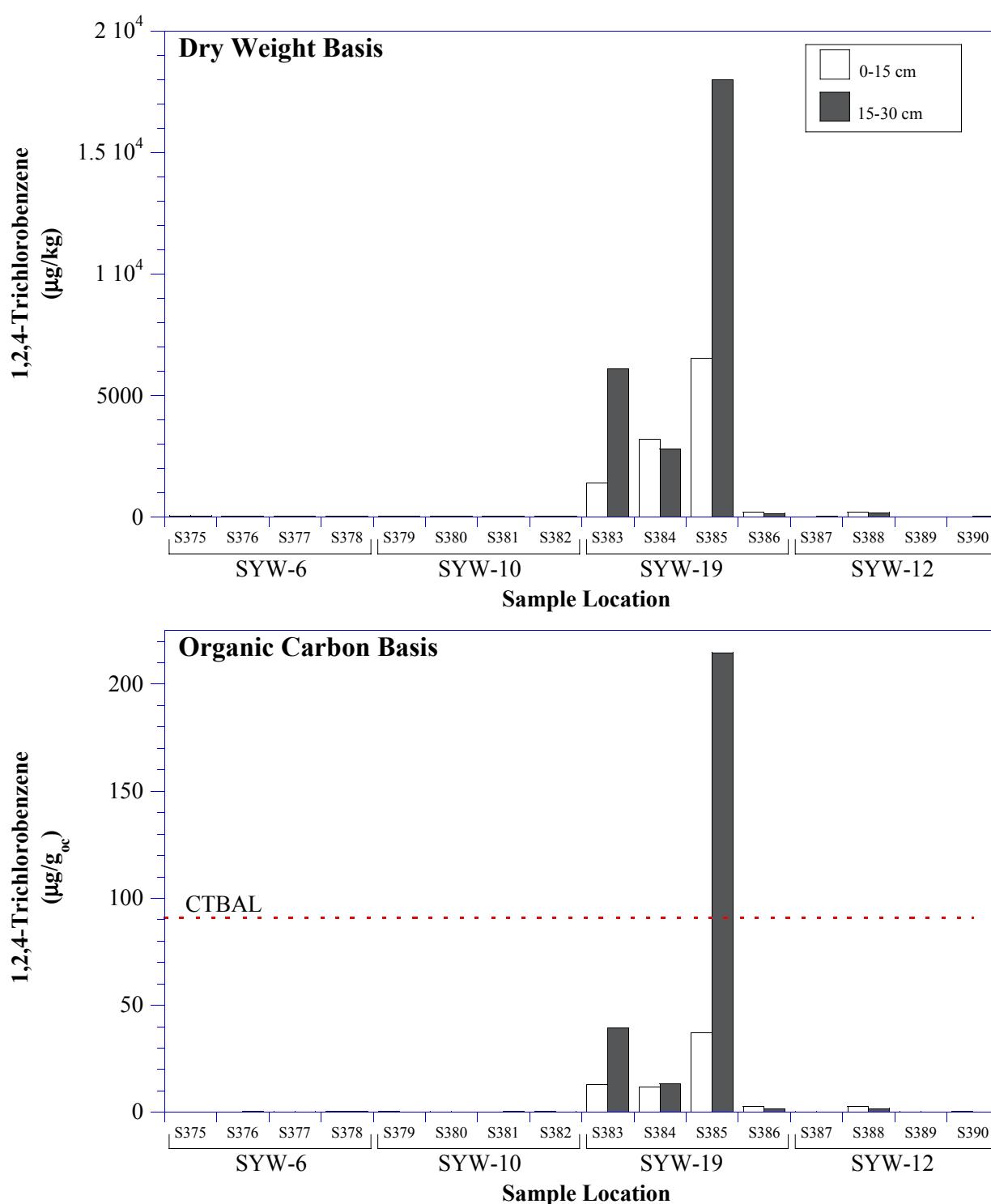
Figure 5-59
1,4-Dichlorobenzene in Onondaga Lake
Wetland Sediment in 2000



- Notes:
1. Half the detection limits are shown for non-detects.
 2. NYSDEC Technical Guidance for Screening Contaminated Sediment:
Acute Toxicity Benthic Aquatic Life (ATBAL) - 120 µg/g_{oc} & Chronic Toxicity Benthic Aquatic Life (CTBAL) - 12 µg/g_{oc}
 3. Sum is calculated as the sum of detected values or the minimum detection limit.

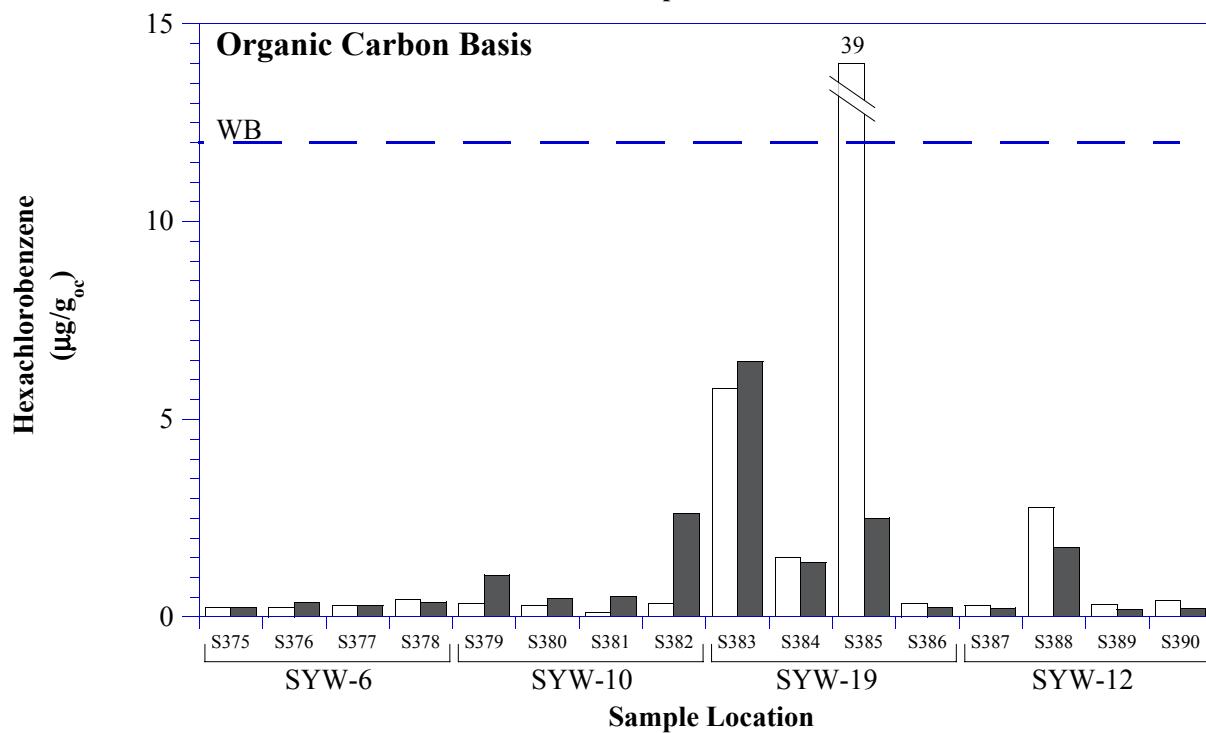
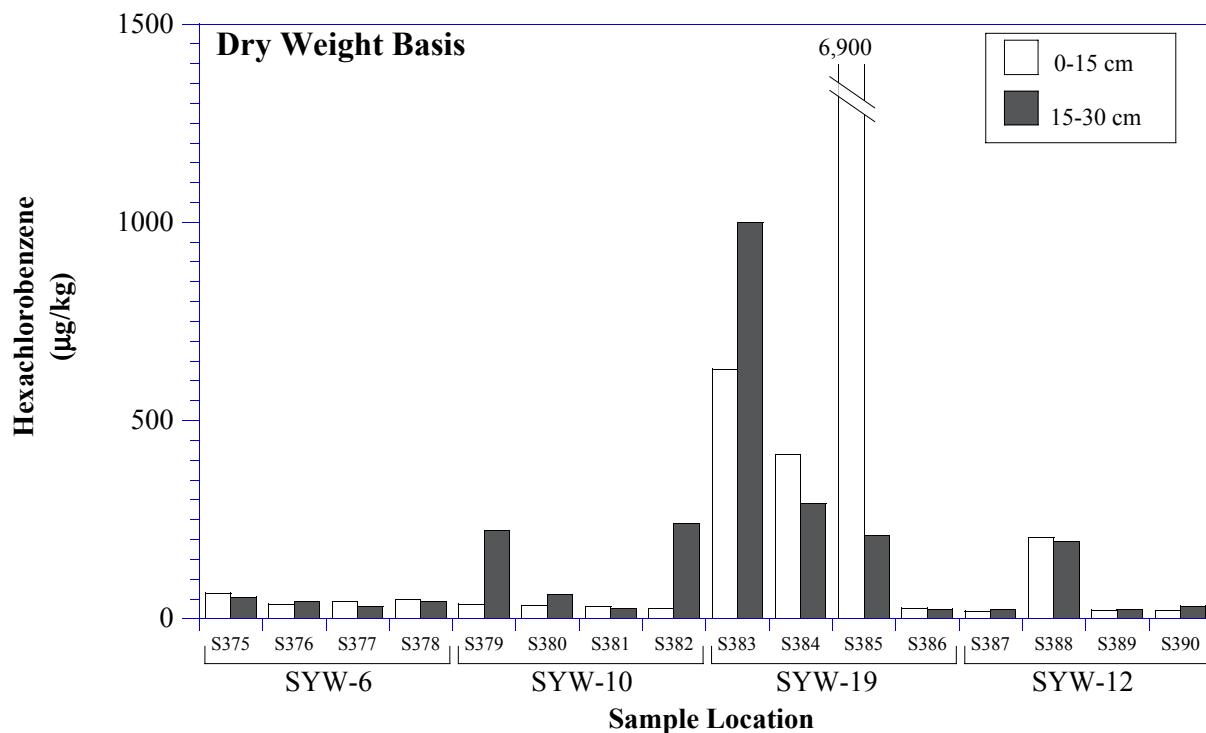
TAMS

Figure 5-60
Sum of Dichlorobenzenes in Onondaga Lake
Wetland Sediment in 2000



TAMS

Figure 5-61
1,2,4-Trichlorobenzene in Onondaga Lake
Wetland Sediment in 2000

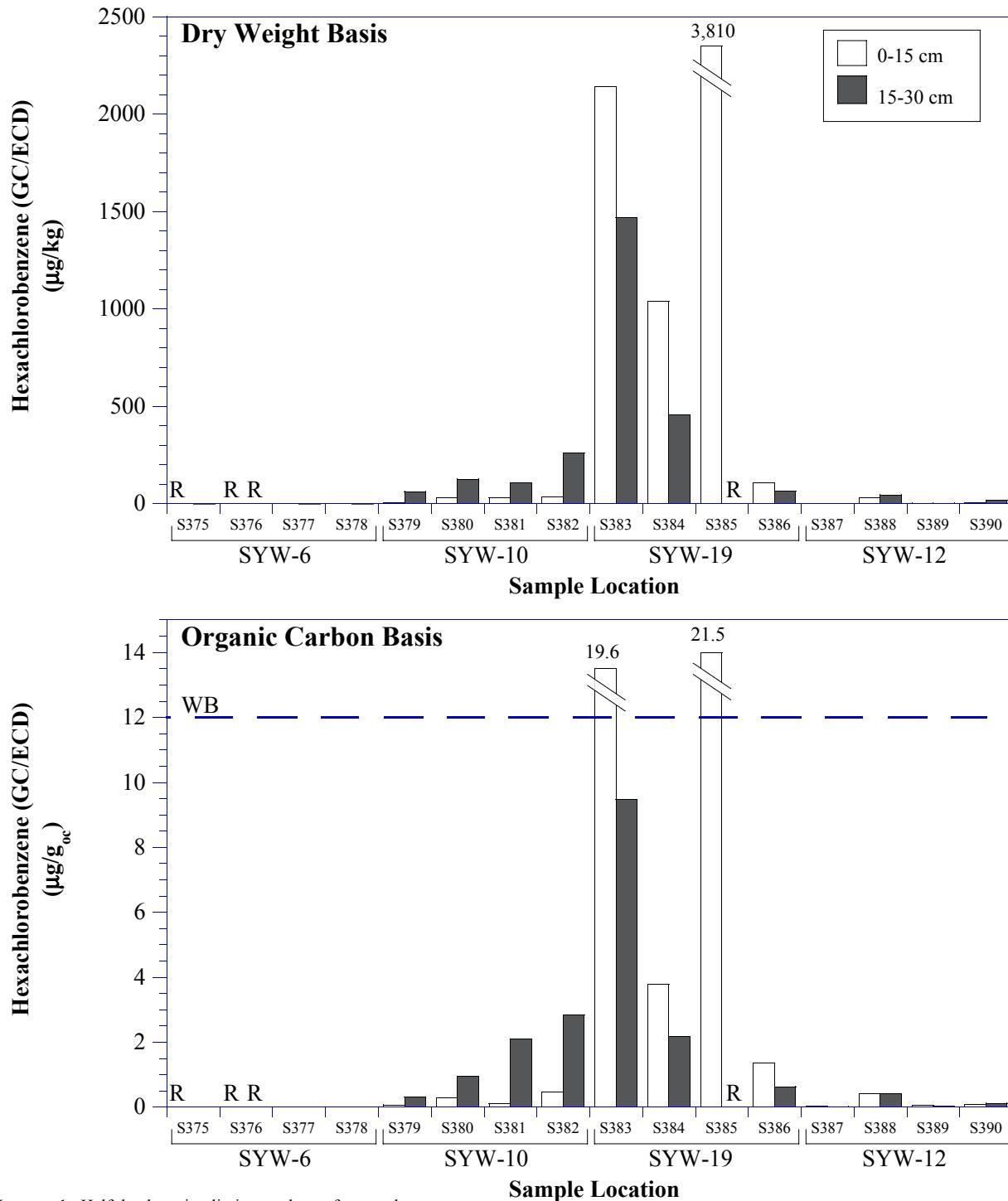


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment:
Acute Toxicity Benthic Aquatic Life - $9,081 \mu\text{g/g}_{\text{oc}}$, Chronic Toxicity Benthic Aquatic Life - $5,570 \mu\text{g/g}_{\text{oc}}$
and Wildlife Bioaccumulation - $12 \mu\text{g/g}_{\text{oc}}$.

TAMS

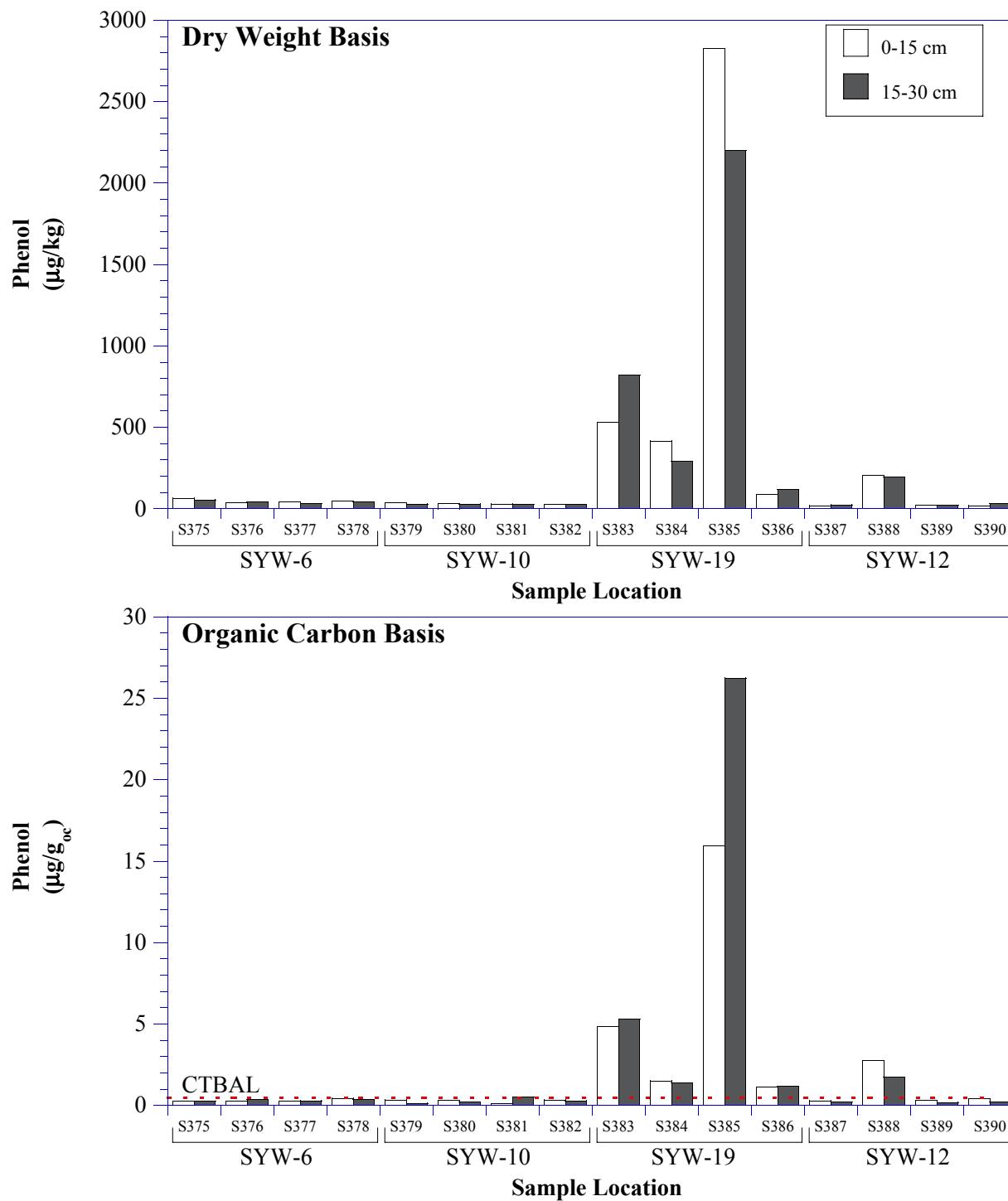
Figure 5-62
Hexachlorobenzene in Onondaga Lake
Wetland Sediment in 2000



- Notes:
- Half the detection limits are shown for non-detects.
 - NYSDEC Technical Guidance for Screening Contaminated Sediment:
Acute Toxicity Benthic Aquatic Life - 9,081 µg/g_{oc}, Chronic Toxicity Benthic Aquatic Life - 5,570 µg/g_{oc}
and Wildlife Bioaccumulation - 12 µg/g_{oc}.
 - R indicates the analysis was rejected.

TAMS

Figure 5-63
Hexachlorobenzene GC/ECD in Onondaga Lake
Wetland Sediment in 2000



TAMS

Figure 5-64
Phenol in Onondaga Lake
Wetland Sediment in 2000

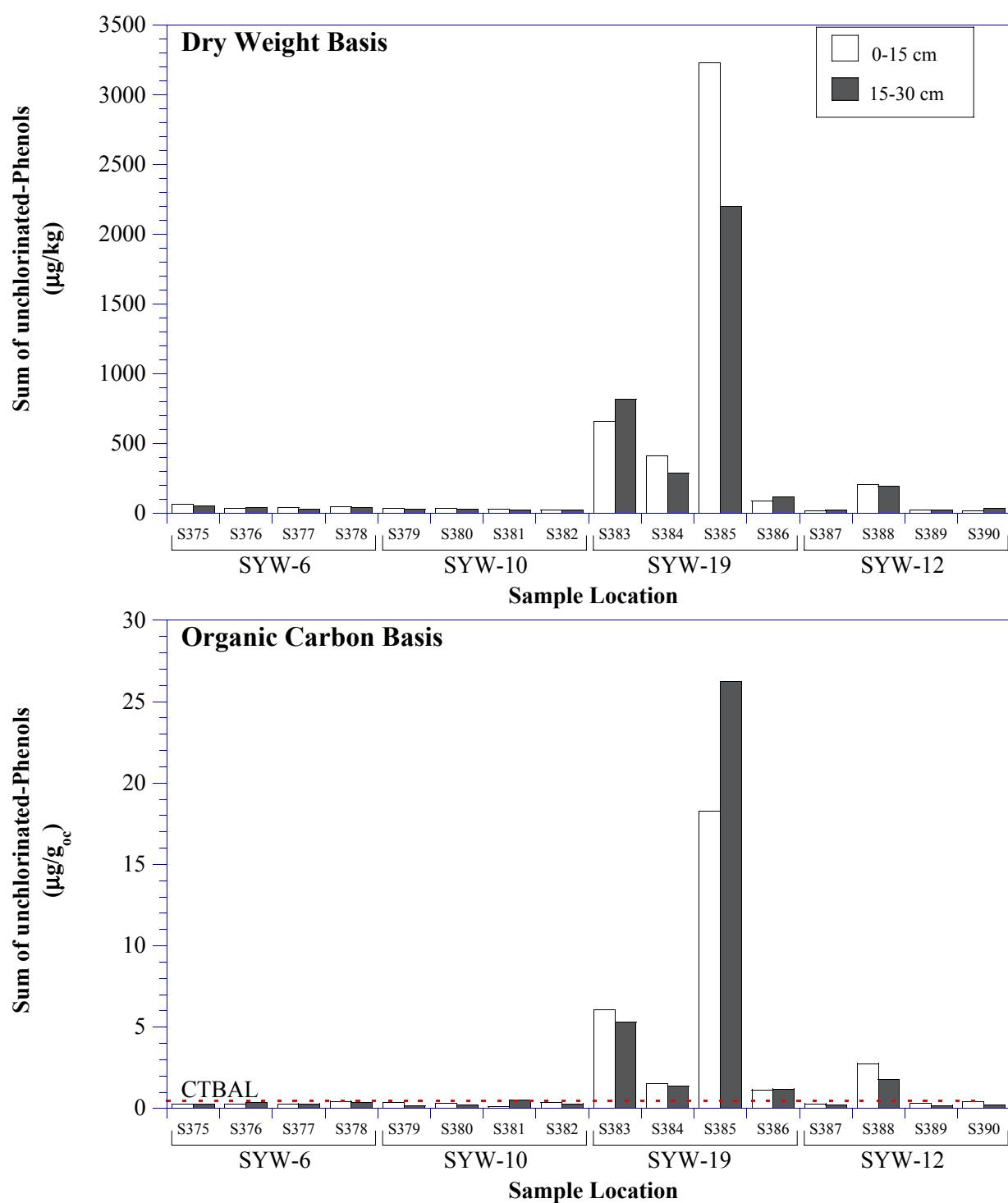
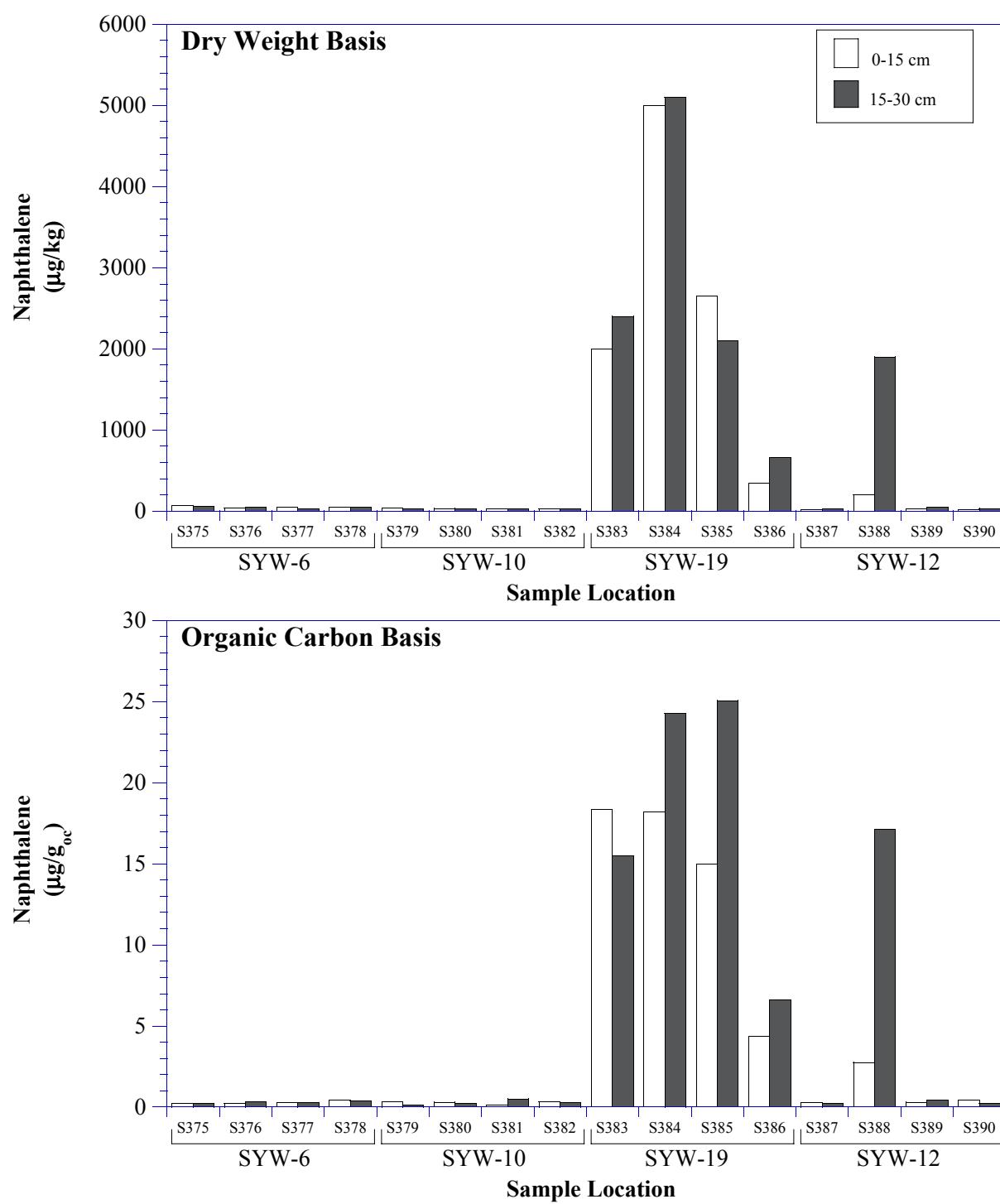


Figure 5-65
Sum of Unchlorinated Phenols in Onondaga Lake
Wetland Sediment in 2000

TAMS

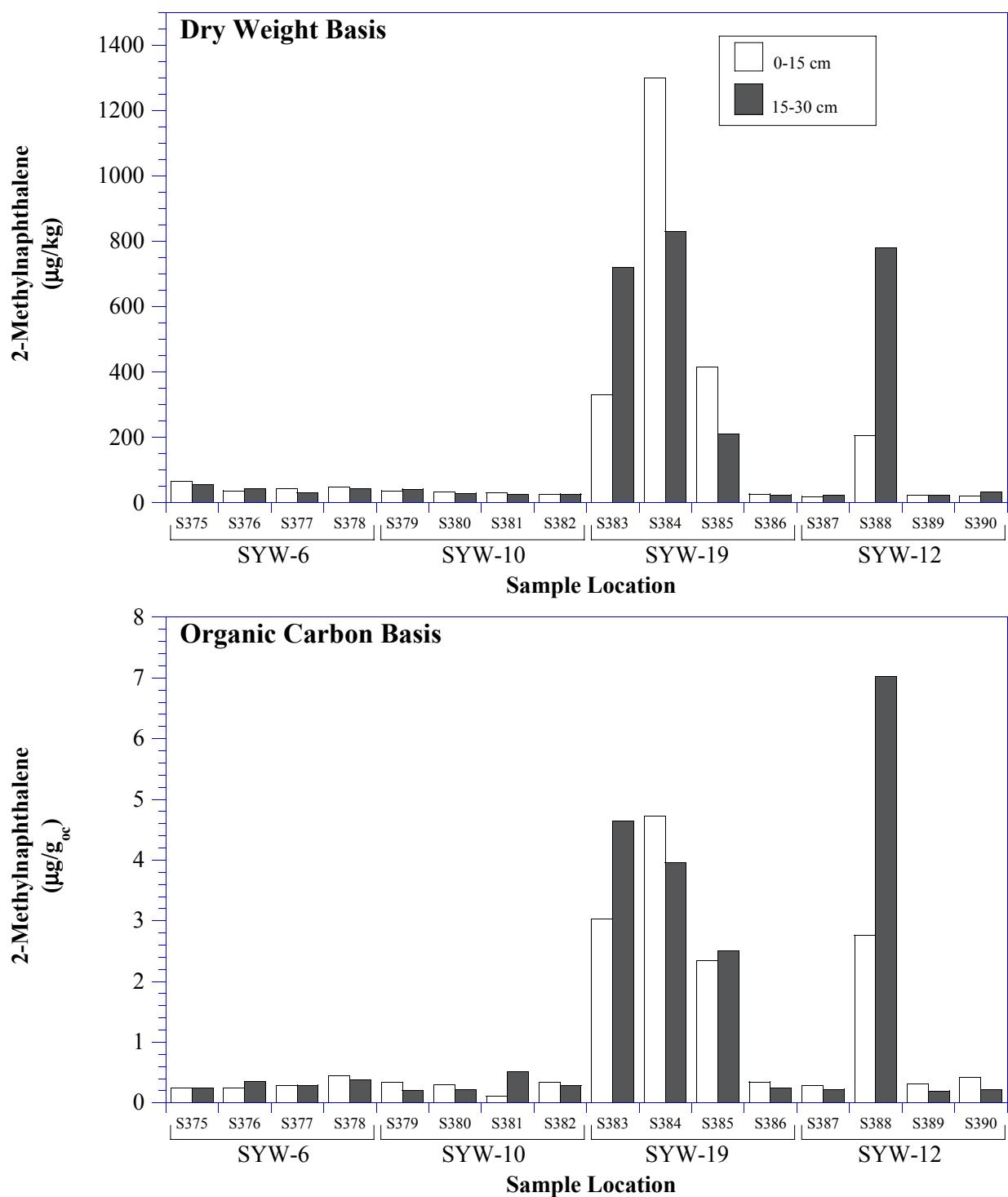


Notes:

1. Half the detection limits are shown for non-detects.
2. NYSDEC Technical Guidance for Screening Contaminated Sediment:
Acute Toxicity Benthic Aquatic Life - 258 µg/g_{oc},
and Chronic Toxicity Benthic Aquatic Life (CTBAL) - 30 µg/g_{oc}.

TAMS

Figure 5-66
Naphthalene in Onondaga Lake
Wetland Sediment in 2000



Notes:

1. Half the detection limits are shown for non-detects.

2. NYSDEC Technical Guidance for Screening Contaminated Sediment:

Chronic Toxicity Benthic Aquatic Life - 34 µg/g_{oc} and Acute Toxicity Benthic Aquatic Life - 304 µg/g_{oc}.

TAMS

Figure 5-67
2-Methylnaphthalene in Onondaga Lake
Wetland Sediment in 2000

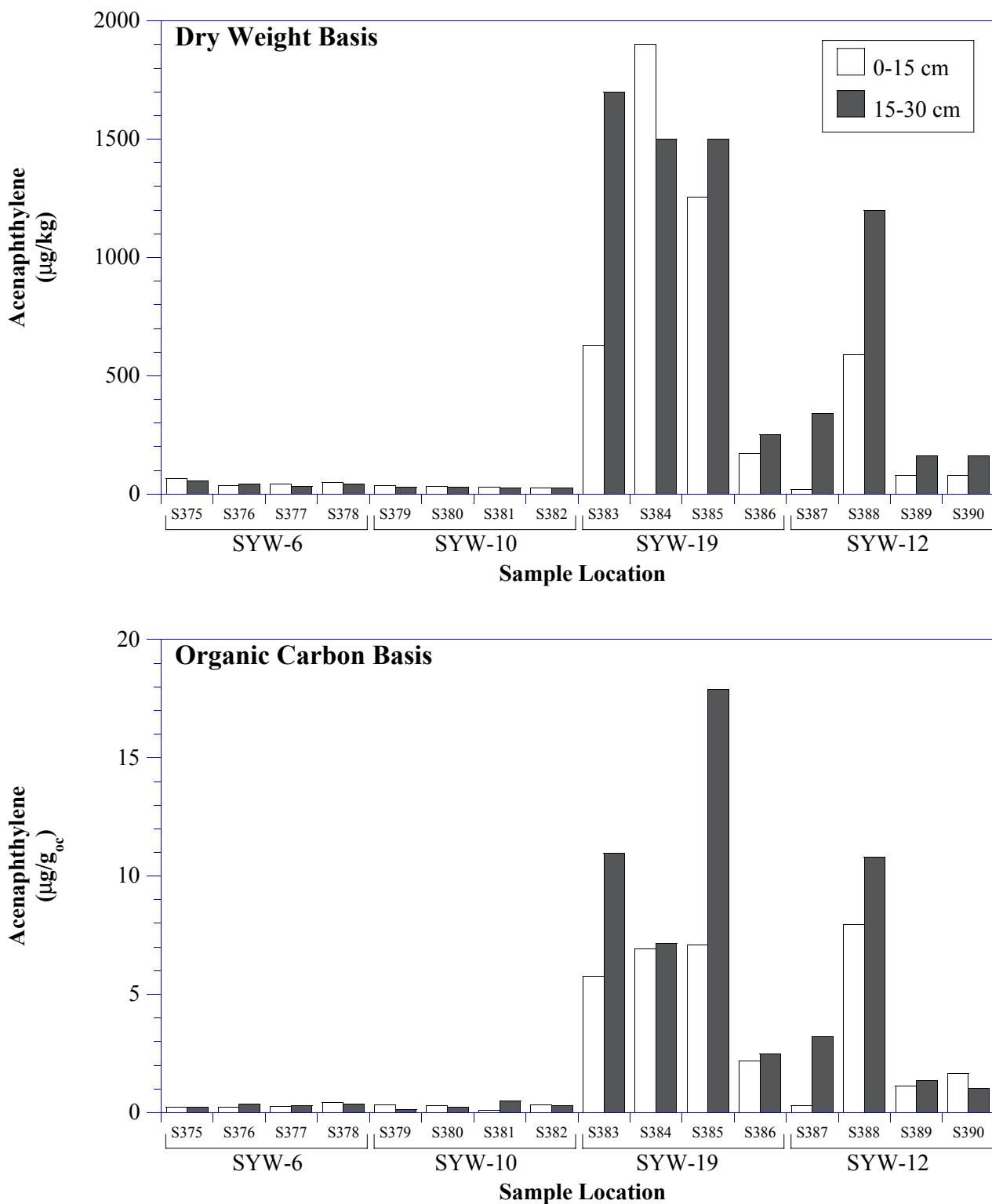


Figure 5-68
Acenaphthylene in Onondaga Lake
Wetland Sediment in 2000

TAMS

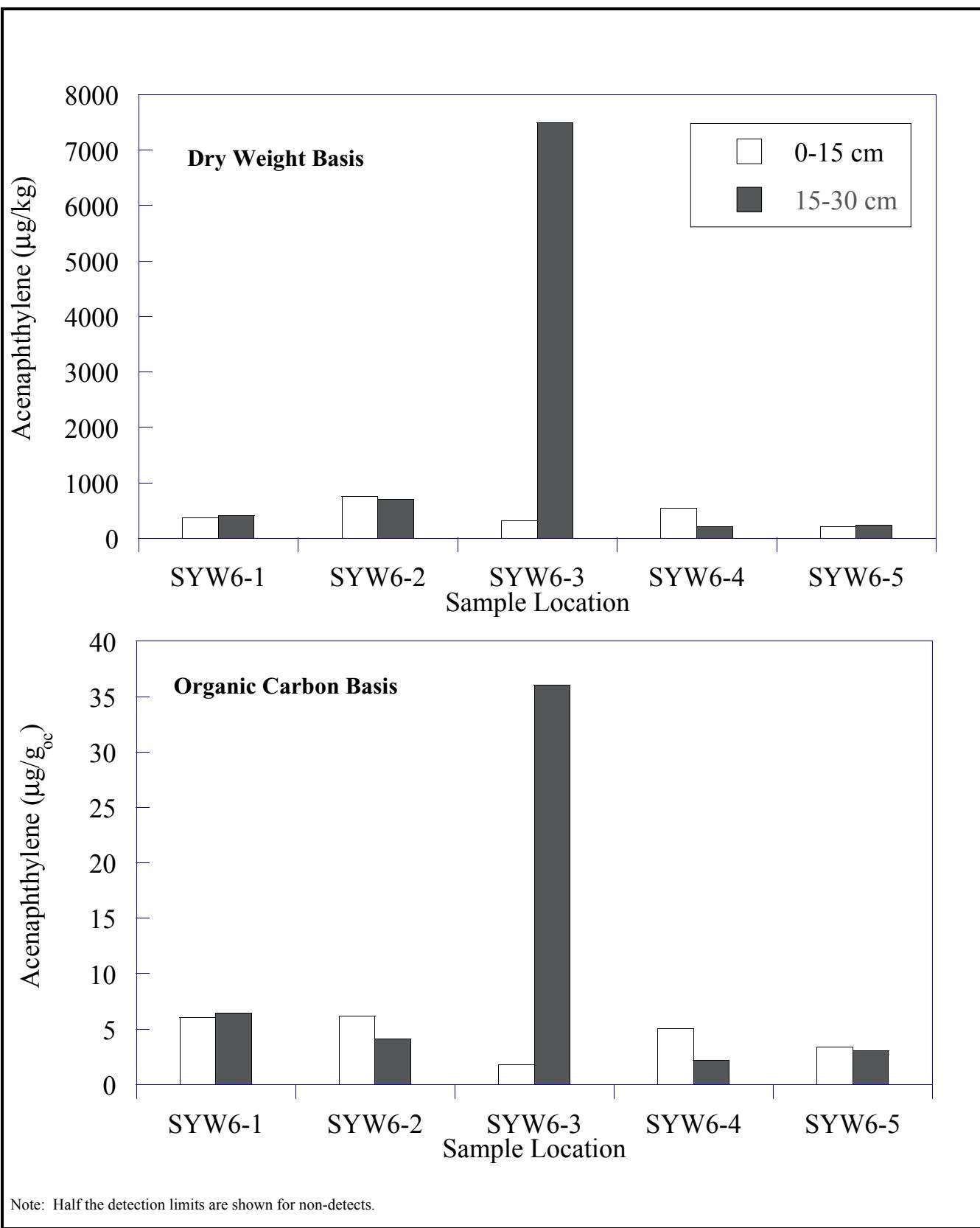


Figure 5-69
Acenaphthylene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

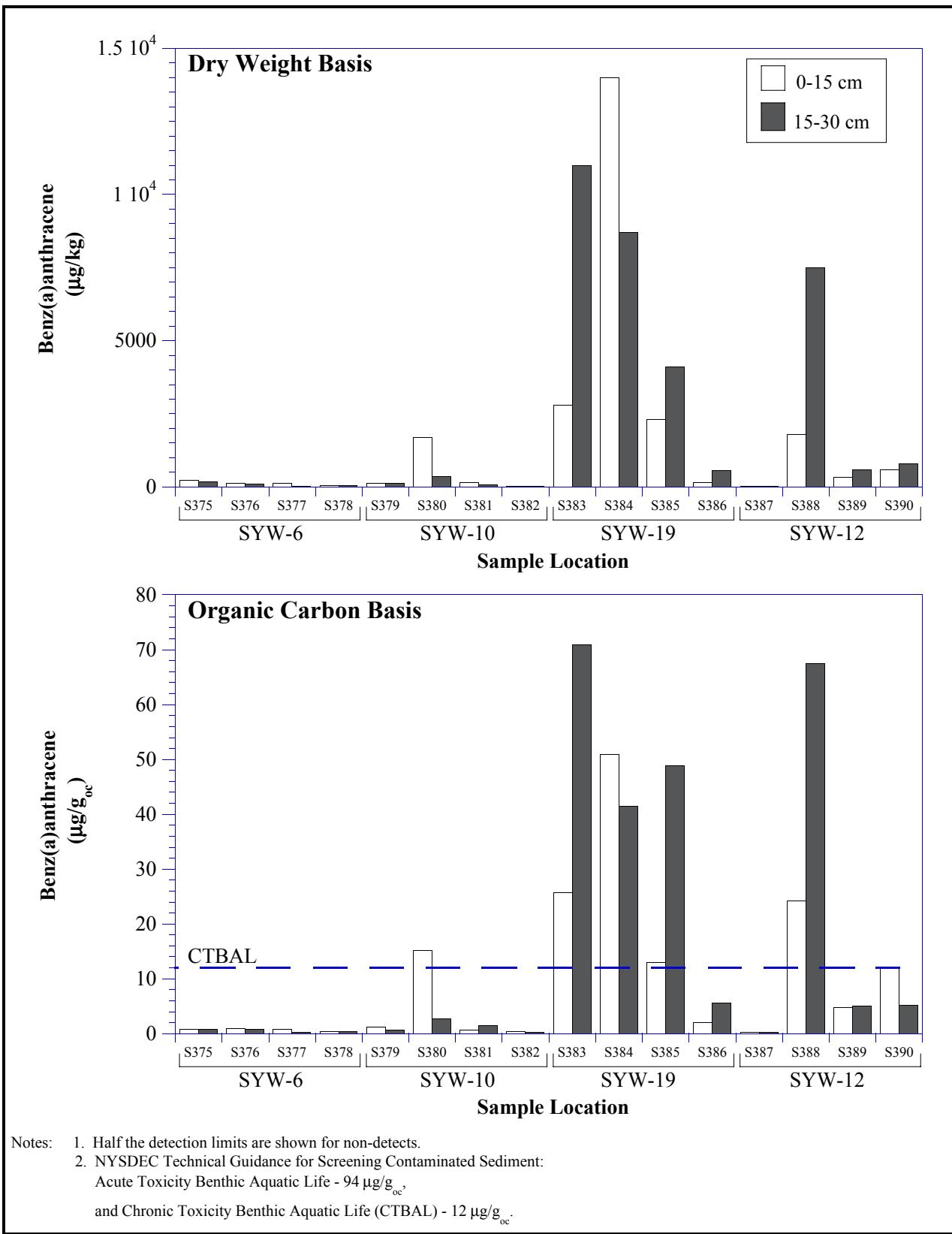


Figure 5-70
Benz(a)anthracene in Onondaga Lake
Wetland Sediment in 2000

TAMS

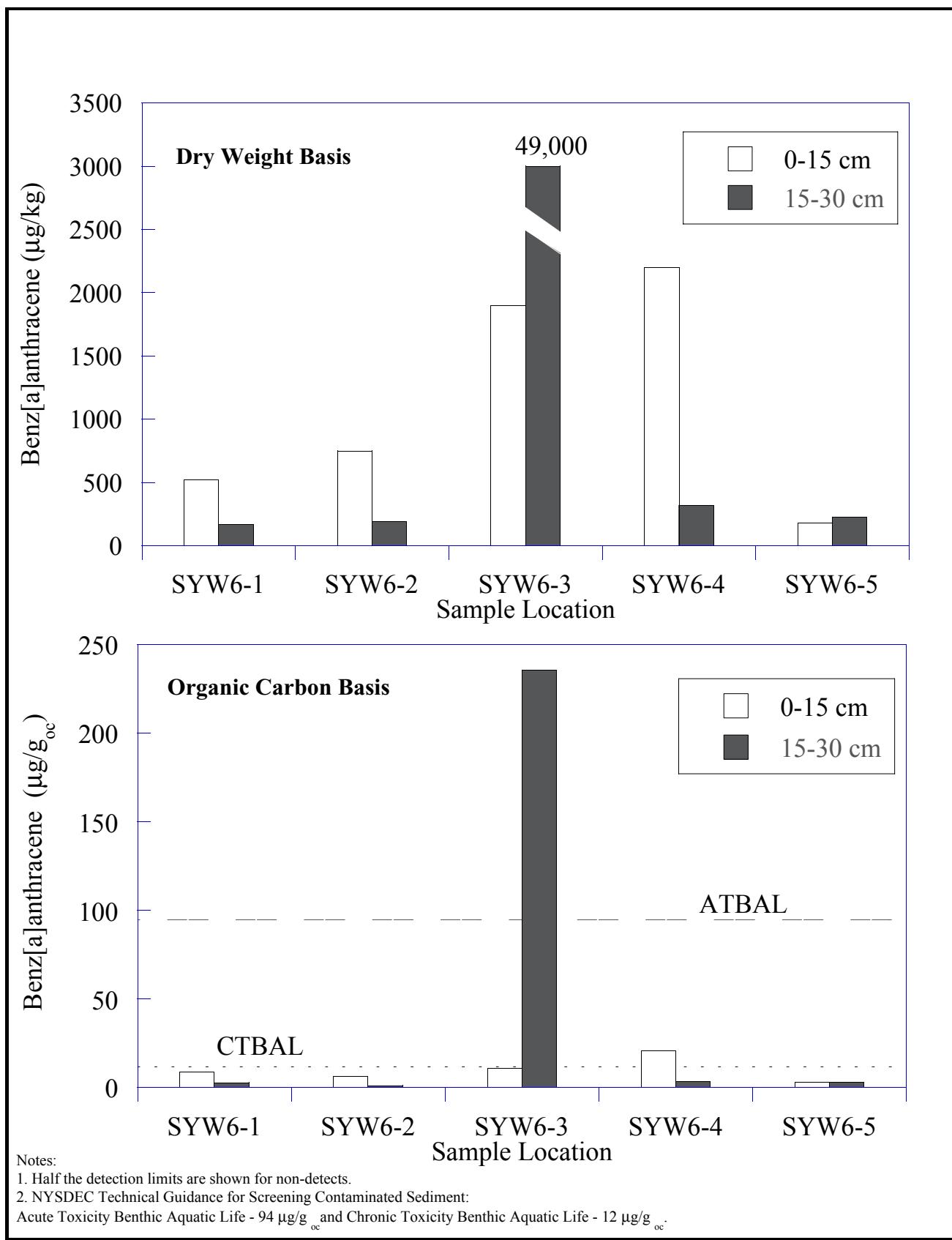


Figure 5-71
Benz[a]anthracene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

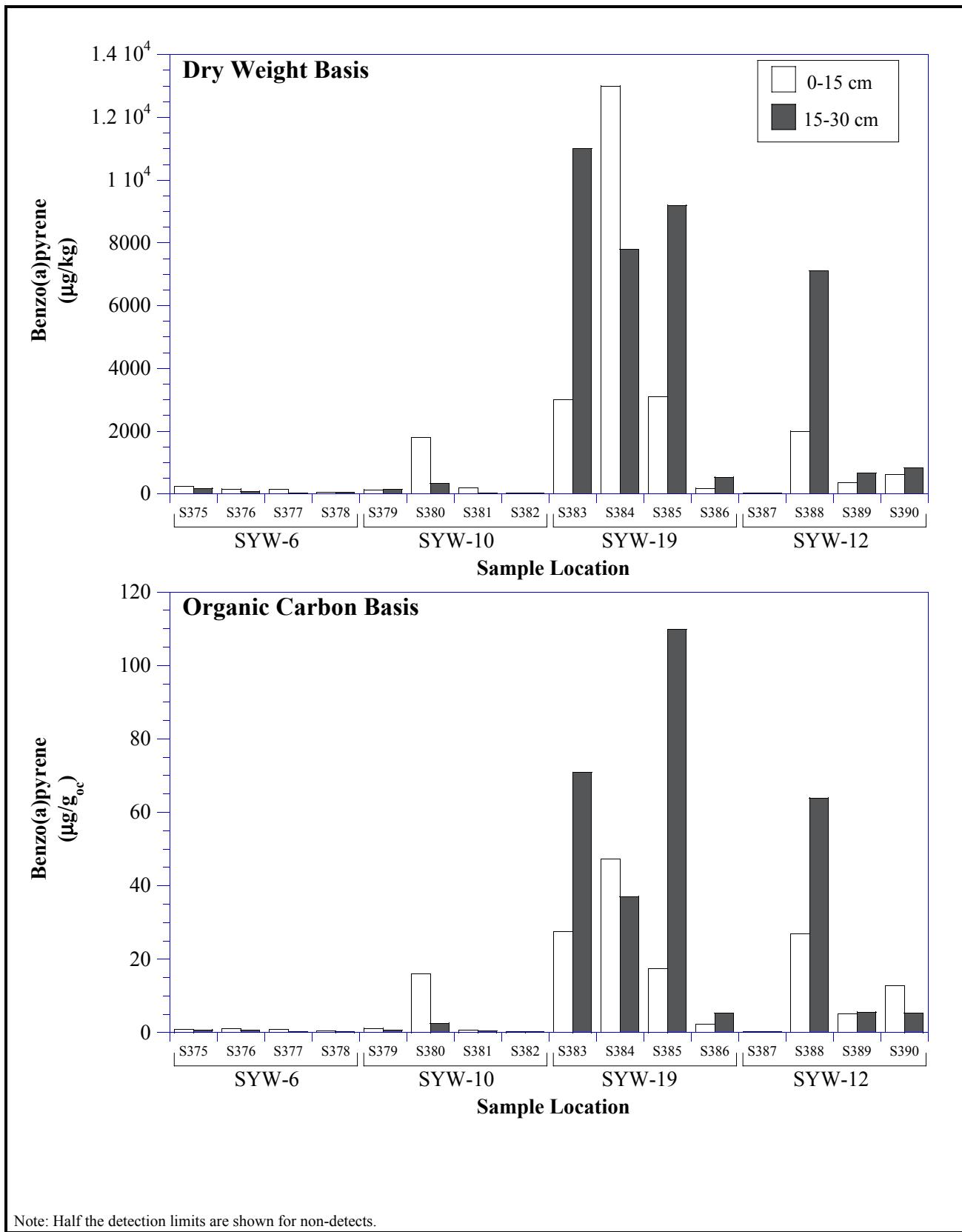


Figure 5-72
Benzo(a)pyrene in Onondaga Lake
Wetland Sediment in 2000

TAMS

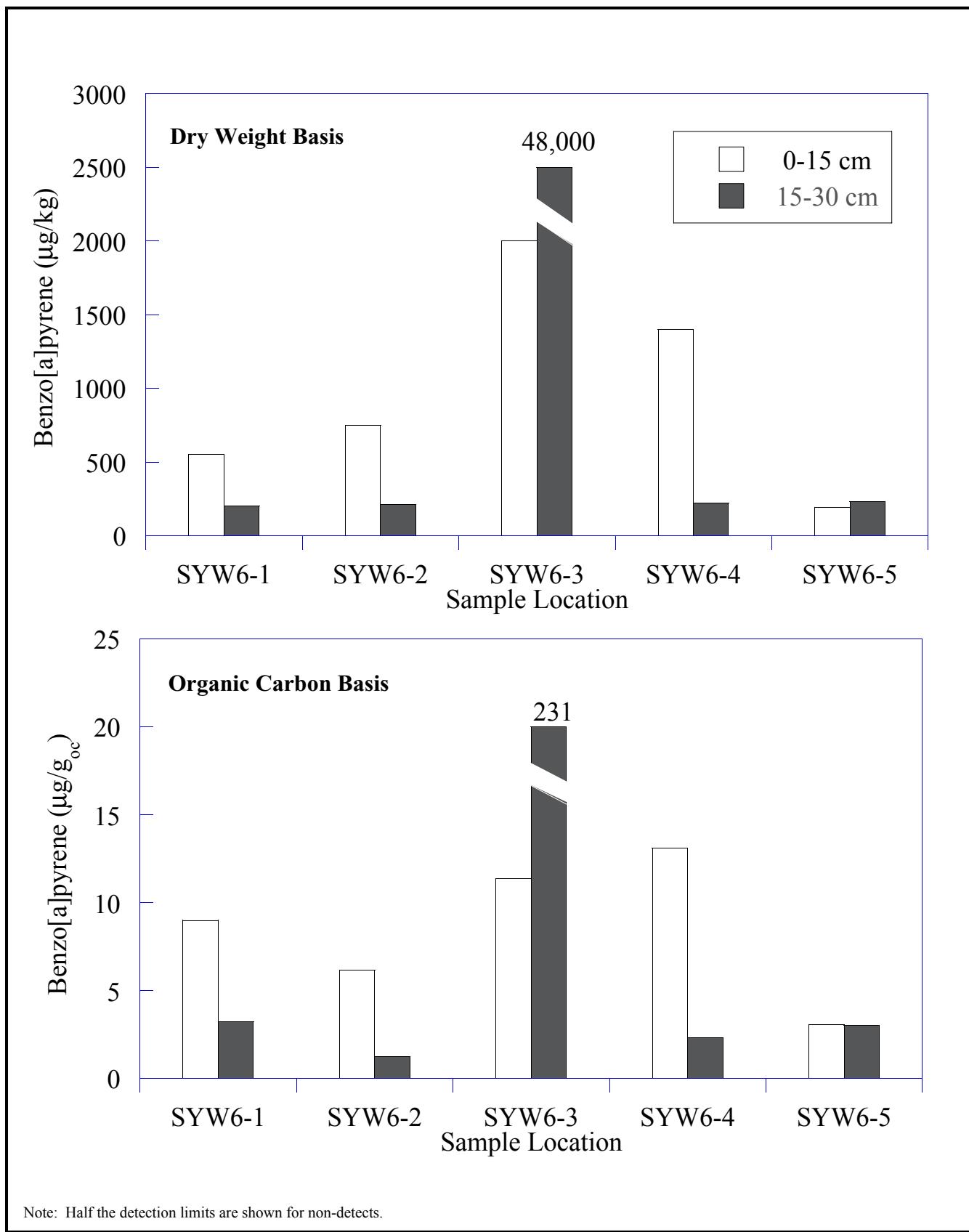
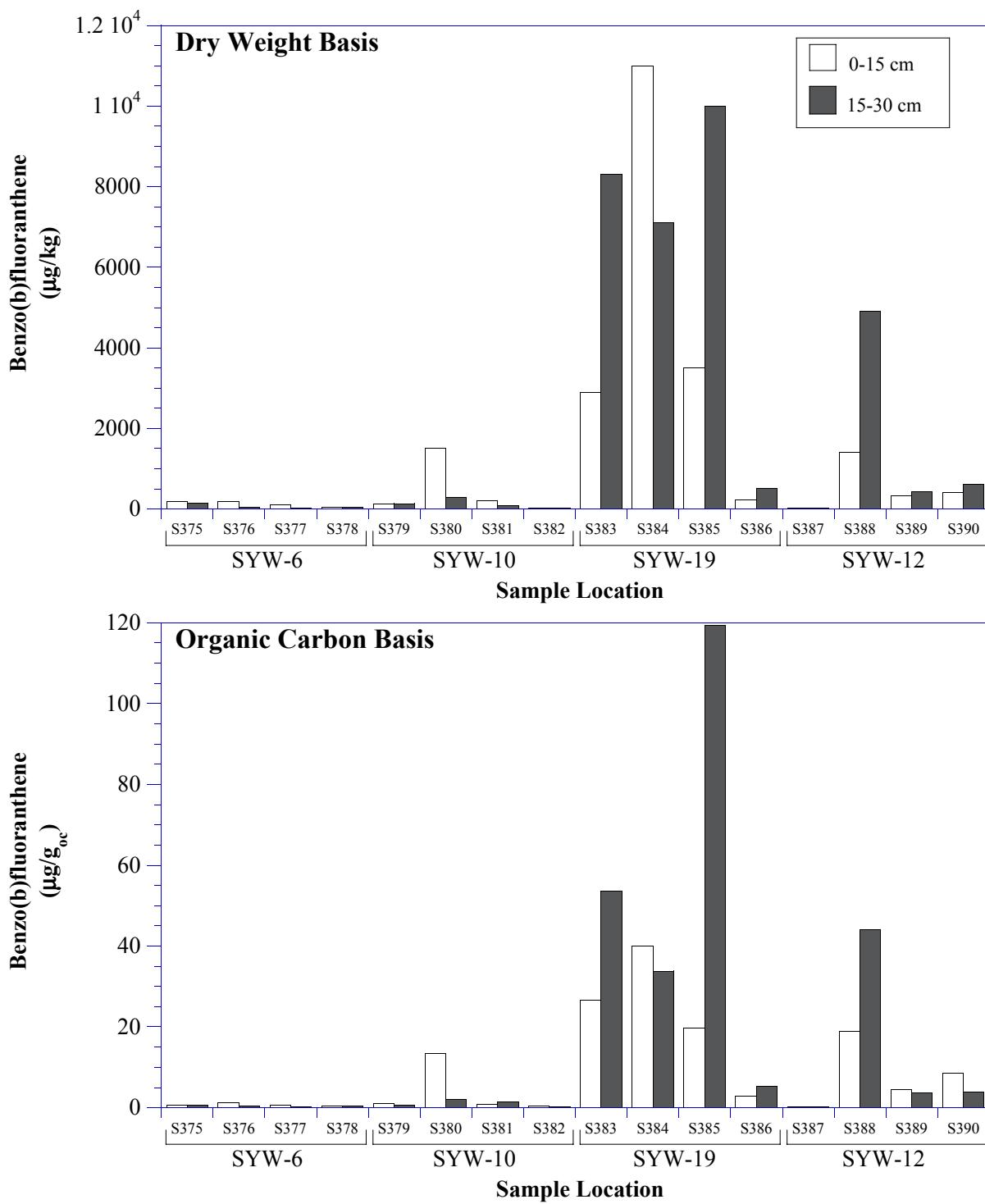


Figure 5-73
Benzo(a)pyrene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Note: Half the detection limits are shown for non-detects.

TAMS

Figure 5-74
Benzo(b)fluoranthene in Onondaga Lake
Wetland Sediment in 2000

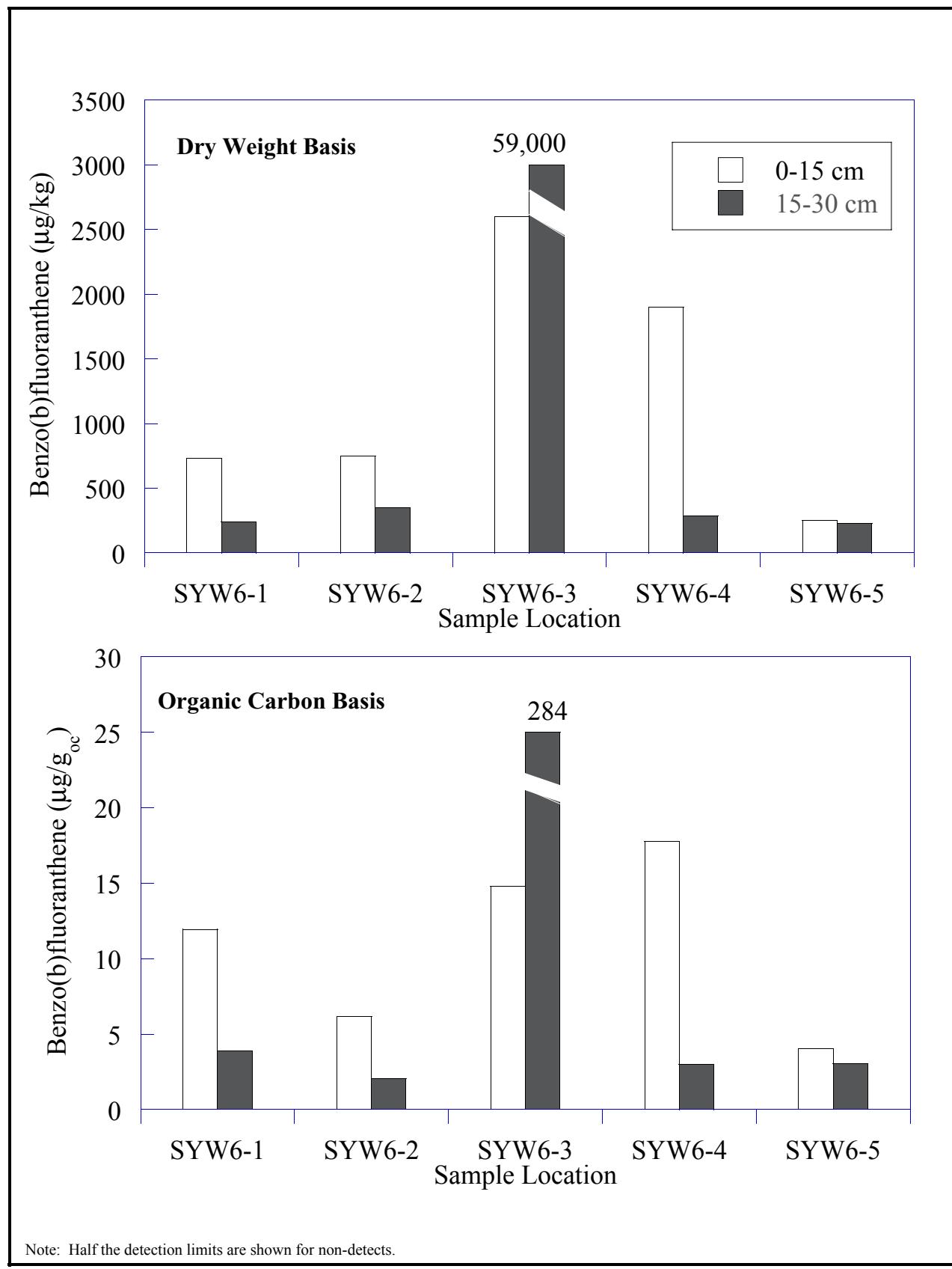
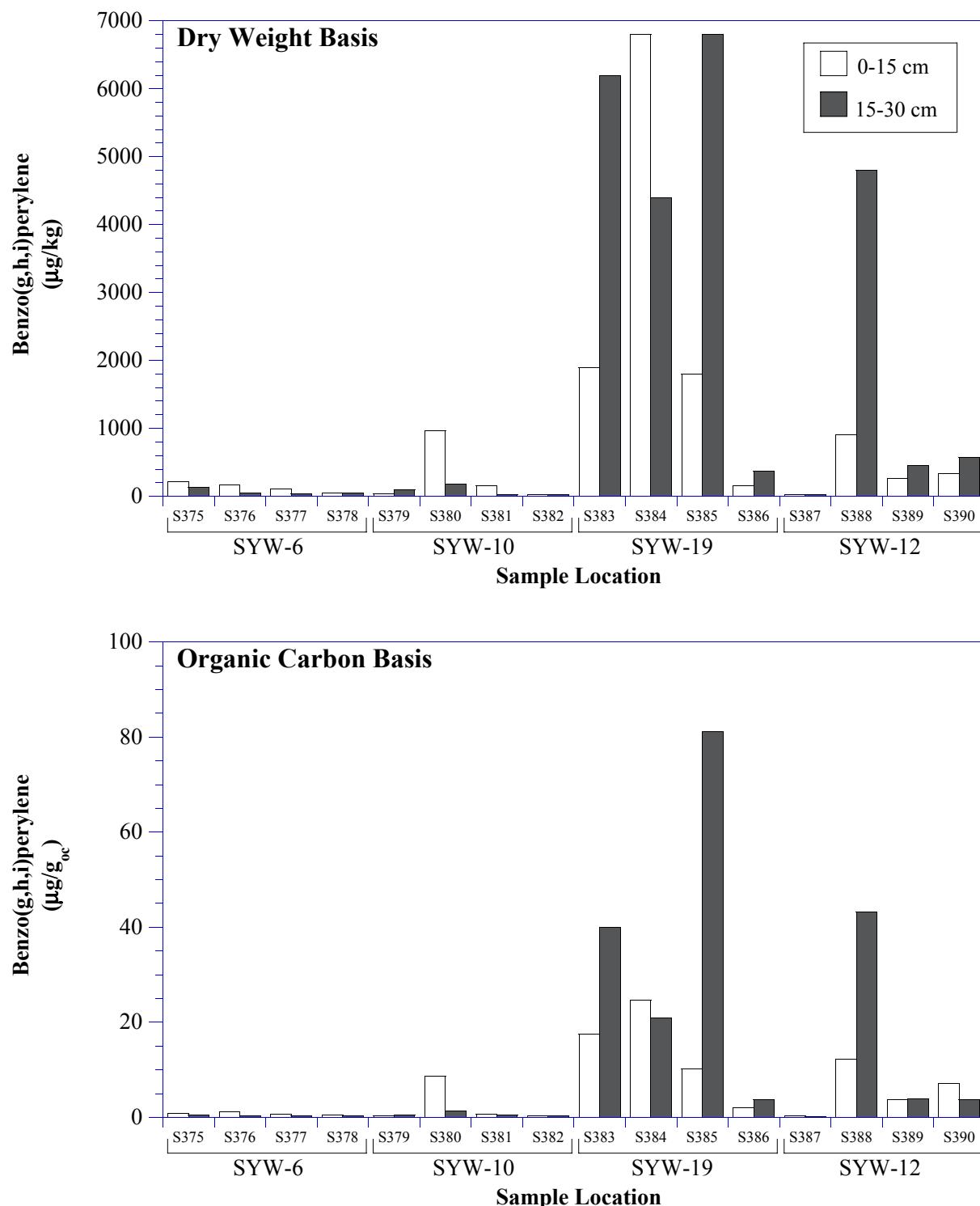


Figure 5-75
Benzo(b)fluoranthene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Note: Half the detection limits are shown for non-detects.

TAMS

Figure 5-76
Benzo(g,h,i)perylene in Onondaga Lake
Wetland Sediment in 2000

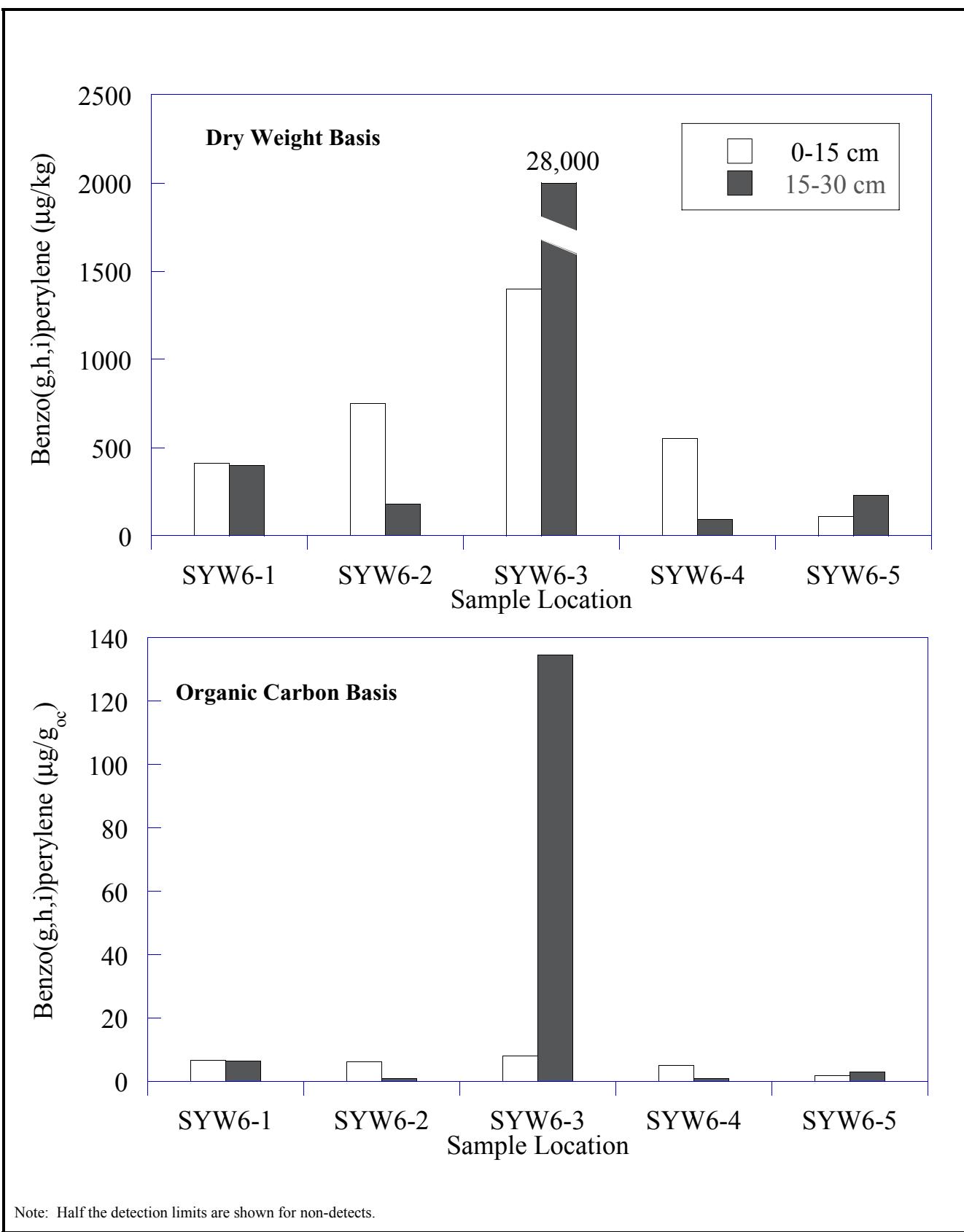
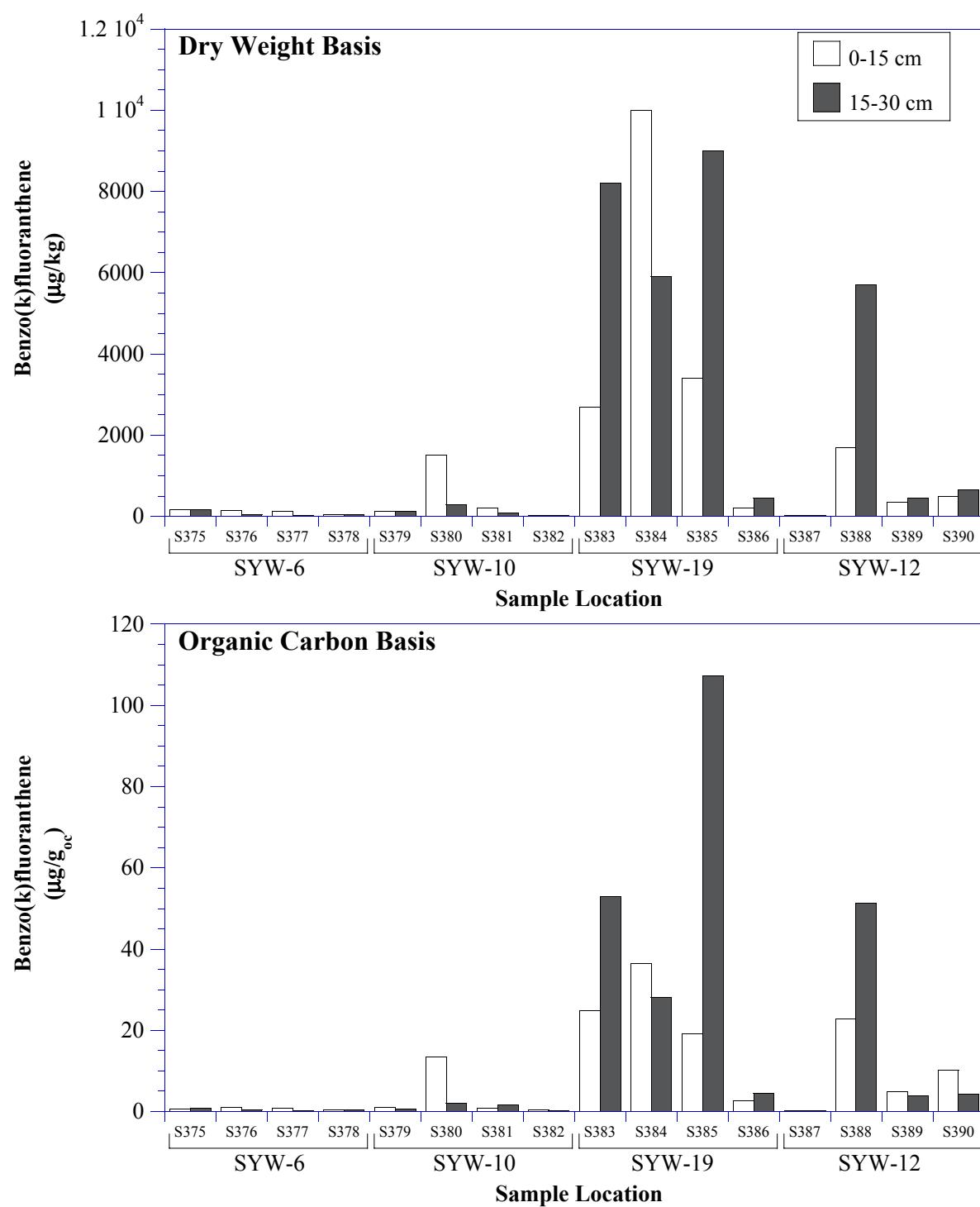


Figure 5-77
Benzo(g,h,i)perylene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Note: Half the detection limits are shown for non-detects.

TAMS

Figure 5-78
Benzo(k)fluoranthene in Onondaga Lake
Wetland Sediment in 2000

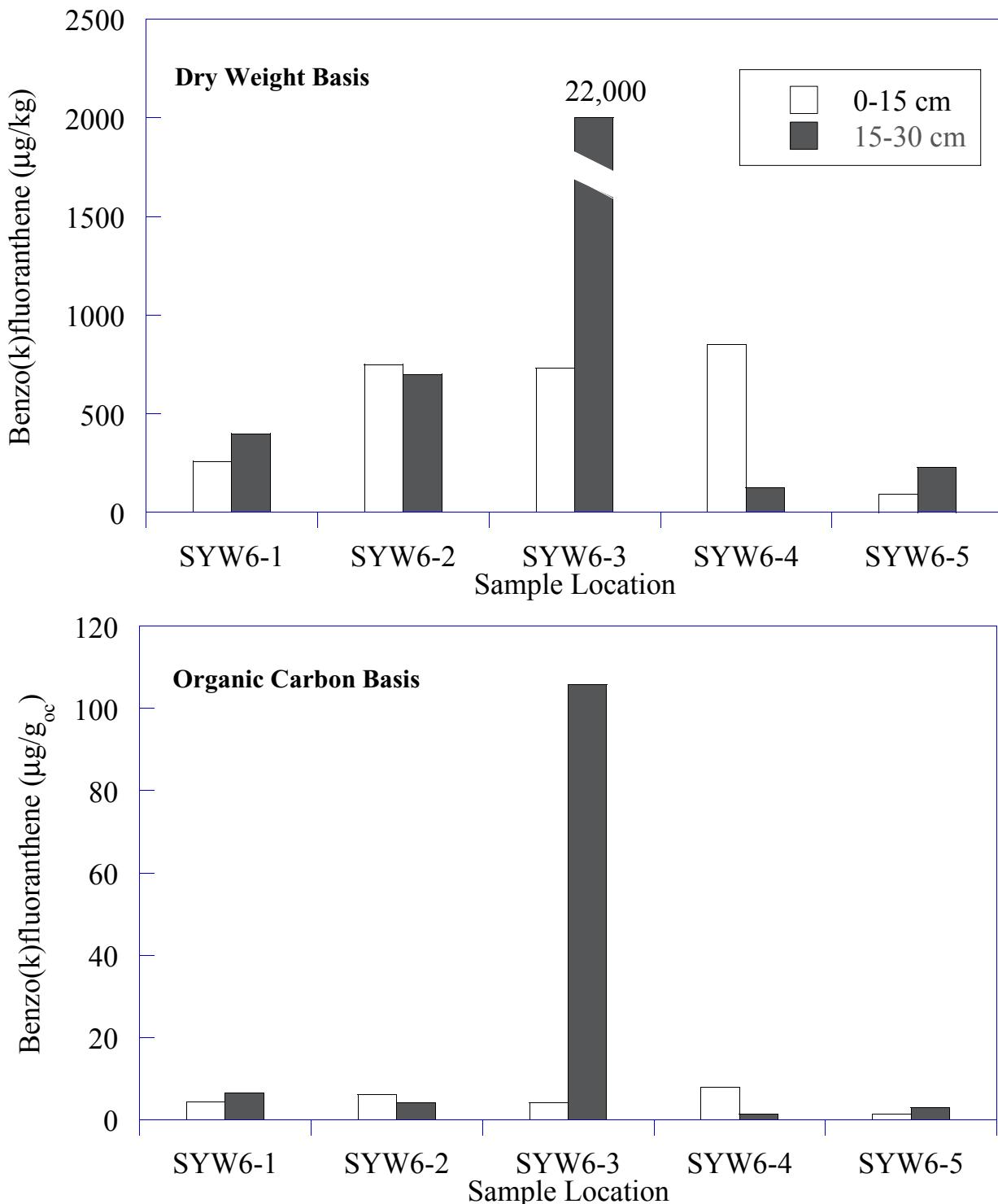
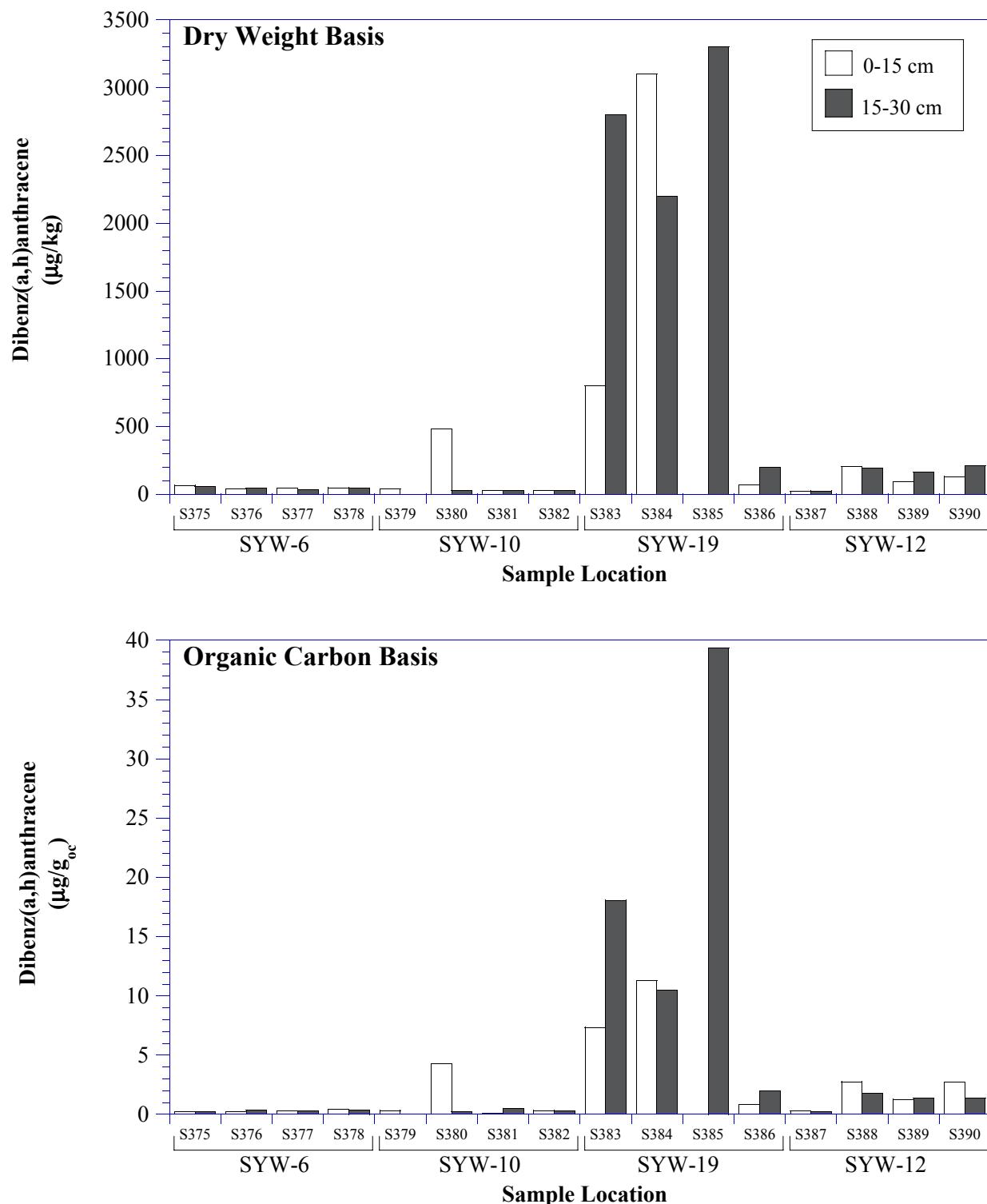


Figure 5-79
Benzo[k]fluoranthene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

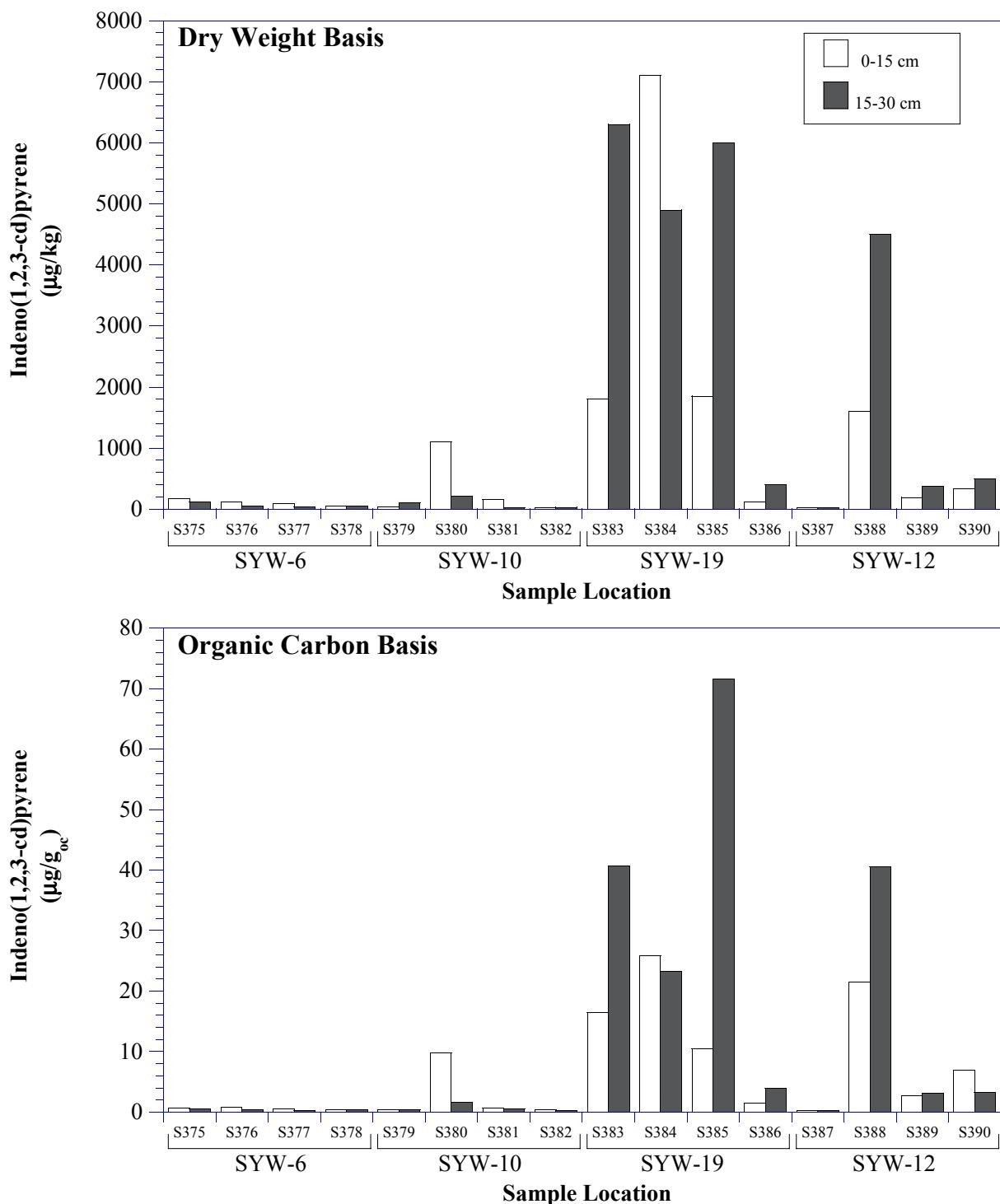
TAMS



Note: Half the detection limits are shown for non-detects.

TAMS

Figure 5-80
Dibenz(a,h)anthracene in Onondaga Lake
Wetland Sediment in 2000



Note: Half the detection limits are shown for non-detects.

TAMS

Figure 5-81
Indeno(1,2,3-cd)pyrene in Onondaga Lake
Wetland Sediment in 2000

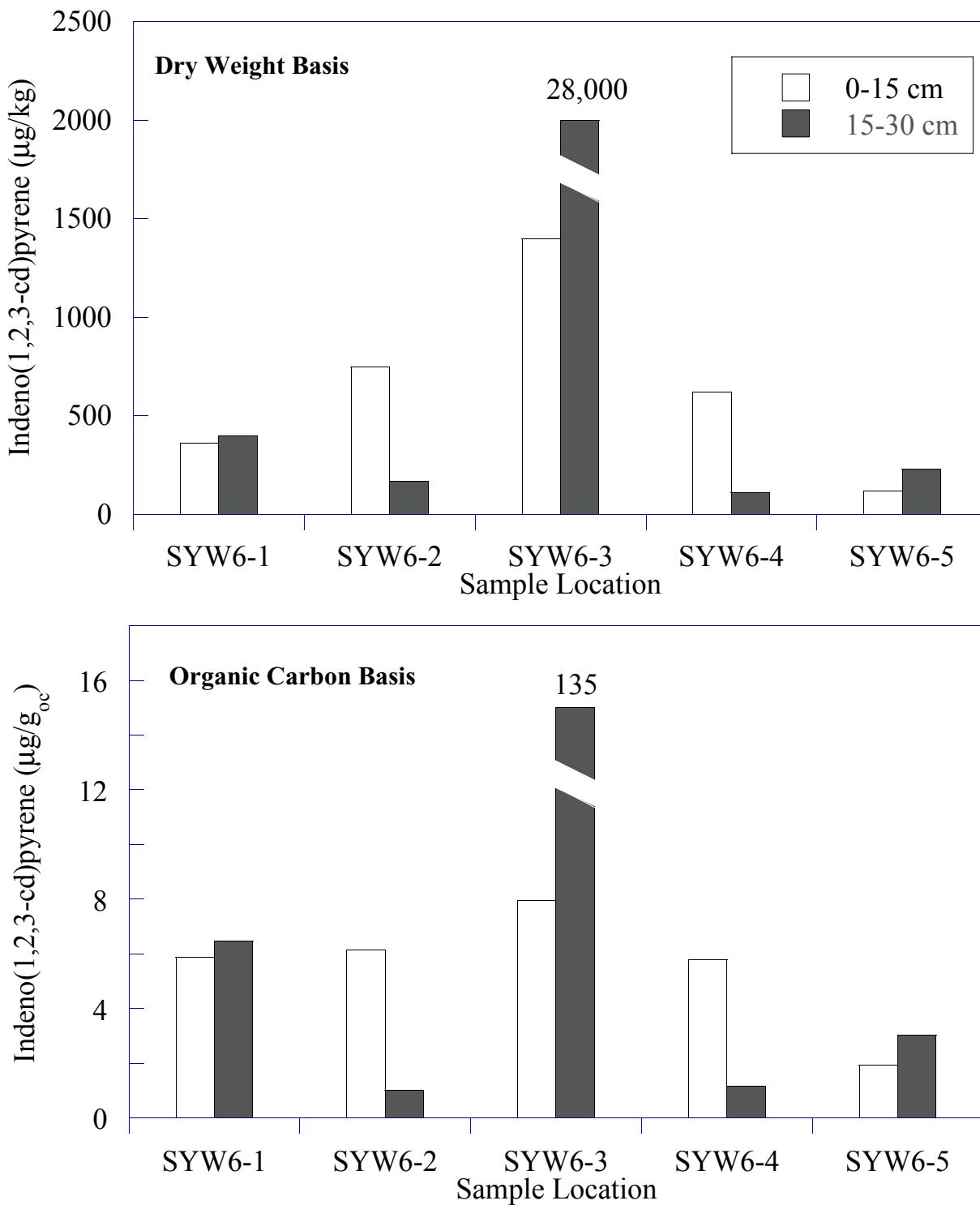
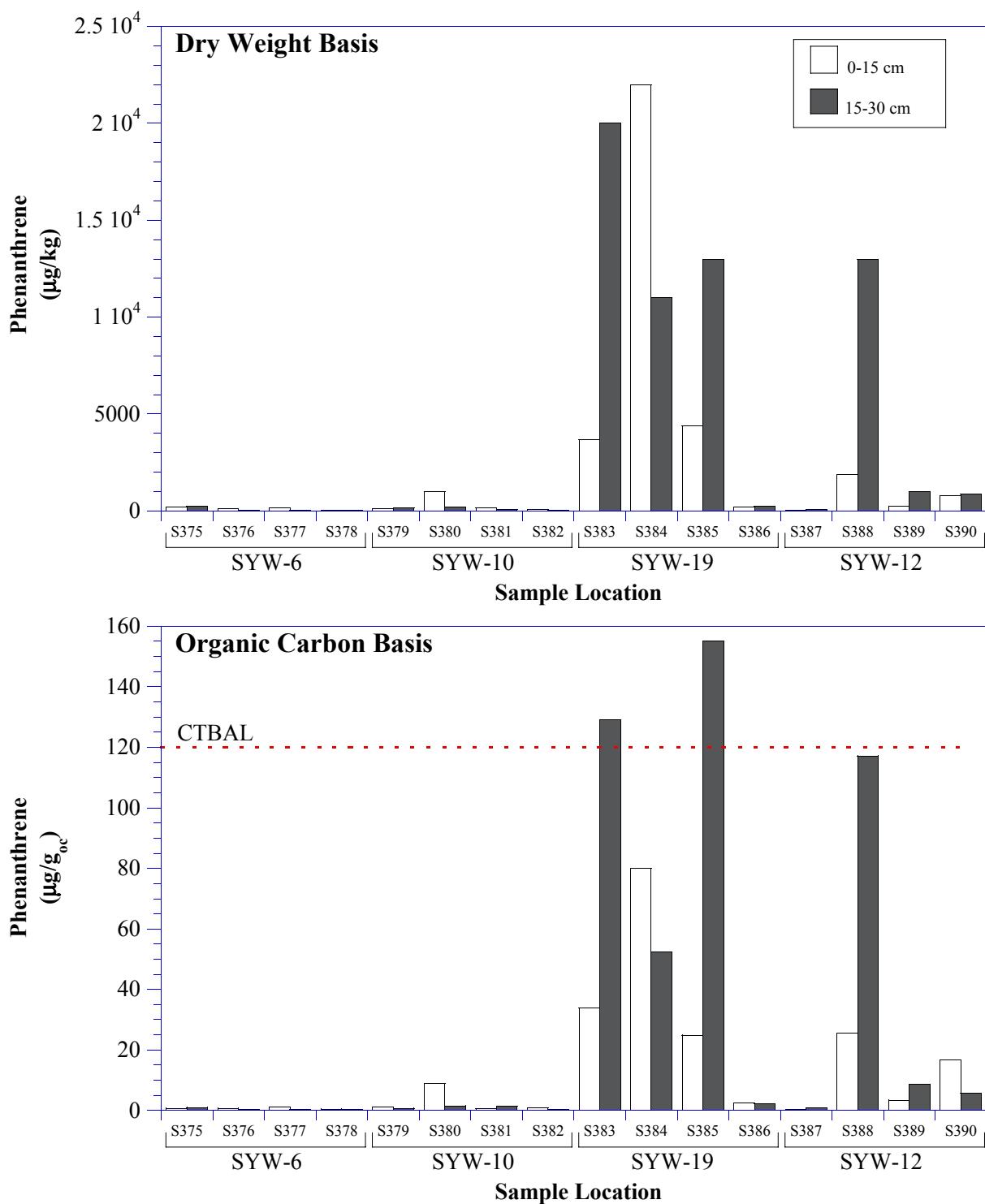


Figure 5-82
Indeno(1,2,3-cd)pyrene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



TAMS

Figure 5-83
Phenanthrene in Onondaga Lake
Wetland Sediment in 2000

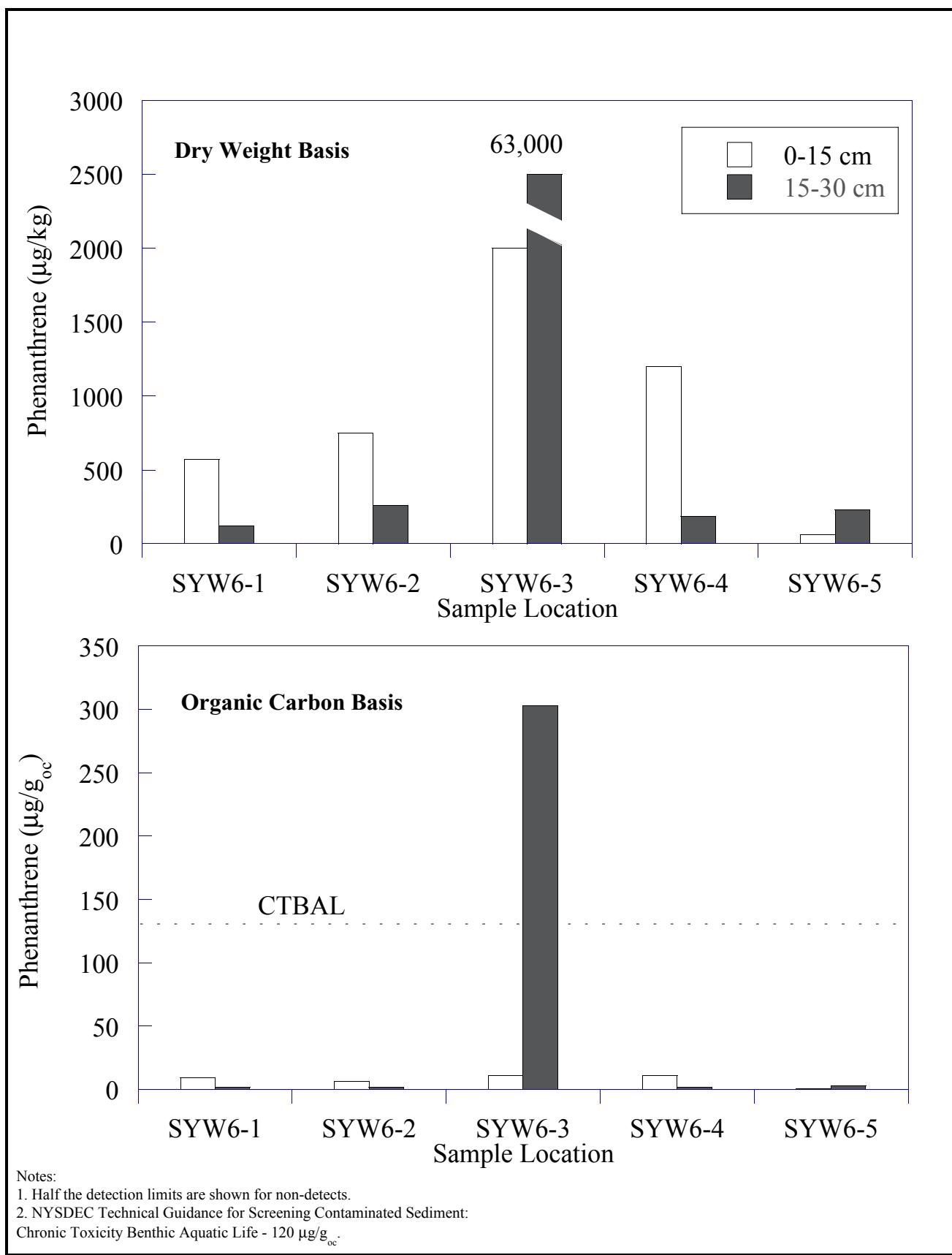
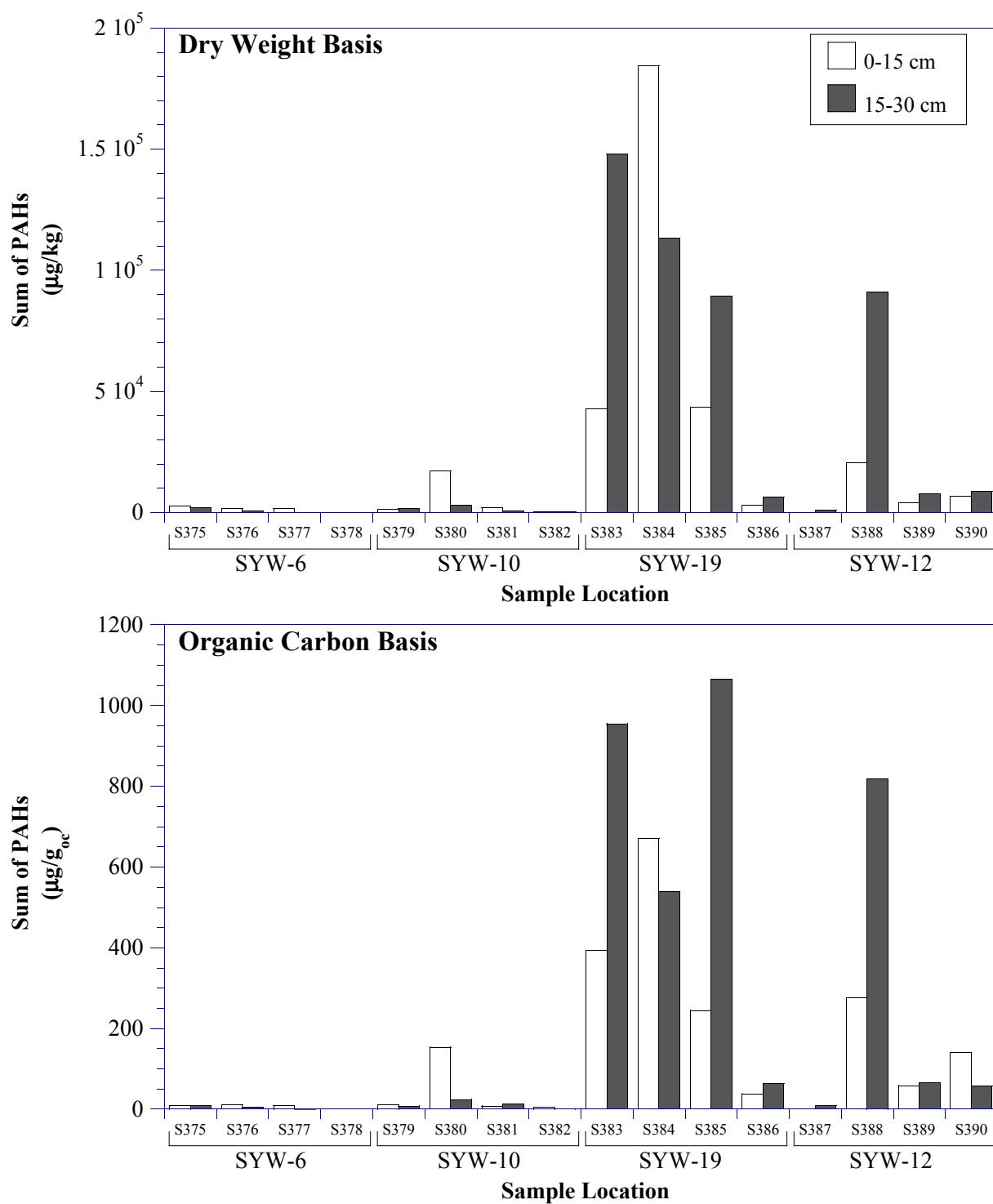


Figure 5-84
Phenanthrene in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS



Notes: 1. Half the detection limits are shown for non-detects.
2. The sum is calculated as the sum of detected values or the minimum detection limit.

TAMS

Figure 5-85
Sum of PAHs in Onondaga Lake
Wetland Sediment in 2000

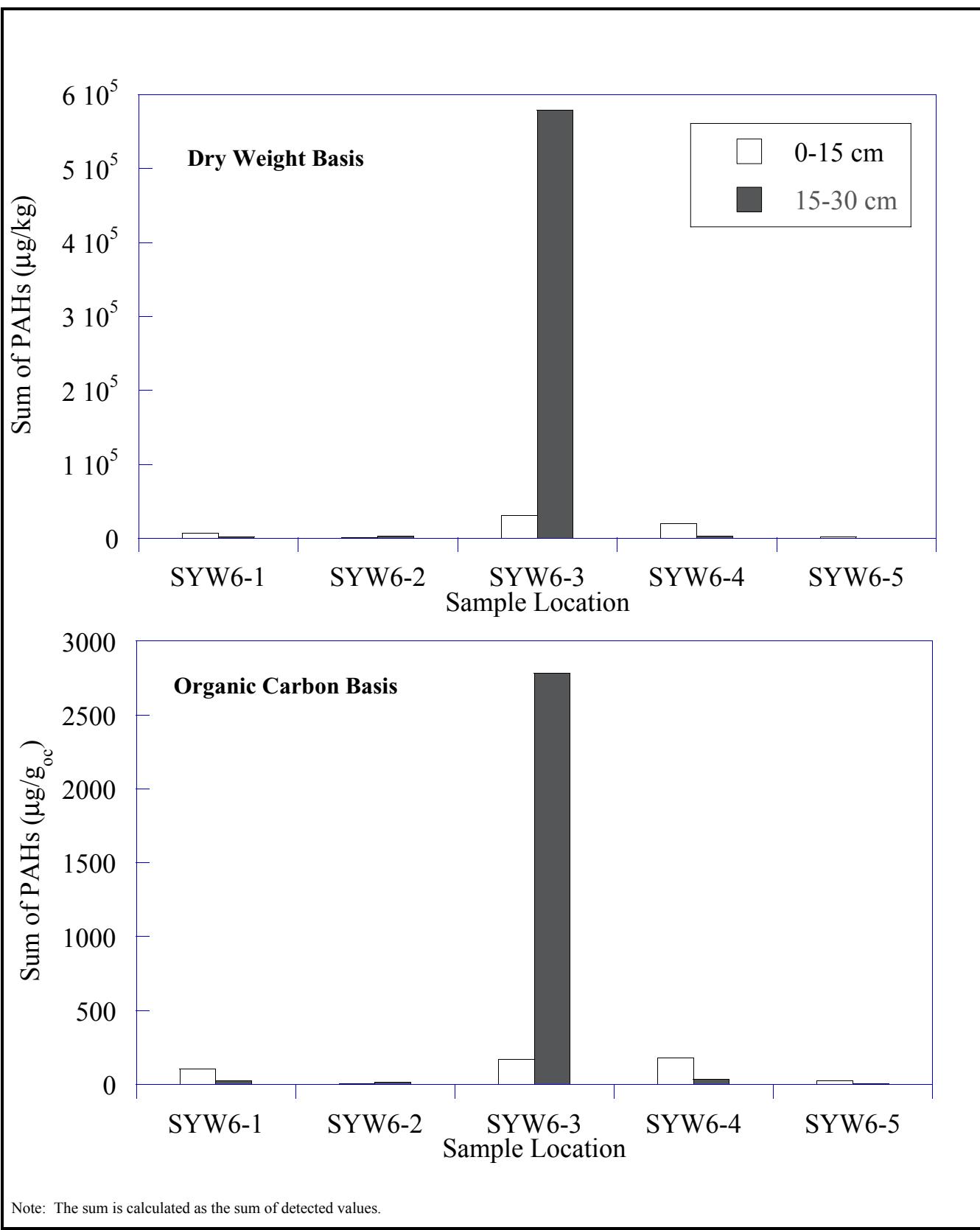
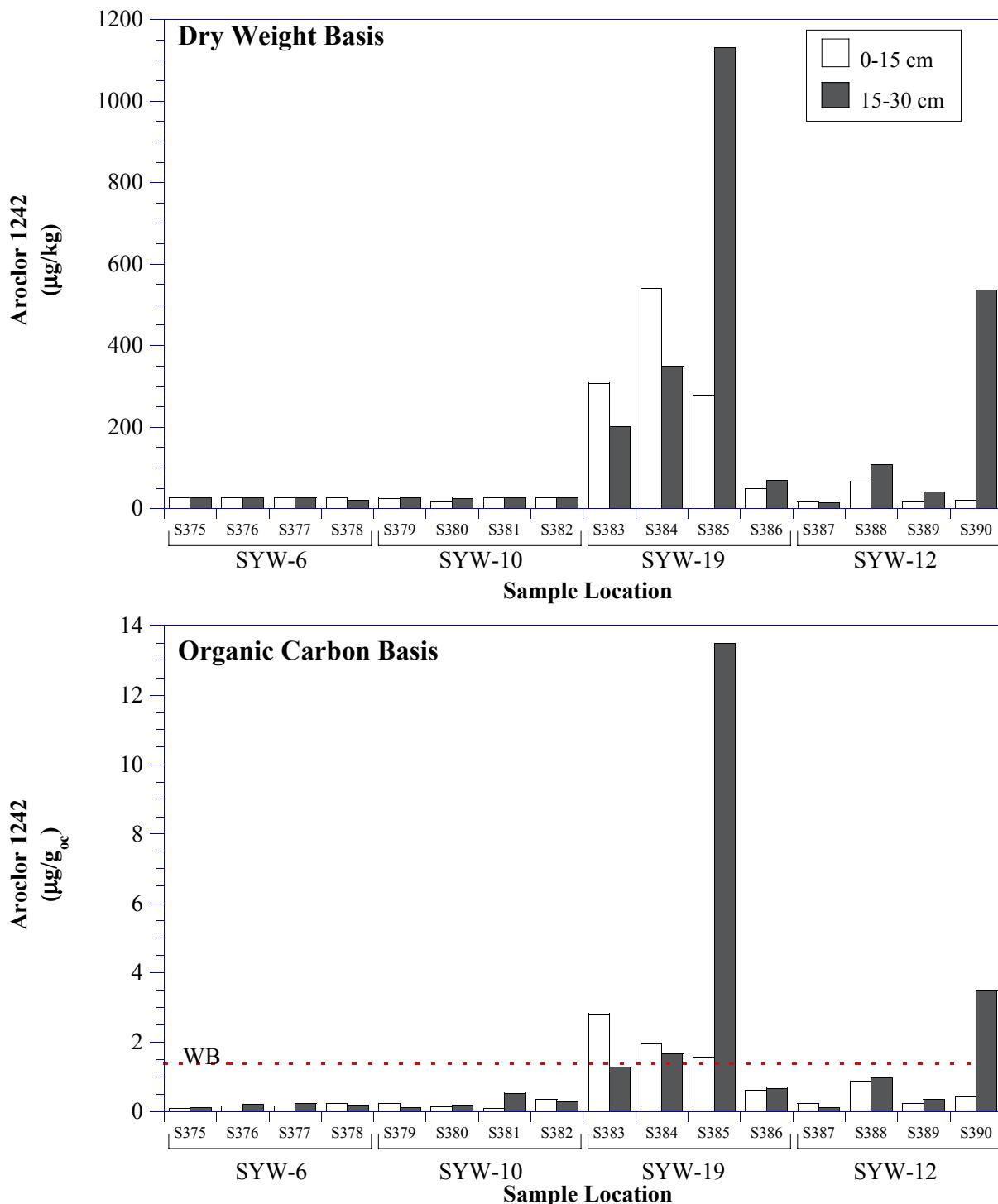


Figure 5-86
Sum of PAHs in Onondaga Lake
Wetland SYW-6 Sediment in 2002

TAMS

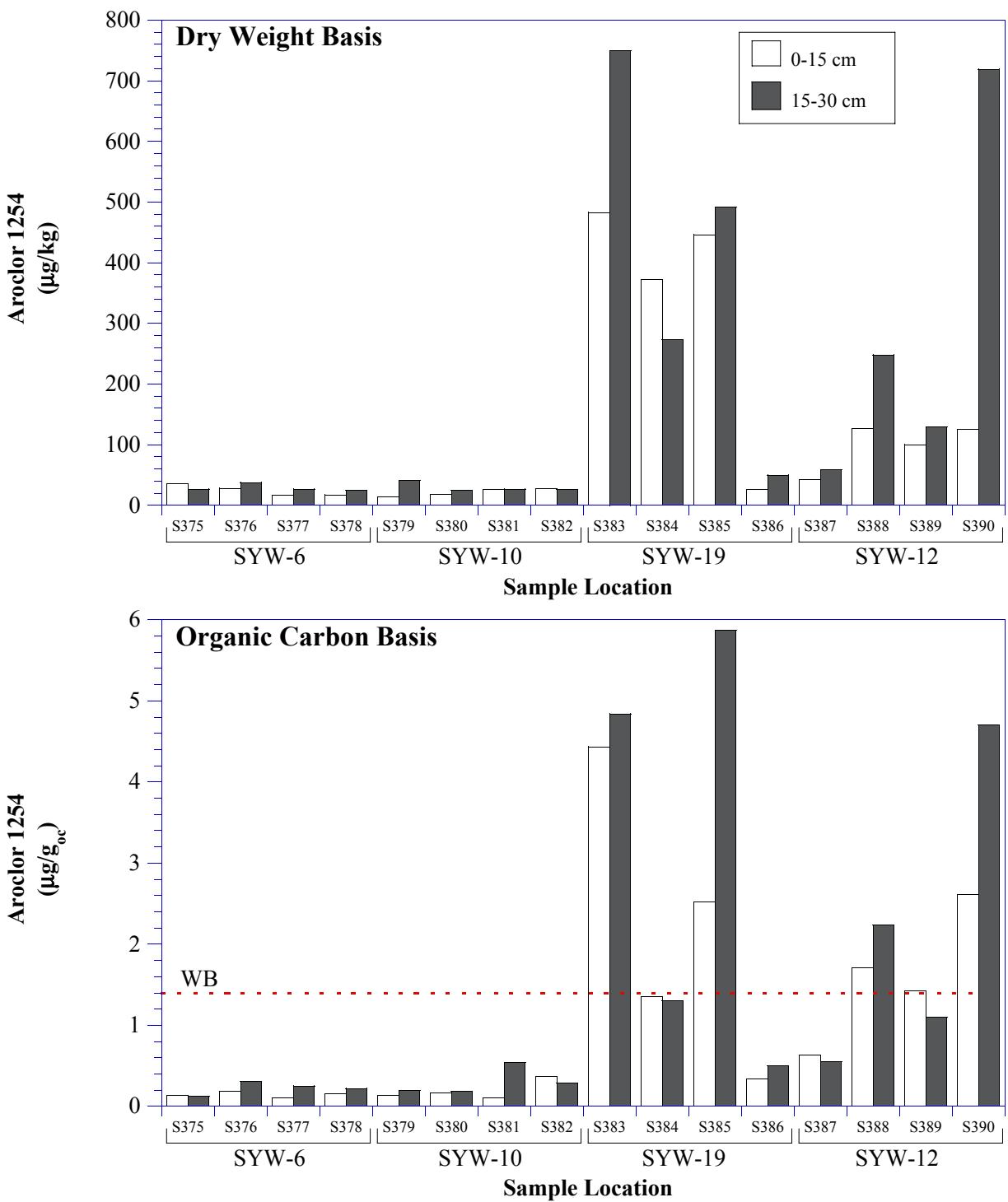


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment - PCBs:
Acute Toxicity Benthic Aquatic Life - 2760.8 $\mu\text{g}/\text{g}_{\text{oc}}$, Chronic Toxicity Benthic Aquatic Life (CTBAL) - 19.3 $\mu\text{g}/\text{g}_{\text{oc}}$, and Wildlife Bioaccumulation (WB) - 1.4 $\mu\text{g}/\text{g}_{\text{oc}}$.

TAMS

Figure 5-87
Aroclor 1242 in Onondaga Lake
Wetland Sediment in 2000

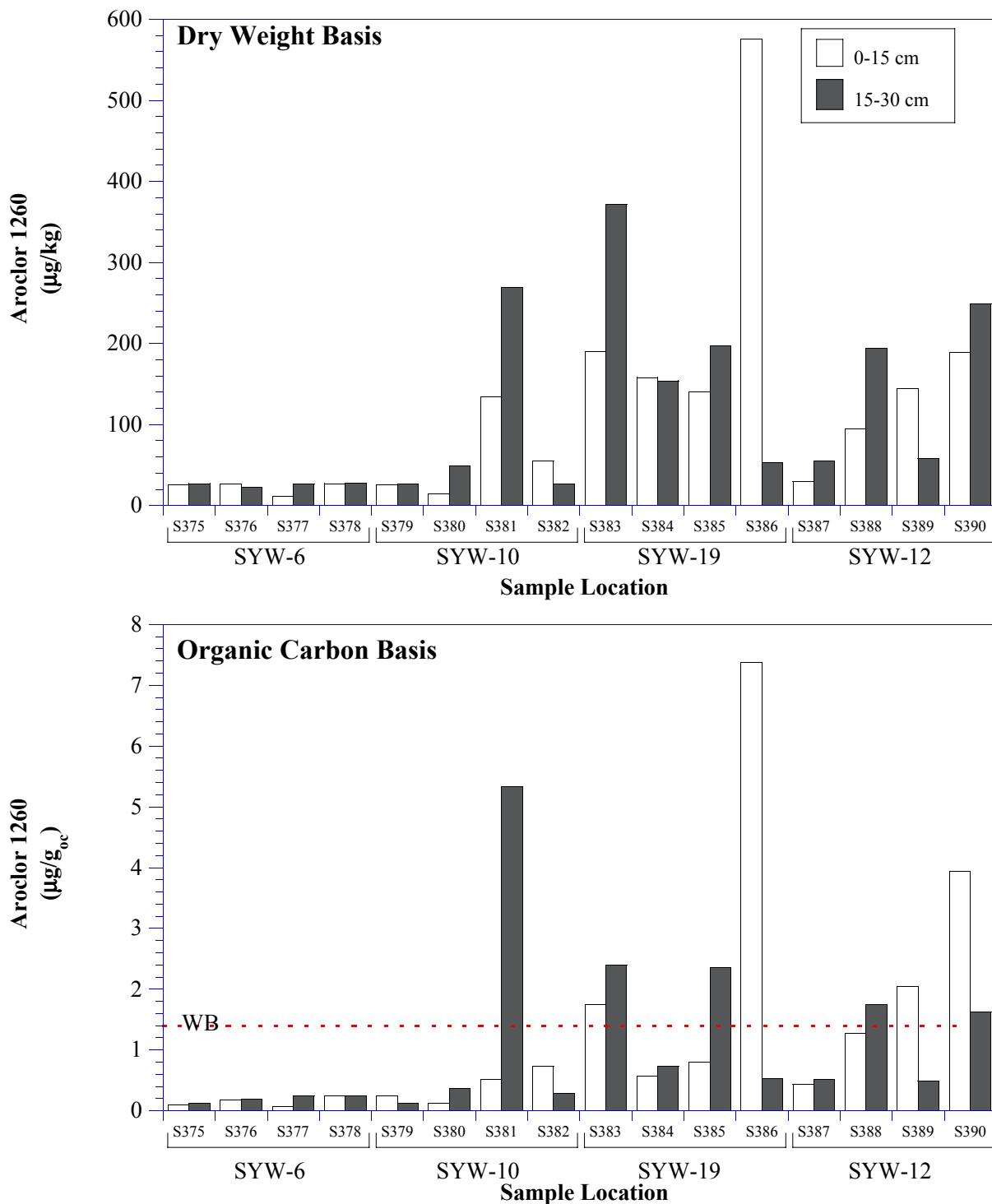


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment - PCBs:
Acute Toxicity Benthic Aquatic Life - 2,760.8 µg/g_{oc}, Chronic Toxicity Benthic Aquatic Life (CTBAL) - 19.3 µg/g_{oc}, and Wildlife Bioaccumulation (WB) - 1.4 µg/g_{oc}.

TAMS

Figure 5-88
Aroclor 1254 in Onondaga Lake
Wetland Sediment in 2000

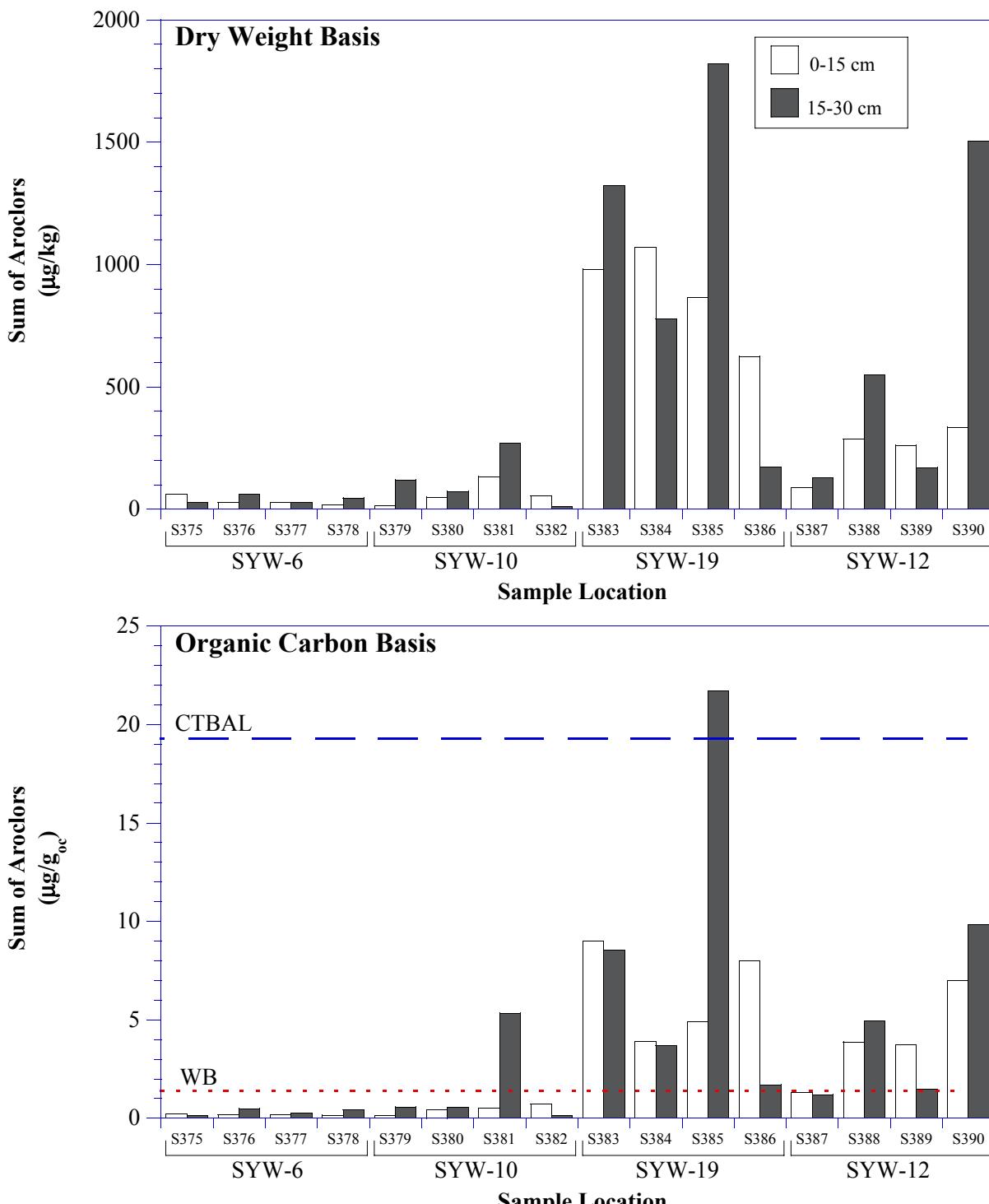


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment - PCBs:
Acute Toxicity Benthic Aquatic Life - 2,760.8 µg/g_{oc}, Chronic Toxicity Benthic Aquatic Life (CTBAL) - 19.3 µg/g_{oc}, and Wildlife Bioaccumulation (WB) - 1.4 µg/g_{oc}.

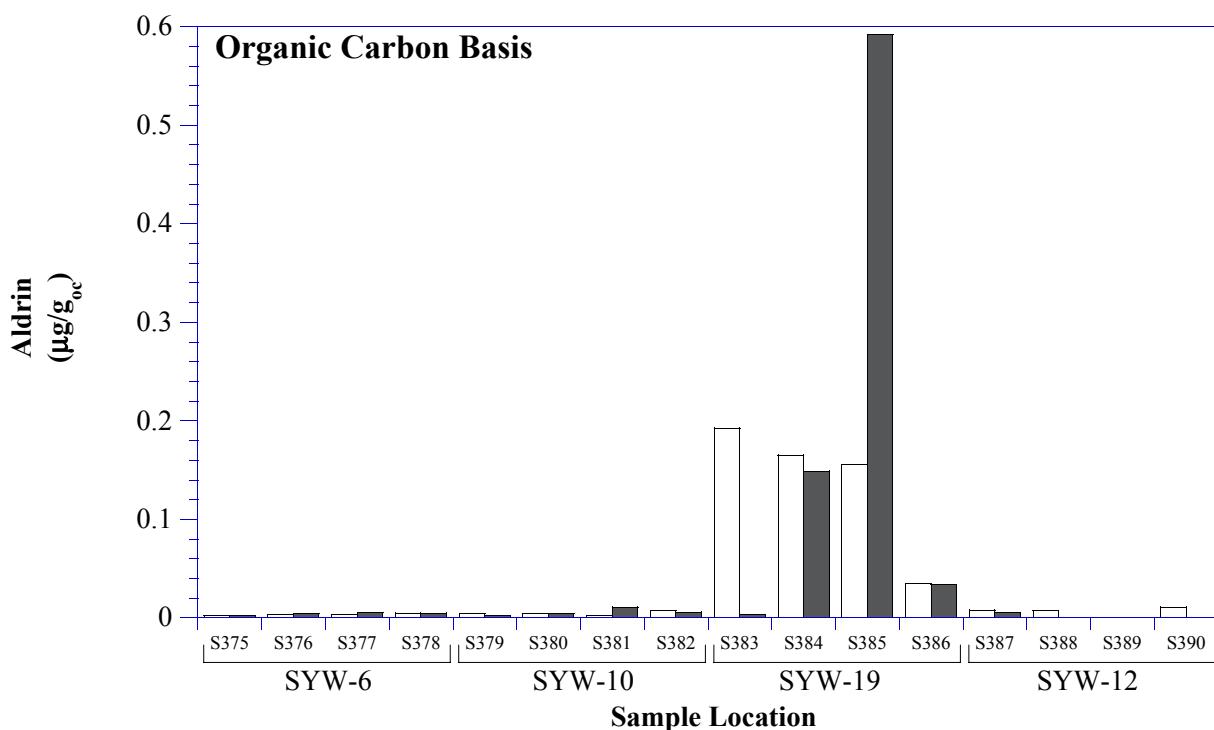
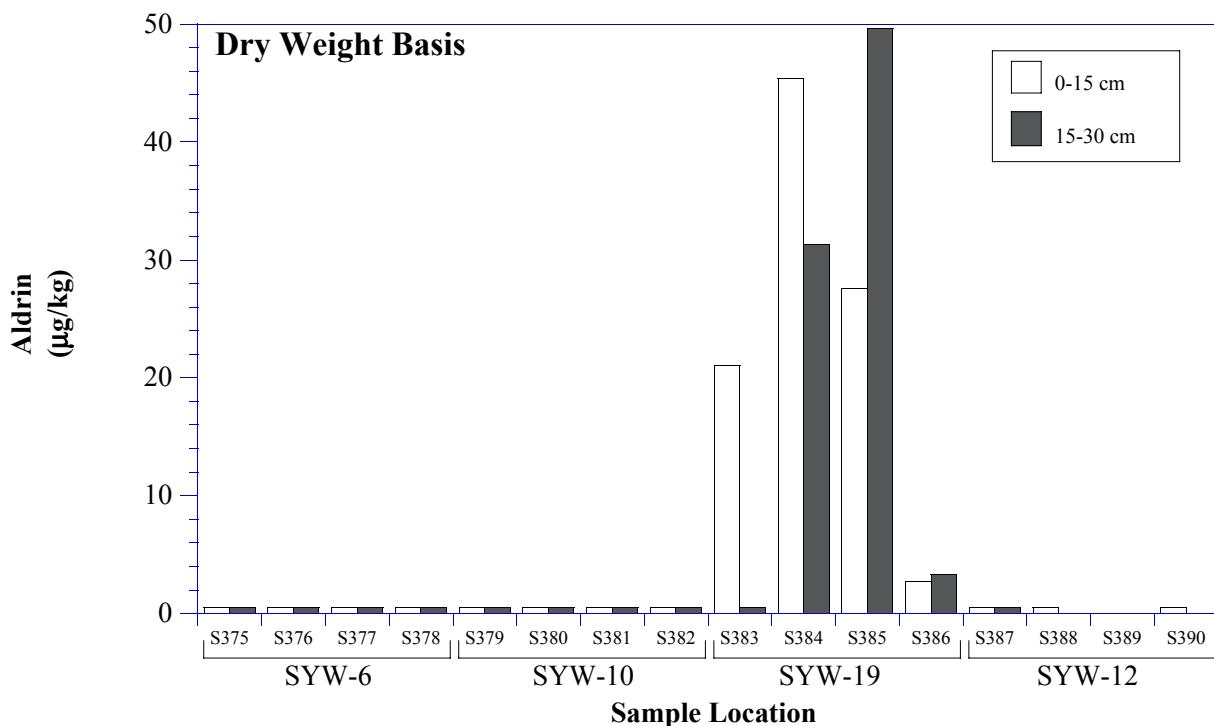
TAMS

Figure 5-89
Aroclor 1260 in Onondaga Lake
Wetland Sediment in 2000



TAMS

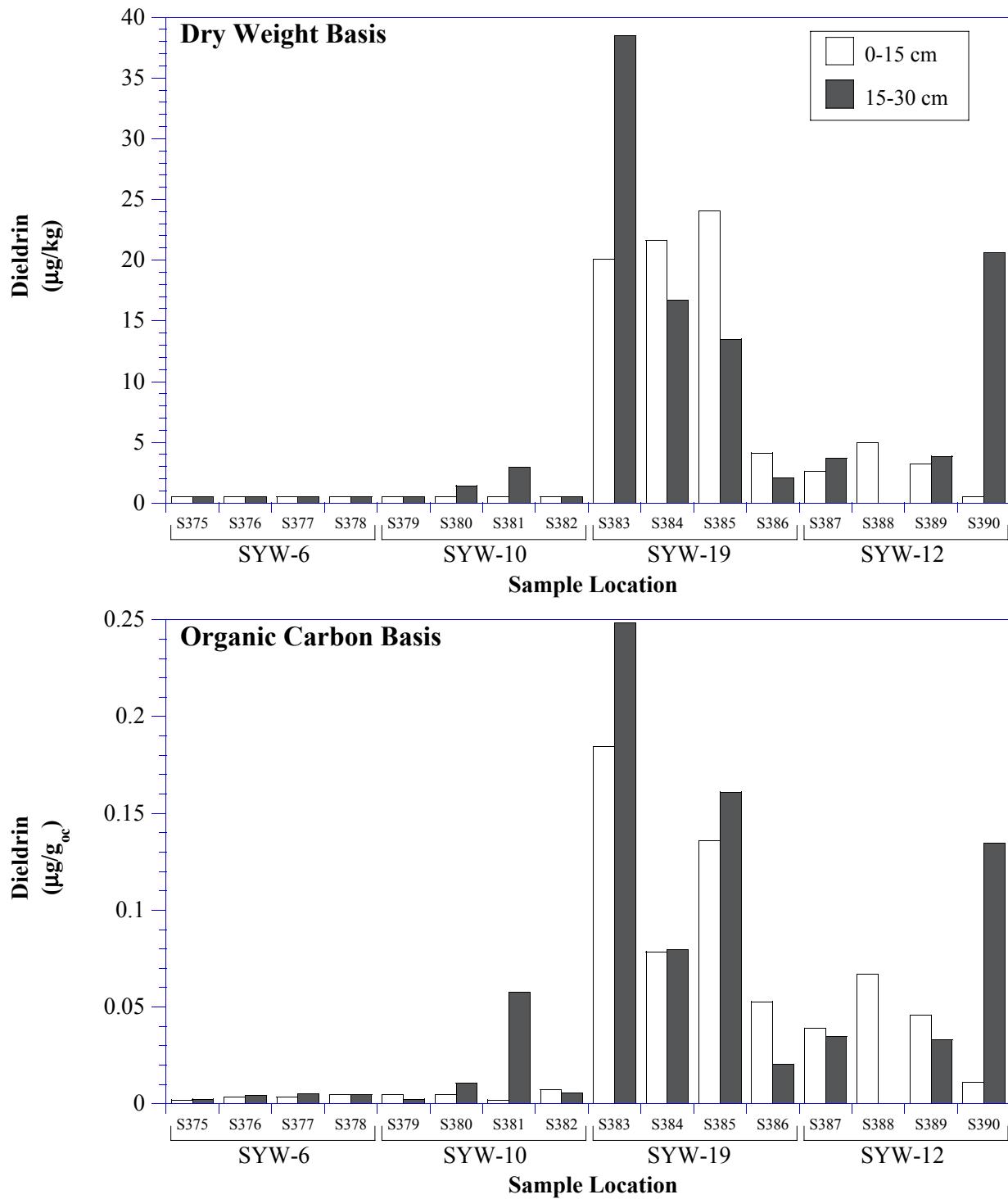
Figure 5-90
Sum of Aroclors in Onondaga Lake
Wetland Sediment in 2000



Note: Half the detection limits are shown for non-detects. Samples with no values indicate rejected values.

Figure 5-91
Aldrin in Onondaga Lake
Wetland Sediment in 2000

TAMS

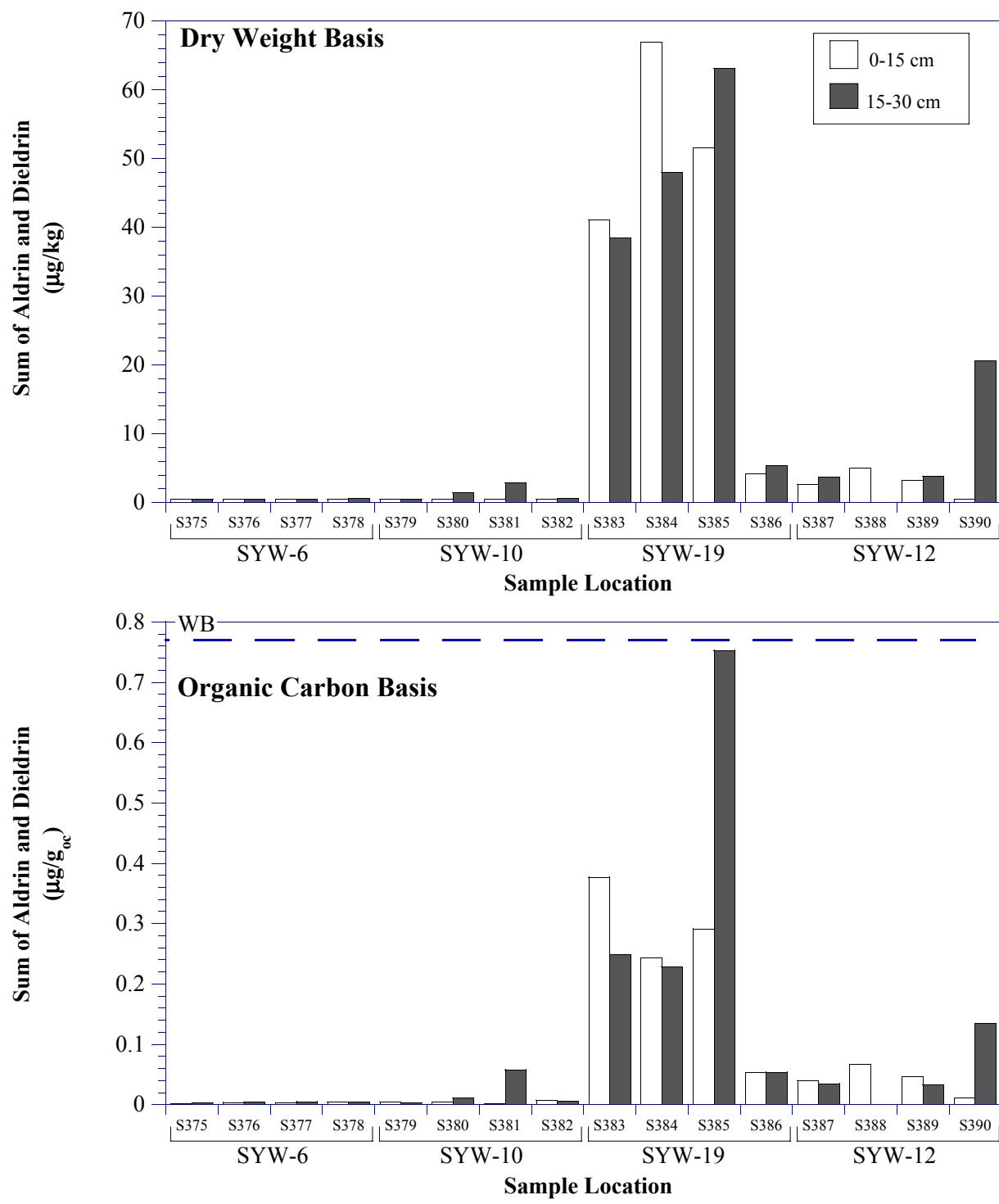


Notes:

- Half the detection limits are shown for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment:
Chronic Toxicity Benthic Aquatic Life (CTBAL) - 9 µg/g_{oc}.

TAMS

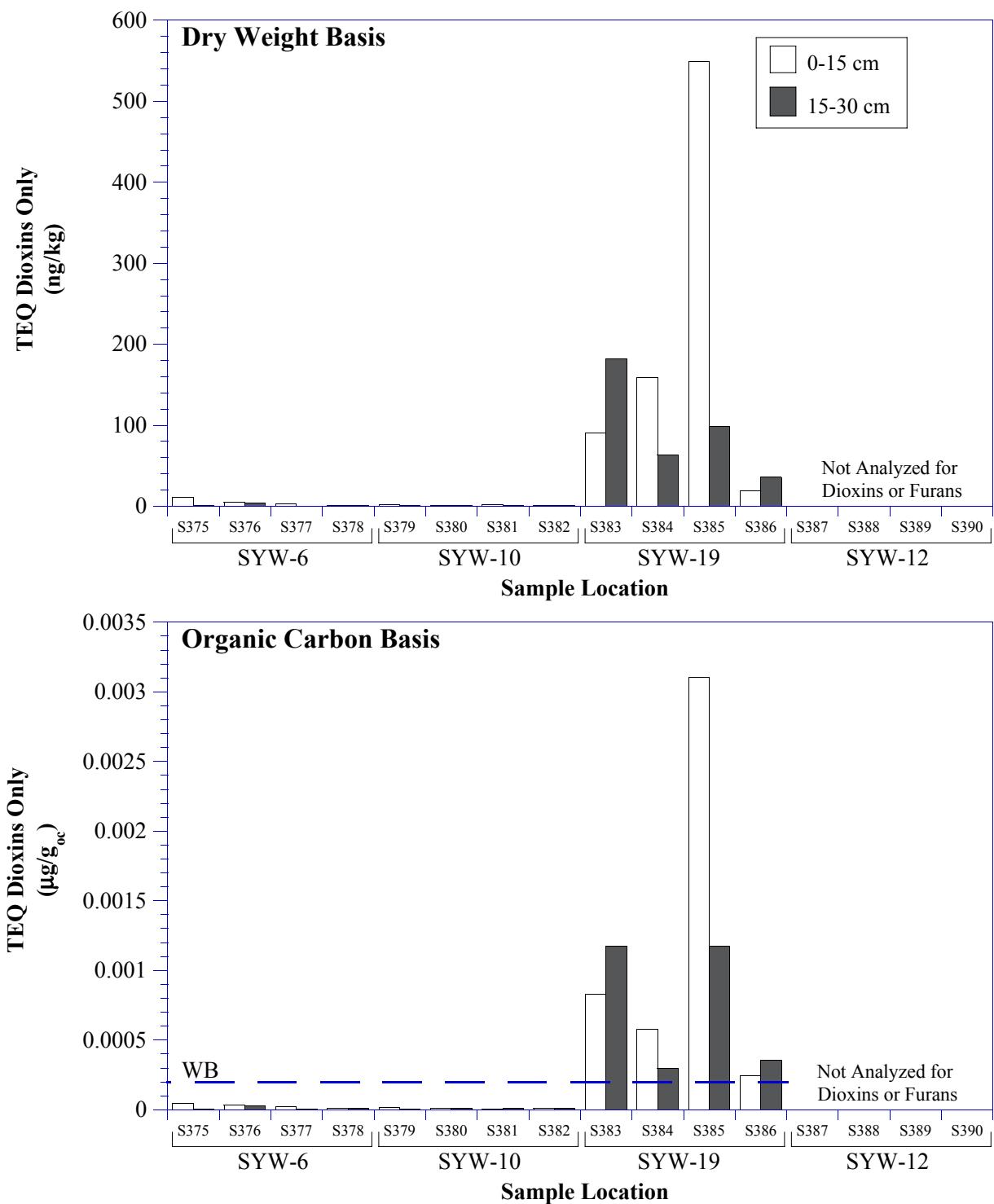
Figure 5-92
Dieldrin in Onondaga Lake
Wetland Sediment in 2000



- Notes:
1. Half the detection limits are shown for non-detects.
 2. NYSDEC Technical Guidance for Screening Contaminated Sediment: Wildlife Bioaccumulation (WB) - 0.77 µg/g_{oc}.
 3. Sum is calculated as the sum of detected values or the minimum detection limit.

TAMS

Figure 5-93
Sum of Aldrin and Dieldrin in Onondaga Lake
Wetland Sediment in 2000



Notes:

- The toxic equivalent (TEQ) is calculated using WHO TEFs and half the detection limit for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment for 2,3,7,8-TCDD:
Wildlife Bioaccumulation (WB) - 0.0002 $\mu\text{g/g}_{\text{oc}}$.

Figure 5-94
TEQ Dioxins Only in Onondaga Lake
Wetland Sediment in 2000

TAMS

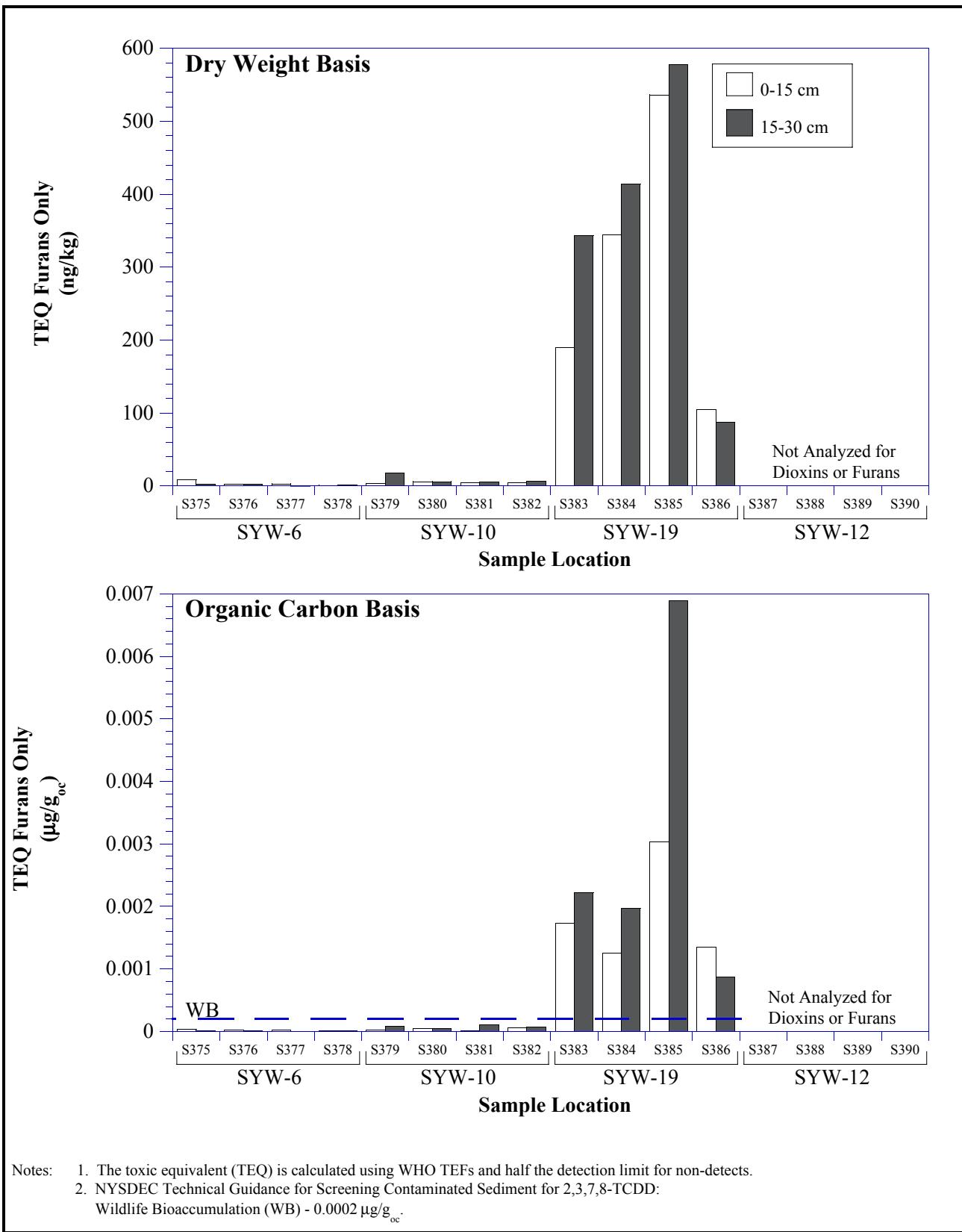
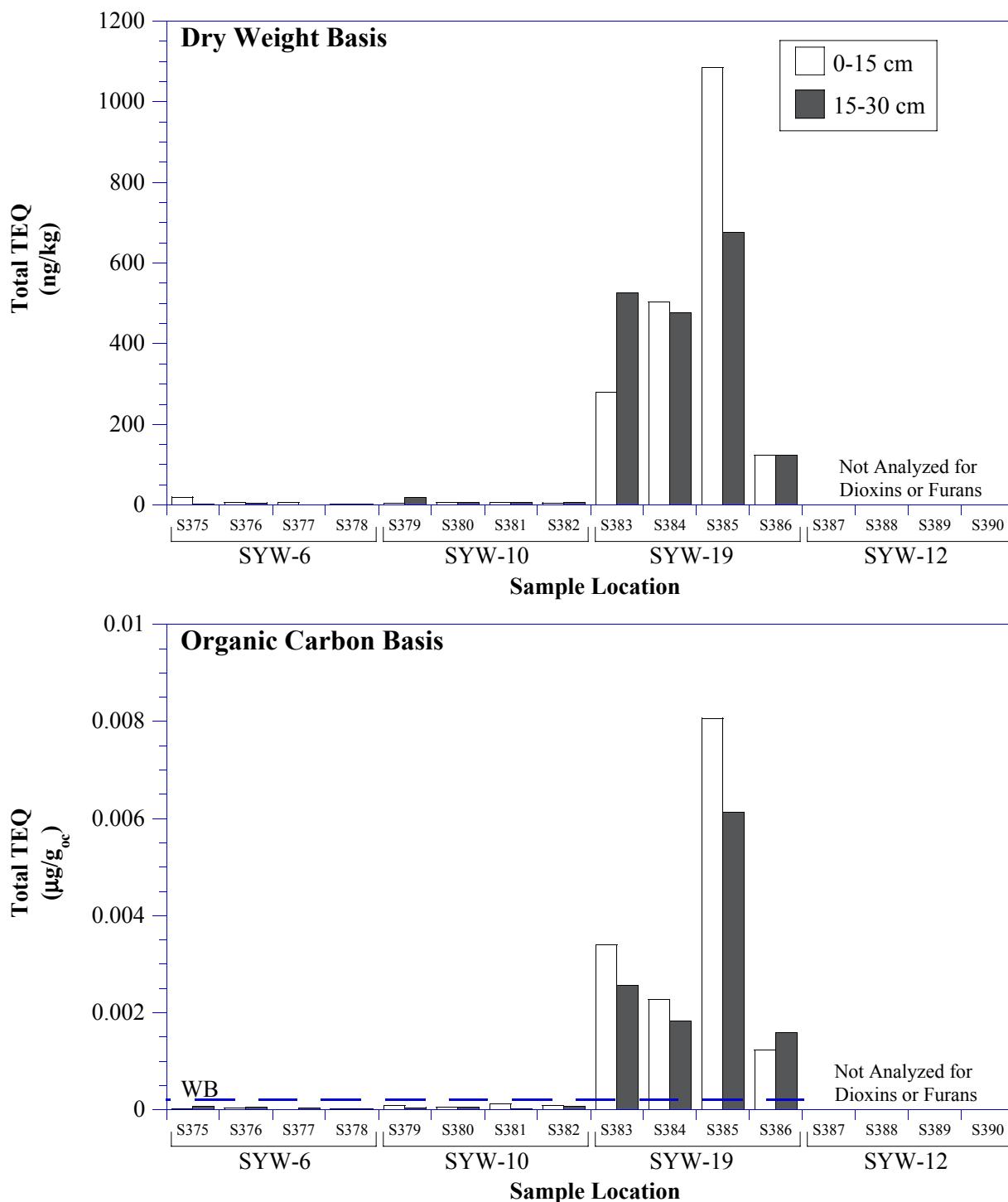


Figure 5-95
TEQ Furans Only in Onondaga Lake
Wetland Sediment in 2000

TAMS

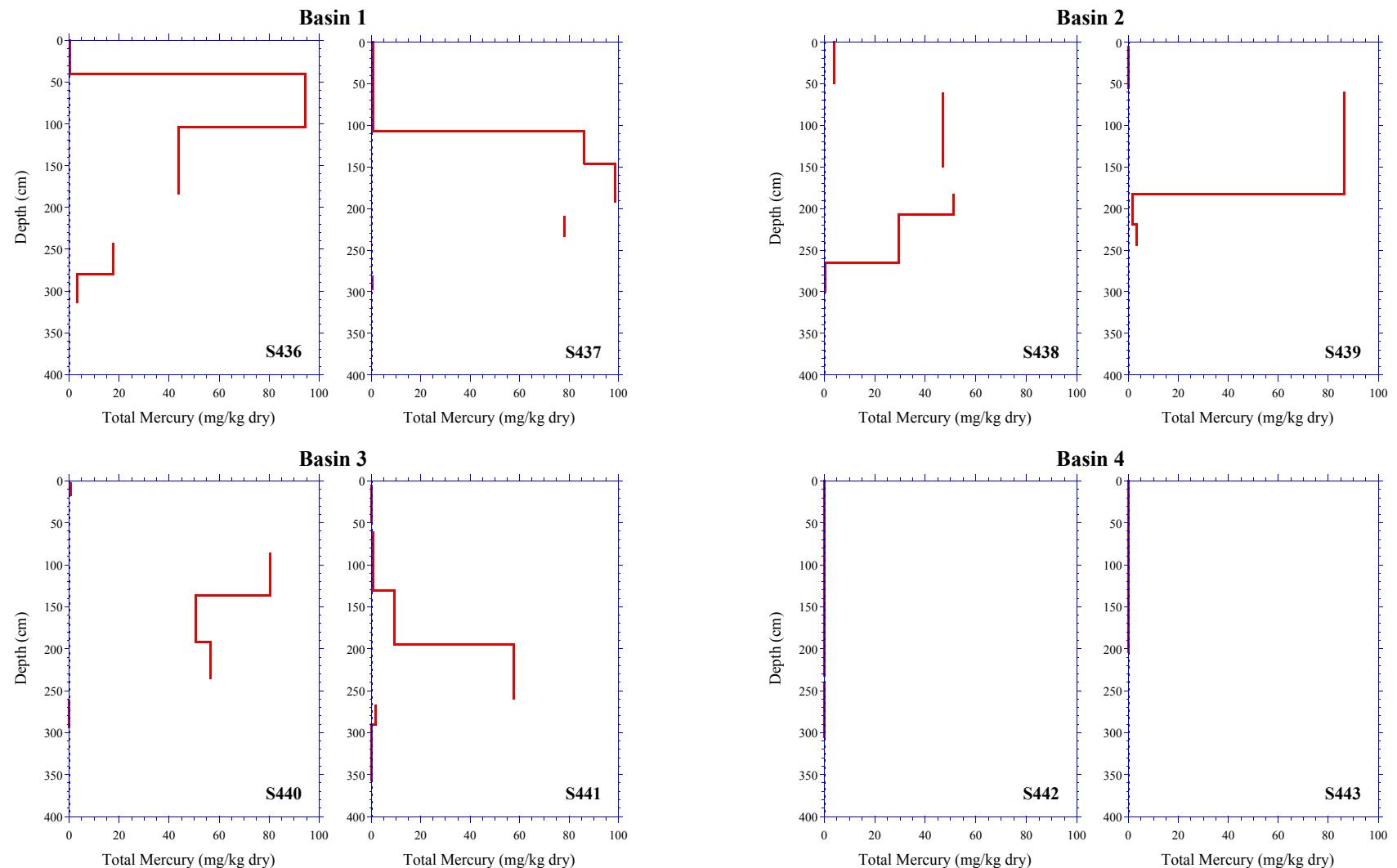


Notes:

- The toxic equivalent (TEQ) is calculated using WHO TEFs and half the detection limit for non-detects.
- NYSDEC Technical Guidance for Screening Contaminated Sediment for 2,3,7,8-TCDD: Wildlife Bioaccumulation (WB) - 0.0002 µg/g_{oc}.

TAMS

Figure 5-96
Total TEQ in Onondaga Lake
Wetland Sediment 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: Eastern USA Background ranges from 0.001 to 0.2 mg/kg, and the Recommended Soil Cleanup Objective is 0.1 mg/kg.

TAMS

Figure 5-97
Mercury in Onondaga Lake
Dredge Basin Soils in 2000

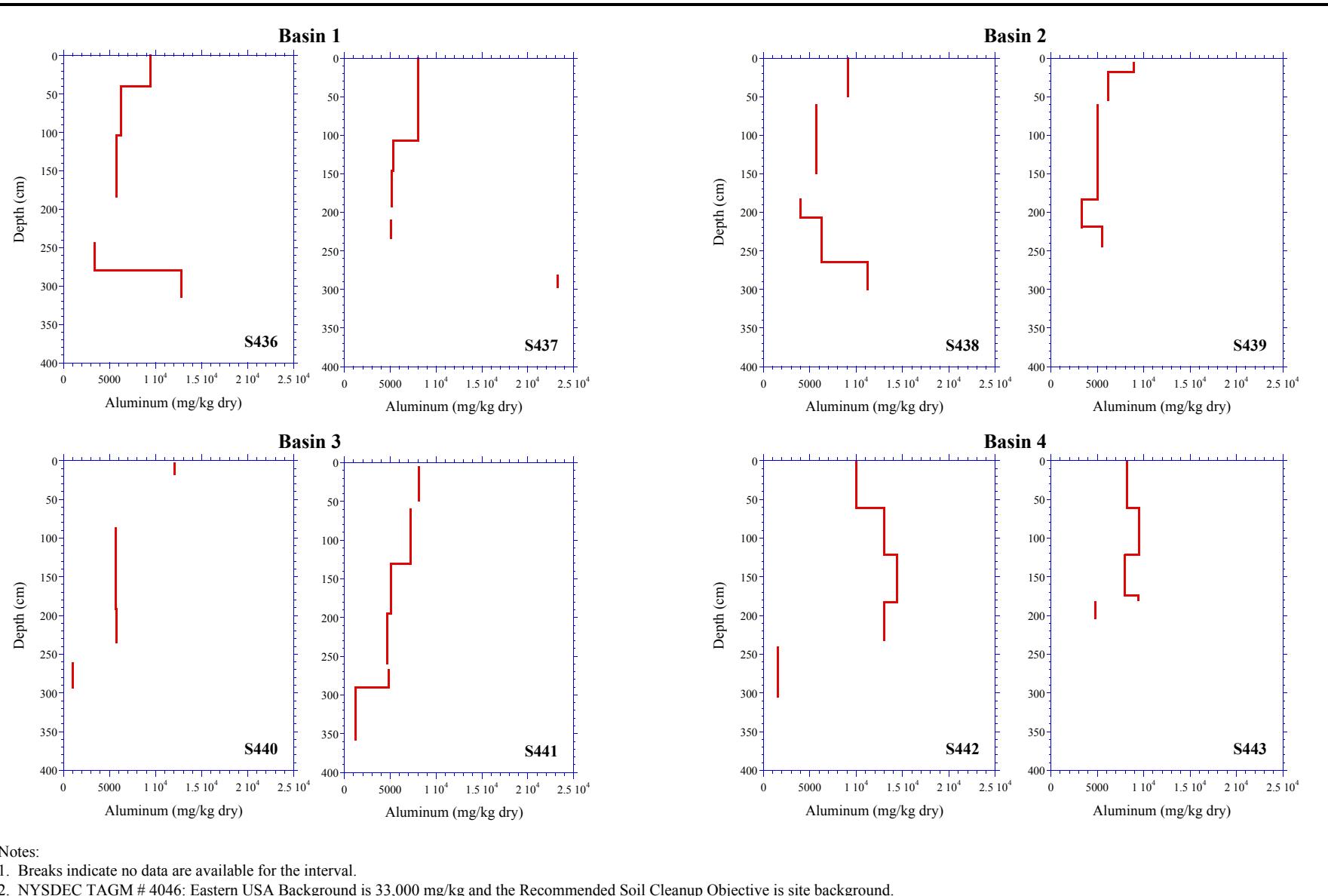


Figure 5-98
Aluminum in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

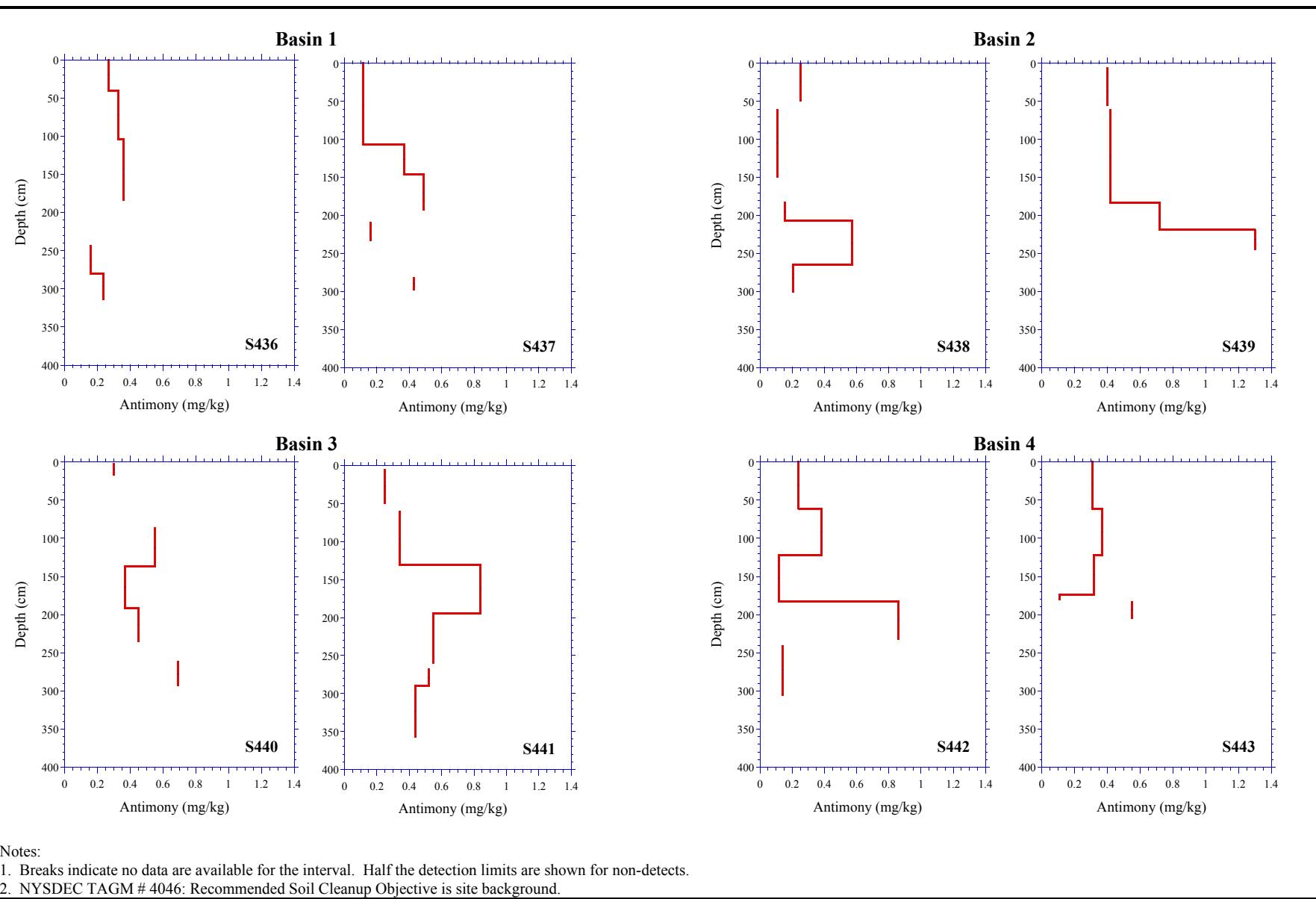


Figure 5-99
Antimony in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

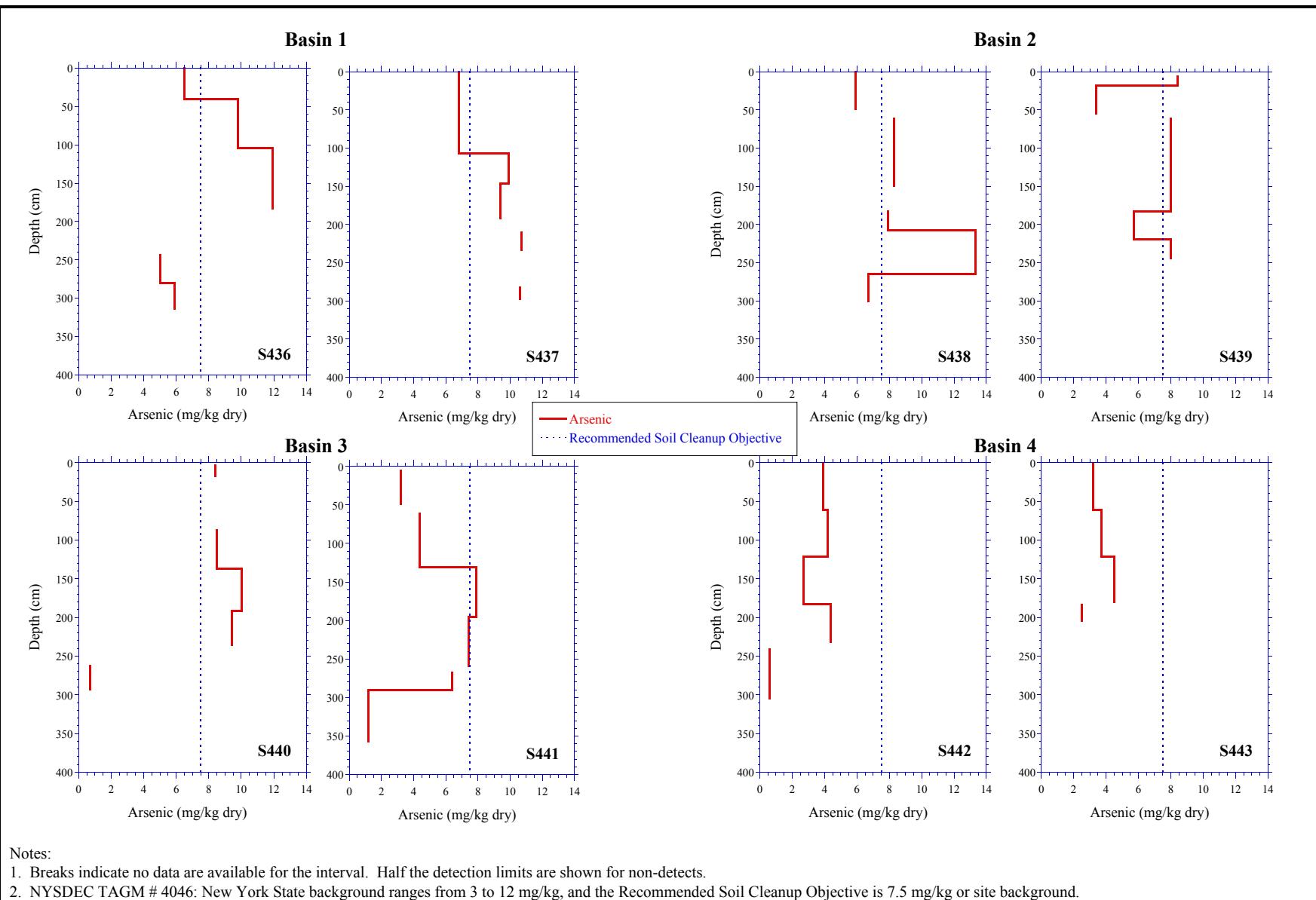
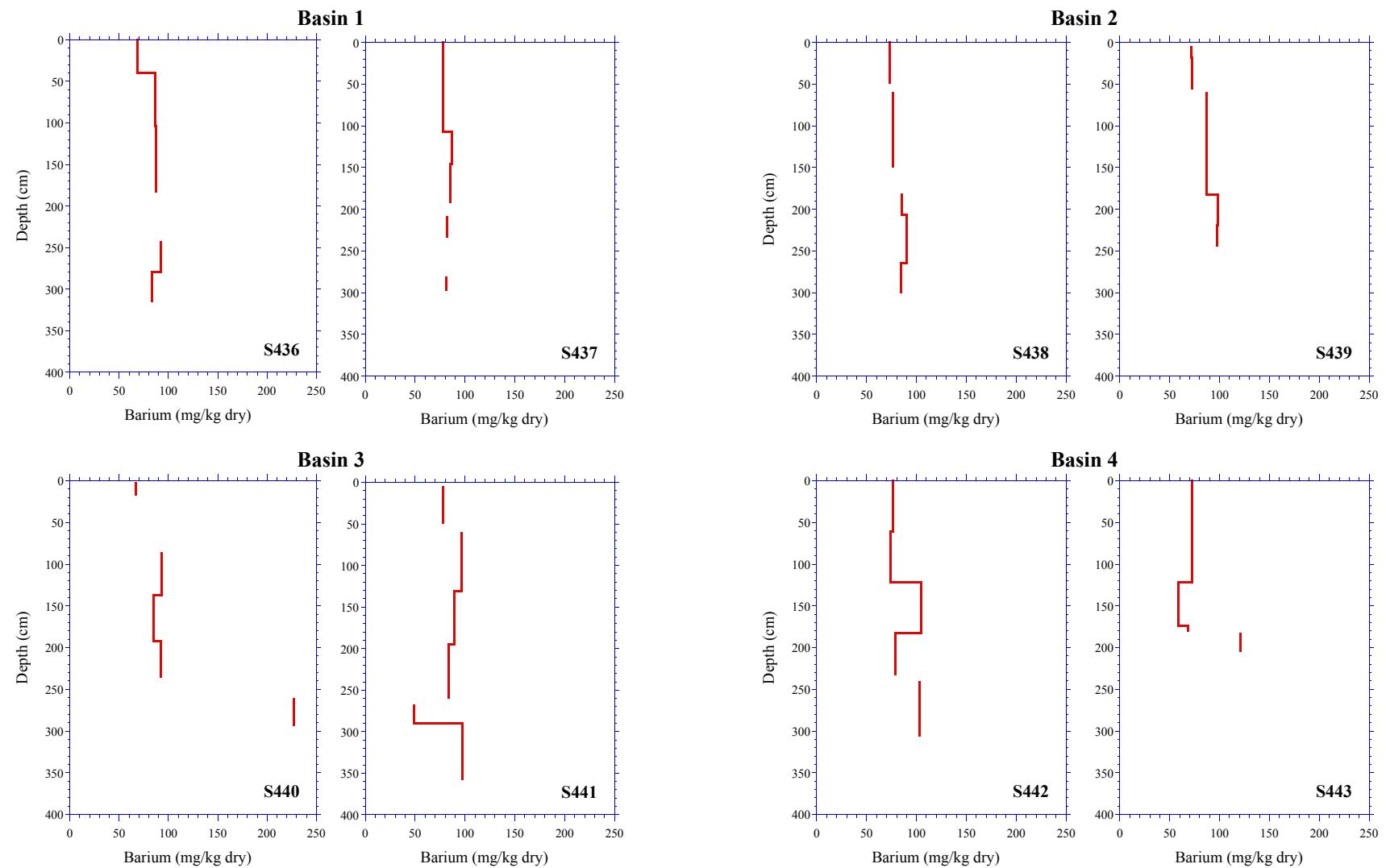


Figure 5-100
Arsenic in Onondaga Lake
Dredge Basin Soils in 2000

TAMS



Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 15 to 600 mg/kg, and the Recommended Soil Cleanup Objective is 300 mg/kg or site background.

TAMS

Figure 5-101
Barium in Onondaga Lake
Dredge Basin Soils in 2000

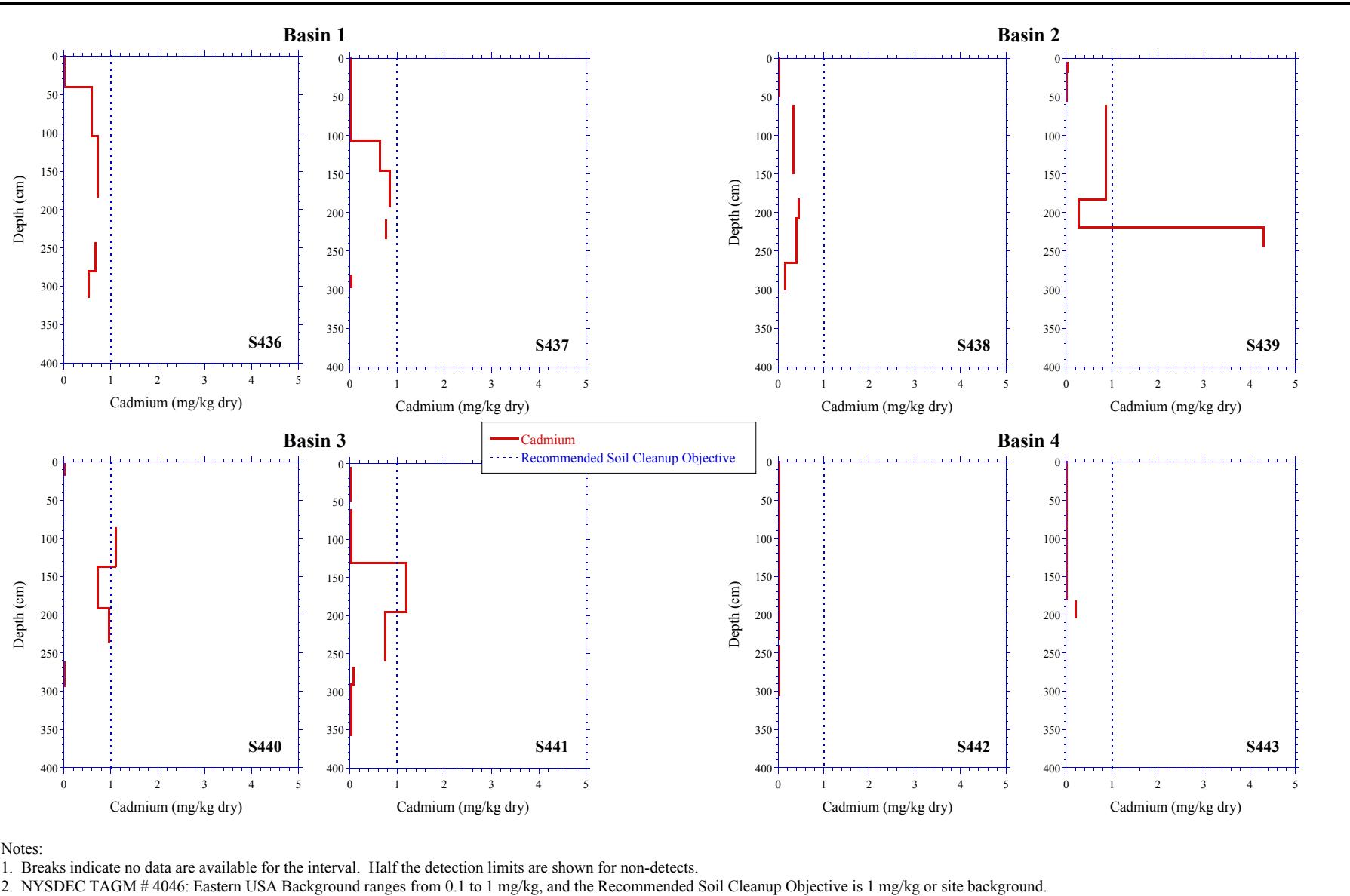
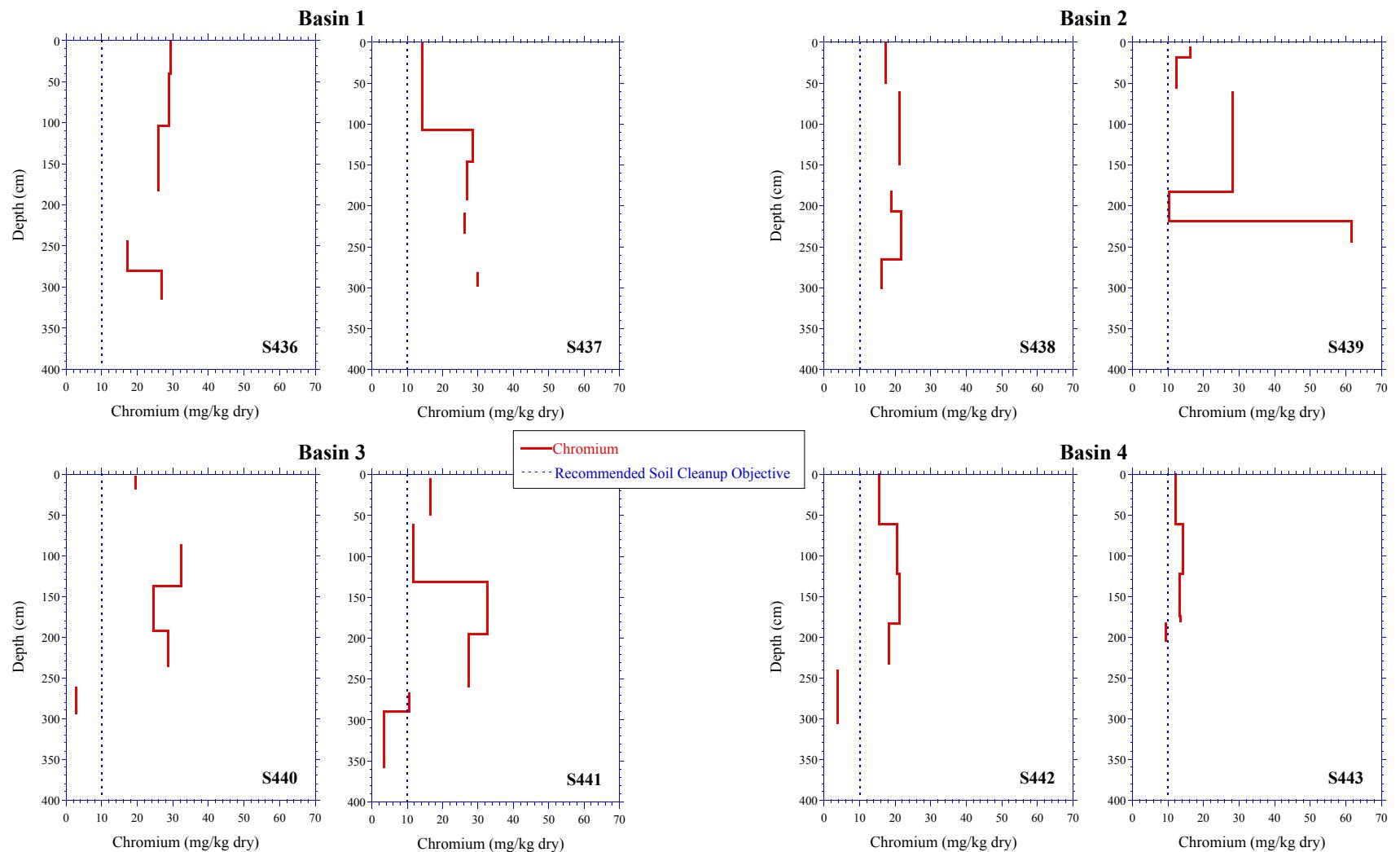


Figure 5-102
Cadmium in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

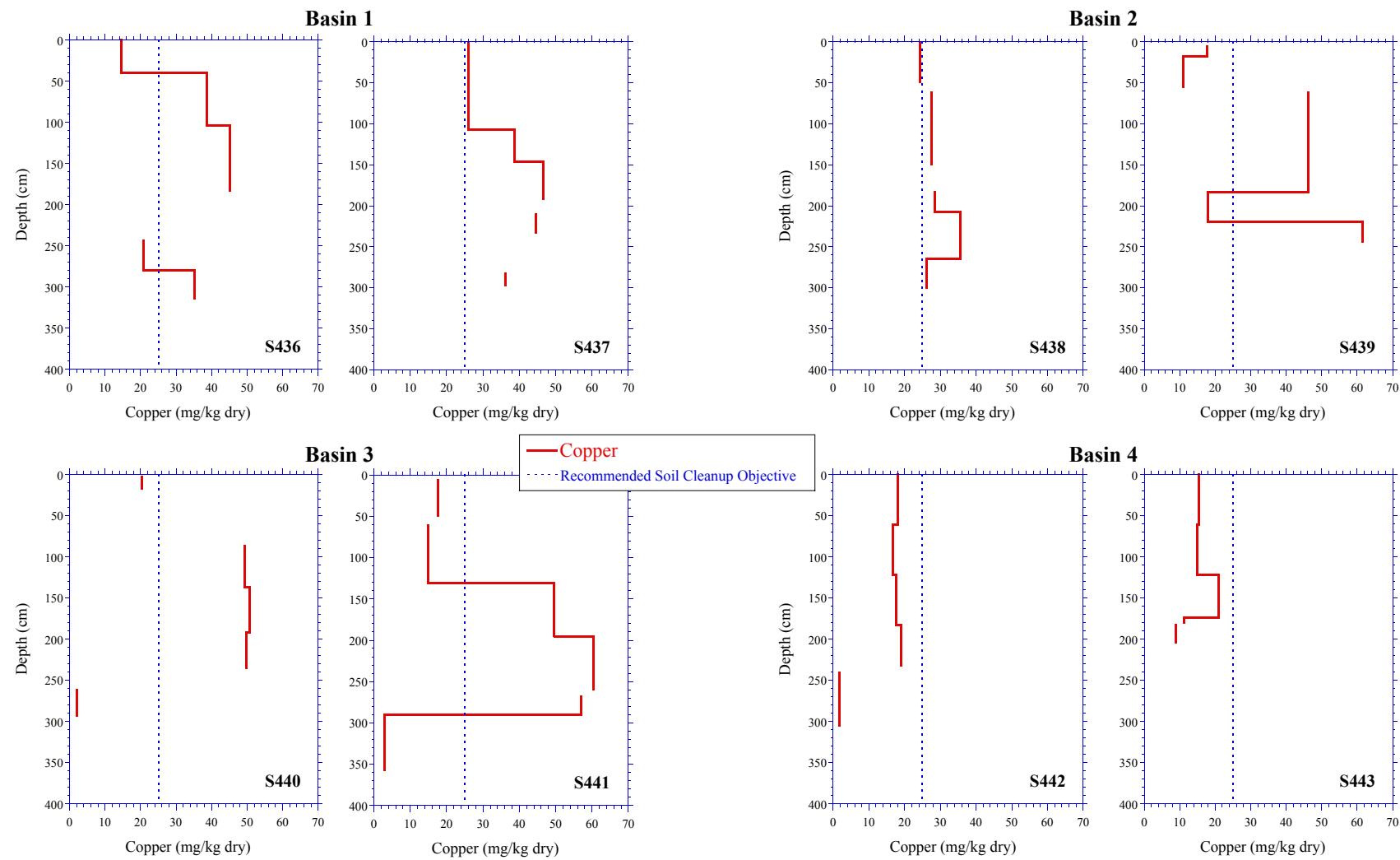


Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: New York State background ranges from 1.5 to 40 mg/kg, and the Recommended Soil Cleanup Objective is 10 mg/kg or site background.

Figure 5-103
Chromium in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

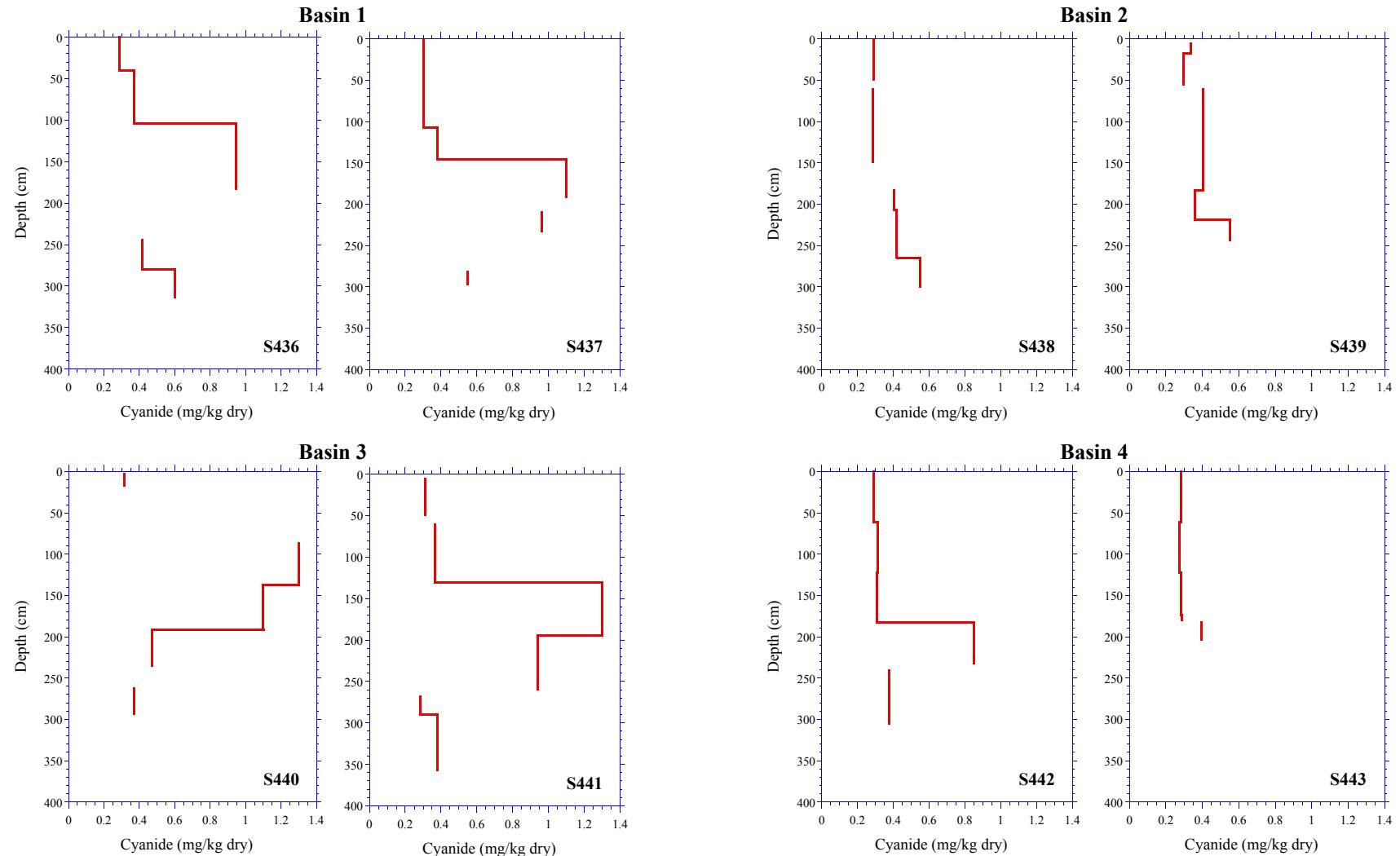


Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 1 to 50 mg/kg, and the Recommended Soil Cleanup Objective is 25 mg/kg or site background.

Figure 5-104
Copper in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

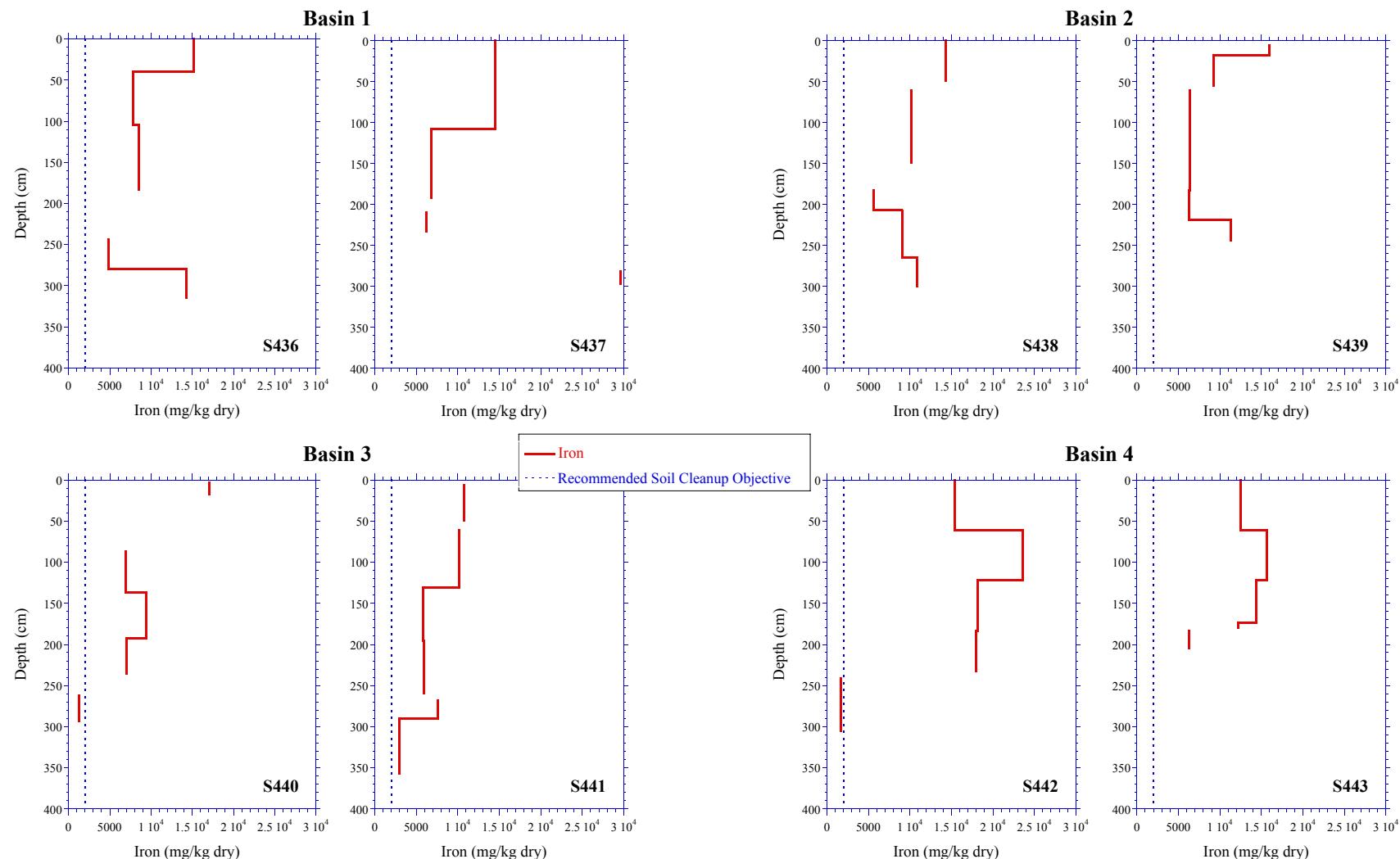


Notes:

1. Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
2. NYSDEC TAGM # 4046: Due to the nature of cyanide site-specific form(s) of cyanide should be taken into consideration when establishing a soil cleanup objective.

Figure 5-105
Cyanide in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

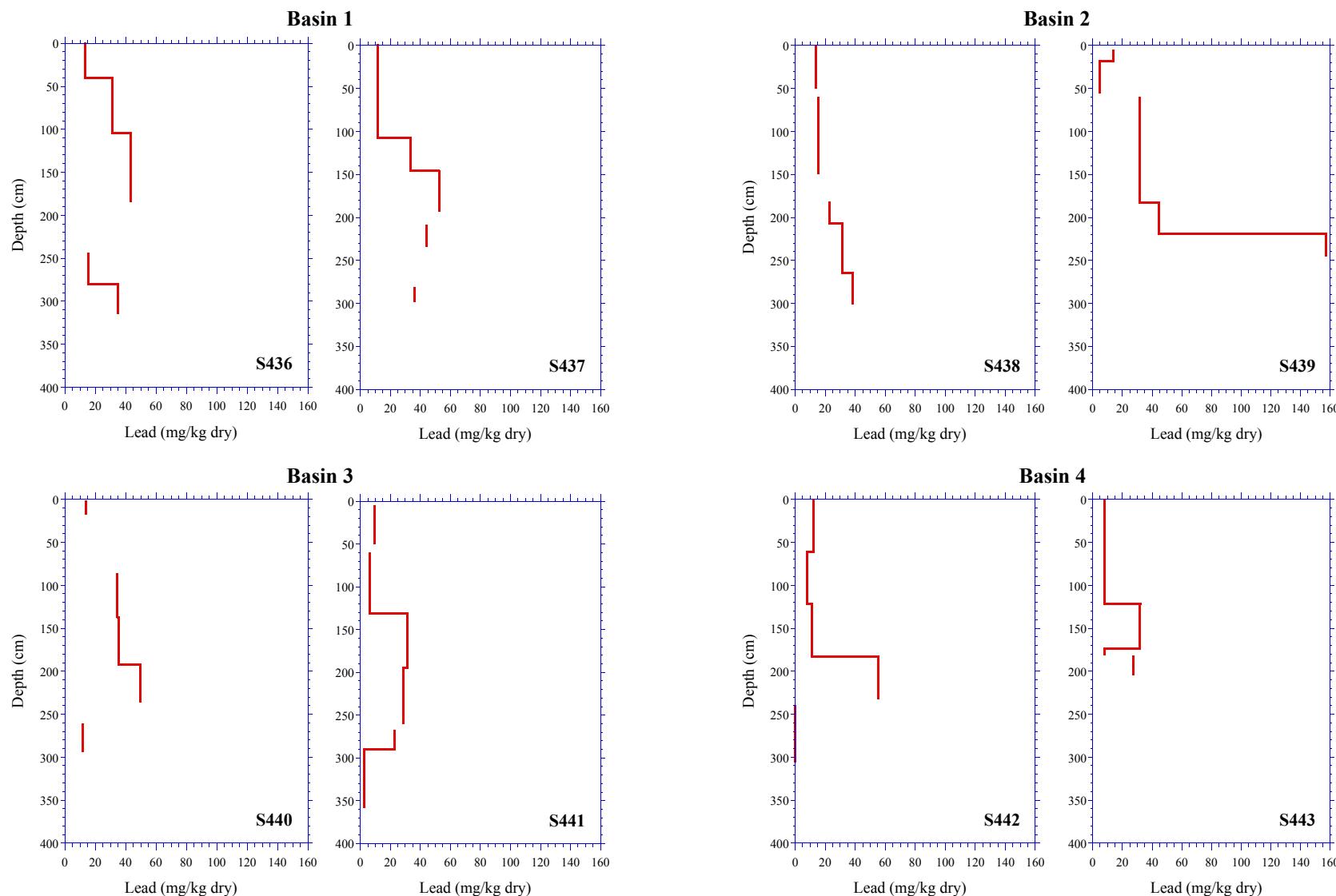


Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 2,000 to 550,000 mg/kg, and the Recommended Soil Cleanup Objective is 2,000 mg/kg or site background.

Figure 5-106
Iron in Onondaga Lake
Dredge Basin Soils in 2000

TAMS

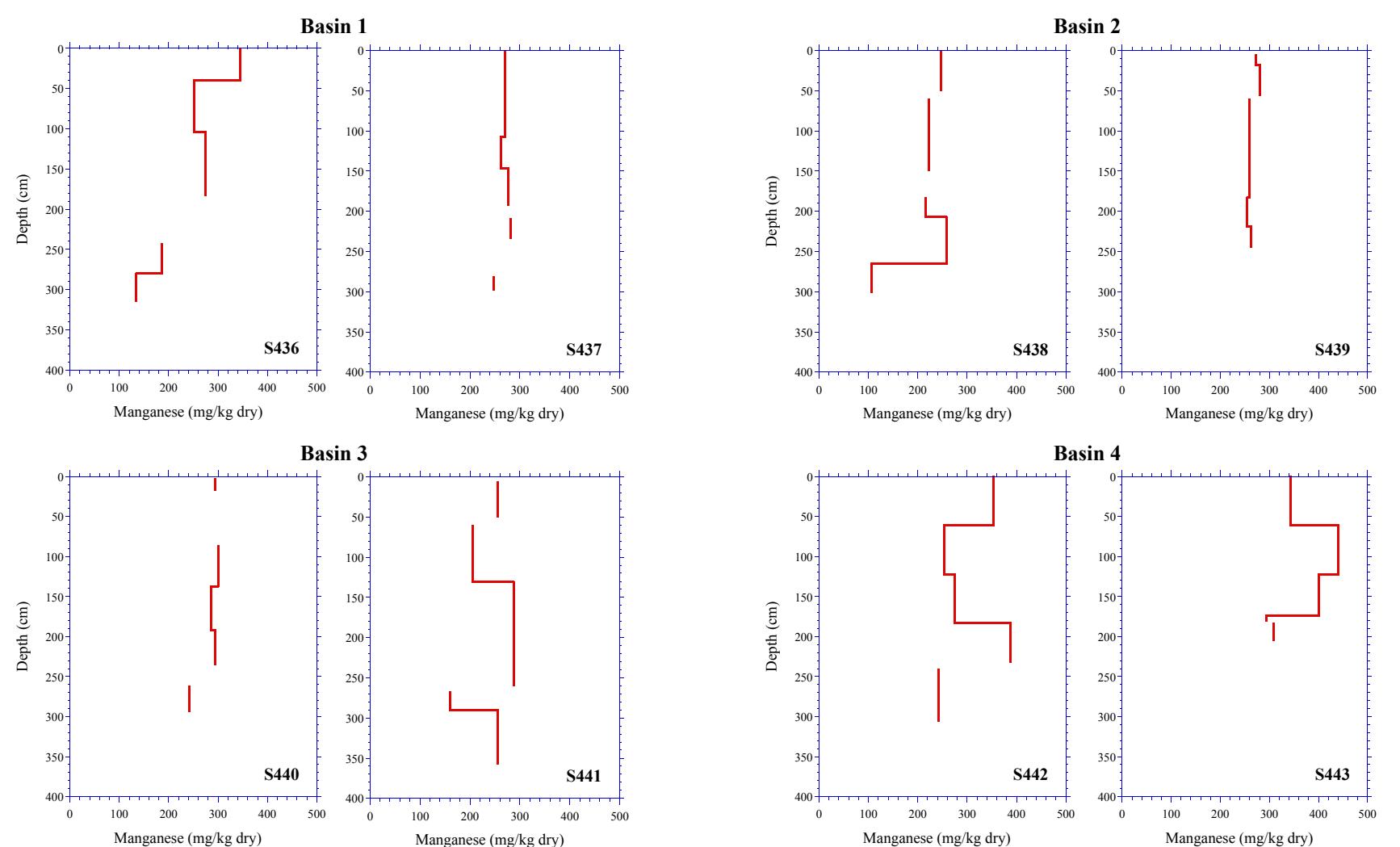


Notes:

- Breaks indicate no data are available for the interval. Half the detection limits are shown for non-detects.
- NYSDEC TAGM # 4046: Background levels for lead vary widely. Average levels in underdeveloped rural areas may range from 4 to 61 mg/kg. Average levels in metropolitan or suburban areas or near highways are much higher and typically range from 200 to 500 mg/kg.

TAMS

Figure 5-107
Lead in Onondaga Lake
Dredge Basin Soils in 2000

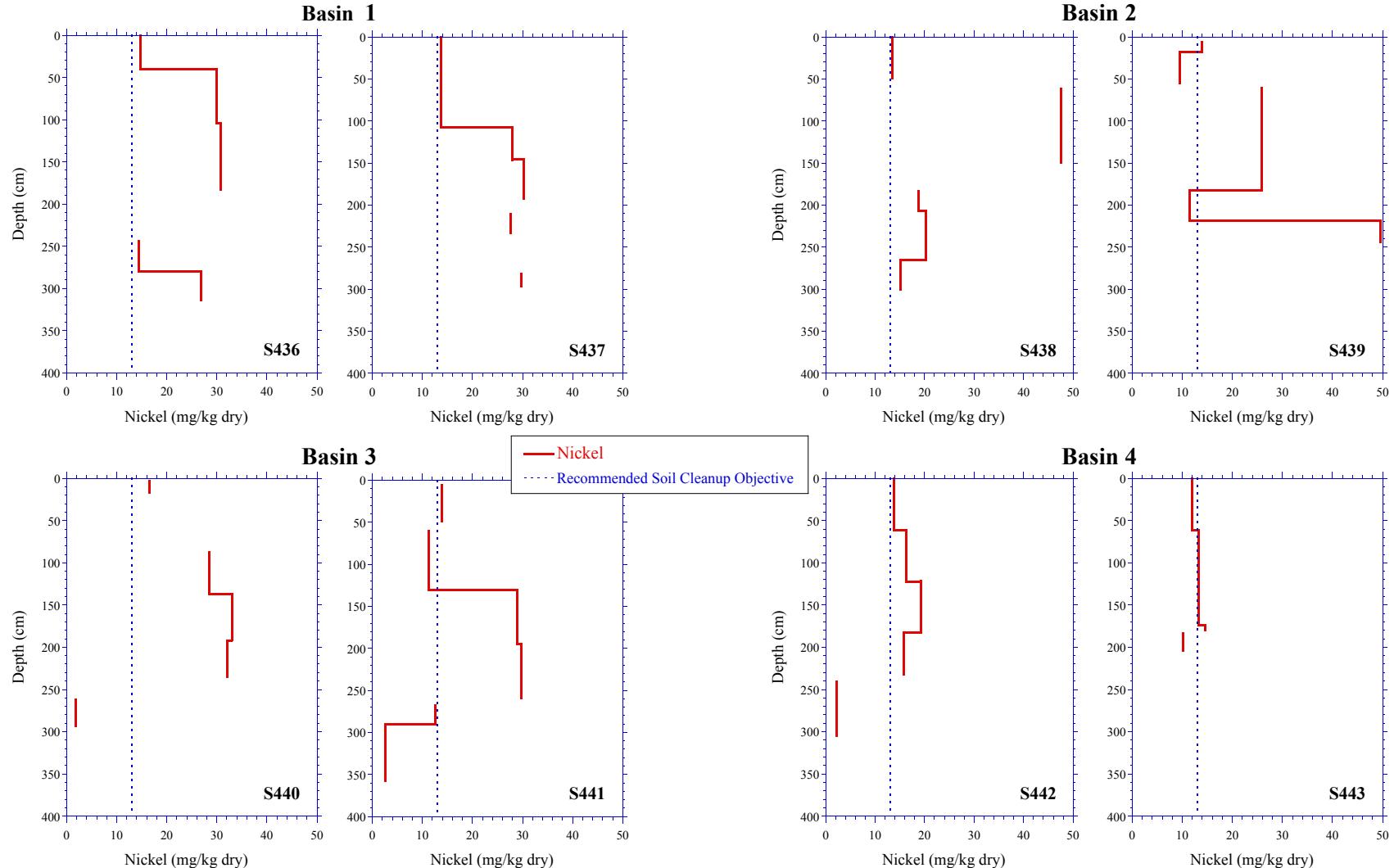


Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 50 to 5,000 mg/kg, and the Recommended Soil Cleanup Objective is site background.

TAMS

Figure 5-108
Manganese in Onondaga Lake
Dredge Basin Soils in 2000

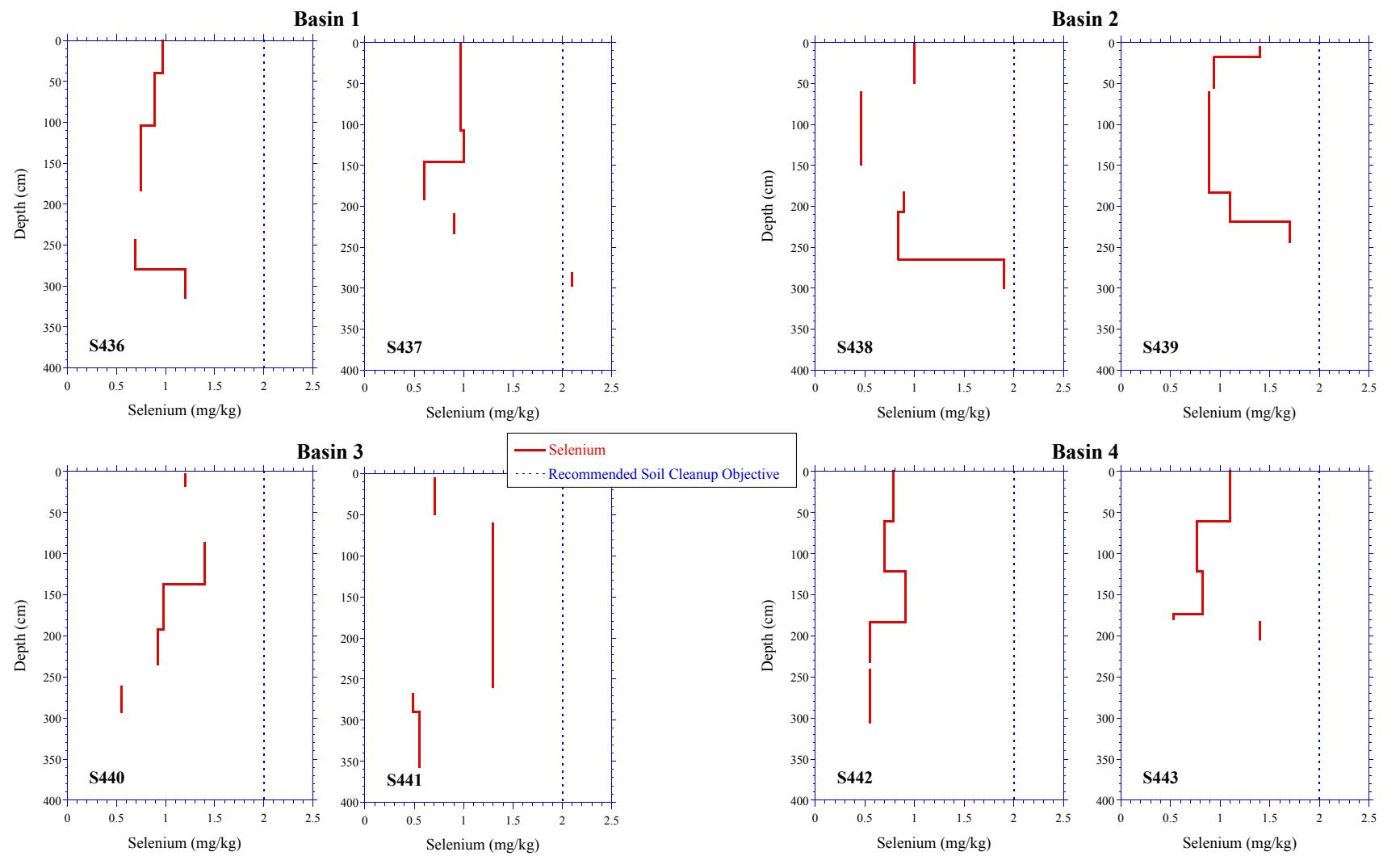


Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 0.5 to 25 mg/kg, and the Recommended Soil Cleanup Objective is 13 mg/kg or site background.

TAMS

Figure 5-109
Nickel 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: Eastern USA Background ranges from 0.1 to 3.9 mg/kg, and the Recommended Soil Cleanup Objective is 2 mg/kg or site background.

TAMS

Figure 5-110
Selenium in Onondaga Lake
Dredge Basin Soils in 2000

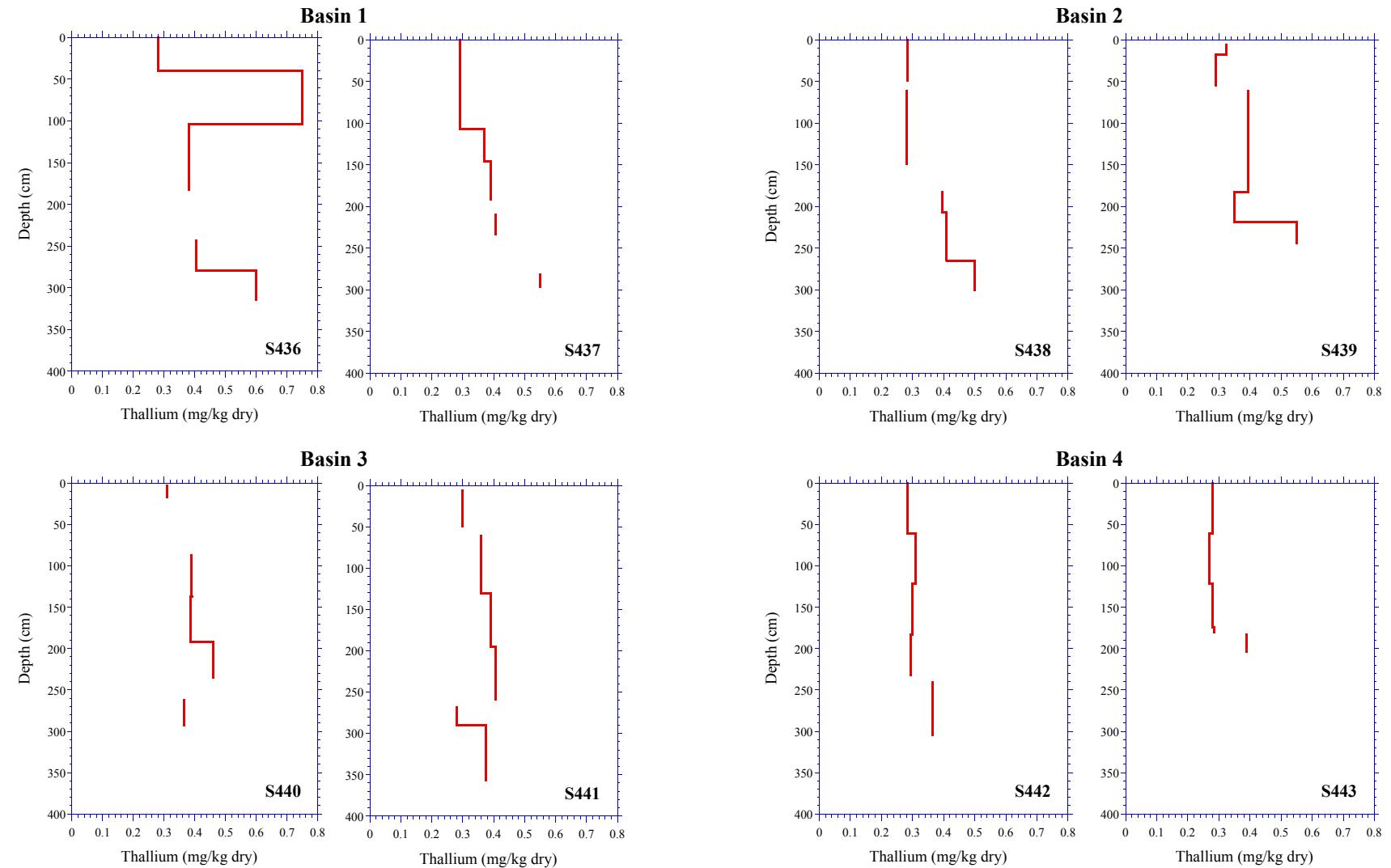
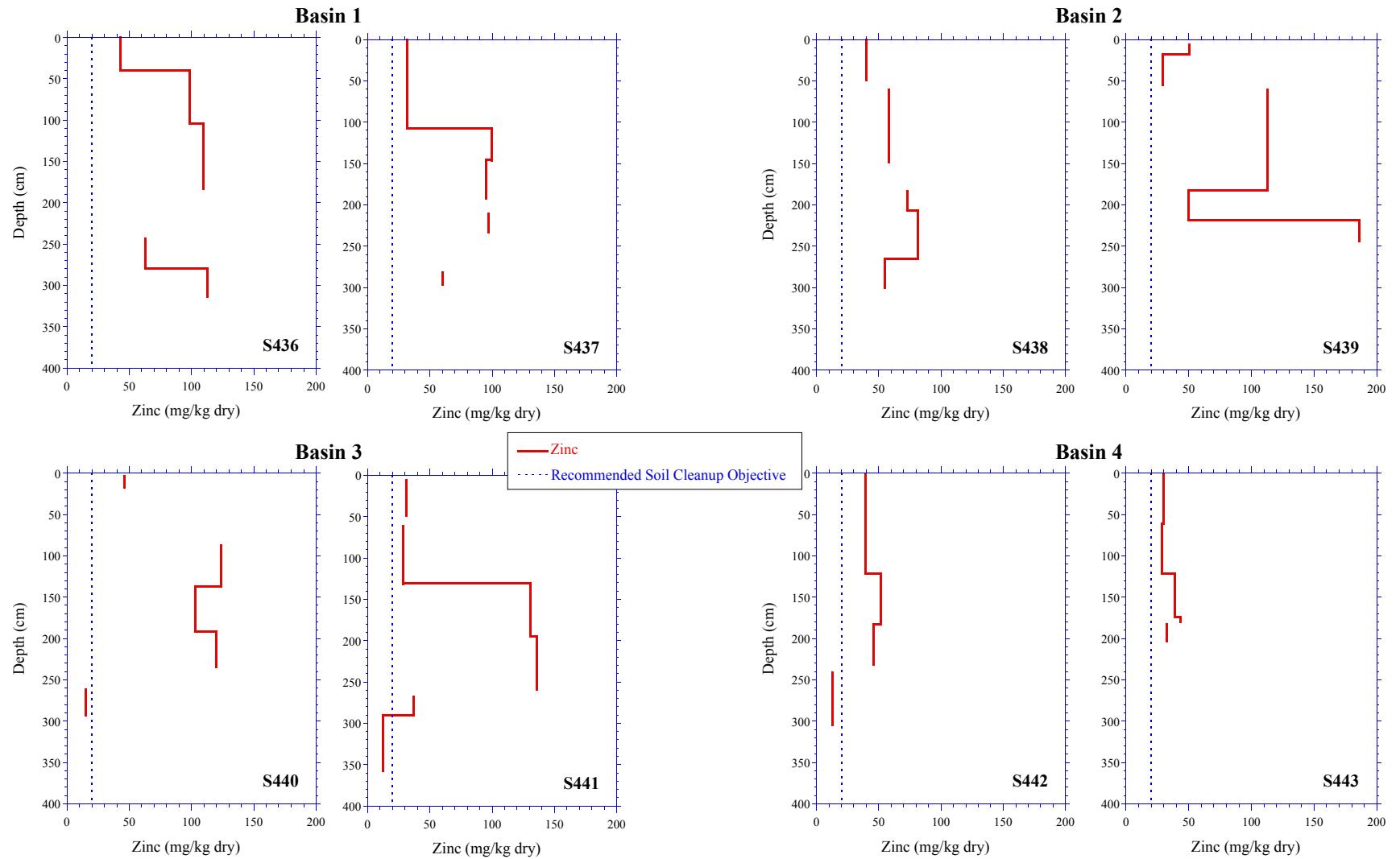


Figure 5-111
Thallium in Onondaga Lake
Dredge Basin Soils in 2000

TAMS



Notes:

1. Breaks indicate no data are available for the interval.
2. NYSDEC TAGM # 4046: Eastern USA Background ranges from 9 to 50 mg/kg, and the Recommended Soil Cleanup Objective is 20 mg/kg or site background.

Figure 5-112
Zinc in Onondaga Lake
Dredge Basin Soils in 2000

TAMS