UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

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Date Out of EFGWB:

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EFGWB has previously reviewed the historical surface monitoring data for metolachlor submitted by the Ciba-Giegy Corporation (submission S455912, Case 819424, review completion date: 12/23/94). This data package deals mostly with the statistical analyses of the same data from the previous report. The results for this study are summarized below:

A. Sources

1. The United States Geological Survey
2. Ciba-Giegy Corporation
3. The Iowa Department of Natural Resources
4. The Water Quality Division of the State of Florida
5. The Nebraska Conservation and Survey

6. The Ohio Environmental Protection Agency

The following conventions were used to allocate individual results to a specific class of detections:

1. Samples showing non detectable levels of metolachlor were assigned the value <0.1 ppb.

2. Each class excludes the lower limit, and includes the higher limit (i.e. the class from 0.5 to 0.6 ppb, includes all values x such as $0.5 < x < 0.6$. The class from 0.1 to 0.2 ppb includes both limits ($0.1 < x < 0.2$).

B. Descriptive Statistics

The cumulative distribution table was used to assign the percentiles. The Pth percentile is that value in the data set such that P percent of the data are less than or equal to the value.

C. Results

Table I shows the number of detection at each residue level found in each individual reference. Table II shows the results of the statistical analysis conducted on the same data in a summary format. The mean residue of metolachlor in surface water over all analyses conducted was 0.21 ppb. The median level and the 75 percentile both were < 0.10 ppb which indicate that more than 75 % of all samples showed undetectable residues of metolachlor. The 90 and 95 percentiles were found at 0.45 ppb and 0.95 ppb, respectively. These results indicate that less than 10 % of the samples analyzed showed metalochlor residues above 0.45 ppb, and less than 5 % of the samples analyzed had residues above 0.95 ppb. The 99 percentile was found at 2.3 ppb, indicating that 1 % of all samples had metolachlor levels higher than 2.3 ppb.

These results indicate that a large majority of the samples (over 80%) did not contain any detectable metolachlor and none of the samples, even before treatment, exceeded or approached the Health Advisory Level (HAL) of 100 ppb for metolachlor.

It should be emphasized that these data reflect individual analytical results at punctual time periods and should not be confused with the annualized average at a specific location.

The report is well organized and the statistical analyses is reported clearly. The results reported in this study are acceptable.

Table I

Frequency Distribution for Metolachlor in Surface Water

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
No.Obs.	358	244	916	27	1068	49	163	171	127
<0.1	132	191	893	27	1064	32	145	41	19
0.1 - 0.2	72	19	1	0	2	2	0	28	5
0.2 - 0.3	29	9	4	0	0	1	1	20	5
0.3 - 0.4	24	4	3	0	1	5	0	9	2
0.4 - 0.5	7	1	3	0	0	1	2	8	3
0.5 - 0.6	11	4	1	0	0	1	0	4	9
0.6 - 0.7	8	2	1	0	1	1	1	4	10
0.7 - 0.8	14	2	0	0	0	0	1	9	16
0.8 - 0.9	7	0	1	0	0	1	2	18	13
0.9 - 1	6	3	2	0	0	0	0	8	9
1 - 1.1	6	2	1	0	0	2	0	3	8
1.1 - 1.2	2	0	0	0	0	0	0	4	4
1.2 - 1.3	3	1	1	0	0	1	0	1	2
1.3 - 1.4	7	0	0	0	0	0	0	4	6
1.4 - 1.5	2	0	0	0	0	0	0	1	1
1.5 - 1.6	1	0	0	0	0	1	0	0	2
1.6 - 1.7	4	1	0	0	0	0	2	0	3
1.7 - 1.8	1	2	0	0	0	0	1	1	2
1.8 - 1.9	3	0	0	0	0	0	0	0	1
1.9 - 2	6	0	0	0	0	0	0	2	1
2 - 2.1	2	0	0	0	0	0	0	1	1
2.1 - 2.2	4	0	0	0	0	0	0	1	1
2.2 - 2.3	1	0	0	0	0	0	0	0	1
2.3 - 2.4	0	0	0	0	0	0	0	1	0
2.4 - 2.5	0	0	0	0	0	0	0	0	0
2.5 - 2.6	2	1	0	0	0	0	0	0	0
2.6 - 2.7	0	0	0	0	0	0	0	0	2
2.7 - 2.8	1	0	0	0	0	0	2	0	0
2.8 - 2.9	0	0	1	0	0	0	0	0	0
2.9 - 3	0	0	0	0	0	0	0	0	0
3 - 3.1	1	0	0	0	0	0	0	0	0
3.1 - 3.2	0	0	0	0	0	0	0	1	1
3.2 - 3.3	1	0	0	0	0	1	0	0	0
3.3 - 3.4	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
3.4 - 3.5	0	0	0	0	0	0	0	0	0
3.5 - 3.6	0	0	0	0	0	0	0	1	0
3.6 - 3.7	0	0	0	0	0	0	1	0	0
3.7 - 3.8	0	0	0	0	0	0	0	0	0
3.8 - 3.9	0	0	0	0	0	0	0	0	0
3.9 - 4	0	0	1	0	0	0	0	0	0
4 - 4.1	0	1	0	0	0	0	0	0	0
4.1 - 4.2	0	0	0	0	0	0	0	0	0
4.2 - 4.3	0	0	0	0	0	0	0	0	0
4.3 - 4.4	1	0	0	0	0	0	1	0	0
4.4 - 4.5	0	0	0	0	0	0	0	0	0
4.5 - 4.6	0	0	0	0	0	0	0	0	0
4.6 - 4.7	0	0	0	0	0	0	0	0	0
4.7 - 4.8	0	1	0	0	0	0	0	0	0
4.8 - 4.9	0	0	0	0	0	0	0	0	0
4.9 - 5	0	0	0	0	0	0	0	0	0
5 - 5.1	0	0	0	0	0	0	1	0	0
5.1 - 5.2	0	0	0	0	0	0	0	0	0
5.2 - 5.3	0	0	0	0	0	0	0	0	0
5.3 - 5.4	0	0	0	0	0	0	0	0	0
5.4 - 5.5	0	0	0	0	0	0	1	0	0
5.5 - 5.6	0	0	0	0	0	0	0	0	0
5.6 - 5.7	0	0	0	0	0	0	0	0	0
5.7 - 5.8	0	0	0	0	0	0	0	0	0
5.8 - 5.9	0	0	0	0	0	0	0	0	0
5.9 - 6	0	0	0	0	0	0	0	0	0
6 - 6.1	0	0	0	0	0	0	0	0	0
6.1 - 6.2	0	0	0	0	0	0	0	0	0
6.2 - 6.3	0	0	0	0	0	0	0	0	0
6.3 - 6.4	0	0	0	0	0	0	0	0	0
6.4 - 6.5	0	0	0	0	0	0	0	0	0
6.5 - 6.6	0	0	0	0	0	0	0	0	0
6.6 - 6.7	0	0	0	0	0	0	0	0	0
6.7 - 6.8	0	0	0	0	0	0	0	0	0
6.8 - 6.9	0	0	0	0	0	0	0	0	0
6.9 - 7	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	85-87	1987	1987	90-94	1990
ppb									
7 - 7.1	0	0	0	0	0	0	0	0	0
7.1 - 7.2	0	0	0	0	0	0	0	0	0
7.2 - 7.3	0	0	0	0	0	0	0	0	0
7.3 - 7.4	0	0	0	0	0	0	0	0	0
7.4 - 7.5	0	0	0	0	0	0	0	0	0
7.5 - 7.6	0	0	0	0	0	0	0	0	0
7.6 - 7.7	0	0	0	0	0	0	0	0	0
7.7 - 7.8	0	0	0	0	0	0	0	0	0
7.8 - 7.9	0	0	0	0	0	0	0	0	0
7.9 - 8	0	0	0	0	0	0	0	0	0
8 - 8.1	0	0	0	0	0	0	0	0	0
8.1 - 8.2	0	0	0	0	0	0	0	0	0
8.2 - 8.3	0	0	0	0	0	0	0	0	0
8.3 - 8.4	0	0	0	0	0	0	0	0	0
8.4 - 8.5	0	0	1	0	0	0	0	0	0
8.5 - 8.6	0	0	0	0	0	0	0	0	0
8.6 - 8.7	0	0	0	0	0	0	0	0	0
8.7 - 8.8	0	0	0	0	0	0	0	0	0
8.8 - 8.9	0	0	0	0	0	0	0	0	0
8.9 - 9	0	0	0	0	0	0	0	0	0
9 - 9.1	0	0	0	0	0	0	1	0	0
9.1 - 9.2	0	0	0	0	0	0	0	0	0
9.2 - 9.3	0	0	0	0	0	0	0	0	0
9.3 - 9.4	0	0	0	0	0	0	0	0	0
9.4 - 9.5	0	0	0	0	0	0	0	0	0
9.5 - 9.6	0	0	0	0	0	0	0	0	0
9.6 - 9.7	0	0	0	0	0	0	0	0	0
9.7 - 9.8	0	0	0	0	0	0	0	0	0
9.8 - 9.9	0	0	0	0	0	0	0	0	0
9.9 - 10	0	0	0	0	0	0	0	0	0
10 - 10.1	0	0	0	0	0	0	0	0	0
10.1 - 10.2	0	0	0	0	0	0	0	0	0
10.2 - 10.3	0	0	0	0	0	0	0	0	0
10.3 - 10.4	0	0	0	0	0	0	0	0	0
10.4 - 10.5	0	0	0	0	0	0	0	0	0
10.5 - 10.6	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
10.6 - 10.7	0	0	0	0	0	0	0	0	0
10.7 - 10.8	0	0	0	0	0	0	0	0	0
10.8 - 10.9	0	0	0	0	0	0	0	0	0
10.9 - 11	0	0	0	0	0	0	0	0	0
11 - 11.1	0	0	0	0	0	0	0	0	0
11.1 - 11.2	0	0	0	0	0	0	0	0	0
11.2 - 11.3	0	0	0	0	0	0	0	0	0
11.3 - 11.4	0	0	0	0	0	0	0	0	0
11.4 - 11.5	0	0	0	0	0	0	0	0	0
11.5 - 11.6	0	0	0	0	0	0	0	0	0
11.6 - 11.7	0	0	0	0	0	0	0	0	0
11.7 - 11.8	0	0	0	0	0	0	0	0	0
11.8 - 11.9	0	0	0	0	0	0	0	0	0
11.9 - 12	0	0	0	0	0	0	0	0	0
12 - 12.1	0	0	0	0	0	0	0	0	0
12.1 - 12.2	0	0	0	0	0	0	0	0	0
12.2 - 12.3	0	0	0	0	0	0	0	0	0
12.3 - 12.4	0	0	0	0	0	0	0	0	0
12.4 - 12.5	0	0	0	0	0	0	0	0	0
12.5 - 12.6	0	0	0	0	0	0	1	0	0
12.6 - 12.7	0	0	0	0	0	0	0	0	0
12.7 - 12.8	0	0	0	0	0	0	0	0	0
12.8 - 12.9	0	0	0	0	0	0	0	0	0
12.9 - 13	0	0	0	0	0	0	0	0	0
13 - 13.1	0	0	0	0	0	0	0	0	0
13.1 - 13.2	0	0	0	0	0	0	0	0	0
13.2 - 13.3	0	0	0	0	0	0	0	0	0
13.3 - 13.4	0	0	0	0	0	0	0	0	0
13.4 - 13.5	0	0	0	0	0	0	0	0	0
13.5 - 13.6	0	0	0	0	0	0	0	0	0
13.6 - 13.7	0	0	0	0	0	0	0	0	0
13.7 - 13.8	0	0	0	0	0	0	0	0	0
13.8 - 13.9	0	0	0	0	0	0	0	0	0
13.9 - 14	0	0	1	0	0	0	0	0	0
14 - 14.1	0	0	0	0	0	0	0	0	0
14.1 - 14.2	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
14.2 - 14.3	0	0	0	0	0	0	0	0	0
14.3 - 14.4	0	0	0	0	0	0	0	0	0
14.4 - 14.5	0	0	0	0	0	0	0	0	0
14.5 - 14.6	0	0	0	0	0	0	0	0	0
14.6 - 14.7	0	0	0	0	0	0	0	0	0
14.7 - 14.8	0	0	0	0	0	0	0	0	0
14.8 - 14.9	0	0	0	0	0	0	0	0	0
14.9 - 15	0	0	0	0	0	0	0	1	0
15 - 15.1	0	0	0	0	0	0	0	0	0
15.1 - 15.2	0	0	0	0	0	0	0	0	0
15.2 - 15.3	0	0	0	0	0	0	0	0	0
15.3 - 15.4	0	0	0	0	0	0	0	0	0
15.4 - 15.5	0	0	0	0	0	0	0	0	0
15.5 - 15.6	0	0	0	0	0	0	0	0	0
15.6 - 15.7	0	0	0	0	0	0	0	0	0
15.7 - 15.8	0	0	0	0	0	0	0	0	0
15.8 - 15.9	0	0	0	0	0	0	0	0	0
15.9 - 16	0	0	0	0	0	0	0	0	0
16 - 16.1	0	0	0	0	0	0	0	0	0
16.1 - 16.2	0	0	0	0	0	0	0	0	0
16.2 - 16.3	0	0	0	0	0	0	0	0	0
16.3 - 16.4	0	0	0	0	0	0	0	0	0
16.4 - 16.5	0	0	0	0	0	0	0	0	0
16.5 - 16.6	0	0	0	0	0	0	0	0	0
16.6 - 16.7	0	0	0	0	0	0	0	0	0
16.7 - 16.8	0	0	0	0	0	0	0	0	0
16.8 - 16.9	0	0	0	0	0	0	0	0	0
16.9 - 17	0	0	0	0	0	0	0	0	0
17 - 17.1	0	0	0	0	0	0	0	0	0
17.1 - 17.2	0	0	0	0	0	0	0	0	0
17.2 - 17.3	0	0	0	0	0	0	0	0	0
17.3 - 17.4	0	0	0	0	0	0	0	0	0
17.4 - 17.5	0	0	0	0	0	0	0	0	0
17.5 - 17.6	0	0	0	0	0	0	0	0	0
17.6 - 17.7	0	0	0	0	0	0	0	0	0
17.7 - 17.8	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
17.8 - 17.9	0	0	0	0	0	0	0	0	0
17.9 - 18	0	0	0	0	0	0	0	0	0
18 - 18.1	0	0	0	0	0	0	0	0	0
18.1 - 18.2	0	0	0	0	0	0	0	0	0
18.2 - 18.3	0	0	0	0	0	0	0	0	0
18.3 - 18.4	0	0	0	0	0	0	0	0	0
18.4 - 18.5	0	0	0	0	0	0	0	0	0
18.5 - 18.6	0	0	0	0	0	0	0	0	0
18.6 - 18.7	0	0	0	0	0	0	0	0	0
18.7 - 18.8	0	0	0	0	0	0	0	0	0
18.8 - 18.9	0	0	0	0	0	0	0	0	0
18.9 - 19	0	0	0	0	0	0	0	0	0
19 - 19.1	0	0	0	0	0	0	0	0	0
19.1 - 19.2	0	0	0	0	0	0	0	0	0
19.2 - 19.3	0	0	0	0	0	0	0	0	0
19.3 - 19.4	0	0	0	0	0	0	0	0	0
19.4 - 19.5	0	0	0	0	0	0	0	0	0
19.5 - 19.6	0	0	0	0	0	0	0	0	0
19.6 - 19.7	0	0	0	0	0	0	0	0	0
19.7 - 19.8	0	0	0	0	0	0	0	0	0
19.8 - 19.9	0	0	0	0	0	0	0	0	0
19.9 - 20	0	0	0	0	0	0	0	0	0
20 - 20.1	0	0	0	0	0	0	0	0	0
20.1 - 20.2	0	0	0	0	0	0	0	0	0
20.2 - 20.3	0	0	0	0	0	0	0	0	0
20.3 - 20.4	0	0	0	0	0	0	0	0	0
20.4 - 20.5	0	0	0	0	0	0	0	0	0
20.5 - 20.6	0	0	0	0	0	0	0	0	0
20.6 - 20.7	0	0	0	0	0	0	0	0	0
20.7 - 20.8	0	0	0	0	0	0	0	0	0
20.8 - 20.9	0	0	0	0	0	0	0	0	0
20.9 - 21	0	0	0	0	0	0	0	0	0
21 - 21.1	0	0	0	0	0	0	0	0	0
21.1 - 21.2	0	0	0	0	0	0	0	0	0
21.2 - 21.3	0	0	0	0	0	0	0	0	0
21.3 - 21.4	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
21.4 - 21.5	0	0	0	0	0	0	0	0	0
21.5 - 21.6	0	0	0	0	0	0	0	0	0
21.6 - 21.7	0	0	0	0	0	0	0	0	0
21.7 - 21.8	0	0	0	0	0	0	0	0	0
21.8 - 21.9	0	0	0	0	0	0	0	0	0
21.9 - 22	0	0	0	0	0	0	0	0	0
22 - 22.1	0	0	0	0	0	0	0	0	0
22.1 - 22.2	0	0	0	0	0	0	0	0	0
22.2 - 22.3	0	0	0	0	0	0	0	0	0
22.3 - 22.4	0	0	0	0	0	0	0	0	0
22.4 - 22.5	0	0	0	0	0	0	0	0	0
22.5 - 22.6	0	0	0	0	0	0	0	0	0
22.6 - 22.7	0	0	0	0	0	0	0	0	0
22.7 - 22.8	0	0	0	0	0	0	0	0	0
22.8 - 22.9	0	0	0	0	0	0	0	0	0
22.9 - 23	0	0	0	0	0	0	0	0	0
23 - 23.1	0	0	0	0	0	0	0	0	0
23.1 - 23.2	0	0	0	0	0	0	0	0	0
23.2 - 23.3	0	0	0	0	0	0	0	0	0
23.3 - 23.4	0	0	0	0	0	0	0	0	0
23.4 - 23.5	0	0	0	0	0	0	0	0	0
23.5 - 23.6	0	0	0	0	0	0	0	0	0
23.6 - 23.7	0	0	0	0	0	0	0	0	0
23.7 - 23.8	0	0	0	0	0	0	0	0	0
23.8 - 23.9	0	0	0	0	0	0	0	0	0
23.9 - 24	0	0	0	0	0	0	0	0	0
24 - 24.1	0	0	0	0	0	0	0	0	0
24.1 - 24.2	0	0	0	0	0	0	0	0	0
24.2 - 24.3	0	0	0	0	0	0	0	0	0
24.3 - 24.4	0	0	0	0	0	0	0	0	0
24.4 - 24.5	0	0	0	0	0	0	0	0	0
24.5 - 24.6	0	0	0	0	0	0	0	0	0
24.6 - 24.7	0	0	0	0	0	0	0	0	0
24.7 - 24.8	0	0	0	0	0	0	0	0	0
24.8 - 24.9	0	0	0	0	0	0	0	0	0
24.9 - 25	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
25 - 25.1	0	0	0	0	0	0	0	0	0
25.1 - 25.2	0	0	0	0	0	0	0	0	0
25.2 - 25.3	0	0	0	0	0	0	0	0	0
25.3 - 25.4	0	0	0	0	0	0	0	0	0
25.4 - 25.5	0	0	0	0	0	0	0	0	0
25.5 - 25.6	0	0	0	0	0	0	0	0	0
25.6 - 25.7	0	0	0	0	0	0	0	0	0
25.7 - 25.8	0	0	0	0	0	0	0	0	0
25.8 - 25.9	0	0	0	0	0	0	0	0	0
25.9 - 26	0	0	0	0	0	0	0	0	0
26 - 26.1	0	0	0	0	0	0	0	0	0
26.1 - 26.2	0	0	0	0	0	0	0	0	0
26.2 - 26.3	0	0	0	0	0	0	0	0	0
26.3 - 26.4	0	0	0	0	0	0	0	0	0
26.4 - 26.5	0	0	0	0	0	0	0	0	0
26.5 - 26.6	0	0	0	0	0	0	0	0	0
26.6 - 26.7	0	0	0	0	0	0	0	0	0
26.7 - 26.8	0	0	0	0	0	0	0	0	0
26.8 - 26.9	0	0	0	0	0	0	0	0	0
26.9 - 27	0	0	0	0	0	0	0	0	0
27 - 27.1	0	0	0	0	0	0	0	0	0
27.1 - 27.2	0	0	0	0	0	0	0	0	0
27.2 - 27.3	0	0	0	0	0	0	0	0	0
27.3 - 27.4	0	0	0	0	0	0	0	0	0
27.4 - 27.5	0	0	0	0	0	0	0	0	0
27.5 - 27.6	0	0	0	0	0	0	0	0	0
27.6 - 27.7	0	0	0	0	0	0	0	0	0
27.7 - 27.8	0	0	0	0	0	0	0	0	0
27.8 - 27.9	0	0	0	0	0	0	0	0	0
27.9 - 28	0	0	0	0	0	0	0	0	0
28 - 28.1	0	0	0	0	0	0	0	0	0
28.1 - 28.2	0	0	0	0	0	0	0	0	0
28.2 - 28.3	0	0	0	0	0	0	0	0	0
28.3 - 28.4	0	0	0	0	0	0	0	0	0
28.4 - 28.5	0	0	0	0	0	0	0	0	0
28.5 - 28.6	0	0	0	0	0	0	0	0	0

Table I

Frequency Distribution for Metolachlor in Surface Water (Cont.)

Source	1	2	3	4	5	6	7	8	9
Location	Many	LA	IA	FL	IA	NE	OH	Many	IA
Year	1992	86-91	86-87	1989	83-87	1987	1987	90-94	1990
ppb									
28.6 - 28.7	0	0	0	0	0	0	0	0	0
28.7 - 28.8	0	0	0	0	0	0	0	0	0
28.8 - 28.9	0	0	0	0	0	0	0	0	0
28.9 - 29	0	0	1	0	0	0	0	0	0
29 - 29.1	0	0	0	0	0	0	0	0	0
29.1 - 29.2	0	0	0	0	0	0	0	0	0
29.2 - 29.3	0	0	0	0	0	0	0	0	0
29.3 - 29.4	0	0	0	0	0	0	0	0	0
29.4 - 29.5	0	0	0	0	0	0	0	0	0
29.5 - 29.6	0	0	0	0	0	0	0	0	0
29.6 - 29.7	0	0	0	0	0	0	0	0	0
29.7 - 29.8	0	0	0	0	0	0	0	0	0
29.8 - 29.9	0	0	0	0	0	0	0	0	0
29.9 - 30	0	0	0	0	0	0	0	0	0

Table II

Summary Distribution for Metolachlor in Surface Water

Mean Residue : 0.21 ppb

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
No.Obs.	3123	100		
<0.1	2544	81.46	81.46	Median, 75
0.1 - 0.2	129	4.13	85.59	
0.2 - 0.3	69	2.21	87.80	
0.3 - 0.4	48	1.54	89.34	
0.4 - 0.5	25	0.80	90.14	90
0.5 - 0.6	30	0.96	91.10	
0.6 - 0.7	28	0.90	91.99	
0.7 - 0.8	42	1.34	93.34	
0.8 - 0.9	42	1.34	94.68	
0.9 - 1	28	0.90	95.58	95
1 - 1.1	22	0.70	96.29	
1.1 - 1.2	10	0.32	96.61	
1.2 - 1.3	9	0.29	96.89	
1.3 - 1.4	17	0.54	97.44	
1.4 - 1.5	4	0.13	97.57	
1.5 - 1.6	4	0.13	97.69	
1.6 - 1.7	10	0.32	98.01	
1.7 - 1.8	7	0.22	98.24	
1.8 - 1.9	4	0.13	98.37	
1.9 - 2	9	0.29	98.66	
2 - 2.1	4	0.13	98.78	
2.1 - 2.2	6	0.19	98.98	
2.2 - 2.3	2	0.06	99.04	99
2.3 - 2.4	1	0.03	99.07	
2.4 - 2.5	0	0.00	99.07	
2.5 - 2.6	3	0.10	99.17	
2.6 - 2.7	2	0.06	99.23	
2.7 - 2.8	3	0.10	99.33	
2.8 - 2.9	1	0.03	99.36	
2.9 - 3	0	0.00	99.36	
3 - 3.1	1	0.03	99.39	
3.1 - 3.2	2	0.06	99.46	
3.2 - 3.3	2	0.06	99.52	
3.3 - 3.4	0	0.00	99.52	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
3.4 - 3.5	0	0.00	99.52	
3.5 - 3.6	1	0.03	99.55	
3.6 - 3.7	1	0.03	99.58	
3.7 - 3.8	0	0.00	99.58	
3.8 - 3.9	0	0.00	99.58	
3.9 - 4	1	0.03	99.62	
4 - 4.1	1	0.03	99.65	
4.1 - 4.2	0	0.00	99.65	
4.2 - 4.3	0	0.00	99.65	
4.3 - 4.4	2	0.06	99.71	
4.4 - 4.5	0	0.00	99.71	
4.5 - 4.6	0	0.00	99.71	
4.6 - 4.7	0	0.00	99.71	
4.7 - 4.8	1	0.03	99.74	
4.8 - 4.9	0	0.00	99.74	
4.9 - 5	0	0.00	99.74	
5 - 5.1	1	0.03	99.78	
5.1 - 5.2	0	0.00	99.78	
5.2 - 5.3	0	0.00	99.78	
5.3 - 5.4	0	0.00	99.78	
5.4 - 5.5	1	0.03	99.81	
5.5 - 5.6	0	0.00	99.81	
5.6 - 5.7	0	0.00	99.81	
5.7 - 5.8	0	0.00	99.81	
5.8 - 5.9	0	0.00	99.81	
5.9 - 6	0	0.00	99.81	
6 - 6.1	0	0.00	99.81	
6.1 - 6.2	0	0.00	99.81	
6.2 - 6.3	0	0.00	99.81	
6.3 - 6.4	0	0.00	99.81	
6.4 - 6.5	0	0.00	99.81	
6.5 - 6.6	0	0.00	99.81	
6.6 - 6.7	0	0.00	99.81	
6.7 - 6.8	0	0.00	99.81	
6.8 - 6.9	0	0.00	99.81	
6.9 - 7	0	0.00	99.81	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
7 - 7.1	0	0.00	99.81	
7.1 - 7.2	0	0.00	99.81	
7.2 - 7.3	0	0.00	99.81	
7.3 - 7.4	0	0.00	99.81	
7.4 - 7.5	0	0.00	99.81	
7.5 - 7.6	0	0.00	99.81	
7.6 - 7.7	0	0.00	99.81	
7.7 - 7.8	0	0.00	99.81	
7.8 - 7.9	0	0.00	99.81	
7.9 - 8	0	0.00	99.81	
8 - 8.1	0	0.00	99.81	
8.1 - 8.2	0	0.00	99.81	
8.2 - 8.3	0	0.00	99.81	
8.3 - 8.4	0	0.00	99.81	
8.4 - 8.5	1	0.03	99.84	
8.5 - 8.6	0	0.00	99.84	
8.6 - 8.7	0	0.00	99.84	
8.7 - 8.8	0	0.00	99.84	
8.8 - 8.9	0	0.00	99.84	
8.9 - 9	0	0.00	99.84	
9 - 9.1	1	0.03	99.87	
9.1 - 9.2	0	0.00	99.87	
9.2 - 9.3	0	0.00	99.87	
9.3 - 9.4	0	0.00	99.87	
9.4 - 9.5	0	0.00	99.87	
9.5 - 9.6	0	0.00	99.87	
9.6 - 9.7	0	0.00	99.87	
9.7 - 9.8	0	0.00	99.87	
9.8 - 9.9	0	0.00	99.87	
9.9 - 10	0	0.00	99.87	
10 - 10.1	0	0.00	99.87	
10.1 - 10.2	0	0.00	99.87	
10.2 - 10.3	0	0.00	99.87	
10.3 - 10.4	0	0.00	99.87	
10.4 - 10.5	0	0.00	99.87	
10.5 - 10.6	0	0.00	99.87	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
10.6 - 10.7	0	0.00	99.87	
10.7 - 10.8	0	0.00	99.87	
10.8 - 10.9	0	0.00	99.87	
10.9 - 11	0	0.00	99.87	
11 - 11.1	0	0.00	99.87	
11.1 - 11.2	0	0.00	99.87	
11.2 - 11.3	0	0.00	99.87	
11.3 - 11.4	0	0.00	99.87	
11.4 - 11.5	0	0.00	99.87	
11.5 - 11.6	0	0.00	99.87	
11.6 - 11.7	0	0.00	99.87	
11.7 - 11.8	0	0.00	99.87	
11.8 - 11.9	0	0.00	99.87	
11.9 - 12	0	0.00	99.87	
12 - 12.1	0	0.00	99.87	
12.1 - 12.2	0	0.00	99.87	
12.2 - 12.3	0	0.00	99.87	
12.3 - 12.4	0	0.00	99.87	
12.4 - 12.5	0	0.00	99.87	
12.5 - 12.6	1	0.03	99.90	
12.6 - 12.7	0	0.00	99.90	
12.7 - 12.8	0	0.00	99.90	
12.8 - 12.9	0	0.00	99.90	
12.9 - 13	0	0.00	99.90	
13 - 13.1	0	0.00	99.90	
13.1 - 13.2	0	0.00	99.90	
13.2 - 13.3	0	0.00	99.90	
13.3 - 13.4	0	0.00	99.90	
13.4 - 13.5	0	0.00	99.90	
13.5 - 13.6	0	0.00	99.90	
13.6 - 13.7	0	0.00	99.90	
13.7 - 13.8	0	0.00	99.90	
13.8 - 13.9	0	0.00	99.90	
13.9 - 14	1	0.03	99.94	
14 - 14.1	0	0.00	99.94	
14.1 - 14.2	0	0.00	99.94	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
14.2 - 14.3	0	0.00	99.94	
14.3 - 14.4	0	0.00	99.94	
14.4 - 14.5	0	0.00	99.94	
14.5 - 14.6	0	0.00	99.94	
14.6 - 14.7	0	0.00	99.94	
14.7 - 14.8	0	0.00	99.94	
14.8 - 14.9	0	0.00	99.94	
14.9 - 15	1	0.03	99.97	
15 - 15.1	0	0.00	99.97	
15.1 - 15.2	0	0.00	99.97	
15.2 - 15.3	0	0.00	99.97	
15.3 - 15.4	0	0.00	99.97	
15.4 - 15.5	0	0.00	99.97	
15.5 - 15.6	0	0.00	99.97	
15.6 - 15.7	0	0.00	99.97	
15.7 - 15.8	0	0.00	99.97	
15.8 - 15.9	0	0.00	99.97	
15.9 - 16	0	0.00	99.97	
16 - 16.1	0	0.00	99.97	
16.1 - 16.2	0	0.00	99.97	
16.2 - 16.3	0	0.00	99.97	
16.3 - 16.4	0	0.00	99.97	
16.4 - 16.5	0	0.00	99.97	
16.5 - 16.6	0	0.00	99.97	
16.6 - 16.7	0	0.00	99.97	
16.7 - 16.8	0	0.00	99.97	
16.8 - 16.9	0	0.00	99.97	
16.9 - 17	0	0.00	99.97	
17 - 17.1	0	0.00	99.97	
17.1 - 17.2	0	0.00	99.97	
17.2 - 17.3	0	0.00	99.97	
17.3 - 17.4	0	0.00	99.97	
17.4 - 17.5	0	0.00	99.97	
17.5 - 17.6	0	0.00	99.97	
17.6 - 17.7	0	0.00	99.97	
17.7 - 17.8	0	0.00	99.97	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
17.8 - 17.9	0	0.00	99.97	
17.9 - 18	0	0.00	99.97	
18 - 18.1	0	0.00	99.97	
18.1 - 18.2	0	0.00	99.97	
18.2 - 18.3	0	0.00	99.97	
18.3 - 18.4	0	0.00	99.97	
18.4 - 18.5	0	0.00	99.97	
18.5 - 18.6	0	0.00	99.97	
18.6 - 18.7	0	0.00	99.97	
18.7 - 18.8	0	0.00	99.97	
18.8 - 18.9	0	0.00	99.97	
18.9 - 19	0	0.00	99.97	
19 - 19.1	0	0.00	99.97	
19.1 - 19.2	0	0.00	99.97	
19.2 - 19.3	0	0.00	99.97	
19.3 - 19.4	0	0.00	99.97	
19.4 - 19.5	0	0.00	99.97	
19.5 - 19.6	0	0.00	99.97	
19.6 - 19.7	0	0.00	99.97	
19.7 - 19.8	0	0.00	99.97	
19.8 - 19.9	0	0.00	99.97	
19.9 - 20	0	0.00	99.97	
20 - 20.1	0	0.00	99.97	
20.1 - 20.2	0	0.00	99.97	
20.2 - 20.3	0	0.00	99.97	
20.3 - 20.4	0	0.00	99.97	
20.4 - 20.5	0	0.00	99.97	
20.5 - 20.6	0	0.00	99.97	
20.6 - 20.7	0	0.00	99.97	
20.7 - 20.8	0	0.00	99.97	
20.8 - 20.9	0	0.00	99.97	
20.9 - 21	0	0.00	99.97	
21 - 21.1	0	0.00	99.97	
21.1 - 21.2	0	0.00	99.97	
21.2 - 21.3	0	0.00	99.97	
21.3 - 21.4	0	0.00	99.97	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total #	Distribution %	Cumulative Distribution %	Percentile
21.4 - 21.5	0	0.00	99.97	
21.5 - 21.6	0	0.00	99.97	
21.6 - 21.7	0	0.00	99.97	
21.7 - 21.8	0	0.00	99.97	
21.8 - 21.9	0	0.00	99.97	
21.9 - 22	0	0.00	99.97	
22 - 22.1	0	0.00	99.97	
22.1 - 22.2	0	0.00	99.97	
22.2 - 22.3	0	0.00	99.97	
22.3 - 22.4	0	0.00	99.97	
22.4 - 22.5	0	0.00	99.97	
22.5 - 22.6	0	0.00	99.97	
22.6 - 22.7	0	0.00	99.97	
22.7 - 22.8	0	0.00	99.97	
22.8 - 22.9	0	0.00	99.97	
22.9 - 23	0	0.00	99.97	
23 - 23.1	0	0.00	99.97	
23.1 - 23.2	0	0.00	99.97	
23.2 - 23.3	0	0.00	99.97	
23.3 - 23.4	0	0.00	99.97	
23.4 - 23.5	0	0.00	99.97	
23.5 - 23.6	0	0.00	99.97	
23.6 - 23.7	0	0.00	99.97	
23.7 - 23.8	0	0.00	99.97	
23.8 - 23.9	0	0.00	99.97	
23.9 - 24	0	0.00	99.97	
24 - 24.1	0	0.00	99.97	
24.1 - 24.2	0	0.00	99.97	
24.2 - 24.3	0	0.00	99.97	
24.3 - 24.4	0	0.00	99.97	
24.4 - 24.5	0	0.00	99.97	
24.5 - 24.6	0	0.00	99.97	
24.6 - 24.7	0	0.00	99.97	
24.7 - 24.8	0	0.00	99.97	
24.8 - 24.9	0	0.00	99.97	
24.9 - 25	0	0.00	99.97	

Table II

Summary Distribution for Metolachlor in Surface Water (Cont.)

ppb	Total T	Distribution %	Cumulative Distribution %	Percentile
25 - 25.1	0	0.00	99.97	
25.1 - 25.2	0	0.00	99.97	
25.2 - 25.3	0	0.00	99.97	
25.3 - 25.4	0	0.00	99.97	
25.4 - 25.5	0	0.00	99.97	
25.5 - 25.6	0	0.00	99.97	
25.6 - 25.7	0	0.00	99.97	
25.7 - 25.8	0	0.00	99.97	
25.8 - 25.9	0	0.00	99.97	
25.9 - 26	0	0.00	99.97	
26 - 26.1	0	0.00	99.97	
26.1 - 26.2	0	0.00	99.97	
26.2 - 26.3	0	0.00	99.97	
26.3 - 26.4	0	0.00	99.97	
26.4 - 26.5	0	0.00	99.97	
26.5 - 26.6	0	0.00	99.97	
26.6 - 26.7	0	0.00	99.97	
26.7 - 26.8	0	0.00	99.97	
26.8 - 26.9	0	0.00	99.97	
26.9 - 27	0	0.00	99.97	
27 - 27.1	0	0.00	99.97	
27.1 - 27.2	0	0.00	99.97	
27.2 - 27.3	0	0.00	99.97	
27.3 - 27.4	0	0.00	99.97	
27.4 - 27.5	0	0.00	99.97	
27.5 - 27.6	0	0.00	99.97	
27.6 - 27.7	0	0.00	99.97	
27.7 - 27.8	0	0.00	99.97	
27.8 - 27.9	0	0.00	99.97	
27.9 - 28	0	0.00	99.97	
28 - 28.1	0	0.00	99.97	
28.1 - 28.2	0	0.00	99.97	
28.2 - 28.3	0	0.00	99.97	
28.3 - 28.4	0	0.00	99.97	
28.4 - 28.5	0	0.00	99.97	
28.5 - 28.6	0	0.00	99.97	