Atlantic PWS

10-2-7

Iowa
department of water, air and waste management

September 25, 1986

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Atlantic Water
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IDW&WM
9-25-86

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Wilbert L. Hoeck
Director of Water Operations
Atlantic Municipal Utilities
15 W. 3rd Street
Atlantic, IA 50022

SUBJECT: Water Supply Monitoring

Dear Mr. Hoeck:

I have enclosed a copy of the results for the samples recently collected by our field staff from your water system. The samples were collected as a part of a study to determine the presence of synthetic organic chemicals and pesticides in public water systems. The following compounds were detected:

Location	Compound	Concentration in Parts Per Billion
Finished	Chloroform	3
Finished	Bromodichloromethane	5
Finished	Dibromochloromethane	5
Finished	Bromoform	1
Finished	Tetrachloroethene	1
Well #3	Tetrachloroethene	4
Well #7	Trichloroethene	1
Well #7	Tetrachloroethene	200

We would like to take this opportunity to briefly explain the health significance of the contaminants found in the finished drinking water. Chloroform, bromodichloromethane, dibromochloromethane and bromoform belong to a group of organic compounds called trihalomethanes (TTHM). TTHMs are formed during the disinfection process when chlorine reacts with dissolved organic matter. Public water systems serving over 10,000 people routinely monitor for these substances. The maximum contaminant level for TTHMs is 100 parts per billion (PPB). 14 PPB were found in your drinking water. At this concentration, the contaminants should pose no immediate adverse health concern.

The U.S. Environmental Protection Agency's Cancer Assessment Group (CAG) has classified tetrachlorethene as a probable human carcinogen. The CAG has calculated that consuming drinking water for a lifetime containing 0.7 parts per billion of tetrachloroethene would produce one excess cancer in a million people. 1 part per billion of tetrachloroethene was found in your drinking water.

Thanks for your cooperation. If you have any questions concerning this letter do not hesitate to contact me. We will contact you in the near future if corrective actions are necessary.

Sincerely,

30

JAMES R. HUMESTON
ENVIRONMENTAL SPECIALIST
WATER SUPPLY SECTION

JRH:bkp/WSW266P04.01

University of Iowa - Hygienic Laboratory

Analytical Report for Sample Number 8605511

Date Entered: 06/19/86 Date Completed: 08/18/86

Submitter: EFD 4
Address: 316 WALNUT
City: ATLANTIC ,IA 50022

Sample Location: WELL #7 - Atlantic
Sample Description: WATER
Date Collected: 06/18/86 00:00:00 Client Reference:

--- C o m m e n t s ---

--- Listing of Analysis Performed and Results ---

TEST	micrograms/L(PPB)	METHOD USED	ANALYST
COUNTER	<0.1	PR 9	PF
DYFONATE	<0.1	"	"
LORSBAN	<0.1	"	"
MOCAP	<0.1	"	"
THIONAZIN	<0.1	"	"
FONOFOS	<0.1	"	"
ATRAZINE	<0.1	"	"
BLADEX	<0.1	"	"
DUAL	<0.1	"	"
LASSO	<0.1	"	"
SENCOR	<0.1	"	"
SUTAN	<0.1	"	"
TREFLAN	<0.1	"	"
AMIBEN	<0.1	PR 2	WP
BANVEL	<0.1	"	"
2,4-D	<0.1	"	"
SILVEX	<0.1	"	"
ALDRIN	<0.04	PR 9	WP
ALPHA-BHC	<0.04	"	"
BETA-BHC	<0.04	"	"
DELTA-BHC	<0.04	"	"
GAMMA-BHC (LINDANE)	<0.04	"	"
CHLORDANE	<0.2	"	"
DDD	<0.04	"	"
DDE	<0.04	"	"
DDT	<0.04	"	"
DIELDRIN	<0.04	"	"
ENDOSULFAN I	<0.04	"	"

Analytical Report for Sample Number 8605511

)OS AN II	<0.04	"	"
)OSULFAN SULFATE	<0.04	"	"
)RIN	<0.04	"	"
)RIN ALDEHYDE	<0.04	"	"
'TACHLOR	<0.04	"	"
'TACHLOR EPOXIDE	<0.04	"	"
(APHENE	<0 5	"	"

Description: GC/MS VOLATILES

DATE : 06/25/86 Verified:

Analytical Report for Sample Number 8605513

Date Entered 06/19/86 Date Completed 08/18/86

Submitter EPD 4
Address 316 WALNUT
City ATLANTIC IA 50022

Sample Location
Sample Description FINISHED WATER - Atlantic
Date Collected 06/10/86 00 00 00 Client Reference

--- C o m m e n t s ---

--- Listing of Analysis Performed and Results ---

TEST	micrograms/L(PPB)	METHOD USED	ANALYST
COUNTER	<0.1	PR 9	PF
DYFONATE	<0.1	"	"
FORSBAN	<0.1	"	"
MOCAP	<0.1	"	"
THIMET	<0.1	"	"
FURADAN	<0.1	"	"
ATRAZINE	<0.1	"	"
BLADEX	<0.1	"	"
DUA	<0.1	"	"
LASSO	<0.1	"	"
SENCOR	<0.1	"	"
BUTAN	<0.1	"	"
TREFLAN	<0.1	"	"
AMIBEN	<0.1	PR 2	WP
BANVEL	<0.1	"	"
2,4-D	<0.1	"	"
SILVEX	<0.1	"	"
ALDRIN	<0.04	PR 9	WP
ALPHA-BHC	<0.04	"	"
BETA-BHC	<0.04	"	"
DELTA-BHC	<0.04	"	"
GAMMA-BHC (LINDANE)	<0.04	"	"
CHLORDANE	<0.2	"	"
DDD	<0.04	"	"
DDE	<0.04	"	"
DDT	<0.04	"	"
DIELDRIN	<0.04	"	"
ENDOSULFAN I	<0.04	"	"

Analytical Report for Sample Number 8605513

NDOSULFAN II	<0 04	"	"
NDOSULFAN SULFATE	<0 04	"	"
NDRIN	<0 04	"	"
ND' ALDEHYDE	<0 04	"	"
EP' LOR	<0 04	"	"
EPTACHLOR EPOXIDE	<0 04	"	"
OXAPHENE	<0 5	"	"

Description GC/MS VOLATILES

DATE : 06/25/86

Analyst:
Verified

Analytical Report for Sample Number 8605515

Date Entered 06/19/86 Date Completed 08/18/86

Submitter EPD 4
Address 316 WALNUT
City ATLANTIC IA 50022

Sample Location WELL #3 - Atlantic
Sample Description WATER
Date Collected 06/18/86 00 00 00 Client Reference

--- C o m m e n t s ---

--- Listing of Analysis Performed and Results ---

EST	micrograms/L(PPB)	METHOD USED	ANALYST
DUNTER	<0 1	PR 9	PF
YFONATE	<0 1	"	"
DRSBAN	<0 1	"	"
DCAP	<0 1	"	"
HIMET	<0 1	"	"
URADAN	<0 1	"	"
TRAZINE	<0 1	"	"
LAD[illegible]	<0 1	"	"
UAI	<0 1	"	"
ASSU	<0 1	"	"
ENCOR	<0 1	"	"
UTAN	<0 1	"	"
REFLAN	<0 1	"	"
MIBEN	<0 1	PR 2	WF
ANVEL	<0 1	"	"
,4-D	<0 1	"	"
ILVEX	<0 1	"	"
LDRIN	<0 04	PR 9	WF
LPHA-BHC	<0 04	"	"
ETA-BHC	<0 04	"	"
ELTA-BHC	<0 04	"	"
AMMA-BHC (LINDANE)	<0 04	"	"
HLORDANE	<0 2	"	"
DD	<0 04	"	"
DE	<0 04	"	"
DT	<0 04	"	"
IELDRIN	<0 04	"	"
NDOSULFAN I	<0 04	"	"

Analytical Report for Sample Number 8605515

DOSULFAN II	<0.04	"	"
DOSULFAN SULFATE	<0.04	"	"
DRIN	<0.04	"	"
DRI LDEHYDE	<0.04	"	"
PTA OR	<0.04	"	"
PTACHLOR EPOXIDE	<0.04	"	"
XAPHENE	<0.5	"	"

Description GC/MS VOLATILES

DATE 06/25/86

Analyst:
Verified

UNIVERSITY HYGIENIC LABORATORY
Analytical Report
Finnigan 4000

Client: EPD Region #4 Atten: Al Goldberg
Client Address: 316 Walnut
Atlantic, IA 50022

Client Sample Identification: Well no.7 - Atlantic
Date Sample Collected: 6-18-86
Date Sample Received: 6-19-86

ANALYTICAL RESULTS

UHL Lab No. 8605511

ANALYTE	CONCENTRATION (ug/L)	QUANTITATION LIMIT (ug/L)
CHLOROMETHANE	<1	1
BROMOMETHANE	<1	1
VINYL CHLORIDE	<1	1
CHLOROETHANE	<1	1
METHYLENE CHLORIDE	<5	5
1,1-DICHLOROETHENE	<1	1
1,1-DICHLOROETHANE	<1	1
TRANS-1,2-DICHLOROETHENE	<1	1
CHLOROFORM	<1	1
1,2-DICHLOROETHANE	<1	1
1,1,1-TRICHLOROETHANE	<1	1
CARBON TETRACHLORIDE	<1	1
BROMODICHLOROMETHANE	<1	1
1,2-DICHLOROPROPANE	<1	1
TRANS-1,3-DICHLOROPROPENE	<1	1
TRICHLOROETHENE	1	1
DIBROMOCHLOROMETHANE	<1	1

ANALYTICAL RESULTS

Lab No. 8605511

ANALYTE	CONCENTRATION (ug/L)	QUANTITAION LIMIT (ug/L)
CIS-1,3-DICHLOROPROPENE	<1	1
1,1,2-TRICHLOROETHANE	<1	1
BENZENE	<1	1
2-CHLOROETHYL VINYL ETHER	<5	5
BROMOFORM	<1	1
TETRACHLOROETHENE	200	1
1,1,2,2-TETRACHLOROETHANE	13	1
TOLUENE	<1	1
CHLOROBENZENE	<1	1
ETHYLBENZENE	<1	1
CHLOROFLUOROMETHANE	<1	1
ACROLEIN	<40	40
ACRYLONITRILE	<25	25

Analytical Method: EPA Method 624

Analyst: C.Barnes/T.Cain
Verified:
Date Reported: 6-24-86

University of Iowa - Hygienic Laboratory

Analytical Report for Sample Number 8605511

Date Entered 06/19/86 Date Completed 08/18/86

Submitter EFD 4
Address 316 WALNUT
City ATLANTIC IA 50022

Sample Location WELL #7 - Atlantic
Sample Description WATER
Date Collected 06/10/86 00:00:00 Client Reference

--- C o m m e n t s ---

--- Listing of Analysis Performed and Results ---

TEST	micrograms/L(PPB)	METHOD USED	ANALYST
COUNTER	<0.1	PR 9	PF
DYFONATE	<0.1	"	"
LORSBAN	<0.1	"	"
MOCAP	<0.1	"	"
THIMET	<0.1	"	"
TUREX	<0.1	"	"
ATRAZINE	<0.1	"	"
BLADEX	<0.1	"	"
DUAL	<0.1	"	"
LASSO	<0.1	"	"
SENCOR	<0.1	"	"
SUTAN	<0.1	"	"
TREFLAN	<0.1	"	"
AMIBEN	<0.1	PR 2	WF
BANVEL	<0.1	"	"
2,4-D	<0.1	"	"
SILVEX	<0.1	"	"
ALDRIN	<0.04	PR 9	WF
ALPHA-BHC	<0.04	"	"
BETA-BHC	<0.04	"	"
DELTA-BHC	<0.04	"	"
GAMMA-BHC (LINDANE)	<0.04	"	"
CHLORDANE	<0.2	"	"
DDD	<0.04	"	"
DDE	<0.04	"	"
DDT	<0.04	"	"
DIELDRIN	<0.04	"	"
ENDOSULFAN I	<0.04	"	"

Analytical Report for Sample Number 8605511

IDO[illegible]AN II	<0 04	"	"
NDOSULFAN SULFATE	<0 04	"	"
NDRIN	<0 04	"	"
NDRIN ALDEHYDE	<0 04	"	"
EPTACHLOR	<0 04	"	"
EPTACHLOR EPOXIDE	<0 04	"	"
DXAPHENE	<0 5	"	"

Description GC/MS VOLATILES

DATE 06/25/86 Verified

UNIVERSITY HYGIENIC LABORATORY
Analytical Report
Finnigan 4000

Client: EPD Region #4 Atten:Al Goldberg
Client Address: 316 Walnut
Atlantic, IA 50022

Client Sample Identification: Well no.3 - Atlantic
Date Sample Collected: 6-18-86
Date Sample Received: 6-19-86

ANALYTICAL RESULTS

UHL Lab No. 8605515

ANALYTE	CONCENTRATION (ug/L)	QUANTITATION LIMIT (ug/L)
CHLOROMETHANE	<1	1
BROMOMETHANE	<1	1
VINYL CHLORIDE	<1	1
CHLOROETHANE	<1	1
METHYLENE CHLORIDE	<5	5
1,1-DICHLOROETHENE	<1	1
1,1-DICHLOROETHANE	<1	1
TRANS-1,2-DICHLOROETHENE	<1	1
CHLOROFORM	<1	1
1,2-DICHLOROETHANE	<1	1
1,1,1-TRICHLOROETHANE	<1	1
CARBON TETRACHLORIDE	<1	1
BROMODICHLOROMETHANE	<1	1
1,2-DICHLOROPROPANE	<1	1
TRANS-1,3-DICHLOROPROPENE	<1	1
TRICHLOROETHENE	<1	1
BROMOCHLOROMETHANE	<1	1

ANALYTICAL RESULTS

IL Lab No. 8605515

ANALYTE	CONCENTRATION (ug/L)	QUANTITAION LIMIT (ug/L)
CIS-1,3-DICHLOROPROPENE	<1	1
1,1,2-TRICHLOROETHANE	<1	1
BENZENE	<1	1
2-CHLOROETHYL VINYL ETHER	<5	5
BROMOFORM	<1	1
TETRACHLOROETHENE	4	1
1,1,2,2-TETRACHLOROETHANE	<1	1
TOLUENE	<1	1
CHLOROBENZENE	<1	1
ETHYLBENZENE	<1	1
RICHLOROFLUOROMETHANE	<1	1
ACROLEIN	<40	40
ACRYLONITRILE	<25	25

Analytical Method: EPA Method 624

Analyst: C. Barnes/T.Cain
Verified:
Date Reported: 6-24-86

UNIVERSITY HYGIENIC LABORATORY
Analytical Report
Finnigan 4000

Client: EPD Region #4 Atten: Al Goldberg
Client Address: 316 Walnut
Atlantic, IA 50022

Client Sample Identification: Finished Water - Atlantic
Date Sample Collected: 6-18-86
Date Sample Received: 6-19-86

ANALYTICAL RESULTS

UHL Lab No. 8605513

ANALYTE	CONCENTRATION (ug/L)	QUANTITATION LIMIT (ug/L)
CHLOROMETHANE	<1	1
BROMOMETHANE	<1	1
VINYL CHLORIDE	<1	1
CHLOROETHANE	<1	1
METHYLENE CHLORIDE	<5	5
1,1-DICHLOROETHENE	<1	1
1,1-DICHLOROETHANE	<1	1
TRANS-1,2-DICHLOROETHENE	<1	1
CHLOROFORM	3	1
1,2-DICHLOROETHANE	<1	1
1,1,1-TRICHLOROETHANE	<1	1
CARBON TETRACHLORIDE	<1	1
BROMODICHLOROMETHANE	5	1
1,2-DICHLOROPROPANE	<1	1
TRANS-1,3-DICHLOROPROPENE	<1	1
TRICHLOROETHENE	<1	1
DIBROMOCHLOROMETHANE	5	1

ANALYTICAL RESULTS

Lab No. 8605513

ANALYTE	CONCENTRATION (ug/L)	QUANTITAION LIMIT (ug/L)
CIS-1,3-DICHLOROPROPENE	<1	1
1,1,2-TRICHLOROETHANE	<1	1
BENZENE	<1	1
2-CHLOROETHYL VINYL ETHER	<5	5
BROMOFORM	1	1
TETRACHLOROETHENE	1	1
1,1,2,2-TETRACHLOROETHANE	<1	1
TOLUENE	<1	1
CHLOROBENZENE	<1	1
ETHYLBENZENE	<1	1
CHLOROFLUOROMETHANE	<1	1
ACROLEIN	<40	40
ACRYLONITRILE	<25	25

Analytical Method: EPA Method 624

Analyst: C. Barnes/T.Cain
Verified:
Date Reported: 6-24-86