(414)-377-3628

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Region Annex
4041 N. Richards Street, Box 12436
Milwaukee, WI 53212-0436
TELEPHONE 414-229-0800
FAX 414-229-0810

April 17, 1997

2 people

IN REPLY REFER TO:

Mr. and Mrs. Michael Uihlein
760 Green Bay Road
~~Grafton, WI 53024~~
WUWN: IZ467
Cedarburg WI 53012

SUBJECT: Water Sample Results and Drinking Water Health Advisory
Field Inspection Report

Dear Mr. and Mrs. Uihlein:

This letter provides written confirmation of laboratory results for a water sample collected from your home.

Your drinking water sample results

A water sample was collected from your home by Mr. Chad Czarkowski on March 17, 1997; the sample was sent to the State Laboratory of Hygiene in Madison. Their analysis found five (5) volatile organic chemicals, 1,1-dichloroethylene (0.70 ug/L[1]), cis-1,2-dichloroethylene (1.6 ug/L), 1,1,1-trichloroethane (2.5 ug/L), trichloroethylene (12 ug/L), and 1,1,2-trichlorotrifluoroethane {or Freon} (140 ug/L), in the water sample from your home. The applicable drinking water standard for each contaminant is listed in the following table:

Contaminant name	Standard in ug/L	Concentration in your water, in ug/L
1,1-dichloroethylene	7	0.70
cis-1,2-dichloroethylene	70	1.6
1,1,1-trichloroethane	200	2.5
trichloroethylene	5	12
1,1,2-trichlorotrifluoroethane	5500	140

Drinking water health advisory

The concentration of *trichloroethylene* found in your well water *is greater than its established state and federal drinking water quality standard of 5 ug/L.*

You are advised to seek an alternate temporary water source (such as bottled water) for potable use.

I have contacted Mr. John Feeney (414-229-0850) from our Remediation and Redevelopment Program; he will be making arrangements to have bottled water delivered to your home as a temporary source of drinking water. From our conversation, I understand that there are two persons living in your home and this information has been relayed to Mr. Feeney so that he can set up the contract for water delivery.

I have included information about trichloroethylene and the other contaminants found in your drinking water. If you have additional questions about health risks associated with your drinking water, I have found Mr. Chuck Warzecha from the Wisconsin Division of Health to be a valuable source of health-related information. Mr. Warzecha's telephone number is (608) 267-3732.

Information about the Well Compensation Program is included for your use. This program was set up to assist owners of contaminated wells with replacement costs for a new water supply. Please consult the information packet to determine your eligibility for funding from this program.

Additional Department investigation

Water samples will be collected from other homes in Section 25 of the Town of Grafton during the next two weeks to better define the extent of groundwater contamination. As you know, analytical and reporting time takes approximately three weeks from the collection date. This means that our private well water quality investigation should be complete by the middle of May 1997.

Replacement water sources

What potential options exist for a replacement water source? Some of the long-term options that we normally examine are:

1. Connect to an existing municipal water supply.
2. Construct a deeper well into the sandstone aquifer.
3. Construct a dolomite aquifer replacement well.
4. Connect to an existing private water supply well.
5. Connect to a subdivision well.
6. Install water treatment.

For now, we've advised that you obtain a temporary source of safe drinking water such as bottled water. We believe that we'll have enough information to better advise you of the advantages and disadvantages of each option upon completion of our investigation.

Field inspection report and discussion

Chad Czarkowski conducted an inspection of the interior components of your well installation; the attached field inspection report indicates that this portion of your existing well system complies with Wisconsin Administrative Code NR 812. His field inspection also found a 1970's well which he called the milk house well. An unused well such as this should be abandoned according to Wis. Adm. Code NR 812. In this case, we feel that the well could help us to further define the degree and extent of contamination in Section 25. We would like to collect a water sample from the well during the continued investigation and will contact you to arrange a mutually agreeable sample date.

If you have questions about this letter or our investigative results, please feel free to contact me by telephone at (414) 229-0821 or by writing to the following address:

Attention: Sharon Schaver
Wisconsin Department of Natural Resources
Richards Street Annex - Drinking Water and Groundwater
PO Box 12436
Milwaukee, WI 53212

Sincerely,

Sharon L Schaver

Sharon L. Schaver
Hydrogeologist
Drinking Water and Groundwater Program

c: Gayan / D'Antuono - Southeast Region HQ GMU leaders
Chad Czarkowski - Southeast Region Annex, DG program
Division of Health - Regional and Central (Madison)
Bureau of Drinking Water and Groundwater, DG/2
John Feeney/Walt Ebersohl - Southeast Region Annex, R & R program

1. "ug/L" is the abbreviation for micrograms per liter which is a measure of the contaminant concentration. Parts per billion (or ppb) and ug/L are sometimes used interchangeably when referring to contaminant concentrations found in drinking water and groundwater.

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#7 of 22 on 04/10/97, unseen)

Id: Point/Well/..: IZ467 Field #: VIHLEIN Route: WS21
Collection Date: 03/17/97 Time: 11:00 County: 46 (Ozaukee)
From: 760 GREEN BAY RD - PW#37
Description: SAMPLE TAP - 10 MIN FLUSH
To: CZARKOWSKI/SCHAVER - DNR
PO 12436 Source: Private
MILWAUKEE, WI 53212
Account number: DG006 Collected by: CZARKOWSKI
Date Received: 03/19/97 Labslip #: OH002164 Reported: 04/09/97

---- test: GCMS VOC SCAN BY HEADSPACE - WATER

ACETONE	<5.0	UG/L #1
ALLYL CHLORIDE	<5.0	UG/L #1
BENZENE	<0.50	UG/L #1
BROMOBENZENE	<0.50	UG/L #1
BROMOCHLOROMETHANE	<0.50	UG/L #1
BROMODICHLOROMETHANE	<0.50	UG/L #1
BROMOFORM	<0.50	UG/L #1
BROMOMETHANE	<0.50	UG/L #1
N-BUTYLBENZENE	<0.50	UG/L #1
SEC-BUTYLBENZENE	<0.50	UG/L #1
TERT-BUTYLBENZENE	<0.50	UG/L #1
CARBON DISULFIDE	<5.0	UG/L #1
CARBON TETRACHLORIDE	<0.50	UG/L #1
CHLOROBENZENE	<0.50	UG/L #1
CHLOROETHANE	<0.50	UG/L #1
2-CHLOROETHYLVINYL ETHER	<5.0	UG/L #1
CHLOROFORM	<0.50	UG/L #1
2-CHLOROTOLUENE	<0.50	UG/L #1

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DIBROMOCHLOROMETHANE		<0.50	UG/L #1
1,2-DIBROMO-3-CHLOROPROPANE		<5.0	UG/L #1
1,2-DIBROMOETHANE (EDB)		<0.50	UG/L #1
DIBROMOMETHANE		<0.50	UG/L #1
1,2-DICHLOROBENZENE		<0.50	UG/L #1
1,3-DICHLOROBENZENE		<0.50	UG/L #1
1,4-DICHLOROBENZENE		<0.50	UG/L #1
1,1-DICHLOROETHANE	+	>0.50	UG/L #1
1,2-DICHLOROETHANE		<0.50	UG/L #1
1,1-DICHLOROETHYLENE		<0.50	UG/L #1
CIS-1,2-DICHLOROETHYLENE	+	>0.50	UG/L #1
TRANS-1,2-DICHLOROETHYLENE		<0.50	UG/L #1
1,2-DICHLOROPROPANE		<0.50	UG/L #1
1,3-DICHLOROPROPANE		<0.50	UG/L #1
2,2-DICHLOROPROPANE		<0.50	UG/L #1
1,1-DICHLOROPROPENE		<0.50	UG/L #1
CIS-1,3-DICHLOROPROPENE		<0.50	UG/L #1
TRANS-1,3-DICHLOROPROPENE		<0.50	UG/L #1
ETHYLBENZENE		<0.50	UG/L #1
HEXACHLOROBUTADIENE		<0.50	UG/L #1
HEXACHLOROETHANE		<5.0	UG/L #1
2-HEXANONE		<5.0	UG/L #1
ISOPROPYLETHER		<5.0	UG/L #1
ISOPROPYLBENZENE		<0.50	UG/L #1
P-ISOPROPYLTOLUENE		<0.50	UG/L #1
METHYLENE CHLORIDE		<0.50	UG/L #1
METHYL ETHYL KETONE		<5.0	UG/L #1
METHYLIODIDE		<5.0	UG/L #1
METHYLMETHACRYLATE		<5.0	UG/L #1

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METHYL-TERT-BUTYL ETHER		<5.0	UG/L #1
NAPHTHALENE		<0.50	UG/L #1
N-PROPYLBENZENE		<0.50	UG/L #1
STYRENE		<0.50	UG/L #1
1,1,1,2-TETRACHLOROETHANE		<0.50	UG/L #1
1,1,2,2-TETRACHLOROETHANE		<0.50	UG/L #1
TETRACHLOROETHYLENE		<0.50	UG/L #1
TETRAHYDROFURAN		<5.0	UG/L #1
TOLUENE		<0.50	UG/L #1
1,2,3-TRICHLOROBENZENE		<0.50	UG/L #1
1,2,4-TRICHLOROBENZENE		<0.50	UG/L #1
1,1,1-TRICHLOROETHANE	+	>0.50	UG/L #1
1,1,2-TRICHLOROETHANE		<0.50	UG/L #1
TRICHLOROETHYLENE	+	>0.50	UG/L #1
TRICHLOROFLUOROMETHANE		<0.50	UG/L #1
1,2,3-TRICHLOROPROPANE		<0.50	UG/L #1
1,1,2-TRICHLOROTRIFLUOROETHANE	+	>5.0	UG/L #1
1,2,4-TRIMETHYLBENZENE		<0.50	UG/L #1
1,3,5-TRIMETHYLBENZENE		<0.50	UG/L #1
VINYL ACETATE		<5.0	UG/L #1
VINYL CHLORIDE		<0.50	UG/L #1
M/P-XYLENE		<0.50	UG/L #1
O-XYLENE		<0.50	UG/L #1

---- test: TEMPERATURE - 0950

TEMPERATURE		14	C

---- test: VOCS IN WATER BY PURGE AND TRAP - EPA METHOD 8021

ACETONE		*C ND	UG/L #2
ALLYL CHLORIDE		ND (LOD=5.0 UG/L)	#2
BENZENE		ND (LOD=0.50 UG/L)	#2
BROMOBENZENE		ND (LOD=0.50 UG/L)	#2
BROMOCHLOROMETHANE		ND (LOD=0.50 UG/L)	#2
BROMODICHLOROMETHANE		ND (LOD=0.50 UG/L)	#2
BROMOFORM		ND (LOD=0.50 UG/L)	#2
BROMOMETHANE		*C *Q ND	UG/L #2
N-BUTYLBENZENE		ND (LOD=0.50 UG/L)	#2
SEC-BUTYLBENZENE		ND (LOD=0.50 UG/L)	#2
TERT-BUTYLBENZENE		ND (LOD=0.50 UG/L)	#2
CARBON DISULFIDE		ND (LOD=5.0 UG/L)	#2
CARBON TETRACHLORIDE		ND (LOD=0.50 UG/L)	#2
CHLOROBENZENE		ND (LOD=0.50 UG/L)	#2
CHLOROETHANE		*Q ND	UG/L #2

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4-METHYL-2-PENTANONE	<5.0 UG/L #1
2-CHLOROETHYLVINYL ETHER	ND (LOD=5.0 UG/L) #2
CHLOROFORM	ND (LOD=0.50 UG/L) #2
2-CHLOROTOLUENE	ND (LOD=0.50 UG/L) #2

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4-METHYL-2-PENTANONE ND (LOD=5.0 UG/L) #2

--- OH002164.MM2/1 - VOCS IN WATER BY PURGE AND TRAP - EPA METHOD 8021 ---

The following qualifiers exist for the data that is reported for Wisconsin State Laboratory of Hygiene sample OH002164.

Calibration exceeds quality control limit indicated by *C.
Quality control limit is exceeded indicated by *Q.

If you have any questions, contact David Degenhardt at (608) 262-2797.