



May 16, 2019

Jeffery D. and Christy J. Anderson
W8647 Sportsman Club Road
Onalaska, WI 54650

SUBJECT: Water Sample Results for your well at W8647 Sportsman Club Road

Dear Mr. and Mrs. Anderson:

As part of a routine groundwater monitoring plan for the Onalaska Landfill, water samples were taken from your well for analysis of several health-related substances on April 23, 2019. Enclosed are the laboratory results for your water samples.

The samples were analyzed for the presence of volatile organic compounds (VOCs). VOCs are compounds found in such things as gasoline, diesel, oil and other industrial cleaners and solvents. No VOCs were detected. Your water was also tested for some inorganic compounds. Listed below are the compounds detected, the sample concentrations and the Health Advisory Level (HAL) for each compound.

Compound	Sample Concentration	Health Advisory Level
Barium, Dissolved	20.3 ug/L	2000 ug/L
Manganese, Dissolved	145 ug/L	300 ug/L
Vanadium, Dissolved	2.7 ug/L	30 ug/L

NOTE: One microgram per liter of water (ug/L) is equal to one part per billion.

Some inorganics which occur naturally in soil and groundwater may not pose a threat to human health, but can affect the color, odor, and taste of the water. They can also cause staining of plumbing fixtures, such as bathtubs and toilet bowls, as well as certain appliances such as washing machines and dishwashers. The groundwater quality standard set for these aesthetic reasons was exceeded for iron in your April 23, 2019 sample.

Your well will continue to be sampled on a regular basis, and we will continue to notify you of the results. If you have any questions regarding the water sample results, please contact me at 715-839-3748.

Sincerely,

Mae Willkom
Hydrogeologist
Remediation and Redevelopment

Cc: Bureau of Drinking Water & Groundwater – DG/5
Bureau of Waste and Materials Management

ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-1 Lab ID: 40186580027 Collected: 04/23/19 18:30 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	<8.3	ug/L	25.0	8.3	1	04/30/19 07:25	04/30/19 16:36	7440-38-2	
Barium	20.3	ug/L	5.0	1.5	1	04/30/19 07:25	04/30/19 16:36	7440-39-3	
Cadmium	<1.3	ug/L	5.0	1.3	1	04/30/19 07:25	04/30/19 16:36	7440-43-9	
Cobalt	<1.4	ug/L	5.0	1.4	1	04/30/19 07:25	04/30/19 16:36	7440-48-4	
Iron	5440	ug/L	246	73.9	1	04/30/19 07:25	04/30/19 16:36	7439-89-6	
Lead	<5.9	ug/L	19.7	5.9	1	04/30/19 07:25	04/30/19 16:36	7439-92-1	1q
Manganese	145	ug/L	5.1	1.5	1	04/30/19 07:25	04/30/19 16:36	7439-96-5	
Vanadium	2.7J	ug/L	10.0	2.6	1	04/30/19 07:25	04/30/19 16:36	7440-62-2	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.084	ug/L	0.28	0.084	1	04/30/19 10:10	05/01/19 08:49	7439-97-6	
8260 MSV									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		05/01/19 11:56	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 11:56	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		05/01/19 11:56	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		05/01/19 11:56	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		05/01/19 11:56	75-35-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/01/19 11:56	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		05/01/19 11:56	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		05/01/19 11:56	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 11:56	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 11:56	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		05/01/19 11:56	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/01/19 11:56	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		05/01/19 11:56	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		05/01/19 11:56	106-46-7	
2-Butanone (MEK)	<2.9	ug/L	20.0	2.9	1		05/01/19 11:56	78-93-3	
2-Hexanone	<2.5	ug/L	8.2	2.5	1		05/01/19 11:56	591-78-6	
4-Methyl-2-pentanone (MIBK)	<1.5	ug/L	5.1	1.5	1		05/01/19 11:56	108-10-1	
Acetone	<2.7	ug/L	20.0	2.7	1		05/01/19 11:56	67-64-1	
Benzene	<0.25	ug/L	1.0	0.25	1		05/01/19 11:56	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		05/01/19 11:56	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		05/01/19 11:56	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		05/01/19 11:56	74-83-9	
Carbon disulfide	<0.37	ug/L	5.0	0.37	1		05/01/19 11:56	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		05/01/19 11:56	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 11:56	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		05/01/19 11:56	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		05/01/19 11:56	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		05/01/19 11:56	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		05/01/19 11:56	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		05/01/19 11:56	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		05/01/19 11:56	75-71-8	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/01/19 11:56	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		05/01/19 11:56	87-68-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-1 Lab ID: 40186580027 Collected: 04/23/19 18:30 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		05/01/19 11:56	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/01/19 11:56	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		05/01/19 11:56	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/01/19 11:56	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		05/01/19 11:56	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		05/01/19 11:56	127-18-4	
Tetrahydrofuran	<2.3	ug/L	20.0	2.3	1		05/01/19 11:56	109-99-9	
Toluene	<0.17	ug/L	5.0	0.17	1		05/01/19 11:56	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		05/01/19 11:56	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		05/01/19 11:56	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/01/19 11:56	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		05/01/19 11:56	1330-20-7	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		05/01/19 11:56	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		05/01/19 11:56	10061-01-5	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 11:56	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		05/01/19 11:56	103-65-1	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		05/01/19 11:56	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		05/01/19 11:56	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		05/01/19 11:56	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		05/01/19 11:56	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		05/01/19 11:56	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		05/01/19 11:56	460-00-4	
Dibromofluoromethane (S)	117	%	70-130		1		05/01/19 11:56	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		05/01/19 11:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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May 16, 2019

Timothy J. and Jill A. Taylor
W8672 CTH Z
Onalaska, WI 54650

SUBJECT: Water Sample Results for your well at W8672 CTH Z

Dear Mr. and Mrs. Taylor:

As part of a routine groundwater monitoring plan for the Onalaska Landfill, water samples were taken from your well for analysis of several health-related substances on April 23, 2019. Enclosed are the laboratory results for your water samples.

The samples were analyzed for the presence of volatile organic compounds (VOCs). VOCs are compounds found in such things as gasoline, diesel, oil and other industrial cleaners and solvents. None of the compounds were detected at a concentration that would be considered to pose a health risk. Your water was also tested for some inorganic compounds. Listed below are the compounds detected, the sample concentrations, and the Health Advisory Level (HAL) for each compound.

Compound	Sample Concentration	Health Advisory Level
Barium, Dissolved	94 ug/L	2000 ug/L
Manganese, Dissolved	50.4 ug/L	300 ug/L
Acetone	2.9 ug/L	9000 ug/L
Chloromethane	4.3 ug/L	30 ug/L

NOTE: One microgram per liter of water (ug/l) is equal to one part per billion.

Some inorganics which occur naturally in soil and groundwater may not pose a threat to human health, but can affect the color, odor, and taste of the water. They can also cause staining of plumbing fixtures, such as bathtubs and toilet bowls, as well as certain appliances such as washing machines and dishwashers. The groundwater quality standard set for these aesthetic reasons for iron was not exceeded in your April 23, 2019 sample.

Your well will continue to be sampled on a regular basis, and we will continue to notify you of the results. If you have any questions or concerns regarding the water sample results, please contact me at 715-839-3748.

Sincerely,

Mae Willkom
Hydrogeologist
Remediation and Redevelopment

Cc Bureau of Drinking Water & Groundwater – DG/5
Bureau of Waste and Materials Management

ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-2 Lab ID: 40186580028 Collected: 04/23/19 18:10 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	<8.3	ug/L	25.0	8.3	1	04/30/19 07:25	04/30/19 16:43	7440-38-2	
Barium	94.0	ug/L	5.0	1.5	1	04/30/19 07:25	04/30/19 16:43	7440-39-3	
Cadmium	<1.3	ug/L	5.0	1.3	1	04/30/19 07:25	04/30/19 16:43	7440-43-9	
Cobalt	<1.4	ug/L	5.0	1.4	1	04/30/19 07:25	04/30/19 16:43	7440-48-4	
Iron	117J	ug/L	246	73.9	1	04/30/19 07:25	04/30/19 16:43	7439-89-6	
Lead	<5.9	ug/L	19.7	5.9	1	04/30/19 07:25	04/30/19 16:43	7439-92-1	1q
Manganese	50.4	ug/L	5.1	1.5	1	04/30/19 07:25	04/30/19 16:43	7439-96-5	
Vanadium	<2.6	ug/L	10.0	2.6	1	04/30/19 07:25	04/30/19 16:43	7440-62-2	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.084	ug/L	0.28	0.084	1	04/30/19 10:10	05/01/19 08:51	7439-97-6	
8260 MSV									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		05/01/19 12:18	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:18	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		05/01/19 12:18	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		05/01/19 12:18	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		05/01/19 12:18	75-35-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/01/19 12:18	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		05/01/19 12:18	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		05/01/19 12:18	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:18	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:18	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:18	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/01/19 12:18	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		05/01/19 12:18	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		05/01/19 12:18	106-46-7	
2-Butanone (MEK)	<2.9	ug/L	20.0	2.9	1		05/01/19 12:18	78-93-3	
2-Hexanone	<2.5	ug/L	8.2	2.5	1		05/01/19 12:18	591-78-6	
4-Methyl-2-pentanone (MIBK)	<1.5	ug/L	5.1	1.5	1		05/01/19 12:18	108-10-1	
Acetone	2.9J	ug/L	20.0	2.7	1		05/01/19 12:18	67-64-1	
Benzene	<0.25	ug/L	1.0	0.25	1		05/01/19 12:18	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		05/01/19 12:18	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		05/01/19 12:18	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		05/01/19 12:18	74-83-9	
Carbon disulfide	<0.37	ug/L	5.0	0.37	1		05/01/19 12:18	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		05/01/19 12:18	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:18	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		05/01/19 12:18	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		05/01/19 12:18	67-66-3	
Chloromethane	4.3J	ug/L	7.3	2.2	1		05/01/19 12:18	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		05/01/19 12:18	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		05/01/19 12:18	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		05/01/19 12:18	75-71-8	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/01/19 12:18	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		05/01/19 12:18	87-68-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-2 Lab ID: 40186580028 Collected: 04/23/19 18:10 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		05/01/19 12:18	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/01/19 12:18	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		05/01/19 12:18	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/01/19 12:18	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		05/01/19 12:18	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		05/01/19 12:18	127-18-4	
Tetrahydrofuran	<2.3	ug/L	20.0	2.3	1		05/01/19 12:18	109-99-9	
Toluene	<0.17	ug/L	5.0	0.17	1		05/01/19 12:18	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		05/01/19 12:18	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		05/01/19 12:18	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/01/19 12:18	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		05/01/19 12:18	1330-20-7	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		05/01/19 12:18	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		05/01/19 12:18	10061-01-5	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:18	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		05/01/19 12:18	103-65-1	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		05/01/19 12:18	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		05/01/19 12:18	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		05/01/19 12:18	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		05/01/19 12:18	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		05/01/19 12:18	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	81	%	70-130		1		05/01/19 12:18	460-00-4	
Dibromofluoromethane (S)	117	%	70-130		1		05/01/19 12:18	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		05/01/19 12:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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May 16, 2019

Scott and Rae Ann Elvin
W8658 County Hwy Z
Onalaska WI 54650

SUBJECT: Water Sample Results for your well at W8658 County Hwy Z

Dear Mr. and Mrs. Elvin:

As part of a routine groundwater monitoring plan for the Onalaska Landfill, water samples were taken from your well for analysis of several health-related substances on April 24, 2019. Enclosed are the laboratory results for your water samples.

The samples were analyzed for the presence of volatile organic compounds (VOCs). VOCs are compounds found in such things as gasoline, diesel, oil and other industrial cleaners and solvents. None of the compounds were detected at a concentration that would be considered to pose a health risk. Your water was also tested for some inorganic compounds. Listed below are the compounds detected, the sample concentrations and the Health Advisory Level (HAL) for each compound.

Compound	Sample Concentration	Health Advisory Level
Barium, Dissolved	25.2 ug/L	2000 ug/L
Manganese, Dissolved	169 ug/L	300 ug/L
Acetone	2.9 ug/L	9000 ug/L

NOTE: One microgram per liter of water (ug/L) is equal to one part per billion.

Some inorganics which occur naturally in soil and groundwater may not pose a threat to human health, but can affect the color, odor, and taste of the water. They can also cause staining of plumbing fixtures, such as bathtubs and toilet bowls, as well as certain appliances such as washing machines and dishwashers. The groundwater quality standard set for these aesthetic reasons was exceeded for iron in your April 24, 2019 sample.

Your well will continue to be sampled on a regular basis, and we will continue to notify you of the results. If you have any questions regarding the water sample results, please contact me at 715-839-3748.

Sincerely,

Mae Willkom
Hydrogeologist
Remediation and Redevelopment

Cc: Bureau of Drinking Water & Groundwater – DG/5
Bureau of Waste and Materials Management

ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-3 Lab ID: 40186580029 Collected: 04/24/19 17:40 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	<8.3	ug/L	25.0	8.3	1	04/30/19 07:25	04/30/19 16:45	7440-38-2	
Barium	25.2	ug/L	5.0	1.5	1	04/30/19 07:25	04/30/19 16:45	7440-39-3	
Cadmium	<1.3	ug/L	5.0	1.3	1	04/30/19 07:25	04/30/19 16:45	7440-43-9	
Cobalt	<1.4	ug/L	5.0	1.4	1	04/30/19 07:25	04/30/19 16:45	7440-48-4	
Iron	11300	ug/L	246	73.9	1	04/30/19 07:25	04/30/19 16:45	7439-89-6	
Lead	<5.9	ug/L	19.7	5.9	1	04/30/19 07:25	04/30/19 16:45	7439-92-1	1q
Manganese	169	ug/L	5.1	1.5	1	04/30/19 07:25	04/30/19 16:45	7439-96-5	
Vanadium	<2.6	ug/L	10.0	2.6	1	04/30/19 07:25	04/30/19 16:45	7440-62-2	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.084	ug/L	0.28	0.084	1	04/30/19 10:10	05/01/19 08:54	7439-97-6	
8260 MSV									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		05/01/19 12:41	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:41	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		05/01/19 12:41	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		05/01/19 12:41	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		05/01/19 12:41	75-35-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/01/19 12:41	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		05/01/19 12:41	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		05/01/19 12:41	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:41	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:41	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		05/01/19 12:41	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/01/19 12:41	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		05/01/19 12:41	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		05/01/19 12:41	106-46-7	
2-Butanone (MEK)	<2.9	ug/L	20.0	2.9	1		05/01/19 12:41	78-93-3	
2-Hexanone	<2.5	ug/L	8.2	2.5	1		05/01/19 12:41	591-78-6	
4-Methyl-2-pentanone (MIBK)	<1.5	ug/L	5.1	1.5	1		05/01/19 12:41	108-10-1	
Acetone	2.9J	ug/L	20.0	2.7	1		05/01/19 12:41	67-64-1	
Benzene	<0.25	ug/L	1.0	0.25	1		05/01/19 12:41	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		05/01/19 12:41	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		05/01/19 12:41	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		05/01/19 12:41	74-83-9	
Carbon disulfide	<0.37	ug/L	5.0	0.37	1		05/01/19 12:41	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		05/01/19 12:41	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:41	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		05/01/19 12:41	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		05/01/19 12:41	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		05/01/19 12:41	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		05/01/19 12:41	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		05/01/19 12:41	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		05/01/19 12:41	75-71-8	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/01/19 12:41	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		05/01/19 12:41	87-68-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-3 Lab ID: 40186580029 Collected: 04/24/19 17:40 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		05/01/19 12:41	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/01/19 12:41	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		05/01/19 12:41	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/01/19 12:41	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		05/01/19 12:41	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		05/01/19 12:41	127-18-4	
Tetrahydrofuran	<2.3	ug/L	20.0	2.3	1		05/01/19 12:41	109-99-9	
Toluene	<0.17	ug/L	5.0	0.17	1		05/01/19 12:41	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		05/01/19 12:41	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		05/01/19 12:41	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/01/19 12:41	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		05/01/19 12:41	1330-20-7	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		05/01/19 12:41	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		05/01/19 12:41	10061-01-5	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 12:41	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		05/01/19 12:41	103-65-1	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		05/01/19 12:41	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		05/01/19 12:41	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		05/01/19 12:41	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		05/01/19 12:41	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		05/01/19 12:41	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		05/01/19 12:41	460-00-4	
Dibromofluoromethane (S)	121	%	70-130		1		05/01/19 12:41	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		05/01/19 12:41	2037-26-5	

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May 16, 2019

Mr. Peter D. Fuhman
W8666 County Hwy Z
Onalaska WI 54650

SUBJECT: Water Sample Results for your well at W8666 County Hwy Z

Dear Mr. Fuhman:

As part of a routine groundwater-monitoring plan for the Onalaska Landfill, water samples were taken from your well for analysis of several health-related substances on April 23, 2019. Enclosed are the laboratory results for your water samples.

The samples were analyzed for the presence of volatile organic compounds (VOCs). VOCs are compounds found in such things as gasoline, diesel, oil and other industrial cleaners and solvents. None of the compounds were detected at a concentration that would be considered to pose a health risk. Your water was also tested for some inorganic compounds. Listed below are the compounds detected, the sample concentrations and the Health Advisory Level (HAL) for each compound.

Compound	Sample Concentration	Health Advisory Level
Barium, Dissolved	19.9 ug/L	2000 ug/L
Manganese, Dissolved	114 ug/L	300 ug/L
Vanadium, Dissolved	2.7 ug/L	30 ug/L
Acetone	3.4 ug/L	9000 ug/L

NOTE: One microgram per liter of water (ug/L) is equal to one part per billion.

Some inorganics which occur naturally in soil and groundwater may not pose a threat to human health, but can affect the color, odor, and taste of the water. They can also cause staining of plumbing fixtures, such as bathtubs and toilet bowls, as well as certain appliances such as washing machines and dishwashers. The groundwater quality standard set for these aesthetic reasons was exceeded for iron in your April 23, 2019 sample.

Your well will continue to be sampled on a semi-annual basis, and we will continue to notify you of the results. If you have any questions regarding the water sample results, please contact me at 715-839-3748.

Sincerely,

Mae Willkom
Hydrogeologist
Remediation and Redevelopment

Cc: Bureau of Drinking Water & Groundwater – DG/5
Bureau of Waste and Materials Management

ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-4 Lab ID: 40186580030 Collected: 04/23/19 17:50 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	<8.3	ug/L	25.0	8.3	1	04/30/19 07:25	04/30/19 16:48	7440-38-2	
Barium	19.9	ug/L	5.0	1.5	1	04/30/19 07:25	04/30/19 16:48	7440-39-3	
Cadmium	<1.3	ug/L	5.0	1.3	1	04/30/19 07:25	04/30/19 16:48	7440-43-9	
Cobalt	<1.4	ug/L	5.0	1.4	1	04/30/19 07:25	04/30/19 16:48	7440-48-4	
Iron	6830	ug/L	246	73.9	1	04/30/19 07:25	04/30/19 16:48	7439-89-6	
Lead	<5.9	ug/L	19.7	5.9	1	04/30/19 07:25	04/30/19 16:48	7439-92-1	1q
Manganese	114	ug/L	5.1	1.5	1	04/30/19 07:25	04/30/19 16:48	7439-96-5	
Vanadium	2.7J	ug/L	10.0	2.6	1	04/30/19 07:25	04/30/19 16:48	7440-62-2	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.084	ug/L	0.28	0.084	1	04/30/19 10:10	05/01/19 08:56	7439-97-6	
8260 MSV									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		05/01/19 13:07	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 13:07	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		05/01/19 13:07	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		05/01/19 13:07	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		05/01/19 13:07	75-35-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/01/19 13:07	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		05/01/19 13:07	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		05/01/19 13:07	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 13:07	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		05/01/19 13:07	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		05/01/19 13:07	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/01/19 13:07	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		05/01/19 13:07	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		05/01/19 13:07	106-46-7	
2-Butanone (MEK)	<2.9	ug/L	20.0	2.9	1		05/01/19 13:07	78-93-3	
2-Hexanone	<2.5	ug/L	8.2	2.5	1		05/01/19 13:07	591-78-6	
4-Methyl-2-pentanone (MIBK)	<1.5	ug/L	5.1	1.5	1		05/01/19 13:07	108-10-1	
Acetone	3.4J	ug/L	20.0	2.7	1		05/01/19 13:07	67-64-1	
Benzene	<0.25	ug/L	1.0	0.25	1		05/01/19 13:07	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		05/01/19 13:07	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		05/01/19 13:07	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		05/01/19 13:07	74-83-9	
Carbon disulfide	<0.37	ug/L	5.0	0.37	1		05/01/19 13:07	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		05/01/19 13:07	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 13:07	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		05/01/19 13:07	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		05/01/19 13:07	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		05/01/19 13:07	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		05/01/19 13:07	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		05/01/19 13:07	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		05/01/19 13:07	75-71-8	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/01/19 13:07	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		05/01/19 13:07	87-68-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TOWN OF ONALASKA LANDFILL
Pace Project No.: 40186580

Sample: PW-4 Lab ID: 40186580030 Collected: 04/23/19 17:50 Received: 04/26/19 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		05/01/19 13:07	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/01/19 13:07	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		05/01/19 13:07	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/01/19 13:07	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		05/01/19 13:07	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		05/01/19 13:07	127-18-4	
Tetrahydrofuran	<2.3	ug/L	20.0	2.3	1		05/01/19 13:07	109-99-9	
Toluene	<0.17	ug/L	5.0	0.17	1		05/01/19 13:07	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		05/01/19 13:07	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		05/01/19 13:07	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/01/19 13:07	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		05/01/19 13:07	1330-20-7	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		05/01/19 13:07	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		05/01/19 13:07	10061-01-5	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		05/01/19 13:07	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		05/01/19 13:07	103-65-1	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		05/01/19 13:07	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		05/01/19 13:07	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		05/01/19 13:07	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		05/01/19 13:07	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		05/01/19 13:07	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		05/01/19 13:07	460-00-4	
Dibromofluoromethane (S)	121	%	70-130		1		05/01/19 13:07	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		05/01/19 13:07	2037-26-5	

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