

RECEIVED
JAN 02 2018

December 26, 2017

Current North Oaks Resident
1 Buffalo Road
North Oaks, MN 55127

RE: Laboratory Results for Your Well

Dear Resident:

Enclosed are the Laboratory results for the water samples that were collected from your well in October 2017. A total of 66 residential water supply wells were sampled in North Oaks in October 2017 to monitor groundwater in an area located west of the Highway 96 Dump Superfund site (Site). Please see the attached map for the locations of the 66 wells.

The enclosed Laboratory Reports show that there was one or more volatile organic compound (VOC), but no vinyl chloride (VC), detected in the sample of your well water. Please refer to the attached table for an actual summary of detected VOC concentrations.

Residential water supply results are compared to health risk limits (HRLs) established by the Minnesota Department of Health (MDH). HRLs indicate contaminant concentrations in water that are safe for residents to consume daily over a lifetime and are protective for developing fetuses, children, and people who may drink more water than the average person, such as a nursing mother. In addition, the combined concentrations of contaminants in a water well sample are evaluated to determine whether they exceed an additive health-based threshold. None of the 66 wells sampled in October 2017 exceeded this threshold (see below).

All of the detected VOCs in your well water sample were detected at concentrations below their respective HRLs, indicating that your water is safe to consume.

Please note that the symbol "ND" in the "Result" column on the report indicates that the VOC was not detected above its respective reporting limit (RL). A VOC's reporting limit indicates the minimum concentration that can be quantified accurately within specified limits of precision, using a specific analytical method. The reporting limit for each VOC is shown under the column marked RL. The units used to indicate the level or concentration in the water sample are given in micrograms per liter (ug/L) or parts-per-billion.

In some cases, the laboratory can detect concentrations of VOCs below the reporting limit. Because the quantification at these lower concentrations is not as exact, these results are considered to be "estimated" and are flagged with a "J" qualifier. Estimated concentrations are below the reporting limit, but greater than the method detection limit. The method detection limit is the minimum concentration that can be measured with confidence that the concentration is greater than zero, using a specific analytical method.

For your information, samples from 61 of the 66 wells sampled in October 2017 contained no detectable VOCs or VC. Samples from 5 of the 66 wells (including yours) contained one or more detectable VOC, but no VC, at concentrations below their respective HRLs. None of the samples from the 66 wells contained detectable concentrations of VC.

Current North Oaks Resident

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Please refer to the attached table for a summary of the results for all of the 66 wells sampled in October 2017.

The MPCA, in conjunction with GHD Services, Inc. (GHD, formerly Conestoga-Rovers and Associates), will continue to sample select residential wells in North Oaks to monitor VOC and VC contamination in the Gilfillan Lake area. The next residential well sampling event is scheduled for April 2018.

If your well is scheduled to be sampled during the April 2018 sampling event, MPCA or GHD staff will contact you approximately one week before the sampling event to request permission to sample your well.

As you may recall, the MPCA Commissioner signed the Amendment to the 1993 Minnesota Decision Document (MDD) on August 26, 2008. The Amended MDD is the document that memorializes the selected cleanup remedies for the Site. The selected remedy for homes that receive a MDH well advisory is a new deeper well. The Amended MDD is currently posted on the city of North Oaks website.

For additional information about the Site, please refer to the city of North Oaks website located at www.cityofnorthoaks.com. If you do not have access to the Internet and/or have questions about the Site, please call Andri Dahlmeier at 651-757-2718. If you have any questions or concerns about the HRLs or about potential health risks associated with the groundwater contamination at the Site, please contact Emily Hansen, of the MDH, at 651-201-4602.

Sincerely,



Frederick K. Campbell
Hydrogeologist
Site Remediation & Redevelopment Section
Remediation Division

FKC:bhj

Enclosures

cc: Mike Robertson, City of North Oaks
Michelle Hosfield, Wenck Associates, Inc.
Sarah Illi, GHD Services, Inc.
Emily Hansen, Minnesota Department of Health (electronic)

December 26, 2017

Current North Oaks Resident
15 West Shore Road
North Oaks, MN 55127

RE: Laboratory Results for Your Well

Dear Current Resident:

Enclosed are the Laboratory results for the water sample that was collected from your well in October 2017. A total of 66 residential water supply wells were sampled in North Oaks in October 2017 to monitor groundwater in an area located west of the Highway 96 Dump Superfund site (Site). Please see the enclosed map for the locations of the 66 wells.

Residential water supply results are compared to health risk limits (HRLs) established by the Minnesota Department of Health (MDH). HRLs indicate contaminant concentrations in water that are safe for residents to consume daily over a lifetime and are protective for developing fetuses, children, and people who may drink more water than the average person, such as a nursing mother. In addition, the combined concentrations of contaminants in a water well sample are evaluated to determine whether they exceed an additive health-based threshold. None of the 66 wells sampled in October 2017 exceeded this threshold (see below).

The enclosed Laboratory Report shows that no volatile organic compounds (VOCs) or vinyl chloride (VC) were detected in your well water sample, indicating that your water is safe to consume.

Please note that the symbol "ND" in the "Result" column on the report indicates that the VOC was not detected above its respective reporting limit (RL). A VOC's RL indicates the minimum concentration that can be quantified accurately within specified limits of precision, using a specific analytical method. The reporting limit for each VOC is shown under the column marked "RL." The units used to indicate the level, or concentration in the water sample, are given in micrograms per liter (ug/L) or parts-per-billion.

In some cases, the laboratory can detect concentrations of VOCs below the reporting limit. Because the quantification at these lower concentrations is not as exact, these results are considered to be "estimated" and are flagged with a "J" qualifier. Estimated concentrations are below the reporting limit, but greater than the method detection limit. The method detection limit is the minimum concentration that can be measured with confidence that the concentration is greater than zero, using a specific analytical method.

For your information, samples from 61 of the 66 wells sampled in October 2017 (including yours), contained no detectable VOCs or VC. Please refer to the enclosed table for a summary of the results for all of the 66 wells sampled in October 2017.

Current North Oaks Resident

Page 2

December 26, 2017

The MPCA, in conjunction with GHD Services, Inc. (GHD, formerly Conestoga-Rovers & Associates), will continue to sample select residential wells in North Oaks to monitor VOC and VC contamination in the Gilfillan Lake area. The next residential well sampling event is scheduled for April 2018. If your well is scheduled to be sampled during the April 2018 sampling event, MPCA or GHD staff will contact you approximately one week before the sampling event to request permission to sample your well.

As you may recall, the MPCA Commissioner signed the Amendment to the 1993 Minnesota Decision Document (MDD) on August 26, 2008. The Amended MDD is the document that memorializes the selected cleanup remedies for the Site. The selected remedy for homes that receive a MDH well advisory is a new deeper well. The Amended MDD is currently posted on the city of North Oaks website.

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Sincerely,



Frederick K. Campbell
Hydrogeologist
Site Remediation & Redevelopment Section
Remediation Division

FKC:bjh

Enclosures

cc: Mike Robertson, City of North Oaks
Michelle Hosfield, Wenck Associates, Inc.
Sarah Illi, GHD Services, Inc.
Emily Hansen, Minnesota Department of Health (electronic)

OCTOBER 2017

67 WELLS SAMPLED

67 WELLS - VINYL CHLORIDE NOT DETECTED

0 WELLS - VINYL CHLORIDE DETECTED AT OR BELOW HEALTH RISK LIMIT

0 WELLS - VINYL CHLORIDE DETECTED ABOVE HEALTH RISK LIMIT (0.2 µg/L)



LEGEND

- ND VINYL CHLORIDE NOT DETECTED (DETECTION LIMIT = 0.18 µg/L)
- ND/ND DUPLICATE SAMPLE RESULT
- NS NOT SAMPLED (NO RESPONSE/DECLINED/WATER OFF)



- CONNECTED TO MUNICIPAL WATER SUPPLY
- GEOGRAPHIC AREAS

- #RP REPLACEMENT WELL INSTALLED BY RPs (PRAIRIE DU CHIEN AQUIFER) [OLD WELL ABANDONED]
- #RP-J REPLACEMENT WELL INSTALLED BY RPs (EXTENDED INTO JORDAN AQUIFER AT HOMEOWNERS REQUEST/EXPENSE) [OLD WELL ABANDONED]
- #H-J NEW WELL INSTALLED BY HOMEOWNER (JORDAN AQUIFER) [OLD WELL ABANDONED]
- * CONVERTED RESIDENTIAL MONITORING WELL LOCATION



figure 1
VINYL CHLORIDE CONCENTRATIONS
 (OCTOBER 2017)
 North Oaks, Minnesota

**Summary of Detected Compounds
October 2017
Residential Well Sampling Event
North Oaks, Minnesota**

Address	MDH HBG Basis Date	QA/QC	Chloride mg/L	1,1-Dichloroethane (1,1-DCA) 80 RAA µg/L	2,2-Dichloropropane µg/L	Dichlorodifluoromethane (CFC-12) 700 HRL µg/L	Dichlorodifluoromethane (DCFM) 20 RAA µg/L
1 Birch Lane	10/18/2017		7.4	< 0.50	< 0.50	< 0.50	< 0.50
2 Birch Lane	10/18/2017		14.3	< 0.50	< 0.50	< 0.50	< 0.50
3 Birch Lane	10/18/2017		6.9	< 0.50	< 0.50	< 0.50	< 0.50
1 Buffalo Road	10/19/2017		31.5	0.28 J	< 0.50	< 0.50	< 0.50
3 Buffalo Road	10/18/2017		36.5	0.19 J	< 0.50	< 0.50	< 0.50
2 Cardinal	10/16/2017		26.1	< 0.50	< 0.50	< 0.50	< 0.50
4 Cardinal	10/19/2017		0.50	< 0.50	< 0.50	< 0.50	< 0.50
9 Duck Pass Road	10/19/2017		37.3	0.67	< 0.50	0.60	< 0.50
15 Duck Pass Road	10/19/2017		26.3	< 0.50	< 0.50	< 0.50	< 0.50
15 Duck Pass Road	10/19/2017	D	26.4	< 0.50	< 0.50	< 0.50	< 0.50
20 Duck Pass Road	10/19/2017		41.4	0.79	< 0.50	1.0	0.57
24 Duck Pass Road	10/25/2017		7.2	< 0.50	< 0.50	< 0.50	< 0.50
26 Duck Pass Road	10/19/2017		32.2	< 0.50	< 0.50	< 0.50	< 0.50
28 Duck Pass Road	10/19/2017		69.2	< 0.50	< 0.50	< 0.50	< 0.50
1 Eagle Ridge Road	10/18/2017		19.1	< 0.50	< 0.50	< 0.50	< 0.50
1 Eagle Ridge Road	10/18/2017	D	19.1	< 0.50	< 0.50	< 0.50	< 0.50
2 Eagle Ridge Road	10/18/2017		33.3	< 0.50	< 0.50	< 0.50	< 0.50
3 Eagle Ridge Road	10/18/2017		31.2	< 0.50	< 0.50	< 0.50	< 0.50
4 Eagle Ridge Road	10/18/2017		28.2	< 0.50	< 0.50	< 0.50	< 0.50
6 Eagle Ridge Road	10/18/2017		45.5	< 0.50	< 0.50	< 0.50	< 0.50
10 Eagle Ridge Road	10/18/2017		14.8	< 0.50	< 0.50	< 0.50	< 0.50
32 East Oaks Road	10/18/2017		32.4	< 0.50	< 0.50	< 0.50	< 0.50
36 East Oaks Road	10/18/2017		23.2	< 0.50	< 0.50	< 0.50	< 0.50
38 East Oaks Road	10/25/2017		2.1	< 0.50	< 0.50	< 0.50	< 0.50
44 East Oaks Road	10/17/2017		13.2	< 0.50	< 0.50	< 0.50	< 0.50
50 East Oaks Road	10/18/2017		37.5	< 0.50	< 0.50	< 0.50	< 0.50
1 Gadwall	10/19/2017		32.8	< 0.50	< 0.50	< 0.50	< 0.50
2 Gadwall	10/19/2017		29.7	< 0.50	< 0.50	< 0.50	< 0.50
2 Gadwall	10/19/2017	D	29.7	< 0.50	< 0.50	< 0.50	< 0.50

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Address	MDH HBG Basis Date	QA/QC	Chloride mg/L	1,1-Dichloroethane (1,1-DCA) 80 RAA µg/L	2,2-Dichloropropane µg/L	Dichlorodifluoromethane (CFC-12) 700 HRL µg/L	Dichlorofluoromethane (DCFM) 20 RAA µg/L
3 Gadwall	10/19/2017		25.6	< 0.50	< 0.50	< 0.50	< 0.50
4 Gadwall	10/16/2017		38.2	< 0.50	< 0.50	< 0.50	< 0.50
2 Heron Lane	10/18/2017		17.0	< 0.50	< 0.50	< 0.50	< 0.50
1 Hummingbird Hill	10/25/2017		28.0	< 0.50	< 0.50	< 0.50	< 0.50
3 Mallard Lane	10/16/2017		15.4	< 0.50	< 0.50	< 0.50	< 0.50
5 Mallard Lane	10/19/2017		4.5	< 0.50	< 0.50	< 0.50	< 0.50
6 Mallard Lane	10/19/2017		3.8	< 0.50	< 0.50	< 0.50	< 0.50
7 Mallard Lane	10/19/2017		11.7	< 0.50	< 0.50	< 0.50	< 0.50
1 Poplar Lane	10/17/2017		1.3	< 0.50	< 0.50	< 0.50	< 0.50
3 Poplar Lane	10/17/2017		25.5	< 0.50	< 0.50	< 0.50	< 0.50
4 Poplar Lane	10/17/2017		23.6	< 0.50	< 0.50	< 0.50	< 0.50
6 Poplar Lane	10/17/2017		5.3	< 0.50	< 0.50	< 0.50	< 0.50
8 Poplar Lane	10/17/2017		35.7	< 0.50	< 0.50	< 0.50	< 0.50
8 Poplar Lane	10/17/2017	D	36.5	< 0.50	< 0.50	< 0.50	< 0.50
1 Quail Lane	10/18/2017		27.0	< 0.50	< 0.50	< 0.50	< 0.50
1 Robb Farm Road	10/19/2017		1.2	< 0.50	< 0.50	< 0.50	< 0.50
35 Robb Farm Road	10/17/2017		58.6	< 0.50	< 0.50	< 0.50	< 0.50
37 Robb Farm Road	10/17/2017		8.2	< 0.50	< 0.50	< 0.50	< 0.50
37 Robb Farm Road	10/17/2017	D	8.3	< 0.50	1.0	< 0.50	< 0.50
41 Robb Farm Road	10/17/2017		4.2	< 0.50	< 0.50	< 0.50	< 0.50
43 Robb Farm Road	10/17/2017		69.9	< 0.50	< 0.50	< 0.50	< 0.50
44 Robb Farm Road	10/25/2017		28.9	< 0.50	< 0.50	< 0.50	< 0.50
45 Robb Farm Road	10/17/2017		25.8	< 0.50	< 0.50	< 0.50	< 0.50
6 Ski Lane	10/18/2017		28.6	< 0.50	< 0.50	< 0.50	< 0.50
8 Ski Lane	10/18/2017		26.0	< 0.50	< 0.50	< 0.50	< 0.50
10 Ski Lane	10/18/2017		26.3	< 0.50	< 0.50	< 0.50	< 0.50
12 Ski Lane	10/18/2017		24.6	< 0.50	< 0.50	< 0.50	< 0.50
14 Ski Lane	10/18/2017		39.6	< 0.50	< 0.50	< 0.50	< 0.50
16 Ski Lane	10/18/2017		26.6	< 0.50	< 0.50	< 0.50	< 0.50

**Summary of Detected Compounds
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North Oaks, Minnesota**

Address	MDH HBG Basis Date	QA/QC	-- Chloride mg/L	80 1,1-Dichloroethane (1,1-DCA) RAA µg/L	-- 2,2-Dichloropropane µg/L	700 Dichlorodifluoromethane (CFC-12) HRL µg/L	20 Dichlorofluoromethane (DCFM) RAA µg/L
1 Thompson Lane	10/19/2017		32.8	< 0.50	< 0.50	< 0.50	< 0.50
3 Thompson Lane	10/18/2017		20.7	< 0.50	< 0.50	< 0.50	< 0.50
3 Thompson Lane	10/18/2017	D	20.7	< 0.50	< 0.50	< 0.50	< 0.50
1 West Shore Road	10/16/2017		38.6	< 0.50	< 0.50	< 0.50	< 0.50
2 West Shore Road	10/18/2017		54.0	< 0.50	< 0.50	< 0.50	< 0.50
3 West Shore Road	10/17/2017		12.4	< 0.50	< 0.50	< 0.50	< 0.50
4 West Shore Road	10/17/2017		50.8	< 0.50	< 0.50	< 0.50	< 0.50
5 West Shore Road	10/17/2017		8.4	< 0.50	< 0.50	< 0.50	< 0.50
6 West Shore Road	10/17/2017		6.5	< 0.50	< 0.50	< 0.50	< 0.50
7 West Shore Road	10/19/2017		8.9	< 0.50	< 0.50	< 0.50	< 0.50
8 West Shore Road	10/17/2017		5.4	< 0.50	< 0.50	< 0.50	< 0.50
9 West Shore Road	10/17/2017		24.0	< 0.50	< 0.50	< 0.50	< 0.50
10 West Shore Road	10/17/2017		29.1	< 0.50	< 0.50	< 0.50	< 0.50
11 West Shore Road	10/17/2017		25.3	< 0.50	< 0.50	< 0.50	< 0.50
11 West Shore Road	10/17/2017	D	25.2	< 0.50	< 0.50	< 0.50	< 0.50
15 West Shore Road	10/17/2017		39.2	< 0.50	< 0.50	< 0.50	< 0.50

Notes:

MDH HBG - Health-Based Guidance (HBG) established by the Minnesota Department of Health (MDH) (Note: if multiple guidance values are available, the lowest value is used for screening purposes)

HRL - Health Risk Limit

RAA - Risk Assessment Advice

-- - HBG not established

D - Duplicate

J - Estimated Result