AECOM
1555 N. RiverCenter Drive, Suite 214
Milwaukee, WI 53212

414.944.6080 tel
414.944.6081 fax

Letter of Transmittal

Attention:	Mr. Tauren Beggs Hydrogeologist, WDNR 2984 Shawano Ave Green Bay, WI 54313	Date:	8/21/23
Project reference:	Former Newton Pit BRRTS No. 02-36-000268	Project number:	60135471

We are sending you the following:

Number of originals:	Number of copies:	Description:
One	Zero	November 2022 VOC Semi-Annual Potable Well Monitoring Letter Report

Mr. Beggs,

Attached is the November 2022 VOC Semi-Annual Potable Well Monitoring Letter Report for the Former Town of Newton Gravel Pit, Manitowoc Wisconsin.

Please let me know if you have any questions.

Thank you.

David Henderson, P.E.
Senior Project Manager
D 414.944.6190 C 414.429.8304
dave.henderson@aecom.com

Cc: Eric Nycz, Assistant City Attorney, City of Manitowoc
Karen Dorow, Business Manager, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc

AECOM
1555 N. RiverCenter Drive
Suite 214
Milwaukee, WI 53212

T: +1-414-944-6080
aecom.com

August 21, 2023

WDNR BRRTS No.
02-36-000268

AECOM Project No.
60135471(82518)

Mr. Tauren Beggs
Hydrogeologist
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

November 2022 VOC Semi-Annual Potable Well Monitoring Letter Report
Former Town of Newton Gravel Pit

Dear Mr. Beggs:

AECOM Technical Services, Inc. (AECOM), on the behalf of the City of Manitowoc, is pleased to submit this Semi-Annual Potable Well Monitoring Letter Report for wells in the vicinity of the Former Town of Newton Gravel Pit site (See Figure 1). This report provides the results from the November 2022 volatile organic compounds (VOCs) sampling event.

Presented below are site background information, VOC sampling methodologies, and the VOC potable well monitoring results.

Background Information

Regular monitoring has been ongoing since November 2013, when VOCs were discovered in private potable wells near the Former Town of Newton Gravel Pit.

This VOC sampling event was scheduled to be conducted in accordance with the Wisconsin Department of Natural Resources (WDNR or Department) approved *Area Wide VOC Five Year Potable Well Sampling Work Plan*[1]. The Work Plan grouped the potable wells into the following categories:

- Target Zone Wells – wells with detectable VOC contaminants of concern (COCs).
- Target Zone Sentinel Wells – wells within the Target Zone and do not have detectable VOC COCs.
- Sentinel Zone Wells – wells outside and adjacent to the Target Zone that do not have detectable VOC COCs.
  - Sentinel Zone 3-Year Wells – Sentinel Zone Wells which will be sampled once every three years on a rotating schedule.
  - Sentinel Zone 5-Year Wells – Sentinel Zone Wells which will be sampled once every five years on a rotating schedule.
- Replacement Wells – wells that were replaced due to regulatory standard exceedances of VOC COCs.
- Upgradient and Historically Sampled Wells – wells outside the Sentinel Zone that have been sampled in the past but are not currently scheduled to be sampled.
- Former Potable Wells Now Connected to City Water – wells that were replaced with connections to the City of Manitowoc public water supply that are not currently scheduled to be sampled.

[1] *Area Wide VOC Five Year Potable Well Sampling Work Plan, Former Town of Newton Gravel Pit*, AECOM, April 16, 2021

In the fall of 2022, the City constructed a water main loop south along 15th, 19th and 26th Streets between Viebahn Street and Lissa Lane/Jenny Road and extended a water main south on County Road CR to Thunder Ridge Road and Blackhawk Court. The water main was to provide a public water supply to those addresses with VOC impacted potable wells.

On November 2, 2022, the City made a request[2] to the Department to adjust the fall's VOC potable well sampling schedule in consideration of the new water main installation. In accordance with the *Area Wide VOC Five Year Potable Well Sampling Work Plan*, the City was scheduled to sample approximately 69 potable wells/locations during November. The City requested a change to not sample approximately 54 well locations where water main lateral connections were imminent. The City proposed continued sampling for wells/locations where no water main laterals were being provided.

The Department reviewed and approved[3] the request. Therefore, the number of potable wells sampled during the November 2022 sampling event was decreased from the proposed sampling schedule presented in the *Area Wide VOC Five Year Potable Well Sampling Work Plan.*

VOC Sampling Methodology

The VOC sampling occurred on November 17 and 18, 2022. In total, 13 addresses were scheduled to be sampled. This number was reduced due to non-responsive homeowners. Shared wells were combined into one location. The number of wells sampled was reduced due to the construction of the city water main. The actual number of locations sampled was 8 locations. Well status details prior to the sampling event are as follows.

Semi-Annual Target Zone Wells
VOC Sampling Address

2406, 2414, 2512 Birch Rd (Shared Well)	3027 Orchard Ln	3327 Hecker Rd	3702 Hecker Rd

The following Target Zone addresses were not sampled during this event due to non-responsive homeowners:

- 2501 Nelson Ln
- 3461(3417) Hecker Rd
- 4024 CTH CR
- 4141 Viebahn St / 2717 CTH CR
- 4159 Silver Creek Rd

Annual Target Zone Sentinel Wells
VOC Sampling Address

Annual Target Zone Sentinel Wells were not scheduled for November 2022 sampling.

[2] Former Town of Newton Gravel Pit – Sampling Schedule Adjustments Requests, email from David Henderson, AECOM, to Tauren Beggs, WDNR, Wednesday November 2, 2022, 3:35 PM
[3] RE: Former Town of Newton Gravel Pit – Sampling Schedule Adjustments Requests, email from Tauren Beggs, WDNR, to David Henderson, AECOM, Tuesday November 8, 2022, 10:13 AM

3-Year Sentinel Zone Wells VOC Sampling Address
3118 S 10th St

All the 3-year Sentinel Zone addresses that were scheduled were sampled during this event.

5-Year Sentinel Zone Wells VOC Sampling Address
4114 CTH CR

All the 5-year Sentinel Zone address that were scheduled were sampled during this event.

Replacement Well VOC Sampling Address
3403 CTH CR

All the Replacement Wells addresses that were scheduled were sampled during this event.

Historically Sampled Well Outside 5-Year Sentinel Zone VOC Sampling Address
4181 S 21st St

All the Historically Sampled Wells Outside 5-Year Sentinel Zone addresses that were scheduled were sampled during this event.

VOC samples were collected following purging from a cold water tap or spigot as near to the well as possible, and preferably before any storage/pressure tanks or physical/chemical treatment system that might be present.

Samples for VOC laboratory analyses were collected in three 40-ml glass vials with hydrochloric acid preservative and Teflon septa. The vials were filled to the top, leaving no headspace or bubbles, and then quickly capped. Samples were labeled and stored on ice for shipment, under chain of custody, to the laboratory.

Samples for VOC analysis were submitted to a Wisconsin Administrative Code (WAC) Chapter NR 149 certified commercial laboratory (Synergy Environmental Lab, Inc., Appleton, Wisconsin) for analyses by EPA Method 8260B.

VOC Monitoring Results

The results from the November 2022 VOC sampling event are discussed below and presented in Table 1 and 2 and on Figure 2 and 2A. After reduction of non-responsive well owners and addition of new homeowners, this period sampled a total of 8 VOC samples (not including water quality and quality control samples).

Laboratory VOC Analytical Results

The laboratory analytical data indicates that VOC compounds are present in 5 of the potable well water samples. The highest values between the sample and QA/QC samples were used for discussions in this report. The current results are similar to historical results. The concentration of the VOC COCs found in the potable well water samples were compared to applicable WAC Chapter NR 140 Table 1 Public Health Enforcement Standards (ESs) and Preventive Action Limits (PALs).

The laboratory analytical results are presented categorically as follows:

- VOC COCs with NR 140 ES exceedances
- VOC COCs with NR 140 PAL exceedances
- Detected VOC COCs with no regulatory exceedances
- Observed changes in analytical results since the last monitoring event

VOC COCs with NR 140 ES exceedances: There was 1 well that had an ES exceedance for vinyl chloride. There were no wells with cis-1,2-dce ES exceedances.

ES Exceedances Vinyl Chloride
3027 Orchard Ln

VOC COCs with NR 140 PAL exceedances: There were no wells that had detections above the PAL and below the ES for vinyl chloride. There were no wells with cis-1,2-dce PAL exceedances.

PAL Exceedances
Not Applicable for this sampling event

Detected COCs with No Regulatory Exceedances: There was a total of 4 potable wells that only had a COC (cis-1,2-dce) below regulatory (PAL) limits for the November 2022 sampling event.

Cis-1,2-dichloroethene Detects			
2406, 2414, 2512 Birch Rd	3327 Hecker Rd	3702 Hecker Rd	4114 CTH CR

A total of 3 wells had no VOCs detected above laboratory method detection limits (MDLs).

A summary of the sampled wells with detected VOC laboratory analytical results is presented in Table 1 and on Figures 2. Table 2, electronic file on CD only, provides a summary of the VOC analytical results for all wells sampled. The laboratory VOC analytical reports are provided in Attachment A. Copies of homeowner/well user notification letters are provided in Attachment B.

Observed VOC Changes Since Last Monitoring Event

The following changes were noted in the VOC analytical results since the June 2022 sampling event:

- One well, within the 3-Year Sentinel Zone area, that had not been sampled previously had no VOC detections.
  - 3118 S 10th St
- One well, within the 5-Year Sentinel Zone area, that had not been sampled previously had a VOC detection but no ES or PAL exceedances.
  - 4114 CTH CR
- One well, outside of the 5-Year Sentinel Zone area, had no VOC detections.
  - 4181 S 21st St
- With the construction of the water main extension a total of 69 new laterals have been constructed. These laterals replace 59 potable wells. The difference between the number of laterals constructed and the number of potable wells abandoned is due to multiple locations where there were shared wells.

Updates to VOC Potable Well Monitoring Work Plan

The City anticipates providing an updated potable well sampling work plan prior to the June 2023 sampling event. The new work plan will take into account the construction of the new water main extension and be updated based on the November 2022 results. A proposed revised potable well monitoring schedule from the Work Plan is presented on Table 3, attached.

SUMMARY

The following is a summary of the November 2022 potable well monitoring event.

A total of 8 VOC samples were obtained from 8 wells. A total of 5 addresses were not sampled during this event due to non-responsive homeowners.

One potable well had a vinyl chloride ES exceedance, similar to historical results.

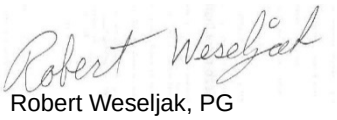
There were a total of 4 potable wells that had only cis-1,2-dce detects below regulatory (PAL) limits.

A total of 3 wells had no VOCs detected above laboratory MDLs.

The next semi-annual VOC potable well monitoring event is scheduled for May/June 2023. At that time, VOC sampling will be conducted in accordance with the proposed sampling schedule updated in Table 3 and/or in accordance with an anticipated VOC potable well monitoring plan.

If you have any questions regarding these results, please contact Dave Henderson at 414.944.6190 or dave.henderson@aecom.com.

Yours sincerely,



Robert Weseljak, PG
Project Scientist

David Henderson, P.E.
Project Manager

enclosures: Table 1 – Summary of VOC Contaminants Detected in Potable Wells
Table 2 – Summary of VOC Contaminants Analyzed in Potable Wells
Table 3 – Summary of The Area Wide VOC Five Year Potable Well Sampling Plan
Figure 1 – Site Location
Figure 2 – November 2022, VOC Potable Well Sampling Results
Figure 2A – November 2022, VOC Potable Well Sampling Results
Attachment A: VOC Laboratory Reports
Attachment B: Homeowner Results Letters

cc: Eric Nycz, Assistant City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc
Jim Kasdorf, Water Supply Specialist, WDNR

Tables

Table 1
SUMMARY OF VOCs DETECTED IN POTABLE WELLS

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3114 Hecker Rd			
Original or Replacement Well:							
Sample Date:				10/22/13	11/08/13	05/28/14	06/04/20
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				PW-3114	PW-3114	3114 HECKER	3114 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):							
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.44
Chloromethane	ug/l	30	**3**	1.36 J	< 0.81	< 0.81	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3303 Hecker Rd														
Original or Replacement Well:				Original Potable Well								Replacement Potable Well						
Sample Date:				10/23/13	11/07/13	06/03/14	06/03/14 (DUP)	11/17/14	02/23/15	10/13/15	03/30/16	08/08/16	09/26/16	10/24/16	10/24/16	10/24/16	11/08/16	06/04/20
Sample Source:				Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement-Vial 2	Basement-Vial 3	Basement	Basement
Field Sample ID:				PW-3303	PW-3303	3303 HECKER RD	303 HECKER RD DU	3303 HECKER	3303 HECKER	3303 HECKER	3303 HECKER RD	3303 Hecker Rd	3303 HECKER	3303 HECKER	3303 HECKER vial 2	3303 HECKER vial 3	3303 HECKER	3303 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8	< 1	2.6 J	< 1	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	1.94	2.53	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	***0.44 J***	***0.51 J***	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3327 Hecker Rd																
Original or Replacement Well:																				
Sample Date:				10/23/13	11/07/13	05/28/14	08/25/14	11/10/14	02/23/15	10/14/15	03/31/16	10/05/16	05/30/17	10/25/17	05/21/18	05/21/18 (DUP)	11/20/18	06/27/19	10/21/19	10/21/19 (DUP)	06/03/20
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				PW-3327	PW-3327	3327 HECKER RD	3327 HECKER	3327 HECKER	3327 HECKER	3327 HECKER	3327 HECKER RD	3327 HECKER RD	3327 HECKER RD	3327 HECKER	3327 HECKER	3327 HECKER DUP	3327 HECKER	3327 HECKER	3327 HECKER	FD 102119	3327 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31
1,4-Dichlorobenzene	ug/l	*75*	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	**11**	**11.6**	6.4	6.9	5.6	4.3	4.2	3.2	3.3	2.38	4	4.5	4.2	4	3.6	3.07	3.4	3.6
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):											
Original or Replacement Well:											
Sample Date:				11/17/20	05/25/21	05/25/21	11/29/21	06/23/22	11/17/22		
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot		
Field Sample ID:				3327 HECKER RD	FD052521	3327 HECKER RD	3327 HECKER RD	3327 HECKER	3327 HECKER RD		
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM		
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -		
Volatile Organic Compounds (VOCs):											
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.55	< 0.55	< 0.55	< 0.43	< 0.43		
1,2-Dichloroethane	ug/l	5	0.5	< 0.39	< 0.44	< 0.44	< 0.44	< 0.43	< 0.43		
1,3-Dichlorobenzene	ug/l	600	120	< 0.31	< 0.38	< 0.38	< 0.38	< 0.35	< 0.35		
1,4-Dichlorobenzene	ug/l	75	15	< 0.36	< 0.48	< 0.48	< 0.48	< 0.49	< 0.49		
Benzene	ug/l	5	**0.5**	< 0.33	< 0.38	< 0.38	< 0.38	< 0.3	< 0.3		
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA		
Chlorobenzene	ug/l	100	20	< 0.39	< 0.38	< 0.38	< 0.38	< 0.29	< 0.29		
Chloroform	ug/l	6	**0.6**	< 0.44	< 0.4	< 0.4	< 0.4	< 0.33	< 0.33		
Chloromethane	ug/l	30	**3**	< 0.8	< 0.84	< 0.84	< 0.84	< 0.74	< 0.74		
cis-1,2-Dichloroethene	ug/l	*70*	**7**	4	3.09	3.2	4.5	2.94	3.3		
Dichlorodifluoromethane	ug/l	1000	200	< 0.45	< 0.55	< 0.55	< 0.55	< 0.3	< 0.3		
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.89	< 0.89	< 0.79	< 0.79		
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.46	< 0.46	< 0.46	< 0.47	< 0.47		
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.43	< 0.43	< 0.43	< 0.47	< 0.47		
sec-Butylbenzene	ug/l	NL	NL	< 0.32	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33		
Toluene	ug/l	800	160	< 0.26	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33		
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37	< 0.6	< 0.6	< 0.6	< 0.5	< 0.5		
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.17	< 0.17	< 0.15	< 0.15		

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3461(3417) Hecker Rd																
Original or Replacement Well:																				
Sample Date:				10/24/13	11/12/13	05/30/14	08/26/14	11/10/14	02/24/15	10/13/15	03/30/16	03/30/16 (DUP)	10/06/16 (DUP)	05/31/17	10/25/17	05/21/18	11/20/18	06/27/19	10/22/19	06/03/20	11/18/20
Sample Source:				Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
Field Sample ID:				PW-3461	PW-3417/3461	3417 HECKER RD	3417 HECKER	3461 HECKER	3417 HECKER	3461 HECKER	3461 HECKER RD	461 HECKER RD DU	3417 HECKER DUP	3417 HECKER	3417 HECKER	3417 HECKER	3461 HECKER	346 (3417) HECKER	3461 (3417) HECKER	461 (3417) HECKER R	417(3461) HECKER R
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31
1,4-Dichlorobenzene	ug/l	*75*	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	0.32 J	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74	1.51	0.55 J	1.35	1.87	1.75	1.89	1.78	1.66	1.85
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	0.25 J	< 0.26	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):								
Original or Replacement Well:								
Sample Date:				06/02/21		11/22/21	06/27/22	06/27/22 (DUP)
Sample Source:				Inside Sink		Inside Sink	Inside Sink	Inside Sink
Field Sample ID:				61 (3417) HECKER R		461/3417 HECKER R	3417 HECKER	062722 DUP
Sampling Company:				AECOM		AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -		- - -	- - -	- - -
Volatile Organic Compounds (VOCs):								
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55		< 0.55	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.44		< 0.44	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.38		< 0.38	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.48		< 0.48	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.38		< 0.38	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	NA		NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.38		< 0.38	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.4		< 0.4	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.84		< 0.84	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.55	J	1.93	1.6	1.54
Dichlorodifluoromethane	ug/l	1000	200	< 0.55		< 0.55	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.89		< 0.89	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.46		< 0.46	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.43		< 0.43	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.31		< 0.31	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.42		< 0.42	< 0.33	0.38 J
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6		< 0.6	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17		< 0.17	< 0.15	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3515 Hecker Rd											
Original or Replacement Well:				Original Potable Well						Replacement Potable Well					
Sample Date:				10/22/13	11/07/13	11/07/13	11/22/13	05/28/14	08/28/14	09/29/14	11/04/14	02/23/15	10/14/15	10/05/16	06/04/20
Sample Source:				Outside Spigot	Inside Kitchen	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot
Field Sample ID:				PW-3515	PW-3515 (IN)	PW-3515 (OUT)	PW-3515	3515 HECKER RD	3515 HECKER	3515 HECKER RD	3515 HECKER	3515 HECKER	3515 HECKER	3515 HECKER RD	3515 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	1.02 J	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	**7.4**	**7.4**	**7.2**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.22*** ***J***	***0.24*** ***J***	***0.24*** ***J***	NA	***0.47*** ***J***	***0.28*** ***J***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3518 Hecker Rd													
Original or Replacement Well:				Original Potable Well			Replacement Potable Well										
Sample Date:				10/23/13	11/07/13	11/07/13	03/11/14	03/11/14 (DUP)	03/31/14	04/22/14	05/29/14 (DUP)	08/25/14	11/10/14	02/23/15	10/14/15	10/06/16	06/04/20
Sample Source:				Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				PW-3518	PW-3518 (IN)	PW-3518 (OUT)	3518 PW	3518 PW DUP	3518 PW	3518 PW	518 HECKER RD DU	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																	
1,1-Dichloroethene	ug/l	7	**0.7**	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.36
Benzene	ug/l	5	**0.5**	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	0.45 J	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 8.1	< 8.1	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	***510***	***530***	***510***	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 3.1	< 3.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.32
Toluene	ug/l	800	160	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	***102***	***92***	***86***	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3609 Hecker Rd													
Original or Replacement Well:				Original Potable Well								Replacement Potable Well					
Sample Date:				10/22/13	11/07/13	11/07/13	11/22/13	05/28/14	05/28/14 (DUP)	07/11/14	08/25/14	08/25/14 (DUP)	09/29/14	11/04/14	02/24/15	10/13/15	10/05/16	06/04/20
Sample Source:				Outside Spigot	Inside Kitchen	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot
Field Sample ID:				PW-3609	PW-3609 (IN)	PW-3609 (OUT)	PW-3609	3609 HECKER RD	609 HECKER RD DU	3609 HECKER	3609 HECKER	3609 HECKER DUP	3609 HECKER RD	3609 HECKER	3609 HECKER	3609 HECKER	3609 HECKER RD	3609 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	**45**	**46**	**45**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.45
Methylene Chloride	ug/l	5	**0.5**	**0.82 J**	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	0.39 J	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	***1***	***1.02***	***1.09***	NA	***7.4***	***7.6***	***8.6***	***4.6***	***5.2***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3702 Hecker Rd																
Original or Replacement Well:																				
Sample Date:				10/22/13	11/12/13	06/03/14	08/25/14	11/13/14	10/14/15	10/14/15 (DUP)	03/31/16	10/11/16	05/30/17	10/25/17	05/21/18	11/20/18	06/27/19	10/21/19	06/04/20	11/17/20	05/25/21
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				PW-3702	PW-3702	3702 HECKER RD	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER DUP	3702 HECKER RD	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER RD	3702 HECKER RD	3702 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38
1,4-Dichlorobenzene	ug/l	*75*	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38	0.48 J	0.73 J	< 0.45	1.04 J	0.51 J	< 0.41	< 0.37	< 0.37	0.4 J	< 0.37	< 0.39	0.55 J	0.54 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):								
Original or Replacement Well:								
Sample Date:				11/22/21	06/20/22	06/20/22 (DUP)	11/17/22	11/17/22 (DUP)
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3702 HECKER	3702 HECKER RD	062022 DUP	3702 HECKER RD	DUP 111722
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):								
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.43	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.43	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.35	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.29	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.33	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.74	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.79 J	0.54 J	0.42 J	1.11 J	1.62
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.3	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 0.79	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.47	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.15	< 0.15	< 0.15	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4159 Silver Creek Rd																
Original or Replacement Well:																				
Sample Date:				12/12/13	01/06/14	06/04/14	06/04/14 (DUP)	09/08/14	11/10/14	11/10/14 (DUP)	02/23/15	10/14/15	03/30/16	10/10/16	05/30/17	10/25/17	05/21/18	11/20/18	06/27/19	10/21/19	06/03/20
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER	4159 SILVER DUP	4159 SILVER	4159 SILVER	4159 SILVER DUP	4159 SILVER	4159 SILVER	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVERCREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.49 J	0.73 J	0.72 J	0.64 J	0.54 J	0.59 J	0.52 J	0.56 J	0.55 J	0.59 J	0.78 J	0.52 J	0.67 J	0.94 J	0.77 J	0.71 J	0.69 J	0.78 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	0.32 J	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):								
Original or Replacement Well:								
Sample Date:				11/18/20		06/01/21	11/22/21	06/24/22
Sample Source:				Pressure Tank		Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4159 SILVER CREEK		59 SILVER CREEK F	4159 SILVER CREEK	4159 SILVER CR
Sampling Company:				AECOM		AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -		- - -	- - -	- - -
Volatile Organic Compounds (VOCs):								
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5		< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.39		< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.31		< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.36		< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.33		< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA		NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.39		< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.44		< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.8		< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.89	J	0.81 J	0.77 J	0.68 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.45		< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32		< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.47		< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.47		< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.32		< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.26		< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37		< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2		< 0.17	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2717 CTH CR(4141 Viebahn St)											2734(2804) CTH CR						
Original or Replacement Well:				Original Potable Well						Non-Potable Well (City Water Provided Dec 2016)					Original Potable Well (City Water Provided Dec 2016)						
Sample Date:				08/25/14	09/08/14	09/08/14 (DUP)	11/10/14	02/23/15	10/13/15	03/31/16	10/06/16	10/22/19	06/04/20	11/18/20	06/03/14	08/25/14	11/10/14	11/25/14	11/25/14 (DUP)	02/24/15	10/14/15
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Faucet	Garage Faucet	Outside Faucet	Outside Faucet	Garage Faucet	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank
Field Sample ID:				2717 CTH CR	2717 CTH CR	2717 CTH CR DUP	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	4141 VIEBAHN	2717 CTH CR	2734 CTH CR	2734 CTH CR	2734 CTH CR	2734 PW	2734 PW DUP	2734 CTH CR	2734 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42	< 0.5	< 0.5	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.25	< 0.39	< 0.39	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.85	< 0.31	< 0.31	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	*75*	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.7	< 0.36	< 0.36	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.22	< 0.33	< 0.33	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.26	< 0.39	< 0.39	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.26	< 0.44	< 0.44	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.54	< 0.8	< 0.8	< 0.81	< 0.81	< 0.81	< 0.81	**24.3**	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.4	1.31	1.44	1.3	1.26 J	1.72	< 0.45	1.53	2.09	1.72	0.92 J	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.32	< 0.45	< 0.45	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.32	< 1.32	< 1.32	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.24	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.79	< 0.32	< 0.32	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.19	< 0.26	< 0.26	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.34	< 0.37	< 0.37	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21*** ***J***	***0.29*** ***J***	***0.31*** ***J***	***0.39*** ***J***	***0.35*** ***J***	***0.47*** ***J***	< 0.17	***0.32*** ***J***	***0.46*** ***J***	***0.54*** ***J***	< 0.2	< 0.18	< 0.18	***0.26*** ***J***	***0.38*** ***J***	***0.43*** ***J***	***0.2*** ***J***	***0.45*** ***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2832&2904 CTH CR						2911 CTH CR								
Original or Replacement Well:																		
Sample Date:				02/04/14	06/03/14	03/30/16	10/27/17	10/11/18	10/22/19	05/29/14	10/07/16	10/27/17	10/27/17 (DUP)	10/11/18	10/21/19	11/18/20	05/24/21	06/27/22
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Other Buillding	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				2832 CTH CR	2832 CTH CR	2832 CTH CR	2904 CTH CR	2832 (2904) CTH CR	2832 (2904) CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR DUP	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.4	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.41	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.28	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.3	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.24	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.24	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.28	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.81	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	**0.44** J	< 0.38	< 0.45	< 0.41	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.44	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.5	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.23	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.31	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.33	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.69	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	**0.37** J	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.35	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	***0.25*** ***J***	< 0.18	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2916 CTH CR								2917 CTH CR				
Original or Replacement Well:				Original Potable Well								Original Potable Well (City Water Provided Dec 2016)				
Sample Date:				02/04/14	05/28/14	08/25/14	11/10/14	11/25/14	03/11/15	03/11/15 (DUP)	10/13/15	02/04/14	05/30/14	10/13/15	10/27/15	10/27/15 (DUP)
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot
Field Sample ID:				2916 CTH CR	2916 CTH CR	2916 CTH CR	2916 CTH CR	2916 PW	2916 CTH CR	2916 CTH CR DUP	2916 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	70	**7**	0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	1.02 J	< 0.38	< 0.38	1.6	1.41	1.67
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	**0.18 J**	< 0.18	< 0.18	***0.28 J***	***0.37 J***	< 0.17	**0.18 J**	***0.26 J***	< 0.18	< 0.18	***0.43 J***	***0.37 J***	***0.37 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3023 CTH CR								
Original or Replacement Well:				Original Potable Well				Replacement Potable Well				
Sample Date:				02/04/14	02/04/14 (DUP)	06/02/14	08/25/14	10/08/14	11/04/14	02/24/15	10/13/15	10/05/16
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3023 CTH CR	3023 CTH CR DUP	3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):												
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	70	**7**	2.84	2.96	2.87	2.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.55*** ***J***	***0.58***	***0.41*** ***J***	***0.33*** ***J***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3120 CTH CR											
Original or Replacement Well:				Original Potable Well						Replacement Potable Well					
Sample Date:				01/03/14	02/04/14	05/28/14	05/28/14 (DUP)	08/25/14	08/25/14 (DUP)	10/08/14	11/04/14	02/23/15	10/13/15	10/06/16	11/29/21
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR DUP	3120 CTH CR	3120 CTH CR DUP	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.55
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.44
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.48
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.38
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.38
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.55
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.46
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.31
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.42
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.6
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.6***	***0.43*** ***J***	***0.35*** ***J***	***0.26*** ***J***	***0.27*** ***J***	***0.24*** ***J***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3403 CTH CR									
Original or Replacement Well:				Original Potable Well				Replacement Potable Well					
Sample Date:				01/03/14	02/05/14	05/28/14	08/25/14	10/21/14	11/04/14	02/23/15	10/13/15	10/05/16	11/18/22
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Outside Spigot	Outside Spigot
Field Sample ID:				3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):													
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.32
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.56*** ***J***	***0.25*** ***J***	***0.22*** ***J***	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3504 CTH CR																
Original or Replacement Well:				Original Potable Well																
Sample Date:				12/05/13	12/05/13 (DUP)	01/06/14	01/06/14 (DUP)	02/05/14	05/30/14	05/30/14 (DUP)	08/25/14	08/25/14 (DUP)	11/18/14	11/18/14 (DUP)	02/23/15	10/14/15	10/20/15	03/31/16	03/31/16 (DUP)	10/11/16
Sample Source:				Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Field Sample ID:				3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	NA	< 0.65	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	NA	< 0.48	< 0.48	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	NA	< 0.52	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	NA	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	NA	< 0.46	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	NA	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	NA	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	70	**7**	1.28	1.38	1.43	1.34	1.42	1.22	1.13 J	0.99 J	1.02 J	1.41	1.26	1.19 J	1.27 J	NA	0.76 J	0.91 J	1.17 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	NA	< 0.87	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	NA	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	NA	< 1.2	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	NA	< 0.54	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	***0.23*** ***J***	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	**0.18** **J**	**0.17** **J**	< 0.17	NA	< 0.17	< 0.17	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):								
Original or Replacement Well:				Replacement Potable Well				
Sample Date:				10/24/16	11/08/16	02/23/17	11/22/21	11/22/21 (DUP)
Sample Source:				Basement	Basement	Basement	Basement	Basement
Field Sample ID:				3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR	112221 DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):								
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.65	< 0.46	< 0.55	< 0.55
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.45	< 0.44	< 0.44
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.52	< 0.45	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.42	< 0.48	< 0.48
Benzene	ug/l	5	**0.5**	< 0.44	< 0.44	< 0.17	< 0.38	< 0.38
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.46	< 0.46	< 0.27	< 0.38	< 0.38
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.43	< 0.96	< 0.4	< 0.4
Chloromethane	ug/l	30	**3**	< 1.9	< 1.9	< 1.3	< 0.84	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.45	< 0.45	< 0.41	< 0.39	< 0.39
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.87	< 0.38	< 0.55	< 0.55
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.3	< 0.94	< 0.89	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 1.1	< 0.82	< 0.46	< 0.46
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 1.1	< 0.28	< 0.43	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 1.2	< 0.24	< 0.31	< 0.31
Toluene	ug/l	800	160	< 0.44	< 0.44	< 0.67	< 0.42	< 0.42
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.54	< 0.35	< 0.6	< 0.6
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.19	< 0.17	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3618 CTH CR															
Original or Replacement Well:																			
Sample Date:				01/03/14	05/29/14	08/25/14	11/10/14	02/23/15	10/14/15	03/30/16	10/06/16	05/30/17	10/25/17	05/21/18	10/10/18	06/27/19	10/21/19	10/05/20	11/17/20	06/20/22
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Field Sample ID:				3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	1.24	1.16 J	0.48 J	0.83 J	0.95 J	0.89 J	1.06 J	0.88 J	0.99 J	0.95 J	1.23	1.14 J	1 J	1.09 J	1.07 J	1.3	1.24 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.5
Vinyl chloride	ug/l	0.2	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3626 CTH CR							4024 CTH CR						4114 CTH CR
Original or Replacement Well:																	
Sample Date:				12/05/13	05/30/14	10/14/15	10/27/17	10/11/18	10/30/19	05/28/21	12/12/13	05/28/14	10/06/16	10/22/19	06/04/20	06/23/22	11/17/22
Sample Source:				Bathroom	Bathroom	Bathroom	Bathroom	Bathroom	Bathroom	Bathroom	Spigot in Barn	Spigot in Barn	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4114 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																	
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.55	< 0.4	< 0.4	< 0.65	< 0.42	< 0.5	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.44	< 0.41	< 0.41	< 0.48	< 0.25	< 0.39	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.38	< 0.28	< 0.28	< 0.52	< 0.85	< 0.31	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.48	< 0.3	< 0.3	< 0.49	< 0.7	< 0.36	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.38	< 0.24	< 0.24	< 0.44	< 0.22	< 0.33	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.38	< 0.24	< 0.24	< 0.46	< 0.26	< 0.39	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.4	< 0.28	< 0.28	< 0.43	< 0.26	< 0.44	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.84	< 0.81	< 0.81	< 1.9	< 0.54	< 0.8	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.38	< 0.38	< 0.45	0.51 J	0.56 J	0.45 J	0.88 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.55	< 0.44	< 0.44	< 0.87	< 0.32	< 0.45	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.89	< 0.5	< 0.5	< 1.3	< 1.32	< 1.32	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.46	< 0.23	< 0.23	< 1.1	< 0.28	< 0.47	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.43	< 0.31	< 0.31	< 1.1	< 0.24	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.31	< 0.33	< 0.33	< 1.2	< 0.79	< 0.32	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	0.81	0.74 J	< 0.69	< 0.69	< 0.44	< 0.19	< 0.26	< 0.33	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.6	< 0.35	< 0.35	< 0.54	< 0.34	< 0.37	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.17	< 0.18	< 0.18	< 0.17	< 0.2	< 0.2	< 0.15	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4002 Thunder Ridge Rd											
Original or Replacement Well:				Original Potable Well							Replacement Potable Well				
Sample Date:				01/03/14	08/25/14	10/13/15	10/13/15 (DUP)	10/27/15	03/31/16	03/31/16 (DUP)	05/23/16	06/02/16	06/23/16	10/05/16	
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Field Sample ID:				4002 THUNDER R	4002 THUNDER	4002 THUNDER	4002 THUNDER DUP	4002 THUNDER	002 THUNDER RIDG	2 THUNDER RIDGE	002 Thunder Ridge R	002 THUNDER RIDG	RAW H2O	002 THUNDER RIDG	
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
Volatile Organic Compounds (VOCs):															
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.67	1.29	1.3 J	1.14 J	1.26 J	0.68 J	1.03 J	< 0.45	< 0.45	< 0.45	< 0.45	
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	***0.2*** ***J***	**0.18** J	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4005 Thunder Ridge Rd															
Original or Replacement Well:				Original Potable Well									Replacement Potable Well						
Sample Date:				05/29/14	08/26/14	11/11/14	02/23/15	10/14/15	03/30/16	10/10/16	10/24/16	11/08/16	05/30/17	05/30/17	06/22/17	08/17/17	03/05/18	03/05/18
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4005 THUNDER	4005 THUNDER	4005 THUNDER	4005 THUNDER	4005 THUNDER	005 THUNDER RIDG	005 THUNDER RIDG	4005 THUNDER	4005 THUNDER	4005 THDR RAW	4005 THDR TAP	4005 RAW	4005 RAW	4005 THUNDER RAW	4005 THUNDER TAP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	NA	NA
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	NA	NA
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	NA	NA
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.83 J	0.9 J	< 0.38	0.81 J	0.91 J	0.97 J	1.35 J	1.1 J	0.66 J	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	NA	NA
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	NA	NA
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	NA	NA
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	***0.29 J***	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4010 Thunder Ridge Rd													
Original or Replacement Well:				Original Potable Well							Replacement Potable Well						
Sample Date:				05/28/14	08/26/14	02/24/15	10/20/15	03/31/16	10/07/16	10/24/16	05/31/17	05/31/17	06/22/17	08/17/17	03/05/18	03/05/18	
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Basement Tap	Pressure Tank	
Field Sample ID:				4010 THUNDER	4010 THUNDER	4010 THUNDER	4010 THUNDER	010 THUNDER RIDG	010 THUNDER RIDG	4010 THUNDER	4010 THDR RAW	4010 THDR TAP	4010 RAW	4010 RAW	4010 THUNDER TAP	4010 THUNDER RAW	
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
Volatile Organic Compounds (VOCs):																	
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	NA	NA	
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA	
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	NA	NA	
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	NA	NA	
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	NA	NA	
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA	
cis-1,2-Dichloroethene	ug/l	70	**7**	1.37	1.18 J	1.43	1.27 J	1.47	1.27 J	1.42	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA	
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA	
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	NA	NA	
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	NA	NA	
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	NA	NA	
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	NA	NA	
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA	
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	***0.27 J***	***0.2 J***	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA	

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4027 Thunder Ridge Rd																	
Original or Replacement Well:																					
Sample Date:				05/29/14	11/11/14	11/11/14 (DUP)	02/24/15	10/13/15	03/31/16	10/06/16	10/06/16 (DUP)	05/30/17	10/25/17	05/21/18	05/31/18	10/10/18	06/27/19	10/21/19	06/03/20	05/26/21	11/29/21	06/24/22
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4027 THUNDER	4027 THUNDER	4027 THUNDER DUP	4027 THUNDER	4027 THUNDER	027 THUNDER RIDG	027 THUNDER RIDG	7 THUNDER RIDGE	027 THUNDER RIDG	027 THUNDER RIDG	4027 THUNDER	4027 THUNDER	027 THUNDER RIDG	4027 THUNDER	027 THUNDER RIDG	027 THUNDER RIDG	7 THUNDER RIDGE	027 THUNDER RIDG	027 THUNDER RIDG
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.59 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J	0.96 J	0.77 J	0.87 J	1.08 J	1.32	1 J	1.58	1.03 J	1.24	1.37	1.3 J	1.46 J	1 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	***0.28 J***	< 0.2	***0.2 J***	< 0.2	< 0.2	< 0.2	***0.21 J***	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4101 Thunder Ridge Rd																			
Original or Replacement Well:																							
Sample Date:				08/26/14	11/17/14	03/11/15	10/14/15	03/30/16	11/08/16	05/30/17	05/30/17	05/30/17	10/25/17	05/21/18	10/10/18	06/27/19	10/21/19	06/03/20	11/17/20	05/24/21	11/22/21	06/20/22
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				4101 THUNDER	4101 THUNDER	4101 THUNDER	4101 THUNDER	101 THUNDER RIDG	4101 THUNDER	101 THUNDER RIDG	1 THUNDER RIDGE	1 THUNDER RIDGE	101 THUNDER RIDG	101 THUNDER RIDG	101 THUNDER RIDG	4101 THUNDER	101 THUNDER RIDG	101 THUNDER RIDG	101 THUNDER RIDG	1 THUNDER RIDGE	101 THUNDER RIDG	101 THUNDER RIDG
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																							
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J	1.02 J	0.73 J	0.7 J	0.68 J	0.84 J	1.32	1.09 J	1.1 J	1.13 J	1.11 J	1.2	1.16 J	1.17 J	1.26 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4111 Thunder Ridge Rd																	
Original or Replacement Well:																					
Sample Date:				08/25/14	11/17/14	02/23/15	10/13/15	03/30/16	10/10/16	05/30/17	10/25/17	10/25/17 (DUP)	05/21/18	06/05/18	10/11/18	06/27/19	10/21/19	11/17/20	06/03/21	11/29/21	06/20/22
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4111 THUNDER	4111 THUNDER	4111 THUNDER	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	1 THUNDER RIDGE D	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45	0.56 J	0.56 J	0.65 J	0.6 J	1.05 J	0.55 J	0.86 J	0.75 J	0.65 J	1.15 J	0.5 J	0.64 J	0.83 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	***0.21 J***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4127 Thunder Ridge Rd										3617(3621) Viebahn St					
Original or Replacement Well:														(Well Abandoned, City Water Provided)					
Sample Date:				12/05/13	05/29/14	03/30/16	06/27/19	10/30/19	06/03/20	11/18/20	05/24/21	11/22/21	06/20/22	11/07/14	11/19/14	02/24/15	02/24/15 (DUP)	10/13/15	03/30/16
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				127 THUNDER RIDG	4127 THUNDER	127 THUNDER RIDG	4127 THUNDER	127 THUNDER RIDG	127 THUNDER RIDG	127 THUNDER RIDG	27 THUNDER RIDGE	127 THUNDER RIDG	127 THUNDER RIDG	3617 VIEBAHN	3617 VIEBAHN	3621 VIEBAHN	3621 VIEBAHN DUP	3617 VIEBAHN	3617 VIEBAHN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	0.72 J	0.38 J	0.58 J	0.49 J	0.77 J	0.73 J	0.9 J	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	***0.48*** ***J***	***0.4*** ***J***	< 0.17	**0.18** J	***0.23*** ***J***	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3701 Viebahn St							3815 Viebahn St				
Original or Replacement Well:				Original Potable Well (City Water Provided Dec 2016)											
Sample Date:				10/29/14	11/07/14	11/07/14 (DUP)	02/23/15	02/23/15 (DUP)	10/14/15	10/14/15 (DUP)	11/07/14	11/19/14	02/23/15	10/13/15	10/13/15 (DUP)
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3701 VIEBAHN	3701 VIEBAHN	3701 VIEBAHN DUP	3701 VIEBAHN	3701 VIEBAHN DUP	3701 VIEBAHN	3701 VIEBAHN DUP	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48	0.74 J	0.94 J	0.9 J	1 J	1.12 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
Methylene Chloride	ug/l	5	**0.5**	**1.5 J**	**1.17 J**	**1.12 J**	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.29 J***	***0.32 J***	***0.49 J***	***0.31 J***	***0.33 J***	***0.34 J***	***0.37 J***	***0.33 J***	***0.31 J***	***0.25 J***	***0.2 J***	***0.32 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3817 Viebahn St																
Original or Replacement Well:																				
Sample Date:				10/29/14	11/07/14	02/24/15	10/20/15	03/31/16	10/06/16	05/30/17	10/25/17	05/21/18	10/11/18	06/27/19	10/21/19	06/04/20	11/17/20	05/24/21	11/22/21	06/23/22
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN ST	3817 VIEBAHN	3817 VIEBAHN ST	3817 VIEBAHN	3817 VIEBAHN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	0.4 J	< 0.38	< 0.45	0.49 J	< 0.45	0.47 J	0.5 J	0.55 J	0.7 J	0.44 J	0.51 J	0.57 J	0.48 J	0.82 J	0.5 J	0.59 J	0.43 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	***0.25 J***	< 0.2	***0.3 J***	***0.2 J***	***0.21 J***	***0.25 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4025 Viebahn St				4101 Viebahn St													
Original or Replacement Well:				Original Potable Well (City Water Provided Dec 2016)				Original Potable Well (City Water Provided 2016)													
Sample Date:				10/29/14	11/07/14	02/24/15	10/13/15	10/29/14	11/07/14	02/24/15	10/14/15	02/05/14	06/04/14	08/28/14	11/11/14	03/11/15	10/14/15	03/31/16	10/06/16	05/31/17	10/31/17	05/31/18
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4025 VIEBAHN	4025 VIEBAHN	4025 VIEBAHN	4025 VIEBAHN	4101 VIEBAHN	4101 VIEBAHN	4101 VIEBAHN	4101 VIEBAHN	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD LN	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.38	1.46	1.11 J	1.85	1.48	1.13 J	1.24 J	1.59	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45	0.46 J	0.54 J	< 0.41	< 0.37
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79
Toluene	ug/l	800	160	0.95 J	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.34 J***	***0.31 J***	***0.32 J***	***0.44 J***	***0.38 J***	***0.39 J***	***0.43 J***	***0.54***	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):																					
Original or Replacement Well:																					
Sample Date:				11/21/18		10/22/19		06/03/20		10/06/20		11/17/20		05/25/21		11/29/21		06/24/22		11/18/22	
Sample Source:				Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank		Pressure Tank	
Field Sample ID:				3027 ORCHARD		3027 ORCHARD		3027 ORCHARD LN		3027 ORCHARD		027 ORCHARD LANI		3027 ORCHARD LN		027 ORCHARD LANI		3027 ORCHARD		3027 ORCHARD LN	
Sampling Company:				AECOM		AECOM		AECOM		AECOM		AECOM		AECOM		AECOM		AECOM		AECOM	
Analyte	**Units**	**ES [1]**	**PAL [2]**	- -	-	- -	-	- -	-	- -	-	- -	-	- -	-	- -	-	- -	-	- -	-
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42		< 0.42		< 0.5		< 0.5		< 0.5		< 0.55		< 0.55		< 0.43		< 0.43	
1,2-Dichloroethane	ug/l	5	0.5	< 0.25		< 0.25		< 0.39		< 0.39		< 0.39		< 0.44		< 0.44		< 0.43		< 0.43	
1,3-Dichlorobenzene	ug/l	600	120	< 0.85		< 0.85		< 0.31		< 0.31		< 0.31		< 0.38		< 0.38		< 0.35		< 0.35	
1,4-Dichlorobenzene	ug/l	75	15	< 0.7		< 0.7		< 0.36		< 0.36		< 0.36		< 0.48		< 0.48		< 0.49		< 0.49	
Benzene	ug/l	5	**0.5**	< 0.22		< 0.22		< 0.33		< 0.33		< 0.33		< 0.38		< 0.38		< 0.3		< 0.3	
Carbon disulfide	ug/l	1000	200	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Chlorobenzene	ug/l	100	20	< 0.26		< 0.26		< 0.39		< 0.39		< 0.39		< 0.38		< 0.38		< 0.29		< 0.29	
Chloroform	ug/l	6	**0.6**	< 0.26		< 0.26		< 0.44		< 0.44		< 0.44		< 0.4		< 0.4		< 0.33		< 0.33	
Chloromethane	ug/l	30	**3**	< 0.54		< 0.54		< 0.8		< 0.8		< 0.8		< 0.84		< 0.84		< 0.74		< 0.74	
cis-1,2-Dichloroethene	ug/l	70	**7**	0.57	J	0.58	J	0.6	J	0.6	J	0.52	J	< 0.39		0.61	J	0.59	J	0.44	J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32		< 0.32		< 0.45		< 0.45		< 0.45		< 0.55		< 0.55		< 0.3		< 0.3	
Methylene Chloride	ug/l	5	**0.5**	< 1.32		< 1.32		< 1.32		< 1.32		< 1.32		< 0.89		< 0.89		< 0.79		< 0.79	
Methyl-tert-butyl ether	ug/l	60	12	< 0.28		< 0.28		< 0.47		< 0.47		< 0.47		< 0.46		< 0.46		< 0.47		< 0.47	
p-Isopropyltoluene	ug/l	NL	NL	< 0.24		< 0.24		< 0.47		< 0.47		< 0.47		< 0.43		< 0.43		< 0.47		< 0.47	
sec-Butylbenzene	ug/l	NL	NL	< 0.79		< 0.79		< 0.32		< 0.32		< 0.32		< 0.31		< 0.31		< 0.33		< 0.33	
Toluene	ug/l	800	160	< 0.19		< 0.19		< 0.26		< 0.26		< 0.26		< 0.42		< 0.42		< 0.33		< 0.33	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34		< 0.34		< 0.37		< 0.37		< 0.37		< 0.6		< 0.6		< 0.5		< 0.5	
Vinyl chloride	ug/l	0.2	**0.02**	< 0.2		< 0.2		***0.3***	***J***	***0.22***	***J***	< 0.2		< 0.17		***0.28***	***J***	***0.3***	***J***	***0.27***	***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3911 Black Hawk Ct											
Original or Replacement Well:															
Sample Date:				07/08/15	10/06/16	05/31/17	10/30/17	05/21/18	10/10/18	06/27/19	10/21/19	06/10/20	05/24/21	11/22/21	06/23/22
Sample Source:				Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3911 Black Hawk Ct	3911 BLACKHAWK	3911 BLACKHAWK	3911 BLACK HAWK	3911 BLACKHAWK	911 BLACKHAWK C	3911 BLACK HAWK	3911 BLACK HAWK	3911 BLACKHAWK	911 BLACK HAWK C	911 BLACK HAWK C	911 BLACK HAWK C
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.45	0.59 J	< 0.41	< 0.41	0.58 J	0.58 J	0.5 J	0.61 J	0.53 J	0.63 J	0.6 J	0.38 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3921 Black Hawk Ct																	
Original or Replacement Well:																					
Sample Date:				02/04/14	06/02/14	08/26/14	11/10/14	02/24/15	10/14/15	03/31/16	10/05/16	05/30/17	10/25/17	05/21/18	10/10/18	10/10/18 (DUP)	06/27/19	10/22/19	06/10/20	11/17/20	05/25/21	11/30/21
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACK HAWK	3921 BLACK HAWK	3921 BLACK HAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	FD4	3921 BLACK HAWK	921 BLACKHAWK C	921 BLACKHAWK C	921 BLACK HAWK C	921 BLACK HAWK C	921 BLACKHAWK C
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J	1.04 J	0.71 J	0.63 J	0.57 J	0.51 J	0.95 J	0.9 J	0.79 J	0.79 J	0.92 J	0.78 J	1.19 J	0.69 J	0.94 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2732 S 15TH ST					2806 S 15TH ST				2812 S 15TH ST					2820 S 15TH ST				
Original or Replacement Well:																						
Sample Date:				11/14/19	11/26/19	06/01/21	11/22/21	06/21/22	11/17/20	06/03/21	11/30/21	06/20/22	11/08/19	02/07/20	05/25/21	11/22/21	06/20/22	11/07/19	11/26/19	05/24/21	11/22/21	06/21/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				2732 S 15TH ST	2732 S 15TH	2732 S 15TH ST	2732 S 15TH ST	2732 S 15TH	2806 S 15TH ST	2806 S 15TH ST	2806 S 15TH ST	2806 S 15TH	2812 S 15TH ST	2812 S 15TH	2812 S 15TH ST	2812 S 15TH ST	2812 S 15TH	2820 S 15TH ST	2820 S 15TH	2820 S 15TH ST	2820 S 15TH ST	2820 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]																			
Volatile Organic Compounds (VOCs):																						
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.36	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.76 J	0.77 J	0.67 J	0.5 J	0.37 J	0.59 J	0.44 J	0.45 J	0.85 J	0.54 J	0.6 J	< 0.39	0.5 J	0.57 J	0.78 J	0.72 J	0.64 J	0.67 J	0.77 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21*** ***J***	< 0.2	< 0.17	***0.29*** ***J***	***0.23*** ***J***	< 0.2	< 0.17	***0.21*** ***J***	***0.2*** ***J***	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	***0.22*** ***J***	***0.3*** ***J***	***0.22*** ***J***	***0.32*** ***J***	***0.31*** ***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2823 S 15TH ST					2826 S 15TH ST				2827 S 15TH ST					2834 S 15TH ST				
Original or Replacement Well:																						
Sample Date:				12/10/19	12/26/19	05/24/21	11/29/21	06/20/22	10/05/20	05/25/21	11/29/21	06/20/22	11/13/19	11/26/19	05/25/21	11/30/21	06/21/22	12/10/19	12/26/19	05/26/21	11/29/21	06/21/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2823 S 15TH	2823 S 15TH	2823 S 15TH ST	2823 S 15TH ST	2823 S 15TH	2826 S 15TH ST	2826 S 15TH ST	2826 S 15TH ST	2826 S 15TH	2827 S 15TH ST	2827 S 15TH	2827 S 15TH ST	2827 S 15TH ST	2827 S 15TH	2834 S 15TH	2834 S 15TH	2834 S 15TH ST	2834 S 15TH ST	2834 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																						
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.36	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.75 J	0.72 J	0.6 J	0.52 J	0.84 J	0.65 J	0.41 J	0.53 J	0.74 J	0.78 J	0.77 J	0.47 J	0.63 J	0.8 J	0.62 J	0.71 J	0.44 J	0.59 J	0.65 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.24*** ***J***	***0.22*** ***J***	< 0.17	***0.2*** ***J***	***0.23*** ***J***	< 0.2	< 0.17	< 0.17	**0.18** J	***0.24*** ***J***	< 0.2	**0.17** J	***0.26*** ***J***	***0.27*** ***J***	***0.24*** ***J***	***0.29*** ***J***	< 0.17	< 0.17	***0.28*** ***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2908 S 15TH ST				2911 S 15TH ST					2912 S 15TH ST					3019 S 15TH ST			
Original or Replacement Well:																					
Sample Date:				11/04/19	11/26/19	05/24/21	06/21/22	12/10/19	12/26/19	08/19/21	11/22/21	06/20/22	11/08/19	11/26/19	05/28/21	11/30/21	06/20/22	11/07/19	06/01/21	11/22/21	11/22/21 (DUP)
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2908 S 15TH ST	2908 S 15TH	2908 S 15TH ST	2908 S 15TH	2911 S 15TH	2911 S 15TH	2911 S. 15TH ST.	2911 S 15TH ST	2911 S 15TH	2912 S 15TH ST	2912 S 15TH	2912 S 15TH ST	2912 S 15TH ST	2912 S 15TH	3019 S 15TH ST	3019 S 15TH ST	3019 S 15TH ST	112321 DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.55
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.44
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.48
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.38
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.38
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.4
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.01 J	0.85 J	0.78 J	0.73 J	0.84 J	0.71 J	1.14 J	1.15 J	0.95 J	0.76 J	0.85 J	1.08 J	0.8 J	1.22 J	0.97 J	0.89 J	0.89 J	0.93 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.55
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.46
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.31
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.42
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.6
Vinyl chloride	ug/l	*0.2*	**0.02**	*0.2 J*	*0.22 J*	*0.25 J*	*0.34 J*	*0.31 J*	*0.29 J*	*0.43 J*	*0.36 J*	*0.26 J*	*0.26 J*	*0.35 J*	*0.32 J*	*0.32 J*	*0.31 J*	< 0.2	*0.26 J*	*0.37 J*	*0.42 J*

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3020 S 15TH ST				3027 S 15TH ST					3028 S 15TH ST					3107 S 15TH ST		
Original or Replacement Well:																				
Sample Date:				11/11/19	05/27/21	11/22/21	06/22/22	11/04/19	11/26/19	05/26/21	11/22/21	06/27/22	11/11/19	11/26/19	05/26/21	11/29/21	06/21/22	12/18/19	11/17/20	06/27/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3020 S 15TH ST	3020 S 15TH ST	3020 S 15TH ST	3020 S 15TH	3027 S 15TH ST	3027 S 15TH	3027 S 15TH ST	3027 S 15TH ST	3027 S 15TH	3028 S 15TH ST	3028 S 15TH	3028 S 15TH ST	3028 S 15TH ST	3028 S 15TH	3107 S 15TH	3107 S 15TH ST	3107 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.5	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.39	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.31	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.36	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.33	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.39	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.44	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.8	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	0.81 J	0.77 J	0.91 J	0.82 J	0.95 J	0.85 J	0.65 J	0.76 J	0.83 J	1.07 J	0.94 J	0.81 J	0.95 J	0.78 J	0.76 J	1.13 J	0.82 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.45	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.32	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.26	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.37	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	**0.17 J**	***0.42 J***	***0.32 J***	***0.23 J***	***0.23 J***	**0.18 J**	***0.45 J***	***0.39 J***	***0.28 J***	***0.21 J***	***0.29 J***	***0.25 J***	***0.35 J***	***0.24 J***	***0.3 J***	***0.46 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3126 S 15TH ST					3127 S 15TH ST			3131/3201 S 15TH ST						3202 S 15TH ST		
Original or Replacement Well:																				
Sample Date:				11/07/19	11/26/19	05/24/21	11/22/21	06/21/22	12/18/19	06/02/21	06/22/22	05/24/21	11/29/21	11/29/21 (DUP)	06/23/22	12/02/19	10/12/20	12/18/19	06/01/21	06/21/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap	Sample Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				3126 S 15TH ST	3126 S 15TH	3126 S 15TH ST	3126 S 15TH ST	3126 S 15TH	3127 S 15TH	3127 S 15TH ST	3127 S 15TH	3131 S 15TH ST	3131 S 15TH ST	112921 DUP	3131 S 15TH	3201 S 15TH	3201 S 15TH	3202 S. 15TH	3202 S 15TH ST	3202 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.55	< 0.55	< 0.55	< 0.43	< 0.42	< 2	< 0.42	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.44	< 0.44	< 0.44	< 0.43	< 0.25	< 2	< 0.25	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.38	< 0.38	< 0.38	< 0.35	< 0.85	< 2	< 0.85	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.48	< 0.48	< 0.48	< 0.49	< 0.7	< 2	< 0.7	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.38	< 0.38	< 0.38	< 0.3	< 0.22	< 2	< 0.22	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.38	< 0.38	< 0.38	< 0.29	< 0.26	< 2	< 0.26	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.4	< 0.4	< 0.4	< 0.33	**0.67 J**	< 2	< 0.26	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.84	< 0.84	< 0.84	< 0.74	< 0.54	< 2	< 0.54	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	0.8 J	0.73 J	0.87 J	0.91 J	0.62 J	0.6 J	0.64 J	0.78 J	0.46 J	0.47 J	0.39 J	0.38 J	0.44 J	< 2	0.37 J	0.52 J	0.39 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.55	< 0.55	< 0.55	< 0.3	< 0.32	< 2	< 0.32	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 0.89	< 0.89	< 0.89	< 0.79	< 1.32	< 2	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.46	< 0.46	< 0.46	< 0.47	< 0.28	< 2	< 0.28	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.43	< 0.43	< 0.43	< 0.47	< 0.24	< 2	< 0.24	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.31	< 0.31	< 0.31	< 0.33	< 0.79	< 2	< 0.79	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.42	< 0.42	< 0.42	< 0.33	< 0.19	< 2	< 0.19	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.6	< 0.6	< 0.6	< 0.5	< 0.34	< 2	< 0.34	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21 J***	***0.24 J***	***0.21 J***	***0.36 J***	***0.32 J***	< 0.2	***0.2 J***	***0.43 J***	< 0.17	< 0.17	< 0.17	***0.24 J***	< 0.2	***0.22***	< 0.2	**0.18 J**	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3209/3217 S 15TH ST						3301 S 15TH ST			2805 S 19TH ST			2821 S 19TH ST					
Original or Replacement Well:																					
Sample Date:				12/02/19	12/18/19	05/26/20	06/22/22	06/02/21	11/30/21	01/12/20	06/10/20	06/20/22	11/07/19	06/03/21	06/22/22	11/06/19	05/26/21	05/26/21 (DUP)	11/22/21	03/11/22	06/20/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot
Field Sample ID:				3209 S 15TH ST	3209 S 15TH	3209 S 15 ST	3209 S 15TH	3217 S 15TH ST	3217 S 15TH ST	3301 S 15TH ST	3301 S. 15TH	3301 S 15TH	2805 S 19TH ST	2805 S 19TH ST	2805 S 19TH	2821 S 19TH ST	2821 S 19TH ST	FD052621	2821 S 19TH ST	2821 S 19TH ST	2821 S 19TH
Sampling Company:				AECOM	AECOM	BRANCH	AECOM	AECOM	AECOM	WI_SLH	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.34	< 0.43	< 0.55	< 0.55	< 2	< 0.5	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.55	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.41	< 0.43	< 0.44	< 0.44	< 2	< 0.39	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.44	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.31	< 0.35	< 0.38	< 0.38	2	< 0.31	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.38	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.3	< 0.49	< 0.48	< 0.48	2	< 0.36	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.48	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.29	< 0.3	< 0.38	< 0.38	< 2	< 0.33	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.38	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.28	< 0.29	< 0.38	< 0.38	< 2	< 0.39	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.38	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.63	< 0.33	< 0.4	< 0.4	< 2	< 0.44	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.4	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.74	< 0.84	< 0.84	< 2	< 0.8	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.84	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.51 J	0.37 J	0.47 J	0.53 J	< 0.39	< 0.39	< 2	< 0.39	0.32 J	< 0.37	< 0.39	0.47 J	0.79 J	0.73 J	0.7 J	0.91 J	1.04 J	1.11 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.41	< 0.3	< 0.55	< 0.55	< 2	< 0.45	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.55	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.51	< 0.79	< 0.89	< 0.89	< 2	< 1.32	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.42	< 0.47	< 0.46	< 0.46	< 2	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.46	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.36	< 0.47	< 0.43	< 0.43	2	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.43	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	NA	< 0.33	< 0.31	< 0.31	2	< 0.32	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.29	< 0.33	< 0.42	< 0.42	< 2	< 0.26	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.5	< 0.6	< 0.6	< 2	< 0.37	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.6	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.2*** ***J***	< 0.2	< 0.2	< 0.15	< 0.17	< 0.17	< 0.2	< 0.2	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	**0.18** J	***0.24*** ***J***	< 0.17	***0.54*** ***J***	***0.3*** ***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2824/2828/2904 S 19TH ST					2917 S 19TH ST					2918 S 19TH ST					2929 S 19TH ST	
Original or Replacement Well:																				
Sample Date:				06/02/21	06/23/22	11/22/21	02/07/20	02/21/20	11/11/19	12/02/19	05/24/21	11/22/21	06/22/22	11/08/19	11/26/19	06/01/21	11/22/21	06/21/22	06/04/21	06/22/22
Sample Source:				Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot
Field Sample ID:				2824 S 19TH ST	2824 S 19TH	24/2828/2904 S 19TH	2828 S 19TH	2828 S 19TH	2917 S 19TH ST	2917 S 19TH	2917 S 19TH ST	2917 S 19TH ST	2917 S 19TH	2918 S 19TH ST	2918 S 19TH	2918 S 19TH ST	2918 S 19TH ST	2918 S 19TH	2929 S 19TH ST	2929 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.55	< 0.42	< 0.5	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.44	< 0.25	< 0.39	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.38	< 0.85	< 0.31	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.48	< 0.7	< 0.36	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.38	< 0.22	< 0.33	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.38	< 0.26	< 0.39	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.4	< 0.26	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.84	< 0.54	< 0.8	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	0.48 J	0.93 J	1.16 J	1.06 J	1.12 J	1.08 J	1.18	0.82 J	1.26 J	0.94 J	0.92 J	1.05 J	1.11 J	1.01 J	0.88 J	0.87 J	0.94 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.55	< 0.32	< 0.45	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 0.89	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.46	< 0.28	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.43	< 0.24	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.31	< 0.79	< 0.32	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.42	< 0.19	< 0.26	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.6	< 0.34	< 0.37	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	***0.47 J***	***0.45 J***	***0.35 J***	***0.29 J***	***0.31 J***	***0.44 J***	***0.24 J***	***0.4 J***	***0.4 J***	***0.23 J***	***0.3 J***	***0.31 J***	***0.35 J***	***0.37 J***	***0.28 J***	***0.42 J***

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2930 S 19TH ST		3003 S 19TH ST				3006/3008 S 19TH					3011 S 19TH ST				
Original or Replacement Well:																			
Sample Date:				11/06/19	06/01/21	10/05/20	05/28/21	11/22/21	06/21/22	02/21/20	10/05/20	06/02/21	11/29/21	06/24/22	12/18/19	12/26/19	05/24/21	11/22/21	06/20/22
Sample Source:				Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				2930 S 19TH ST	2930 S 19TH ST	3003 S 19TH ST	3003 S 19TH ST	3003 S 19TH ST	3003 S 19TH	3008 S 19TH	3008 S 19TH ST	3008 S 19TH ST	3008 S 19TH ST	3008 S 19TH	3011 S 19TH	3011 S 19TH	3011 S 19TH ST	3011 S 19TH ST	3011 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.5	< 0.55	< 0.55	< 0.43	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.39	< 0.44	< 0.44	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.31	< 0.38	< 0.38	< 0.35	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.36	< 0.48	< 0.48	< 0.49	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.33	< 0.38	< 0.38	< 0.3	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.39	< 0.38	< 0.38	< 0.29	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.4	< 0.44	< 0.4	< 0.4	< 0.33	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.8	< 0.84	< 0.84	< 0.74	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.65 J	0.79 J	0.61 J	0.62 J	0.63 J	0.53 J	0.89 J	0.76 J	0.59 J	1.15 J	0.9 J	0.83 J	0.95 J	0.97 J	0.89 J	1.13 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.45	< 0.55	< 0.55	< 0.3	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.32	< 0.31	< 0.31	< 0.33	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.26	< 0.42	< 0.42	< 0.33	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.37	< 0.6	< 0.6	< 0.5	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	**0.18 J**	< 0.2	***0.2 J***	***0.29 J***	***0.23 J***	***0.22 J***	***0.27 J***	***0.27 J***	***0.43 J***	***0.48 J***	***0.22 J***	***0.45 J***	***0.26 J***	***0.4 J***	***0.21 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3019 S 19TH ST					3109 S 19TH ST			3123 S 19TH ST			3205 S 19TH ST			4120 S 21ST ST
Original or Replacement Well:																		
Sample Date:				11/05/19	11/26/19	05/24/21	11/22/21	06/23/22	11/06/19	11/26/19	11/22/21	10/05/20	08/19/21	06/23/22	02/21/20	06/02/21	06/24/22	11/11/19
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH	3109 S 19TH ST	3109 S 19TH	3109 S 19TH ST	3123 S 19TH ST	3123 S. 19TH ST.	3123 S 19TH	3205 S 19TH	3205 S 19TH ST	3205 S 19TH	4120 S 21ST ST
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.5	< 0.55	< 0.43	< 0.5	< 0.55	< 0.43	< 0.42
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.39	< 0.44	< 0.43	< 0.39	< 0.44	< 0.43	< 0.25
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.31	< 0.38	< 0.35	< 0.31	< 0.38	< 0.35	< 0.85
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.36	< 0.48	< 0.49	< 0.36	< 0.48	< 0.49	< 0.7
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.33	< 0.38	< 0.3	< 0.33	< 0.38	< 0.3	< 0.22
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.39	< 0.38	< 0.29	< 0.39	< 0.38	< 0.29	< 0.26
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.44	< 0.4	< 0.33	< 0.44	< 0.4	< 0.33	0.38 J
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.8	< 0.84	< 0.74	< 0.8	< 0.84	< 0.74	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.98 J	0.86 J	0.8 J	1.07 J	0.95 J	1 J	0.87 J	0.87 J	1.16 J	1.02 J	0.75 J	< 0.39	< 0.39	< 0.32	< 0.37
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.45	< 0.55	< 0.3	< 0.45	< 0.55	< 0.3	< 0.32
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.47	< 0.46	< 0.47	< 0.47	< 0.46	< 0.47	< 0.28
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.47	< 0.43	< 0.47	< 0.47	< 0.43	< 0.47	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.32	< 0.31	< 0.33	< 0.32	< 0.31	< 0.33	< 0.79
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.26	< 0.42	< 0.33	0.28 J	< 0.42	< 0.33	< 0.19
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.37	< 0.6	< 0.5	< 0.37	< 0.6	< 0.5	< 0.34
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.22*** ***J***	***0.29*** ***J***	***0.28*** ***J***	***0.58*** ***J***	***0.45*** ***J***	***0.35*** ***J***	***0.27*** ***J***	***0.4*** ***J***	***0.33*** ***J***	***0.28*** ***J***	***0.37*** ***J***	< 0.2	< 0.17	**0.16** **J**	< 0.2

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2918 S 26TH St										3008 S 26TH St							
Original or Replacement Well:				Original Potable Well			Replacement Potable Well														
Sample Date:				08/15/17	09/05/17	09/05/17 (DUP)	12/11/17	12/11/17 (DUP)	03/05/18	03/05/18	03/05/18	06/27/19	11/08/17	12/14/17	06/27/19	10/22/19	06/04/20	11/17/20	11/22/21	06/20/22
Sample Source:				Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Spigot W Side	Basement Tap	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				2918 26TH ST	2918 26TH	2918 26TH-DUP	2918 26TH-RAW	2918 26TH-DUP	2918 26TH TAP	2918 26TH RAW	2918 26TH RAW VOC	2918 S 26TH	8 SOUTH 26TH STRE	8 SOUTH 26TH STRE	3008 S 26TH	3008 S 26TH	3008 S. 26TH ST	3008 S 26TH ST	3008 S 26TH ST	3008 S 26TH
Sampling Company:				Home Owner	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.46	< 0.46	< 0.46	< 0.46	NA	NA	< 0.42	< 0.42	< 0.5	< 0.5	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.5	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	< 0.25	< 0.25	< 0.5	< 0.5	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.25	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	< 0.85	< 0.85	< 0.25	< 0.25	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.25	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA	< 0.7	< 0.7	< 0.25	< 0.25	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.3	< 0.17	< 0.17	< 0.17	< 0.17	NA	NA	< 0.22	< 0.22	< 0.3	< 0.3	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	< 0.3	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3	< 0.3	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.25	< 0.27	< 0.27	< 0.27	< 0.27	NA	NA	< 0.26	< 0.26	< 0.25	< 0.25	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.25	< 0.96	< 0.96	< 0.96	< 0.96	NA	NA	< 0.26	< 0.26	< 0.25	< 0.25	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 1	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA	< 0.54	< 0.54	< 1	< 1	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	70	**7**	1.1	0.85 J	0.75 J	< 0.41	< 0.41	NA	NA	< 0.37	< 0.37	1	0.85	0.77 J	0.9 J	0.92 J	0.78 J	1.14 J	0.89 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.5	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA	< 0.32	< 0.32	< 0.5	< 0.5	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.94	< 0.94	< 0.94	< 0.94	NA	NA	< 1.32	< 1.32	< 0.5	< 0.5	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	NA	NA	< 0.28	< 0.28	< 0.3	< 0.3	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.2	< 0.28	< 0.28	< 0.28	< 0.28	NA	NA	< 0.24	< 0.24	< 0.2	< 0.2	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.2	< 0.24	< 0.24	< 0.24	< 0.24	NA	NA	< 0.79	< 0.79	< 0.2	< 0.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.25	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA	< 0.19	< 0.19	< 0.25	< 0.25	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA	< 0.34	< 0.34	< 0.5	< 0.5	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21*** ***J***	***0.26*** ***J***	***0.24*** ***J***	< 0.19	< 0.19	NA	NA	< 0.2	< 0.2	***0.47***	***0.55***	< 0.2	***0.25*** ***J***	***0.3*** ***J***	***0.26*** ***J***	***0.44*** ***J***	< 0.15

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3225 S 26TH ST			3318/3328 Cimarron Ct				3401/3403/3413 Cimarron Ct			
Original or Replacement Well:														
Sample Date:				12/18/19	05/25/21	06/23/22	11/06/19	06/03/21	11/30/21	06/22/22	10/05/20	11/06/19	05/25/21	06/29/22
Sample Source:				Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3225 S 26TH	3225 S 26TH ST	3225 S 26TH	3328 CIMMARON CT	3328 CIMARRON CT	3328 CIMARRON CT	3328 CIMARRON	3403 CIMARRON	3413 CIMMARON CT	3413 CIMARRON CT	3413 CIMARRON
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]											
Volatile Organic Compounds (VOCs):														
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.42	< 0.55	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.25	< 0.44	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.85	< 0.38	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.49	< 0.38	< 0.7	< 0.48	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.22	< 0.38	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.26	< 0.38	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.26	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.54	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.39	0.43 J	0.39 J	< 0.39	< 0.39	0.39 J	0.4 J	0.42 J	0.42 J	0.54 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.32	< 0.55	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.79	< 0.31	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.19	< 0.42	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.34	< 0.6	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	***0.26*** ***J***	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.2	< 0.17	***0.27*** ***J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2201 Elm Road										2322 Elm Road		2501 Nelson Lane			1511/1513 Lone Oak Lane		
Original or Replacement Well:																					
Sample Date:				12/19/17	02/14/18	06/27/19	10/22/19	06/04/20	11/17/20	06/01/21	11/30/21	11/30/21 (DUP)	06/21/22	11/17/20	06/20/22	12/19/17	06/02/21	06/21/22	10/06/20	06/27/22	03/11/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2201 ELM ROAD	2201 ELM ROAD	2201 ELM	2201 ELM	2201 ELM STREET	2201 ELM RD	2201 ELM RD	2201 ELM RD	113021 DUP	2201 ELM RD	2322 ELM RD	2322 ELM RD	2501 NELSON LANE	2501 NELSON	2501 NELSON LN	1511 LONE OAK	1511 LONE OAK	1513 LONE OAK ST
Sampling Company:				WDNR	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.22	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.55	< 0.43	< 0.5	< 0.43	< 0.5	< 0.55	< 0.43	< 0.5	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.5	< 0.16	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.43	< 0.39	< 0.43	< 0.5	< 0.44	< 0.43	< 0.39	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.25	< 0.11	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.38	< 0.35	< 0.31	< 0.35	< 0.25	< 0.38	< 0.35	< 0.31	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.25	< 0.11	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.48	< 0.49	< 0.36	< 0.49	< 0.25	< 0.48	< 0.49	< 0.36	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.3	< 0.1	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.38	< 0.3	< 0.33	< 0.3	< 0.3	< 0.38	< 0.3	< 0.33	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	< 0.3	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.25	< 0.27	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.38	< 0.29	< 0.39	< 0.29	< 0.25	< 0.38	< 0.29	< 0.39	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.25	< 0.1	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.4	< 0.33	< 0.44	< 0.33	< 0.25	< 0.4	< 0.33	< 0.44	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 1	< 0.89	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.84	< 0.74	< 0.8	< 0.74	< 1	< 0.84	< 0.74	< 0.8	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.51	0.55	< 0.37	< 0.37	0.44 J	0.42 J	0.49 J	< 0.39	0.54 J	< 0.32	0.75 J	0.57 J	< 0.3	< 0.39	< 0.32	< 0.39	0.36 J	0.42 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.5	< 0.5	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.55	< 0.3	< 0.45	< 0.3	< 0.5	< 0.55	< 0.3	< 0.45	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.15	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.89	< 0.79	< 1.32	< 0.79	< 0.5	< 0.89	< 0.79	< 1.32	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.3	< 0.24	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.46	< 0.47	< 0.47	< 0.47	< 0.3	< 0.46	< 0.47	< 0.47	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.2	< 0.2	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.43	< 0.47	< 0.47	< 0.47	< 0.2	< 0.43	< 0.47	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.2	< 0.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.31	< 0.33	< 0.32	< 0.33	< 0.2	< 0.31	< 0.33	< 0.32	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.25	< 0.29	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.42	< 0.33	< 0.26	< 0.33	< 0.25	< 0.42	< 0.33	< 0.26	< 0.33	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.5	< 0.22	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.6	< 0.5	< 0.37	< 0.5	< 0.5	< 0.6	< 0.5	< 0.37	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	***0.2***	< 0.2	< 0.2	< 0.2	< 0.2	**0.18 J**	< 0.17	< 0.17	**0.18 J**	***0.23 J***	< 0.15	< 0.2	< 0.17	**0.16 J**	< 0.2	**0.19 J**	***0.31 J***

TABLE 1

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				1520/3207 Lone Oak Lane			3125 Lone Oak Lane				3206 Lone Oak Lane			3208 Lone Oak Lane						2406/2414/2512 Birch Rd	
Original or Replacement Well:																					
Sample Date:				12/10/19	06/01/21	06/22/22	11/06/19	05/26/21	11/29/21	06/22/22	12/10/19	05/27/21	06/22/22	10/05/20	05/28/21	05/28/21 (DUP)	12/03/21	12/03/21 (DUP)	06/24/22	06/22/22	11/17/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap	Sample Tap
Field Sample ID:				1520 LONE OAK	1520 LONE OAK LN	1520 LONE OAK	125 LONE OAK LAN	3125 LONE OAK LN	3125 LONE OAK	3125 LONE OAK	3206 LONE OAK	3206 LONE OAK LN	3206 LONE OAK	3208 LONE OAK	3208 LONE OAK LN	FD 052821	3208 LONE OAK	120321 DUP	3208 LONE OAK	24062512 BIRCH	06/2414/2512 BIRCH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.43	< 0.43	< 0.43
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.43	< 0.43	< 0.43
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.31	< 0.38	< 0.38	< 0.38	< 0.38	< 0.35	< 0.35	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.36	< 0.48	< 0.48	< 0.48	< 0.48	< 0.49	< 0.49	< 0.49
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.33	< 0.38	< 0.38	< 0.38	< 0.38	< 0.3	< 0.3	< 0.3
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.39	< 0.38	< 0.38	< 0.38	< 0.38	< 0.29	< 0.29	< 0.29
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.4	< 0.33	< 0.26	0.5 J	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.44	< 0.4	< 0.4	< 0.4	< 0.4	< 0.33	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.8	< 0.84	< 0.84	< 0.84	< 0.84	< 0.74	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.39	0.6 J	0.45 J	0.4 J	0.43 J	0.42 J	< 0.37	< 0.39	0.37 J	0.58 J	0.39 J	0.44 J	< 0.39	< 0.39	< 0.32	0.6 J	0.9 J
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.45	< 0.55	< 0.55	< 0.55	< 0.55	< 0.3	< 0.3	< 0.3
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89	< 0.89	< 0.79	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.47	< 0.46	< 0.46	< 0.46	< 0.46	< 0.47	< 0.47	< 0.47
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.47	< 0.43	< 0.43	< 0.43	< 0.43	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.32	< 0.31	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.26	< 0.42	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.37	< 0.6	< 0.6	< 0.6	< 0.6	< 0.5	< 0.5	< 0.5
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.17	< 0.17	***0.24 J***	< 0.15	< 0.15	< 0.15

SUMMARY OF VOCs DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

NOTES:

(1) Enforcement Standard from NR140, June 2021.
(2) Preventive Action Limit from NR140, June 2021.
(3) Sample Collected by the WDNR.
(4) Sample Collected by the Property Owner.
DUP - Field duplicate sample
NL - ES or PAL not listed in NR140.
NA - Not analyzed.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).

Bold indicates a PAL exceedance.
Bold and underlining indicates an ES exceedance.

Table 2
SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
(Table 2 provided on CD copy of report)

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3114 Hecker Rd				3121 Hecker Rd						3303 Hecker Rd							
Original or Replacement Well:														Original Potable Well							
Sample Date:				10/22/13	11/08/13	05/28/14	06/04/20	10/22/13	11/07/13	05/28/14	10/14/15	06/10/20	06/21/22	10/23/13	11/07/13	06/03/14	06/03/14 (DUP)	11/17/14	02/23/15	10/13/15	03/30/16
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Field Sample ID:				PW-3114	PW-3114	3114 HECKER	3114 HECKER RD	PW-3121	PW-3121	3121 HECKER	3121 HECKER	3121 HECKER	3121 HECKER RD	PW-3303	PW-3303	3303 HECKER RD	303 HECKER RD DU	3303 HECKER	3303 HECKER	3303 HECKER	3303 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.88	< 0.33	< 0.33	< 0.33	< 0.48	< 0.88	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33	< 0.84	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.37	< 0.45	< 0.45	< 0.45	< 0.52	< 0.37	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.36	< 0.34	< 0.34	< 0.34	< 0.48	< 0.36	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.46	< 0.3	< 0.3	< 0.3	< 1.1	< 0.46	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.5	< 0.4	< 0.4	< 0.4	< 0.65	< 0.5	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1	< 1.8	< 1.8	< 1.8	< 2.7	< 1	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.44	< 0.98	< 0.98	< 0.98	< 1.7	< 0.44	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 0.3	< 2.2	< 2.2	< 2.2	< 1.6	< 0.3	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.82	< 0.88	< 0.88	< 0.88	< 1.4	< 0.82	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.24	< 0.44	< 0.44	< 0.44	< 0.63	< 0.24	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.32	< 0.36	< 0.36	< 0.36	< 0.46	< 0.32	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.39	< 0.41	< 0.41	< 0.41	< 0.48	< 0.39	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.38	< 0.32	< 0.32	< 0.32	< 0.43	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 0.32	< 1.4	< 1.4	< 1.4	< 1.5	< 0.32	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.31	< 0.28	< 0.28	< 0.28	< 0.52	< 0.31	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.35	< 0.33	< 0.33	< 0.33	< 0.42	< 0.35	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.36	< 0.3	< 0.3	< 0.3	< 0.49	< 0.36	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.32	< 0.21	< 0.21	< 0.21	< 0.4	< 0.32	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.3	< 0.21	< 0.21	< 0.21	< 0.63	< 0.3	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.33	< 0.24	< 0.24	< 0.24	< 0.44	< 0.33	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.26	< 0.32	< 0.32	< 0.32	< 0.48	< 0.26	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.33	< 0.37	< 0.37	< 0.37	< 0.46	< 0.33	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.65	< 0.35	< 0.35	< 0.35	< 0.46	< 0.65	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.31	< 0.33	< 0.33	< 0.33	< 0.51	< 0.31	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.39	< 0.24	< 0.24	< 0.24	< 0.46	< 0.39	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 1.1	< 0.63	< 0.63	< 0.63	< 0.65	< 1.1	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.44	< 0.28	< 0.28	< 0.28	< 0.43	< 0.44	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	1.36 J	< 0.81	< 0.81	< 0.8	< 0.81	< 0.81	< 0.81	< 1.9	< 0.8	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.45	< 0.39	< 0.32	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	1.94	2.53
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.36	NA	NA	NA	NA	< 0.36	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.23	< 0.22	< 0.22	< 0.22	< 0.45	< 0.23	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.45	< 0.44	< 0.44	< 0.44	< 0.87	< 0.45	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.32	< 0.55	< 0.55	< 0.55	< 0.71	< 0.32	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 0.72	< 1.5	< 1.5	< 1.5	< 2.2	< 0.72	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.34	< 0.23	< 0.23	< 0.23	< 0.44	< 0.34	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.32	< 0.3	< 0.3	< 0.3	< 0.82	< 0.32	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 1.1	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.32	< 0.5	< 0.5	< 0.5	< 1.3	< 1.32	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.47	< 0.23	< 0.23	< 0.23	< 1.1	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.1	< 1.7	< 1.7	< 1.7	< 1.6	< 1.1	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.28	< 0.35	< 0.35	< 0.35	< 1	< 0.28	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.33	< 0.25	< 0.25	< 0.25	< 0.77	< 0.33	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.38	< 0.63	< 0.63	< 0.63	< 0.9	< 0.38	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.47	< 0.31	< 0.31	< 0.31	< 1.1	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.32	< 0.33	< 0.33	< 0.33	< 1.2	< 0.32	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.61	< 0.36	< 0.36	< 0.36	< 1.1	< 0.61	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.26	< 0.69	< 0.69	< 0.69	< 0.44	< 0.26	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 0.32	< 2.2	< 2.2	< 2.2	< 1.6	< 0.32	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.37	< 0.35	< 0.35	< 0.35	< 0.54	< 0.37	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.3	NA	NA	NA	NA	< 0.3	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.42	< 0.71	< 0.71	< 0.71	< 0.87	< 0.42	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.2	< 0.18	< 0.18	< 0.18	< 0.17	< 0.2	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	***0.44*** ***J***	***0.51*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 1.1	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3320 Hecker Rd																		
Original or Replacement Well:				Replacement Potable Well																		
Sample Date:				08/08/16	09/26/16	10/24/16	10/24/16	10/24/16	11/08/16	06/04/20	10/22/13	11/07/13	05/28/14	03/30/16	10/25/17	11/20/18	10/22/19	06/01/21	06/23/22	10/23/13	11/07/13
Sample Source:				Basement	Basement	Basement	Basement-Vial 2	Basement-Vial 3	Basement	Basement	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3303 Hecker Rd	3303 HECKER	3303 HECKER	3303 HECKER vial 2	3303 HECKER vial 3	3303 HECKER	3303 HECKER RD	PW-3320	PW-3320	3320 HECKER	3320 HECKER RD	3320 HECKER	3320 HECKER	3320 HECKER	3320 HECKER RD	3320 HECKER	PW-3327	PW-3327
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																						
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.88	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.76	< 0.55	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.3	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.37	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.36	< 0.43	< 0.45	< 0.45
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.36	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.48	< 0.42	< 0.34	< 0.34
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.46	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.48	< 0.43	< 0.3	< 0.3
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.55	< 0.43	< 0.4	< 0.4
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 1	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 0.66	< 1.4	< 1.8	< 1.8
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 0.44	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.67	< 0.63	< 0.98	< 0.98
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.3	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.35	< 0.35	< 2.2	< 2.2
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.82	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.54	< 0.74	< 0.88	< 0.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.24	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.47	< 0.39	< 0.44	< 0.44
1,2-Dichlorobenzene	ug/l	600	60	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.32	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.44	< 0.4	< 0.36	< 0.36
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.39	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.44	< 0.43	< 0.41	< 0.41
1,2-Dichloropropane	ug/l	5	0.5	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.38	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.39	< 0.32	< 0.32
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.32	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.38	< 0.41	< 1.4	< 1.4
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.31	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.38	< 0.35	< 0.28	< 0.28
1,3-Dichloropropane	ug/l	NL	NL	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.35	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.4	< 0.38	< 0.33	< 0.33
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.36	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.48	< 0.49	< 0.3	< 0.3
2,2-Dichloropropane	ug/l	NL	NL	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	< 0.36	< 0.36
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.32	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.36	< 0.34	< 0.21	< 0.21
4-Chlorotoluene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.3	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.4	< 0.4	< 0.21	< 0.21
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.33	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.38	< 0.3	< 0.24	< 0.24
Bromobenzene	ug/l	NL	NL	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.26	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.4	< 0.34	< 0.32	< 0.32
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.33	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.65	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.46	< 0.42	< 0.35	< 0.35
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	6.8	< 1	2.6 J	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.31	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33
Chlorobenzene	ug/l	100	20	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.39	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.38	< 0.29	< 0.24	< 0.24
Chloroethane	ug/l	400	80	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 1.1	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 0.78	< 0.62	< 0.63	< 0.63
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.44	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.4	< 0.33	< 0.28	< 0.28
Chloromethane	ug/l	30	**3**	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.8	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.84	< 0.74	< 0.81	< 0.81
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.39	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.32	**11**	**11.6**
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.36	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.51	< 0.41	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.23	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.36	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.45	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.55	< 0.3	< 0.44	< 0.44
Ethylbenzene	ug/l	700	140	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.32	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.37	< 0.33	< 0.55	< 0.55
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 0.72	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.75	< 0.81	< 1.5	< 1.5
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.34	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.47	< 0.48	< 0.23	< 0.23
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.32	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.3	< 0.34	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.1	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 0.77	< 0.64	< 0.69	< 0.69
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.32	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.47	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.46	< 0.47	< 0.23	< 0.23
Naphthalene	ug/l	100	10	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.1	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.4	< 1.4	< 1.7	< 1.7
n-Butylbenzene	ug/l	NL	NL	< 1	< 1	< 1	< 1	< 1	< 1	< 0.28	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.46	< 0.71	< 0.35	< 0.35
n-Propylbenzene	ug/l	NL	NL	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.33	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.44	< 0.39	< 0.25	< 0.25
o-Xylene	ug/l	NL	NL	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.38	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.44	< 0.37	< 0.63	< 0.63
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.47	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.43	< 0.47	< 0.31	< 0.31
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.32	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.31	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.61	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.45	< 0.37	< 0.36	< 0.36
Tetrachloroethene	ug/l	5	0.5	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.54	< 0.47	< 0.33	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.42	< 0.33	< 0.69	< 0.69
Total Trimethylbenzene	ug/l	480	96	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.32	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.38	NA	< 2.2	< 2.2
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.37	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.6	< 0.5	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.3	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.45	< 0.41	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.38	< 0.33	< 0.33
Trichlorofluoromethane	ug/l	3490	698	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.42	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.49	< 0.33	< 0.71	< 0.71
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.2	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.17	< 0.15	< 0.18	< 0.18
Xylene (Total)	ug/l	2000	400	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.1	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 0.77	NA	< 0.69	< 0.69

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3327 Hecker Rd																
Original or Replacement Well:																				
Sample Date:				05/28/14	08/25/14	11/10/14	02/23/15	10/14/15	03/31/16	10/05/16	05/30/17	10/25/17	05/21/18	05/21/18 (DUP)	11/20/18	06/27/19	10/21/19	10/21/19 (DUP)	06/03/20	11/17/20	05/25/21
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3327 HECKER RD	3327 HECKER	3327 HECKER	3327 HECKER	3327 HECKER	3327 HECKER RD	3327 HECKER RD	3327 HECKER RD	3327 HECKER	3327 HECKER	3327 HECKER DUP	3327 HECKER	3327 HECKER	3327 HECKER	FD 102119	3327 HECKER RD	3327 HECKER RD	FD052521
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	6.4	6.9	5.6	4.3	4.2	3.2	3.3	2.38	4	4.5	4.2	4	3.6	3.07	3.4	3.6	4	3.09
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	NA	< 0.8	NA	NA	NA	< 0.32	< 0.32	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	NA	< 0.43	NA	NA	NA	< 1.1	< 1.1	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3461(3417) Hecker Rd															
Original or Replacement Well:																			
Sample Date:				05/25/21	11/29/21	06/23/22	11/17/22	10/24/13	11/12/13	05/30/14	08/26/14	11/10/14	02/24/15	10/13/15	03/30/16	03/30/16 (DUP)	10/06/16 (DUP)	05/31/17	10/25/17	05/21/18	11/20/18
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
Field Sample ID:				3327 HECKER RD	3327 HECKER RD	3327 HECKER	3327 HECKER RD	PW-3461	PW-3417/3461	3417 HECKER RD	3417 HECKER	3461 HECKER	3417 HECKER	3461 HECKER	3461 HECKER RD	461 HECKER RD DU	3417 HECKER DUP	3417 HECKER	3417 HECKER	3417 HECKER	3461 HECKER
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.76	< 0.55	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.36	< 0.43	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.42	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.48	< 0.43	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.55	< 0.43	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 0.66	< 1.4	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.67	< 0.63	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.54	< 0.74	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.47	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.44	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.44	< 0.43	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.38	< 0.39	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.38	< 0.41	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.38	< 0.35	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.4	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.48	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.36	< 0.34	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.38	< 0.3	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.4	< 0.34	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.47	< 0.36	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.46	< 0.42	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.44	< 0.34	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.38	< 0.38	< 0.29	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	0.32 J	< 0.27	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.78	< 0.78	< 0.62	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.4	< 0.33	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.84	< 0.84	< 0.74	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	3.2	4.5	2.94	3.3	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74	1.51	0.55 J	1.35	1.87	1.75
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.51	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	< 0.36	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.55	< 0.3	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.37	< 0.37	< 0.33	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.75	< 0.81	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.47	< 0.48	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.34	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.77	< 0.64	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.89	< 0.79	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.46	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.46	< 0.71	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.44	< 0.44	< 0.37	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.43	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.45	< 0.37	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.54	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.42	< 0.33	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 0.38	< 0.38	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.6	< 0.5	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.45	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.49	< 0.33	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.15	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.77	< 0.77	NA	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3515 Hecker Rd																	
Original or Replacement Well:											Original Potable Well								Replacement Potable Well	
Sample Date:				06/27/19	10/22/19	06/03/20	11/18/20	06/02/21	11/22/21	06/27/22	06/27/22 (DUP)	10/22/13	11/07/13	11/07/13	11/22/13	05/28/14	08/28/14	09/29/14	11/04/14	02/23/15	10/14/15
Sample Source:				Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Outside Spigot	Inside Kitchen	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
Field Sample ID:				346 (3417) HECKER	3461 (3417) HECKER	461 (3417) HECKER R	417(3461) HECKER R	461 (3417) HECKER R	4613417 HECKER R	3417 HECKER	062722 DUP	PW-3515	PW-3515 (IN)	PW-3515 (OUT)	PW-3515	3515 HECKER RD	3515 HECKER	3515 HECKER RD	3515 HECKER	3515 HECKER	3515 HECKER
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.55	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.43	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.42	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.43	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.43	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.4	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 0.63	< 0.98	< 0.98	< 0.98	NA	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 0.74	< 0.88	< 0.88	< 0.88	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.43	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.39	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 0.41	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.35	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.34	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.3	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.34	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.36	< 0.37	< 0.37	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.34	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.29	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.62	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.33	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.74	1.02 J	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.89	1.78	1.66	1.85	1.55 J	1.93	1.6	1.54	**7.4**	**7.4**	**7.2**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.36	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.3	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.33	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 0.81	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.48	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.34	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.64	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.79	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.71	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.37	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.37	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	0.25 J	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	0.38 J	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	NA	NA	< 0.32	< 0.32	< 0.38	< 0.38	NA	NA	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.5	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.33	< 0.71	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.15	***0.22 J***	***0.24 J***	***0.24 J***	NA	***0.47 J***	***0.28 J***	< 0.18	< 0.18	< 0.17	< 0.17
Xylene (Total)	ug/l	2000	400	NA	NA	< 1.1	< 1.1	< 0.77	< 0.77	NA	NA	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3518 Hecker Rd													
Original or Replacement Well:						Original Potable Well			Replacement Potable Well								
Sample Date:				10/05/16	06/04/20	10/23/13	11/07/13	11/07/13	03/11/14	03/11/14 (DUP)	03/31/14	04/22/14	05/29/14 (DUP)	08/25/14	11/10/14	02/23/15	10/14/15	10/06/16	06/04/20
Sample Source:				Pressure Tank	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3515 HECKER RD	3515 HECKER RD	PW-3518	PW-3518 (IN)	PW-3518 (OUT)	3518 PW	3518 PW DUP	3518 PW	3518 PW	518 HECKER RD DU	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER	3518 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.48	< 0.88	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.88
1,1,1-Trichloroethane	ug/l	200	40	< 0.84	< 0.3	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.3
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.52	< 0.37	< 0.45	< 4.5	< 4.5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.37
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.36	< 0.34	< 3.4	< 3.4	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.36
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 1.1	< 0.46	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.46
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.5	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.5
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 2.7	< 1	< 1.8	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.7	< 0.44	< 0.98	< 9.8	< 9.8	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.44
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.6	< 0.3	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 0.3
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.4	< 0.82	< 0.88	< 8.8	< 8.8	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.82
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.63	< 0.24	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.24
1,2-Dichlorobenzene	ug/l	600	60	< 0.46	< 0.32	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.32
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.39	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.39
1,2-Dichloropropane	ug/l	5	0.5	< 0.43	< 0.38	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.5	< 0.32	< 1.4	< 14	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 0.32
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.31	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.31
1,3-Dichloropropane	ug/l	NL	NL	< 0.42	< 0.35	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.36	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.36
2,2-Dichloropropane	ug/l	NL	NL	< 3.1	NA	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.32	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.32
4-Chlorotoluene	ug/l	NL	NL	< 0.63	< 0.3	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.3
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.44	< 0.33	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.33
Bromobenzene	ug/l	NL	NL	< 0.48	< 0.26	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.26
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.46	< 0.33	< 0.37	< 3.7	< 3.7	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.65	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.65
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.51	< 0.31	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.31
Chlorobenzene	ug/l	100	20	< 0.46	< 0.39	< 0.24	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.39
Chloroethane	ug/l	400	80	< 0.65	< 1.1	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 1.1
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.44	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	0.45 J	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	< 1.9	< 0.8	< 0.81	< 8.1	< 8.1	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.45	< 0.39	***510***	***530***	***510***	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	< 0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.23	< 0.22	< 2.2	< 2.2	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.23
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.45	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.45
Ethylbenzene	ug/l	700	140	< 0.71	< 0.32	< 0.55	< 5.5	< 5.5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.32
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 2.2	< 0.72	< 1.5	< 15	< 15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 0.72
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.44	< 0.34	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.34
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.82	< 0.32	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.32
m,p-Xylenes	ug/l	NL	NL	< 2.2	< 1.1	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 1.1
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.32	< 0.5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 0.47	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
Naphthalene	ug/l	100	10	< 1.6	< 1.1	< 1.7	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.1
n-Butylbenzene	ug/l	NL	NL	< 1	< 0.28	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.28
n-Propylbenzene	ug/l	NL	NL	< 0.77	< 0.33	< 0.25	< 2.5	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.33
o-Xylene	ug/l	NL	NL	< 0.9	< 0.38	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.38
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 0.47	< 0.31	< 3.1	< 3.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 0.32	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.32
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 1.1	< 0.61	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.61
Tetrachloroethene	ug/l	5	0.5	< 0.49	< 0.33	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.44	< 0.26	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.26
Total Trimethylbenzene	ug/l	480	96	< 1.6	< 0.32	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	NA	< 1.6	< 0.32
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.37	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.37
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	< 0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.87	< 0.42	< 0.71	< 7.1	< 7.1	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.42
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.2	***102***	***92***	***86***	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.2
Xylene (Total)	ug/l	2000	400	< 2.2	< 1.1	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	NA	< 2.2	< 1.1

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3609 Hecker Rd														
Original or Replacement Well:				Original Potable Well									Replacement Potable Well					
Sample Date:				10/22/13	11/07/13	11/07/13	11/22/13	05/28/14	05/28/14 (DUP)	07/11/14	08/25/14	08/25/14 (DUP)	09/29/14	11/04/14	02/24/15	10/13/15	10/05/16	06/04/20
Sample Source:				Outside Spigot	Inside Kitchen	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot
Field Sample ID:				PW-3609	PW-3609 (IN)	PW-3609 (OUT)	PW-3609	3609 HECKER RD	609 HECKER RD DU	3609 HECKER	3609 HECKER	3609 HECKER DUP	3609 HECKER RD	3609 HECKER	3609 HECKER	3609 HECKER	3609 HECKER RD	3609 HECKER RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.88
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.3
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.37
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.36
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.46
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.5
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	NA	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.44
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 0.3
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.82
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.24
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.32
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.39
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 0.32
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.31
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.36
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.32
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.3
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.33
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.26
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.65
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.31
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.39
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 1.1
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	**45**	**46**	**45**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.23
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.45
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.32
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 0.72
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.34
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.32
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 1.1
Methylene Chloride	ug/l	5	**0.5**	**0.82** J	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.1
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.28
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.33
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.38
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.32
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.61
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.26
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	NA	< 1.6	< 0.32
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	0.39 J	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.37
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.42
Vinyl chloride	ug/l	*0.2*	**0.02**	***1***	***1.02***	***1.09***	NA	***7.4***	***7.6***	***8.6***	***4.6***	***5.2***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	NA	< 2.2	< 1.1

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3625 Hecker Rd								3627 Hecker Rd											
Original or Replacement Well:																							
Sample Date:				10/22/13	11/07/13	05/28/14	10/05/16	10/05/16 (DUP)	10/30/19	06/04/20	06/29/22	10/23/13	11/07/13	05/29/14	05/30/17	10/22/13	11/12/13	06/03/14	08/25/14	11/13/14	10/14/15		
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot		
Field Sample ID:				PW-3626	PW-3625	3625 HECKER	3625 HECKER RD	625 HECKER RD DU	3625 HECKER	3625 HECKER RD	3625 HECKER	PW-3627	PW-3627	3627 HECKER RD	3627 HECKER	PW-3702	PW-3702	3702 HECKER RD	3702 HECKER	3702 HECKER	3702 HECKER		
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM		
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -		
Volatile Organic Compounds (VOCs):																							
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.35	< 0.88	< 0.55	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48		
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84		
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.3	< 0.37	< 0.43	< 0.45	< 0.45	< 0.45	< 0.69	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52		
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.42	< 0.36	< 0.42	< 0.34	< 0.34	< 0.34	< 0.65	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48		
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.36	< 0.46	< 0.43	< 0.3	< 0.3	< 0.3	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1		
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.42	< 0.5	< 0.43	< 0.4	< 0.4	< 0.4	< 0.46	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65		
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.71	< 1	< 1.4	< 1.8	< 1.8	< 1.8	< 0.83	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7		
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.15	< 0.44	< 0.63	< 0.98	< 0.98	< 0.98	< 1.29	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7		
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 0.8	< 0.3	< 0.35	< 2.2	< 2.2	< 2.2	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6		
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 2.96	< 0.82	< 0.74	< 0.88	< 0.88	< 0.88	< 1.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4		
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.34	< 0.24	< 0.39	< 0.44	< 0.44	< 0.44	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63		
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.86	< 0.32	< 0.4	< 0.36	< 0.36	< 0.36	< 0.34	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46		
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.25	< 0.39	< 0.43	< 0.41	< 0.41	< 0.41	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48		
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.44	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43		
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 0.63	< 0.32	< 0.41	< 1.4	< 1.4	< 1.4	< 0.91	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5		
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.85	< 0.31	< 0.35	< 0.28	< 0.28	< 0.28	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52		
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.3	< 0.35	< 0.38	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42		
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.7	< 0.36	< 0.49	< 0.3	< 0.3	< 0.3	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49		
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	NA	NA	NA	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1		
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.31	< 0.32	< 0.34	< 0.21	< 0.21	< 0.21	< 0.36	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4		
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.26	< 0.3	< 0.4	< 0.21	< 0.21	< 0.21	< 0.35	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63		
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.22	< 0.33	< 0.3	< 0.24	< 0.24	< 0.24	< 0.17	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44		
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.44	< 0.26	< 0.34	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48		
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.33	< 0.33	< 0.36	< 0.37	< 0.37	< 0.37	< 0.31	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46		
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.45	< 0.65	< 0.42	< 0.35	< 0.35	< 0.35	< 0.49	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46		
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	< 0.31	< 0.31	< 0.34	< 0.33	< 0.33	< 0.33	< 0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51		
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.26	< 0.39	< 0.29	< 0.24	< 0.24	< 0.24	< 0.27	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46		
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.61	< 1.1	< 0.62	< 0.63	< 0.63	< 0.63	< 0.5	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65		
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.26	< 0.44	< 0.33	< 0.28	< 0.28	< 0.28	< 0.96	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43		
Chloromethane	ug/l	30	**3**	0.82 J	< 0.81	< 0.81	< 1.9	< 1.9	< 0.54	< 0.8	< 0.74	< 0.81	< 0.81	< 0.81	< 1.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9		
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.37	< 0.39	< 0.32	< 0.38	< 0.38	< 0.38	< 0.41	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38	0.48 J		
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.26	< 0.36	< 0.41	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA		
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.23	< 0.36	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45		
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.32	< 0.45	< 0.3	< 0.44	< 0.44	< 0.44	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87		
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.26	< 0.32	< 0.33	< 0.55	< 0.55	< 0.55	< 0.2	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71		
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.34	< 0.72	< 0.81	< 1.5	< 1.5	< 1.5	< 1.47	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2		
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.21	< 0.34	< 0.48	< 0.23	< 0.23	< 0.23	< 0.26	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44		
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.78	< 0.32	< 0.34	< 0.3	< 0.3	< 0.3	< 0.29	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82		
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.43	< 1.1	< 0.64	< 0.69	< 0.69	< 0.69	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2		
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.32	< 1.32	< 0.79	< 0.5	< 0.5	< 0.5	< 0.94	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3		
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.28	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.82	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1		
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 2.1	< 1.1	< 1.4	< 1.7	< 1.7	< 1.7	< 2.17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6		
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.71	< 0.28	< 0.71	< 0.35	< 0.35	< 0.35	< 0.34	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1		
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.61	< 0.33	< 0.39	< 0.25	< 0.25	< 0.25	< 0.19	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77		
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.29	< 0.38	< 0.37	< 0.63	< 0.63	< 0.63	< 0.39	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9		
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.24	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.28	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1		
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.79	< 0.32	< 0.33	< 0.33	< 0.33	< 0.33	< 0.24	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2		
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.25	< 0.61	< 0.37	< 0.36	< 0.36	< 0.36	< 0.39	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1		
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	< 0.38	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49		
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.19	< 0.26	< 0.33	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44		
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	NA	< 1.6	< 1.6	NA	< 0.32	NA	< 2.2	< 2.2	< 2.2	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6		
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.34	< 0.37	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54		
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.32	< 0.3	< 0.41	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA		
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.3	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.45	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47		
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.35	< 0.42	< 0.33	< 0.71	< 0.71	< 0.71	< 0.64	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87		
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.2	< 0.2	< 0.15	< 0.18	< 0.18	< 0.18	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17		
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	NA	< 2.2	< 2.2	NA	< 1.1	NA	< 0.69	< 0.69	< 0.69	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2		

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3702 Hecker Rd															
Original or Replacement Well:																			
Sample Date:				10/14/15 (DUP)	03/31/16	10/11/16	05/30/17	10/25/17	05/21/18	11/20/18	06/27/19	10/21/19	06/04/20	11/17/20	05/25/21	11/22/21	06/20/22	06/20/22 (DUP)	11/17/22	11/17/22 (DUP)
Sample Source:				Outside Spigot	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3702 HECKER DUP	3702 HECKER RD	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER	3702 HECKER RD	3702 HECKER RD	3702 HECKER RD	3702 HECKER	3702 HECKER RD	062022 DUP	3702 HECKER RD	DUP 111722
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.55	< 0.55	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.43	< 0.43	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.43	< 0.43	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.43	< 0.43	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.4	< 1.4	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 0.63	< 0.63	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 0.74	< 0.74	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.39	< 0.39	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.43	< 0.43	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.39	< 0.39	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 0.41	< 0.41	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.35	< 0.35	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.38	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.49	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.34	< 0.34	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.34	< 0.34	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.36	< 0.36	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.34	< 0.34	< 0.34
Chlorobenzene	ug/l	100	20	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.29	< 0.29	< 0.29
Chloroethane	ug/l	400	80	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.62	< 0.62	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.33	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.74	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.73 J	< 0.45	1.04 J	0.51 J	< 0.41	< 0.37	< 0.37	0.4 J	< 0.37	< 0.39	0.55 J	0.54 J	0.79 J	0.54 J	0.42 J	1.11 J	1.62
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	< 0.41	< 0.41	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.3	< 0.3	< 0.3
Ethylbenzene	ug/l	700	140	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 0.81	< 0.81	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.48	< 0.48	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.34	< 0.34	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.64	< 0.64	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.79	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.47	< 0.47
Naphthalene	ug/l	100	10	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.39	< 0.39	< 0.39
o-Xylene	ug/l	NL	NL	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.37	< 0.37	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.37	< 0.37	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.47	< 0.47	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8	NA	NA	< 0.32	< 0.32	< 0.38	< 0.38	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.15	< 0.15	< 0.15
Xylene (Total)	ug/l	2000	400	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43	NA	NA	< 1.1	< 1.1	< 0.77	< 0.77	NA	NA	NA	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3720 Hecker Rd						1125 Silver Creek Rd	1202 Silver Creek Rd	1219 Silver Creek Rd	1315 Silver Creek Rd	1404/1412 Silver Creek	1423 Silver Creek Rd	1428 Silver Creek Rd	1507 Silver Creek Rd	1602 Silver Creek Rd	1702 Silver Creek Rd	1703 Silver Creek Rd	1716 Silver Creek Rd
Original or Replacement Well:																					
Sample Date:				10/22/13	11/12/13	06/02/14	03/31/16	06/04/20	06/20/22	11/08/19	11/04/19	11/06/19	11/11/19	11/12/19	11/04/19	11/05/19	11/04/19	11/05/19	11/11/19	11/08/19	03/12/20
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				PW-3750	PW-3720	3720 HECKER RD	3720 HECKER RD	3720 HECKER RD	3720 HECKER RD	25 SILVER CREEK R	02 SILVER CREEK R	19 SILVER CREEK R	15 SILVER CREEK R	04 SILVER CREEK R	23 SILVER CREEK R	28 SILVER CREEK R	07 SILVER CREEK R	02 SILVER CREEK R	02 SILVER CREEK R	03 SILVER CREEK R	716 SILVER CREEK
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.88	< 0.55	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.37	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 0.46	< 0.43	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.5	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 1	< 1.4	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 0.44	< 0.63	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 0.3	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 0.82	< 0.74	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.24	< 0.39	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.32	< 0.4	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.39	< 0.43	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.38	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 0.32	< 0.41	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.31	< 0.35	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.35	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.36	< 0.49	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.32	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.3	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.33	< 0.3	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.26	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.33	< 0.36	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.65	< 0.42	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.51	< 0.31	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.39	< 0.29	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 1.1	< 0.62	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.44	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44
Chloromethane	ug/l	30	**3**	1.48 J	< 0.81	< 0.81	< 1.9	< 0.8	< 0.74	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.45	< 0.39	< 0.32	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	< 0.36	< 0.41	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.23	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.45	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.32	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 0.72	< 0.81	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.34	< 0.48	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.32	< 0.34	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	< 0.64	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.32	< 0.79	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 0.47	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.1	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 0.28	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.33	< 0.39	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.38	< 0.37	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 0.47	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 0.32	< 0.33	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 0.61	< 0.37	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.26	< 0.33	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 0.32	NA	NA	NA	NA	NA	< 0.8	< 0.8	NA	NA	NA	< 0.8	NA	< 0.32
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.37	< 0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	< 0.3	< 0.41	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.42	< 0.33	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.2	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	NA	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				1717 Silver Creek Rd	1805 Silver Creek Rd	1811 Silver Creek Rd	1822 Silver Creek Rd	1906 Silver Creek Rd	1909 Silver Creek Rd	2218 Silver Creek Rd	2224 Silver Creek Rd	2304 Silver Creek Rd	2312 Silver Creek Rd	2402 Silver Creek Rd	2408 Silver Creek Rd	2608 Silver Creek Rd	2706 Silver Creek Rd	2918 Silver Creek Rd	3116 Silver Creek Rd	3222 Silver Creek Rd	3302 Silver Creek Rd
Original or Replacement Well:																					
Sample Date:				11/04/19	02/07/20	11/11/19	12/10/19	11/07/19	11/06/19	11/11/19	11/04/19	11/07/19	11/08/19	11/11/19	11/07/19	06/03/20	11/05/19	11/06/19	12/02/19	11/04/19	11/05/19
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Pressure Tank	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				1717 SILVER CREEK R	1805 SILVER CREEK	1811 SILVER CREEK R	1822 SILVER CREEK	1906 SILVER CREEK R	1909 SILVER CREEK R	2218 SILVER CREEK R	2224 SILVER CREEK R	2304 SILVER CREEK R	2312 SILVER CREEK R	2402 SILVER CREEK R	2408 SILVER CREEK R	2608 SILVER CREEK	2706 SILVER CREEK R	2918 SILVER CREEK R	3116 SILVER CREEK R	3222 SILVER CREEK R	3302 SILVER CREEK R
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	70	**7**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.39	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.8	< 0.8	NA	NA	< 0.8	NA	NA	NA	NA	< 0.8	NA	< 0.32	NA	NA	< 0.8	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3316 Silver Creek Rd	3406 Silver Creek Rd	3424 Silver Creek Rd	3518 Silver Creek Rd	3604 Silver Creek Rd	3710 Silver Creek Rd	3780 Silver Creek Rd	3802 Silver Creek Rd	3812 Silver Creek Rd		3818 Silver Creek Rd	3902 Silver Creek Rd			4004 Silver Creek Rd			
Original or Replacement Well:																					
Sample Date:				11/04/19	11/12/19	11/07/19	12/02/19	12/02/19	05/31/17	05/30/17	05/30/17	05/28/14	01/14/16	05/27/21	11/18/14	10/10/16	06/23/22	11/18/14	10/13/15	11/18/20	05/24/21
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Pressure Tank	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				316 SILVER CREEK R	306 SILVER CREEK R	3424 SILVER CREEK	518 SILVER CREEK R	604 SILVER CREEK R	3710 SILVER CREEK	3780 SILVER CREEK	3802 SILVER CREEK	3812 SILVER	3812 SILVER CRK	318 SILVER CREEK R	3902 SILVER	3902 SILVER CREEK	3902 SILVER CR	4004 SILVER	4004 SILVER	004 SILVER CREEK R	004 SILVER CREEK R
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.47	< 0.47	< 0.47	< 0.33	< 0.48	< 0.76	< 0.33	< 0.48	< 0.55	< 0.33	< 0.48	< 0.88	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.35	< 0.35	< 0.35	< 0.33	< 0.84	< 0.41	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.3	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.69	< 0.69	< 0.69	< 0.45	< 0.52	< 0.36	< 0.45	< 0.52	< 0.43	< 0.45	< 0.52	< 0.37	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.65	< 0.65	< 0.65	< 0.34	< 0.48	< 0.48	< 0.34	< 0.48	< 0.42	< 0.34	< 0.48	< 0.36	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.42	< 0.42	< 0.42	< 0.3	< 1.1	< 0.48	< 0.3	< 1.1	< 0.43	< 0.3	< 1.1	< 0.46	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.46	< 0.46	< 0.46	< 0.4	< 0.65	< 0.55	< 0.4	< 0.65	< 0.43	< 0.4	< 0.65	< 0.5	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 0.83	< 0.83	< 0.83	< 1.8	< 2.7	< 0.66	< 1.8	< 2.7	< 1.4	< 1.8	< 2.7	< 1	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.29	< 1.29	< 1.29	< 0.98	< 1.7	< 0.67	< 0.98	< 1.7	< 0.63	< 0.98	< 1.7	< 0.44	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1.14	< 1.14	< 1.14	< 2.2	< 1.6	< 0.35	< 2.2	< 1.6	< 0.35	< 2.2	< 1.6	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 1.88	< 1.88	< 1.88	< 0.88	< 1.4	< 0.54	< 0.88	< 1.4	< 0.74	< 0.88	< 1.4	< 0.82	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.44	< 0.63	< 0.47	< 0.44	< 0.63	< 0.39	< 0.44	< 0.63	< 0.24	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.34	< 0.34	< 0.34	< 0.36	< 0.46	< 0.44	< 0.36	< 0.46	< 0.4	< 0.36	< 0.46	< 0.32	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.45	< 0.45	< 0.45	< 0.41	< 0.48	< 0.44	< 0.41	< 0.48	< 0.43	< 0.41	< 0.48	< 0.39	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.39	< 0.39	< 0.39	< 0.32	< 0.43	< 0.38	< 0.32	< 0.43	< 0.39	< 0.32	< 0.43	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.91	< 0.91	< 0.91	< 1.4	< 1.5	< 0.38	< 1.4	< 1.5	< 0.41	< 1.4	< 1.5	< 0.32	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.45	< 0.45	< 0.45	< 0.28	< 0.52	< 0.38	< 0.28	< 0.52	< 0.35	< 0.28	< 0.52	< 0.31	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.33	< 0.42	< 0.4	< 0.33	< 0.42	< 0.38	< 0.33	< 0.42	< 0.35	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.42	< 0.42	< 0.42	< 0.3	< 0.49	< 0.48	< 0.3	< 0.49	< 0.49	< 0.3	< 0.49	< 0.36	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 3.1	NA	< 0.36	< 3.1	NA	< 0.36	< 3.1	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.36	< 0.36	< 0.36	< 0.21	< 0.4	< 0.36	< 0.21	< 0.4	< 0.34	< 0.21	< 0.4	< 0.32	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.35	< 0.35	< 0.35	< 0.21	< 0.63	< 0.4	< 0.21	< 0.63	< 0.4	< 0.21	< 0.63	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.17	< 0.17	< 0.17	< 0.24	< 0.44	< 0.38	< 0.24	< 0.44	< 0.3	< 0.24	< 0.44	< 0.33	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.43	< 0.43	< 0.43	< 0.32	< 0.48	< 0.4	< 0.32	< 0.48	< 0.34	< 0.32	< 0.48	< 0.26	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.31	< 0.31	< 0.31	< 0.37	< 0.46	< 0.47	< 0.37	< 0.46	< 0.36	< 0.37	< 0.46	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.49	< 0.49	< 0.49	< 0.35	< 0.46	< 0.46	< 0.35	< 0.46	< 0.42	< 0.35	< 0.46	< 0.65	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.21	< 0.21	< 0.21	< 0.33	< 0.51	< 0.44	< 0.33	< 0.51	< 0.34	< 0.33	< 0.51	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.27	< 0.27	< 0.27	< 0.24	< 0.46	< 0.38	< 0.24	< 0.46	< 0.29	< 0.24	< 0.46	< 0.39	< 0.38
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.5	< 0.5	< 0.5	< 0.63	< 0.65	< 0.78	< 0.63	< 0.65	< 0.62	< 0.63	< 0.65	< 1.1	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.96	< 0.96	< 0.96	< 0.28	< 0.43	< 0.4	< 0.28	< 0.43	< 0.33	< 0.28	< 0.43	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 1.3	< 1.3	< 1.3	< 0.81	< 1.9	< 0.84	< 0.81	< 1.9	< 0.74	< 0.81	< 1.9	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.41	< 0.41	< 0.41	< 0.38	< 0.45	< 0.39	< 0.38	< 0.45	< 0.32	< 0.38	< 0.45	< 0.39	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	NA	NA	< 0.51	NA	NA	< 0.41	NA	NA	< 0.36	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.45	< 0.45	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.23	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.38	< 0.38	< 0.38	< 0.44	< 0.87	< 0.55	< 0.44	< 0.87	< 0.3	< 0.44	< 0.87	< 0.45	< 0.55
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.2	< 0.2	< 0.2	< 0.55	< 0.71	< 0.37	< 0.55	< 0.71	< 0.33	< 0.55	< 0.71	< 0.32	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.47	< 1.47	< 1.47	< 1.5	< 2.2	< 0.75	< 1.5	< 2.2	< 0.81	< 1.5	< 2.2	< 0.72	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.23	< 0.44	< 0.47	< 0.23	< 0.44	< 0.48	< 0.23	< 0.44	< 0.34	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.29	< 0.29	< 0.29	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.34	< 0.3	< 0.82	< 0.32	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.56	< 1.56	< 1.56	< 0.69	< 2.2	< 0.77	< 0.69	< 2.2	< 0.64	< 0.69	< 2.2	< 1.1	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.94	< 0.94	< 0.94	< 0.5	< 1.3	< 0.89	< 0.5	< 1.3	< 0.79	< 0.5	< 1.3	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.82	< 0.82	< 0.82	< 0.23	< 1.1	< 0.46	< 0.23	< 1.1	< 0.47	< 0.23	< 1.1	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.17	< 2.17	< 2.17	< 1.7	< 1.6	< 1.4	< 1.7	< 1.6	< 1.4	< 1.7	< 1.6	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.34	< 0.34	< 0.34	< 0.35	< 1	< 0.46	< 0.35	< 1	< 0.71	< 0.35	< 1	< 0.28	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.19	< 0.19	< 0.19	< 0.25	< 0.77	< 0.44	< 0.25	< 0.77	< 0.39	< 0.25	< 0.77	< 0.33	< 0.44
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.39	< 0.39	< 0.39	< 0.63	< 0.9	< 0.44	< 0.63	< 0.9	< 0.37	< 0.63	< 0.9	< 0.38	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.28	< 0.28	< 0.28	< 0.31	< 1.1	< 0.43	< 0.31	< 1.1	< 0.47	< 0.31	< 1.1	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.24	< 0.24	< 0.24	< 0.33	< 1.2	< 0.31	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.32	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.39	< 0.36	< 1.1	< 0.45	< 0.36	< 1.1	< 0.37	< 0.36	< 1.1	< 0.61	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.48	< 0.48	< 0.48	< 0.33	< 0.49	< 0.54	< 0.33	< 0.49	< 0.47	< 0.33	< 0.49	< 0.33	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.67	< 0.67	< 0.67	< 0.69	< 0.44	< 0.42	< 0.69	< 0.44	< 0.33	< 0.69	< 0.44	< 0.26	< 0.42
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	NA	< 0.8	< 0.8	< 1.14	< 1.14	< 1.14	< 2.2	< 1.6	< 0.38	< 2.2	< 1.6	NA	< 2.2	< 1.6	< 0.32	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.6	< 0.35	< 0.54	< 0.5	< 0.35	< 0.54	< 0.37	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.42	< 0.42	< 0.42	NA	NA	< 0.45	NA	NA	< 0.41	NA	NA	< 0.3	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.45	< 0.45	< 0.45	< 0.33	< 0.47	< 0.47	< 0.33	< 0.47	< 0.38	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.64	< 0.64	< 0.64	< 0.71	< 0.87	< 0.49	< 0.71	< 0.87	< 0.33	< 0.71	< 0.87	< 0.42	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.19	< 0.19	< 0.19	< 0.18	< 0.17	< 0.17	< 0.18	< 0.17	< 0.15	< 0.18	< 0.17	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.56	< 1.56	< 1.56	< 0.69	< 2.2	< 0.77	< 0.69	< 2.2	NA	< 0.69	< 2.2	< 1.1	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4156 Silver Creek Rd		4159 Silver Creek Rd														
Original or Replacement Well:																				
Sample Date:				05/28/14	03/30/16	12/12/13	01/06/14	06/04/14	06/04/14 (DUP)	09/08/14	11/10/14	11/10/14 (DUP)	02/23/15	10/14/15	03/30/16	10/10/16	05/30/17	10/25/17	05/21/18	11/20/18	06/27/19
Sample Source:				Outside Spigot	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4156 SILVER	4156 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER	4159 SILVER DUP	4159 SILVER	4159 SILVER	4159 SILVER DUP	4159 SILVER	4159 SILVER	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVER CREEK	4159 SILVERCREEK	4159 SILVER CREEK
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.45	0.49 J	0.73 J	0.72 J	0.64 J	0.54 J	0.59 J	0.52 J	0.56 J	0.55 J	0.59 J	0.78 J	0.52 J	0.67 J	0.94 J	0.77 J	0.71 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4212/4220/4236 Silver Creek Rd						4314 Silver Creek Rd						4315 Silver Creek Rd		
Original or Replacement Well:																		
Sample Date:				10/21/19	06/03/20	11/18/20	06/01/21	11/22/21	06/24/22	05/30/14	05/30/17	06/10/20	12/05/13	06/04/14	05/30/17	06/04/20	05/27/21	12/12/13	06/02/14	05/31/17
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Pressure Tank	Pump Spigot	Pump Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4159 SILVER CREEK	4159 SILVER CR	4159 SILVER CREEK	4159 SILVER CREEK R	4159 SILVER CREEK	4159 SILVER CR	4220 SILVER	4220 SILVER CREEK	4220 SILVER CR	4314 SILVER CREEK	4314 SILVER	4314 SILVER CREEK	4314 SILVER CREEK R	14 SILVER CREEK R	4315 SILVER CREEK	4315 SILVER	4315 SILVER CREEK
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.33	< 0.47	< 0.88	< 0.33	< 0.33	< 0.47	< 0.88	< 0.76	< 0.33	< 0.33	< 0.47
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.35	< 0.3	< 0.33	< 0.33	< 0.35	< 0.3	< 0.41	< 0.33	< 0.33	< 0.35
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.45	< 0.69	< 0.37	< 0.45	< 0.45	< 0.69	< 0.37	< 0.36	< 0.45	< 0.45	< 0.69
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.34	< 0.65	< 0.36	< 0.34	< 0.34	< 0.65	< 0.36	< 0.48	< 0.34	< 0.34	< 0.65
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.3	< 0.42	< 0.46	< 0.3	< 0.3	< 0.42	< 0.46	< 0.48	< 0.3	< 0.3	< 0.42
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.4	< 0.46	< 0.5	< 0.4	< 0.4	< 0.46	< 0.5	< 0.55	< 0.4	< 0.4	< 0.46
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.8	< 0.83	< 1	< 1.8	< 1.8	< 0.83	< 1	< 0.66	< 1.8	< 1.8	< 0.83
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 0.98	< 1.29	< 0.44	< 0.98	< 0.98	< 1.29	< 0.44	< 0.67	< 0.98	< 0.98	< 1.29
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 2.2	< 1.14	< 0.3	< 2.2	< 2.2	< 1.14	< 0.3	< 0.35	< 2.2	< 2.2	< 1.14
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 0.88	< 1.88	< 0.82	< 0.88	< 0.88	< 1.88	< 0.82	< 0.54	< 0.88	< 0.88	< 1.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.44	< 0.34	< 0.24	< 0.44	< 0.44	< 0.34	< 0.24	< 0.47	< 0.44	< 0.44	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.36	< 0.34	< 0.32	< 0.36	< 0.36	< 0.34	< 0.32	< 0.44	< 0.36	< 0.36	< 0.34
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.41	< 0.45	< 0.39	< 0.41	< 0.41	< 0.45	< 0.39	< 0.44	< 0.41	< 0.41	< 0.45
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.32	< 0.39	< 0.38	< 0.32	< 0.32	< 0.39	< 0.38	< 0.38	< 0.32	< 0.32	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 1.4	< 0.91	< 0.32	< 1.4	< 1.4	< 0.91	< 0.32	< 0.38	< 1.4	< 1.4	< 0.91
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.28	< 0.45	< 0.31	< 0.28	< 0.28	< 0.45	< 0.31	< 0.38	< 0.28	< 0.28	< 0.45
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.33	< 0.49	< 0.35	< 0.33	< 0.33	< 0.49	< 0.35	< 0.4	< 0.33	< 0.33	< 0.49
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.3	< 0.42	< 0.36	< 0.3	< 0.3	< 0.42	< 0.36	< 0.48	< 0.3	< 0.3	< 0.42
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.36	NA	NA	< 0.36	< 0.36	NA	NA	NA	< 0.36	< 0.36	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.21	< 0.36	< 0.32	< 0.21	< 0.21	< 0.36	< 0.32	< 0.36	< 0.21	< 0.21	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.21	< 0.35	< 0.3	< 0.21	< 0.21	< 0.35	< 0.3	< 0.4	< 0.21	< 0.21	< 0.35
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.24	< 0.17	< 0.33	< 0.24	< 0.24	< 0.17	< 0.33	< 0.38	< 0.24	< 0.24	< 0.17
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.32	< 0.43	< 0.26	< 0.32	< 0.32	< 0.43	< 0.26	< 0.4	< 0.32	< 0.32	< 0.43
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.37	< 0.31	< 0.33	< 0.37	< 0.37	< 0.31	< 0.33	< 0.47	< 0.37	< 0.37	< 0.31
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.35	< 0.49	< 0.65	< 0.35	< 0.35	< 0.49	< 0.65	< 0.46	< 0.35	< 0.35	< 0.49
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.33	< 0.21	< 0.31	< 0.33	< 0.33	< 0.21	< 0.31	< 0.44	< 0.33	< 0.33	< 0.21
Chlorobenzene	ug/l	100	20	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.24	< 0.27	< 0.39	< 0.24	< 0.24	< 0.27	< 0.39	< 0.38	< 0.24	< 0.24	< 0.27
Chloroethane	ug/l	400	80	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.63	< 0.5	< 1.1	< 0.63	< 0.63	< 0.5	< 1.1	< 0.78	< 0.63	< 0.63	< 0.5
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.28	< 0.96	< 0.44	< 0.28	< 0.28	< 0.96	< 0.44	< 0.4	< 0.28	< 0.28	< 0.96
Chloromethane	ug/l	30	**3**	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.81	< 1.3	< 0.8	< 0.81	< 0.81	< 1.3	< 0.8	< 0.84	< 0.81	< 0.81	< 1.3
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.69 J	0.78 J	0.89 J	0.81 J	0.77 J	0.68 J	< 0.38	< 0.41	< 0.39	< 0.38	< 0.38	< 0.41	< 0.39	< 0.39	< 0.38	< 0.38	< 0.41
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	NA	< 0.21	< 0.36	NA	NA	< 0.21	< 0.36	< 0.51	NA	NA	< 0.21
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.22	< 0.45	< 0.23	< 0.22	< 0.22	< 0.45	< 0.23	< 0.45	< 0.22	< 0.22	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.44	< 0.38	< 0.45	< 0.44	< 0.44	< 0.38	< 0.45	< 0.55	< 0.44	< 0.44	< 0.38
Ethylbenzene	ug/l	700	140	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.55	< 0.2	< 0.32	< 0.55	< 0.55	< 0.2	< 0.32	< 0.37	< 0.55	< 0.55	< 0.2
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 1.5	< 1.47	< 0.72	< 1.5	< 1.5	< 1.47	< 0.72	< 0.75	< 1.5	< 1.5	< 1.47
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.23	< 0.26	< 0.34	< 0.23	< 0.23	< 0.26	< 0.34	< 0.47	< 0.23	< 0.23	< 0.26
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.3	< 0.29	< 0.32	< 0.3	< 0.3	< 0.29	< 0.32	< 0.3	< 0.3	< 0.3	< 0.29
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.69	< 1.56	< 1.1	< 0.69	< 0.69	< 1.56	< 1.1	< 0.77	< 0.69	< 0.69	< 1.56
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.5	< 0.94	< 1.32	< 0.5	< 0.5	< 0.94	< 1.32	< 0.89	< 0.5	< 0.5	< 0.94
Methyl-tert-butyl ether	ug/l	60	12	0.32 J	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.23	< 0.82	< 0.47	< 0.23	< 0.23	< 0.82	< 0.47	< 0.46	< 0.23	< 0.23	< 0.82
Naphthalene	ug/l	100	10	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.7	< 2.17	< 1.1	< 1.7	< 1.7	< 2.17	< 1.1	< 1.4	< 1.7	< 1.7	< 2.17
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.35	< 0.34	< 0.28	< 0.35	< 0.35	< 0.34	< 0.28	< 0.46	< 0.35	< 0.35	< 0.34
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.25	< 0.19	< 0.33	< 0.25	< 0.25	< 0.19	< 0.33	< 0.44	< 0.25	< 0.25	< 0.19
o-Xylene	ug/l	NL	NL	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.63	< 0.39	< 0.38	< 0.63	< 0.63	< 0.39	< 0.38	< 0.44	< 0.63	< 0.63	< 0.39
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.31	< 0.28	< 0.47	< 0.31	< 0.31	< 0.28	< 0.47	< 0.43	< 0.31	< 0.31	< 0.28
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.24	< 0.32	< 0.33	< 0.33	< 0.24	< 0.32	< 0.31	< 0.33	< 0.33	< 0.24
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.36	< 0.39	< 0.61	< 0.36	< 0.36	< 0.39	< 0.61	< 0.45	< 0.36	< 0.36	< 0.39
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.54	< 0.33	< 0.33	< 0.48
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.69	< 0.67	< 0.26	< 0.69	< 0.69	< 0.67	< 0.26	< 0.42	< 0.69	< 0.69	< 0.67
Total Trimethylbenzene	ug/l	480	96	NA	< 0.32	< 0.32	< 0.38	< 0.38	NA	< 2.2	< 1.14	< 0.32	< 2.2	< 2.2	< 1.14	< 0.32	< 0.38	< 2.2	< 2.2	< 1.14
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.35	< 0.35	< 0.37	< 0.35	< 0.35	< 0.35	< 0.37	< 0.6	< 0.35	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	NA	< 0.42	< 0.3	NA	NA	< 0.42	< 0.3	< 0.45	NA	NA	< 0.42
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.33	< 0.45	< 0.47	< 0.33	< 0.33	< 0.45	< 0.47	< 0.47	< 0.33	< 0.33	< 0.45
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.71	< 0.64	< 0.42	< 0.71	< 0.71	< 0.64	< 0.42	< 0.49	< 0.71	< 0.71	< 0.64
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.18	< 0.19	< 0.2	< 0.18	< 0.18	< 0.19	< 0.2	< 0.17	< 0.18	< 0.18	< 0.19
Xylene (Total)	ug/l	2000	400	NA	< 1.1	< 1.1	< 0.77	< 0.77	NA	< 0.69	< 1.56	< 1.1	< 0.69	< 0.69	< 1.56	< 1.1	< 0.77	< 0.69	< 0.69	< 1.56

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4609 Silver Creek Rd		4620 Silver Creek Rd				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd		2706 CTH CR		2716 CTH CR			
Original or Replacement Well:																					
Sample Date:				12/03/13	06/03/14	11/08/13	11/12/13	05/28/14	05/28/14	12/05/13	06/02/14	12/05/13	05/30/14	01/09/08	12/05/13	08/26/14	10/05/16	09/08/14	11/18/14	10/13/15	11/20/18
Sample Source:				Pressure Tank	Pressure Tank	House-Outside	Barn-Inside	Barn-Inside	House-Outside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4609 Silver Creek Rd	4609 SILVER	PW-4620	PW-4620/(barn)	4620 SILVER BARN	4620 SILVER HOUSE	4752 SILVER CREEK	4752 SILVER	4808 SILVER CREEK	4808 SILVER	5202 Silver Creek Rd	5202 SILVER CREEK	2706 CTH CR	2706 CTH CR	2716 CTH CR	2716 CTH CR	2716 CTH CR	2716 CTHCR
Sampling Company:				WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**																		
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.2	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.75	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.56	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.64	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.6	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.5	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.2	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.49	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.35	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.45	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.47	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.37	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.3	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.39	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.33	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.98	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.49	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.38	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.36	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.44
Bromochloromethane	ug/l	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.5	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.38	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.46	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.31
Chlorobenzene	ug/l	100	20	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.31	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.26
Chloroethane	ug/l	400	80	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.47	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43	< 0.26
Chloromethane	ug/l	30	**3**	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 0.54
cis-1,2-Dichloroethene	ug/l	70	**7**	< 0.15	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.68	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.32	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22
Dibromomethane	ug/l	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.2	< 0.44	< 0.44	< 0.44	0.45 J	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.46	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.32
Ethylbenzene	ug/l	700	140	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.38	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.3	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.48	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.69	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.52	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 0.28
Naphthalene	ug/l	100	10	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.8	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.52	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.38	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.61
o-Xylene	ug/l	NL	NL	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.35	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.79
Styrene	ug/l	100	10	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.34	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.52	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.46	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.95	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.44	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.61	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.2	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2717 CTH CR(4141 Viebahn St)											2734(2804) CTH CR						
Original or Replacement Well:				Original Potable Well						Non-Potable Well (City Water Provided Dec 2016)					Original Potable Well (City Water Provided Dec 2016)						
Sample Date:				08/25/14	09/08/14	09/08/14 (DUP)	11/10/14	02/23/15	10/13/15	03/31/16	10/06/16	10/22/19	06/04/20	11/18/20	06/03/14	08/25/14	11/10/14	11/25/14	11/25/14 (DUP)	02/24/15	10/14/15
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Faucet	Garage Faucet	Outside Faucet	Outside Faucet	Garage Faucet	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank
Field Sample ID:				2717 CTH CR	2717 CTH CR	2717 CTH CR DUP	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	2717 CTH CR	4141 VIEBAHN	2717 CTH CR	2734 CTH CR	2734 CTH CR	2734 CTH CR	2734 PW	2734 PW DUP	2734 CTH CR	2734 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.35	< 0.88	< 0.88	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.3	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.3	< 0.37	< 0.37	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.42	< 0.36	< 0.36	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.46	< 0.46	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42	< 0.5	< 0.5	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 1.71	< 1	< 1	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.15	< 0.44	< 0.44	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 0.8	< 0.3	< 0.3	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 2.96	< 0.82	< 0.82	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.86	< 0.32	< 0.32	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.25	< 0.39	< 0.39	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.44	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.63	< 0.32	< 0.32	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.85	< 0.31	< 0.31	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.3	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.7	< 0.36	< 0.36	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.31	< 0.32	< 0.32	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.26	< 0.3	< 0.3	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.22	< 0.33	< 0.33	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.44	< 0.26	< 0.26	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.33	< 0.33	< 0.33	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.45	< 0.65	< 0.65	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.26	< 0.39	< 0.39	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.61	< 1.1	< 1.1	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.26	< 0.44	< 0.44	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.54	< 0.8	< 0.8	< 0.81	< 0.81	< 0.81	< 0.81	**24.3**	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.4	1.31	1.44	1.3	1.26 J	1.72	< 0.45	1.53	2.09	1.72	0.92 J	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.26	< 0.36	< 0.36	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.23	< 0.23	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.32	< 0.45	< 0.45	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.26	< 0.32	< 0.32	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.34	< 0.72	< 0.72	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.21	< 0.34	< 0.34	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 0.43	< 1.1	< 1.1	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.32	< 1.32	< 1.32	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.1	< 1.1	< 1.1	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.71	< 0.28	< 0.28	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.61	< 0.33	< 0.33	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.29	< 0.38	< 0.38	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.24	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.79	< 0.32	< 0.32	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.25	< 0.61	< 0.61	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.19	< 0.26	< 0.26	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.34	< 0.37	< 0.37	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.32	< 0.3	< 0.3	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.3	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.35	< 0.42	< 0.42	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21*** ***J***	***0.29*** ***J***	***0.31*** ***J***	***0.39*** ***J***	***0.35*** ***J***	***0.47*** ***J***	< 0.17	***0.32*** ***J***	***0.46*** ***J***	***0.54*** ***J***	< 0.2	< 0.18	< 0.18	***0.26*** ***J***	***0.38*** ***J***	***0.43*** ***J***	***0.2*** ***J***	***0.45*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	NA	< 1.1	< 1.1	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2832&2904 CTH CR						2911 CTH CR												
Original or Replacement Well:																						
Sample Date:				02/04/14	06/03/14	03/30/16	10/27/17	10/11/18	10/22/19	05/29/14	10/07/16	10/27/17	10/27/17 (DUP)	10/11/18	10/21/19	11/18/20	05/24/21	06/27/22	02/04/14	05/28/14	08/25/14
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Other Buillding	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				2832 CTH CR	2832 CTH CR	2832 CTH CR	2904 CTH CR	2832 (2904) CTH CR	2832 (2904) CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR DUP	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR	2911 CTH CR	2916 CTH CR	2916 CTH CR	2916 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.33	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.45	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.45
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.34	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.3	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.4	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.4
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1.8	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 1.8
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.98	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 0.98
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 2.2	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.88	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 0.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.44
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.36	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.36
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.41	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.41
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.32	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 1.4	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 1.4
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.28	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.28
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.33	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.33
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.3	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.3
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	NA	NA	NA	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.21	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.21	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.24	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.24
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.32	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.32
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.37	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37	< 0.37
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.35	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.33	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.33
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.24	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.24
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 0.63	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.63
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.28	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.28
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.81	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 0.81
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	0.44 J	< 0.38	< 0.45	< 0.41	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	**0.97** J	**0.9** J	**1.02** J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.21	< 0.26	< 0.26	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.44	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.44
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.55	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.55
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 1.5	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 1.5
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.23	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.23
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.3	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 0.69	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 0.69
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.5	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 0.5
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.23	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 0.23
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.7	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.35	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 0.35
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.25	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.25
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.63	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.63
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.31	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 0.31
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.33	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.36	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 0.36
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.69	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	**0.37** J	< 0.42	< 0.33	< 0.69	< 0.69	< 0.69
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 2.2	< 1.6	< 1.14	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA	< 2.2	< 2.2	< 2.2
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.35	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.42	< 0.32	< 0.32	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.33	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.71	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.71
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	***0.25*** ***J***	< 0.18	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	**0.18** J	< 0.18	< 0.18
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 0.69	< 2.2	< 1.56	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA	< 0.69	< 0.69	< 0.69

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2916 CTH CR					2917 CTH CR					Original Potable Well			
Original or Replacement Well:				Original Potable Well					Original Potable Well (City Water Provided Dec 2016)					Original Potable Well			
Sample Date:				11/10/14	11/25/14	03/11/15	03/11/15 (DUP)	10/13/15	02/04/14	05/30/14	10/13/15	10/27/15	10/27/15 (DUP)	02/04/14	02/04/14 (DUP)	06/02/14	08/25/14
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				2916 CTH CR	2916 PW	2916 CTH CR	2916 CTH CR DUP	2916 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR	2917 CTH CR DUP	3023 CTH CR	3023 CTH CR DUP	3023 CTH CR	3023 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																	
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.74 J	0.82 J	0.75 J	0.8 J	1.02 J	< 0.38	< 0.38	1.6	1.41	1.67	2.84	2.96	2.87	2.34
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	NA	< 2.2	< 2.2	< 2.2
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.28*** ***J***	***0.37*** ***J***	< 0.17	**0.18** J	***0.26*** ***J***	< 0.18	< 0.18	***0.43*** ***J***	***0.37*** ***J***	***0.37*** ***J***	***0.55*** ***J***	***0.58***	***0.41*** ***J***	***0.33*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	NA	< 0.69	< 0.69	< 0.69

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3023 CTH CR					3120 CTH CR										
Original or Replacement Well:				Replacement Potable Well					Original Potable Well						Replacement Potable Well				
Sample Date:				10/08/14	11/04/14	02/24/15	10/13/15	10/05/16	01/03/14	02/04/14	05/28/14	05/28/14 (DUP)	08/25/14	08/25/14 (DUP)	10/08/14	11/04/14	02/23/15	10/13/15	10/06/16	11/29/21
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR	3023 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR DUP	3120 CTH CR	3120 CTH CR DUP	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR	3120 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.44
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.38
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.55
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.46
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.44
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	NA	< 1.6	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	NA	< 1.6	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	***0.6***	***0.43 J***	***0.35 J***	***0.26 J***	***0.27 J***	***0.24 J***	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.9	NA	< 2.2	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	NA	< 2.2	< 0.77

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3224 CTH CR										3312 CTH CR						
Original or Replacement Well:																				
Sample Date:				02/04/14	06/04/14	08/25/14	11/17/14	03/31/16	10/25/17	10/10/18	10/21/19	11/18/20	06/02/21	06/27/22	02/26/14	06/02/14	08/26/14	11/10/14	10/05/16	10/31/17	10/10/18
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	Bath Tub	Bath Tub	Bath Tub
Field Sample ID:				3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3224 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	NA	NA	NA	< 0.21	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	NA	NA	NA	< 0.42	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3322 CTH CR																
Original or Replacement Well:																		Original Potable Well		
Sample Date:				10/21/19	11/18/20	06/03/21	06/21/22	01/06/14	06/04/14	08/25/14	11/10/14	10/13/15	10/25/17	10/10/18	10/21/19	11/17/20	05/24/21	06/23/22	01/03/14	02/05/14	05/28/14
Sample Source:				Bath Tub	Bath Tub	Bath Tub	Bath Tub	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Field Sample ID:				3312 CTH CR	3312 CTH CR	3312 CTH CR	3312 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3322 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.45
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.4
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 1.8
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 0.98
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 0.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.44
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.36
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.41
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 1.4
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.28
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.33
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.3
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.24
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.32
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37	< 0.37
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.33
Chlorobenzene	ug/l	100	20	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.24
Chloroethane	ug/l	400	80	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.63
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.28
Chloromethane	ug/l	30	**3**	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 0.81
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.39	< 0.39	< 0.32	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	**1.3**	**1.67**	**1.48**
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.44
Ethylbenzene	ug/l	700	140	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.55
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 1.5
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.23
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 0.69
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 0.5
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 0.23
Naphthalene	ug/l	100	10	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 0.35
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.25
o-Xylene	ug/l	NL	NL	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.63
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 0.31
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 0.36
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.26	< 0.42	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33	< 0.69	< 0.69	< 0.69
Total Trimethylbenzene	ug/l	480	96	NA	< 0.32	< 0.38	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA	< 2.2	NA	< 2.2
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.71
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.17	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	***0.56*** ***J***	***0.25*** ***J***	***0.22*** ***J***
Xylene (Total)	ug/l	2000	400	NA	< 1.1	< 0.77	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA	< 0.69	NA	< 0.69

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3403 CTH CR							3412 CTH CR									
Original or Replacement Well:				Replacement Potable Well																
Sample Date:				08/25/14	10/21/14	11/04/14	02/23/15	10/13/15	10/05/16	11/18/22	01/03/14	08/26/14	11/10/14	03/31/16	10/25/17	11/20/18	10/22/19	11/17/20	05/25/21	06/20/22
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3403 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR	3412 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.55	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.43	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.43	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.43	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.4	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.63	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 0.35	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.74	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.39	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.4	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.43	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 0.41	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.35	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.38	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.34	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.4	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.3	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.34	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.36	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.34	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.29	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.62	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.33	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.74	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.32	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.41	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.3	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.33	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 0.81	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.48	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.34	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.64	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.79	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.47	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.4	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.71	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.39	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.37	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.47	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.37	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.47	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.33	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	NA	< 1.6	NA	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.5	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.41	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.33	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.15	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.9	NA	< 2.2	NA	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3422 CTH CR																
Original or Replacement Well:																				
Sample Date:				01/06/14	05/30/14	08/25/14	11/18/14	10/05/16	10/30/17	11/19/18	10/22/19	11/18/20	05/24/21 (DUP)	05/24/21	06/24/22	12/05/13	12/05/13 (DUP)	01/06/14	01/06/14 (DUP)	02/05/14
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Basement	Basement	Basement
Field Sample ID:				3422 CTH CR	3422 CTH CR	3422 CTH CR	3422 CTH CR	3422 CTH CR	3422 CTH CR	3422 CTHCR	3422 CTH CR	3422 CTH CR	FD052421	3422 CTH CR	3422 CTH CR	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.76	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.36	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.48	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 0.66	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.67	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.54	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.47	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.44	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.38	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.4	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.36	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.4	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.78	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.39	< 0.32	1.28	1.38	1.43	1.34	1.42
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.51	< 0.41	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.37	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.75	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.47	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.77	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.46	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.44	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.44	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.45	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.54	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	< 0.38	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.45	< 0.41	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.49	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.18	< 0.18	< 0.18	***0.23*** ***J***	< 0.18
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	< 0.77	NA	NA	< 0.69	< 0.69	< 0.69	< 0.69

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3504 CTH CR																
Original or Replacement Well:				Original Potable Well										Replacement Potable Well						
Sample Date:				05/30/14	05/30/14 (DUP)	08/25/14	08/25/14 (DUP)	11/18/14	11/18/14 (DUP)	02/23/15	10/14/15	10/20/15	03/31/16	03/31/16 (DUP)	10/11/16	10/24/16	11/08/16	02/23/17	11/22/21	11/22/21 (DUP)
Sample Source:				Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Field Sample ID:				3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR DUP	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR	3504 CTH CR	112221 DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	NA	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.76	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	NA	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.41	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	NA	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.36	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	NA	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.48	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.55	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	NA	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.66	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.67	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.54	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.47	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	NA	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.44	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	NA	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.44	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	NA	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.38	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	NA	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.38	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	NA	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.4	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	NA	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.48	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	NA	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.38	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	NA	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.4	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	NA	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.47	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	NA	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	NA	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.44	< 0.44
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	NA	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.38	< 0.38
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.78	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	NA	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.4	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	NA	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.84	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.22	1.13 J	0.99 J	1.02 J	1.41	1.26	1.19 J	1.27 J	NA	0.76 J	0.91 J	1.17 J	< 0.45	< 0.45	< 0.41	< 0.39	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.51	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	NA	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.55	< 0.55
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.37	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 0.75	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.47	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	NA	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.77	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	NA	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.89	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.46	< 0.46
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.46	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	NA	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.44	< 0.44
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	NA	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.44	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.43	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	NA	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.31	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	NA	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.45	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	NA	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.54	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.42	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 0.38	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	NA	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.6	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.45	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	NA	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	NA	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.49	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	**0.18** J	**0.17** J	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.17	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.77	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3523 CTH CR							3533 CTH CR									
Original or Replacement Well:																				
Sample Date:				01/03/14	06/03/14	10/14/15	10/25/17	10/10/18	10/21/19	06/01/21	01/06/14	06/03/14	03/30/16	10/27/17	10/11/18	10/21/19	06/10/20	11/18/20	05/24/21	06/24/22
Sample Source:				Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Field Sample ID:				3523 CTH CR	3523 CTH CR	3523 CTH CR	3523 CTH CR	3523 CTH CR	3523 CTH CR	3523 CTH CR	3533 CTH CR	3533 CTH CR	3533 CTH CR	3533 CTH CR	3533 CTH CR	3533 CTH CR	3533 CTHCR	3533 CTH CR	3533 CTH CR	3533 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.76	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.36	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.48	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.48	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.55	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 0.66	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 1	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.67	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.35	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.54	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.47	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.44	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.44	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.38	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.38	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.4	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.48	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.36	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.4	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.38	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.4	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.47	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.46	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.44	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.38	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 0.78	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.4	0.28 J	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.84	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.39	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.51	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.55	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.37	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.75	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.47	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 0.77	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.89	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.46	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.4	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.46	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.44	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.44	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.43	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.31	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.45	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.54	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.42	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.38	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.32	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.6	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.45	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.49	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.17	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 0.77	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 1.1	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3611 CTH CR																
Original or Replacement Well:																				
Sample Date:				05/30/14	10/05/16	10/25/17	10/10/18	10/22/19	10/22/19 (DUP)	11/18/20	05/25/21	06/21/22	06/21/22 (DUP)	01/03/14	05/29/14	08/25/14	11/10/14	02/23/15	10/14/15	03/30/16	10/06/16
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Kitchen Sink
Field Sample ID:				3611 CTH CR	3611 CTH CR	3611 CTH CR	3611 CTH CR	3611 CTH CR	FD 102219	3611 CTH CR	3611 CTH CR	3611 CTH CR	062122 DUP	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51
Chlorobenzene	ug/l	100	20	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	< 0.32	1.24	1.16 J	0.48 J	0.83 J	0.95 J	0.89 J	1.06 J	0.88 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	< 0.21	< 0.26	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 1.6	< 1.14	< 0.8	NA	NA	< 0.32	< 0.38	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	< 0.42	< 0.32	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 2.2	< 1.56	< 0.43	NA	NA	< 1.1	< 0.77	NA	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3618 CTH CR									3626 CTH CR						
Original or Replacement Well:																			
Sample Date:				05/30/17	10/25/17	05/21/18	10/10/18	06/27/19	10/21/19	10/05/20	11/17/20	06/20/22	12/05/13	05/30/14	10/14/15	10/27/17	10/11/18	10/30/19	05/28/21
Sample Source:				Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Bathroom	Bathroom	Bathroom	Bathroom	Bathroom	Bathroom	Bathroom
Field Sample ID:				3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3618 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR	3626 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.55	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.43	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.42	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.43	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.43	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 1.4	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.63	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.74	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.39	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.4	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.43	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.41	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.35	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.38	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.49	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.34	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.3	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.34	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.42	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.29	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.38
Chloroethane	ug/l	400	80	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.62	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.33	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.4
Chloromethane	ug/l	30	**3**	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.74	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.99 J	0.95 J	1.23	1.14 J	1 J	1.09 J	1.07 J	1.3	1.24 J	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.41	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.3	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.55
Ethylbenzene	ug/l	700	140	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.33	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.81	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.48	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.34	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.64	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.79	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.47	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.46
Naphthalene	ug/l	100	10	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.71	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.39	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.44
o-Xylene	ug/l	NL	NL	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.37	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.47	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.37	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.33	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	0.81	0.74 J
Total Trimethylbenzene	ug/l	480	96	< 1.14	< 1.14	NA	< 0.8	NA	NA	NA	< 0.32	NA	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.5	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.41	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.33	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.15	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	< 1.56	< 1.56	NA	< 0.43	NA	NA	NA	< 1.1	NA	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 0.77

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3627 CTH CR									3904 CTH CR				
Original or Replacement Well:																	
Sample Date:				12/05/13	05/29/14	03/30/16	10/25/17	10/10/18	10/21/19	11/18/20	05/24/21	06/21/22	12/05/13	05/28/14	05/30/17	05/30/17 (DUP)	06/10/20
Sample Source:				Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3627 CTH CR	3904 CTH CR	3904 CTH CR	3904 CTH CR	3904 CTH CR DUP	3904 CTH CR
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																	
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.47	< 0.47	< 0.88
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.35	< 0.35	< 0.3
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.69	< 0.69	< 0.37
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.65	< 0.65	< 0.36
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 0.42	< 0.42	< 0.46
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.46	< 0.46	< 0.5
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 0.83	< 0.83	< 1
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 1.29	< 1.29	< 0.44
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 1.14	< 1.14	< 0.3
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 1.88	< 1.88	< 0.82
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.34	< 0.34	< 0.24
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.34	< 0.34	< 0.32
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.45	< 0.45	< 0.39
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.39	< 0.39	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 0.91	< 0.91	< 0.32
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.45	< 0.45	< 0.31
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.49	< 0.49	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.42	< 0.42	< 0.36
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.36	< 0.36	< 0.32
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.35	< 0.35	< 0.3
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.17	< 0.17	< 0.33
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.43	< 0.43	< 0.26
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.31	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.37	< 0.37	< 0.31	< 0.31	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.49	< 0.49	< 0.65
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.21	< 0.21	< 0.31
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.27	< 0.27	< 0.39
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.5	< 0.5	< 1.1
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.96	< 0.96	< 0.44
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 1.3	< 1.3	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	< 0.38	< 0.38	< 0.41	< 0.41	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	< 0.21	< 0.21	< 0.36
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.23
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.38	< 0.38	< 0.45
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.2	< 0.2	< 0.32
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 1.47	< 1.47	< 0.72
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.26	< 0.26	< 0.34
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.29	< 0.29	< 0.32
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 1.56	< 1.56	< 1.1
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 0.94	< 0.94	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 0.82	< 0.82	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 2.17	< 2.17	< 1.1
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 0.34	< 0.34	< 0.28
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.19	< 0.19	< 0.33
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.39	< 0.39	< 0.38
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 0.28	< 0.28	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 0.24	< 0.24	< 0.32
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 0.39	< 0.39	< 0.61
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33	< 0.69	< 0.69	< 0.67	< 0.67	< 0.26
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA	< 2.2	< 2.2	< 1.14	< 1.14	< 0.32
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.37
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	< 0.42	< 0.42	< 0.3
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.45	< 0.45	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.64	< 0.64	< 0.42
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	< 0.18	< 0.18	< 0.19	< 0.19	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA	< 0.69	< 0.69	< 1.56	< 1.56	< 1.1

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4024 CTH CR						4101 CTH CR					4114 CTH CR	4125 CTH CR	
Original or Replacement Well:																	
Sample Date:				12/12/13	05/28/14	10/06/16	10/22/19	06/04/20	06/23/22	05/29/14	10/14/15	10/10/18	10/10/18 (DUP)	06/03/21	11/17/22	05/31/17	05/31/17 (DUP)
Sample Source:				Spigot in Barn	Spigot in Barn	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4024 CTH CR	4101 CTH CR	4101 CTH CR	4101 CTH CR	FD5	4101 CTH CR	4114 CTH CR	4125 CTH CR	4125 CTH CR DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																	
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.35	< 0.88	< 0.55	< 0.33	< 0.48	< 0.35	< 0.35	< 0.76	< 0.55	< 0.47	< 0.47
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.3	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.41	< 0.33	< 0.35	< 0.35
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.3	< 0.37	< 0.43	< 0.45	< 0.52	< 0.3	< 0.3	< 0.36	< 0.43	< 0.69	< 0.69
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.42	< 0.36	< 0.42	< 0.34	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.65	< 0.65
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 0.36	< 0.46	< 0.43	< 0.3	< 1.1	< 0.36	< 0.36	< 0.48	< 0.43	< 0.42	< 0.42
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.42	< 0.5	< 0.43	< 0.4	< 0.65	< 0.42	< 0.42	< 0.55	< 0.43	< 0.46	< 0.46
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 1.71	< 1	< 1.4	< 1.8	< 2.7	< 1.71	< 1.71	< 0.66	< 1.4	< 0.83	< 0.83
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.15	< 0.44	< 0.63	< 0.98	< 1.7	< 1.15	< 1.15	< 0.67	< 0.63	< 1.29	< 1.29
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 0.8	< 0.3	< 0.35	< 2.2	< 1.6	< 0.8	< 0.8	< 0.35	< 0.35	< 1.14	< 1.14
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 2.96	< 0.82	< 0.74	< 0.88	< 1.4	< 2.96	< 2.96	< 0.54	< 0.74	< 1.88	< 1.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.34	< 0.24	< 0.39	< 0.44	< 0.63	< 0.34	< 0.34	< 0.47	< 0.39	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.86	< 0.32	< 0.4	< 0.36	< 0.46	< 0.86	< 0.86	< 0.44	< 0.4	< 0.34	< 0.34
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.25	< 0.39	< 0.43	< 0.41	< 0.48	< 0.25	< 0.25	< 0.44	< 0.43	< 0.45	< 0.45
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.44	< 0.38	< 0.39	< 0.32	< 0.43	< 0.44	< 0.44	< 0.38	< 0.39	< 0.39	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 0.63	< 0.32	< 0.41	< 1.4	< 1.5	< 0.63	< 0.63	< 0.38	< 0.41	< 0.91	< 0.91
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.85	< 0.31	< 0.35	< 0.28	< 0.52	< 0.85	< 0.85	< 0.38	< 0.35	< 0.45	< 0.45
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.3	< 0.35	< 0.38	< 0.33	< 0.42	< 0.3	< 0.3	< 0.4	< 0.38	< 0.49	< 0.49
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.7	< 0.36	< 0.49	< 0.3	< 0.49	< 0.7	< 0.7	< 0.48	< 0.49	< 0.42	< 0.42
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	NA	NA	NA	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.31	< 0.32	< 0.34	< 0.21	< 0.4	< 0.31	< 0.31	< 0.36	< 0.34	< 0.36	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.26	< 0.3	< 0.4	< 0.21	< 0.63	< 0.26	< 0.26	< 0.4	< 0.4	< 0.35	< 0.35
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.22	< 0.33	< 0.3	< 0.24	< 0.44	< 0.22	< 0.22	< 0.38	< 0.3	< 0.17	< 0.17
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.44	< 0.26	< 0.34	< 0.32	< 0.48	< 0.44	< 0.44	< 0.4	< 0.34	< 0.43	< 0.43
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.33	< 0.33	< 0.36	< 0.37	< 0.46	< 0.33	< 0.33	< 0.47	< 0.36	< 0.31	< 0.31
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.45	< 0.65	< 0.42	< 0.35	< 0.46	< 0.45	< 0.45	< 0.46	< 0.42	< 0.49	< 0.49
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.31	< 0.31	< 0.34	< 0.33	< 0.51	< 0.31	< 0.31	< 0.44	< 0.34	< 0.21	< 0.21
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.26	< 0.39	< 0.29	< 0.24	< 0.46	< 0.26	< 0.26	< 0.38	< 0.29	< 0.27	< 0.27
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.61	< 1.1	< 0.62	< 0.63	< 0.65	< 0.61	< 0.61	< 0.78	< 0.62	< 0.5	< 0.5
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.26	< 0.44	< 0.33	< 0.28	< 0.43	< 0.26	< 0.26	< 0.4	< 0.33	< 0.96	< 0.96
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 0.54	< 0.8	< 0.74	< 0.81	< 1.9	< 0.54	< 0.54	< 0.84	< 0.74	< 1.3	< 1.3
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	0.51 J	0.56 J	0.45 J	< 0.38	< 0.45	< 0.37	< 0.37	< 0.39	0.88 J	< 0.41	< 0.41
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.26	< 0.36	< 0.41	NA	NA	< 0.26	< 0.26	< 0.51	< 0.41	< 0.21	< 0.21
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.23	< 0.36	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.36	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.32	< 0.45	< 0.3	< 0.44	< 0.87	< 0.32	< 0.32	< 0.55	< 0.3	< 0.38	< 0.38
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.26	< 0.32	< 0.33	< 0.55	< 0.71	< 0.26	< 0.26	< 0.37	< 0.33	< 0.2	< 0.2
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 1.34	< 0.72	< 0.81	< 1.5	< 2.2	< 1.34	< 1.34	< 0.75	< 0.81	< 1.47	< 1.47
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.21	< 0.34	< 0.48	< 0.23	< 0.44	< 0.21	< 0.21	< 0.47	< 0.48	< 0.26	< 0.26
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.78	< 0.32	< 0.34	< 0.3	< 0.82	< 0.78	< 0.78	< 0.3	< 0.34	< 0.29	< 0.29
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 0.43	< 1.1	< 0.64	< 0.69	< 2.2	< 0.43	< 0.43	< 0.77	< 0.64	< 1.56	< 1.56
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.32	< 1.32	< 0.79	< 0.5	< 1.3	< 1.32	< 1.32	< 0.89	< 0.79	< 0.94	< 0.94
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.28	< 0.47	< 0.47	< 0.23	< 1.1	< 0.28	< 0.28	< 0.46	< 0.47	< 0.82	< 0.82
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 2.1	< 1.1	< 1.4	< 1.7	< 1.6	< 2.1	< 2.1	< 1.4	< 1.4	< 2.17	< 2.17
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 0.71	< 0.28	< 0.71	< 0.35	< 1	< 0.71	< 0.71	< 0.46	< 0.71	< 0.34	< 0.34
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.61	< 0.33	< 0.39	< 0.25	< 0.77	< 0.61	< 0.61	< 0.44	< 0.39	< 0.19	< 0.19
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.29	< 0.38	< 0.37	< 0.63	< 0.9	< 0.29	< 0.29	< 0.44	< 0.37	< 0.39	< 0.39
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.24	< 0.47	< 0.47	< 0.31	< 1.1	< 0.24	< 0.24	< 0.43	< 0.47	< 0.28	< 0.28
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.79	< 0.32	< 0.33	< 0.33	< 1.2	< 0.79	< 0.79	< 0.31	< 0.33	< 0.24	< 0.24
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 0.25	< 0.61	< 0.37	< 0.36	< 1.1	< 0.25	< 0.25	< 0.45	< 0.37	< 0.39	< 0.39
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.38	< 0.33	< 0.47	< 0.33	< 0.49	< 0.38	< 0.38	< 0.54	< 0.47	< 0.48	< 0.48
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.19	< 0.26	< 0.33	< 0.69	< 0.44	< 0.19	< 0.19	< 0.42	< 0.33	< 0.67	< 0.67
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	NA	< 0.32	NA	< 2.2	< 1.6	< 0.8	< 0.8	< 0.38	NA	< 1.14	< 1.14
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.34	< 0.37	< 0.5	< 0.35	< 0.54	< 0.34	< 0.34	< 0.6	< 0.5	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.32	< 0.3	< 0.41	NA	NA	< 0.32	< 0.32	< 0.45	< 0.41	< 0.42	< 0.42
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.3	< 0.47	< 0.38	< 0.33	< 0.47	< 0.3	< 0.3	< 0.47	< 0.38	< 0.45	< 0.45
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.35	< 0.42	< 0.33	< 0.71	< 0.87	< 0.35	< 0.35	< 0.49	< 0.33	< 0.64	< 0.64
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.2	< 0.2	< 0.15	< 0.18	< 0.17	< 0.2	< 0.2	< 0.17	< 0.15	< 0.19	< 0.19
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	NA	< 1.1	NA	< 0.69	< 2.2	< 0.43	< 0.43	< 0.77	NA	< 1.56	< 1.56

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4002 Thunder Ridge Rd											
Original or Replacement Well:				Original Potable Well							Replacement Potable Well				
Sample Date:				01/03/14	08/25/14	10/13/15	10/13/15 (DUP)	10/27/15	03/31/16	03/31/16 (DUP)	05/23/16	06/02/16	06/23/16	10/05/16	
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Field Sample ID:				4002 THUNDER R	4002 THUNDER	4002 THUNDER	4002 THUNDER DUP	4002 THUNDER	002 THUNDER RIDG	2 THUNDER RIDGE D	002 Thunder Ridge R	002 THUNDER RIDG	RAW H2O	002 THUNDER RIDG	
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
Volatile Organic Compounds (VOCs):															
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	
cis-1,2-Dichloroethene	ug/l	*70*	7	1.67	1.29	1.3 J	1.14 J	1.26 J	0.68 J	1.03 J	< 0.45	< 0.45	< 0.45	< 0.45	
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	***0.2*** ***J***	**0.18** J	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4005 Thunder Ridge Rd															
Original or Replacement Well:				Original Potable Well									Replacement Potable Well						
Sample Date:				05/29/14	08/26/14	11/11/14	02/23/15	10/14/15	03/30/16	10/10/16	10/24/16	11/08/16	05/30/17	05/30/17	06/22/17	08/17/17	03/05/18	03/05/18
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4005 THUNDER	4005 THUNDER	4005 THUNDER	4005 THUNDER	4005 THUNDER	005 THUNDER RIDG	005 THUNDER RIDG	4005 THUNDER	4005 THUNDER	4005 THDR RAW	4005 THDR TAP	4005 RAW	4005 RAW	4005 THUNDER RAW	4005 THUNDER TAP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.47	NA	NA
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.69	< 0.69	NA	NA
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.65	< 0.65	NA	NA
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	NA	NA
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 0.83	< 0.83	NA	NA
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.29	< 1.29	NA	NA
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 1.14	< 1.14	NA	NA
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 1.88	< 1.88	NA	NA
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.91	< 0.91	NA	NA
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.49	< 0.49	NA	NA
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	NA	NA
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	NA	NA
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.43	< 0.43	NA	NA
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.31	< 0.31	NA	NA
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.49	< 0.49	NA	NA
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.21	< 0.21	NA	NA
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	NA	NA
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	NA	NA
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.83 J	0.9 J	< 0.38	0.81 J	0.91 J	0.97 J	1.35 J	1.1 J	0.66 J	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.47	< 1.47	NA	NA
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.26	< 0.26	NA	NA
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.29	< 0.29	NA	NA
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 1.56	< 1.56	NA	NA
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	NA	NA
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	NA	NA
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.17	< 2.17	NA	NA
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	NA	NA
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	NA	NA
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.48	< 0.48	NA	NA
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	NA	< 1.14	< 1.14	< 1.14	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.64	< 0.64	NA	NA
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	***0.29*** ***J***	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	NA	< 1.56	< 1.56	< 1.56	NA	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4010 Thunder Ridge Rd													
Original or Replacement Well:				Original Potable Well							Replacement Potable Well						
Sample Date:				05/28/14	08/26/14	02/24/15	10/20/15	03/31/16	10/07/16	10/24/16	05/31/17	05/31/17	06/22/17	08/17/17	03/05/18	03/05/18	
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Basement Tap	Pressure Tank	
Field Sample ID:				4010 THUNDER	4010 THUNDER	4010 THUNDER	4010 THUNDER	010 THUNDER RIDG	010 THUNDER RIDG	4010 THUNDER	4010 THDR RAW	4010 THDR TAP	4010 RAW	4010 RAW	4010 THUNDER TAP	4010 THUNDER RAW	
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
Volatile Organic Compounds (VOCs):																	
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.84	< 0.84	< 0.47	< 0.47	< 0.47	< 0.47	NA	NA	
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA	
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.69	< 0.69	NA	NA	
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.65	< 0.65	NA	NA	
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA	
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	NA	NA	
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 0.83	< 0.83	NA	NA	
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.29	< 1.29	NA	NA	
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 1.14	< 1.14	NA	NA	
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 1.88	< 1.88	NA	NA	
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA	
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA	
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA	
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.91	< 0.91	NA	NA	
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.49	< 0.49	NA	NA	
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA	
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	NA	NA	
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA	
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	NA	NA	
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.43	< 0.43	NA	NA	
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.31	< 0.31	NA	NA	
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.49	< 0.49	NA	NA	
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.21	< 0.21	NA	NA	
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	NA	NA	
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	NA	NA	
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA	
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.37	1.18 J	1.43	1.27 J	1.47	1.27 J	1.42	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA	
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	NA	NA	
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA	
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.47	< 1.47	NA	NA	
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.26	< 0.26	NA	NA	
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.29	< 0.29	NA	NA	
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 1.56	< 1.56	NA	NA	
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	NA	NA	
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	NA	NA	
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.17	< 2.17	NA	NA	
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.34	< 0.34	NA	NA	
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA	
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA	
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	NA	NA	
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	NA	NA	
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.39	< 0.39	NA	NA	
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.48	< 0.48	NA	NA	
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA	
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	NA	< 1.14	< 1.14	< 1.14	NA	NA	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	NA	NA	
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.42	< 0.42	NA	NA	
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.45	< 0.45	NA	NA	
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.64	< 0.64	NA	NA	
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	***0.27*** ***J***	***0.2*** ***J***	< 0.19	< 0.19	< 0.19	< 0.19	NA	NA	
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	NA	< 1.56	< 1.56	< 1.56	NA	NA	

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4027 Thunder Ridge Rd																	
Original or Replacement Well:																					
Sample Date:				05/29/14	11/11/14	11/11/14 (DUP)	02/24/15	10/13/15	03/31/16	10/06/16	10/06/16 (DUP)	05/30/17	10/25/17	05/21/18	05/31/18	10/10/18	06/27/19	10/21/19	06/03/20	05/26/21	11/29/21
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4027 THUNDER	4027 THUNDER	4027 THUNDER DUP	4027 THUNDER	4027 THUNDER	027 THUNDER RIDG	027 THUNDER RIDG	7 THUNDER RIDGE	027 THUNDER RIDG	027 THUNDER RIDG	4027 THUNDER	4027 THUNDER	027 THUNDER RIDG	4027 THUNDER	027 THUNDER RIDG	027 THUNDER RIDG	27 THUNDER RIDGE	027 THUNDER RIDG
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.76	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.41	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.36	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.48	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 0.66	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.67	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.54	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.44	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.38	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.4	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.36	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.4	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.78	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.59 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J	0.96 J	0.77 J	0.87 J	1.08 J	1.32	1 J	1.58	1.03 J	1.24	1.37	1.3 J	1.46 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.51	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.37	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.75	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.47	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.3	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.77	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.46	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.44	< 0.44
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.44	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.45	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.54	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	NA	< 0.8	NA	NA	< 0.32	< 0.38	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.45	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.49	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	***0.28 J***	< 0.2	***0.2 J***	< 0.2	< 0.2	< 0.2	***0.21 J***	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	NA	< 0.43	NA	NA	< 1.1	< 0.77	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4101 Thunder Ridge Rd																	
Original or Replacement Well:																					
Sample Date:				06/24/22	08/26/14	11/17/14	03/11/15	10/14/15	03/30/16	11/08/16	05/30/17	05/30/17	05/30/17	10/25/17	05/21/18	10/10/18	06/27/19	10/21/19	06/03/20	11/17/20	05/24/21
Sample Source:				Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				027 THUNDER RIDG	4101 THUNDER	4101 THUNDER	4101 THUNDER	4101 THUNDER	101 THUNDER RIDG	4101 THUNDER	101 THUNDER RIDG	01 THUNDER RIDGE	1 THUNDER RIDGE	101 THUNDER RIDG	101 THUNDER RIDG	101 THUNDER RIDG	4101 THUNDER	101 THUNDER RIDG	101 THUNDER RIDG	101 THUNDER RIDG	01 THUNDER RIDGE
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.55	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.43	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.43	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.43	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.4	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.63	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.74	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.39	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.4	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.43	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.41	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.35	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.38	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.34	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.3	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.34	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.36	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.42	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.34	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.29	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38
Chloroethane	ug/l	400	80	< 0.62	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.33	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.74	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1 J	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J	1.02 J	0.73 J	0.7 J	0.68 J	0.84 J	1.32	1.09 J	1.1 J	1.13 J	1.11 J	1.2	1.16 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.41	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.3	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55
Ethylbenzene	ug/l	700	140	< 0.33	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.81	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.48	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.34	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.64	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.79	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 1.4	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.39	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44
o-Xylene	ug/l	NL	NL	< 0.37	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.37	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.47	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.33	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42
Total Trimethylbenzene	ug/l	480	96	NA	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	NA	NA	< 1.14	< 1.14	NA	< 0.8	NA	NA	< 0.32	< 0.32	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.5	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.41	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.38	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.33	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.15	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	NA	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	NA	NA	< 1.56	< 1.56	NA	< 0.43	NA	NA	< 1.1	< 1.1	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4111 Thunder Ridge Rd																
Original or Replacement Well:																				
Sample Date:				11/22/21	06/20/22	08/25/14	11/17/14	02/23/15	10/13/15	03/30/16	10/10/16	05/30/17	10/25/17	10/25/17 (DUP)	05/21/18	06/05/18	10/11/18	06/27/19	10/21/19	11/17/20	06/03/21
Sample Source:				Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				101 THUNDER RIDG	101 THUNDER RIDG	4111 THUNDER	4111 THUNDER	4111 THUNDER	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG	1 THUNDER RIDGE D	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	4111 THUNDER	111 THUNDER RIDG	111 THUNDER RIDG	111 THUNDER RIDG
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.55	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.43	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.42	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.43	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 1.4	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.63	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.74	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.39	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.4	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.41	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.38	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.34	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.34	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.36	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.42	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.34	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38
Chloroethane	ug/l	400	80	< 0.78	< 0.62	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.17 J	1.26 J	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45	0.56 J	0.56 J	0.65 J	0.6 J	1.05 J	0.55 J	0.86 J	0.75 J	0.65 J	1.15 J	0.5 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.41	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55
Ethylbenzene	ug/l	700	140	< 0.37	< 0.33	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.81	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.48	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.34	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.64	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.71	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.39	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.44
o-Xylene	ug/l	NL	NL	< 0.44	< 0.37	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.37	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.47	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 0.38	NA	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	NA	< 1.14	NA	NA	< 0.8	NA	NA	< 0.32	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.41	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.33	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.15	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.19	***0.21*** ***J***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.77	NA	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	NA	< 1.56	NA	NA	< 0.43	NA	NA	< 1.1	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4127 Thunder Ridge Rd										3617(3621) Viebahn St					
Original or Replacement Well:														(Well Abandoned, City Water Provided)					
Sample Date:				11/29/21	06/20/22	12/05/13	05/29/14	03/30/16	06/27/19	10/30/19	06/03/20	11/18/20	05/24/21	11/22/21	06/20/22	11/07/14	11/19/14	02/24/15	02/24/15 (DUP)	10/13/15	03/30/16
Sample Source:				Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				111 THUNDER RIDG	111 THUNDER RIDG	127 THUNDER RIDG	4127 THUNDER	127 THUNDER RIDG	4127 THUNDER	127 THUNDER RIDG	127 THUNDER RIDG	127 THUNDER RIDG	27 THUNDER RIDGE	127 THUNDER RIDG	127 THUNDER RIDG	3617 VIEBAHN	3617 VIEBAHN	3621 VIEBAHN	3621 VIEBAHN DUP	3617 VIEBAHN	3617 VIEBAHN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.55	< 0.33	< 0.33	< 0.48	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.43	< 0.45	< 0.45	< 0.52	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.42	< 0.34	< 0.34	< 0.48	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.43	< 0.3	< 0.3	< 1.1	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.4	< 0.4	< 0.65	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 1.4	< 1.8	< 1.8	< 2.7	< 1.71	< 1.71	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.63	< 0.98	< 0.98	< 1.7	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 2.2	< 2.2	< 1.6	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.74	< 0.88	< 0.88	< 1.4	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.39	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.4	< 0.36	< 0.36	< 0.46	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.41	< 0.41	< 0.48	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.32	< 0.32	< 0.43	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.41	< 1.4	< 1.4	< 1.5	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.28	< 0.28	< 0.52	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.38	< 0.33	< 0.33	< 0.42	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.3	< 0.3	< 0.49	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	< 0.36	< 0.36	< 3.1	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.34	< 0.21	< 0.21	< 0.4	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.21	< 0.21	< 0.63	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.24	< 0.24	< 0.44	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.34	< 0.32	< 0.32	< 0.48	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.36	< 0.37	< 0.37	< 0.46	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.42	< 0.35	< 0.35	< 0.46	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.34	< 0.33	< 0.33	< 0.51	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.24	< 0.24	< 0.46	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.78	< 0.62	< 0.63	< 0.63	< 0.65	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.28	< 0.28	< 0.43	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.81	< 0.81	< 1.9	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.64 J	0.83 J	< 0.38	< 0.38	< 0.45	0.72 J	0.38 J	0.58 J	0.49 J	0.77 J	0.73 J	0.9 J	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.41	NA	NA	NA	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.44	< 0.44	< 0.87	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.37	< 0.33	< 0.55	< 0.55	< 0.71	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.81	< 1.5	< 1.5	< 2.2	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.48	< 0.23	< 0.23	< 0.44	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.34	< 0.3	< 0.3	< 0.82	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.64	< 0.69	< 0.69	< 2.2	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 0.5	< 0.5	< 1.3	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.23	< 0.23	< 1.1	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 1.7	< 1.7	< 1.6	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.71	< 0.35	< 0.35	< 1	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.35	< 0.35	< 1	< 1	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.39	< 0.25	< 0.25	< 0.77	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.44	< 0.37	< 0.63	< 0.63	< 0.9	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.31	< 0.31	< 1.1	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.33	< 0.33	< 1.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.37	< 0.36	< 0.36	< 1.1	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.47	< 0.33	< 0.33	< 0.49	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.69	< 0.69	< 0.44	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 0.38	NA	< 2.2	< 2.2	< 1.6	NA	NA	< 0.32	< 0.32	< 0.38	< 0.38	NA	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.35	< 0.35	< 0.54	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.41	NA	NA	NA	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.33	< 0.33	< 0.47	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.33	< 0.71	< 0.71	< 0.87	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.15	< 0.18	< 0.18	< 0.17	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	***0.48*** ***J***	***0.4*** ***J***	< 0.17	**0.18 J**	***0.23*** ***J***	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.77	NA	< 0.69	< 0.69	< 2.2	NA	NA	< 1.1	< 1.1	< 0.77	< 0.77	NA	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3701 Viebahn St							3815 Viebahn St				
Original or Replacement Well:				Original Potable Well (City Water Provided Dec 2016)											
Sample Date:				10/29/14	11/07/14	11/07/14 (DUP)	02/23/15	02/23/15 (DUP)	10/14/15	10/14/15 (DUP)	11/07/14	11/19/14	02/23/15	10/13/15	10/13/15 (DUP)
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3701 VIEBAHN	3701 VIEBAHN	3701 VIEBAHN DUP	3701 VIEBAHN	3701 VIEBAHN DUP	3701 VIEBAHN	3701 VIEBAHN DUP	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN	3815 VIEBAHN DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48	0.74 J	0.94 J	0.9 J	1 J	1.12 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	**1.5 J**	**1.17 J**	**1.12 J**	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.29 J***	***0.32 J***	***0.49 J***	***0.31 J***	***0.33 J***	***0.34 J***	***0.37 J***	***0.33 J***	***0.31 J***	***0.25 J***	***0.2 J***	***0.32 J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3817 Viebahn St															
Original or Replacement Well:																			
Sample Date:				10/29/14	11/07/14	02/24/15	10/20/15	03/31/16	10/06/16	05/30/17	10/25/17	05/21/18	10/11/18	06/27/19	10/21/19	06/04/20	11/17/20	05/24/21	11/22/21	06/23/22
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN	3817 VIEBAHN ST	3817 VIEBAHN	3817 VIEBAHN ST	3817 VIEBAHN	3817 VIEBAHN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.4 J	< 0.38	< 0.45	0.49 J	< 0.45	0.47 J	0.5 J	0.55 J	0.7 J	0.44 J	0.51 J	0.57 J	0.48 J	0.82 J	0.5 J	0.59 J	0.43 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8	NA	NA	< 0.32	< 0.32	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	***0.25 J***	< 0.2	***0.3 J***	***0.2 J***	***0.21 J***	***0.25 J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43	NA	NA	< 1.1	< 1.1	< 0.77	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3825 Viebahn St												4025 Viebahn St			
Original or Replacement Well:																Original Potable Well (City Water Provided Dec 2016)			
Sample Date:				10/29/14	11/07/14	02/23/15	02/23/15 (DUP)	10/14/15	03/31/16	10/06/16	10/25/17	10/10/18	10/21/19	11/17/20	05/27/21	06/21/22	10/29/14	11/07/14	02/24/15	10/13/15
Sample Source:				Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN DUP	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN	3825 VIEBAHN ST	3825 VIEBAHN	4025 VIEBAHN	4025 VIEBAHN	4025 VIEBAHN	4025 VIEBAHN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.35	< 0.35	< 0.88	< 0.76	< 0.55	< 0.33	< 0.33	< 0.48	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.3	< 0.3	< 0.37	< 0.36	< 0.43	< 0.45	< 0.45	< 0.52	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.34	< 0.34	< 0.48	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.36	< 0.36	< 0.46	< 0.48	< 0.43	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.42	< 0.42	< 0.5	< 0.55	< 0.43	< 0.4	< 0.4	< 0.65	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.71	< 1.71	< 1	< 0.66	< 1.4	< 1.8	< 1.8	< 2.7	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.15	< 1.15	< 0.44	< 0.67	< 0.63	< 0.98	< 0.98	< 1.7	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 2.2	< 2.2	< 1.6	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 2.96	< 2.96	< 0.82	< 0.54	< 0.74	< 0.88	< 0.88	< 1.4	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.39	< 0.44	< 0.44	< 0.63	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.86	< 0.86	< 0.32	< 0.44	< 0.4	< 0.36	< 0.36	< 0.46	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.25	< 0.25	< 0.39	< 0.44	< 0.43	< 0.41	< 0.41	< 0.54	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.63	< 0.63	< 0.32	< 0.38	< 0.41	< 1.4	< 1.4	< 1.5	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.85	< 0.85	< 0.31	< 0.38	< 0.35	< 0.28	< 0.28	< 0.52	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.3	< 0.3	< 0.35	< 0.4	< 0.38	< 0.33	< 0.33	< 0.42	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.7	< 0.7	< 0.36	< 0.48	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 3.1	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.31	< 0.31	< 0.32	< 0.36	< 0.34	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.21	< 0.21	< 0.63	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.22	< 0.22	< 0.33	< 0.38	< 0.3	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.44	< 0.44	< 0.26	< 0.4	< 0.34	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.45	< 0.45	< 0.65	< 0.46	< 0.42	< 0.35	< 0.35	< 0.46	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.26	< 0.26	< 0.39	< 0.38	< 0.29	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.61	< 0.61	< 1.1	< 0.78	< 0.62	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.26	< 0.26	< 0.44	< 0.4	< 0.33	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.54	< 0.54	< 0.8	< 0.84	< 0.74	< 0.81	< 0.81	< 1.9	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.41	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	1.38	1.46	1.11 J	1.85
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.26	< 0.26	< 0.36	< 0.51	< 0.41	NA	NA	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.32	< 0.32	< 0.45	< 0.55	< 0.3	< 0.44	< 0.44	< 0.87	< 0.87
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.26	< 0.26	< 0.32	< 0.37	< 0.33	< 0.55	< 0.55	< 0.71	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.34	< 1.34	< 0.72	< 0.75	< 0.81	< 1.5	< 1.5	< 2.2	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.21	< 0.21	< 0.34	< 0.47	< 0.48	< 0.23	< 0.23	< 0.44	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.78	< 0.78	< 0.32	< 0.3	< 0.34	< 0.3	< 0.3	< 0.82	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.43	< 0.43	< 1.1	< 0.77	< 0.64	< 0.69	< 0.69	< 2.2	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.5	< 0.5	< 1.3	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.28	< 0.28	< 0.47	< 0.46	< 0.47	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.7	< 1.7	< 1.6	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.35	< 0.35	< 1	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.61	< 0.61	< 0.33	< 0.44	< 0.39	< 0.25	< 0.25	< 0.77	< 0.77
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.29	< 0.29	< 0.38	< 0.44	< 0.37	< 0.63	< 0.63	< 0.9	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.24	< 0.24	< 0.47	< 0.43	< 0.47	< 0.31	< 0.31	< 1.1	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.79	< 0.79	< 0.32	< 0.31	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.25	< 0.25	< 0.61	< 0.45	< 0.37	< 0.36	< 0.36	< 1.1	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.38	< 0.38	< 0.33	< 0.54	< 0.47	< 0.33	< 0.33	< 0.74	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.19	< 0.19	< 0.26	< 0.42	< 0.33	0.95 J	< 0.69	< 0.44	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 0.8	NA	< 0.32	< 0.38	NA	< 2.2	< 2.2	< 1.6	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.34	< 0.34	< 0.37	< 0.6	< 0.5	< 0.35	< 0.35	< 0.54	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.32	< 0.32	< 0.3	< 0.45	< 0.41	NA	NA	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.35	< 0.35	< 0.42	< 0.49	< 0.33	< 0.71	< 0.71	< 0.87	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	***0.34*** ***J***	***0.31*** ***J***	***0.32*** ***J***	***0.44*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.43	NA	< 1.1	< 0.77	NA	< 0.69	< 0.69	< 0.9	< 2.2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4101 Viebahn St				4219 Viebahn St				5107 Viebahn St									
Original or Replacement Well:				Original Potable Well (City Water Provided 2016)																	
Sample Date:				10/29/14	11/07/14	02/24/15	10/14/15	09/08/14	10/27/15	06/10/20	06/24/22	12/05/13	02/05/14	06/04/14	08/28/14	11/11/14	03/11/15	10/14/15	03/31/16	10/06/16	05/31/17
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4101 VIEBAHN	4101 VIEBAHN	4101 VIEBAHN	4101 VIEBAHN	4219 VIEBAHN	4219 VIEBAHN	4219 VIEBAHN	4219 VIEBAHN	5107 VIEBAHN	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD LN	3027 ORCHARD	3027 ORCHARD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.48	< 0.88	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.84	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.52	< 0.37	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.48	< 0.36	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 1.1	< 0.46	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.65	< 0.5	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 2.7	< 1	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 1.7	< 0.44	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 1.6	< 0.3	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 1.4	< 0.82	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.63	< 0.24	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.46	< 0.32	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.48	< 0.39	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.43	< 0.38	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.5	< 0.32	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.52	< 0.31	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.42	< 0.35	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.49	< 0.36	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 3.1	NA	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.4	< 0.32	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.63	< 0.3	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.44	< 0.33	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.48	< 0.26	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.46	< 0.33	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.46	< 0.65	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.51	< 0.31	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.46	< 0.39	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.65	< 1.1	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.43	< 0.44	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 1.9	< 0.8	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3
cis-1,2-Dichloroethene	ug/l	*70*	**7**	1.48	1.13 J	1.24 J	1.59	< 0.38	< 0.45	< 0.39	< 0.32	< 0.38	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45	0.46 J	0.54 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.36	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.45	< 0.23	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.87	< 0.45	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.71	< 0.32	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 2.2	< 0.72	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.44	< 0.34	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.82	< 0.32	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 2.2	< 1.1	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 1.3	< 1.32	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 1.1	< 0.47	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.6	< 1.1	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 1	< 0.35	< 1	< 0.28	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.77	< 0.33	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.9	< 0.38	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 1.1	< 0.47	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 1.2	< 0.32	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 1.1	< 0.61	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.49	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.44	< 0.26	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Total Trimethylbenzene	ug/l	480	96	< 2.2	NA	< 1.6	< 1.6	< 2.2	< 1.6	< 0.32	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.54	< 0.37	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.3	< 0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.47	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.87	< 0.42	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.38*** ***J***	***0.39*** ***J***	***0.43*** ***J***	***0.54***	< 0.18	< 0.17	< 0.2	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
Xylene (Total)	ug/l	2000	400	< 0.69	NA	< 0.9	< 2.2	< 0.69	< 2.2	< 1.1	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3027 Orchard Ln										3128 Orchard Ln					3318 Orchard Ln	
Original or Replacement Well:																				
Sample Date:				10/31/17	05/31/18	11/21/18	10/22/19	06/03/20	10/06/20	11/17/20	05/25/21	11/29/21	06/24/22	11/18/22	02/04/14	06/04/14	10/14/15	11/19/18	05/25/21	07/11/14	10/24/16
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot
Field Sample ID:				3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD	3027 ORCHARD LN	3027 ORCHARD	3027 ORCHARD LAN	3027 ORCHARD LN	3027 ORCHARD LAN	3027 ORCHARD	3027 ORCHARD LN	3128 ORCHARD	3128 ORCHARD	3128 ORCHARD	3128 ORCHARD	3128 ORCHARD LN	3318 ORCHARD	3318 ORCHARD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.47	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.55	< 0.33	< 0.33	< 0.48	< 0.35	< 0.76	< 0.33	< 0.48
1,1,1-Trichloroethane	ug/l	200	40	< 0.35	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.41	< 0.33	< 0.84
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.69	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.43	< 0.45	< 0.45	< 0.52	< 0.3	< 0.36	< 0.45	< 0.52
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.65	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.42	< 0.34	< 0.34	< 0.48	< 0.42	< 0.48	< 0.34	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.42	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.43	< 0.3	< 0.3	< 1.1	< 0.36	< 0.48	< 0.3	< 1.1
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.46	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.43	< 0.4	< 0.4	< 0.65	< 0.42	< 0.55	< 0.4	< 0.65
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.83	< 1.71	< 1.71	< 1.71	< 1	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.4	< 1.8	< 1.8	< 2.7	< 1.71	< 0.66	< 1.8	< 2.7
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.29	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 0.63	< 0.98	< 0.98	< 1.7	< 1.15	< 0.67	< 0.98	< 1.7
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.14	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.35	< 2.2	< 2.2	< 1.6	< 0.8	< 0.35	< 2.2	< 1.6
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.88	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 0.74	< 0.88	< 0.88	< 1.4	< 2.96	< 0.54	< 0.88	< 1.4
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.39	< 0.44	< 0.44	< 0.63	< 0.34	< 0.47	< 0.44	< 0.63
1,2-Dichlorobenzene	ug/l	600	60	< 0.34	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.4	< 0.36	< 0.36	< 0.46	< 0.86	< 0.44	< 0.36	< 0.46
1,2-Dichloroethane	ug/l	5	0.5	< 0.45	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.43	< 0.41	< 0.41	< 0.48	< 0.25	< 0.44	< 0.41	< 0.48
1,2-Dichloropropane	ug/l	5	0.5	< 0.39	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.39	< 0.32	< 0.32	< 0.43	< 0.44	< 0.38	< 0.32	< 0.43
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.91	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 0.41	< 1.4	< 1.4	< 1.5	< 0.63	< 0.38	< 1.4	< 1.5
1,3-Dichlorobenzene	ug/l	600	120	< 0.45	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.35	< 0.28	< 0.28	< 0.52	< 0.85	< 0.38	< 0.28	< 0.52
1,3-Dichloropropane	ug/l	NL	NL	< 0.49	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.38	< 0.33	< 0.33	< 0.42	< 0.3	< 0.4	< 0.33	< 0.42
1,4-Dichlorobenzene	ug/l	75	15	< 0.42	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.7	< 0.48	< 0.3	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.36	< 0.36	< 3.1	NA	NA	< 0.36	< 3.1
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.34	< 0.21	< 0.21	< 0.4	< 0.31	< 0.36	< 0.21	< 0.4
4-Chlorotoluene	ug/l	NL	NL	< 0.35	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.63	< 0.26	< 0.4	< 0.21	< 0.63
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.17	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.3	< 0.24	< 0.24	< 0.44	< 0.22	< 0.38	< 0.24	< 0.44
Bromobenzene	ug/l	NL	NL	< 0.43	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.34	< 0.32	< 0.32	< 0.48	< 0.44	< 0.4	< 0.32	< 0.48
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.36	< 0.37	< 0.37	< 0.46	< 0.33	< 0.47	< 0.37	< 0.46
Bromoform	ug/l	4.4	0.44	< 0.49	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.35	< 0.35	< 0.46	< 0.45	< 0.46	< 0.35	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.34	< 0.33	< 0.33	< 0.51	< 0.31	< 0.44	< 0.33	< 0.51
Chlorobenzene	ug/l	100	20	< 0.27	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.29	< 0.24	< 0.24	< 0.46	< 0.26	< 0.38	< 0.24	< 0.46
Chloroethane	ug/l	400	80	< 0.5	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.62	< 0.63	< 0.63	< 0.65	< 0.61	< 0.78	< 0.63	< 0.65
Chloroform	ug/l	6	**0.6**	< 0.96	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.33	< 0.28	< 0.28	< 0.43	< 0.26	< 0.4	< 0.28	< 0.43
Chloromethane	ug/l	30	**3**	< 1.3	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.74	< 0.81	< 0.81	< 1.9	< 0.54	< 0.84	< 0.81	< 1.9
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.41	< 0.37	0.57 J	0.58 J	0.6 J	0.6 J	0.52 J	< 0.39	0.61 J	0.59 J	0.44 J	< 0.38	< 0.38	< 0.45	< 0.37	< 0.39	< 0.38	< 0.45
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.21	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	< 0.41	NA	NA	NA	< 0.26	< 0.51	NA	NA
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.36	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.38	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.3	< 0.44	< 0.44	< 0.87	< 0.32	< 0.55	< 0.44	< 0.87
Ethylbenzene	ug/l	700	140	< 0.2	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.33	< 0.55	< 0.55	< 0.71	< 0.26	< 0.37	< 0.55	< 0.71
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.47	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 0.81	< 1.5	< 1.5	< 2.2	< 1.34	< 0.75	< 1.5	< 2.2
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.26	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.48	< 0.23	< 0.23	< 0.44	< 0.21	< 0.47	< 0.23	< 0.44
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.29	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.34	< 0.3	< 0.3	< 0.82	< 0.78	< 0.3	< 0.3	< 0.82
m,p-Xylenes	ug/l	NL	NL	< 1.56	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.64	< 0.69	< 0.69	< 2.2	< 0.43	< 0.77	< 0.69	< 2.2
Methylene Chloride	ug/l	5	**0.5**	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 0.79	< 0.5	< 0.5	< 1.3	< 1.32	< 0.89	< 0.5	< 1.3
Methyl-tert-butyl ether	ug/l	60	12	< 0.82	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.23	< 0.23	< 1.1	< 0.28	< 0.46	< 0.23	< 1.1
Naphthalene	ug/l	100	10	< 2.17	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.7	< 1.7	< 1.6	< 2.1	< 1.4	< 1.7	< 1.6
n-Butylbenzene	ug/l	NL	NL	< 0.34	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.71	< 0.35	< 0.35	< 1	< 0.71	< 0.46	< 0.35	< 1
n-Propylbenzene	ug/l	NL	NL	< 0.19	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.39	< 0.25	< 0.25	< 0.77	< 0.61	< 0.44	< 0.25	< 0.77
o-Xylene	ug/l	NL	NL	< 0.39	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.37	< 0.63	< 0.63	< 0.9	< 0.29	< 0.44	< 0.63	< 0.9
p-Isopropyltoluene	ug/l	NL	NL	< 0.28	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.31	< 0.31	< 1.1	< 0.24	< 0.43	< 0.31	< 1.1
sec-Butylbenzene	ug/l	NL	NL	< 0.24	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.79	< 0.31	< 0.33	< 1.2
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.39	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.37	< 0.36	< 0.36	< 1.1	< 0.25	< 0.45	< 0.36	< 1.1
Tetrachloroethene	ug/l	5	0.5	< 0.48	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.47	< 0.33	< 0.33	< 0.49	< 0.38	< 0.54	< 0.33	< 0.49
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.67	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.33	< 0.69	< 0.69	< 0.44	< 0.19	< 0.42	< 0.69	< 0.44
Total Trimethylbenzene	ug/l	480	96	< 1.14	NA	< 0.8	NA	< 0.32	NA	< 0.32	< 0.38	< 0.38	NA	NA	< 2.2	< 2.2	< 1.6	< 0.8	< 0.38	< 2.2	< 1.6
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.5	< 0.35	< 0.35	< 0.54	< 0.34	< 0.6	< 0.35	< 0.54
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.42	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	< 0.41	NA	NA	NA	< 0.32	< 0.45	NA	NA
Trichloroethene	ug/l	5	0.5	< 0.45	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.38	< 0.33	< 0.33	< 0.47	< 0.3	< 0.47	< 0.33	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.64	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.33	< 0.71	< 0.71	< 0.87	< 0.35	< 0.49	< 0.71	< 0.87
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.19	< 0.2	< 0.2	< 0.2	***0.3*** ***J***	***0.22*** ***J***	< 0.2	< 0.17	***0.28*** ***J***	***0.3*** ***J***	***0.27*** ***J***	< 0.18	< 0.18	< 0.17	< 0.2	< 0.17	< 0.18	< 0.17
Xylene (Total)	ug/l	2000	400	< 1.56	NA	< 0.43	NA	< 1.1	NA	< 1.1	< 0.77	< 0.77	NA	NA	< 0.69	< 0.69	< 2.2	< 0.43	< 0.77	< 0.69	< 2.2

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3420 Orchard Ln				3523 Orchard Ln		3524 Orchard Ln					
Original or Replacement Well:															
Sample Date:				02/04/14	06/02/14	10/06/16	06/27/22	02/04/14	05/28/14	02/04/14	06/02/14	06/02/14 (DUP)	10/13/15	11/17/20	06/23/22
Sample Source:				Kitchen Sink	Kitchen Sink	Outside Spigot	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Field Sample ID:				3420 ORCHARD	3420 ORCHARD	3420 ORCHARD	3420 ORCHARD LN	3523 ORCHARD	3523 ORCHARD	3524 ORCHARD	3524 ORCHARD	3524 ORCHARD DUP	3524 ORCHARD	3524 ORCHARD LAN	3524 ORCHARD LN
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):															
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.48	< 0.55	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.88	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.3	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.43	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.37	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.48	< 0.42	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.36	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 1.1	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.46	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.65	< 0.43	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.5	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 2.7	< 1.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 1.7	< 0.63	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.44	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 1.6	< 0.35	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.74	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.82	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.24	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.46	< 0.4	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.32	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.48	< 0.43	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.39	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.43	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.5	< 0.41	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 0.32	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.52	< 0.35	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.31	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.42	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.35	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.36	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 3.1	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.4	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.32	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.63	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.44	< 0.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.33	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.48	< 0.34	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.26	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.36	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.33	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.65	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.51	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.31	< 0.34
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.46	< 0.29	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.39	< 0.29
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.65	< 0.62	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 1.1	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.43	< 0.33	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.44	< 0.33
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 1.9	< 0.74	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.8	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.38	< 0.38	< 0.45	< 0.32	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.39	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.41	NA	NA	NA	NA	NA	NA	< 0.36	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.23	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.87	< 0.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.45	< 0.3
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.71	< 0.33	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.32	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 2.2	< 0.81	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 0.72	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.44	< 0.48	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.34	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.82	< 0.34	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.32	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 2.2	< 0.64	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 1.3	< 0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.32	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 1.1	< 0.47	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.47	< 0.47
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.6	< 1.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 1	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.28	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.77	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.33	< 0.39
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.9	< 0.37	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.38	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 1.1	< 0.47	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.32	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 1.1	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.61	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.49	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.44	< 0.33	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.26	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 1.6	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 0.32	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.54	< 0.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.37	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	< 0.41	NA	NA	NA	NA	NA	NA	< 0.3	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.47	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.87	< 0.33	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.42	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.17	< 0.15	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.2	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 2.2	NA	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 1.1	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3911 Black Hawk Ct												
Original or Replacement Well:																
Sample Date:				07/08/15	10/06/16	05/31/17	10/30/17	05/21/18	10/10/18	06/27/19	10/21/19	06/10/20	05/24/21	11/22/21	06/23/22	
Sample Source:				Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Field Sample ID:				3911 Black Hawk Ct	3911 BLACKHAWK	3911 BLACKHAWK	3911 BLACK HAWK	3911 BLACKHAWK	911 BLACKHAWK C	3911 BLACK HAWK	3911 BLACK HAWK	3911 BLACKHAWK	911 BLACK HAWK C	911 BLACK HAWK C	911 BLACK HAWK C	
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
Volatile Organic Compounds (VOCs):																
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.76	< 0.76	< 0.55	
1,1,1-Trichloroethane	ug/l	200	40	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.41	< 0.41	< 0.33	
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.36	< 0.36	< 0.43	
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.48	< 0.48	< 0.42	
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	ug/l	850	85	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.48	< 0.48	< 0.43	
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.55	< 0.55	< 0.43	
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 0.66	< 0.66	< 1.4	
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.67	< 0.67	< 0.63	
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 0.35	
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.54	< 0.54	< 0.74	
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.47	< 0.47	< 0.39	
1,2-Dichlorobenzene	ug/l	600	60	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.44	< 0.44	< 0.4	
1,2-Dichloroethane	ug/l	5	0.5	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.44	< 0.44	< 0.43	
1,2-Dichloropropane	ug/l	5	0.5	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39	
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.38	< 0.38	< 0.41	
1,3-Dichlorobenzene	ug/l	600	120	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.38	< 0.38	< 0.35	
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.4	< 0.4	< 0.38	
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.48	< 0.48	< 0.49	
2,2-Dichloropropane	ug/l	NL	NL	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.36	< 0.36	< 0.34	
4-Chlorotoluene	ug/l	NL	NL	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.4	< 0.4	< 0.4	
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	ug/l	5	**0.5**	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.38	< 0.38	< 0.3	
Bromobenzene	ug/l	NL	NL	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.4	< 0.4	< 0.34	
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	ug/l	0.6	0.06	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.46	< 0.46	< 0.42	
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon tetrachloride	ug/l	5	0.5	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	
Chlorobenzene	ug/l	100	20	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.38	< 0.38	< 0.29	
Chloroethane	ug/l	400	80	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.78	< 0.78	< 0.62	
Chloroform	ug/l	6	**0.6**	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.4	< 0.4	< 0.33	
Chloromethane	ug/l	30	**3**	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.84	< 0.84	< 0.74	
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.45	0.59 J	< 0.41	< 0.41	0.58 J	0.58 J	0.5 J	0.61 J	0.53 J	0.63 J	0.6 J	0.38 J	
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.51	< 0.51	< 0.41	
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.45	< 0.45	< 0.36	
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	ug/l	1000	200	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.55	< 0.55	< 0.3	
Ethylbenzene	ug/l	700	140	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.37	< 0.37	< 0.33	
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.75	< 0.75	< 0.81	
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Isopropyl ether	ug/l	NL	NL	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.47	< 0.47	< 0.48	
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.3	< 0.3	< 0.34	
m,p-Xylenes	ug/l	NL	NL	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.77	< 0.77	< 0.64	
Methylene Chloride	ug/l	5	**0.5**	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	
Methyl-tert-butyl ether	ug/l	60	12	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46	< 0.46	< 0.47	
Naphthalene	ug/l	100	10	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.4	< 1.4	< 1.4	
n-Butylbenzene	ug/l	NL	NL	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.46	< 0.46	< 0.71	
n-Propylbenzene	ug/l	NL	NL	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.44	< 0.44	< 0.39	
o-Xylene	ug/l	NL	NL	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.44	< 0.44	< 0.37	
p-Isopropyltoluene	ug/l	NL	NL	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43	< 0.43	< 0.47	
sec-Butylbenzene	ug/l	NL	NL	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.31	< 0.31	< 0.33	
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	ug/l	NL	NL	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.45	< 0.45	< 0.37	
Tetrachloroethene	ug/l	5	0.5	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.54	< 0.54	< 0.47	
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	ug/l	800	160	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.42	< 0.42	< 0.33	
Total Trimethylbenzene	ug/l	480	96	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8	NA	NA	< 0.32	< 0.38	< 0.38	NA	
trans-1,2-Dichloroethene	ug/l	100	20	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.6	< 0.6	< 0.5	
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.45	< 0.45	< 0.41	
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38	
Trichlorofluoromethane	ug/l	3490	698	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.49	< 0.49	< 0.33	
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	
Xylene (Total)	ug/l	2000	400	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43	NA	NA	< 1.1	< 0.77	< 0.77	NA	

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3921 Black Hawk Ct																	
Original or Replacement Well:																					
Sample Date:				02/04/14	06/02/14	08/26/14	11/10/14	02/24/15	10/14/15	03/31/16	10/05/16	05/30/17	10/25/17	05/21/18	10/10/18	10/10/18 (DUP)	06/27/19	10/22/19	06/10/20	11/17/20	05/25/21
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACK HAWK	3921 BLACK HAWK	3921 BLACK HAWK	3921 BLACKHAWK	3921 BLACKHAWK	3921 BLACKHAWK	FD4	3921 BLACK HAWK	921 BLACKHAWK C	921 BLACKHAWK C	921 BLACK HAWK C	921 BLACK HAWK C
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.69	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.65	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.42	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 0.83	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 1.29	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 1.88	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.34	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 0.91	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.42	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.17	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.31	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.49	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44
Chlorobenzene	ug/l	100	20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.27	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38
Chloroethane	ug/l	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.96	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4
Chloromethane	ug/l	30	**3**	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J	1.04 J	0.71 J	0.63 J	0.57 J	0.51 J	0.95 J	0.9 J	0.79 J	0.79 J	0.92 J	0.78 J	1.19 J	0.69 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55
Ethylbenzene	ug/l	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.47	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.26	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.29	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.94	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.82	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 2.17	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.34	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.19	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44
o-Xylene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.39	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.48	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.67	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42
Total Trimethylbenzene	ug/l	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 1.14	NA	< 0.8	< 0.8	NA	NA	< 0.32	< 0.32	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.45	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.64	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.19	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17
Xylene (Total)	ug/l	2000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 1.56	NA	< 0.43	< 0.43	NA	NA	< 1.1	< 1.1	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):					3118 S 10TH ST	3413 S 10TH ST	3533 S 10TH ST	3603 S 10TH ST	3616 S 10TH ST	3632 S 10TH ST	3712 S 10TH ST	3835 S 10TH ST	4019 S 10TH ST	4215 S 10TH ST	4218 S 10TH ST	4219 S 10TH ST	4229 S 10TH ST	4309 S 10TH ST	4316 S 10TH ST	4317 S 10TH ST	4325 S 10TH ST
Original or Replacement Well:																					
Sample Date:				11/30/21	11/17/22	11/05/19	12/02/19	11/05/19	02/07/20	12/18/19	12/10/19	11/12/19	11/07/19	11/16/19	12/02/19	11/05/19	11/07/19	12/10/19	11/08/19	11/18/19	11/08/19
Sample Source:				Pressure Tank	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				921 BLACKHAWK C	3118 S 10TH ST	3413 S 10TH ST	3533 S 10TH	3603 S 10TH ST	3616 S 10TH	3632 S 10TH	3712 S 10TH	3835 S 10TH ST	4019 S 10TH ST	4215 S 10TH	4218 S 10TH	4219 S 10TH ST	4229 S 10TH ST	4309 S 10TH	4316 S 10TH ST	4317 S 10TH	4325 S 10TH ST
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**																		
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.55	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.43	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 1.4	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.63	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.74	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.39	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.4	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.41	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	0.75 J	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.36	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.42	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.78	< 0.62	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.94 J	< 0.32	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.41	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.37	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.81	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.48	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.34	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.64	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.39	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.44	< 0.37	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.37	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 0.38	NA	NA	< 0.8	NA	< 0.8	< 0.8	< 0.8	< 0.8	NA	< 0.8	< 0.8	< 0.8	NA	NA	< 0.8	NA	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.41	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.33	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.77	NA	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4403 S 10TH ST	4410 S 10TH ST	4426/4430/4432/4434	4513 S 10TH ST	2732 S 15TH ST					2806 S 15TH ST				2811 S 15TH ST		
Original or Replacement Well:																			
Sample Date:				12/02/19	11/20/19	11/12/19	11/06/19	11/14/19	11/26/19	06/01/21	11/22/21	06/21/22	11/17/20	06/03/21	11/30/21	06/20/22	03/12/20	08/19/21	06/29/22
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Sample Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Outside Spigot	Outside Spigot	Outside Spigot
Field Sample ID:				4403 S 10TH	4410 S 10TH	4416 S 10TH ST	4513 S 10TH ST	2732 S 15TH ST	2732 S 15TH	2732 S 15TH ST	2732 S 15TH ST	2732 S 15TH	2806 S 15TH ST	2806 S 15TH ST	2806 S 15TH ST	2806 S 15TH	2811 S 15TH	2811 S. 15TH ST.	2811 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.88	< 0.76	< 0.76	< 0.55	< 0.88	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.3	< 0.41	< 0.41	< 0.33	< 0.3	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.37	< 0.36	< 0.36	< 0.43	< 0.37	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.36	< 0.48	< 0.48	< 0.42	< 0.36	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.46	< 0.48	< 0.48	< 0.43	< 0.46	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.55	< 0.55	< 0.43	< 0.5	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1	< 0.66	< 0.66	< 1.4	< 1	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 0.44	< 0.67	< 0.67	< 0.63	< 0.44	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 0.82	< 0.54	< 0.54	< 0.74	< 0.82	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.24	< 0.47	< 0.47	< 0.39	< 0.24	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.32	< 0.44	< 0.44	< 0.4	< 0.32	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.44	< 0.44	< 0.43	< 0.39	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.32	< 0.38	< 0.38	< 0.41	< 0.32	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.38	< 0.38	< 0.35	< 0.31	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.35	< 0.4	< 0.4	< 0.38	< 0.35	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.36	< 0.48	< 0.48	< 0.49	< 0.36	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.32	< 0.36	< 0.36	< 0.34	< 0.32	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.38	< 0.38	< 0.3	< 0.33	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.26	< 0.4	< 0.4	< 0.34	< 0.26	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.65	< 0.46	< 0.46	< 0.42	< 0.65	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.38	< 0.38	< 0.29	< 0.39	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 1.1	< 0.78	< 0.78	< 0.62	< 1.1	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	0.32 J	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.4	< 0.4	< 0.33	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.84	< 0.84	< 0.74	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.37	0.76 J	0.77 J	0.67 J	0.5 J	0.37 J	0.59 J	0.44 J	0.45 J	0.85 J	< 0.39	< 0.39	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.36	< 0.51	< 0.51	< 0.41	< 0.36	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.23	< 0.45	< 0.45	< 0.36	< 0.23	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.55	< 0.55	< 0.3	< 0.45	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.32	< 0.37	< 0.37	< 0.33	< 0.32	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 0.72	< 0.75	< 0.75	< 0.81	< 0.72	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.34	< 0.47	< 0.47	< 0.48	< 0.34	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.32	< 0.3	< 0.3	< 0.34	< 0.32	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 1.1	< 0.77	< 0.77	< 0.64	< 1.1	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.28	< 0.46	< 0.46	< 0.71	< 0.28	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.33	< 0.44	< 0.44	< 0.39	< 0.33	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.38	< 0.44	< 0.44	< 0.37	< 0.38	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.31	< 0.31	< 0.33	< 0.32	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.61	< 0.45	< 0.45	< 0.37	< 0.61	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.33	< 0.54	< 0.54	< 0.47	< 0.33	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.42	< 0.42	< 0.33	< 0.26	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 0.8	< 0.8	< 0.8	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA	NA	< 0.38	< 0.38	NA	< 0.32	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.6	< 0.6	< 0.5	< 0.37	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.3	< 0.45	< 0.45	< 0.41	< 0.3	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.47	< 0.47	< 0.47	< 0.38	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.42	< 0.49	< 0.49	< 0.33	< 0.42	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	***0.21*** ***J***	< 0.2	< 0.17	***0.29*** ***J***	***0.23*** ***J***	< 0.2	< 0.17	***0.21*** ***J***	***0.2*** ***J***	< 0.2	< 0.17	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.77	< 0.77	NA	NA	< 0.77	< 0.77	NA	< 1.1	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2812 S 15TH ST					2815 S 15TH ST		2820 S 15TH ST					2823 S 15TH ST				
Original or Replacement Well:																				
Sample Date:				11/08/19	02/07/20	05/25/21	11/22/21	06/20/22	10/05/20	05/25/21	11/07/19	11/26/19	05/24/21	11/22/21	06/21/22	12/10/19	12/26/19	05/24/21	11/29/21	06/20/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2812 S 15TH ST	2812 S 15TH	2812 S 15TH ST	2812 S 15TH ST	2812 S 15TH	2815 S 15TH ST	2815 S 15TH ST	2820 S 15TH ST	2820 S 15TH	2820 S 15TH ST	2820 S 15TH ST	2820 S 15TH	2823 S 15TH	2823 S 15TH	2823 S 15TH ST	2823 S 15TH ST	2823 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.88	< 0.76	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.37	< 0.36	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.36	< 0.48	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.46	< 0.48	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.55	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1	< 0.66	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 0.44	< 0.67	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.3	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 0.82	< 0.54	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.24	< 0.47	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.32	< 0.44	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.44	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.32	< 0.38	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.38	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.35	< 0.4	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.36	< 0.48	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.32	< 0.36	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.3	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.38	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.26	< 0.4	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.65	< 0.46	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.38	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 1.1	< 0.78	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.84	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.54 J	0.6 J	< 0.39	0.5 J	0.57 J	< 0.39	< 0.39	0.78 J	0.72 J	0.64 J	0.67 J	0.77 J	0.75 J	0.72 J	0.6 J	0.52 J	0.84 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.36	< 0.51	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.23	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.55	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.32	< 0.37	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 0.72	< 0.75	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.34	< 0.47	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.32	< 0.3	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 1.1	< 0.77	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.46	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 1.1	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.28	< 0.46	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.33	< 0.44	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.38	< 0.44	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.43	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.31	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.61	< 0.45	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.33	< 0.54	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.42	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.38	< 0.38	NA	NA	< 0.38	NA	< 0.8	< 0.38	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.6	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.3	< 0.45	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.47	< 0.47	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.42	< 0.49	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.17	***0.22 J***	***0.3 J***	***0.22 J***	***0.32 J***	***0.31 J***	***0.24 J***	***0.22 J***	< 0.17	***0.2 J***	***0.23 J***
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.77	< 0.77	NA	NA	< 0.77	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2826 S 15TH ST				2827 S 15TH ST					2834 S 15TH ST					2908 S 15TH ST			
Original or Replacement Well:																					
Sample Date:				10/05/20	05/25/21	11/29/21	06/20/22	11/13/19	11/26/19	05/25/21	11/30/21	06/21/22	12/10/19	12/26/19	05/26/21	11/29/21	06/21/22	11/04/19	11/26/19	05/24/21	06/21/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2826 S 15TH ST	2826 S 15TH ST	2826 S 15TH ST	2826 S 15TH	2827 S 15TH ST	2827 S 15TH	2827 S 15TH ST	2827 S 15TH ST	2827 S 15TH	2834 S 15TH	2834 S 15TH	2834 S 15TH ST	2834 S 15TH ST	2834 S 15TH	2908 S 15TH ST	2908 S 15TH	2908 S 15TH ST	2908 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.88	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.37	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.36	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.46	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.44	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.3	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.82	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.24	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.32	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.39	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.32	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.31	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.35	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.36	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.32	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.33	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.26	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.65	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.39	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 1.1	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.44	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.8	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.65 J	0.41 J	0.53 J	0.74 J	0.78 J	0.77 J	0.47 J	0.63 J	0.8 J	0.62 J	0.71 J	0.44 J	0.59 J	0.65 J	1.01 J	0.85 J	0.78 J	0.73 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.36	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.23	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.45	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.32	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.72	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.34	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.32	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 1.1	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.28	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.33	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.38	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.32	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.61	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.26	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.38	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA	NA	< 0.8	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.3	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.42	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.17	**0.18 J**	***0.24 J***	< 0.2	**0.17 J**	***0.26 J***	***0.27 J***	***0.24 J***	***0.29 J***	< 0.17	< 0.17	***0.28 J***	***0.2 J***	***0.22 J***	***0.25 J***	***0.34 J***
Xylene (Total)	ug/l	2000	400	NA	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2911 S 15TH ST					2912 S 15TH ST					3019 S 15TH ST				3020 S 15TH ST			
Original or Replacement Well:																					
Sample Date:				12/10/19	12/26/19	08/19/21	11/22/21	06/20/22	11/08/19	11/26/19	05/28/21	11/30/21	06/20/22	11/07/19	06/01/21	11/22/21	11/22/21 (DUP)	11/11/19	05/27/21	11/22/21	06/22/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2911 S 15TH	2911 S 15TH	2911 S. 15TH ST.	2911 S 15TH ST	2911 S 15TH	2912 S 15TH ST	2912 S 15TH	2912 S 15TH ST	2912 S 15TH ST	2912 S 15TH	3019 S 15TH ST	3019 S 15TH ST	3019 S 15TH ST	112321 DUP	3020 S 15TH ST	3020 S 15TH ST	3020 S 15TH ST	3020 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.76	< 0.76	< 0.76	< 0.35	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.41	< 0.41	< 0.41	< 0.33	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.36	< 0.36	< 0.36	< 0.3	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.48	< 0.48	< 0.48	< 0.42	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.48	< 0.48	< 0.48	< 0.36	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.55	< 0.42	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 0.66	< 0.66	< 0.66	< 1.71	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 0.67	< 0.67	< 0.67	< 1.15	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 0.54	< 0.54	< 0.54	< 2.96	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.47	< 0.47	< 0.47	< 0.34	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.44	< 0.44	< 0.44	< 0.86	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.44	< 0.25	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.38	< 0.38	< 0.44	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.38	< 0.38	< 0.38	< 0.63	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.38	< 0.85	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.4	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.48	< 0.7	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.36	< 0.36	< 0.36	< 0.31	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.38	< 0.22	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.4	< 0.4	< 0.4	< 0.44	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.46	< 0.46	< 0.46	< 0.45	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.44	< 0.44	< 0.31	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.38	< 0.26	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.78	< 0.78	< 0.78	< 0.61	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.84	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.84 J	0.71 J	1.14 J	1.15 J	0.95 J	0.76 J	0.85 J	1.08 J	0.8 J	1.22 J	0.97 J	0.89 J	0.89 J	0.93 J	0.81 J	0.77 J	0.91 J	0.82 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.51	< 0.51	< 0.51	< 0.26	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.55	< 0.32	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.37	< 0.37	< 0.37	< 0.26	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 0.75	< 0.75	< 0.75	< 1.34	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.47	< 0.47	< 0.47	< 0.21	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.3	< 0.3	< 0.3	< 0.78	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.77	< 0.77	< 0.77	< 0.43	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.46	< 0.28	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.46	< 0.46	< 0.46	< 0.71	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.44	< 0.44	< 0.44	< 0.61	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.44	< 0.44	< 0.44	< 0.29	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.43	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.31	< 0.79	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.45	< 0.45	< 0.45	< 0.25	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.54	< 0.54	< 0.54	< 0.38	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.42	< 0.19	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 0.8	< 0.8	< 0.38	< 0.38	NA	NA	< 0.8	< 0.38	< 0.38	NA	NA	< 0.38	< 0.38	< 0.38	< 0.8	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.6	< 0.34	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.45	< 0.45	< 0.45	< 0.32	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.47	< 0.47	< 0.3	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.49	< 0.49	< 0.49	< 0.35	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.31*** ***J***	***0.29*** ***J***	***0.43*** ***J***	***0.36*** ***J***	***0.26*** ***J***	***0.26*** ***J***	***0.35*** ***J***	***0.32*** ***J***	***0.32*** ***J***	***0.31*** ***J***	< 0.2	***0.26*** ***J***	***0.37*** ***J***	***0.42*** ***J***	< 0.2	**0.17** **J**	***0.42*** ***J***	***0.32*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.77	< 0.77	< 0.77	< 0.43	< 0.77	< 0.77	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3027 S 15TH ST					3028 S 15TH ST					3107 S 15TH ST			3113 S 15TH ST	
Original or Replacement Well:																		
Sample Date:				11/04/19	11/26/19	05/26/21	11/22/21	06/27/22	11/11/19	11/26/19	05/26/21	11/29/21	06/21/22	12/18/19	11/17/20	06/27/22	11/06/19	06/22/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Basement Tap	Basement Tap
Field Sample ID:				3027 S 15TH ST	3027 S 15TH	3027 S 15TH ST	3027 S 15TH ST	3027 S 15TH	3028 S 15TH ST	3028 S 15TH	3028 S 15TH ST	3028 S 15TH ST	3028 S 15TH	3107 S 15TH	3107 S 15TH ST	3107 S 15TH	3113 S 15TH ST	3113 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.88	< 0.55	< 0.35	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.37	< 0.43	< 0.3	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.36	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.46	< 0.43	< 0.36	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.5	< 0.43	< 0.42	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1	< 1.4	< 1.71	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 0.44	< 0.63	< 1.15	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.3	< 0.35	< 0.8	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 0.82	< 0.74	< 2.96	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.24	< 0.39	< 0.34	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.32	< 0.4	< 0.86	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.39	< 0.43	< 0.25	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.32	< 0.41	< 0.63	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.31	< 0.35	< 0.85	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.35	< 0.38	< 0.3	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.36	< 0.49	< 0.7	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.32	< 0.34	< 0.31	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.3	< 0.4	< 0.26	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.33	< 0.3	< 0.22	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.26	< 0.34	< 0.44	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.36	< 0.33	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.65	< 0.42	< 0.45	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.34	< 0.31	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.39	< 0.29	< 0.26	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 1.1	< 0.62	< 0.61	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.44	< 0.33	< 0.26	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.8	< 0.74	< 0.54	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.95 J	0.85 J	0.65 J	0.76 J	0.83 J	1.07 J	0.94 J	0.81 J	0.95 J	0.78 J	0.76 J	1.13 J	0.82 J	< 0.37	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.36	< 0.41	< 0.26	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.23	< 0.36	< 0.22	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.45	< 0.3	< 0.32	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.32	< 0.33	< 0.26	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 0.72	< 0.81	< 1.34	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.34	< 0.48	< 0.21	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.32	< 0.34	< 0.78	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 1.1	< 0.64	< 0.43	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.79	< 1.32	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.47	< 0.47	< 0.28	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.1	< 1.4	< 2.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.28	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.33	< 0.39	< 0.61	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.38	< 0.37	< 0.29	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.47	< 0.47	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.32	< 0.33	< 0.79	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.61	< 0.37	< 0.25	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.33	< 0.47	< 0.38	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.26	< 0.33	< 0.19	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.38	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA	< 0.8	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.37	< 0.5	< 0.34	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.3	< 0.41	< 0.32	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.42	< 0.33	< 0.35	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.23*** ***J***	***0.23*** ***J***	**0.18** J	***0.45*** ***J***	***0.39*** ***J***	***0.28*** ***J***	***0.21*** ***J***	***0.29*** ***J***	***0.25*** ***J***	***0.35*** ***J***	***0.24*** ***J***	***0.3*** ***J***	***0.46*** ***J***	< 0.2	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	NA	NA	< 0.43	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3126 S 15TH ST					3127 S 15TH ST			3131/3201 S 15TH ST						3202 S 15TH ST		
Original or Replacement Well:																				
Sample Date:				11/07/19	11/26/19	05/24/21	11/22/21	06/21/22	12/18/19	06/02/21	06/22/22	05/24/21	11/29/21	11/29/21 (DUP)	06/23/22	12/02/19	10/12/20	12/18/19	06/01/21	06/21/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap	Sample Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				3126 S 15TH ST	3126 S 15TH	3126 S 15TH ST	3126 S 15TH ST	3126 S 15TH	3127 S 15TH	3127 S 15TH ST	3127 S 15TH	3131 S 15TH ST	3131 S 15TH ST	112921 DUP	3131 S 15TH	3201 S 15TH	3201 S 15TH	3202 S. 15TH	3202 S 15TH ST	3202 S 15TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.76	< 0.76	< 0.76	< 0.55	< 0.35	< 2	< 0.35	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.41	< 0.41	< 0.41	< 0.33	< 0.33	< 2	< 0.33	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.36	< 0.36	< 0.36	< 0.43	< 0.3	< 0.5	< 0.3	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.48	< 0.48	< 0.48	< 0.42	< 0.42	< 2	< 0.42	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.48	< 0.48	< 0.48	< 0.43	< 0.36	< 2	< 0.36	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.55	< 0.55	< 0.55	< 0.43	< 0.42	< 2	< 0.42	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 0.66	< 0.66	< 0.66	< 1.4	< 1.71	< 2	< 1.71	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 0.67	< 0.67	< 0.67	< 0.63	< 1.15	< 2	< 1.15	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.8	< 2	< 0.8	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 0.54	< 0.54	< 0.54	< 0.74	< 2.96	< 1	< 2.96	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.47	< 0.47	< 0.47	< 0.39	< 0.34	< 0.5	< 0.34	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.44	< 0.44	< 0.44	< 0.4	< 0.86	< 2	< 0.86	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.44	< 0.44	< 0.44	< 0.43	< 0.25	< 2	< 0.25	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44	< 2	< 0.44	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.38	< 0.38	< 0.38	< 0.41	< 0.63	< 2	< 0.63	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.38	< 0.38	< 0.38	< 0.35	< 0.85	< 2	< 0.85	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.4	< 0.4	< 0.4	< 0.38	< 0.3	< 2	< 0.3	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.48	< 0.48	< 0.48	< 0.49	< 0.7	< 2	< 0.7	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.36	< 0.36	< 0.36	< 0.34	< 0.31	< 2	< 0.31	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.26	< 2	< 0.26	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.38	< 0.38	< 0.38	< 0.3	< 0.22	< 2	< 0.22	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.4	< 0.4	< 0.4	< 0.34	< 0.44	< 2	< 0.44	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.47	< 0.47	< 0.47	< 0.36	< 0.33	< 2	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.46	< 0.46	< 0.46	< 0.42	< 0.45	< 2	< 0.45	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.44	< 0.44	< 0.44	< 0.34	< 0.31	< 2	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.38	< 0.38	< 0.38	< 0.29	< 0.26	< 2	< 0.26	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.78	< 0.78	< 0.78	< 0.62	< 0.61	< 2	< 0.61	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.4	< 0.4	< 0.4	< 0.33	**0.67 J**	< 2	< 0.26	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.84	< 0.84	< 0.84	< 0.74	< 0.54	< 2	< 0.54	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.8 J	0.73 J	0.87 J	0.91 J	0.62 J	0.6 J	0.64 J	0.78 J	0.46 J	0.47 J	0.39 J	0.38 J	0.44 J	< 2	**0.37 J**	**0.52 J**	**0.39 J**
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.51	< 0.51	< 0.51	< 0.41	< 0.26	< 2	< 0.26	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.45	< 0.45	< 0.45	< 0.36	< 0.22	< 2	< 0.22	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.55	< 0.55	< 0.55	< 0.3	< 0.32	< 2	< 0.32	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.37	< 0.37	< 0.37	< 0.33	< 0.26	< 2	< 0.26	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 0.75	< 0.75	< 0.75	< 0.81	< 1.34	< 2	< 1.34	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.47	< 0.47	< 0.47	< 0.48	< 0.21	< 2	< 0.21	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.3	< 0.3	< 0.3	< 0.34	< 0.78	< 2	< 0.78	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.77	< 0.77	< 0.77	< 0.64	< 0.43	< 2	< 0.43	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 0.89	< 0.89	< 0.89	< 0.79	< 1.32	< 2	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.46	< 0.46	< 0.46	< 0.47	< 0.28	< 2	< 0.28	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 2.1	< 2	< 2.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.46	< 0.46	< 0.46	< 0.71	< 0.71	< 2	< 0.71	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.44	< 0.44	< 0.44	< 0.39	< 0.61	< 2	< 0.61	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.44	< 0.44	< 0.44	< 0.37	< 0.29	< 2	< 0.29	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.43	< 0.43	< 0.43	< 0.47	< 0.24	< 2	< 0.24	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.31	< 0.31	< 0.31	< 0.33	< 0.79	< 2	< 0.79	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.45	< 0.45	< 0.45	< 0.37	< 0.25	< 2	< 0.25	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.54	< 0.54	< 0.54	< 0.47	< 0.38	< 2	< 0.38	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.42	< 0.42	< 0.42	< 0.33	< 0.19	< 2	< 0.19	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.38	< 0.38	NA	< 0.8	< 0.38	NA	< 0.38	< 0.38	< 0.38	NA	< 0.8	< 2	< 0.8	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.6	< 0.6	< 0.6	< 0.5	< 0.34	< 2	< 0.34	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.45	< 0.45	< 0.45	< 0.41	< 0.32	< 0.5	< 0.32	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3	< 2	< 0.3	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.49	< 0.49	< 0.49	< 0.33	< 0.35	< 2	< 0.35	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.21 J***	***0.24 J***	***0.21 J***	***0.36 J***	***0.32 J***	< 0.2	***0.2 J***	***0.43 J***	< 0.17	< 0.17	< 0.17	***0.24 J***	< 0.2	***0.22***	< 0.2	**0.18 J**	< 0.15
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.77	NA	< 0.77	< 0.77	< 0.77	NA	< 0.43	< 2	< 0.43	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3209/3217 S 15TH ST						3301 S 15TH ST			3304 S 15TH ST			3305 S 15TH ST			3326 S 15TH ST	3405 S 15TH ST	
Original or Replacement Well:																					
Sample Date:				12/02/19	12/18/19	05/26/20	06/22/22	06/02/21	11/30/21	01/12/20	06/10/20	06/20/22	10/05/20	06/02/21	06/27/22	10/05/20	05/28/21	06/27/22	05/27/21	11/04/19	10/05/20
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap	Sample Tap
Field Sample ID:				3209 S 15TH ST	3209 S 15TH	3209 S 15 ST	3209 S 15TH	3217 S 15TH ST	3217 S 15TH ST	3301 S 15TH ST	3301 S. 15TH	3301 S 15TH	3304 S 15TH ST	3304 S 15TH ST	3304 S 15TH	3305 S 15TH ST	3305 S 15TH ST	3305 S 15TH	3326 S 15TH ST	3405 S 15TH ST	3405 S 15TH ST
Sampling Company:				AECOM	AECOM	BRANCH	AECOM	AECOM	AECOM	WI_SLH	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.63	< 0.55	< 0.76	< 0.76	< 2	< 0.88	< 0.55	< 0.88	< 0.76	< 0.55	< 0.88	< 0.76	< 0.55	< 0.76	< 0.35	< 0.88
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.31	< 0.33	< 0.41	< 0.41	< 2	< 0.3	< 0.33	< 0.3	< 0.41	< 0.33	< 0.3	< 0.41	< 0.33	< 0.41	< 0.33	< 0.3
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.33	< 0.43	< 0.36	< 0.36	< 0.5	< 0.37	< 0.43	< 0.37	< 0.36	< 0.43	< 0.37	< 0.36	< 0.43	< 0.36	< 0.3	< 0.37
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.4	< 0.42	< 0.48	< 0.48	< 2	< 0.36	< 0.42	< 0.36	< 0.48	< 0.42	< 0.36	< 0.48	< 0.42	< 0.48	< 0.42	< 0.36
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.29	< 0.43	< 0.48	< 0.48	< 2	< 0.46	< 0.43	< 0.46	< 0.48	< 0.43	< 0.46	< 0.48	< 0.43	< 0.48	< 0.36	< 0.46
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.34	< 0.43	< 0.55	< 0.55	< 2	< 0.5	< 0.43	< 0.5	< 0.55	< 0.43	< 0.5	< 0.55	< 0.43	< 0.55	< 0.42	< 0.5
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	< 0.33	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	NA	< 1.4	< 0.66	< 0.66	< 2	< 1	< 1.4	< 1	< 0.66	< 1.4	< 1	< 0.66	< 1.4	< 0.66	< 1.71	< 1
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	< 0.57	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.39	< 0.63	< 0.67	< 0.67	< 2	< 0.44	< 0.63	< 0.44	< 0.67	< 0.63	< 0.44	< 0.67	< 0.63	< 0.67	< 1.15	< 0.44
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.3	< 0.35	< 0.35	< 0.35	< 2	< 0.3	< 0.35	< 0.3	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35	< 0.35	< 0.8	< 0.3
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	NA	< 0.74	< 0.54	< 0.54	< 1	< 0.82	< 0.74	< 0.82	< 0.54	< 0.74	< 0.82	< 0.54	< 0.74	< 0.54	< 2.96	< 0.82
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	NA	< 0.39	< 0.47	< 0.47	< 0.5	< 0.24	< 0.39	< 0.24	< 0.47	< 0.39	< 0.24	< 0.47	< 0.39	< 0.47	< 0.34	< 0.24
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.35	< 0.4	< 0.44	< 0.44	< 2	< 0.32	< 0.4	< 0.32	< 0.44	< 0.4	< 0.32	< 0.44	< 0.4	< 0.44	< 0.86	< 0.32
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.41	< 0.43	< 0.44	< 0.44	< 2	< 0.39	< 0.43	< 0.39	< 0.44	< 0.43	< 0.39	< 0.44	< 0.43	< 0.44	< 0.25	< 0.39
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.42	< 0.39	< 0.38	< 0.38	< 2	< 0.38	< 0.39	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.39	< 0.38	< 0.44	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.33	< 0.41	< 0.38	< 0.38	< 2	< 0.32	< 0.41	< 0.32	< 0.38	< 0.41	< 0.32	< 0.38	< 0.41	< 0.38	< 0.63	< 0.32
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.31	< 0.35	< 0.38	< 0.38	2	< 0.31	< 0.35	< 0.31	< 0.38	< 0.35	< 0.31	< 0.38	< 0.35	< 0.38	< 0.85	< 0.31
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.44	< 0.38	< 0.4	< 0.4	< 2	< 0.35	< 0.38	< 0.35	< 0.4	< 0.38	< 0.35	< 0.4	< 0.38	< 0.4	< 0.3	< 0.35
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.3	< 0.49	< 0.48	< 0.48	2	< 0.36	< 0.49	< 0.36	< 0.48	< 0.49	< 0.36	< 0.48	< 0.49	< 0.48	< 0.7	< 0.36
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	< 0.38	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.45	< 0.34	< 0.36	< 0.36	< 2	< 0.32	< 0.34	< 0.32	< 0.36	< 0.34	< 0.32	< 0.36	< 0.34	< 0.36	< 0.31	< 0.32
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.34	< 0.4	< 0.4	< 0.4	< 2	< 0.3	< 0.4	< 0.3	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4	< 0.4	< 0.26	< 0.3
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.29	< 0.3	< 0.38	< 0.38	< 2	< 0.33	< 0.3	< 0.33	< 0.38	< 0.3	< 0.33	< 0.38	< 0.3	< 0.38	< 0.22	< 0.33
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.27	< 0.34	< 0.4	< 0.4	< 2	< 0.26	< 0.34	< 0.26	< 0.4	< 0.34	< 0.26	< 0.4	< 0.34	< 0.4	< 0.44	< 0.26
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.46	< 0.36	< 0.47	< 0.47	< 2	< 0.33	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.47	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.28	< 0.42	< 0.46	< 0.46	< 2	< 0.65	< 0.42	< 0.65	< 0.46	< 0.42	< 0.65	< 0.46	< 0.42	< 0.46	< 0.45	< 0.65
Bromomethane	ug/l	10	1	NA	NA	< 1.2	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.41	< 0.34	< 0.44	< 0.44	< 2	< 0.31	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.44	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.28	< 0.29	< 0.38	< 0.38	< 2	< 0.39	< 0.29	< 0.39	< 0.38	< 0.29	< 0.39	< 0.38	< 0.29	< 0.38	< 0.26	< 0.39
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.62	< 0.78	< 0.78	< 2	< 1.1	< 0.62	< 1.1	< 0.78	< 0.62	< 1.1	< 0.78	< 0.62	< 0.78	< 0.61	< 1.1
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.63	< 0.33	< 0.4	< 0.4	< 2	< 0.44	< 0.33	< 0.44	< 0.4	< 0.33	< 0.44	< 0.4	< 0.33	< 0.4	< 0.26	< 0.44
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.74	< 0.84	< 0.84	< 2	< 0.8	< 0.74	< 0.8	< 0.84	< 0.74	< 0.8	< 0.84	< 0.74	< 0.84	< 0.54	< 0.8
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.51 J	0.37 J	0.47 J	0.53 J	< 0.39	< 0.39	< 2	< 0.39	**0.32** J	< 0.39	< 0.39	< 0.32	< 0.39	< 0.39	< 0.32	< 0.39	< 0.37	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.34	< 0.41	< 0.51	< 0.51	< 2	< 0.36	< 0.41	< 0.36	< 0.51	< 0.41	< 0.36	< 0.51	< 0.41	< 0.51	< 0.26	< 0.36
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.3	< 0.36	< 0.45	< 0.45	< 2	< 0.23	< 0.36	< 0.23	< 0.45	< 0.36	< 0.23	< 0.45	< 0.36	< 0.45	< 0.22	< 0.23
Dibromomethane	ug/l	NL	NL	NA	NA	< 0.47	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.41	< 0.3	< 0.55	< 0.55	< 2	< 0.45	< 0.3	< 0.45	< 0.55	< 0.3	< 0.45	< 0.55	< 0.3	< 0.55	< 0.32	< 0.45
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.41	< 0.33	< 0.37	< 0.37	< 2	< 0.32	< 0.33	< 0.32	< 0.37	< 0.33	< 0.32	< 0.37	< 0.33	< 0.37	< 0.26	< 0.32
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.52	< 0.81	< 0.75	< 0.75	< 2	< 0.72	< 0.81	< 0.72	< 0.75	< 0.81	< 0.72	< 0.75	< 0.81	< 0.75	< 1.34	< 0.72
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	NA	< 0.48	< 0.47	< 0.47	< 2	< 0.34	< 0.48	< 0.34	< 0.47	< 0.48	< 0.34	< 0.47	< 0.48	< 0.47	< 0.21	< 0.34
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.26	< 0.34	< 0.3	< 0.3	< 2	< 0.32	< 0.34	< 0.32	< 0.3	< 0.34	< 0.32	< 0.3	< 0.34	< 0.3	< 0.78	< 0.32
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.78	< 0.64	< 0.77	< 0.77	< 2	< 1.1	< 0.64	< 1.1	< 0.77	< 0.64	< 1.1	< 0.77	< 0.64	< 0.77	< 0.43	< 1.1
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.51	< 0.79	< 0.89	< 0.89	< 2	< 1.32	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 0.89	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.42	< 0.47	< 0.46	< 0.46	< 2	< 0.47	< 0.47	< 0.47	< 0.46	< 0.47	< 0.47	< 0.46	< 0.47	< 0.46	< 0.28	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 0.58	< 1.4	< 1.4	< 1.4	< 2	< 1.1	< 1.4	< 1.1	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.1
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	NA	< 0.71	< 0.46	< 0.46	< 2	< 0.28	< 0.71	< 0.28	< 0.46	< 0.71	< 0.28	< 0.46	< 0.71	< 0.46	< 0.71	< 0.28
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	NA	< 0.39	< 0.44	< 0.44	< 2	< 0.33	< 0.39	< 0.33	< 0.44	< 0.39	< 0.33	< 0.44	< 0.39	< 0.44	< 0.61	< 0.33
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.37	< 0.37	< 0.44	< 0.44	< 2	< 0.38	< 0.37	< 0.38	< 0.44	< 0.37	< 0.38	< 0.44	< 0.37	< 0.44	< 0.29	< 0.38
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.36	< 0.47	< 0.43	< 0.43	2	< 0.47	< 0.47	< 0.47	< 0.43	< 0.47	< 0.47	< 0.43	< 0.47	< 0.43	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	NA	< 0.33	< 0.31	< 0.31	2	< 0.32	< 0.33	< 0.32	< 0.31	< 0.33	< 0.32	< 0.31	< 0.33	< 0.31	< 0.79	< 0.32
Styrene	ug/l	100	10	NA	NA	< 0.35	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	NA	< 0.37	< 0.45	< 0.45	< 2	< 0.61	< 0.37	< 0.61	< 0.45	< 0.37	< 0.61	< 0.45	< 0.37	< 0.45	< 0.25	< 0.61
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.28	< 0.47	< 0.54	< 0.54	< 2	< 0.33	< 0.47	< 0.33	< 0.54	< 0.47	< 0.33	< 0.54	< 0.47	< 0.54	< 0.38	< 0.33
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.29	< 0.33	< 0.42	< 0.42	< 2	< 0.26	< 0.33	< 0.26	< 0.42	< 0.33	< 0.26	< 0.42	< 0.33	< 0.42	< 0.19	< 0.26
Total Trimethylbenzene	ug/l	480	96	< 0.8	< 0.8	< 0.33	NA	< 0.38	< 0.38	< 2	< 0.32	NA	NA	< 0.38	NA	NA	< 0.38	NA	< 0.38	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.5	< 0.6	< 0.6	< 2	< 0.37	< 0.5	< 0.37	< 0.6	< 0.5	< 0.37	< 0.6	< 0.5	< 0.6	< 0.34	< 0.37
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.33	< 0.41	< 0.45	< 0.45	< 0.5	< 0.3	< 0.41	< 0.3	< 0.45	< 0.41	< 0.3	< 0.45	< 0.41	< 0.45	< 0.32	< 0.3
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.42	< 0.38	< 0.47	< 0.47	< 2	< 0.47	< 0.38	< 0.47	< 0.47	< 0.38	< 0.47	< 0.47	< 0.38	< 0.47	< 0.3	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.34	< 0.33	< 0.49	< 0.49	< 2	< 0.42	< 0.33	< 0.42	< 0.49	< 0.33	< 0.42	< 0.49	< 0.33	< 0.49	< 0.35	< 0.42
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.2*** ***J***	< 0.2	< 0.2	< 0.15	< 0.17	< 0.17	< 0.2	< 0.2	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.17	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.78	NA	< 0.77	< 0.77	< 2	< 1.1	NA	NA	< 0.77	NA	NA	< 0.77	NA	< 0.77	< 0.43	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3408 S 15TH ST	3415 S 15TH ST	3421 S 15TH ST	3615 S 15TH ST	3627 S 15TH ST	3708 S 15TH ST	3709 S 15TH ST	3712 S 15TH	3717 S 15TH ST	3722 S 15TH ST	3727 S 15TH ST	3804 S 15TH ST	3805 S 15TH ST	3813 S 15TH ST	3819 S 15TH ST	3917 S 18TH ST	3933 S 18TH ST	4007 S 18TH ST
Original or Replacement Well:																					
Sample Date:				11/12/19	11/06/19	12/26/19	11/06/19	12/18/19	11/05/19	11/26/19	02/21/20	11/26/19	11/26/19	12/02/19	12/10/19	11/06/19	11/22/19	12/18/19	11/05/19	11/05/19	11/18/19
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Basement Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				3408 S 15TH ST	3415 S 15TH ST	3421 S 15TH	3615 S 15TH ST	3627 S 15TH	3708 S 15TH ST	3709 S 15TH	3712 S 15TH	3717 S 15TH	3722 S 15TH	3727 S 15TH	3804 S 15TH	3805 S 15TH ST	3813 S 15TH	3819 S 15TH	3917 S 18TH ST	3933 S 18TH ST	4007 S 18TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.39	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	< 0.8	NA	< 0.8	NA	< 0.8	NA	< 0.8	< 0.32	< 0.8	< 0.8	< 0.8	< 0.8	NA	< 0.8	< 0.8	NA	NA	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4008 S 18TH ST	4031 S 18TH ST	2733 S 19TH ST				2805 S 19TH ST			2821 S 19TH ST					
Original or Replacement Well:																		
Sample Date:				11/05/19	12/18/19	12/18/19	06/04/21	06/29/22	06/29/22 (DUP)	11/07/19	06/03/21	06/22/22	11/06/19	05/26/21	05/26/21 (DUP)	11/22/21	03/11/22	06/20/22
Sample Source:				Basement Tap	Sample Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot
Field Sample ID:				4008 S 18TH ST	4031 S 18TH	2733 S 19TH	2733 S 19TH ST	2733 S 19TH	062922 DUP	2805 S 19TH ST	2805 S 19TH ST	2805 S 19TH	2821 S 19TH ST	2821 S 19TH ST	FD052621	2821 S 19TH ST	2821 S 19TH ST	2821 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.76	< 0.55	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.76	< 0.76	< 0.55	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.41	< 0.41	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.36	< 0.43	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.36	< 0.36	< 0.43	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.48	< 0.48	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.48	< 0.43	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.48	< 0.48	< 0.43	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.55	< 0.43	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.55	< 0.43	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 0.66	< 1.4	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 0.66	< 0.66	< 1.4	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 0.67	< 0.63	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.67	< 0.67	< 0.63	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 0.54	< 0.74	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.54	< 0.54	< 0.74	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.47	< 0.39	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.47	< 0.47	< 0.39	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.44	< 0.4	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.44	< 0.44	< 0.4	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.44	< 0.43	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.44	< 0.43	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.38	< 0.39	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.38	< 0.41	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.38	< 0.38	< 0.41	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.38	< 0.35	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.38	< 0.35	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.4	< 0.38	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.4	< 0.4	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.48	< 0.49	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.48	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.36	< 0.34	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.36	< 0.36	< 0.34	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.38	< 0.3	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.38	< 0.3	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.4	< 0.34	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.4	< 0.4	< 0.34	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.47	< 0.47	< 0.36	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.46	< 0.42	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.46	< 0.46	< 0.42	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.44	< 0.44	< 0.34	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.38	< 0.29	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.38	< 0.29	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.78	< 0.62	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.78	< 0.78	< 0.62	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.4	< 0.33	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.4	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.84	< 0.74	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.84	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.39	< 0.32	< 0.32	< 0.37	< 0.39	0.47 J	0.79 J	0.73 J	0.7 J	0.91 J	1.04 J	1.11 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.51	< 0.41	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.51	< 0.51	< 0.41	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.36	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.45	< 0.45	< 0.36	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.55	< 0.3	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.55	< 0.3	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.37	< 0.33	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.37	< 0.37	< 0.33	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 0.75	< 0.81	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.75	< 0.75	< 0.81	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.47	< 0.48	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.47	< 0.47	< 0.48	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.3	< 0.34	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.3	< 0.3	< 0.34	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.77	< 0.64	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.77	< 0.77	< 0.64	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.46	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.46	< 0.47	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.46	< 0.46	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.44	< 0.39	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.44	< 0.44	< 0.39	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.44	< 0.37	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.44	< 0.44	< 0.37	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.43	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.43	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.31	< 0.33	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.31	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.45	< 0.37	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.45	< 0.45	< 0.37	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.54	< 0.47	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.54	< 0.54	< 0.47	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.42	< 0.33	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.42	< 0.33	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.8	< 0.38	NA	NA	NA	< 0.38	NA	NA	< 0.38	< 0.38	< 0.38	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.6	< 0.5	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.6	< 0.5	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.45	< 0.41	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.45	< 0.45	< 0.41	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.47	< 0.38	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.49	< 0.33	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	**0.18 J**	***0.24 J***	< 0.17	***0.54 J***	***0.3 J***
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.77	NA	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	< 0.77	< 0.77	NA	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2824/2828/2904 S 19TH ST					2833 S 19TH ST			2917 S 19TH ST					2918 S 19TH ST				
Original or Replacement Well:																					
Sample Date:				06/02/21	06/23/22	11/22/21	02/07/20	02/21/20	11/06/19	05/26/21	06/20/22	11/11/19	12/02/19	05/24/21	11/22/21	06/22/22	11/08/19	11/26/19	06/01/21	11/22/21	06/21/22
Sample Source:				Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot
Field Sample ID:				2824 S 19TH ST	2824 S 19TH	24/2828/2904 S 19TH	2828 S 19TH	2828 S 19TH	2833 S 19TH ST	2833 S 19TH ST	2833 S 19TH	2917 S 19TH ST	2917 S 19TH	2917 S 19TH ST	2917 S 19TH ST	2917 S 19TH	2918 S 19TH ST	2918 S 19TH	2918 S 19TH ST	2918 S 19TH ST	2918 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.55	< 0.76	< 0.35	< 0.88	< 0.35	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.33	< 0.41	< 0.33	< 0.3	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.43	< 0.36	< 0.3	< 0.37	< 0.3	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.42	< 0.48	< 0.42	< 0.36	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.43	< 0.48	< 0.36	< 0.46	< 0.36	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.55	< 0.42	< 0.5	< 0.42	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 1.4	< 0.66	< 1.71	< 1	< 1.71	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.63	< 0.67	< 1.15	< 0.44	< 1.15	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.8	< 0.3	< 0.8	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.74	< 0.54	< 2.96	< 0.82	< 2.96	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.39	< 0.47	< 0.34	< 0.24	< 0.34	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.4	< 0.44	< 0.86	< 0.32	< 0.86	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.44	< 0.25	< 0.39	< 0.25	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.38	< 0.44	< 0.38	< 0.44	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.41	< 0.38	< 0.63	< 0.32	< 0.63	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.38	< 0.85	< 0.31	< 0.85	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.38	< 0.4	< 0.3	< 0.35	< 0.3	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.48	< 0.7	< 0.36	< 0.7	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.34	< 0.36	< 0.31	< 0.32	< 0.31	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.4	< 0.26	< 0.3	< 0.26	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.38	< 0.22	< 0.33	< 0.22	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.34	< 0.4	< 0.44	< 0.26	< 0.44	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.36	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.42	< 0.46	< 0.45	< 0.65	< 0.45	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.34	< 0.44	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.38	< 0.26	< 0.39	< 0.26	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.78	< 0.62	< 0.78	< 0.61	< 1.1	< 0.61	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.4	< 0.26	< 0.44	< 0.26	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.84	< 0.54	< 0.8	< 0.54	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.48 J	0.93 J	1.16 J	1.06 J	1.12 J	< 0.37	< 0.39	< 0.32	1.08 J	1.18	0.82 J	1.26 J	0.94 J	0.92 J	1.05 J	1.11 J	1.01 J	0.88 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.41	< 0.51	< 0.26	< 0.36	< 0.26	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.36	< 0.45	< 0.22	< 0.23	< 0.22	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.55	< 0.32	< 0.45	< 0.32	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.37	< 0.33	< 0.37	< 0.26	< 0.32	< 0.26	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.81	< 0.75	< 1.34	< 0.72	< 1.34	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.48	< 0.47	< 0.21	< 0.34	< 0.21	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.34	< 0.3	< 0.78	< 0.32	< 0.78	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.64	< 0.77	< 0.43	< 1.1	< 0.43	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 0.89	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.46	< 0.28	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 1.4	< 2.1	< 1.1	< 2.1	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.71	< 0.46	< 0.71	< 0.28	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.39	< 0.44	< 0.61	< 0.33	< 0.61	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.44	< 0.37	< 0.44	< 0.29	< 0.38	< 0.29	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.43	< 0.24	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.31	< 0.79	< 0.32	< 0.79	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.37	< 0.45	< 0.25	< 0.61	< 0.25	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.47	< 0.54	< 0.38	< 0.33	< 0.38	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.42	< 0.19	< 0.26	< 0.19	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 0.38	NA	< 0.38	< 0.8	< 0.32	NA	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA	NA	< 0.8	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.6	< 0.34	< 0.37	< 0.34	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.41	< 0.45	< 0.32	< 0.3	< 0.32	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.47	< 0.3	< 0.47	< 0.3	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.33	< 0.49	< 0.35	< 0.42	< 0.35	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.17	***0.47*** ***J***	***0.45*** ***J***	***0.35*** ***J***	***0.29*** ***J***	< 0.2	< 0.17	< 0.15	***0.31*** ***J***	***0.44*** ***J***	***0.24*** ***J***	***0.4*** ***J***	***0.4*** ***J***	***0.23*** ***J***	***0.3*** ***J***	***0.31*** ***J***	***0.35*** ***J***	***0.37*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.77	NA	< 0.77	< 0.43	< 1.1	< 0.43	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2929 S 19TH ST		2930 S 19TH ST		3003 S 19TH ST				3006/3008 S 19TH					3011 S 19TH ST				
Original or Replacement Well:																					
Sample Date:				06/04/21	06/22/22	11/06/19	06/01/21	10/05/20	05/28/21	11/22/21	06/21/22	02/21/20	10/05/20	06/02/21	11/29/21	06/24/22	12/18/19	12/26/19	05/24/21	11/22/21	06/20/22
Sample Source:				Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				2929 S 19TH ST	2929 S 19TH	2930 S 19TH ST	2930 S 19TH ST	3003 S 19TH ST	3003 S 19TH ST	3003 S 19TH ST	3003 S 19TH	3008 S 19TH	3008 S 19TH ST	3008 S 19TH ST	3008 S 19TH ST	3008 S 19TH	3011 S 19TH	3011 S 19TH	3011 S 19TH ST	3011 S 19TH ST	3011 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.76	< 0.55	< 0.35	< 0.76	< 0.88	< 0.76	< 0.76	< 0.55	< 0.88	< 0.88	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.41	< 0.33	< 0.33	< 0.41	< 0.3	< 0.41	< 0.41	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.36	< 0.43	< 0.3	< 0.36	< 0.37	< 0.36	< 0.36	< 0.43	< 0.37	< 0.37	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.48	< 0.42	< 0.42	< 0.48	< 0.36	< 0.48	< 0.48	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.48	< 0.43	< 0.36	< 0.48	< 0.46	< 0.48	< 0.48	< 0.43	< 0.46	< 0.46	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.55	< 0.43	< 0.42	< 0.55	< 0.5	< 0.55	< 0.55	< 0.43	< 0.5	< 0.5	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.66	< 1.4	< 1.71	< 0.66	< 1	< 0.66	< 0.66	< 1.4	< 1	< 1	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.67	< 0.63	< 1.15	< 0.67	< 0.44	< 0.67	< 0.67	< 0.63	< 0.44	< 0.44	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.8	< 0.35	< 0.3	< 0.35	< 0.35	< 0.35	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.54	< 0.74	< 2.96	< 0.54	< 0.82	< 0.54	< 0.54	< 0.74	< 0.82	< 0.82	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.47	< 0.39	< 0.34	< 0.47	< 0.24	< 0.47	< 0.47	< 0.39	< 0.24	< 0.24	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.44	< 0.4	< 0.86	< 0.44	< 0.32	< 0.44	< 0.44	< 0.4	< 0.32	< 0.32	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.44	< 0.43	< 0.25	< 0.44	< 0.39	< 0.44	< 0.44	< 0.43	< 0.39	< 0.39	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.38	< 0.41	< 0.63	< 0.38	< 0.32	< 0.38	< 0.38	< 0.41	< 0.32	< 0.32	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.38	< 0.35	< 0.85	< 0.38	< 0.31	< 0.38	< 0.38	< 0.35	< 0.31	< 0.31	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.4	< 0.38	< 0.3	< 0.4	< 0.35	< 0.4	< 0.4	< 0.38	< 0.35	< 0.35	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.48	< 0.49	< 0.7	< 0.48	< 0.36	< 0.48	< 0.48	< 0.49	< 0.36	< 0.36	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.34	< 0.31	< 0.36	< 0.32	< 0.36	< 0.36	< 0.34	< 0.32	< 0.32	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.26	< 0.4	< 0.3	< 0.4	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.38	< 0.3	< 0.22	< 0.38	< 0.33	< 0.38	< 0.38	< 0.3	< 0.33	< 0.33	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.4	< 0.34	< 0.44	< 0.4	< 0.26	< 0.4	< 0.4	< 0.34	< 0.26	< 0.26	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.47	< 0.36	< 0.33	< 0.47	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.46	< 0.42	< 0.45	< 0.46	< 0.65	< 0.46	< 0.46	< 0.42	< 0.65	< 0.65	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.44	< 0.34	< 0.31	< 0.44	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.38	< 0.29	< 0.26	< 0.38	< 0.39	< 0.38	< 0.38	< 0.29	< 0.39	< 0.39	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.78	< 0.62	< 0.61	< 0.78	< 1.1	< 0.78	< 0.78	< 0.62	< 1.1	< 1.1	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.4	< 0.33	< 0.26	< 0.4	< 0.44	< 0.4	< 0.4	< 0.33	< 0.44	< 0.44	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.84	< 0.74	< 0.54	< 0.84	< 0.8	< 0.84	< 0.84	< 0.74	< 0.8	< 0.8	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.87 J	0.94 J	0.65 J	0.79 J	0.61 J	0.62 J	0.63 J	0.53 J	0.89 J	0.76 J	0.59 J	1.15 J	0.9 J	0.83 J	0.95 J	0.97 J	0.89 J	1.13 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.51	< 0.41	< 0.26	< 0.51	< 0.36	< 0.51	< 0.51	< 0.41	< 0.36	< 0.36	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.36	< 0.22	< 0.45	< 0.23	< 0.45	< 0.45	< 0.36	< 0.23	< 0.23	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.55	< 0.3	< 0.32	< 0.55	< 0.45	< 0.55	< 0.55	< 0.3	< 0.45	< 0.45	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.37	< 0.33	< 0.26	< 0.37	< 0.32	< 0.37	< 0.37	< 0.33	< 0.32	< 0.32	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.75	< 0.81	< 1.34	< 0.75	< 0.72	< 0.75	< 0.75	< 0.81	< 0.72	< 0.72	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.47	< 0.48	< 0.21	< 0.47	< 0.34	< 0.47	< 0.47	< 0.48	< 0.34	< 0.34	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.3	< 0.34	< 0.78	< 0.3	< 0.32	< 0.3	< 0.3	< 0.34	< 0.32	< 0.32	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.77	< 0.64	< 0.43	< 0.77	< 1.1	< 0.77	< 0.77	< 0.64	< 1.1	< 1.1	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.89	< 0.79	< 1.32	< 0.89	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.46	< 0.46	< 0.47	< 0.47	< 0.47	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 2.1	< 1.4	< 1.1	< 1.4	< 1.4	< 1.4	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.46	< 0.71	< 0.71	< 0.46	< 0.28	< 0.46	< 0.46	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.44	< 0.39	< 0.61	< 0.44	< 0.33	< 0.44	< 0.44	< 0.39	< 0.33	< 0.33	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.44	< 0.37	< 0.29	< 0.44	< 0.38	< 0.44	< 0.44	< 0.37	< 0.38	< 0.38	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.43	< 0.43	< 0.47	< 0.47	< 0.47	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.31	< 0.33	< 0.79	< 0.31	< 0.32	< 0.31	< 0.31	< 0.33	< 0.32	< 0.32	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.45	< 0.37	< 0.25	< 0.45	< 0.61	< 0.45	< 0.45	< 0.37	< 0.61	< 0.61	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.54	< 0.47	< 0.38	< 0.54	< 0.33	< 0.54	< 0.54	< 0.47	< 0.33	< 0.33	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.42	< 0.33	< 0.19	< 0.42	< 0.26	< 0.42	< 0.42	< 0.33	< 0.26	< 0.26	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 0.38	NA	NA	< 0.38	NA	< 0.38	< 0.38	NA	< 0.32	NA	< 0.38	< 0.38	NA	< 0.8	< 0.8	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.6	< 0.5	< 0.34	< 0.6	< 0.37	< 0.6	< 0.6	< 0.5	< 0.37	< 0.37	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.45	< 0.41	< 0.32	< 0.45	< 0.3	< 0.45	< 0.45	< 0.41	< 0.3	< 0.3	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.49	< 0.33	< 0.35	< 0.49	< 0.42	< 0.49	< 0.49	< 0.33	< 0.42	< 0.42	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.28*** ***J***	***0.42*** ***J***	< 0.2	**0.18** J	< 0.2	***0.2*** ***J***	***0.29*** ***J***	***0.23*** ***J***	***0.22*** ***J***	***0.27*** ***J***	***0.27*** ***J***	***0.43*** ***J***	***0.48*** ***J***	***0.22*** ***J***	***0.45*** ***J***	***0.26*** ***J***	***0.4*** ***J***	***0.21*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.77	NA	< 0.43	< 0.77	NA	< 0.77	< 0.77	NA	< 1.1	NA	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3019 S 19TH ST					3109 S 19TH ST			3123 S 19TH ST			3202 S 19TH ST			3205 S 19TH ST		
Original or Replacement Well:																				
Sample Date:				11/05/19	11/26/19	05/24/21	11/22/21	06/23/22	11/06/19	11/26/19	11/22/21	10/05/20	08/19/21	06/23/22	11/12/19	05/27/21	06/22/22	02/21/20	06/02/21	06/24/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH ST	3019 S 19TH	3109 S 19TH ST	3109 S 19TH	3109 S 19TH ST	3123 S 19TH ST	3123 S. 19TH ST.	3123 S 19TH	3202 S 19TH ST	3202 S 19TH ST	3202 S 19TH	3205 S 19TH	3205 S 19TH ST	3205 S 19TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.88	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.88	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.3	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.3	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.37	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.37	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.36	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.36	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.46	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.46	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.5	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.5	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 1	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.44	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 0.44	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.3	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.82	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 0.82	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.24	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.24	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.32	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.32	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.39	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.39	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.32	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.32	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.31	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.31	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.35	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.35	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.36	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.36	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.32	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.32	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.3	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.33	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.33	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.26	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.26	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.65	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.65	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.39	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.39	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 1.1	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 1.1	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.44	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.44	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.8	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.8	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.98 J	0.86 J	0.8 J	1.07 J	0.95 J	1 J	0.87 J	0.87 J	1.16 J	1.02 J	0.75 J	< 0.37	< 0.39	< 0.32	< 0.39	< 0.39	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.36	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.36	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.23	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.23	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.45	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.45	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.32	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.32	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.72	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 0.72	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.34	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.34	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.32	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.32	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 1.1	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 1.1	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.47	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.47	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.28	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.28	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.33	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.33	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.38	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.38	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.47	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.47	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.32	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.32	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.61	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.61	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.33	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.33	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.26	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	0.28 J	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.8	< 0.38	< 0.38	NA	NA	< 0.8	< 0.38	NA	< 0.38	NA	< 0.8	< 0.38	NA	< 0.32	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.37	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.37	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.3	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.3	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.42	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.42	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.22 J***	***0.29 J***	***0.28 J***	***0.58 J***	***0.45 J***	***0.35 J***	***0.27 J***	***0.4 J***	***0.33 J***	***0.28 J***	***0.37 J***	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	**0.16 J**
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.77	NA	< 0.77	NA	< 0.43	< 0.77	NA	< 1.1	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3210 S 19TH ST			3304 S 19TH ST			3307 S 19TH ST			3310 S 19TH ST			3315 S 19TH ST		3319 S 19TH ST	3429 S 19TH ST	3503 S 19TH ST	3511 S 19TH ST
Original or Replacement Well:																					
Sample Date:				10/05/20	05/26/21	06/22/22	11/05/19	05/25/21	06/23/22	11/05/19	06/02/21	06/22/22	11/05/19	05/26/21	06/22/22	11/04/19	06/23/22	11/07/19	12/10/19	11/06/19	12/18/19
Sample Source:				Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				3210 S 19TH ST	3210 S 19TH ST	3210 S 19TH	3304 S 19TH ST	3304 S 19TH ST	3304 S 19TH	3307 S 19TH ST	3307 S 19TH ST	3307 S 19TH	3310 S 19TH ST	3310 S 19TH ST	3310 S 19TH	3315 S 19TH ST	3315 S 19TH	3319 S 19TH ST	3429 S 19TH	3503 S 19TH ST	3511 S 19TH ST
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.88	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.55	< 0.35	< 0.35	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.3	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.37	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.36	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.46	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.43	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 1.4	< 1.71	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.44	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.63	< 1.15	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.3	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.82	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.74	< 2.96	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.24	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.39	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.32	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.4	< 0.86	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.39	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.43	< 0.25	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.32	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.41	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.31	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.35	< 0.85	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.35	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.36	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.49	< 0.7	< 0.7	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.32	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.33	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.3	< 0.22	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.26	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.36	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.65	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.42	< 0.45	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.39	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.29	< 0.26	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 1.1	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.62	< 0.61	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.44	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.8	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.74	< 0.54	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.39	< 0.39	< 0.32	< 0.37	< 0.39	< 0.32	< 0.37	< 0.39	< 0.32	< 0.37	< 0.39	< 0.32	< 0.37	< 0.32	< 0.37	< 0.37	< 0.37	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.36	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.41	< 0.26	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.23	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.45	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.32	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.72	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.81	< 1.34	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.34	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.48	< 0.21	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.32	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.34	< 0.78	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 1.1	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.64	< 0.43	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.79	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 1.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.28	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.33	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.39	< 0.61	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.38	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.37	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.32	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.33	< 0.79	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.61	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.37	< 0.25	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.26	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.33	< 0.19	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	< 0.38	NA	NA	< 0.38	NA	NA	< 0.38	NA	NA	< 0.38	NA	NA	NA	NA	< 0.8	NA	< 0.8
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.5	< 0.34	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.3	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.41	< 0.32	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.42	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.33	< 0.35	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	NA	< 0.77	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	NA	< 0.43	NA	< 0.43	< 0.43	< 0.43	< 0.43

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3602 S 19TH ST	3612 S 19TH ST	3723 S 19TH ST	3809 S 19TH ST	3821 S 19TH ST	3917 S 21ST ST	4002 S 21ST ST	4018 S 21ST ST	4030 S 21ST ST	4120 S 21ST ST	4181 S 21ST ST	2915 S 26TH St				
Original or Replacement Well:																	Original Potable Well		
Sample Date:				12/10/19	12/02/19	11/04/19	11/04/19	11/05/19	11/05/19	12/02/19	11/04/19	11/20/19	11/11/19	11/17/22	12/14/17	06/24/22	08/15/17	09/05/17	09/05/17 (DUP)
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Pressure Tank	Pressure Tank	Sample Tap	Sample Tap	Exterior Spigot	Pressure Tank	Pressure Tank
Field Sample ID:				3602 S 19TH	3612 S 19TH	3723 S 19TH ST	3809 S 19TH ST	3821 S19TH ST	3917 S 21ST ST	4002 S 21ST	4018 S 21ST ST	4030 S 21ST	4120 S 21ST ST	4181 S 21ST ST	5 SOUTH 26TH STR	2915 S 26TH	2918 26TH ST	2918 26TH	2918 26TH-DUP
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	AECOM	Home Owner	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																			
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.55	< 0.5	< 0.55	< 0.5	< 0.47	< 0.47
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5	< 0.33	< 0.5	< 0.35	< 0.35
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.43	< 0.5	< 0.43	< 0.5	< 0.69	< 0.69
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.42	< 0.5	< 0.65	< 0.65
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.43	< 0.3	< 0.43	< 0.3	< 0.42	< 0.42
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.43	< 0.5	< 0.43	< 0.5	< 0.46	< 0.46
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.71	< 1.4	< 0.5	< 1.4	< 0.5	< 0.83	< 0.83
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 1.15	< 0.63	< 0.5	< 0.63	< 0.5	< 1.29	< 1.29
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.35	< 0.2	< 0.35	< 0.2	< 1.14	< 1.14
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 2.96	< 0.74	< 1	< 0.74	< 1	< 1.88	< 1.88
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.39	< 0.5	< 0.39	< 0.5	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.4	< 0.25	< 0.4	< 0.25	< 0.34	< 0.34
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.43	< 0.5	< 0.43	< 0.5	< 0.45	< 0.45
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.39	< 0.5	< 0.39	< 0.5	< 0.39	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.41	< 0.2	< 0.41	< 0.2	< 0.91	< 0.91
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.35	< 0.25	< 0.35	< 0.25	< 0.45	< 0.45
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.38	< 0.3	< 0.38	< 0.3	< 0.49	< 0.49
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.49	< 0.25	< 0.49	< 0.25	< 0.42	< 0.42
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3	NA	< 3	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.3	< 0.34	< 0.3	< 0.36	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.3	< 0.4	< 0.3	< 0.35	< 0.35
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3	NA	< 3	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.3	< 0.3	< 0.3	< 0.3	< 0.17	< 0.17
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.34	< 0.5	< 0.34	< 0.5	< 0.43	< 0.43
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.5	< 0.36	< 0.5	< 0.31	< 0.31
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.42	< 1	< 0.42	< 1	< 0.49	< 0.49
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3	NA	< 0.3	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.5	< 0.34	< 0.5	< 0.21	< 0.21
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.29	< 0.25	< 0.29	< 0.25	< 0.27	< 0.27
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.62	< 0.5	< 0.62	< 0.5	< 0.5	< 0.5
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	0.38 J	< 0.33	< 0.25	< 0.33	< 0.25	< 0.96	< 0.96
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.74	< 1	< 0.74	< 1	< 1.3	< 1.3
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.32	< 0.3	< 0.32	1.1	0.85 J	0.75 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.41	< 0.3	< 0.41	< 0.3	< 0.21	< 0.21
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.36	< 0.5	< 0.36	< 0.5	< 0.45	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.5	< 0.3	< 0.5	< 0.38	< 0.38
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.33	< 0.2	< 0.33	< 0.2	< 0.2	< 0.2
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34	< 0.81	< 0.5	< 0.81	< 0.5	< 1.47	< 1.47
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.48	< 0.25	< 0.48	< 0.25	< 0.26	< 0.26
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.34	< 0.2	< 0.34	< 0.2	< 0.29	< 0.29
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.64	< 0.4	< 0.64	< 0.4	< 1.56	< 1.56
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 0.79	< 0.5	< 0.79	< 0.5	< 0.94	< 0.94
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.3	< 0.47	< 0.3	< 0.82	< 0.82
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 1.4	< 0.3	< 1.4	< 0.3	< 2.17	< 2.17
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.71	< 0.2	< 0.34	< 0.34
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.39	< 0.2	< 0.39	< 0.2	< 0.19	< 0.19
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.37	< 0.3	< 0.37	< 0.3	< 0.39	< 0.39
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.2	< 0.47	< 0.2	< 0.28	< 0.28
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.33	< 0.2	< 0.33	< 0.2	< 0.24	< 0.24
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.25	NA	< 0.25	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.37	< 0.5	< 0.37	< 0.5	< 0.39	< 0.39
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.47	< 0.5	< 0.47	< 0.5	< 0.48	< 0.48
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.33	< 0.25	< 0.33	< 0.25	< 0.67	< 0.67
Total Trimethylbenzene	ug/l	480	96	< 0.8	< 0.8	NA	NA	NA	NA	< 0.8	NA	< 0.8	< 0.8	NA	NA	NA	< 0.4	NA	< 1.14
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.35	< 0.35
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.41	< 0.5	< 0.41	< 0.5	< 0.42	< 0.42
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.38	< 0.5	< 0.38	< 0.5	< 0.45	< 0.45
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.33	< 0.5	< 0.33	< 0.5	< 0.64	< 0.64
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.15	< 0.2	< 0.15	***0.21 J***	***0.26 J***	***0.24 J***
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	NA	NA	NA	< 0.4	NA	< 1.56

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2918 S 26TH St						3008 S 26TH St								3021 S 26TH ST
Original or Replacement Well:				Replacement Potable Well														
Sample Date:				12/11/17	12/11/17 (DUP)	03/05/18	03/05/18	03/05/18	06/27/19	11/08/17	12/14/17	06/27/19	10/22/19	06/04/20	11/17/20	11/22/21	06/20/22	06/21/22
Sample Source:				Pressure Tank	Pressure Tank	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Spigot W Side	Basement Tap	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Sample Tap
Field Sample ID:				2918 26TH-RAW	2918 26TH-DUP	2918 26TH TAP	2918 26TH RAW	2918 26TH RAW VOC	2918 S 26TH	8 SOUTH 26TH STR	8 SOUTH 26TH STR	3008 S 26TH	3008 S 26TH	3008 S. 26TH ST	3008 S 26TH ST	3008 S 26TH ST	3008 S 26TH	3021 S 26TH
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.47	< 0.47	NA	NA	< 0.35	< 0.35	< 0.5	< 0.5	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.55	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.35	< 0.35	NA	NA	< 0.33	< 0.33	< 0.5	< 0.5	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.69	< 0.69	NA	NA	< 0.3	< 0.3	< 0.5	< 0.5	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.43	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.65	< 0.65	NA	NA	< 0.42	< 0.42	< 0.5	< 0.5	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.42	< 0.42	NA	NA	< 0.36	< 0.36	< 0.3	< 0.3	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.43	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.46	< 0.46	NA	NA	< 0.42	< 0.42	< 0.5	< 0.5	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.43	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.83	< 0.83	NA	NA	< 1.71	< 1.71	< 0.5	< 0.5	< 1.71	< 1.71	< 1	< 1	< 0.66	< 1.4	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	< 1	< 1	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.29	< 1.29	NA	NA	< 1.15	< 1.15	< 0.5	< 0.5	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.63	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 1.14	< 1.14	NA	NA	< 0.8	< 0.8	< 0.2	< 0.2	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1.88	< 1.88	NA	NA	< 2.96	< 2.96	< 1	< 1	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.74	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	NA	NA	< 0.34	< 0.34	< 0.5	< 0.5	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.39	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.34	< 0.34	NA	NA	< 0.86	< 0.86	< 0.25	< 0.25	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.4	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.45	< 0.45	NA	NA	< 0.25	< 0.25	< 0.5	< 0.5	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.43	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.39	< 0.39	NA	NA	< 0.44	< 0.44	< 0.5	< 0.5	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.39	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.91	< 0.91	NA	NA	< 0.63	< 0.63	< 0.2	< 0.2	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.41	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.45	< 0.45	NA	NA	< 0.85	< 0.85	< 0.25	< 0.25	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.35	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.49	< 0.49	NA	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.38	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.42	< 0.42	NA	NA	< 0.7	< 0.7	< 0.25	< 0.25	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.49	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	< 3	< 3	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.36	< 0.36	NA	NA	< 0.31	< 0.31	< 0.3	< 0.3	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.34	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.35	< 0.35	NA	NA	< 0.26	< 0.26	< 0.3	< 0.3	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	< 2	< 2	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	< 3	< 3	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.17	< 0.17	NA	NA	< 0.22	< 0.22	< 0.3	< 0.3	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.3	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.43	< 0.43	NA	NA	< 0.44	< 0.44	< 0.5	< 0.5	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.34	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.31	< 0.31	NA	NA	< 0.33	< 0.33	< 0.5	< 0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.36	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.49	< 0.49	NA	NA	< 0.45	< 0.45	< 1	< 1	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.42	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	< 0.3	< 0.3	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.21	< 0.21	NA	NA	< 0.31	< 0.31	< 0.5	< 0.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.34	< 0.34
Chlorobenzene	ug/l	100	20	< 0.27	< 0.27	NA	NA	< 0.26	< 0.26	< 0.25	< 0.25	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.29	< 0.29
Chloroethane	ug/l	400	80	< 0.5	< 0.5	NA	NA	< 0.61	< 0.61	< 0.5	< 0.5	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.62	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.96	< 0.96	NA	NA	< 0.26	< 0.26	< 0.25	< 0.25	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.33	< 0.33
Chloromethane	ug/l	30	**3**	< 1.3	< 1.3	NA	NA	< 0.54	< 0.54	< 1	< 1	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.74	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.41	< 0.41	NA	NA	< 0.37	< 0.37	1	0.85	0.77 J	0.9 J	0.92 J	0.78 J	1.14 J	0.89 J	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.21	< 0.21	NA	NA	< 0.26	< 0.26	< 0.3	< 0.3	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.41	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.45	< 0.45	NA	NA	< 0.22	< 0.22	< 0.5	< 0.5	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.36	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.38	< 0.38	NA	NA	< 0.32	< 0.32	< 0.5	< 0.5	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.3	< 0.3
Ethylbenzene	ug/l	700	140	< 0.2	< 0.2	NA	NA	< 0.26	< 0.26	< 0.2	< 0.2	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.33	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.47	< 1.47	NA	NA	< 1.34	< 1.34	< 0.5	< 0.5	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.81	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.26	< 0.26	NA	NA	< 0.21	< 0.21	< 0.25	< 0.25	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.48	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.29	< 0.29	NA	NA	< 0.78	< 0.78	< 0.2	< 0.2	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.34	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 1.56	< 1.56	NA	NA	< 0.43	< 0.43	< 0.4	< 0.4	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.64	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 0.94	< 0.94	NA	NA	< 1.32	< 1.32	< 0.5	< 0.5	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.79	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.82	< 0.82	NA	NA	< 0.28	< 0.28	< 0.3	< 0.3	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.47	< 0.47
Naphthalene	ug/l	100	10	< 2.17	< 2.17	NA	NA	< 2.1	< 2.1	< 0.3	< 0.3	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.34	< 0.34	NA	NA	< 0.71	< 0.71	< 0.2	< 0.2	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.19	< 0.19	NA	NA	< 0.61	< 0.61	< 0.2	< 0.2	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.39	< 0.39
o-Xylene	ug/l	NL	NL	< 0.39	< 0.39	NA	NA	< 0.29	< 0.29	< 0.3	< 0.3	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.37	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.28	< 0.28	NA	NA	< 0.24	< 0.24	< 0.2	< 0.2	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.47	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.24	< 0.24	NA	NA	< 0.79	< 0.79	< 0.2	< 0.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.33	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	< 0.25	< 0.25	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.39	< 0.39	NA	NA	< 0.25	< 0.25	< 0.5	< 0.5	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.37	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.48	< 0.48	NA	NA	< 0.38	< 0.38	< 0.5	< 0.5	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.47	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	< 2	< 2	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.67	< 0.67	NA	NA	< 0.19	< 0.19	< 0.25	< 0.25	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.33	< 0.33
Total Trimethylbenzene	ug/l	480	96	< 1.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.32	< 0.32	< 0.38	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.35	< 0.35	NA	NA	< 0.34	< 0.34	< 0.5	< 0.5	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.5	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.42	< 0.42	NA	NA	< 0.32	< 0.32	< 0.5	< 0.5	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.41	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.45	< 0.45	NA	NA	< 0.3	< 0.3	< 0.5	< 0.5	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.38	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.64	< 0.64	NA	NA	< 0.35	< 0.35	< 0.5	< 0.5	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.33	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.19	< 0.19	NA	NA	< 0.2	< 0.2	***0.47***	***0.55***	< 0.2	***0.25 J***	***0.3 J***	***0.26 J***	***0.44 J***	< 0.15	< 0.15
Xylene (Total)	ug/l	2000	400	< 1.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.1	< 0.77	NA	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3203 S 26TH ST				3225 S 26TH ST			3323 S 26TH ST	3407 S 26TH ST	3505 S 26TH ST	3510 S 26TH ST	3517 S 26TH ST	3526 S 26TH ST	3529 S 26TH ST	3615 S 26TH ST	3627 S 26TH ST	3719 S 26TH ST	3720 S 26TH ST
Original or Replacement Well:																					
Sample Date:				12/19/17	11/08/19	05/26/21	06/22/22	12/18/19	05/25/21	06/23/22	11/11/19	11/07/19	11/06/19	11/12/19	05/28/21	11/13/19	11/07/19	11/06/19	11/11/19	06/04/20	11/04/19
Sample Source:				Basement Tap	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Exterior Spigot	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Exterior Spigot	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				3 SOUTH 26TH STRE	3203 S 26T ST	3203 S 26TH ST	3203 S 26TH	3225 S 26TH	3225 S 26TH ST	3225 S 26TH	3323 S 26TH ST	3407 S 26TH ST	3505 S 26TH ST	3510 S 26TH ST	3517 S 26TH ST	3526 S 26TH ST	3529 S 26TH ST	3615 S 26TH ST	3627 S 26TH ST	3719 S 26TH	3720 S 26TH ST
Sampling Company:				WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.5	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.35	< 0.35	< 0.35	< 0.76	< 0.35	< 0.35	< 0.35	< 0.35	< 0.88	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.5	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.3	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.5	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.36	< 0.3	< 0.3	< 0.3	< 0.3	< 0.37	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.5	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42	< 0.36	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.3	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.36	< 0.36	< 0.36	< 0.48	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42	< 0.55	< 0.42	< 0.42	< 0.42	< 0.42	< 0.5	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 0.5	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 1.71	< 1.71	< 1.71	< 0.66	< 1.71	< 1.71	< 1.71	< 1.71	< 1	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.5	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 1.15	< 1.15	< 1.15	< 0.67	< 1.15	< 1.15	< 1.15	< 1.15	< 0.44	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.2	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8	< 0.3	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 1	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 2.96	< 2.96	< 2.96	< 0.54	< 2.96	< 2.96	< 2.96	< 2.96	< 0.82	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.5	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.34	< 0.34	< 0.34	< 0.47	< 0.34	< 0.34	< 0.34	< 0.34	< 0.24	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.25	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.86	< 0.86	< 0.86	< 0.44	< 0.86	< 0.86	< 0.86	< 0.86	< 0.32	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.5	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.25	< 0.25	< 0.25	< 0.44	< 0.25	< 0.25	< 0.25	< 0.25	< 0.39	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.5	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.38	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.2	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.63	< 0.63	< 0.63	< 0.38	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.25	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.85	< 0.85	< 0.85	< 0.38	< 0.85	< 0.85	< 0.85	< 0.85	< 0.31	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.35	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.25	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.7	< 0.7	< 0.7	< 0.48	< 0.7	< 0.7	< 0.7	< 0.7	< 0.36	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31	< 0.32	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.3	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.22	< 0.22	< 0.22	< 0.38	< 0.22	< 0.22	< 0.22	< 0.22	< 0.33	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.5	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.44
Bromochloromethane	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.5	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 1	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.45	< 0.45	< 0.45	< 0.46	< 0.45	< 0.45	< 0.45	< 0.45	< 0.65	< 0.45
Bromomethane	ug/l	10	1	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	< 0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.5	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.25	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.26	< 0.26	< 0.26	< 0.26	< 0.39	< 0.26
Chloroethane	ug/l	400	80	< 0.5	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.61	< 0.61	< 0.61	< 0.78	< 0.61	< 0.61	< 0.61	< 0.61	< 1.1	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.25	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.44	< 0.26
Chloromethane	ug/l	30	**3**	< 1	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.54	< 0.54	< 0.54	< 0.84	< 0.54	< 0.54	< 0.54	< 0.54	< 0.8	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.3	< 0.37	< 0.39	< 0.32	< 0.37	< 0.39	**0.43** J	< 0.37	< 0.37	< 0.37	< 0.37	< 0.39	< 0.37	< 0.37	< 0.37	< 0.37	< 0.39	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.3	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.26	< 0.26	< 0.26	< 0.51	< 0.26	< 0.26	< 0.26	< 0.26	< 0.36	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.5	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.22
Dibromomethane	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.5	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.55	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.32
Ethylbenzene	ug/l	700	140	< 0.2	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.37	< 0.26	< 0.26	< 0.26	< 0.26	< 0.32	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.5	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 1.34	< 1.34	< 1.34	< 0.75	< 1.34	< 1.34	< 1.34	< 1.34	< 0.72	< 1.34
Hexane	ug/l	NL	NL	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.25	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.21	< 0.21	< 0.21	< 0.47	< 0.21	< 0.21	< 0.21	< 0.21	< 0.34	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.2	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.78	< 0.78	< 0.78	< 0.3	< 0.78	< 0.78	< 0.78	< 0.78	< 0.32	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.4	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.43	< 0.43	< 0.43	< 0.77	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 0.5	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.3	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.46	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.28
Naphthalene	ug/l	100	10	< 0.3	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1	< 1.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.2	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71	< 0.28	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.2	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.61	< 0.61	< 0.61	< 0.44	< 0.61	< 0.61	< 0.61	< 0.61	< 0.33	< 0.61
o-Xylene	ug/l	NL	NL	< 0.3	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.29	< 0.29	< 0.29	< 0.44	< 0.29	< 0.29	< 0.29	< 0.29	< 0.38	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.2	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.43	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.2	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.79	< 0.79	< 0.79	< 0.31	< 0.79	< 0.79	< 0.79	< 0.79	< 0.32	< 0.79
Styrene	ug/l	100	10	< 0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.5	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.25	< 0.25	< 0.25	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25	< 0.61	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.5	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.54	< 0.38	< 0.38	< 0.38	< 0.38	< 0.33	< 0.38
Tetrahydrofuran	ug/l	50	10	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.25	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.19	< 0.19	< 0.19	< 0.42	< 0.19	< 0.19	< 0.19	< 0.19	< 0.26	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	NA	< 0.38	NA	< 0.8	< 0.38	NA	< 0.8	NA	NA	< 0.8	< 0.38	< 0.8	NA	NA	< 0.8	< 0.32	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.6	< 0.34	< 0.34	< 0.34	< 0.34	< 0.37	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.5	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.32	< 0.32	< 0.32	< 0.45	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.5	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.3	< 0.3	< 0.3	< 0.3	< 0.47	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.5	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.35	< 0.35	< 0.35	< 0.49	< 0.35	< 0.35	< 0.35	< 0.35	< 0.42	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	***0.26*** ***J***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.17	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	NA	< 0.43	< 0.43	< 0.43	< 0.43	< 0.77	< 0.43	< 0.43	< 0.43	< 0.43	< 1.1	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				4017 S 26TH ST	4132 S 26TH ST	4201 S 26TH ST	3107 Fricke Dr	3609 M&M Ln		3315/3327 Cimarron Ct			3318/3328 Cimarron Ct				3401/3403/3413 Cimarron Ct			
Original or Replacement Well:																				
Sample Date:				11/08/19	11/08/19	11/06/19	12/05/13	12/04/13	12/16/13	12/18/19	05/28/21	06/24/22	11/06/19	06/03/21	11/30/21	06/22/22	10/05/20	11/06/19	05/25/21	06/29/22
Sample Source:				Sample Tap	Sample Tap	Sample Tap	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Field Sample ID:				4017 S 26T ST	4132 S 26TH ST	4201 S 26TH ST	3107 FRICKE	3609 M&M Ln	3609 M&M Ln	3315 CIMARRON	3315 CIMARRON CT	3315 CIMARRON CT	3328 CIMMARON CT	3328 CIMARRON CT	3328 CIMARRON CT	3328 CIMARRON	3403 CIMARRON	3413 CIMMARON CT	3413 CIMARRON CT	3413 CIMARRON
Sampling Company:				AECOM	AECOM	AECOM	AECOM	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.35	< 0.35	< 0.33	< 0.15	< 0.15	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.76	< 0.55	< 0.88	< 0.35	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.3	< 0.33	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.3	< 0.3	< 0.45	< 0.2	< 0.2	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.36	< 0.43	< 0.37	< 0.3	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.42	< 0.34	< 0.15	< 0.15	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.36	< 0.42	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.36	< 0.36	< 0.3	< 0.15	< 0.15	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.48	< 0.43	< 0.46	< 0.36	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.42	< 0.42	< 0.4	< 0.15	< 0.15	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.55	< 0.43	< 0.5	< 0.42	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.71	< 1.71	< 1.8	< 0.15	< 0.15	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 0.66	< 1.4	< 1	< 1.71	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 1.15	< 1.15	< 0.98	< 0.15	< 0.15	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.67	< 0.63	< 0.44	< 1.15	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.8	< 0.8	< 2.2	< 0.15	< 0.15	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.3	< 0.8	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 2.96	< 2.96	< 0.88	< 0.2	< 0.2	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.54	< 0.74	< 0.82	< 2.96	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.34	< 0.34	< 0.44	< 0.15	< 0.15	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.47	< 0.39	< 0.24	< 0.34	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.86	< 0.86	< 0.36	< 0.15	< 0.15	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.44	< 0.4	< 0.32	< 0.86	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.25	< 0.25	< 0.41	< 0.15	< 0.15	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.44	< 0.43	< 0.39	< 0.25	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.44	< 0.44	< 0.32	< 0.15	< 0.15	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.38	< 0.39	< 0.38	< 0.44	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.63	< 0.63	< 1.4	< 0.15	< 0.15	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.38	< 0.41	< 0.32	< 0.63	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.85	< 0.85	< 0.28	< 0.15	< 0.15	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.38	< 0.35	< 0.31	< 0.85	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.3	< 0.3	< 0.33	< 0.15	< 0.15	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.4	< 0.38	< 0.35	< 0.3	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.7	< 0.7	< 0.3	< 0.15	< 0.15	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.48	< 0.49	< 0.36	< 0.7	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	< 0.36	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.31	< 0.31	< 0.21	< 0.15	< 0.15	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.36	< 0.34	< 0.32	< 0.31	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.26	< 0.26	< 0.21	< 0.15	< 0.15	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.3	< 0.26	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.22	< 0.22	< 0.24	< 0.15	< 0.15	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.38	< 0.3	< 0.33	< 0.22	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.44	< 0.44	< 0.32	< 0.15	< 0.15	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.4	< 0.34	< 0.26	< 0.44	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.33	< 0.33	< 0.37	< 0.15	< 0.15	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.45	< 0.45	< 0.35	< 0.15	< 0.15	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.46	< 0.42	< 0.65	< 0.45	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.31	< 0.31	< 0.33	< 0.15	< 0.15	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.26	< 0.26	< 0.24	< 0.15	< 0.15	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.38	< 0.29	< 0.39	< 0.26	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.61	< 0.61	< 0.63	< 0.15	< 0.15	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.78	< 0.62	< 1.1	< 0.61	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.26	< 0.26	< 0.28	< 0.15	< 0.15	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.4	< 0.33	< 0.44	< 0.26	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.54	< 0.54	< 0.81	< 0.15	< 0.15	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.84	< 0.74	< 0.8	< 0.54	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.37	< 0.37	< 0.38	< 0.15	< 0.15	< 0.37	< 0.39	< 0.32	0.39 J	< 0.39	< 0.39	0.39 J	0.4 J	0.42 J	0.42 J	0.54 J
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.26	< 0.26	NA	< 0.15	< 0.15	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.51	< 0.41	< 0.36	< 0.26	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.15	< 0.15	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.45	< 0.36	< 0.23	< 0.22	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.32	< 0.32	< 0.44	< 0.2	< 0.2	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.55	< 0.3	< 0.45	< 0.32	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.26	< 0.26	< 0.55	< 0.15	< 0.15	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.37	< 0.33	< 0.32	< 0.26	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 1.34	< 1.34	< 1.5	< 0.15	< 0.15	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.75	< 0.81	< 0.72	< 1.34	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.21	< 0.21	< 0.23	NA	NA	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.47	< 0.48	< 0.34	< 0.21	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.78	< 0.78	< 0.3	< 0.15	< 0.15	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.3	< 0.34	< 0.32	< 0.78	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.43	< 0.43	< 0.69	< 0.15	< 0.15	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.77	< 0.64	< 1.1	< 0.43	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 1.32	< 1.32	< 0.5	< 0.15	< 0.15	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.28	< 0.28	< 0.23	< 0.15	< 0.15	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.46	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 2.1	< 2.1	< 1.7	< 0.15	< 0.15	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 1.1	< 2.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.71	< 0.35	< 0.15	< 0.15	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.28	< 0.71	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.61	< 0.61	< 0.25	< 0.15	< 0.15	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.44	< 0.39	< 0.33	< 0.61	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.29	< 0.29	< 0.63	< 0.15	< 0.15	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.44	< 0.37	< 0.38	< 0.29	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.24	< 0.24	< 0.31	< 0.15	< 0.15	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.43	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.79	< 0.79	< 0.33	< 0.15	< 0.15	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.31	< 0.33	< 0.32	< 0.79	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.25	< 0.25	< 0.36	< 0.15	< 0.15	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.45	< 0.37	< 0.61	< 0.25	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.38	< 0.33	< 0.15	< 0.15	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.54	< 0.47	< 0.33	< 0.38	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.19	< 0.19	< 0.69	< 0.15	< 0.15	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.42	< 0.33	< 0.26	< 0.19	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	NA	NA	< 2.2	< 0.15	< 0.15	< 0.8	< 0.38	NA	NA	< 0.38	< 0.38	NA	NA	NA	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.34	< 0.34	< 0.35	< 0.15	< 0.15	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.6	< 0.5	< 0.37	< 0.34	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.32	< 0.32	NA	< 0.15	< 0.15	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.45	< 0.41	< 0.3	< 0.32	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.3	< 0.3	< 0.33	< 0.15	< 0.15	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.47	< 0.38	< 0.47	< 0.3	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.35	< 0.35	< 0.71	< 0.15	< 0.15	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.49	< 0.33	< 0.42	< 0.35	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.2	< 0.2	< 0.18	< 0.2	< 0.2	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.2	< 0.17	***0.27*** ***J***
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.43	< 0.43	< 0.69	< 0.15	< 0.15	< 0.43	< 0.77	NA	< 0.43	< 0.77	< 0.77	NA	NA	< 0.43	< 0.77	NA

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3406 Cimarron Ct / 2328 Jenny Rd			3425/3427 Cimarron	3430/3508 Cimarron Ct			2201 Elm Road									
Original or Replacement Well:																				
Sample Date:				11/04/19	05/27/21	06/27/22	10/05/20	11/07/19	11/16/19	06/23/22	12/19/17	02/14/18	06/27/19	10/22/19	06/04/20	11/17/20	06/01/21	11/30/21	11/30/21 (DUP)	06/21/22
Sample Source:				Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				3406 CIMMARON CT	3406 CIMARRON CT	3406 CIMARRON	3427 CIMARRON	3430 CIMMARON CT	3508 CIMMARON CT	3508 CIMARRON	2201 ELM ROAD	2201 ELM ROAD	2201 ELM	2201 ELM	2201 ELM STREET	2201 ELM RD	2201 ELM RD	2201 ELM RD	113021 DUP	2201 ELM RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	WDNR	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.76	< 0.55	< 0.88	< 0.35	< 0.35	< 0.55	< 0.5	< 0.37	< 0.35	< 0.35	< 0.88	< 0.88	< 0.76	< 0.76	< 0.76	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.41	< 0.33	< 0.3	< 0.33	< 0.33	< 0.33	< 0.5	< 0.2	< 0.33	< 0.33	< 0.3	< 0.3	< 0.41	< 0.41	< 0.41	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.36	< 0.43	< 0.37	< 0.3	< 0.3	< 0.43	< 0.5	< 0.36	< 0.3	< 0.3	< 0.37	< 0.37	< 0.36	< 0.36	< 0.36	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.48	< 0.42	< 0.36	< 0.42	< 0.42	< 0.42	< 0.5	< 0.48	< 0.42	< 0.42	< 0.36	< 0.36	< 0.48	< 0.48	< 0.48	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.72	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.48	< 0.43	< 0.46	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.46	< 0.46	< 0.48	< 0.48	< 0.48	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.43	< 0.5	< 0.42	< 0.42	< 0.43	< 0.5	< 0.22	< 0.42	< 0.42	< 0.5	< 0.5	< 0.55	< 0.55	< 0.55	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.19	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 0.66	< 1.4	< 1	< 1.71	< 1.71	< 1.4	< 0.5	< 0.33	< 1.71	< 1.71	< 1	< 1	< 0.66	< 0.66	< 0.66	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	< 1	< 0.36	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 0.67	< 0.63	< 0.44	< 1.15	< 1.15	< 0.63	< 0.5	< 0.47	< 1.15	< 1.15	< 0.44	< 0.44	< 0.67	< 0.67	< 0.67	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.35	< 0.35	< 0.3	< 0.8	< 0.8	< 0.35	< 0.2	< 0.2	< 0.8	< 0.8	< 0.3	< 0.3	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 0.54	< 0.74	< 0.82	< 2.96	< 2.96	< 0.74	< 1	< 0.4	< 2.96	< 2.96	< 0.82	< 0.82	< 0.54	< 0.54	< 0.54	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.47	< 0.39	< 0.24	< 0.34	< 0.34	< 0.39	< 0.5	< 0.39	< 0.34	< 0.34	< 0.24	< 0.24	< 0.47	< 0.47	< 0.47	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.44	< 0.4	< 0.32	< 0.86	< 0.86	< 0.4	< 0.25	< 0.12	< 0.86	< 0.86	< 0.32	< 0.32	< 0.44	< 0.44	< 0.44	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.43	< 0.39	< 0.25	< 0.25	< 0.43	< 0.5	< 0.16	< 0.25	< 0.25	< 0.39	< 0.39	< 0.44	< 0.44	< 0.44	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.38	< 0.39	< 0.38	< 0.44	< 0.44	< 0.39	< 0.5	< 0.3	< 0.44	< 0.44	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.38	< 0.41	< 0.32	< 0.63	< 0.63	< 0.41	< 0.2	< 0.26	< 0.63	< 0.63	< 0.32	< 0.32	< 0.38	< 0.38	< 0.38	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.35	< 0.31	< 0.85	< 0.85	< 0.35	< 0.25	< 0.11	< 0.85	< 0.85	< 0.31	< 0.31	< 0.38	< 0.38	< 0.38	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.4	< 0.38	< 0.35	< 0.3	< 0.3	< 0.38	< 0.3	< 0.29	< 0.3	< 0.3	< 0.35	< 0.35	< 0.4	< 0.4	< 0.4	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.49	< 0.36	< 0.7	< 0.7	< 0.49	< 0.25	< 0.11	< 0.7	< 0.7	< 0.36	< 0.36	< 0.48	< 0.48	< 0.48	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 1	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	< 3	< 2	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.36	< 0.34	< 0.32	< 0.31	< 0.31	< 0.34	< 0.3	< 0.29	< 0.31	< 0.31	< 0.32	< 0.32	< 0.36	< 0.36	< 0.36	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.4	< 0.4	< 0.3	< 0.26	< 0.26	< 0.4	< 0.3	< 0.32	< 0.26	< 0.26	< 0.3	< 0.3	< 0.4	< 0.4	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	< 2	< 1.3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	< 3	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.3	< 0.33	< 0.22	< 0.22	< 0.3	< 0.3	< 0.1	< 0.22	< 0.22	< 0.33	< 0.33	< 0.38	< 0.38	< 0.38	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.4	< 0.34	< 0.26	< 0.44	< 0.44	< 0.34	< 0.5	< 0.29	< 0.44	< 0.44	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.3	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.47	< 0.36	< 0.33	< 0.33	< 0.33	< 0.36	< 0.5	< 0.17	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.46	< 0.42	< 0.65	< 0.45	< 0.45	< 0.42	< 1	< 1	< 0.45	< 0.45	< 0.65	< 0.65	< 0.46	< 0.46	< 0.46	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.31	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	< 0.3	< 1	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.44	< 0.34	< 0.31	< 0.31	< 0.31	< 0.34	< 0.5	< 0.21	< 0.31	< 0.31	< 0.31	< 0.31	< 0.44	< 0.44	< 0.44	< 0.34
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.29	< 0.39	< 0.26	< 0.26	< 0.29	< 0.25	< 0.27	< 0.26	< 0.26	< 0.39	< 0.39	< 0.38	< 0.38	< 0.38	< 0.29
Chloroethane	ug/l	400	80	< 0.61	< 0.78	< 0.62	< 1.1	< 0.61	< 0.61	< 0.62	< 0.5	< 0.3	< 0.61	< 0.61	< 1.1	< 1.1	< 0.78	< 0.78	< 0.78	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.4	< 0.33	< 0.44	< 0.26	< 0.26	< 0.33	< 0.25	< 0.1	< 0.26	< 0.26	< 0.44	< 0.44	< 0.4	< 0.4	< 0.4	< 0.33
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.74	< 0.8	< 0.54	< 0.54	< 0.74	< 1	< 0.89	< 0.54	< 0.54	< 0.8	< 0.8	< 0.84	< 0.84	< 0.84	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.39	< 0.32	< 0.39	< 0.37	< 0.37	< 0.32	**0.51**	**0.55**	< 0.37	< 0.37	**0.44** J	**0.42** J	**0.49** J	< 0.39	**0.54** J	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.51	< 0.41	< 0.36	< 0.26	< 0.26	< 0.41	< 0.3	< 0.14	< 0.26	< 0.26	< 0.36	< 0.36	< 0.51	< 0.51	< 0.51	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.45	< 0.36	< 0.23	< 0.22	< 0.22	< 0.36	< 0.5	< 0.26	< 0.22	< 0.22	< 0.23	< 0.23	< 0.45	< 0.45	< 0.45	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.23	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.3	< 0.45	< 0.32	< 0.32	< 0.3	< 0.5	< 0.5	< 0.32	< 0.32	< 0.45	< 0.45	< 0.55	< 0.55	< 0.55	< 0.3
Ethylbenzene	ug/l	700	140	< 0.26	< 0.37	< 0.33	< 0.32	< 0.26	< 0.26	< 0.33	< 0.2	< 0.3	< 0.26	< 0.26	< 0.32	< 0.32	< 0.37	< 0.37	< 0.37	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 0.75	< 0.81	< 0.72	< 1.34	< 1.34	< 0.81	< 0.5	< 0.3	< 1.34	< 1.34	< 0.72	< 0.72	< 0.75	< 0.75	< 0.75	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	< 0.5	< 0.73	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.47	< 0.48	< 0.34	< 0.21	< 0.21	< 0.48	< 0.25	< 0.21	< 0.21	< 0.21	< 0.34	< 0.34	< 0.47	< 0.47	< 0.47	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.3	< 0.34	< 0.32	< 0.78	< 0.78	< 0.34	< 0.2	< 0.31	< 0.78	< 0.78	< 0.32	< 0.32	< 0.3	< 0.3	< 0.3	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.77	< 0.64	< 1.1	< 0.43	< 0.43	< 0.64	< 0.4	< 0.56	< 0.43	< 0.43	< 1.1	< 1.1	< 0.77	< 0.77	< 0.77	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.79	< 1.32	< 1.32	< 1.32	< 0.79	< 0.5	< 0.15	< 1.32	< 1.32	< 1.32	< 1.32	< 0.89	< 0.89	< 0.89	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.47	< 0.47	< 0.28	< 0.28	< 0.47	< 0.3	< 0.24	< 0.28	< 0.28	< 0.47	< 0.47	< 0.46	< 0.46	< 0.46	< 0.47
Naphthalene	ug/l	100	10	< 2.1	< 1.4	< 1.4	< 1.1	< 2.1	< 2.1	< 1.4	< 0.3	< 0.32	< 2.1	< 2.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.46	< 0.71	< 0.28	< 0.71	< 0.71	< 0.71	< 0.2	< 0.58	< 0.71	< 0.71	< 0.28	< 0.28	< 0.46	< 0.46	< 0.46	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.44	< 0.39	< 0.33	< 0.61	< 0.61	< 0.39	< 0.2	< 0.26	< 0.61	< 0.61	< 0.33	< 0.33	< 0.44	< 0.44	< 0.44	< 0.39
o-Xylene	ug/l	NL	NL	< 0.29	< 0.44	< 0.37	< 0.38	< 0.29	< 0.29	< 0.37	< 0.3	< 0.33	< 0.29	< 0.29	< 0.38	< 0.38	< 0.44	< 0.44	< 0.44	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.47	< 0.47	< 0.24	< 0.24	< 0.47	< 0.2	< 0.2	< 0.24	< 0.24	< 0.47	< 0.47	< 0.43	< 0.43	< 0.43	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.33	< 0.32	< 0.79	< 0.79	< 0.33	< 0.2	< 0.2	< 0.79	< 0.79	< 0.32	< 0.32	< 0.31	< 0.31	< 0.31	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	< 0.25	< 0.27	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.45	< 0.37	< 0.61	< 0.25	< 0.25	< 0.37	< 0.5	< 0.42	< 0.25	< 0.25	< 0.61	< 0.61	< 0.45	< 0.45	< 0.45	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.54	< 0.47	< 0.33	< 0.38	< 0.38	< 0.47	< 0.5	< 0.29	< 0.38	< 0.38	< 0.33	< 0.33	< 0.54	< 0.54	< 0.54	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	< 2	< 1.4	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.33	< 0.26	< 0.19	< 0.19	< 0.33	< 0.25	< 0.29	< 0.19	< 0.19	< 0.26	< 0.26	< 0.42	< 0.42	< 0.42	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	< 0.38	NA	NA	NA	< 0.8	NA	NA	NA	NA	NA	< 0.32	< 0.32	< 0.38	< 0.38	< 0.38	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.5	< 0.37	< 0.34	< 0.34	< 0.5	< 0.5	< 0.22	< 0.34	< 0.34	< 0.37	< 0.37	< 0.6	< 0.6	< 0.6	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.45	< 0.41	< 0.3	< 0.32	< 0.32	< 0.41	< 0.5	< 0.3	< 0.32	< 0.32	< 0.3	< 0.3	< 0.45	< 0.45	< 0.45	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.47	< 0.38	< 0.47	< 0.3	< 0.3	< 0.38	< 0.5	< 0.16	< 0.3	< 0.3	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.49	< 0.33	< 0.42	< 0.35	< 0.35	< 0.33	< 0.5	< 0.24	< 0.35	< 0.35	< 0.42	< 0.42	< 0.49	< 0.49	< 0.49	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.15	< 0.2	< 0.2	< 0.2	< 0.15	< 0.2	***0.2***	< 0.2	< 0.2	< 0.2	< 0.2	**0.18** J	< 0.17	< 0.17	**0.18** J
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.77	NA	NA	< 0.43	< 0.43	NA	NA	NA	NA	NA	< 1.1	< 1.1	< 0.77	< 0.77	< 0.77	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2322 Elm Road		2407 Elm Road			2408 Elm Road				2417 Elm Road			2514 Elm Road		2501 Nelson Lane				2507 Nelson Lane
Original or Replacement Well:																						
Sample Date:				11/17/20	06/20/22	11/07/19	05/27/21	06/29/22	12/19/17	11/07/19	01/14/21	06/03/21	12/19/17	05/25/21	06/22/22	12/19/17	06/02/21	12/19/17	06/02/21	06/21/22	11/04/19
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap
Field Sample ID:				2322 ELM RD	2322 ELM RD	2407 ELM RD	2407 ELM RD	2407 ELM RD	2408 ELM ROAD	2408 ELM RD	2408 ELM ROAD	2408 ELM RD	2417 ELM ROAD	2417 ELM RD	2417 ELM RD	2514 ELM ROAD	2514 ELM RD	2501 NELSON LANE	2501 NELSON	2501 NELSON LN	2507 NELSON LANE
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	WDNR	AECOM	WDNR	AECOM	WDNR	AECOM	AECOM	WDNR	AECOM	WDNR	AECOM	AECOM	AECOM
Analyte	**Units**	**ES** [1]	**PAL** [2]	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.88	< 0.55	< 0.35	< 0.76	< 0.55	< 0.5	< 0.35	< 2	< 0.76	< 0.5	< 0.76	< 0.55	< 0.5	< 0.76	< 0.5	< 0.76	< 0.55	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.3	< 0.33	< 0.33	< 0.41	< 0.33	< 0.5	< 0.33	< 2	< 0.41	< 0.5	< 0.41	< 0.33	< 0.5	< 0.41	< 0.5	< 0.41	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.37	< 0.43	< 0.3	< 0.36	< 0.43	< 0.5	< 0.3	< 0.5	< 0.36	< 0.5	< 0.36	< 0.43	< 0.5	< 0.36	< 0.5	< 0.36	< 0.43	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.36	< 0.42	< 0.42	< 0.48	< 0.42	< 0.5	< 0.42	< 2	< 0.48	< 0.5	< 0.48	< 0.42	< 0.5	< 0.48	< 0.5	< 0.48	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.46	< 0.43	< 0.36	< 0.48	< 0.43	< 0.3	< 0.36	< 2	< 0.48	< 0.3	< 0.48	< 0.43	< 0.3	< 0.48	< 0.3	< 0.48	< 0.43	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.43	< 0.42	< 0.55	< 0.43	< 0.5	< 0.42	< 2	< 0.55	< 0.5	< 0.55	< 0.43	< 0.5	< 0.55	< 0.5	< 0.55	< 0.43	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1	< 1.4	< 1.71	< 0.66	< 1.4	< 0.5	< 1.71	< 2	< 0.66	< 0.5	< 0.66	< 1.4	< 0.5	< 0.66	< 0.5	< 0.66	< 1.4	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	< 1	NA	< 2	NA	< 1	NA	NA	< 1	NA	< 1	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.44	< 0.63	< 1.15	< 0.67	< 0.63	< 0.5	< 1.15	< 2	< 0.67	< 0.5	< 0.67	< 0.63	< 0.5	< 0.67	< 0.5	< 0.67	< 0.63	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.3	< 0.35	< 0.8	< 0.35	< 0.35	< 0.2	< 0.8	< 2	< 0.35	< 0.2	< 0.35	< 0.35	< 0.2	< 0.35	< 0.2	< 0.35	< 0.35	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.82	< 0.74	< 2.96	< 0.54	< 0.74	< 1	< 2.96	< 1	< 0.54	< 1	< 0.54	< 0.74	< 1	< 0.54	< 1	< 0.54	< 0.74	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.24	< 0.39	< 0.34	< 0.47	< 0.39	< 0.5	< 0.34	< 0.5	< 0.47	< 0.5	< 0.47	< 0.39	< 0.5	< 0.47	< 0.5	< 0.47	< 0.39	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.32	< 0.4	< 0.86	< 0.44	< 0.4	< 0.25	< 0.86	< 2	< 0.44	< 0.25	< 0.44	< 0.4	< 0.25	< 0.44	< 0.25	< 0.44	< 0.4	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.39	< 0.43	< 0.25	< 0.44	< 0.43	< 0.5	< 0.25	< 2	< 0.44	< 0.5	< 0.44	< 0.43	< 0.5	< 0.44	< 0.5	< 0.44	< 0.43	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.5	< 0.44	< 2	< 0.38	< 0.5	< 0.38	< 0.39	< 0.5	< 0.38	< 0.5	< 0.38	< 0.39	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.32	< 0.41	< 0.63	< 0.38	< 0.41	< 0.2	< 0.63	< 2	< 0.38	< 0.2	< 0.38	< 0.41	< 0.2	< 0.38	< 0.2	< 0.38	< 0.41	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.31	< 0.35	< 0.85	< 0.38	< 0.35	< 0.25	< 0.85	< 2	< 0.38	< 0.25	< 0.38	< 0.35	< 0.25	< 0.38	< 0.25	< 0.38	< 0.35	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.35	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.3	< 2	< 0.4	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.3	< 0.4	< 0.38	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.36	< 0.49	< 0.7	< 0.48	< 0.49	< 0.25	< 0.7	< 2	< 0.48	< 0.25	< 0.48	< 0.49	< 0.25	< 0.48	< 0.25	< 0.48	< 0.49	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	< 3	NA	< 10	NA	< 3	NA	NA	< 3	NA	< 3	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.32	< 0.34	< 0.31	< 0.36	< 0.34	< 0.3	< 0.31	< 2	< 0.36	< 0.3	< 0.36	< 0.34	< 0.3	< 0.36	< 0.3	< 0.36	< 0.34	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.4	< 0.26	< 0.4	< 0.4	< 0.3	< 0.26	< 2	< 0.4	< 0.3	< 0.4	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4	< 0.4	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	< 2	NA	< 10	NA	< 2	NA	NA	< 2	NA	< 2	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	< 3	NA	< 10	NA	< 3	NA	NA	< 3	NA	< 3	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.33	< 0.3	< 0.22	< 0.38	< 0.3	< 0.3	< 0.22	< 2	< 0.38	< 0.3	< 0.38	< 0.3	< 0.3	< 0.38	< 0.3	< 0.38	< 0.3	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.26	< 0.34	< 0.44	< 0.4	< 0.34	< 0.5	< 0.44	< 2	< 0.4	< 0.5	< 0.4	< 0.34	< 0.5	< 0.4	< 0.5	< 0.4	< 0.34	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.36	< 0.33	< 0.47	< 0.36	< 0.5	< 0.33	< 2	< 0.47	< 0.5	< 0.47	< 0.36	< 0.5	< 0.47	< 0.5	< 0.47	< 0.36	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.65	< 0.42	< 0.45	< 0.46	< 0.42	< 1	< 0.45	< 2	< 0.46	< 1	< 0.46	< 0.42	< 1	< 0.46	< 1	< 0.46	< 0.42	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	< 0.3	NA	< 2	NA	< 0.3	NA	NA	< 0.69	NA	< 0.3	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.34	< 0.31	< 0.44	< 0.34	< 0.5	< 0.31	< 2	< 0.44	< 0.5	< 0.44	< 0.34	< 0.5	< 0.44	< 0.5	< 0.44	< 0.34	< 0.31
Chlorobenzene	ug/l	100	20	< 0.39	< 0.29	< 0.26	< 0.38	< 0.29	< 0.25	< 0.26	< 2	< 0.38	< 0.25	< 0.38	< 0.29	< 0.25	< 0.38	< 0.25	< 0.38	< 0.29	< 0.26
Chloroethane	ug/l	400	80	< 1.1	< 0.62	< 0.61	< 0.78	< 0.62	< 0.5	< 0.61	< 2	< 0.78	< 0.5	< 0.78	< 0.62	< 0.5	< 0.78	< 0.5	< 0.78	< 0.62	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.44	< 0.33	< 0.26	< 0.4	< 0.33	< 0.25	< 0.26	< 2	< 0.4	< 0.25	< 0.4	< 0.33	< 0.25	< 0.4	< 0.25	< 0.4	< 0.33	< 0.26
Chloromethane	ug/l	30	**3**	< 0.8	< 0.74	< 0.54	< 0.84	< 0.74	< 1	< 0.54	< 2	< 0.84	< 1	< 0.84	< 0.74	< 1	< 0.84	< 1	< 0.84	< 0.74	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	**0.75** J	**0.57** J	< 0.37	< 0.39	< 0.32	< 0.3	< 0.37	< 2	< 0.39	< 0.3	< 0.39	< 0.32	< 0.3	< 0.39	< 0.3	< 0.39	< 0.32	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.36	< 0.41	< 0.26	< 0.51	< 0.41	< 0.3	< 0.26	< 2	< 0.51	< 0.3	< 0.51	< 0.41	< 0.3	< 0.51	< 0.3	< 0.51	< 0.41	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.23	< 0.36	< 0.22	< 0.45	< 0.36	< 0.5	< 0.22	< 2	< 0.45	< 0.5	< 0.45	< 0.36	< 0.5	< 0.45	< 0.5	< 0.45	< 0.36	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.45	< 0.3	< 0.32	< 0.55	< 0.3	< 0.5	< 0.32	< 2	< 0.55	< 0.5	< 0.55	< 0.3	< 0.5	< 0.55	< 0.5	< 0.55	< 0.3	< 0.32
Ethylbenzene	ug/l	700	140	< 0.32	< 0.33	< 0.26	< 0.37	< 0.33	< 0.2	< 0.26	< 2	< 0.37	< 0.2	< 0.37	< 0.33	< 0.2	< 0.37	< 0.2	< 0.37	< 0.33	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.72	< 0.81	< 1.34	< 0.75	< 0.81	< 0.5	< 1.34	< 2	< 0.75	< 0.5	< 0.75	< 0.81	< 0.5	< 0.75	< 0.5	< 0.75	< 0.81	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	< 0.5	NA	< 2	NA	< 0.5	NA	NA	< 0.5	NA	< 0.5	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.34	< 0.48	< 0.21	< 0.47	< 0.48	< 0.25	< 0.21	< 2	< 0.47	< 0.25	< 0.47	< 0.48	< 0.25	< 0.47	< 0.25	< 0.47	< 0.48	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.32	< 0.34	< 0.78	< 0.3	< 0.34	< 0.2	< 0.78	< 2	< 0.3	< 0.2	< 0.3	< 0.34	< 0.2	< 0.3	< 0.2	< 0.3	< 0.34	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 1.1	< 0.64	< 0.43	< 0.77	< 0.64	< 0.4	< 0.43	< 2	< 0.77	< 0.4	< 0.77	< 0.64	< 0.4	< 0.77	< 0.4	< 0.77	< 0.64	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.79	< 1.32	< 0.89	< 0.79	< 0.5	< 1.32	< 2	< 0.89	< 0.5	< 0.89	< 0.79	< 0.5	< 0.89	< 0.5	< 0.89	< 0.79	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47	< 0.3	< 0.28	< 2	< 0.46	< 0.3	< 0.46	< 0.47	< 0.3	< 0.46	< 0.3	< 0.46	< 0.47	< 0.28
Naphthalene	ug/l	100	10	< 1.1	< 1.4	< 2.1	< 1.4	< 1.4	< 0.3	< 2.1	< 2	< 1.4	< 0.3	< 1.4	< 1.4	< 0.3	< 1.4	< 0.3	< 1.4	< 1.4	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.28	< 0.71	< 0.71	< 0.46	< 0.71	< 0.2	< 0.71	< 2	< 0.46	< 0.2	< 0.46	< 0.71	< 0.2	< 0.46	< 0.2	< 0.46	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.33	< 0.39	< 0.61	< 0.44	< 0.39	< 0.2	< 0.61	< 2	< 0.44	< 0.2	< 0.44	< 0.39	< 0.2	< 0.44	< 0.2	< 0.44	< 0.39	< 0.61
o-Xylene	ug/l	NL	NL	< 0.38	< 0.37	< 0.29	< 0.44	< 0.37	< 0.3	< 0.29	< 2	< 0.44	< 0.3	< 0.44	< 0.37	< 0.3	< 0.44	< 0.3	< 0.44	< 0.37	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47	< 0.2	< 0.24	< 2	< 0.43	< 0.2	< 0.43	< 0.47	< 0.2	< 0.43	< 0.2	< 0.43	< 0.47	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.32	< 0.33	< 0.79	< 0.31	< 0.33	< 0.2	< 0.79	< 2	< 0.31	< 0.2	< 0.31	< 0.33	< 0.2	< 0.31	< 0.2	< 0.31	< 0.33	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	< 0.25	NA	< 2	NA	< 0.25	NA	NA	< 0.25	NA	< 0.25	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.61	< 0.37	< 0.25	< 0.45	< 0.37	< 0.5	< 0.25	< 2	< 0.45	< 0.5	< 0.45	< 0.37	< 0.5	< 0.45	< 0.5	< 0.45	< 0.37	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.47	< 0.38	< 0.54	< 0.47	< 0.5	< 0.38	< 2	< 0.54	< 0.5	< 0.54	< 0.47	< 0.5	< 0.54	< 0.5	< 0.54	< 0.47	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	< 2	NA	< 10	NA	< 2	NA	NA	< 2	NA	< 2	NA	NA	NA
Toluene	ug/l	800	160	< 0.26	< 0.33	< 0.19	< 0.42	< 0.33	< 0.25	< 0.19	< 2	< 0.42	< 0.25	< 0.42	< 0.33	< 0.25	< 0.42	< 0.25	< 0.42	< 0.33	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	NA	NA	< 0.38	NA	NA	NA	NA	< 0.38	NA	< 0.38	NA	NA	< 0.38	NA	< 0.38	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37	< 0.5	< 0.34	< 0.6	< 0.5	< 0.5	< 0.34	< 2	< 0.6	< 0.5	< 0.6	< 0.5	< 0.5	< 0.6	< 0.5	< 0.6	< 0.5	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.3	< 0.41	< 0.32	< 0.45	< 0.41	< 0.5	< 0.32	< 0.5	< 0.45	< 0.5	< 0.45	< 0.41	< 0.5	< 0.45	< 0.5	< 0.45	< 0.41	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.5	< 0.3	< 2	< 0.47	< 0.5	< 0.47	< 0.38	< 0.5	< 0.47	< 0.5	< 0.47	< 0.38	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.42	< 0.33	< 0.35	< 0.49	< 0.33	< 0.5	< 0.35	< 2	< 0.49	< 0.5	< 0.49	< 0.33	< 0.5	< 0.49	< 0.5	< 0.49	< 0.33	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	***0.23*** ***J***	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.2	< 0.2	< 0.17	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.2	< 0.17	**0.16** J	< 0.2
Xylene (Total)	ug/l	2000	400	NA	NA	< 0.43	< 0.77	NA	NA	< 0.43	NA	< 0.77	NA	< 0.77	NA	NA	< 0.77	NA	< 0.77	NA	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				1511/1513 Lone Oak Lane			1512/1514 Lone Oak Lane			1520/3207 Lone Oak Lane			1521 Lone Oak Lane				1703 Lone Oak Lane	
Original or Replacement Well:																		
Sample Date:				10/06/20	06/27/22	03/11/22	02/07/20	05/24/21	06/27/22	12/10/19	06/01/21	06/22/22	11/07/19	06/03/21	06/22/22	06/22/22 (DUP)	12/10/19	06/24/22
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				1511 LONE OAK	1511 LONE OAK	1513 LONE OAK ST	1514 LONE OAK	1514 LONE OAK LN	1514 LONE OAK	1520 LONE OAK	1520 LONE OAK LN	1520 LONE OAK	521 LONE OAK LAN	1521 LONE OAK LN	1521 LONE OAK	062222 DUP	1703 LONE OAK	1703 LONE OAK
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																		
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.88	< 0.55	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.55	< 0.35	< 0.55
1,1,1-Trichloroethane	ug/l	200	40	< 0.3	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.37	< 0.43	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.43	< 0.3	< 0.43
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.36	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.46	< 0.43	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.43	< 0.36	< 0.43
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.5	< 0.43	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.43	< 0.42	< 0.43
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1	< 1.4	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.4	< 1.71	< 1.4
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.44	< 0.63	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 0.63	< 1.15	< 0.63
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.3	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.82	< 0.74	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 0.74	< 2.96	< 0.74
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.24	< 0.39	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.39	< 0.34	< 0.39
1,2-Dichlorobenzene	ug/l	600	60	< 0.32	< 0.4	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.4	< 0.86	< 0.4
1,2-Dichloroethane	ug/l	5	0.5	< 0.39	< 0.43	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.43	< 0.25	< 0.43
1,2-Dichloropropane	ug/l	5	0.5	< 0.38	< 0.39	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.39	< 0.44	< 0.39
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.32	< 0.41	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.41	< 0.63	< 0.41
1,3-Dichlorobenzene	ug/l	600	120	< 0.31	< 0.35	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.35	< 0.85	< 0.35
1,3-Dichloropropane	ug/l	NL	NL	< 0.35	< 0.38	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.38	< 0.3	< 0.38
1,4-Dichlorobenzene	ug/l	75	15	< 0.36	< 0.49	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.49	< 0.7	< 0.49
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.32	< 0.34	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.34	< 0.31	< 0.34
4-Chlorotoluene	ug/l	NL	NL	< 0.3	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.33	< 0.3	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.3	< 0.22	< 0.3
Bromobenzene	ug/l	NL	NL	< 0.26	< 0.34	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.34	< 0.44	< 0.34
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.36	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.36	< 0.33	< 0.36
Bromoform	ug/l	4.4	0.44	< 0.65	< 0.42	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.42	< 0.45	< 0.42
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.34	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.34	< 0.31	< 0.34
Chlorobenzene	ug/l	100	20	< 0.39	< 0.29	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.29	< 0.26	< 0.29
Chloroethane	ug/l	400	80	< 1.1	< 0.62	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.62	< 0.61	< 0.62
Chloroform	ug/l	6	**0.6**	< 0.44	< 0.33	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.33	< 0.26	< 0.33
Chloromethane	ug/l	30	**3**	< 0.8	< 0.74	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.74	< 0.54	< 0.74
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.39	0.36 J	0.42 J	< 0.37	< 0.39	< 0.32	< 0.37	< 0.39	0.6 J	< 0.37	< 0.39	< 0.32	< 0.32	< 0.37	< 0.32
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.36	< 0.41	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.41	< 0.26	< 0.41
Dibromochloromethane	ug/l	60	6	< 0.23	< 0.36	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.36	< 0.22	< 0.36
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.45	< 0.3	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.3	< 0.32	< 0.3
Ethylbenzene	ug/l	700	140	< 0.32	< 0.33	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.33	< 0.26	< 0.33
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.72	< 0.81	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 0.81	< 1.34	< 0.81
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.34	< 0.48	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.48	< 0.21	< 0.48
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.32	< 0.34	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.34	< 0.78	< 0.34
m,p-Xylenes	ug/l	NL	NL	< 1.1	< 0.64	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.64	< 0.43	< 0.64
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.79	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 0.79	< 1.32	< 0.79
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.47	< 0.28	< 0.47
Naphthalene	ug/l	100	10	< 1.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.28	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.33	< 0.39	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.39	< 0.61	< 0.39
o-Xylene	ug/l	NL	NL	< 0.38	< 0.37	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.37	< 0.29	< 0.37
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.47	< 0.24	< 0.47
sec-Butylbenzene	ug/l	NL	NL	< 0.32	< 0.33	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.33	< 0.79	< 0.33
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.61	< 0.37	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.37	< 0.25	< 0.37
Tetrachloroethene	ug/l	5	0.5	< 0.33	< 0.47	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.47	< 0.38	< 0.47
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.26	< 0.33	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.33	< 0.19	< 0.33
Total Trimethylbenzene	ug/l	480	96	NA	NA	NA	< 0.8	< 0.38	NA	< 0.8	< 0.38	NA	NA	< 0.38	NA	NA	< 0.8	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.37	< 0.5	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.5	< 0.34	< 0.5
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.3	< 0.41	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.41	< 0.32	< 0.41
Trichloroethene	ug/l	5	0.5	< 0.47	< 0.38	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.38	< 0.3	< 0.38
Trichlorofluoromethane	ug/l	3490	698	< 0.42	< 0.33	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.33	< 0.35	< 0.33
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	**0.19** J	***0.31*** ***J***	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.15	< 0.2	< 0.15
Xylene (Total)	ug/l	2000	400	NA	NA	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	NA	< 0.43	< 0.77	NA	NA	< 0.43	NA

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				3125 Lone Oak Lane				3205 Lone Oak Lane				3206 Lone Oak Lane			3208 Lone Oak Lane						1110 Lake Lane
Original or Replacement Well:																					
Sample Date:				11/06/19	05/26/21	11/29/21	06/22/22	11/12/19	05/25/21	06/23/22	06/23/22 (DUP)	12/10/19	05/27/21	06/22/22	10/05/20	05/28/21	05/28/21 (DUP)	12/03/21	12/03/21 (DUP)	06/24/22	11/08/19
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Exterior Spigot
Field Sample ID:				125 LONE OAK LAN	3125 LONE OAK LN	3125 LONE OAK	3125 LONE OAK	205 LONE OAK LAN	3205 LONE OAK LN	3205 LONE OAK	062322 DUP	3206 LONE OAK	3206 LONE OAK LN	3206 LONE OAK	3208 LONE OAK	3208 LONE OAK LN	FD 052821	3208 LONE OAK	120321 DUP	3208 LONE OAK	1110 LAKE LANE
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																					
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.76	< 0.55	< 0.55	< 0.35	< 0.76	< 0.55	< 0.88	< 0.76	< 0.76	< 0.76	< 0.76	< 0.55	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.33	< 0.3	< 0.41	< 0.41	< 0.41	< 0.41	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.36	< 0.43	< 0.43	< 0.3	< 0.36	< 0.43	< 0.37	< 0.36	< 0.36	< 0.36	< 0.36	< 0.43	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.42	< 0.36	< 0.48	< 0.48	< 0.48	< 0.48	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.48	< 0.43	< 0.43	< 0.36	< 0.48	< 0.43	< 0.46	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.55	< 0.43	< 0.43	< 0.42	< 0.55	< 0.43	< 0.5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.43	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 0.66	< 1.4	< 1.4	< 1.71	< 0.66	< 1.4	< 1	< 0.66	< 0.66	< 0.66	< 0.66	< 1.4	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 0.67	< 0.63	< 0.63	< 1.15	< 0.67	< 0.63	< 0.44	< 0.67	< 0.67	< 0.67	< 0.67	< 0.63	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 0.54	< 0.74	< 0.74	< 2.96	< 0.54	< 0.74	< 0.82	< 0.54	< 0.54	< 0.54	< 0.54	< 0.74	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.47	< 0.39	< 0.39	< 0.34	< 0.47	< 0.39	< 0.24	< 0.47	< 0.47	< 0.47	< 0.47	< 0.39	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.44	< 0.4	< 0.4	< 0.86	< 0.44	< 0.4	< 0.32	< 0.44	< 0.44	< 0.44	< 0.44	< 0.4	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.44	< 0.43	< 0.43	< 0.25	< 0.44	< 0.43	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.43	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.38	< 0.39	< 0.39	< 0.44	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.38	< 0.41	< 0.41	< 0.63	< 0.38	< 0.41	< 0.32	< 0.38	< 0.38	< 0.38	< 0.38	< 0.41	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.38	< 0.35	< 0.35	< 0.85	< 0.38	< 0.35	< 0.31	< 0.38	< 0.38	< 0.38	< 0.38	< 0.35	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.4	< 0.38	< 0.38	< 0.3	< 0.4	< 0.38	< 0.35	< 0.4	< 0.4	< 0.4	< 0.4	< 0.38	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.48	< 0.49	< 0.49	< 0.7	< 0.48	< 0.49	< 0.36	< 0.48	< 0.48	< 0.48	< 0.48	< 0.49	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.36	< 0.34	< 0.34	< 0.31	< 0.36	< 0.34	< 0.32	< 0.36	< 0.36	< 0.36	< 0.36	< 0.34	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.38	< 0.3	< 0.3	< 0.22	< 0.38	< 0.3	< 0.33	< 0.38	< 0.38	< 0.38	< 0.38	< 0.3	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.4	< 0.34	< 0.34	< 0.44	< 0.4	< 0.34	< 0.26	< 0.4	< 0.4	< 0.4	< 0.4	< 0.34	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.47	< 0.36	< 0.36	< 0.33	< 0.47	< 0.36	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.36	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.46	< 0.42	< 0.42	< 0.45	< 0.46	< 0.42	< 0.65	< 0.46	< 0.46	< 0.46	< 0.46	< 0.42	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.44	< 0.34	< 0.34	< 0.31	< 0.44	< 0.34	< 0.31	< 0.44	< 0.44	< 0.44	< 0.44	< 0.34	< 0.31
Chlorobenzene	ug/l	100	20	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.38	< 0.29	< 0.29	< 0.26	< 0.38	< 0.29	< 0.39	< 0.38	< 0.38	< 0.38	< 0.38	< 0.29	< 0.26
Chloroethane	ug/l	400	80	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.78	< 0.62	< 0.62	< 0.61	< 0.78	< 0.62	< 1.1	< 0.78	< 0.78	< 0.78	< 0.78	< 0.62	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.26	0.5 J	< 0.4	< 0.33	< 0.26	< 0.4	< 0.33	< 0.33	< 0.26	< 0.4	< 0.33	< 0.44	< 0.4	< 0.4	< 0.4	< 0.4	< 0.33	< 0.26
Chloromethane	ug/l	30	**3**	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.84	< 0.74	< 0.74	< 0.54	< 0.84	< 0.74	< 0.8	< 0.84	< 0.84	< 0.84	< 0.84	< 0.74	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.45 J	0.4 J	0.43 J	0.42 J	< 0.37	< 0.39	< 0.32	< 0.32	< 0.37	< 0.39	0.37 J	0.58 J	0.39 J	0.44 J	< 0.39	< 0.39	< 0.32	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.51	< 0.41	< 0.41	< 0.26	< 0.51	< 0.41	< 0.36	< 0.51	< 0.51	< 0.51	< 0.51	< 0.41	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.45	< 0.36	< 0.36	< 0.22	< 0.45	< 0.36	< 0.23	< 0.45	< 0.45	< 0.45	< 0.45	< 0.36	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.55	< 0.3	< 0.3	< 0.32	< 0.55	< 0.3	< 0.45	< 0.55	< 0.55	< 0.55	< 0.55	< 0.3	< 0.32
Ethylbenzene	ug/l	700	140	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.37	< 0.33	< 0.33	< 0.26	< 0.37	< 0.33	< 0.32	< 0.37	< 0.37	< 0.37	< 0.37	< 0.33	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 0.75	< 0.81	< 0.81	< 1.34	< 0.75	< 0.81	< 0.72	< 0.75	< 0.75	< 0.75	< 0.75	< 0.81	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.47	< 0.48	< 0.48	< 0.21	< 0.47	< 0.48	< 0.34	< 0.47	< 0.47	< 0.47	< 0.47	< 0.48	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.3	< 0.34	< 0.34	< 0.78	< 0.3	< 0.34	< 0.32	< 0.3	< 0.3	< 0.3	< 0.3	< 0.34	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.77	< 0.64	< 0.64	< 0.43	< 0.77	< 0.64	< 1.1	< 0.77	< 0.77	< 0.77	< 0.77	< 0.64	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 0.89	< 0.79	< 0.79	< 1.32	< 0.89	< 0.79	< 1.32	< 0.89	< 0.89	< 0.89	< 0.89	< 0.79	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.46	< 0.47	< 0.47	< 0.28	< 0.46	< 0.47	< 0.47	< 0.46	< 0.46	< 0.46	< 0.46	< 0.47	< 0.28
Naphthalene	ug/l	100	10	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.71	< 0.28	< 0.46	< 0.46	< 0.46	< 0.46	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.44	< 0.39	< 0.39	< 0.61	< 0.44	< 0.39	< 0.33	< 0.44	< 0.44	< 0.44	< 0.44	< 0.39	< 0.61
o-Xylene	ug/l	NL	NL	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.44	< 0.37	< 0.37	< 0.29	< 0.44	< 0.37	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.37	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.43	< 0.47	< 0.47	< 0.24	< 0.43	< 0.47	< 0.47	< 0.43	< 0.43	< 0.43	< 0.43	< 0.47	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.31	< 0.33	< 0.33	< 0.79	< 0.31	< 0.33	< 0.32	< 0.31	< 0.31	< 0.31	< 0.31	< 0.33	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.45	< 0.37	< 0.37	< 0.25	< 0.45	< 0.37	< 0.61	< 0.45	< 0.45	< 0.45	< 0.45	< 0.37	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.54	< 0.47	< 0.47	< 0.38	< 0.54	< 0.47	< 0.33	< 0.54	< 0.54	< 0.54	< 0.54	< 0.47	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.42	< 0.33	< 0.33	< 0.19	< 0.42	< 0.33	< 0.26	< 0.42	< 0.42	< 0.42	< 0.42	< 0.33	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	< 0.38	< 0.38	NA	< 0.8	< 0.38	NA	NA	< 0.8	< 0.38	NA	NA	< 0.38	< 0.38	< 0.38	< 0.38	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.6	< 0.5	< 0.5	< 0.34	< 0.6	< 0.5	< 0.37	< 0.6	< 0.6	< 0.6	< 0.6	< 0.5	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.45	< 0.41	< 0.41	< 0.32	< 0.45	< 0.41	< 0.3	< 0.45	< 0.45	< 0.45	< 0.45	< 0.41	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.47	< 0.38	< 0.38	< 0.3	< 0.47	< 0.38	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.49	< 0.33	< 0.33	< 0.35	< 0.49	< 0.33	< 0.42	< 0.49	< 0.49	< 0.49	< 0.49	< 0.33	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.17	< 0.15	< 0.15	< 0.2	< 0.17	< 0.15	< 0.2	< 0.17	< 0.17	< 0.17	***0.24*** ***J***	< 0.15	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.77	NA	NA	< 0.43	< 0.77	NA	NA	< 0.77	< 0.77	< 0.77	< 0.77	NA	< 0.43

TABLE 2

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2406/2414/2512 Birch Rd		1617 Lissa Lane	1701 Lissa Lane	1704 Lissa Lane		1709 Lissa Lane	1710 Lissa Lane				1805 Lissa Lane	1718 Jenny Rd	1801 Jenny Rd	1804 Jenny Rd		1807 Jenny Rd
Original or Replacement Well:																				
Sample Date:				06/22/22	11/17/22	05/27/21	10/05/20	05/27/21	06/29/22	11/05/19	11/07/19	06/03/21	06/03/21 (DUP)	06/20/22	11/18/19	11/26/19	11/05/19	11/05/19	06/22/22	06/02/21
Sample Source:				Sample Tap	Sample Tap	Basement Tap	Sample Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap	Sample Tap
Field Sample ID:				24062512 BIRCH	06/2414/2512 BIRCH	1617 LISSA LN	1701 LISSA	1704 LISSA LN	1704 LISSA LN	1709 LISSA LANE	1710 LISSA LANE	1710 LISSA LN	FD060321	1710 LISSA LANE	1805 LISSA LANE	1718 JENNY RD	1801 JENNY RD	1804 JENNY RD	1804 JENNY RD	1807 JENNY RD
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):																				
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.55	< 0.55	< 0.76	< 0.88	< 0.76	< 0.55	< 0.35	< 0.35	< 0.76	< 0.76	< 0.55	< 0.35	< 0.35	< 0.35	< 0.35	< 0.55	< 0.76
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.41	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.41	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.41
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.43	< 0.43	< 0.36	< 0.37	< 0.36	< 0.43	< 0.3	< 0.3	< 0.36	< 0.36	< 0.43	< 0.3	< 0.3	< 0.3	< 0.3	< 0.43	< 0.36
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.48	< 0.36	< 0.48	< 0.42	< 0.42	< 0.42	< 0.48	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.48
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.43	< 0.43	< 0.48	< 0.46	< 0.48	< 0.43	< 0.36	< 0.36	< 0.48	< 0.48	< 0.43	< 0.36	< 0.36	< 0.36	< 0.36	< 0.43	< 0.48
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.43	< 0.43	< 0.55	< 0.5	< 0.55	< 0.43	< 0.42	< 0.42	< 0.55	< 0.55	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42	< 0.43	< 0.55
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.4	< 1.4	< 0.66	< 1	< 0.66	< 1.4	< 1.71	< 1.71	< 0.66	< 0.66	< 1.4	< 1.71	< 1.71	< 1.71	< 1.71	< 1.4	< 0.66
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 0.63	< 0.63	< 0.67	< 0.44	< 0.67	< 0.63	< 1.15	< 1.15	< 0.67	< 0.67	< 0.63	< 1.15	< 1.15	< 1.15	< 1.15	< 0.63	< 0.67
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.35	< 0.35	< 0.35	< 0.3	< 0.35	< 0.35	< 0.8	< 0.8	< 0.35	< 0.35	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 0.74	< 0.74	< 0.54	< 0.82	< 0.54	< 0.74	< 2.96	< 2.96	< 0.54	< 0.54	< 0.74	< 2.96	< 2.96	< 2.96	< 2.96	< 0.74	< 0.54
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.39	< 0.39	< 0.47	< 0.24	< 0.47	< 0.39	< 0.34	< 0.34	< 0.47	< 0.47	< 0.39	< 0.34	< 0.34	< 0.34	< 0.34	< 0.39	< 0.47
1,2-Dichlorobenzene	ug/l	600	60	< 0.4	< 0.4	< 0.44	< 0.32	< 0.44	< 0.4	< 0.86	< 0.86	< 0.44	< 0.44	< 0.4	< 0.86	< 0.86	< 0.86	< 0.86	< 0.4	< 0.44
1,2-Dichloroethane	ug/l	5	0.5	< 0.43	< 0.43	< 0.44	< 0.39	< 0.44	< 0.43	< 0.25	< 0.25	< 0.44	< 0.44	< 0.43	< 0.25	< 0.25	< 0.25	< 0.25	< 0.43	< 0.44
1,2-Dichloropropane	ug/l	5	0.5	< 0.39	< 0.39	< 0.38	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.38	< 0.38	< 0.39	< 0.44	< 0.44	< 0.44	< 0.44	< 0.39	< 0.38
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.41	< 0.41	< 0.38	< 0.32	< 0.38	< 0.41	< 0.63	< 0.63	< 0.38	< 0.38	< 0.41	< 0.63	< 0.63	< 0.63	< 0.63	< 0.41	< 0.38
1,3-Dichlorobenzene	ug/l	600	120	< 0.35	< 0.35	< 0.38	< 0.31	< 0.38	< 0.35	< 0.85	< 0.85	< 0.38	< 0.38	< 0.35	< 0.85	< 0.85	< 0.85	< 0.85	< 0.35	< 0.38
1,3-Dichloropropane	ug/l	NL	NL	< 0.38	< 0.38	< 0.4	< 0.35	< 0.4	< 0.38	< 0.3	< 0.3	< 0.4	< 0.4	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.38	< 0.4
1,4-Dichlorobenzene	ug/l	75	15	< 0.49	< 0.49	< 0.48	< 0.36	< 0.48	< 0.49	< 0.7	< 0.7	< 0.48	< 0.48	< 0.49	< 0.7	< 0.7	< 0.7	< 0.7	< 0.49	< 0.48
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.34	< 0.34	< 0.36	< 0.32	< 0.36	< 0.34	< 0.31	< 0.31	< 0.36	< 0.36	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.36
4-Chlorotoluene	ug/l	NL	NL	< 0.4	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4	< 0.26	< 0.26	< 0.4	< 0.4	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26	< 0.4	< 0.4
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.3	< 0.3	< 0.38	< 0.33	< 0.38	< 0.3	< 0.22	< 0.22	< 0.38	< 0.38	< 0.3	< 0.22	< 0.22	< 0.22	< 0.22	< 0.3	< 0.38
Bromobenzene	ug/l	NL	NL	< 0.34	< 0.34	< 0.4	< 0.26	< 0.4	< 0.34	< 0.44	< 0.44	< 0.4	< 0.4	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.34	< 0.4
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.36	< 0.36	< 0.47	< 0.33	< 0.47	< 0.36	< 0.33	< 0.33	< 0.47	< 0.47	< 0.36	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.47
Bromoform	ug/l	4.4	0.44	< 0.42	< 0.42	< 0.46	< 0.65	< 0.46	< 0.42	< 0.45	< 0.45	< 0.46	< 0.46	< 0.42	< 0.45	< 0.45	< 0.45	< 0.45	< 0.42	< 0.46
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.34	< 0.34	< 0.44	< 0.31	< 0.44	< 0.34	< 0.31	< 0.31	< 0.44	< 0.44	< 0.34	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.44
Chlorobenzene	ug/l	100	20	< 0.29	< 0.29	< 0.38	< 0.39	< 0.38	< 0.29	< 0.26	< 0.26	< 0.38	< 0.38	< 0.29	< 0.26	< 0.26	< 0.26	< 0.26	< 0.29	< 0.38
Chloroethane	ug/l	400	80	< 0.62	< 0.62	< 0.78	< 1.1	< 0.78	< 0.62	< 0.61	< 0.61	< 0.78	< 0.78	< 0.62	< 0.61	< 0.61	< 0.61	< 0.61	< 0.62	< 0.78
Chloroform	ug/l	6	**0.6**	< 0.33	< 0.33	< 0.4	< 0.44	< 0.4	< 0.33	< 0.26	< 0.26	< 0.4	< 0.4	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.33	< 0.4
Chloromethane	ug/l	30	**3**	< 0.74	< 0.74	< 0.84	< 0.8	< 0.84	< 0.74	< 0.54	< 0.54	< 0.84	< 0.84	< 0.74	< 0.54	< 0.54	< 0.54	< 0.54	< 0.74	< 0.84
cis-1,2-Dichloroethene	ug/l	*70*	**7**	0.6 J	0.9 J	< 0.39	< 0.39	< 0.39	< 0.32	< 0.37	< 0.37	< 0.39	< 0.39	< 0.32	< 0.37	< 0.37	< 0.37	< 0.37	< 0.32	< 0.39
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.41	< 0.41	< 0.51	< 0.36	< 0.51	< 0.41	< 0.26	< 0.26	< 0.51	< 0.51	< 0.41	< 0.26	< 0.26	< 0.26	< 0.26	< 0.41	< 0.51
Dibromochloromethane	ug/l	60	6	< 0.36	< 0.36	< 0.45	< 0.23	< 0.45	< 0.36	< 0.22	< 0.22	< 0.45	< 0.45	< 0.36	< 0.22	< 0.22	< 0.22	< 0.22	< 0.36	< 0.45
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.3	< 0.3	< 0.55	< 0.45	< 0.55	< 0.3	< 0.32	< 0.32	< 0.55	< 0.55	< 0.3	< 0.32	< 0.32	< 0.32	< 0.32	< 0.3	< 0.55
Ethylbenzene	ug/l	700	140	< 0.33	< 0.33	< 0.37	< 0.32	< 0.37	< 0.33	< 0.26	< 0.26	< 0.37	< 0.37	< 0.33	< 0.26	< 0.26	< 0.26	< 0.26	< 0.33	< 0.37
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 0.81	< 0.81	< 0.75	< 0.72	< 0.75	< 0.81	< 1.34	< 1.34	< 0.75	< 0.75	< 0.81	< 1.34	< 1.34	< 1.34	< 1.34	< 0.81	< 0.75
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.48	< 0.48	< 0.47	< 0.34	< 0.47	< 0.48	< 0.21	< 0.21	< 0.47	< 0.47	< 0.48	< 0.21	< 0.21	< 0.21	< 0.21	< 0.48	< 0.47
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.34	< 0.34	< 0.3	< 0.32	< 0.3	< 0.34	< 0.78	< 0.78	< 0.3	< 0.3	< 0.34	< 0.78	< 0.78	< 0.78	< 0.78	< 0.34	< 0.3
m,p-Xylenes	ug/l	NL	NL	< 0.64	< 0.64	< 0.77	< 1.1	< 0.77	< 0.64	< 0.43	< 0.43	< 0.77	< 0.77	< 0.64	< 0.43	< 0.43	< 0.43	< 0.43	< 0.64	< 0.77
Methylene Chloride	ug/l	5	**0.5**	< 0.79	< 0.79	< 0.89	< 1.32	< 0.89	< 0.79	< 1.32	< 1.32	< 0.89	< 0.89	< 0.79	< 1.32	< 1.32	< 1.32	< 1.32	< 0.79	< 0.89
Methyl-tert-butyl ether	ug/l	60	12	< 0.47	< 0.47	< 0.46	< 0.47	< 0.46	< 0.47	< 0.28	< 0.28	< 0.46	< 0.46	< 0.47	< 0.28	< 0.28	< 0.28	< 0.28	< 0.47	< 0.46
Naphthalene	ug/l	100	10	< 1.4	< 1.4	< 1.4	< 1.1	< 1.4	< 1.4	< 2.1	< 2.1	< 1.4	< 1.4	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1	< 1.4	< 1.4
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.46	< 0.28	< 0.46	< 0.71	< 0.71	< 0.71	< 0.46	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.46
n-Propylbenzene	ug/l	NL	NL	< 0.39	< 0.39	< 0.44	< 0.33	< 0.44	< 0.39	< 0.61	< 0.61	< 0.44	< 0.44	< 0.39	< 0.61	< 0.61	< 0.61	< 0.61	< 0.39	< 0.44
o-Xylene	ug/l	NL	NL	< 0.37	< 0.37	< 0.44	< 0.38	< 0.44	< 0.37	< 0.29	< 0.29	< 0.44	< 0.44	< 0.37	< 0.29	< 0.29	< 0.29	< 0.29	< 0.37	< 0.44
p-Isopropyltoluene	ug/l	NL	NL	< 0.47	< 0.47	< 0.43	< 0.47	< 0.43	< 0.47	< 0.24	< 0.24	< 0.43	< 0.43	< 0.47	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.43
sec-Butylbenzene	ug/l	NL	NL	< 0.33	< 0.33	< 0.31	< 0.32	< 0.31	< 0.33	< 0.79	< 0.79	< 0.31	< 0.31	< 0.33	< 0.79	< 0.79	< 0.79	< 0.79	< 0.33	< 0.31
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.37	< 0.37	< 0.45	< 0.61	< 0.45	< 0.37	< 0.25	< 0.25	< 0.45	< 0.45	< 0.37	< 0.25	< 0.25	< 0.25	< 0.25	< 0.37	< 0.45
Tetrachloroethene	ug/l	5	0.5	< 0.47	< 0.47	< 0.54	< 0.33	< 0.54	< 0.47	< 0.38	< 0.38	< 0.54	< 0.54	< 0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.47	< 0.54
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.33	< 0.33	< 0.42	< 0.26	< 0.42	< 0.33	< 0.19	< 0.19	< 0.42	< 0.42	< 0.33	< 0.19	< 0.19	< 0.19	< 0.19	< 0.33	< 0.42
Total Trimethylbenzene	ug/l	480	96	NA	NA	< 0.38	NA	< 0.38	NA	NA	NA	< 0.38	< 0.38	NA	< 0.8	< 0.8	NA	NA	NA	< 0.38
trans-1,2-Dichloroethene	ug/l	100	20	< 0.5	< 0.5	< 0.6	< 0.37	< 0.6	< 0.5	< 0.34	< 0.34	< 0.6	< 0.6	< 0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.5	< 0.6
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.41	< 0.41	< 0.45	< 0.3	< 0.45	< 0.41	< 0.32	< 0.32	< 0.45	< 0.45	< 0.41	< 0.32	< 0.32	< 0.32	< 0.32	< 0.41	< 0.45
Trichloroethene	ug/l	5	0.5	< 0.38	< 0.38	< 0.47	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.47	< 0.47	< 0.38	< 0.3	< 0.3	< 0.3	< 0.3	< 0.38	< 0.47
Trichlorofluoromethane	ug/l	3490	698	< 0.33	< 0.33	< 0.49	< 0.42	< 0.49	< 0.33	< 0.35	< 0.35	< 0.49	< 0.49	< 0.33	< 0.35	< 0.35	< 0.35	< 0.35	< 0.33	< 0.49
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.15	< 0.15	< 0.17	< 0.2	< 0.17	< 0.15	< 0.2	< 0.2	< 0.17	< 0.17	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.15	< 0.17
Xylene (Total)	ug/l	2000	400	NA	NA	< 0.77	NA	< 0.77	NA	< 0.43	< 0.43	< 0.77	< 0.77	NA	< 0.43	< 0.43	< 0.43	< 0.43	NA	< 0.77

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Location (or Location group):				2403 Jenny Rd		2505 Jenny Rd		3319 Jenny Rd	3321 Jenny Rd	1108 Creek Trails	1207 Creek Trails
Original or Replacement Well:											
Sample Date:				11/07/19	06/27/22	10/06/20	06/03/21	11/05/19	11/07/19	11/04/19	11/06/19
Sample Source:				Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap	Basement Tap
Field Sample ID:				2403 JENNY RD	2403 JENNY RD	2505 JENNY	2505 JENNY RD	3319 JENNY RD	3321 JENNY RD	1108 CREEK TRAILS	1207 CREEK TRAILS
Sampling Company:				AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
Analyte	**Units**	**ES [1]**	**PAL [2]**	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organic Compounds (VOCs):											
1,1,1,2-Tetrachloroethane	ug/l	70	7	< 0.35	< 0.55	< 0.88	< 0.76	< 0.35	< 0.35	< 0.35	< 0.35
1,1,1-Trichloroethane	ug/l	200	40	< 0.33	< 0.33	< 0.3	< 0.41	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2,2-Tetrachloroethane	ug/l	0.2	0.02	< 0.3	< 0.43	< 0.37	< 0.36	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	ug/l	5	0.5	< 0.42	< 0.42	< 0.36	< 0.48	< 0.42	< 0.42	< 0.42	< 0.42
1,1,2-Trichlorotrifluoroethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/l	850	85	< 0.36	< 0.43	< 0.46	< 0.48	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	ug/l	7	**0.7**	< 0.42	< 0.43	< 0.5	< 0.55	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/l	NL	NL	< 1.71	< 1.4	< 1	< 0.66	< 1.71	< 1.71	< 1.71	< 1.71
1,2,3-Trichloropropane	ug/l	60	12	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/l	70	14	< 1.15	< 0.63	< 0.44	< 0.67	< 1.15	< 1.15	< 1.15	< 1.15
1,2,4-Trimethylbenzene	ug/l	NL	NL	< 0.8	< 0.35	< 0.3	< 0.35	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.02	< 2.96	< 0.74	< 0.82	< 0.54	< 2.96	< 2.96	< 2.96	< 2.96
1,2-Dibromoethane (EDB)	ug/l	0.05	0.005	< 0.34	< 0.39	< 0.24	< 0.47	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene	ug/l	600	60	< 0.86	< 0.4	< 0.32	< 0.44	< 0.86	< 0.86	< 0.86	< 0.86
1,2-Dichloroethane	ug/l	5	0.5	< 0.25	< 0.43	< 0.39	< 0.44	< 0.25	< 0.25	< 0.25	< 0.25
1,2-Dichloropropane	ug/l	5	0.5	< 0.44	< 0.39	< 0.38	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44
1,3,5-Trimethylbenzene	ug/l	NL	NL	< 0.63	< 0.41	< 0.32	< 0.38	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichlorobenzene	ug/l	600	120	< 0.85	< 0.35	< 0.31	< 0.38	< 0.85	< 0.85	< 0.85	< 0.85
1,3-Dichloropropane	ug/l	NL	NL	< 0.3	< 0.38	< 0.35	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	ug/l	75	15	< 0.7	< 0.49	< 0.36	< 0.48	< 0.7	< 0.7	< 0.7	< 0.7
2,2-Dichloropropane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ug/l	4000	800	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/l	NL	NL	< 0.31	< 0.34	< 0.32	< 0.36	< 0.31	< 0.31	< 0.31	< 0.31
4-Chlorotoluene	ug/l	NL	NL	< 0.26	< 0.4	< 0.3	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26
4-Methyl-2-pentanone (MIBK)	ug/l	500	50	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	9000	1800	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/l	5	**0.5**	< 0.22	< 0.3	< 0.33	< 0.38	< 0.22	< 0.22	< 0.22	< 0.22
Bromobenzene	ug/l	NL	NL	< 0.44	< 0.34	< 0.26	< 0.4	< 0.44	< 0.44	< 0.44	< 0.44
Bromochloromethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/l	0.6	0.06	< 0.33	< 0.36	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33
Bromoform	ug/l	4.4	0.44	< 0.45	< 0.42	< 0.65	< 0.46	< 0.45	< 0.45	< 0.45	< 0.45
Bromomethane	ug/l	10	1	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ug/l	1000	200	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ug/l	5	0.5	< 0.31	< 0.34	< 0.31	< 0.44	< 0.31	< 0.31	< 0.31	< 0.31
Chlorobenzene	ug/l	100	20	< 0.26	< 0.29	< 0.39	< 0.38	< 0.26	< 0.26	< 0.26	< 0.26
Chloroethane	ug/l	400	80	< 0.61	< 0.62	< 1.1	< 0.78	< 0.61	< 0.61	< 0.61	< 0.61
Chloroform	ug/l	6	**0.6**	< 0.26	< 0.33	< 0.44	< 0.4	< 0.26	< 0.26	< 0.26	< 0.26
Chloromethane	ug/l	30	**3**	< 0.54	< 0.74	< 0.8	< 0.84	< 0.54	< 0.54	< 0.54	< 0.54
cis-1,2-Dichloroethene	ug/l	*70*	**7**	< 0.37	< 0.32	< 0.39	< 0.39	< 0.37	< 0.37	< 0.37	< 0.37
cis-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.26	< 0.41	< 0.36	< 0.51	< 0.26	< 0.26	< 0.26	< 0.26
Dibromochloromethane	ug/l	60	6	< 0.22	< 0.36	< 0.23	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/l	1000	200	< 0.32	< 0.3	< 0.45	< 0.55	< 0.32	< 0.32	< 0.32	< 0.32
Ethylbenzene	ug/l	700	140	< 0.26	< 0.33	< 0.32	< 0.37	< 0.26	< 0.26	< 0.26	< 0.26
Hexachloro-1,3-butadiene	ug/l	NL	NL	< 1.34	< 0.81	< 0.72	< 0.75	< 1.34	< 1.34	< 1.34	< 1.34
Hexane	ug/l	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl ether	ug/l	NL	NL	< 0.21	< 0.48	< 0.34	< 0.47	< 0.21	< 0.21	< 0.21	< 0.21
Isopropylbenzene (Cumene)	ug/l	NL	NL	< 0.78	< 0.34	< 0.32	< 0.3	< 0.78	< 0.78	< 0.78	< 0.78
m,p-Xylenes	ug/l	NL	NL	< 0.43	< 0.64	< 1.1	< 0.77	< 0.43	< 0.43	< 0.43	< 0.43
Methylene Chloride	ug/l	5	**0.5**	< 1.32	< 0.79	< 1.32	< 0.89	< 1.32	< 1.32	< 1.32	< 1.32
Methyl-tert-butyl ether	ug/l	60	12	< 0.28	< 0.47	< 0.47	< 0.46	< 0.28	< 0.28	< 0.28	< 0.28
Naphthalene	ug/l	100	10	< 2.1	< 1.4	< 1.1	< 1.4	< 2.1	< 2.1	< 2.1	< 2.1
n-Butylbenzene	ug/l	NL	NL	< 0.71	< 0.71	< 0.28	< 0.46	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/l	NL	NL	< 0.61	< 0.39	< 0.33	< 0.44	< 0.61	< 0.61	< 0.61	< 0.61
o-Xylene	ug/l	NL	NL	< 0.29	< 0.37	< 0.38	< 0.44	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	ug/l	NL	NL	< 0.24	< 0.47	< 0.47	< 0.43	< 0.24	< 0.24	< 0.24	< 0.24
sec-Butylbenzene	ug/l	NL	NL	< 0.79	< 0.33	< 0.32	< 0.31	< 0.79	< 0.79	< 0.79	< 0.79
Styrene	ug/l	100	10	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/l	NL	NL	< 0.25	< 0.37	< 0.61	< 0.45	< 0.25	< 0.25	< 0.25	< 0.25
Tetrachloroethene	ug/l	5	0.5	< 0.38	< 0.47	< 0.33	< 0.54	< 0.38	< 0.38	< 0.38	< 0.38
Tetrahydrofuran	ug/l	50	10	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	800	160	< 0.19	< 0.33	< 0.26	< 0.42	< 0.19	< 0.19	< 0.19	< 0.19
Total Trimethylbenzene	ug/l	480	96	NA	NA	NA	< 0.38	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/l	100	20	< 0.34	< 0.5	< 0.37	< 0.6	< 0.34	< 0.34	< 0.34	< 0.34
trans-1,3-Dichloropropene	ug/l	0.4	0.04	< 0.32	< 0.41	< 0.3	< 0.45	< 0.32	< 0.32	< 0.32	< 0.32
Trichloroethene	ug/l	5	0.5	< 0.3	< 0.38	< 0.47	< 0.47	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	ug/l	3490	698	< 0.35	< 0.33	< 0.42	< 0.49	< 0.35	< 0.35	< 0.35	< 0.35
Vinyl chloride	ug/l	*0.2*	**0.02**	< 0.2	< 0.15	< 0.2	< 0.17	< 0.2	< 0.2	< 0.2	< 0.2
Xylene (Total)	ug/l	2000	400	< 0.43	NA	NA	< 0.77	< 0.43	< 0.43	< 0.43	< 0.43

SUMMARY OF VOC CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

NOTES:

(1) Enforcement Standard from NR140, June 2021.
(2) Preventive Action Limit from NR140, June 2021.
(3) Sample Collected by the WDNR.
(4) Sample Collected by the Property Owner.
DUP - Field duplicate sample
NL - ES or PAL not listed in NR140.
NA - Not analyzed.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).

Bold indicates a PAL exceedance.
Bold and underlining indicates an ES exceedance.

AECOM

TABLE 3
SUMMARY OF THE AREA WIDE VOC FIVE YEAR POTABLE WELL SAMPLING PLAN
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2022		2023		2024		2025		2026	
			May	October	May	October	May	October	May	October	May	October
Target Zone Wells (semi-annual sampling)												
1511 and 1513 Lone Oak LN (Condo)		Jun 2022	1	*	1	1	1	1	1	1	1	1
2201 Elm Road		Jun 2022	1	*	1	1	1	1	1	1	1	1
2322 ELM RD		Jun 2022	1	*	1	1	1	1	1	1	1	1
2406, 2414 and 2512 Birch Rd (Shared Well)		Jun 2022	1	1	1	1	1	1	1	1	1	1
2501 Nelson Lane		Jun 2022	1	1	1	1	1	1	1	1	1	1
2732 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2805 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2806 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2812 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2820 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2821 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2823 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2824, 2828, 2904 S 19TH ST (Shared Well)		Jun 2022	1	*	1	1	1	1	1	1	1	1
2826 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2827 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2832 and 2904 CTH CR (Shared Well)		Oct 2019	1	*	1	1	1	1	1	1	1	1
2834 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2908 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2911 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2912 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2917 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2918 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2929 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
2930 S 19TH ST		June 2021	1	*	1	1	1	1	1	1	1	1
3003 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3006 and 3008 19th ST (Condo)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3008 S 26TH St		Jun 2022	1	*	1	1	1	1	1	1	1	1
3011 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3019 S 15TH ST		Nov 2021	1	*	1	1	1	1	1	1	1	1
3019 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3020 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3027 Orchard Ln		Jun 2022	1	1	1	1	1	1	1	1	1	1
3027 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3028 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3107 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3109 S 19TH ST		Nov 2021	1	*	1	1	1	1	1	1	1	1
3123 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3125 LONE OAK LN		Jun 2022	1	*	1	1	1	1	1	1	1	1
3126 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3127 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3131 S 15TH ST and 3201 S 15TH ST (Shared Well)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3202 S 15TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3205 S 19TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3206 LONE OAK LN		Jun 2022	1	*	1	1	1	1	1	1	1	1
3207 and 1520 Lone Oak LN (Condo)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3208 LONE OAK LN		Jun 2022	1	*	1	1	1	1	1	1	1	1
3209 S 15TH ST and 3217 S 15TH ST (Shared Well)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3225 S 26TH ST		Jun 2022	1	*	1	1	1	1	1	1	1	1
3301 S 15th St		Jun 2022	1	*	1	1	1	1	1	1	1	1
3327 Hecker Rd		Jun 2022	1	1	1	1	1	1	1	1	1	1
3318 and 3328 CIMARRON CT (Shared Well)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3401, 3403 and 3413 CIMARRON CT (Shared Well)		Jun 2022	1	*	1	1	1	1	1	1	1	1
3461(3417) Hecker Rd		Jun 2022	1	1	1	1	1	1	1	1	1	1
3618 CTH CR		Jun 2022	1	*	1	1	1	1	1	1	1	1
3702 Hecker Rd		Jun 2022	1	1	1	1	1	1	1	1	1	1
3817 Viebahn St		Jun 2022	1	*	1	1	1	1	1	1	1	1
3911 Black Hawk Ct		Jun 2022	1	*	1	1	1	1	1	1	1	1
3921 Black Hawk Ct		Nov 2021	1	*	1	1	1	1	1	1	1	1
4024 CTH CR		Jun 2022	1	1	1	1	1	1	1	1	1	1
4027 Thunder Ridge Rd		Jun 2022	1	*	1	1	1	1	1	1	1	1

AECOM

TABLE 3
SUMMARY OF THE AREA WIDE VOC FIVE YEAR POTABLE WELL SAMPLING PLAN
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2022		2023		2024		2025		2026	
			May	October	May	October	May	October	May	October	May	October
4101 Thunder Ridge Rd		Jun 2022	1	*	1	1	1	1	1	1	1	1
4111 Thunder Ridge Rd		Jun 2022	1	*	1	1	1	1	1	1	1	1
4127 Thunder Ridge Rd		Jun 2022	1	*	1	1	1	1	1	1	1	1
4141 Viebahn St. / 2717 CTH CR (non-Potable Well & City water)		May 2020	1	1	1	1	1	1	1	1	1	1
4159 Silver Creek Rd		Jun 2022	1	1	1	1	1	1	1	1	1	1
Target Zone Sentinel Wells (Annual sampling)												
1512 and 1514 Lone Oak LN (Duplex)		Jun 2022	1		1		1		1		1	
1521 LONE OAK LN		Jun 2022	1		1		1		1		1	
1703 LONE OAK LN		Jun 2022	1		1		1		1		1	
1704 LISSA LN		Jun 2022	1		1		1		1		1	
1710 LISSA LN		Jun 2022	1		1		1		1		1	
1817 VIEBAHN ST		Not Sampled Yet	1		1		1		1		1	
1821 VIEBAHN ST		Not Sampled Yet	1		1		1		1		1	
2327 BIRCH RD		Not Sampled Yet	1		1		1		1		1	
2407 ELM RD		Jun 2022	1		1		1		1		1	
2408 Elm Road		June 2021	1		1		1		1		1	
2417 Elm Road		Jun 2022	1		1		1		1		1	
2507 NELSON LN		Nov 2019	1		1		1		1		1	
2508 NELSON LN		Not Sampled Yet	1		1		1		1		1	
2514 Elm Road		June 2021	1		1		1		1		1	
2515 NELSON LN		Not Sampled Yet	1		1		1		1		1	
2611 VIEBAHN		Not Sampled Yet	1		1		1		1		1	
2733 S 19TH ST		Jun 2022	1		1		1		1		1	
2803 ORCHARD		Not Sampled Yet	1		1		1		1		1	
2811 S 15TH ST		Jun 2022	1		1		1		1		1	
2815 S 15TH ST		May 2021	1		1		1		1		1	
2833 S 19TH ST		Jun 2022	1		1		1		1		1	
2911 CTH CR		Jun 2022	1		1		1		1		1	
2915 S 26TH St		Jun 2022	1		1		1		1		1	
3021 S 26TH ST		Jun 2022	1		1		1		1		1	
3113 S 15TH ST		Jun 2022	1		1		1		1		1	
3202 S 19TH ST		Jun 2022	1		1		1		1		1	
3203 S 26TH St		Jun 2022	1		1		1		1		1	
3205 LONE OAK LN		Jun 2022	1		1		1		1		1	
3210 S 19TH ST		Jun 2022	1		1		1		1		1	
3212 S 26TH ST		Not Sampled Yet	1		1		1		1		1	
3224 CTH CR		Jun 2022	1		1		1		1		1	
3304 S 15TH ST		Jun 2022	1		1		1		1		1	
3304 S 19TH ST		Jun 2022	1		1		1		1		1	
3305 S 15TH ST		Jun 2022	1		1		1		1		1	
3307 S 19TH ST		Jun 2022	1		1		1		1		1	
3310 S 19TH ST		Jun 2022	1		1		1		1		1	
3312 CTH CR		Jun 2022	1		1		1		1		1	
3315 and 3327 CIMMARON CT (Shared Well)		Jun 2022	1		1		1		1		1	
3320 Hecker Rd		Jun 2022	1		1		1		1		1	
3322 CTH CR		Jun 2022	1		1		1		1		1	
3406 CIMARRON CT and 2328 Jenny Rd (Shared Well)		Jun 2022	1		1		1		1		1	
3412 CTH CR		Jun 2022	1		1		1		1		1	
3422 CTH CR		Jun 2022	1		1		1		1		1	
3523 CTH CR		June 2021	1		1		1		1		1	
3533 CTH CR		Jun 2022	1		1		1		1		1	
3611 CTH CR		Jun 2022	1		1		1		1		1	
3626 CTH CR/3626 CTH CR #B		May 2021	1		1		1		1		1	
3627 CTH CR		Jun 2022	1		1		1		1		1	
3825 Viebahn St		Jun 2022	1		1		1		1		1	
Sentinel Zone 3-Year Wells (sample every 3rd year)												
1617 LISSA LN		May 2021					1				May 2027	
1701 LISSA LN		Oct 2020			1						1	
1709 LISSA LN		Nov 2019	1						1		May 2028	
1718 JENNY RD		Nov 2019			1						1	
1804 JENNY RD		Jun 2022	1						1		May 2028	
1805 LISSA LN		Nov 2019			1						1	
2403 JENNY RD		Jun 2022	1						1		May 2028	
2716 CTH CR		May 2020			1						1	
3118 S 10TH ST		Not Sampled Yet		1			1				May 2027	
3128 Orchard Ln		May 2021					1				May 2027	

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TABLE 3
SUMMARY OF THE AREA WIDE VOC FIVE YEAR POTABLE WELL SAMPLING PLAN
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2022		2023		2024		2025		2026	
			May	October	May	October	May	October	May	October	May	October
3315 S 19TH ST		Jun 2022	1						1		May 2028	
3318 Orchard Ln		Oct 2016					1				May 2027	
3319 JENNY RD		Nov 2019			1						1	
3319 S 19TH ST		Nov 2019			1						1	
3321 JENNY RD		Nov 2019			1						1	
3323 S 26TH ST		Nov 2019	1						1		May 2028	
3326 S 15TH ST		May 2021					1				May 2027	
3407 S 26TH ST		Nov 2019			1						1	
3425/3427 Cimarron CT (Duplex) (Shared well)		Oct 2020			1						1	
3430 and 3508 CIMARRON CT (Shared Well)		Jun 2022	1						1		May 2028	
3625 Hecker Rd		Jun 2022	1						1		May 2028	
3812 Silver Creek Rd		Jan 2016					1				May 2027	
3818 SILVER CREEK RD		May 2021					1				May 2027	
3902 Silver Creek Rd		Jun 2022	1						1		May 2028	
3904 CTH CR		May 2017	1						1		May 2028	
4004 Silver Creek Rd		May 2021					1				May 2027	
4101 CTH CR		June 2021					1				May 2027	
4156 Silver Creek Rd		March 2016	1						1		May 2028	
4236 Silver Creek Rd/4220 Silver Creek Rd/4212 Silver Creek Rd (3 properties share Well)		May 2017	1						1		May 2028	
4314 Silver Creek Rd		May 2021					1				May 2027	
Sentinel Zone 5-Year Wells (sample every 5th year)												
1801 JENNY RD		Nov 2019					1				May 2029	
1807 JENNY RD		June 2021									1	
2505 JENNY RD		June 2021									1	
2706 CTH CR		Oct 2016	1								May 2027	
3121 Hecker Rd		Jun 2022	1								May 2027	
3405 S 15TH ST		Oct 2020							1		May 2030	
3408 S 15TH ST		Nov 2019					1				May 2029	
3415 S 15TH ST		Nov 2019					1				May 2029	
3420 Orchard Ln		Jun 2022	1								May 2027	
3421 S 15TH ST		Dec 2019							1		May 2030	
3429 S 19TH ST		Dec 2019							1		May 2030	
3503 S 19TH ST		Nov 2019					1				May 2029	
3505 S 26TH ST		Nov 2019					1				May 2029	
3510 S 26TH ST		Nov 2019					1				May 2029	
3511 S 19TH ST		Dec 2019							1		May 2030	
3517 S 26TH ST		May 2021									1	
3518 SILVER CREEK RD		Dec 2019							1		May 2030	
3509/3511 Cimarron CT (Duplex) and 3521/3523 Cimarron CT (Dulplex) (Shared Well)		Not Sampled Yet									1	
3537/3539 Cimarron CT (Duplex) (Shared Well)		Not Sampled Yet									1	
3524 Orchard Ln		Jun 2022	1								May 2027	
3526 S 26TH ST		Nov 2019					1				May 2029	
3529 S 26TH ST		Nov 2019							1		May 2030	
3538 CIMARRON CT		Not Sampled Yet									1	
3616 SILVER CREEK RD		Not Sampled Yet									1	
3627 Hecker Rd		May 2017			1						May 2028	
3710 Silver Creek Rd		May 2017			1						May 2028	
3720 Hecker Rd		Jun 2022	1								May 2027	
3780 Silver Creek Rd		May 2017			1						May 2028	
3802 Silver Creek Rd		May 2017			1						May 2028	
4114 CTH CR		Not Sampled Yet		1							Oct 2026	
4125 CTH CR		May 2017			1						May 2028	
4219 Viebahn St		Jun 2022	1								May 2027	
4315 Silver Creek Rd		May 2017			1						May 2028	
Replacement Wells (sample every 5th year)												
3504 CTH CR		Nov 2021										May 2026
3023 CTH CR		Oct 2016										May 2026
3120 CTH CR		Nov 2021										May 2026
3403 CTH CR		Oct 2016		1								May 2027
4002 Thunder Ridge Rd		Oct 2016		*								May 2027
4005 Thunder Ridge Rd		May 2017		*								May 2027
4010 Thunder Ridge Rd		May 2017				1						May 2028
2918 S 26TH St		May 2019				1						May 2028
3303 Hecker Rd		May 2020						1				May 2029

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TABLE 3
SUMMARY OF THE AREA WIDE VOC FIVE YEAR POTABLE WELL SAMPLING PLAN
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2022		2023		2024		2025		2026	
			May	October	May	October	May	October	May	October	May	October
3515 Hecker Rd	●	May 2020						1				May 2029
3518 Hecker Rd	●	May 2020								1		May 2030
3609 Hecker Rd	●	May 2020								1		May 2030
Historically Sampled Wells												
1108 CREEK TRL	▲	Nov 2019	Wells are typically non-detected wells that can be upgradient, sidegradient or downgradient wells. Some of the downgradient wells may be added if sentinel wells indicate sampling.									
1110 LAKE LN	▲	Nov 2019										
1125 SILVER CREEK RD	▲	Nov 2019										
1202 SILVER CREEK RD	▲	Nov 2019										
1207 CREEK TRL	▲	Nov 2019										
1219 SILVER CREEK RD	▲	Nov 2019										
1315 SILVER CREEK RD	▲	Nov 2019										
1404 and 1412 SILVER CREEK RD (Shared Well)	▲	Nov 2019										
1423 SILVER CREEK RD	▲	Nov 2019										
1428 SILVER CREEK RD	▲	Nov 2019										
1507 SILVER CREEK RD	▲	Nov 2019										
1602 SILVER CREEK RD	▲	Nov 2019										
1702 SILVER CREEK RD	▲	Nov 2019										
1703 SILVER CREEK RD	▲	Nov 2019										
1716 SILVER CREEK RD	▲	March 2020										
1717 SILVER CREEK RD	▲	Nov 2019										
1805 SILVER CREEK RD	▲	Feb 2020										
1811 SILVER CREEK RD	▲	Nov 2019										
1822 SILVER CREEK RD	▲	Nov 2019										
1906 SILVER CREEK RD	▲	Nov 2019										
1909 SILVER CREEK RD	▲	Nov 2019										
2218 SILVER CREEK RD	▲	Nov 2019										
2224 SILVER CREEK RD	▲	Nov 2019										
2304 SILVER CREEK RD	▲	Nov 2019										
2312 SILVER CREEK RD	▲	Nov 2019										
2402 SILVER CREEK RD	▲	Nov 2019										
2408 SILVER CREEK RD	▲	Nov 2019										
2608 SILVER CREEK RD	▲	June 2020										
2706 SILVER CREEK RD	▲	Nov 2019										
2881 CTH CR	▲	Well Out of Service										
2918 SILVER CREEK RD	▲	Nov 2019										
2925 Fricke Dr.	▲	Feb 2013										
3107 Fricke Dr	▲	Dec 2013										
3114 Hecker Rd	▲	May 2020										
3116 SILVER CREEK RD	▲	Dec 2019										
3222 SILVER CREEK RD	▲	Nov 2019										
3302 SILVER CREEK RD	▲	Nov 2019										
3316 SILVER CREEK RD	▲	Nov 2019										
3406 SILVER CREEK RD	▲	Nov 2019										
3413 S 10TH ST	▲	Nov 2019										
3424 SILVER CREEK RD	▲	Nov 2019										
3523 Orchard Ln	▲	May 2014										
3533 S 10TH ST	▲	Dec 2019										
3602 S 19TH ST	▲	Dec 2019										
3603 10TH ST	▲	Nov 2019										
3604 SILVER CREEK RD	▲	Dec 2019										
3609 M and M Ln	▲	Dec 2013										
3610 Gass Lake	▲	Feb 2013										
3612 S 19TH ST	▲	Dec 2019										
3615 S 15TH ST	▲	Nov 2019										
3615 S 26TH ST	▲	Nov 2019										
3616 S 10TH ST	▲	Feb 2020										
3627 S 15TH ST	▲	Dec 2019										
3627 S 26TH ST	▲	Nov 2019										
3632 S 10TH ST	▲	Dec 2019										
3708 S 15TH ST	▲	Nov 2019										
3709 S 15TH ST	▲	Nov 2019										
3712 S 15TH ST	▲	Dec 2019										
3712 S 10TH ST	▲	Feb 2020										
3717 S 15TH ST	▲	Nov 2019										
3717 M and M Ln	▲	Feb 2013										
3719 S 26TH ST	▲	June 2020										
3720 S 26TH ST	▲	Nov 2019										
3722 S 15TH ST	▲	Nov 2019										
3723 S 19TH ST	▲	Nov 2019										

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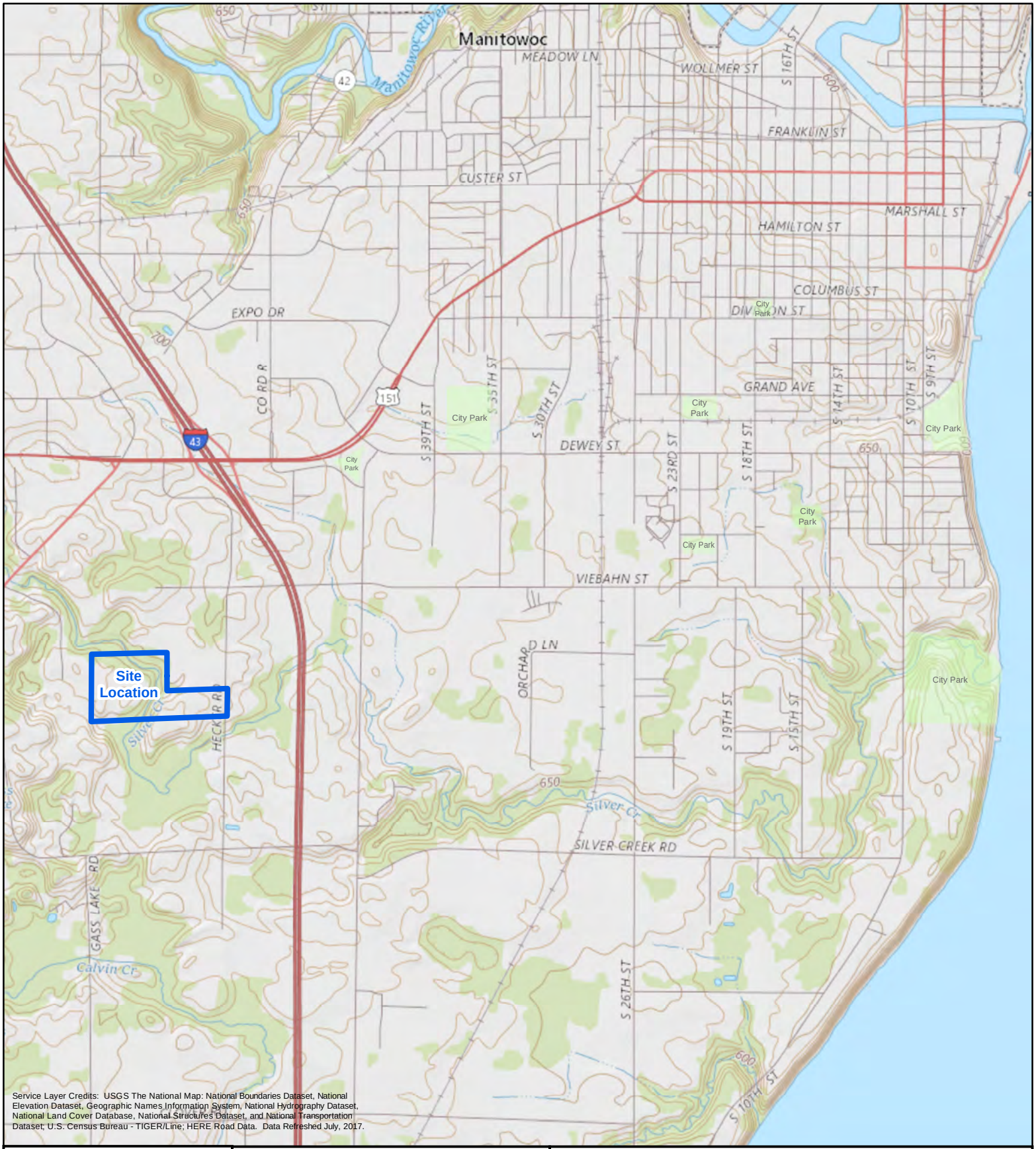
TABLE 3
SUMMARY OF THE AREA WIDE VOC FIVE YEAR POTABLE WELL SAMPLING PLAN
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2022		2023		2024		2025		2026	
			May	October	May	October	May	October	May	October	May	October
3727 S 15TH ST	▲	Dec 2019	Wells are typically non-detected wells that can be upgradient, sidegradient or downgradient wells. Some of the downgradient wells may be added if sentinel wells indicate sampling.									
3804 S 15TH ST	▲	Dec 2019										
3805 S 15TH ST	▲	Nov 2019										
3809 S 19TH ST	▲	Nov 2019										
3813 S 15TH ST	▲	Nov 2019										
3819 S 15TH ST	▲	Dec 2019										
3821 S 19TH ST	▲	Nov 2019										
3835 S 10TH ST	▲	Nov 2019										
3840 M and M Ln	▲	Feb 2013										
3917 S 18TH ST	▲	Nov 2019										
3917 S 21ST ST	▲	Nov 2019										
3933 S 18TH ST	▲	Nov 2019										
4002 S 21ST ST	▲	Dec 2019										
4007 S 18TH ST	▲	Nov 2019										
4008 S 18TH ST	▲	Nov 2019										
4017 S 26TH ST	▲	Nov 2019										
4018 S 21ST ST	▲	Nov 2019										
4019 S 10TH ST	▲	Nov 2019										
4030 S 21ST ST	▲	Nov 2019										
4031 S 18TH ST	▲	Dec 2019										
4120 S 21ST ST	▲	Nov 2019										
4132 S 26TH ST	▲	Nov 2019										
4201 S 26TH ST	▲	Nov 2019										
4215 S 10TH ST	▲	Nov 2019										
4218 S 10TH ST	▲	Dec 2019										
4219 S 10TH ST	▲	Nov 2019										
4229 S 10TH ST	▲	Nov 2019										
4309 S 10TH ST	▲	Dec 2019										
4316 S 10TH ST	▲	Nov 2019										
4317 S 10TH ST	▲	Nov 2019										
4325 S 10TH ST	▲	Nov 2019										
4403 S 10TH ST	▲	Dec 2019										
4410 S 10TH ST	▲	Nov 2019										
4412/4416/4422/4426/4430/4432/4434/4440 S 10TH ST (Shared Well)	▲	Nov 2019										
4513 S 10TH ST	▲	Nov 2019										
4609 Silver Creek Rd	▲	June 2014										
4620 Silver Creek Rd (two wells)	▲	May 2014										
4752 Silver Creek Rd	▲	June 2014										
4808 Silver Creek Rd	▲	May 2014										
5107 Viebahn St	▲	Dec 2013										
5202 Silver Creek Rd	▲	Dec 2013										
Former Potable Wells Now Connected to City Water												
2734(2804) CTH CR	○	Oct 2015	City Water Provided - No Potable Well Sampling Required									
2916 CTH CR	○	Oct 2015										
2917 CTH CR	○	Oct 2015										
3617(3621) Viebahn St	○	March 2016										
3701 Viebahn St	○	Oct 2015										
3815 Viebahn St	○	Oct 2015										
4025 Viebahn St	○	Oct 2015										
4101 Viebahn St	○	Oct 2015										
4141 Viebahn St. / 2717 CTH CR (non-Potable Well & City water)	○	May 2020										
		Wells Sampled Per Event	131	12	129	67	131	67	131	67	114	65

NOTE: * Request confirmed by WDNR not to sample wells that will be connected to city water for the October 2022 sampling event.

Figures



Map Location

0 1,250 2,500 5,000 Feet

FORMER NEWTON GRAVEL PIT

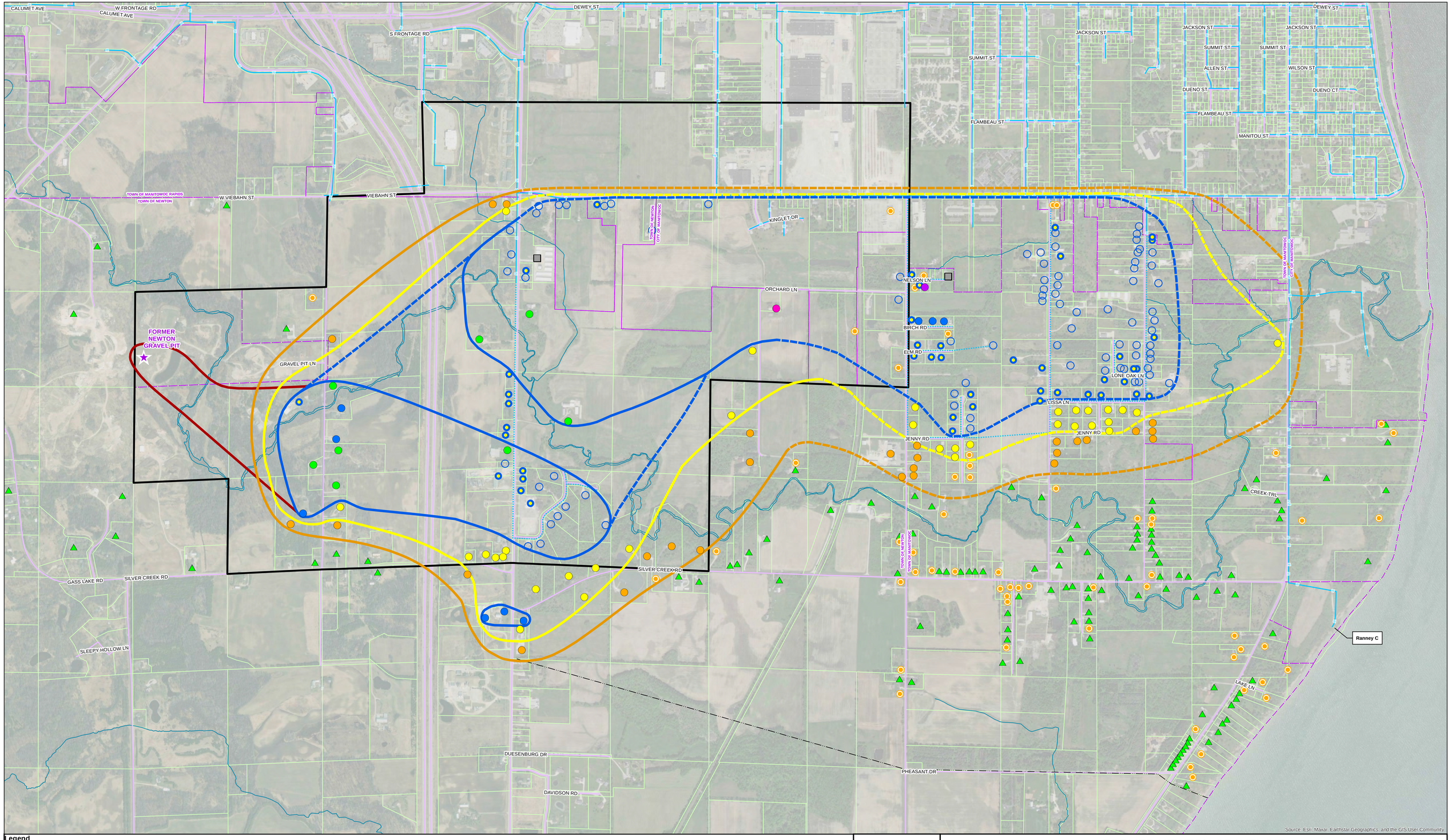
SITE LOCATION MAP

AECOM - Milwaukee Office
1555 River Center Dr
Milwaukee WI

AECOM

Project No. 60135471 | Drawn By: RW | Date: June 2018

Figure 1



Legend

- Target Zone Well - Vinyl Chloride ES Exceedance
- Target Zone Well - VOC PAL Exceedance
- Target Zone Well - VOC Detection
- Target Zone Well on City Water
- Target Zone Sentinel Wells, No Detects or Not Sampled
- Sentinel Zone Well - 3 Year, No Detects or Not Sampled
- Sentinel Zone Well- 5 Year, No Detects or Not Sampled
- Replacement Well Within Target Zone, With No Detects
- Historically Sampled Wells, With No Detects
- Never Been Sampled
- Site Location
- Well Out Of Service
- Target Zone
- Inferred Target Zone
- 3 Year Sentinel Zone
- Inferred 3 Year Sentinel Zone
- 5 Year Sentinel Zone
- Inferred 5 Year Sentinel Zone
- Former Gravel Pit Zone
- Expanded Sampling Limits
- Utility Water Line
- Proposed Utility Water Line
- DNR Special Well Casing Depth Area
- Streams
- Municipality Boundaries
- Parcels

N

0 300 600 1,200 Feet

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1555 River Center Dr
Milwaukee WI

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FORMER NEWTON GRAVEL PIT

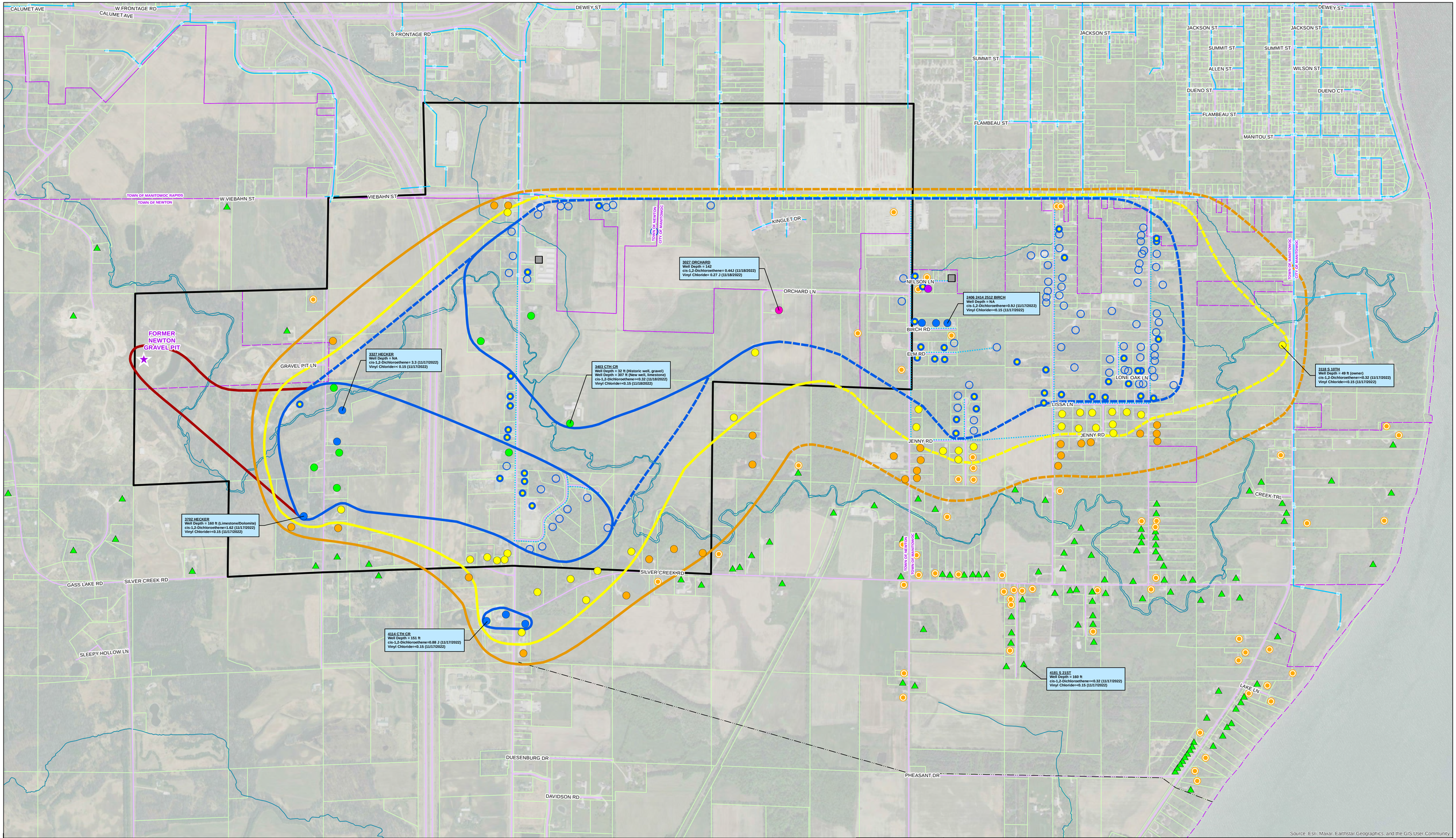
NOVEMBER 2022
VOC POTABLE WELL SAMPLING RESULTS

Project No.
60135471

Date:
January 2023

FIGURE 2

C:\data\Projects\Newton\GPI\MXD\Fig2_PW_VOC_Nov2022.mxd



Legend

- Target Zone Well - Vinyl Chloride ES Exceedance
- Target Zone Well - VOC PAL Exceedance
- Target Zone Well - VOC Detection
- Target Zone Well on City Water
- Target Zone Sentinel Wells, No Detects or Not Sampled
- Sentinel Zone Well - 3 Year, No Detects or Not Sampled
- Sentinel Zone Well- 5 Year, No Detects or Not Sampled
- Replacement Well Within Target Zone, With No Detects
- Historically Sampled Wells, With No Detects
- Never Been Sampled
- Site Location
- Well Out Of Service
- Target Zone
- Inferred Target Zone
- 3 Year Sentinel Zone
- Inferred 3 Year Sentinel Zone
- 5 Year Sentinel Zone
- Inferred 5 Year Sentinel Zone
- Former Gravel Pit Zone
- Expanded Sampling Limits
- Utility Water Line
- Proposed Utility Water Line
- DNR Special Well Casing Depth Area
- Streams
- Municipality Boundaries
- Parcels

NOTES:
1. Units are presented in micrograms per Liter (ug/L).
2. Well Depth is unknown if not included in Label.

0 300 600 1,200 Feet

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Milwaukee Office
1555 River Center Dr
Milwaukee WI

FORMER NEWTON GRAVEL PIT

NOVEMBER 2022
VOC POTABLE WELL SAMPLING RESULTS

Project No. 60135471

Date: January 2023

FIGURE 2A

C:\Data\Projects\Newton\GIS\MXD\PlgDA_PW_VOC_Nov2022.mxd

Appendix A - VOC Laboratory Reports

Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE HENDERSON
AECOM
1555 N RIVERCENTER DRIVE
MILWAUKEE. WI 53212

Report Date *30-Nov-22*

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746A
Sample ID TB111722
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/23/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/23/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/23/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/23/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/23/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/23/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/23/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/23/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/23/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/23/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/23/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/23/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/23/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/23/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/23/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/23/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/23/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/23/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/23/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/23/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/23/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/23/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/23/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/23/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/23/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746A
Sample ID TB111722
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/23/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/23/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/23/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/23/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/23/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/23/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/23/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/23/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/23/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/23/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/23/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/23/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/23/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/23/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/23/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/23/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/23/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/23/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/23/2022	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/23/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/23/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/23/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/23/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/23/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/23/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/23/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/23/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/23/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/23/2022	CJR	1
SUR - Toluene-d8	90	REC %			1	8260B		11/23/2022	CJR	1
SUR - Dibromofluoromethane	82	REC %			1	8260B		11/23/2022	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		11/23/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		11/23/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746B
Sample ID 2406/2414/2512 BIRCH RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/29/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/29/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/29/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/29/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/29/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/29/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/29/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/29/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/29/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/29/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/29/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/29/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/29/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/29/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/29/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/29/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/29/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/29/2022	CJR	1
cis-1,2-Dichloroethene	0.90 "J"	ug/l	0.32	1.29	1	8260B		11/29/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/29/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/29/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/29/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/29/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/29/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/29/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/29/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/29/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/29/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/29/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/29/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/29/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746B
Sample ID 2406/2414/2512 BIRCH RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/29/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/29/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/29/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/29/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/29/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	147	REC %			1	8260B		11/29/2022	CJR	6
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		11/29/2022	CJR	1
SUR - Dibromofluoromethane	114	REC %			1	8260B		11/29/2022	CJR	1
SUR - Toluene-d8	82	REC %			1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746C
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/29/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/29/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/29/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/29/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/29/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/29/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/29/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/29/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/29/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/29/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/29/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/29/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/29/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/29/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/29/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/29/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/29/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/29/2022	CJR	1
cis-1,2-Dichloroethene	3.3	ug/l	0.32	1.29	1	8260B		11/29/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/29/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/29/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/29/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/29/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/29/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/29/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/29/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/29/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/29/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/29/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/29/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/29/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746C
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/29/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/29/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/29/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/29/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/29/2022	CJR	1
SUR - 4-Bromofluorobenzene	117	REC %			1	8260B		11/29/2022	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		11/29/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		11/29/2022	CJR	1
SUR - Toluene-d8	110	REC %			1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746D
Sample ID 3702 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	1.11 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746D
Sample ID 3702 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	109	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746E
Sample ID 3118 S 10TH ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746E
Sample ID 3118 S 10TH ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	113	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	109	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746F
Sample ID 4114 CTH CR
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	0.88 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746F
Sample ID 4114 CTH CR
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	114	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	100	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746G
Sample ID 4181 S 21ST ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746G
Sample ID 4181 S 21ST ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	114	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	105	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746H
Sample ID DUP 111722
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	1.62	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746H
Sample ID DUP 111722
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	113	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	119	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	109	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746I
Sample ID 3403 CTH CR
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746I
Sample ID 3403 CTH CR
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746J
Sample ID 3027 ORCHARD LN
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	0.44 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746J
Sample ID 3027 ORCHARD LN
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	0.27 "J"	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		11/30/2022	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
6	The surrogate recovery not within established limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Dave Henderson	Attention: Dave Henderson
Address: 1555 N. RiverCenter Dr., Ste 214	Copy To: Dave Henderson	Company Name: AECOM
Milwaukee, WI 53212		Address:
Email To: dave.henderson@aecom.com	Purchase Order No.:	Synergy Quote Reference:
Phone: 414-944-6190 Fax:	Project Name: Newton GP	Synergy Project Manager: Mike Ricker
Requested Due Date/TAT: Normal	Project Number: 60135471	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER______

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Analysis

Section D Required Client Information

SAMPLE ID
One Character per box. (A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED Composite Start DATE	TIME	Composite End/Grab DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOC	Residual Chlorine (Y/N)	Synergy Project Number Lab I.D.
1	TB111722			11/17/2022	--	--	--		1				x					x		5041746 A
2	2406/2414/2512 Birch Rd			11/17/2022	8:45	--	--		3				x					x		B
3	3327 Hecker Rd			11/17/2022	9:45	--	--		3				x					x		C
4	3702 Hecker Rd			11/17/2022	9:15	--	--		3				x					x		D
5	3118 S 10TH ST			11/17/2022	11:15	--	--		9				x					x		MS/MSD E
6	4114 CTH CR			11/17/2022	10:45	--	--		3				x					x		F
7	4181 S 21th ST			11/17/2022	10:15	--	--		3				x					x		G
8	Dup111722			11/17/22	9:15	--	--		3				x					x		H
9	3403 CTH CR			11/18/2022	8:45	--	--		3				x					x		I
10	3027 Orchard Ln			11/18/2022	8:30	--	--		3				x					x		J
11						--	--		3				x					x		
12						--	--		3				x					x		

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	11/18/22	10:53	[signature]	11-18-22	1053

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N (Y)	Y/N (Y)	Y/N (Y)
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Weseljak

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 11/18/22

Appendix B - Homeowner Results Letters

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

Mr. & Mrs. Edward Rivet
2406 Birch Road
Manitowoc, WI 54220

COPY

RE: 2406, 2414 and 2512 Birch Road Shared Well

Dear Ed & Debra:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 17, 2022.

The City is in receipt of the sample results for your property. The results indicate the presence of cis-1-2-Dichloroethene, detected by the laboratory at levels below the drinking water standard of 70 micrograms per liter (ug/l). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746B
Sample ID 2406/2414/2512 BIRCH RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/29/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/29/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/29/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/29/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/29/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/29/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/29/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/29/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/29/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/29/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/29/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/29/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/29/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/29/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/29/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/29/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/29/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/29/2022	CJR	1
cis-1,2-Dichloroethene	0.90 "J"	ug/l	0.32	1.29	1	8260B		11/29/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/29/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/29/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/29/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/29/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/29/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/29/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/29/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/29/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/29/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/29/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/29/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/29/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746B
Sample ID 2406/2414/2512 BIRCH RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/29/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/29/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/29/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/29/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/29/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	147	REC %			1	8260B		11/29/2022	CJR	6
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		11/29/2022	CJR	1
SUR - Dibromofluoromethane	114	REC %			1	8260B		11/29/2022	CJR	1
SUR - Toluene-d8	82	REC %			1	8260B		11/29/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

COPY

January 16, 2023

Ms. Brenda Birringer
3027 Orchard Lane
Manitowoc, WI 54220

Dear Brenda:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 18, 2022.

The City is in receipt of the sample results for your property. The results indicate the presence of cis-1-2-Dichloroethene, detected by the laboratory at levels below the drinking water standard of 70 micrograms per liter (ug/l). The results also indicate the presence of VOCs above Enforcement Standards. We recommend that you continue to use bottled water being provided to you for drinking, cooking and brushing teeth. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR and WHDS contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 662-5178
  WDNR, Remediation & Redevelopment
- Health Questions: Curtis Hedman, Ph.D. (608) 266-6677
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746J
Sample ID 3027 ORCHARD LN
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	0.44 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746J
Sample ID 3027 ORCHARD LN
Sample Matrix Water
Sample Date 11/18/2022

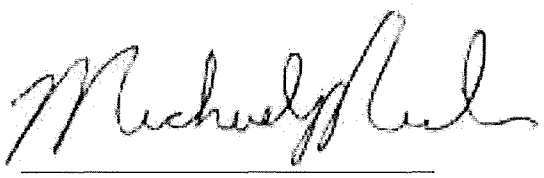
	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	0.27 "J"	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		11/30/2022	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
6	The surrogate recovery not within established limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

COPY

Ms. Nancy Zalewski
3118 S. 10th Street
Manitowoc, WI 54220

Dear Nancy:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 17, 2022.

The City is in receipt of the sample results for your property. The results confirm that water from your well does not indicate the presence of volatile organic compounds (VOCs). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746E
Sample ID 3118 S 10TH ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746E
Sample ID 3118 S 10TH ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	113	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	109	REC %			1	8260B		11/30/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

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Mr. & Mrs. Richard Raynier
3327 Hecker Road
Manitowoc, WI 54220

Dear Richard & Maureen:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 17, 2022.

The City is in receipt of the sample results for your property. The results indicate the presence of cis-1-2-Dichloroethene, detected by the laboratory at levels below the drinking water standard of 70 micrograms per liter (ug/l). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746C
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/29/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/29/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/29/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/29/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/29/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/29/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/29/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/29/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/29/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/29/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/29/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/29/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/29/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/29/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/29/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/29/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/29/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/29/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/29/2022	CJR	1
cis-1,2-Dichloroethene	3.3	ug/l	0.32	1.29	1	8260B		11/29/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/29/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/29/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/29/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/29/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/29/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/29/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/29/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/29/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/29/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/29/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/29/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/29/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/29/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/29/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/29/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746C
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/29/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/29/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/29/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/29/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/29/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/29/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/29/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/29/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/29/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/29/2022	CJR	1
SUR - 4-Bromofluorobenzene	117	REC %			1	8260B		11/29/2022	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		11/29/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		11/29/2022	CJR	1
SUR - Toluene-d8	110	REC %			1	8260B		11/29/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

COPY

Mr. James Schnuelle
3403 CTH CR
Manitowoc, WI 54220

Dear Mr. Schnuelle:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 18, 2022.

The City is in receipt of the sample results for your property. The results confirm that water from your well does not indicate the presence of volatile organic compounds (VOCs). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 50417461
Sample ID 3403 CTH CR
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746I
Sample ID 3403 CTH CR
Sample Matrix Water
Sample Date 11/18/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

Mr. & Mrs. Richard Breunig
3720 Hecker Road
Manitowoc, WI 54220

COPY

RE: 3702 Hecker Road

Dear Richard & Cindy:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on June 20, 2022.

The City is in receipt of the sample results for your property. The results indicate the presence of cis-1-2-Dichloroethene, detected by the laboratory at levels below the drinking water standard of 70 micrograms per liter (ug/l). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

If you have any questions, please do not hesitate to call Kathleen McDaniel at 686-6990.

Sincerely,

P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746D
Sample ID 3702 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	1.11 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746D
Sample ID 3702 HECKER RD
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	109	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	112	REC %			1	8260B		11/30/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

COPY

CB Machine Sales
Curt Thomas
6484 Range Line Rd.
Manitowoc, WI 54220

RE: 4114 CTR CR

Dear Curt:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 17, 2022.

The City is in receipt of the sample results for your property. The results indicate the presence of cis-1-2-Dichloroethene, detected by the laboratory at levels below the drinking water standard of 70 micrograms per liter (ug/l). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

If you have any questions, please do not hesitate to call Kathleen McDaniel at 686-6990.

Sincerely,

P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746F
Sample ID 4114 CTH CR
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	0.88 "J"	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746F
Sample ID 4114 CTH CR
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	106	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	114	REC %			1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	100	REC %			1	8260B		11/30/2022	CJR	1

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

January 16, 2023

Mr. & Mrs. Anthony Seiler
4181 S. 21st Street
Manitowoc, WI 54220

COPY

Dear TJ & Ashley:

Thank you for participating in the private drinking water well sampling done by the City of Manitowoc as part of an ongoing environmental groundwater investigation associated with the Former Town of Newton Gravel Pit. Your private well was included in the sampling that took place on November 17, 2022.

The City is in receipt of the sample results for your property. The results confirm that water from your well does not indicate the presence of volatile organic compounds (VOCs). According to DNR guidelines the well water remains fit for consumption, and you can continue using it with no limitations. A copy of your laboratory analytical results is attached.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
  WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 510-3472
  WDNR, Remediation & Redevelopment
- Health Questions: Nathan Kloczko (608) 867-4448
  Wisconsin Department of Health Services
- General Questions: Karen Dorow (920) 686-6514
  City of Manitowoc, Business Manager for Department of Public Infrastructure

Sincerely,

, P.E.

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Cc: City Attorney

Attachment: Laboratory Data

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E41746

Lab Code 5041746G
Sample ID 4181 S 21ST ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260B		11/30/2022	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260B		11/30/2022	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260B		11/30/2022	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260B		11/30/2022	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260B		11/30/2022	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260B		11/30/2022	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260B		11/30/2022	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260B		11/30/2022	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260B		11/30/2022	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260B		11/30/2022	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260B		11/30/2022	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260B		11/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260B		11/30/2022	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260B		11/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260B		11/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260B		11/30/2022	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260B		11/30/2022	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260B		11/30/2022	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260B		11/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260B		11/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260B		11/30/2022	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260B		11/30/2022	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260B		11/30/2022	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260B		11/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260B		11/30/2022	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260B		11/30/2022	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260B		11/30/2022	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260B		11/30/2022	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260B		11/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260B		11/30/2022	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260B		11/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260B		11/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260B		11/30/2022	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260B		11/30/2022	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260B		11/30/2022	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E41746
Project # 60135471

Lab Code 5041746G
Sample ID 4181 S 21ST ST
Sample Matrix Water
Sample Date 11/17/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260B		11/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260B		11/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260B		11/30/2022	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260B		11/30/2022	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260B		11/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260B		11/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260B		11/30/2022	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260B		11/30/2022	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260B		11/30/2022	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260B		11/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		11/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	114	REC %			1	8260B		11/30/2022	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		11/30/2022	CJR	1
SUR - Toluene-d8	105	REC %			1	8260B		11/30/2022	CJR	1